

Omni-Directional Lamp Testing

Report Draft

Prepared for: PG&E and CLASP

Prepared by:
California Lighting Technology Center

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Notes – Integrating Sphere

- Power provided and measured by a California Instruments 751ix
- Photometric measurements made with a SMS-500 Spectrometer in a 2 meter integrating sphere
- Measurements taken in accordance with LM-79
- Auxiliary correction applied for fixture self absorptions
- All lamps run for approximately 20 hours immediately prior to testing for lamp stabilization/temperature equilibrium

Notes – Goniophotometer Type C

- Power measurements taken on a Xitron 2802 power analyzer
- Photometric measurements made with a T-10 Konica Minolta Illuminance meter
- Measurements presented in accordance with LM-63-2002
- Stray light correction applied

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LED A-Lamp Selection Criteria

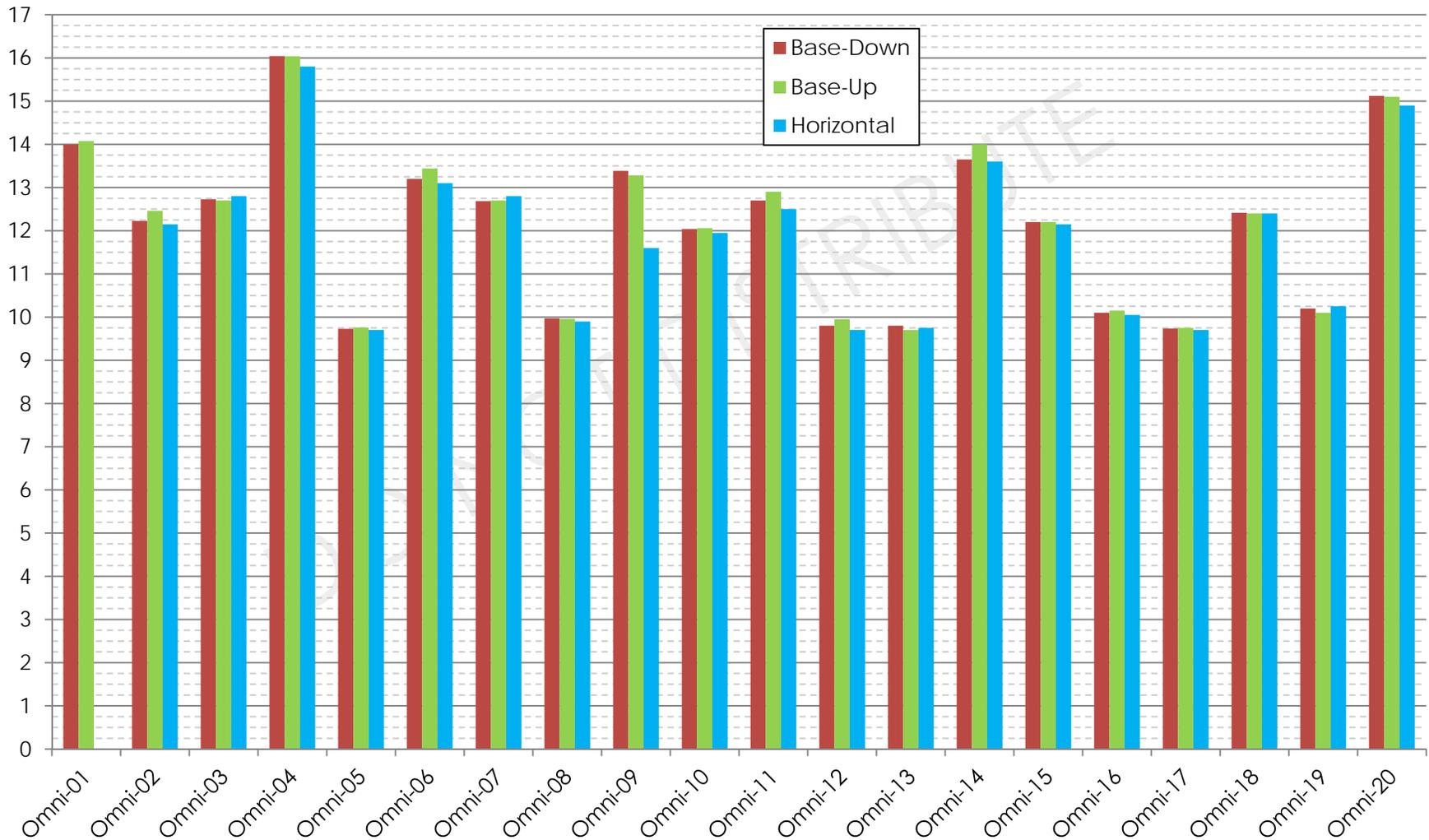
- Lumen Package: 600 Lumens or Greater
- Minimum CRI: 80
- CCT: 2700 – 3000
- Lamp Shape: A19 – A21
- Lamp Base: E26

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Summary Charts – Lamp-Set Averages

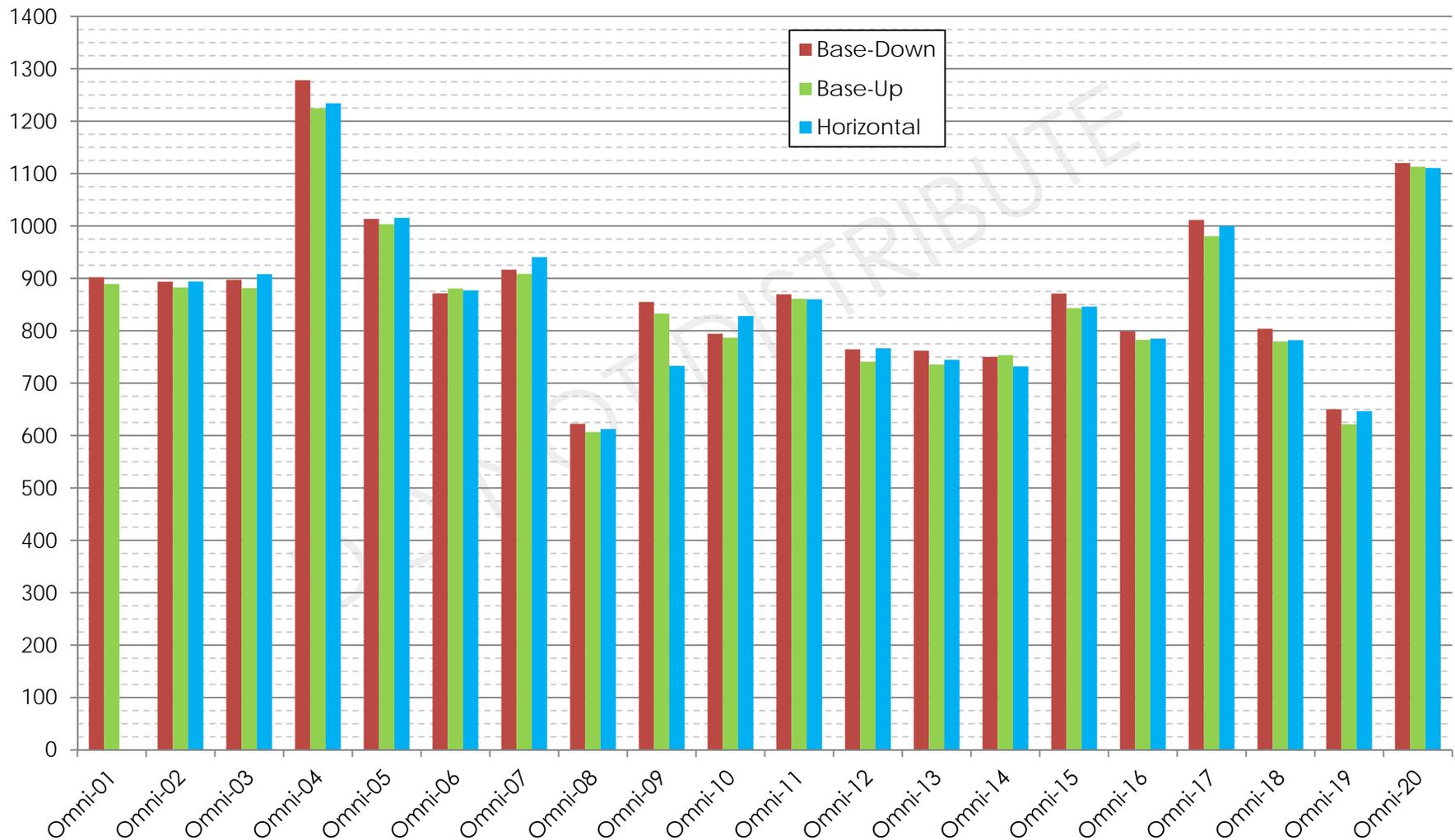
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Power (watts): Lamp-Set Averages



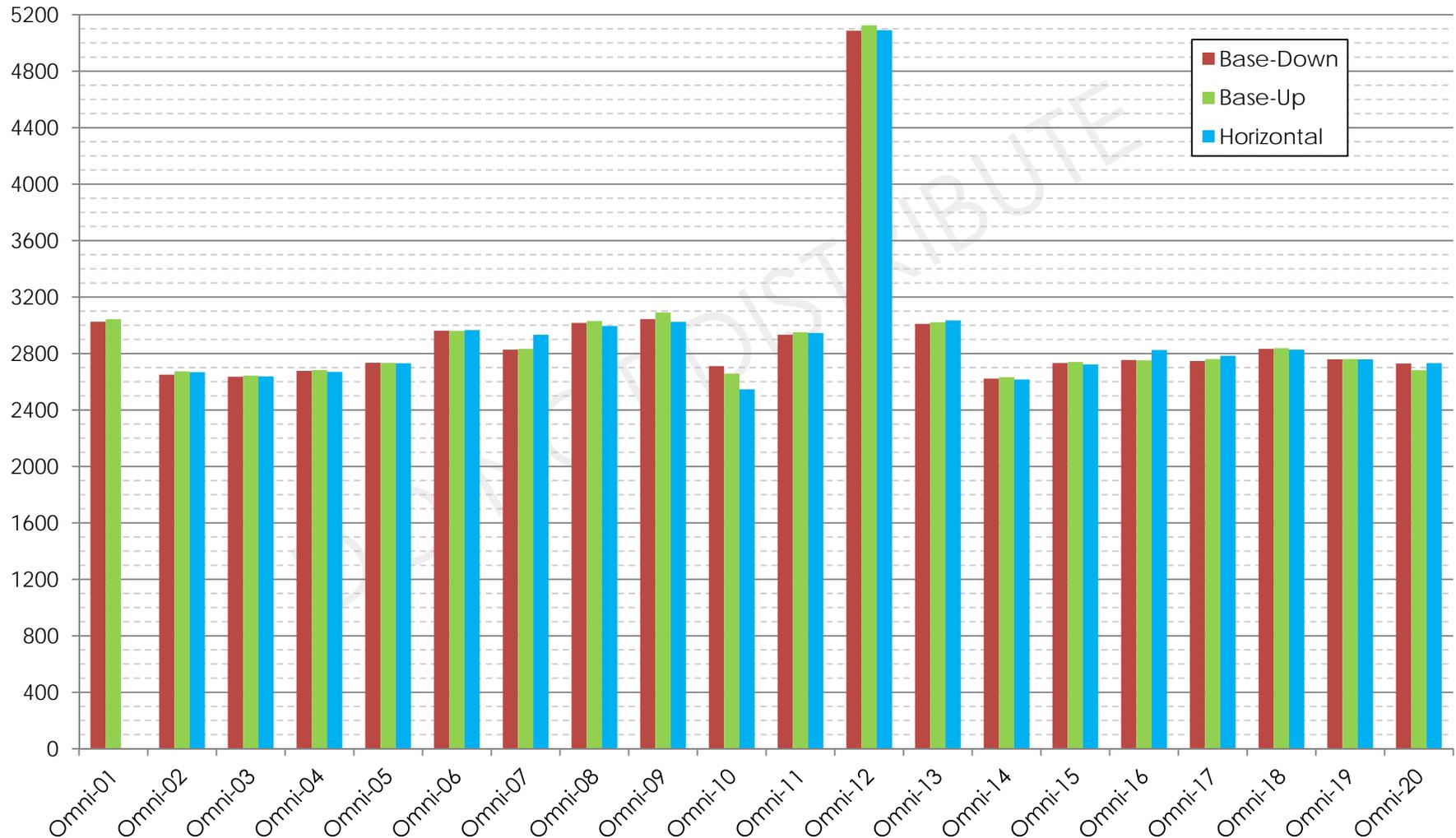
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Output (lumens): Lamp-Set Averages



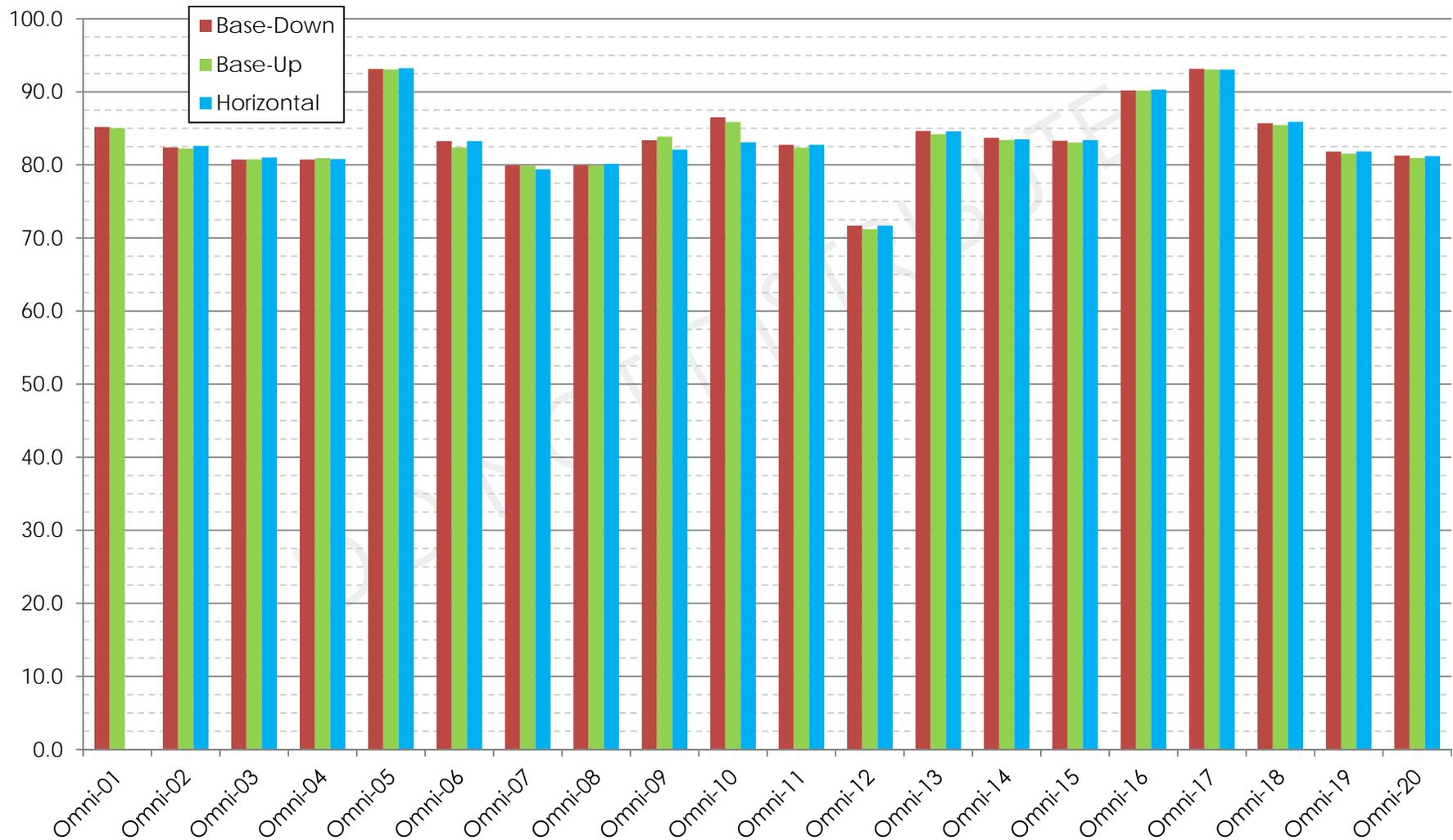
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CCT: Lamp-Set Averages



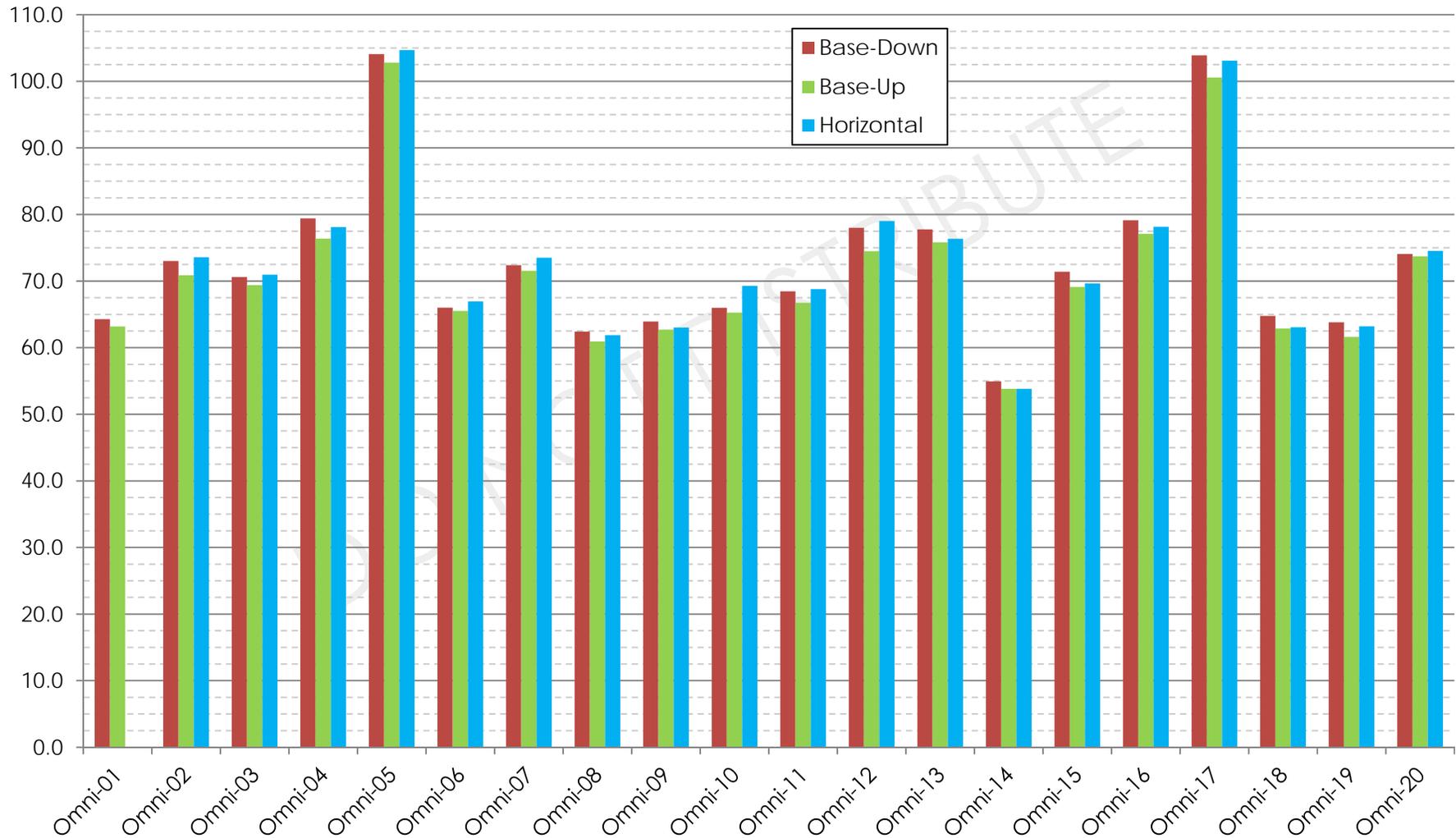
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CRI: Lamp-Set Averages



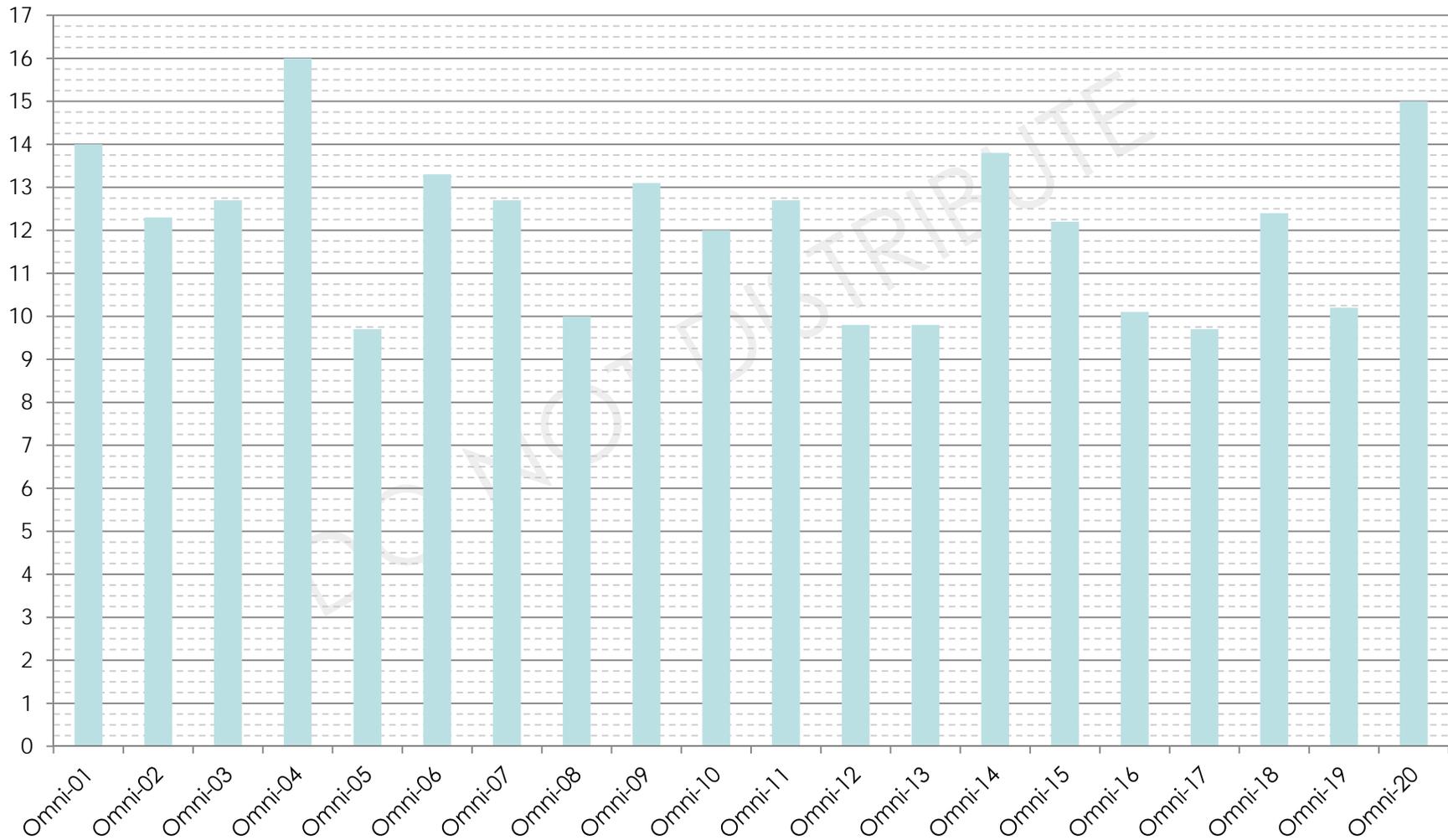
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Efficacy (Lumens Per Watt): Lamp-Set Averages



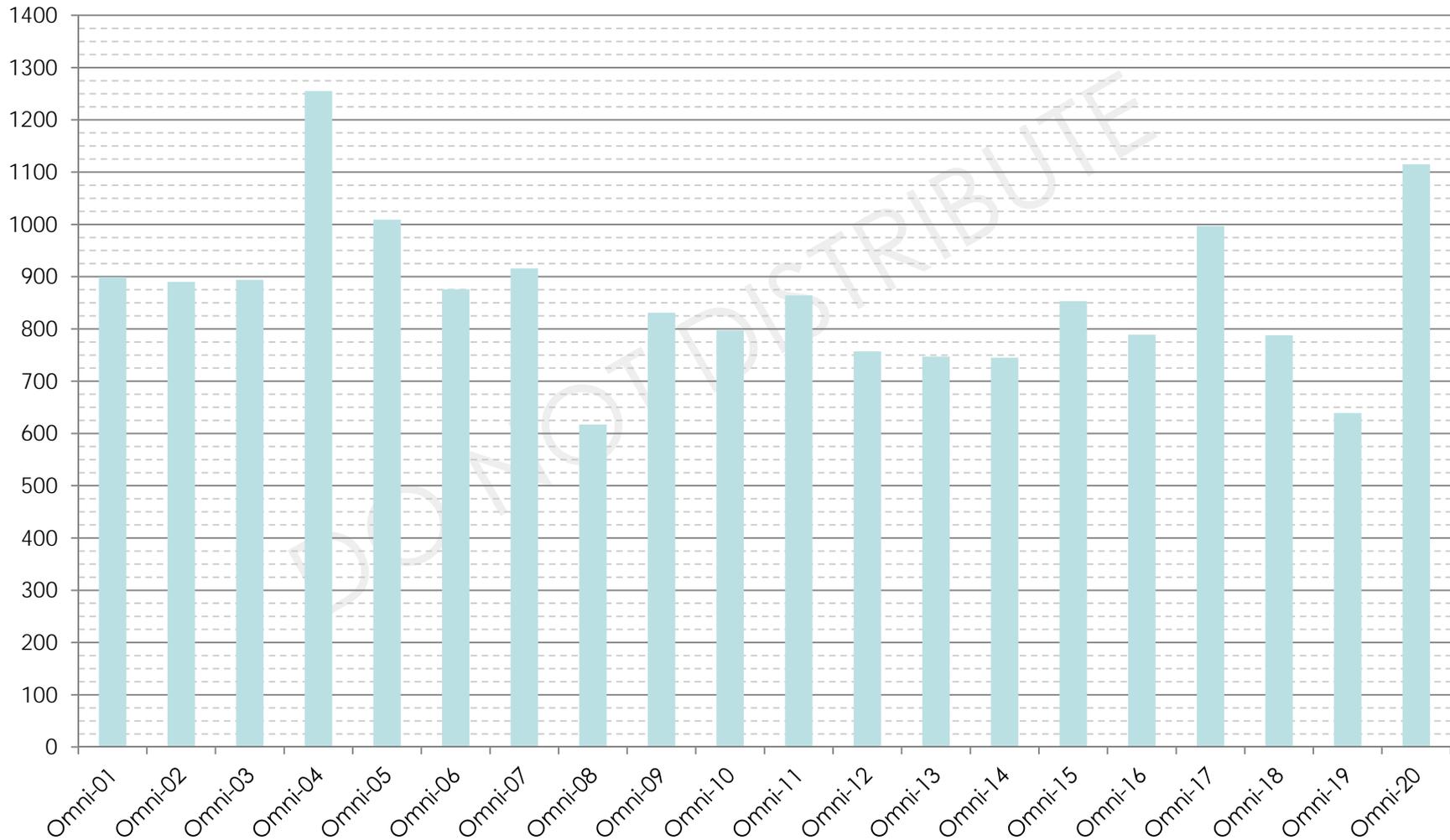
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Power (watts): Lamp-Set Averages (All Orientations)



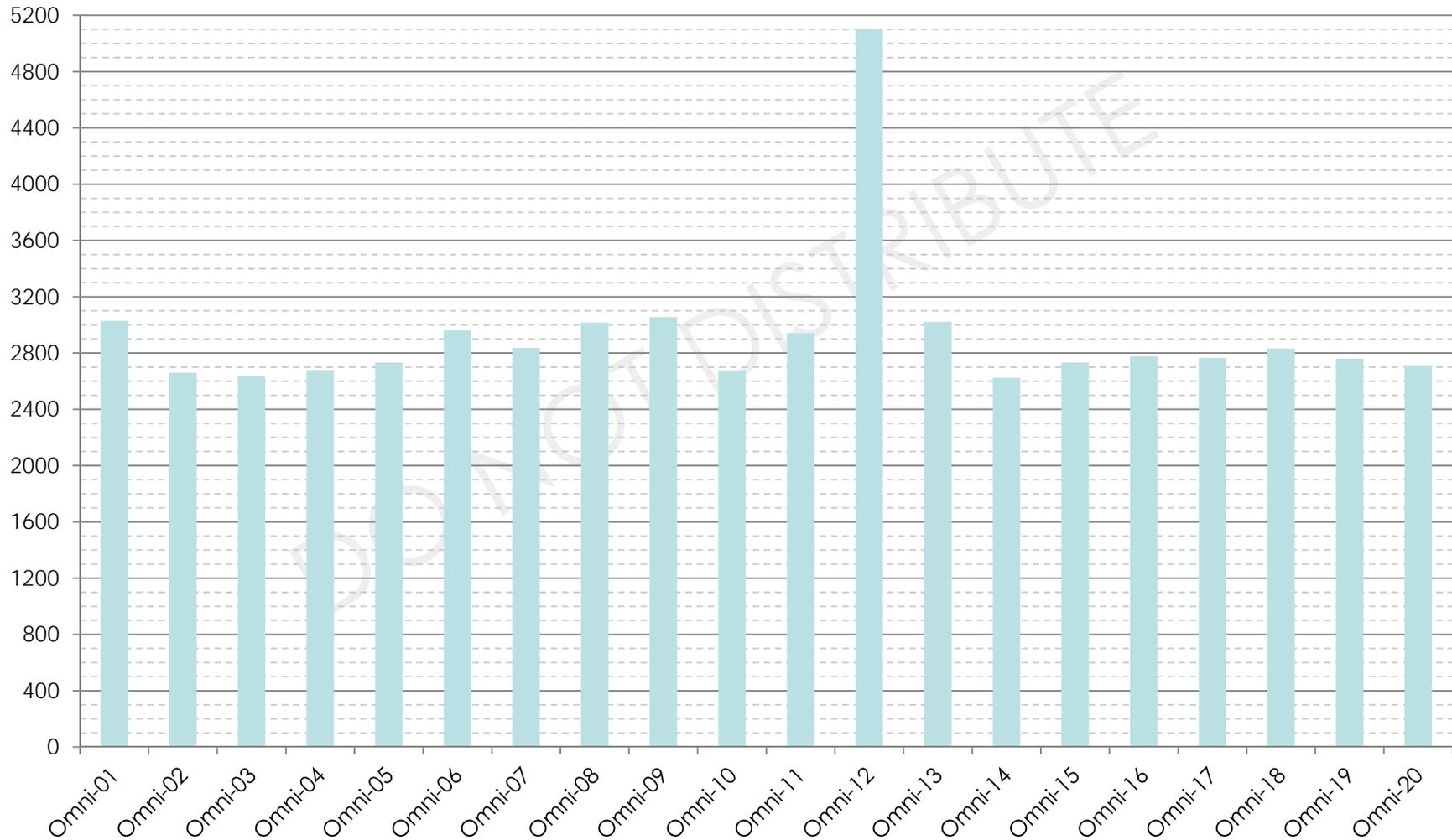
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Output (lumens): Lamp-Set Averages (All Orientations)



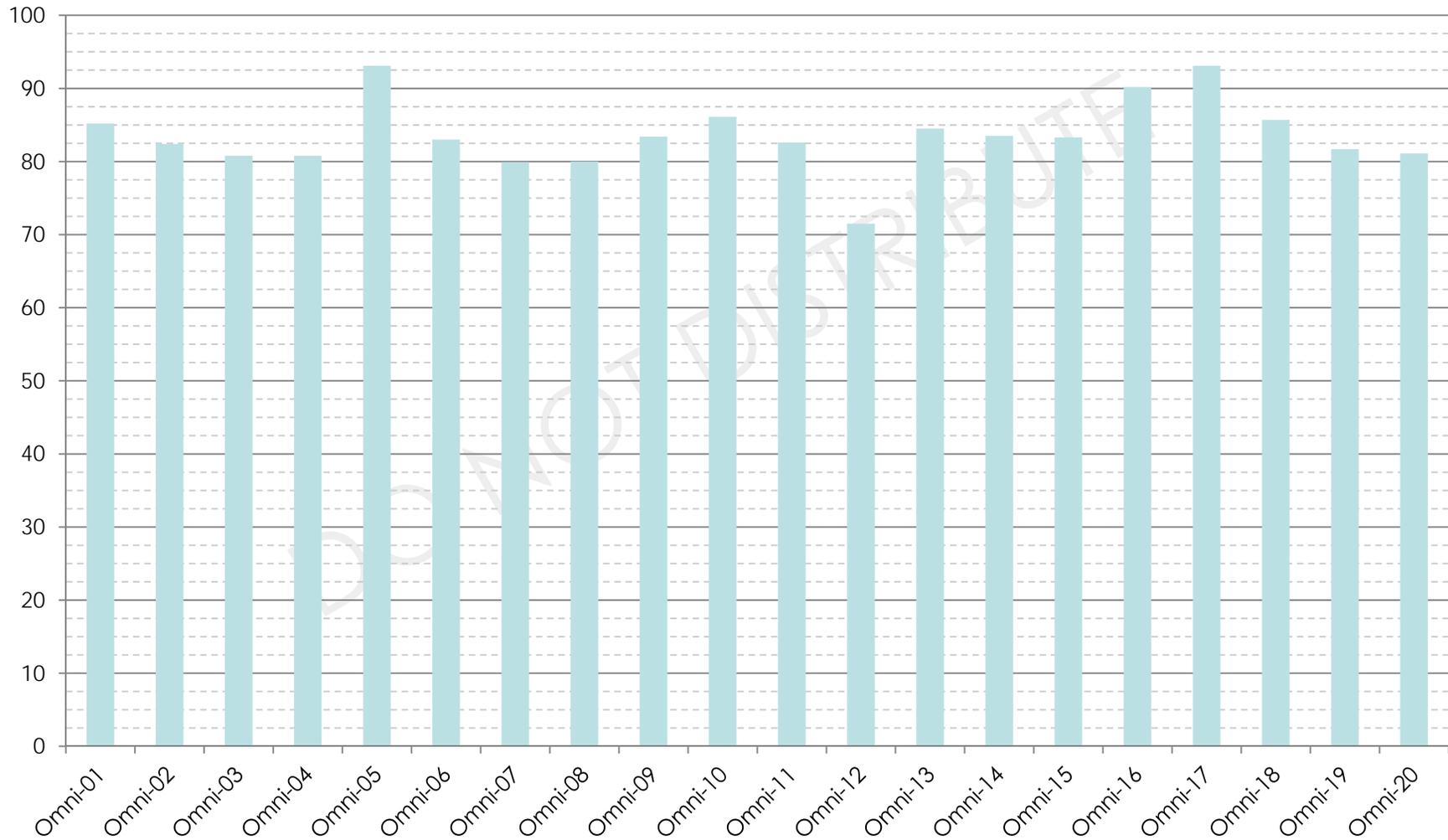
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CCT: Lamp-Set Averages (All Orientations)



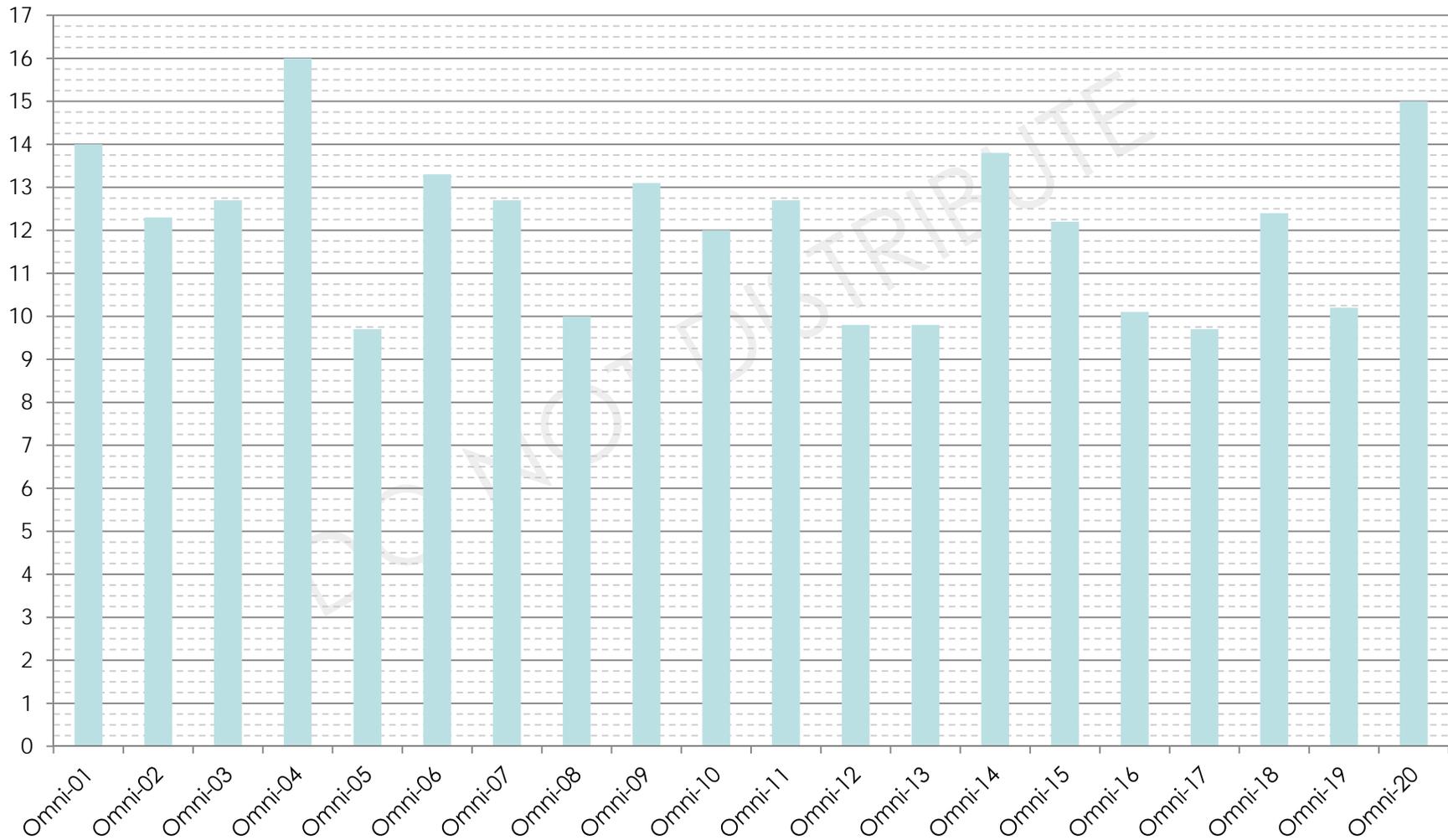
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CRI: Lamp-Set Averages (All Orientations)



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Efficacy (Lumens Per Watt): Lamp-Set Averages (All Orientations)



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Photometric Summary: Lamp-Set Averages (Base-Down)

Serial #	Power (W)	Mfg. Output (lm)	Gonio. Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-01	14.0	850	877	902	3025	85.2	64.3
Omni-02	12.2	800	862	894	2651	82.4	73.0
Omni-03	12.7	800	883	897	2636	80.7	70.6
Omni-04	16.0	1100	1257	1278	2677	80.7	79.4
Omni-05	9.7	940	1018	1014	2735	93.1	104.1
Omni-06	13.2	800	873	871	2961	83.3	66.0
Omni-07	12.7	900	944	917	2827	79.9	72.4
Omni-08	10.0	600	584	623	3017	80.0	62.4
Omni-09	13.4	800	829	855	3044	83.4	63.9
Omni-10	12.0	810	798	794	2710	86.5	66.0
Omni-11	12.7	800	896	870	2933	82.8	68.5
Omni-12	9.8	720	733	765	5087	71.7	78.0
Omni-13	9.8	810	753	762	3011	84.7	77.8
Omni-14	13.7	800	754	750	2623	83.7	54.9
Omni-15	12.2	810	853	871	2733	83.3	71.4
Omni-16	10.1	810	771	799	2755	90.2	79.1
Omni-17	9.7	1013	967	1012	2747	93.2	103.9
Omni-18	12.4	800	761	804	2833	85.7	64.8
Omni-19	10.2	710	663	650	2759	81.8	63.8
Omni-20	15.1	1100	1072	1120	2729	81.3	74.1

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Electrical Summary: Lamp-Set Averages (Base-Down)

Serial #	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-01	14.0	0.992	120	117	Pending	Pending
Omni-02	12.2	0.876	120	102	Pending	Pending
Omni-03	12.7	0.821	120	106	Pending	Pending
Omni-04	16.0	0.749	120	134	Pending	Pending
Omni-05	9.7	0.832	120	81	Pending	Pending
Omni-06	13.2	0.870	120	110	Pending	Pending
Omni-07	12.7	0.968	120	106	Pending	Pending
Omni-08	10.0	0.856	120	83	Pending	Pending
Omni-09	13.4	0.998	120	112	Pending	Pending
Omni-10	12.0	0.972	120	100	Pending	Pending
Omni-11	12.7	0.859	120	106	Pending	Pending
Omni-12	9.8	0.805	120	82	Pending	Pending
Omni-13	9.8	0.946	120	82	Pending	Pending
Omni-14	13.7	0.991	120	114	Pending	Pending
Omni-15	12.2	0.914	120	102	Pending	Pending
Omni-16	10.1	0.942	120	84	Pending	Pending
Omni-17	9.7	0.945	120	81	Pending	Pending
Omni-18	12.4	0.900	120	103	Pending	Pending
Omni-19	10.2	0.507	120	85	Pending	Pending
Omni-20	15.1	0.941	120	126	Pending	Pending

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Photometric Summary: Lamp-Set Averages (Base-Up)

Serial #	Power (W)	Mfg. Output (lm)	Sphere Output		CCT	CRI	Efficacy
			(lm)	(lm)			
Omni-01	14.1	850	889		3043	85.0	63.2
Omni-02	12.5	800	882		2673	82.2	70.9
Omni-03	12.7	800	881		2643	80.8	69.4
Omni-04	16.0	1100	1225		2683	80.9	76.4
Omni-05	9.8	940	1003		2734	93.1	102.8
Omni-06	13.4	800	881		2960	82.4	65.5
Omni-07	12.7	900	909		2833	79.9	71.5
Omni-08	10.0	600	607		3030	79.9	60.9
Omni-09	13.3	800	833		3090	83.9	62.7
Omni-10	12.1	810	787		2657	85.9	65.3
Omni-11	12.9	800	861		2951	82.4	66.7
Omni-12	10.0	720	741		5125	71.2	74.5
Omni-13	9.7	810	736		3021	84.2	75.8
Omni-14	14.0	800	754		2633	83.4	53.8
Omni-15	12.2	810	843		2741	83.1	69.1
Omni-16	10.2	810	783		2752	90.2	77.1
Omni-17	9.8	1013	981		2761	93.1	100.6
Omni-18	12.4	800	780		2838	85.5	62.9
Omni-19	10.1	710	622		2761	81.6	61.6
Omni-20	15.1	1100	1113		2682	81.0	73.7

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Electrical Summary: Lamp-Set Averages (Base-Up)

Serial #	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-01	14.1	0.991	120	117	Pending	Pending
Omni-02	12.5	0.872	120	104	Pending	Pending
Omni-03	12.7	0.807	120	106	Pending	Pending
Omni-04	16.0	0.752	120	134	Pending	Pending
Omni-05	9.8	0.813	120	81	Pending	Pending
Omni-06	13.4	0.876	120	112	Pending	Pending
Omni-07	12.7	0.967	120	106	Pending	Pending
Omni-08	10.0	0.851	120	83	Pending	Pending
Omni-09	13.3	0.998	120	111	Pending	Pending
Omni-10	12.1	0.972	120	101	Pending	Pending
Omni-11	12.9	0.850	120	108	Pending	Pending
Omni-12	10.0	0.735	120	83	Pending	Pending
Omni-13	9.7	0.943	120	81	Pending	Pending
Omni-14	14.0	0.990	120	117	Pending	Pending
Omni-15	12.2	0.906	120	102	Pending	Pending
Omni-16	10.2	0.887	120	85	Pending	Pending
Omni-17	9.8	0.941	120	81	Pending	Pending
Omni-18	12.4	0.880	120	103	Pending	Pending
Omni-19	10.1	0.512	120	84	Pending	Pending
Omni-20	15.1	0.944	120	126	Pending	Pending

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Photometric Summary: Lamp-Set Averages (Horizontal)

Serial #	Power (W)	Mfg. Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-01	-	850	-	-	-	-
Omni-02	12.2	800	894	2668	82.6	73.6
Omni-03	12.8	800	908	2639	81.0	71.0
Omni-04	15.8	1100	1234	2670	80.8	78.1
Omni-05	9.7	940	1016	2731	93.3	104.7
Omni-06	13.1	800	877	2966	83.3	67.0
Omni-07	12.8	900	941	2934	79.4	73.5
Omni-08	9.9	600	613	2994	80.2	61.9
Omni-09	11.6	800	733	3024	82.1	63.0
Omni-10	12.0	810	828	2547	83.1	69.3
Omni-11	12.5	800	860	2945	82.8	68.8
Omni-12	9.7	720	767	5091	71.7	79.0
Omni-13	9.8	810	745	3034	84.6	76.4
Omni-14	13.6	800	732	2616	83.5	53.8
Omni-15	12.2	810	846	2723	83.4	69.6
Omni-16	10.1	810	785	2825	90.3	78.2
Omni-17	9.7	1013	1000	2784	93.1	103.1
Omni-18	12.4	800	782	2827	85.9	63.1
Omni-19	10.3	710	647	2759	81.9	63.2
Omni-20	14.9	1100	1111	2732	81.2	74.5

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Electrical Summary: Lamp-Set Averages (Horizontal)

Serial #	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-01	-	-	-	-	Pending	Pending
Omni-02	12.2	0.874	120	101	Pending	Pending
Omni-03	12.8	0.820	120	107	Pending	Pending
Omni-04	15.8	0.762	120	132	Pending	Pending
Omni-05	9.7	0.830	120	81	Pending	Pending
Omni-06	13.1	0.866	120	109	Pending	Pending
Omni-07	12.8	0.969	120	107	Pending	Pending
Omni-08	9.9	0.857	120	83	Pending	Pending
Omni-09	11.6	0.926	120	97	Pending	Pending
Omni-10	12.0	0.976	120	100	Pending	Pending
Omni-11	12.5	0.858	120	104	Pending	Pending
Omni-12	9.7	0.814	120	81	Pending	Pending
Omni-13	9.8	0.945	120	81	Pending	Pending
Omni-14	13.6	0.990	120	113	Pending	Pending
Omni-15	12.2	0.910	120	101	Pending	Pending
Omni-16	10.1	0.942	120	84	Pending	Pending
Omni-17	9.7	0.944	120	81	Pending	Pending
Omni-18	12.4	0.896	120	103	Pending	Pending
Omni-19	10.3	0.500	120	85	Pending	Pending
Omni-20	14.9	0.946	120	124	Pending	Pending

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Photometric Summary: Lamp-Set Averages (All Orientations)

Serial #	Power (W)	Mfg. Output (lm)	Gonio. Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-01	14.0	850	877	899	3029	85.2	64.1
Omni-02	12.3	800	862	890	2660	82.4	72.4
Omni-03	12.7	800	883	894	2638	80.8	70.2
Omni-04	16.0	1100	1257	1255	2679	80.8	78.4
Omni-05	9.7	940	1018	1009	2732	93.1	103.7
Omni-06	13.3	800	873	876	2961	83.0	66.0
Omni-07	12.7	900	944	916	2837	79.9	72.1
Omni-08	10.0	600	584	617	3018	80.0	62.0
Omni-09	13.1	800	829	831	3056	83.4	63.4
Omni-10	12.0	810	798	797	2678	86.1	66.2
Omni-11	12.7	800	896	864	2943	82.6	68.0
Omni-12	9.8	720	733	757	5101	71.5	77.2
Omni-13	9.8	810	753	747	3022	84.5	76.6
Omni-14	13.8	800	754	745	2624	83.5	54.2
Omni-15	12.2	810	853	853	2732	83.3	70.1
Omni-16	10.1	810	771	789	2777	90.2	78.1
Omni-17	9.7	1013	967	997	2764	93.1	102.5
Omni-18	12.4	800	761	788	2833	85.7	63.6
Omni-19	10.2	710	663	639	2760	81.7	62.9
Omni-20	15.0	1100	1072	1115	2714	81.1	74.1

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Electrical Summary: Lamp-Set Averages (All Orientations)

Serial #	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-01	14.0	0.991	120	117	Pending	Pending
Omni-02	12.3	0.874	120	103	Pending	Pending
Omni-03	12.7	0.816	120	106	Pending	Pending
Omni-04	16.0	0.752	120	133	Pending	Pending
Omni-05	9.7	0.825	120	81	Pending	Pending
Omni-06	13.3	0.871	120	111	Pending	Pending
Omni-07	12.7	0.967	120	106	Pending	Pending
Omni-08	10.0	0.854	120	83	Pending	Pending
Omni-09	13.1	0.988	120	109	Pending	Pending
Omni-10	12.0	0.972	120	100	Pending	Pending
Omni-11	12.7	0.856	120	106	Pending	Pending
Omni-12	9.8	0.785	120	82	Pending	Pending
Omni-13	9.8	0.944	120	81	Pending	Pending
Omni-14	13.8	0.990	120	115	Pending	Pending
Omni-15	12.2	0.910	120	102	Pending	Pending
Omni-16	10.1	0.923	120	84	Pending	Pending
Omni-17	9.7	0.943	120	81	Pending	Pending
Omni-18	12.4	0.892	120	103	Pending	Pending
Omni-19	10.2	0.506	120	85	Pending	Pending
Omni-20	15.0	0.944	120	125	Pending	Pending

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Omni-01

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Photometric Summary: Omni-01

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-01-01	Base-Down	14.0	877	880	3031	84.7	62.9
Omni-01-02	Base-Down	14.1		892	3015	84.9	63.3
Omni-01-06	Base-Down	13.5		895	3017	85.5	66.3
Omni-01-07	Base-Down	14.1		911	3015	85.5	64.6
Omni-01-08	Base-Down	14.5		951	3052	85.8	65.6
Omni-01-09	Base-Down	14.2		902	2997	85.1	63.5
Omni-01-10	Base-Down	13.6		904	3021	85.7	66.5
Average	Base-Down	14.0		902	3025	85.2	64.3
Omni-01-01	Base-Up	14.3		881	3051	84.4	61.6
Omni-01-02*	Base-Up	-		-	-	-	-
Omni-01-03	Base-Up	14.0		892	3022	85.1	63.7
Omni-01-04	Base-Up	13.9		886	3048	85.4	63.7
Omni-01-05	Base-Up	14.1		898	3049	85.2	63.7
Average	Base-Up	14.1		889	3043	85.0	63.2
Omni-01-01*	Horizontal	-		-	-	-	-
Omni-01-02*	Horizontal	-		-	-	-	-
Average	Horizontal	-		-	-	-	-
Average	All Orientations	14.0		899	3029	85.2	64.1

Mfg. Rated Output (lumens): 850

*Unexpected stabilization issue. See page 6.

Electrical Summary: Omni-01

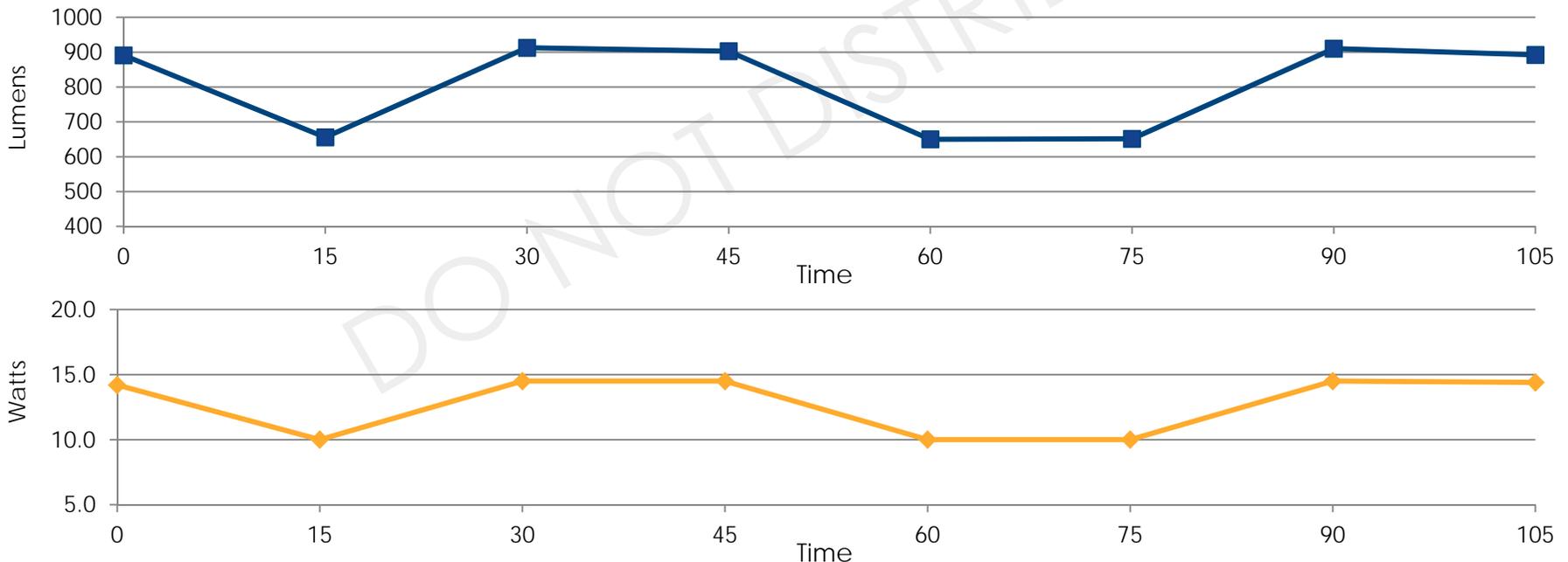
Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-01-01	Base-Down	14.0	0.991	120	117	Pending	Pending
Omni-01-02	Base-Down	14.1	0.991	120	118	Pending	Pending
Omni-01-06	Base-Down	13.5	0.991	120	113	Pending	Pending
Omni-01-07	Base-Down	14.1	0.992	120	118	Pending	Pending
Omni-01-08	Base-Down	14.5	0.992	120	121	Pending	Pending
Omni-01-09	Base-Down	14.2	0.992	120	118	Pending	Pending
Omni-01-10	Base-Down	13.6	0.992	120	113	Pending	Pending
Average	Base-Down	14.0	0.992	120	117	Pending	Pending
Omni-01-01	Base-Up	14.3	0.990	120	119	Pending	Pending
Omni-01-02*	Base-Up	-	-	120	-	Pending	Pending
Omni-01-03	Base-Up	14.0	0.991	120	117	Pending	Pending
Omni-01-04	Base-Up	13.9	0.991	120	116	Pending	Pending
Omni-01-05	Base-Up	14.1	0.991	120	118	Pending	Pending
Average	Base-Up	14.1	0.991	120	117	Pending	Pending
Omni-01-01*	Horizontal	-	-	120	-	Pending	Pending
Omni-01-02*	Horizontal	-	-	120	-	Pending	Pending
Average	Horizontal	-	-	120	-	Pending	Pending
Average	All Orientations			120		Pending	Pending

*Unexpected stabilization issue. See page 27.

Omni-01 Stabilization Sample

Omni-01-02 Base Up

Measurement	1	2	3	4	5	6	7	8
Time* (Minutes)	0	15	30	45	60	75	90	105
Light Output (Lumens)	891	656	913	903	650	651	910	892
Power (Watts)	14.2	10.0	14.5	14.5	10.0	10.0	14.5	14.4



*Time 0 represents first measurement taken and does not include pre-measurement warm up.

Further analysis of horizontal omni-01-01 and horizontal omni-01-02 pending.

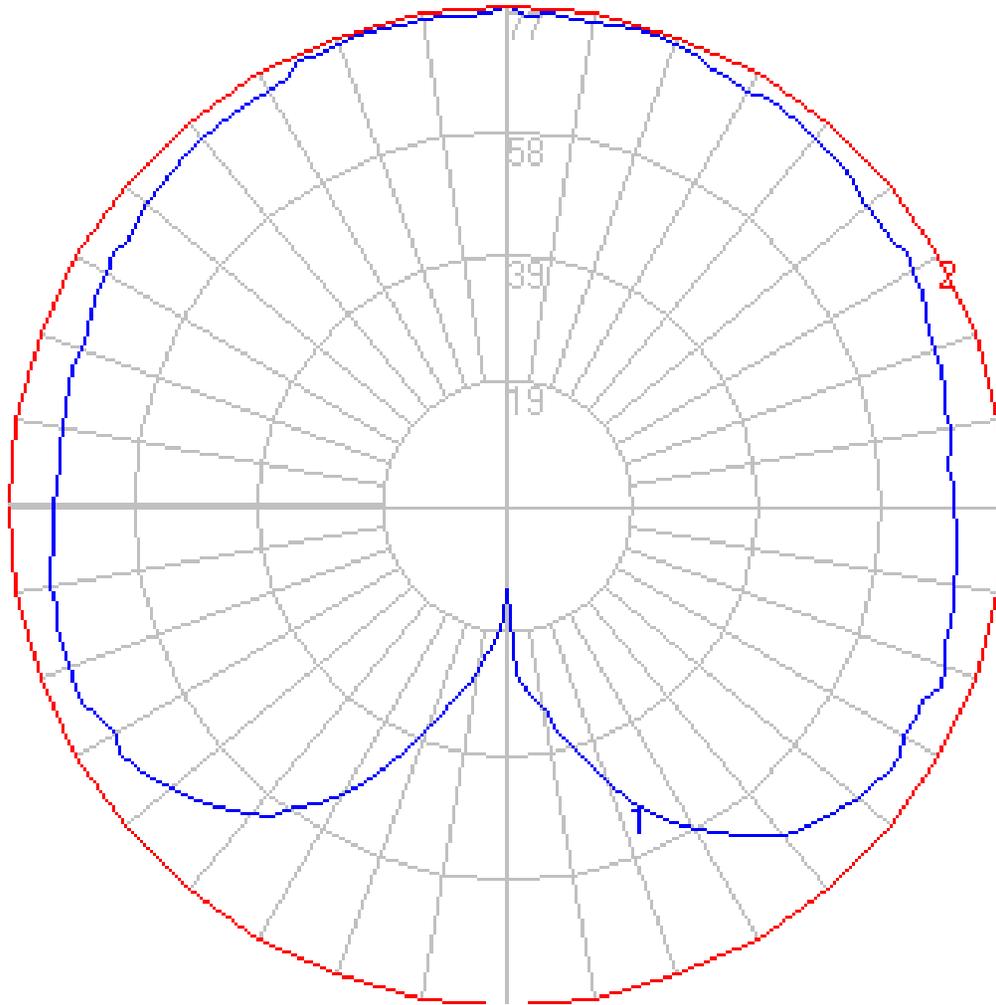
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CRI Chart: Omni-01

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-01-01	Base-Up	82.9	89.3	95.4	84.3	82.5	86.5	87.0	66.9	21.7	75.4	84.0	70.6	84.0	97.1	84.4
Omni-01-01	Base-Down	83.3	89.6	95.4	84.6	83.0	86.9	87.1	67.4	23.2	76.0	84.3	71.2	84.5	97.1	84.7
Omni-01-01	Horizontal	83.8	89.8	95.5	85.2	83.4	87.4	87.3	67.8	24.3	76.5	85.2	71.9	84.9	97.1	85.0
Omni-01-02	Base-Up	83.1	89.8	96.0	84.3	82.7	87.2	87.2	66.8	21.8	76.3	83.8	70.6	84.3	97.5	84.6
Omni-01-02	Base-Down	83.4	90.1	96.2	84.5	83.0	87.6	87.2	67.2	23.2	76.9	84.0	71.2	84.7	97.5	84.9
Omni-01-02	Horizontal	83.9	90.2	96.2	85.3	83.6	88.0	87.5	67.8	24.5	77.5	85.3	71.9	85.1	97.5	85.3
Omni-01-03	Base-Up	83.6	90.2	96.2	84.7	83.3	87.8	87.2	67.4	23.8	77.3	84.3	71.5	84.9	97.6	85.1
Omni-01-04	Base-Up	84.1	90.7	96.4	85.0	83.9	88.4	87.2	67.9	25.2	78.3	84.7	72.5	85.5	97.7	85.4
Omni-01-05	Base-Up	83.9	90.4	96.1	84.9	83.6	88.0	87.2	67.8	24.6	77.6	84.6	72.0	85.2	97.5	85.2
Omni-01-06	Base-Down	84.3	90.6	96.1	85.3	84.0	88.2	87.3	68.3	26.1	78.0	85.0	72.9	85.6	97.5	85.5
Omni-01-07	Base-Down	84.4	90.8	96.2	85.1	84.0	88.4	87.2	68.2	26.3	78.4	84.8	73.1	85.7	97.6	85.5
Omni-01-08	Base-Down	84.7	91.1	96.5	85.2	84.4	88.9	87.3	68.5	26.8	79.1	84.9	73.3	86.0	97.8	85.8
Omni-01-09	Base-Down	83.8	90.2	95.9	84.8	83.4	87.7	87.2	67.7	24.7	77.2	84.4	72.1	85.0	97.3	85.1
Omni-01-10	Base-Down	84.6	90.9	96.3	85.4	84.3	88.7	87.3	68.4	26.6	78.7	85.2	73.4	85.9	97.6	85.7

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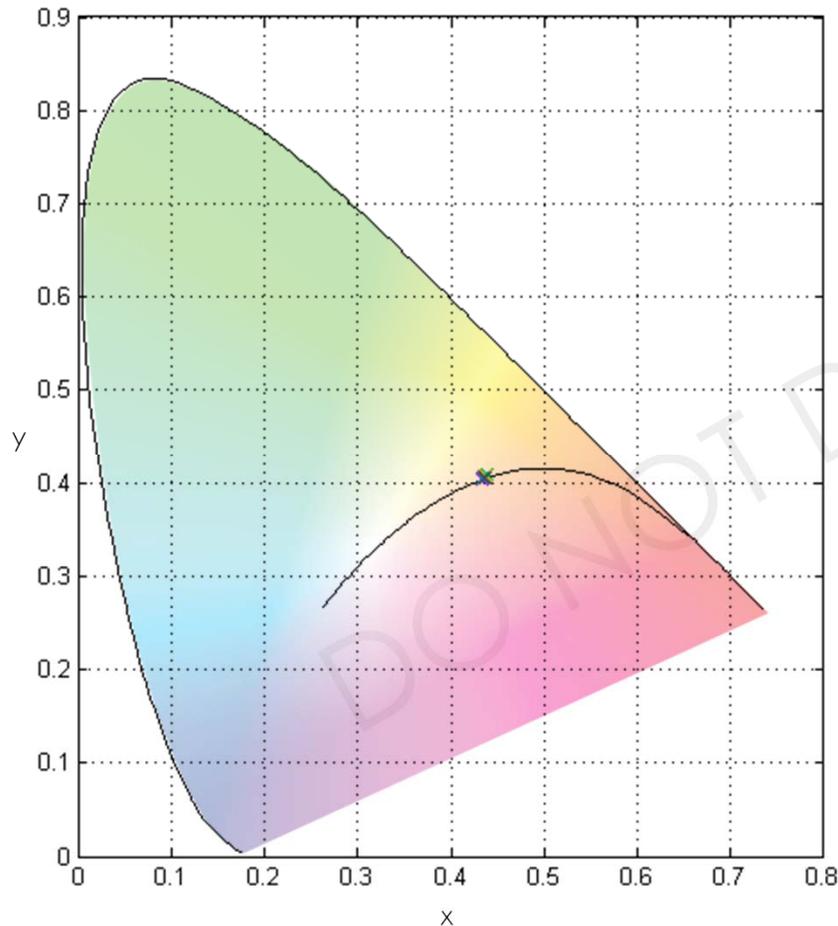
Goniophotometer Characterization: Omni-01



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-01

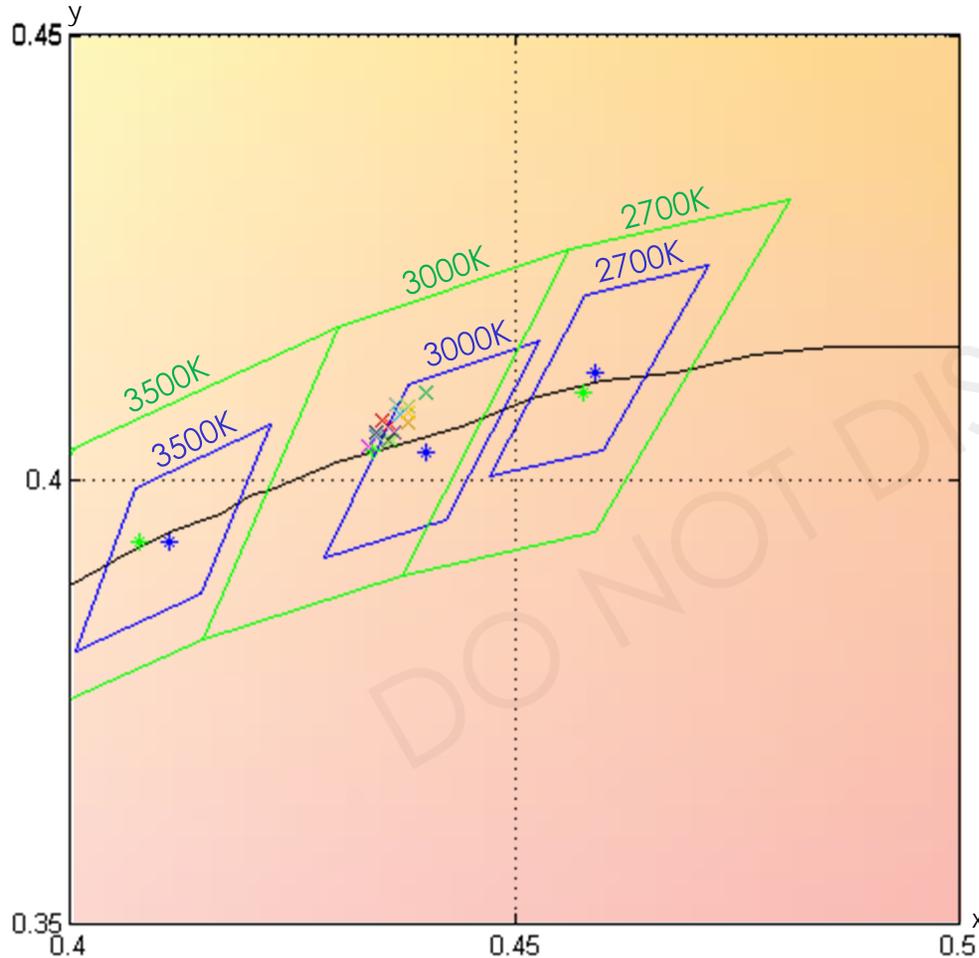


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-01-01	Base-Up	0.4350	0.4066
✘ Omni-01-01	Base-Down	0.4360	0.4062
✘ Omni-01-01	Horizontal	0.4381	0.4075
✘ Omni-01-02	Base-Up	0.4366	0.4085
✘ Omni-01-02	Base-Down	0.4379	0.4082
✘ Omni-01-02	Horizontal	0.4401	0.4097
✘ Omni-01-03	Base-Up	0.4370	0.4072
✘ Omni-01-04	Base-Up	0.4344	0.4049
✘ Omni-01-05	Base-Up	0.4345	0.4052
✘ Omni-01-06	Base-Down	0.4364	0.4053
✘ Omni-01-07	Base-Down	0.4361	0.4043
✘ Omni-01-08	Base-Down	0.4336	0.4036
✘ Omni-01-09	Base-Down	0.4381	0.4063
✘ Omni-01-10	Base-Down	0.4358	0.4044

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Photometric Summary: Omni-01



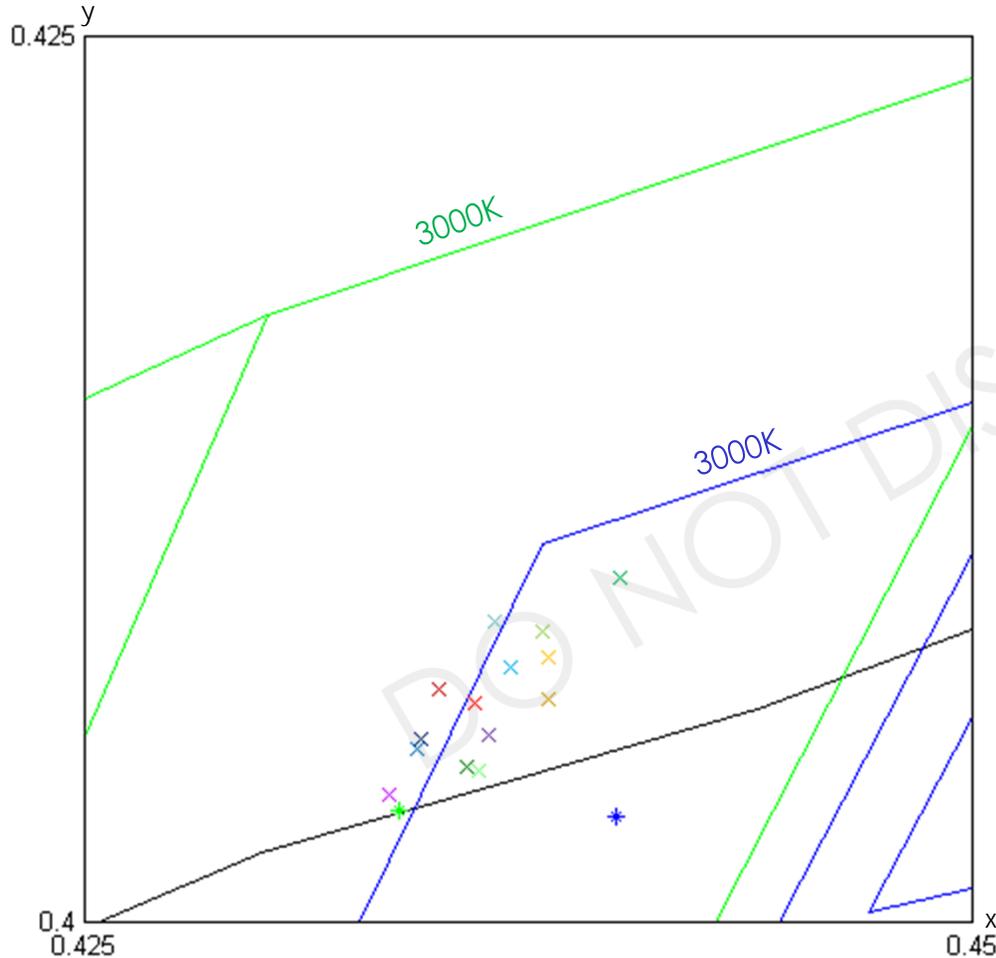
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
❌ Omni-01-01	Base-Up	0.4350	0.4066
❌ Omni-01-01	Base-Down	0.4360	0.4062
❌ Omni-01-01	Horizontal	0.4381	0.4075
❌ Omni-01-02	Base-Up	0.4366	0.4085
❌ Omni-01-02	Base-Down	0.4379	0.4082
❌ Omni-01-02	Horizontal	0.4401	0.4097
❌ Omni-01-03	Base-Up	0.4370	0.4072
❌ Omni-01-04	Base-Up	0.4344	0.4049
❌ Omni-01-05	Base-Up	0.4345	0.4052
❌ Omni-01-06	Base-Down	0.4364	0.4053
❌ Omni-01-07	Base-Down	0.4361	0.4043
❌ Omni-01-08	Base-Down	0.4336	0.4036
❌ Omni-01-09	Base-Down	0.4381	0.4063
❌ Omni-01-10	Base-Down	0.4358	0.4044

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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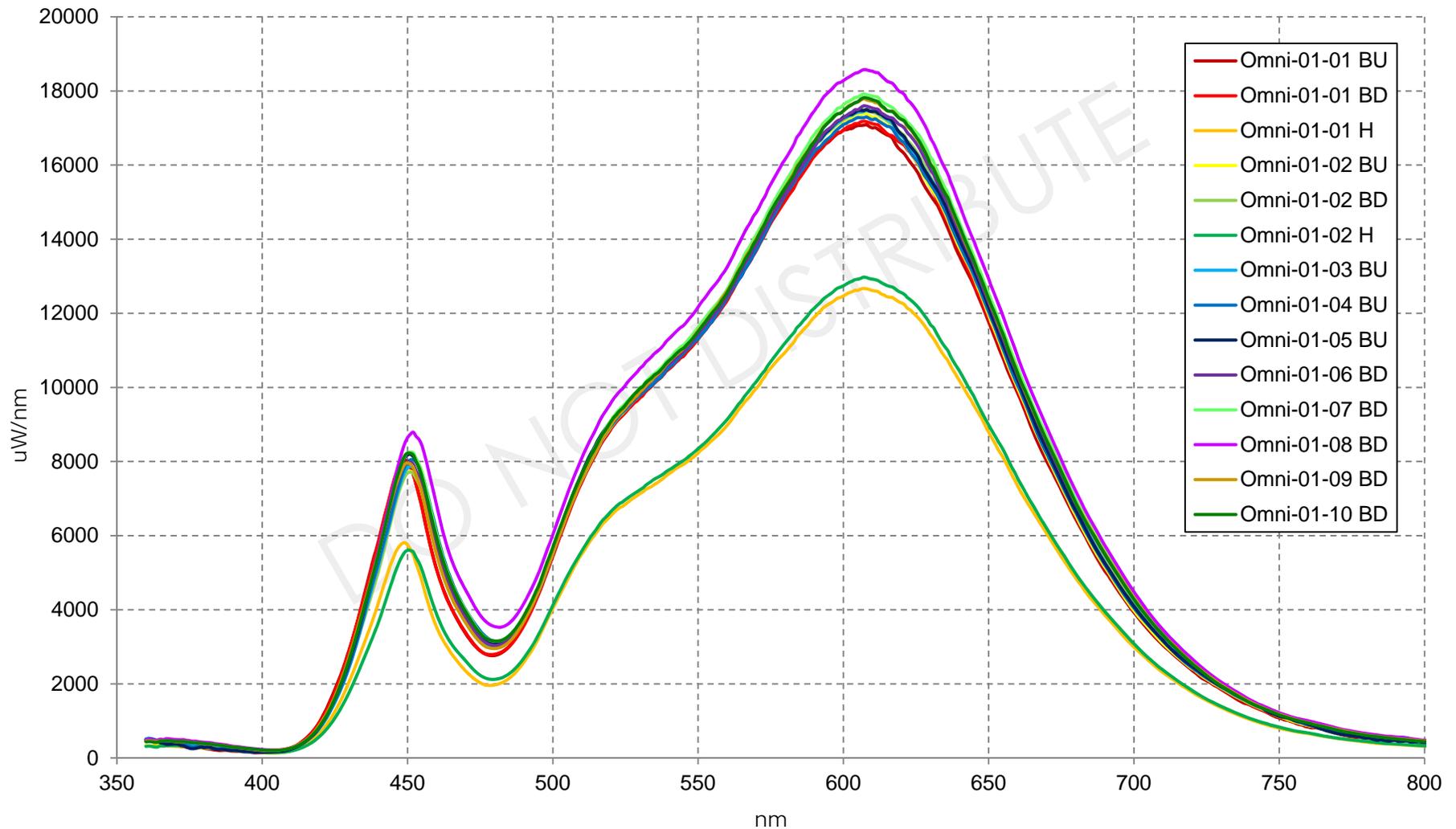
Photometric Summary: Omni-01



Serial #	Orientation	CIE X	CIE Y
✖ Omni-01-01	Base-Up	0.4350	0.4066
✖ Omni-01-01	Base-Down	0.4360	0.4062
✖ Omni-01-01	Horizontal	0.4381	0.4075
✖ Omni-01-02	Base-Up	0.4366	0.4085
✖ Omni-01-02	Base-Down	0.4379	0.4082
✖ Omni-01-02	Horizontal	0.4401	0.4097
✖ Omni-01-03	Base-Up	0.4370	0.4072
✖ Omni-01-04	Base-Up	0.4344	0.4049
✖ Omni-01-05	Base-Up	0.4345	0.4052
✖ Omni-01-06	Base-Down	0.4364	0.4053
✖ Omni-01-07	Base-Down	0.4361	0.4043
✖ Omni-01-08	Base-Down	0.4336	0.4036
✖ Omni-01-09	Base-Down	0.4381	0.4063
✖ Omni-01-10	Base-Down	0.4358	0.4044

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Spectral Power Distribution: Omni-01



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Omni-02

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Photometric Summary: Omni-02

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-02-01	Base-Down	12.2	862	898	2667	82.7	73.6
Omni-02-02	Base-Down	12.0		884	2669	82.7	73.7
Omni-02-06	Base-Down	12.3		909	2611	82.2	73.9
Omni-02-07	Base-Down	12.1		861	2618	81.6	71.2
Omni-02-08	Base-Down	12.3		894	2643	82.3	72.7
Omni-02-09	Base-Down	12.3		899	2672	82.7	73.1
Omni-02-10	Base-Down	12.4		916	2653	82.4	73.9
Average	Base-Down	12.2		894	2651	82.4	73.0
Omni-02-01	Base-Up	12.3		887	2671	82.4	72.1
Omni-02-02	Base-Up	12.2		876	2673	82.4	71.8
Omni-02-03	Base-Up	12.0		853	2673	82.0	71.1
Omni-02-04	Base-Up	12.5		911	2691	82.3	72.9
Omni-02-05	Base-Up	13.3		885	2657	82.1	66.5
Average	Base-Up	12.5		882	2673	82.2	70.9
Omni-02-01	Horizontal	12.2		897	2666	82.6	73.5
Omni-02-02	Horizontal	12.1		891	2669	82.6	73.6
Average	Horizontal	12.2		894	2668	82.6	73.6
Average	All Orientations	12.3		890	2660	82.4	72.4

Mfg. Rated Output (lumens): 800

Electrical Summary: Omni-02

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-02-01	Base-Down	12.2	0.875	120	102	Pending	Pending
Omni-02-02	Base-Down	12.0	0.873	120	100	Pending	Pending
Omni-02-06	Base-Down	12.3	0.877	120	103	Pending	Pending
Omni-02-07	Base-Down	12.1	0.876	120	101	Pending	Pending
Omni-02-08	Base-Down	12.3	0.870	120	103	Pending	Pending
Omni-02-09	Base-Down	12.3	0.878	120	103	Pending	Pending
Omni-02-10	Base-Down	12.4	0.886	120	103	Pending	Pending
Average	Base-Down	12.2	0.876	120	102	Pending	Pending
Omni-02-01	Base-Up	12.3	0.869	120	103	Pending	Pending
Omni-02-02	Base-Up	12.2	0.867	120	102	Pending	Pending
Omni-02-03	Base-Up	12.0	0.872	120	100	Pending	Pending
Omni-02-04	Base-Up	12.5	0.881	120	104	Pending	Pending
Omni-02-05	Base-Up	13.3	0.871	120	111	Pending	Pending
Average	Base-Up	12.5	0.872	120	104	Pending	Pending
Omni-02-01	Horizontal	12.2	0.875	120	102	Pending	Pending
Omni-02-02	Horizontal	12.1	0.872	120	101	Pending	Pending
Average	Horizontal	12.2	0.874	120	101	Pending	Pending
Average	All Orientations	12.3	0.874	120	103	Pending	Pending

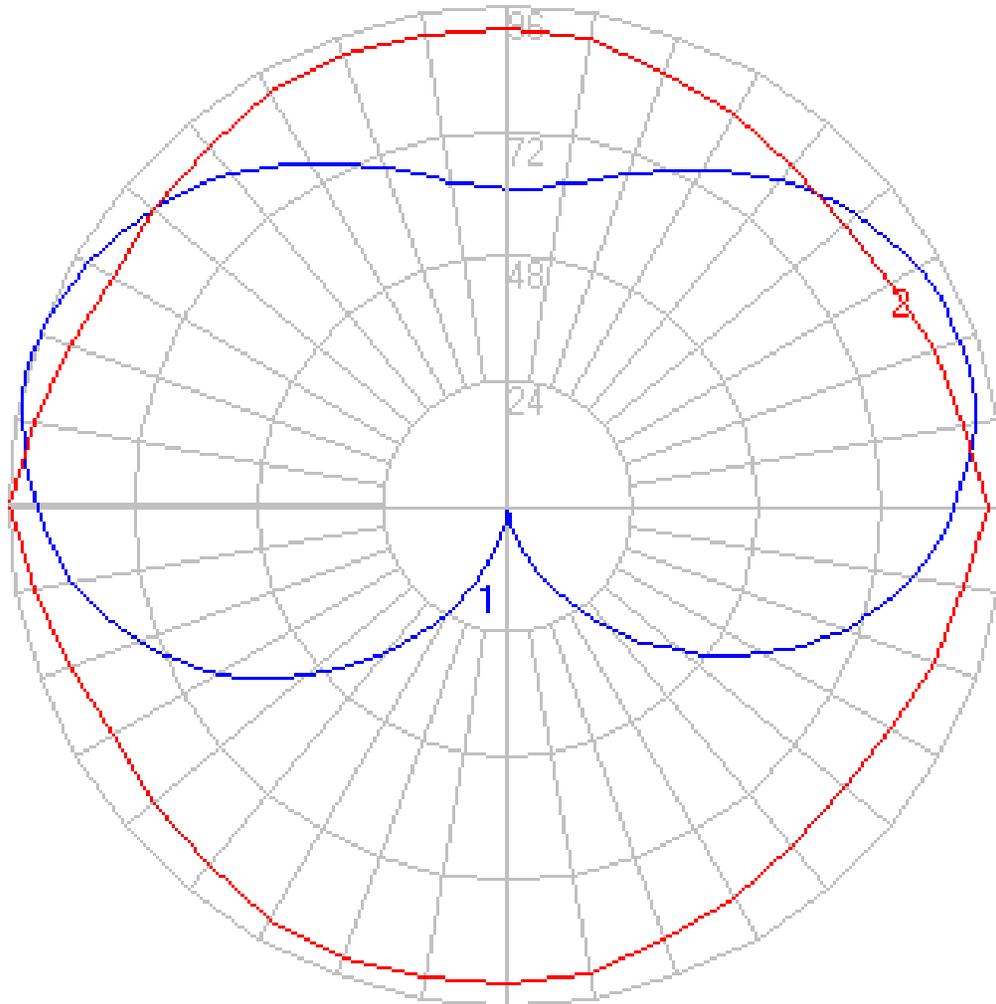
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CRI Chart: Omni-02

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-02-01	Base-Up	80.3	90.3	97.0	79.3	80.0	87.7	83.6	61.3	16.2	77.8	77.1	73.5	82.3	98.7	82.4
Omni-02-01	Base-Down	80.6	90.3	97.1	79.6	80.2	87.7	83.9	61.9	17.6	77.9	77.4	73.6	82.5	98.7	82.7
Omni-02-01	Horizontal	80.6	90.4	97.0	79.5	80.2	87.8	83.8	61.8	17.4	78.0	77.2	73.7	82.5	98.7	82.6
Omni-02-02	Base-Up	80.3	90.0	97.0	79.5	79.9	87.3	83.7	61.4	16.4	77.3	77.3	73.6	82.1	98.5	82.4
Omni-02-02	Base-Down	80.6	90.1	97.0	79.8	80.2	87.4	84.0	62.1	17.8	77.4	77.7	73.8	82.4	98.5	82.7
Omni-02-02	Horizontal	80.5	90.2	97.0	79.6	80.1	87.5	83.8	61.9	17.4	77.5	77.4	73.9	82.3	98.5	82.6
Omni-02-03	Base-Up	79.8	89.4	97.0	79.3	79.3	86.4	83.9	61.1	15.0	75.9	77.0	72.0	81.5	98.4	82.0
Omni-02-04	Base-Up	80.1	89.7	97.0	79.5	79.7	86.9	83.9	61.5	16.0	76.6	77.3	72.8	81.9	98.4	82.3
Omni-02-05	Base-Up	79.9	89.6	97.2	79.2	79.4	86.8	83.8	61.0	15.2	76.5	77.0	72.5	81.7	98.6	82.1
Omni-02-06	Base-Down	80.0	89.9	97.1	79.1	79.6	87.3	83.6	61.0	16.1	77.1	76.8	73.4	81.9	98.6	82.2
Omni-02-07	Base-Down	79.1	89.2	97.3	78.5	78.5	86.2	83.8	60.3	13.5	75.5	75.7	71.0	80.9	98.6	81.6
Omni-02-08	Base-Down	80.0	89.7	97.3	79.4	79.5	87.0	84.1	61.4	16.2	76.7	77.1	72.5	81.8	98.6	82.3
Omni-02-09	Base-Down	80.7	90.2	97.0	79.8	80.3	87.6	83.9	62.1	17.9	77.7	77.6	74.1	82.5	98.6	82.7
Omni-02-10	Base-Down	80.2	89.9	97.1	79.4	79.7	87.1	83.9	61.5	16.5	76.9	77.2	73.0	82.0	98.6	82.4

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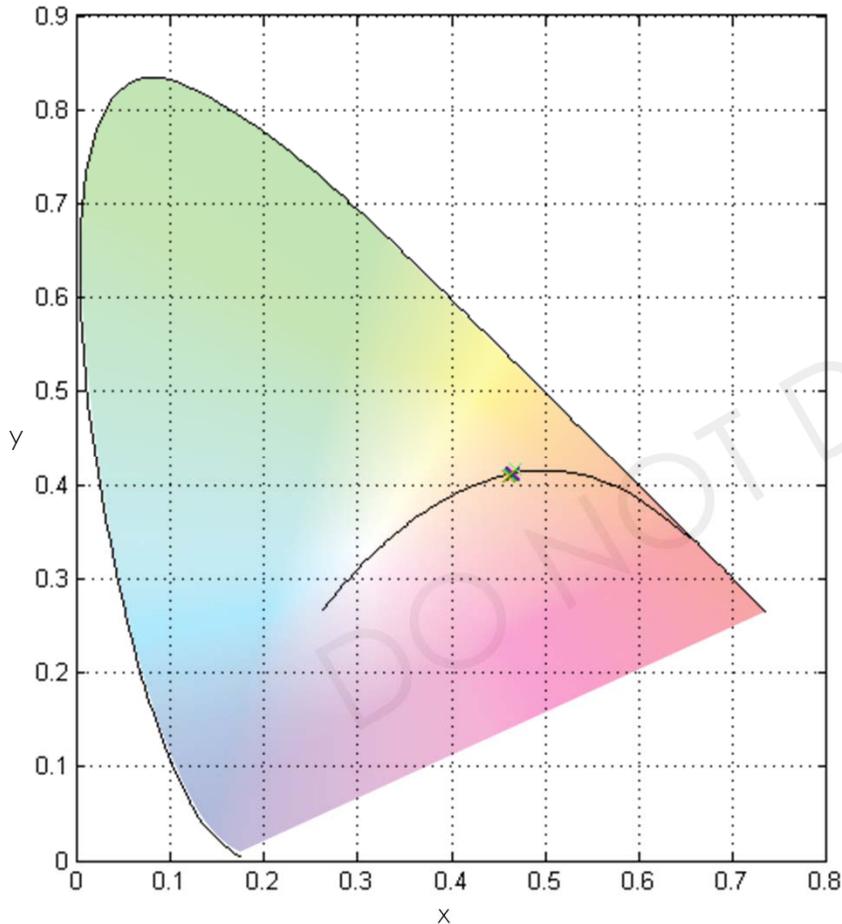
Goniophotometer Characterization: Omni-02



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-02

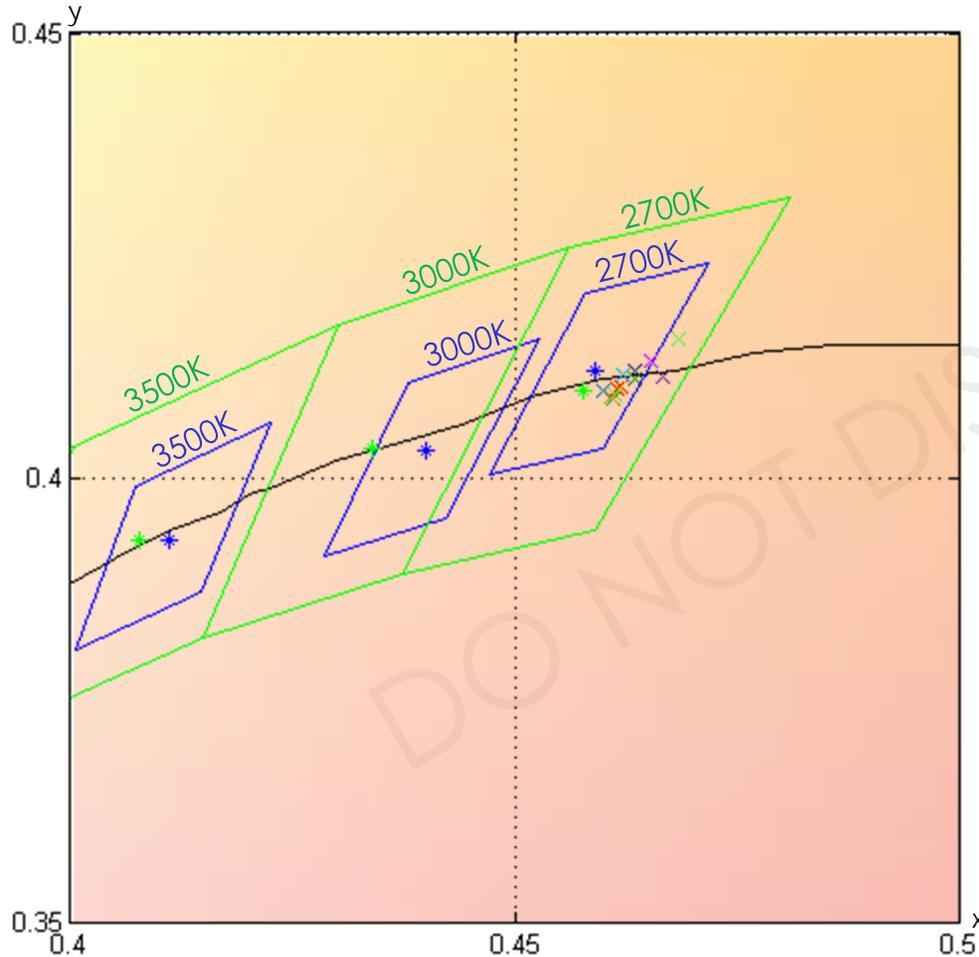


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
❌ Omni-02-01	Base-Up	0.4615	0.4100
❌ Omni-02-01	Base-Down	0.4620	0.4102
❖ Omni-02-01	Horizontal	0.4618	0.4099
❖ Omni-02-02	Base-Up	0.4609	0.4091
❖ Omni-02-02	Base-Down	0.4613	0.4093
❖ Omni-02-02	Horizontal	0.4610	0.4089
❖ Omni-02-03	Base-Up	0.4623	0.4116
❖ Omni-02-04	Base-Up	0.4599	0.4097
❖ Omni-02-05	Base-Up	0.4636	0.4119
❖ Omni-02-06	Base-Down	0.4668	0.4113
❖ Omni-02-07	Base-Down	0.4686	0.4156
❖ Omni-02-08	Base-Down	0.4654	0.4131
❖ Omni-02-09	Base-Down	0.4609	0.4090
❖ Omni-02-10	Base-Down	0.4636	0.4112

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Photometric Summary: Omni-02



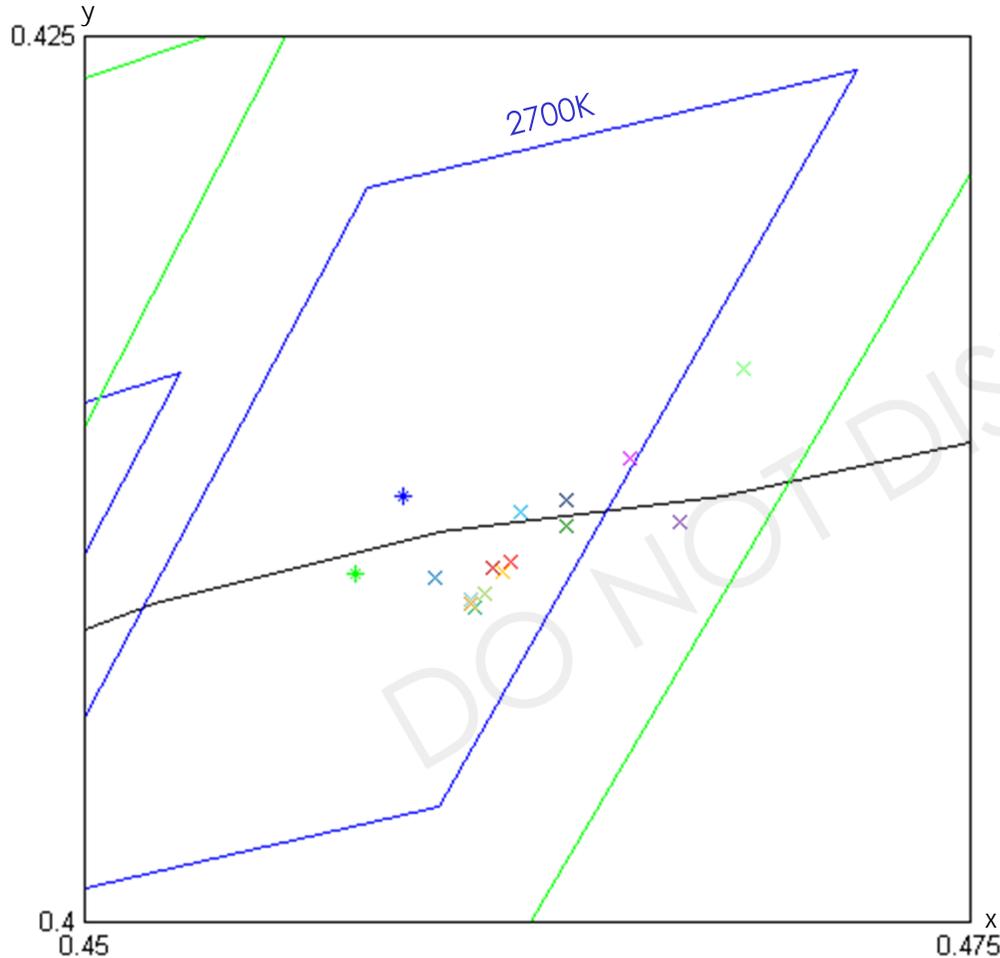
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-02-01	Base-Up	0.4615	0.4100
✖ Omni-02-01	Base-Down	0.4620	0.4102
✖ Omni-02-01	Horizontal	0.4618	0.4099
✖ Omni-02-02	Base-Up	0.4609	0.4091
✖ Omni-02-02	Base-Down	0.4613	0.4093
✖ Omni-02-02	Horizontal	0.4610	0.4089
✖ Omni-02-03	Base-Up	0.4623	0.4116
✖ Omni-02-04	Base-Up	0.4599	0.4097
✖ Omni-02-05	Base-Up	0.4636	0.4119
✖ Omni-02-06	Base-Down	0.4668	0.4113
✖ Omni-02-07	Base-Down	0.4686	0.4156
✖ Omni-02-08	Base-Down	0.4654	0.4131
✖ Omni-02-09	Base-Down	0.4609	0.4090
✖ Omni-02-10	Base-Down	0.4636	0.4112

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-02

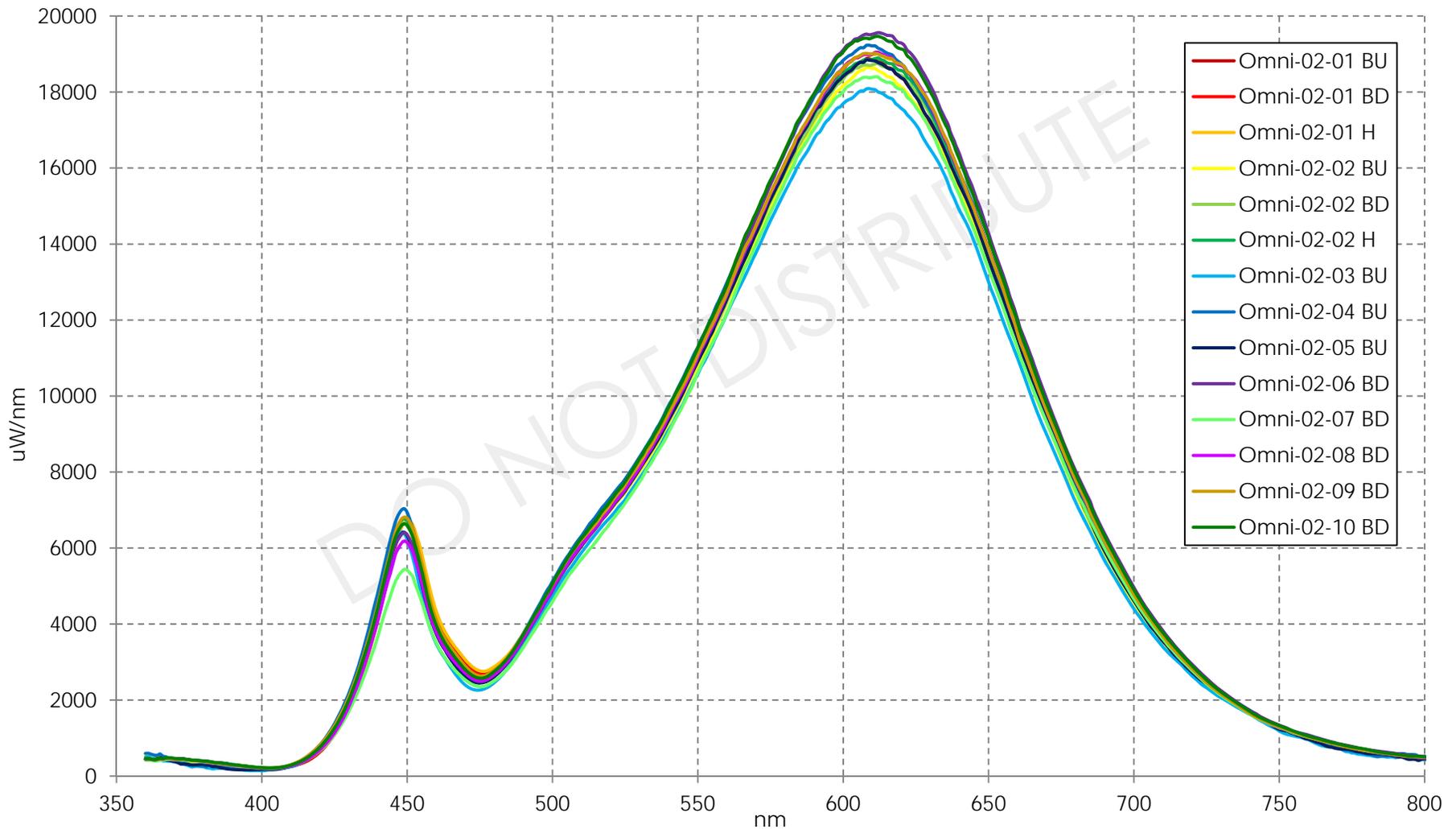


Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Serial #	Orientation	CIE X	CIE Y
✖ Omni-02-01	Base-Up	0.4615	0.4100
✖ Omni-02-01	Base-Down	0.4620	0.4102
✖ Omni-02-01	Horizontal	0.4618	0.4099
✖ Omni-02-02	Base-Up	0.4609	0.4091
✖ Omni-02-02	Base-Down	0.4613	0.4093
✖ Omni-02-02	Horizontal	0.4610	0.4089
✖ Omni-02-03	Base-Up	0.4623	0.4116
✖ Omni-02-04	Base-Up	0.4599	0.4097
✖ Omni-02-05	Base-Up	0.4636	0.4119
✖ Omni-02-06	Base-Down	0.4668	0.4113
✖ Omni-02-07	Base-Down	0.4686	0.4156
✖ Omni-02-08	Base-Down	0.4654	0.4131
✖ Omni-02-09	Base-Down	0.4609	0.4090
✖ Omni-02-10	Base-Down	0.4636	0.4112

Spectral Power Distribution: Omni-02



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Omni-03

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Photometric Summary: Omni-03

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-03-01	Base-Down	12.6	883	905	2639	81.0	71.8
Omni-03-02	Base-Down	13.0		908	2637	80.7	69.8
Omni-03-06	Base-Down	12.6		882	2639	80.9	70.0
Omni-03-07	Base-Down	12.5		904	2632	80.7	72.3
Omni-03-08	Base-Down	12.8		910	2634	80.6	71.1
Omni-03-09	Base-Down	12.9		921	2629	80.3	71.4
Omni-03-10	Base-Down	12.7		863	2629	80.8	68.0
Average	Base-Down	12.7		897	2636	80.7	70.6
Omni-03-01	Base-Up	12.6		886	2645	80.9	70.3
Omni-03-02	Base-Up	12.9		891	2641	80.5	69.1
Omni-03-03	Base-Up	12.6		880	2653	81.0	69.8
Omni-03-04	Base-Up	12.7		895	2639	80.7	70.5
Omni-03-05	Base-Up	12.7		854	2639	80.7	67.2
Average	Base-Up	12.7		881	2643	80.8	69.4
Omni-03-01	Horizontal	12.6		905	2639	81.2	71.8
Omni-03-02	Horizontal	13.0		911	2638	80.8	70.1
Average	Horizontal	12.8		908	2639	81.0	71.0
Average	All Orientations	12.7		894	2638	80.8	70.2

Mfg. Rated Output (lumens): 800

Electrical Summary: Omni-03

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-03-01	Base-Down	12.6	0.826	120	105	Pending	Pending
Omni-03-02	Base-Down	13.0	0.826	120	108	Pending	Pending
Omni-03-06	Base-Down	12.6	0.804	120	105	Pending	Pending
Omni-03-07	Base-Down	12.5	0.835	120	104	Pending	Pending
Omni-03-08	Base-Down	12.8	0.829	120	107	Pending	Pending
Omni-03-09	Base-Down	12.9	0.824	120	108	Pending	Pending
Omni-03-10	Base-Down	12.7	0.805	120	106	Pending	Pending
Average	Base-Down	12.7	0.821	120	106	Pending	Pending
Omni-03-01	Base-Up	12.6	0.806	120	105	Pending	Pending
Omni-03-02	Base-Up	12.9	0.809	120	108	Pending	Pending
Omni-03-03	Base-Up	12.6	0.802	120	105	Pending	Pending
Omni-03-04	Base-Up	12.7	0.813	120	106	Pending	Pending
Omni-03-05	Base-Up	12.7	0.804	120	106	Pending	Pending
Average	Base-Up	12.7	0.807	120	106	Pending	Pending
Omni-03-01	Horizontal	12.6	0.818	120	105	Pending	Pending
Omni-03-02	Horizontal	13.0	0.822	120	108	Pending	Pending
Average	Horizontal	12.8	0.820	120	107	Pending	Pending
Average	All Orientations	12.7	0.816	120	106	Pending	Pending

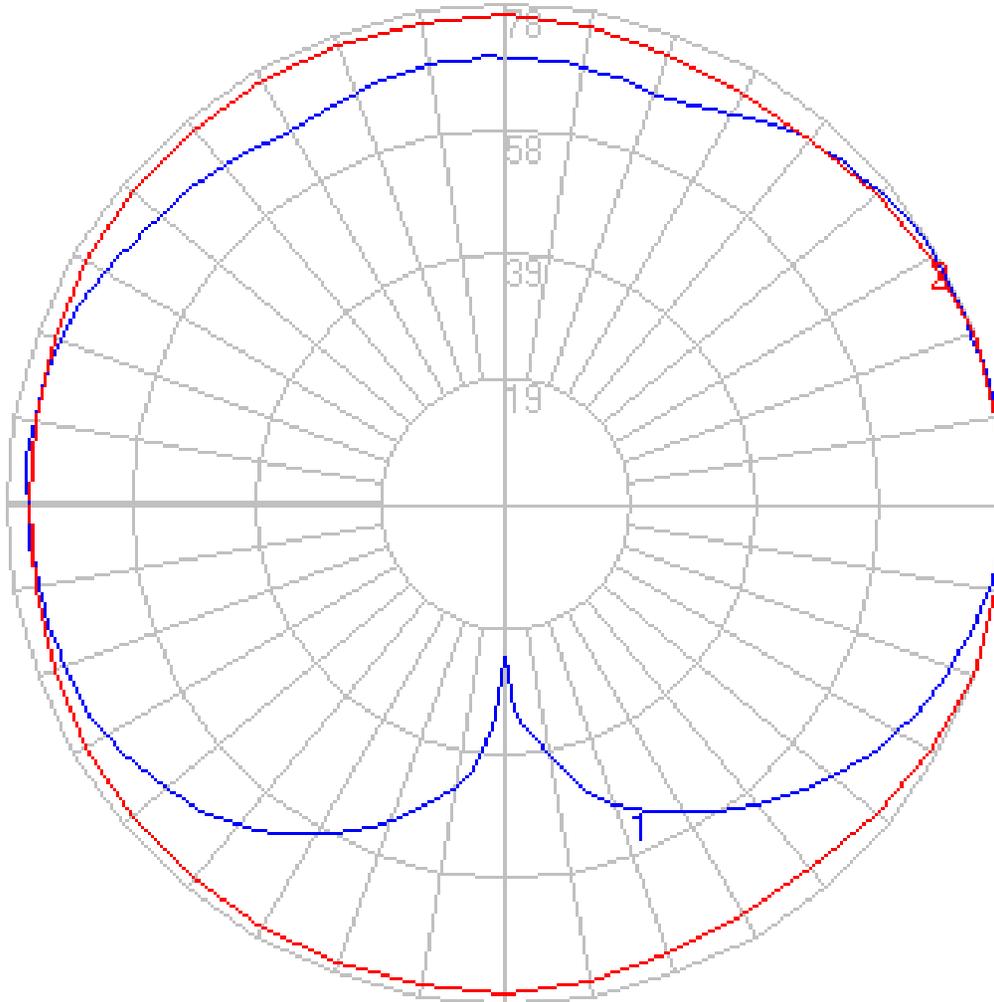
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CRI Chart: Omni-03

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-03-01	Base-Up	79.1	91.7	94.6	74.3	78.3	88.8	81.5	59.2	15.3	80.5	69.5	71.3	81.8	97.8	80.9
Omni-03-01	Base-Down	79.2	91.8	94.6	74.4	78.5	88.8	81.5	59.4	15.8	80.6	69.6	71.6	81.9	97.8	81.0
Omni-03-01	Horizontal	79.4	92.0	94.5	74.5	78.7	89.1	81.5	59.5	16.3	81.0	69.7	72.1	82.1	97.8	81.2
Omni-03-02	Base-Up	78.4	90.9	95.3	74.1	77.5	87.5	81.7	58.8	13.5	78.6	69.2	69.5	80.9	98.2	80.5
Omni-03-02	Base-Down	78.6	91.0	95.3	74.3	77.7	87.6	81.8	59.1	14.3	78.7	69.3	69.8	81.1	98.2	80.7
Omni-03-02	Horizontal	78.8	91.2	95.3	74.4	77.9	87.9	81.8	59.3	14.9	79.1	69.5	70.3	81.3	98.1	80.8
Omni-03-03	Base-Up	79.2	92.0	94.4	74.3	78.6	89.1	81.4	59.3	15.7	81.0	69.6	71.8	82.0	97.7	81.0
Omni-03-04	Base-Up	78.6	91.3	95.0	74.1	77.8	88.1	81.6	58.8	14.1	79.4	69.2	70.2	81.3	98.0	80.7
Omni-03-05	Base-Up	78.8	91.5	94.7	74.1	78.0	88.4	81.5	58.9	14.4	79.9	69.2	70.7	81.4	97.9	80.7
Omni-03-06	Base-Down	79.0	91.5	94.9	74.3	78.1	88.4	81.6	59.3	15.2	79.9	69.4	70.7	81.6	98.0	80.9
Omni-03-07	Base-Down	78.6	91.0	95.4	74.2	77.7	87.6	81.8	59.1	14.4	78.7	69.3	69.7	81.1	98.2	80.7
Omni-03-08	Base-Down	78.5	91.0	95.3	74.2	77.7	87.7	81.8	59.0	14.2	78.8	69.2	70.0	81.1	98.1	80.6
Omni-03-09	Base-Down	78.0	90.3	95.8	74.0	77.0	86.6	82.0	58.7	13.1	77.3	69.0	68.5	80.4	98.4	80.3
Omni-03-10	Base-Down	78.7	91.3	95.1	74.2	77.9	88.1	81.7	59.1	14.8	79.4	69.3	70.4	81.3	98.1	80.8

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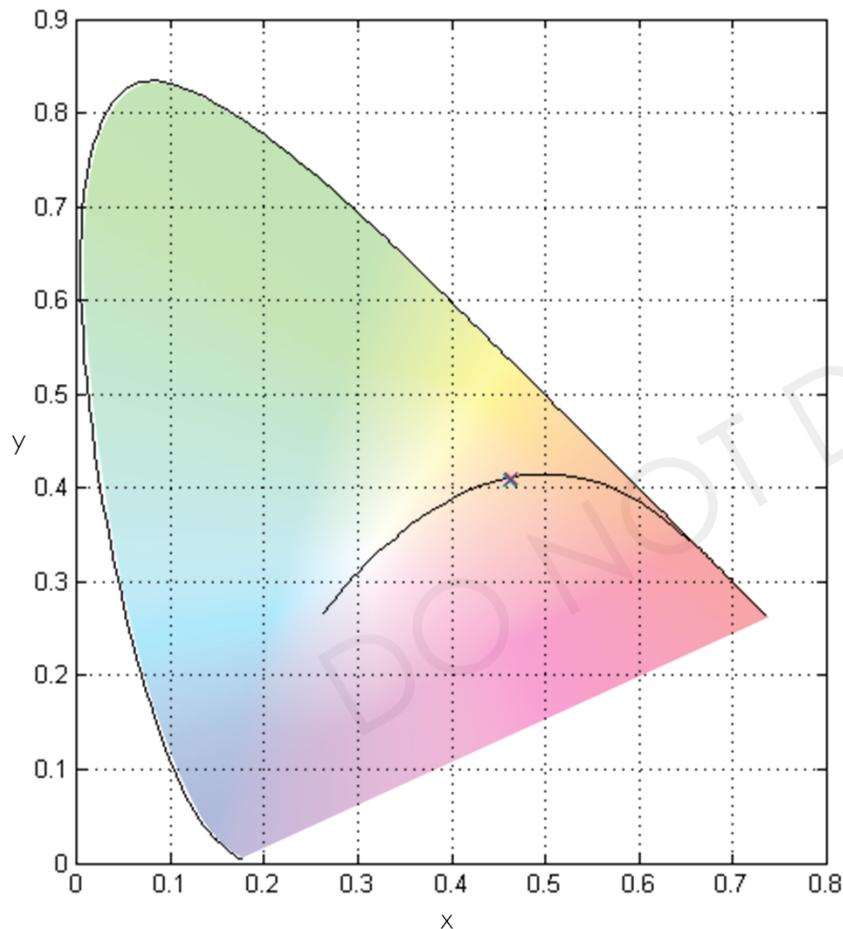
Goniophotometer Characterization: Omni-03



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-03

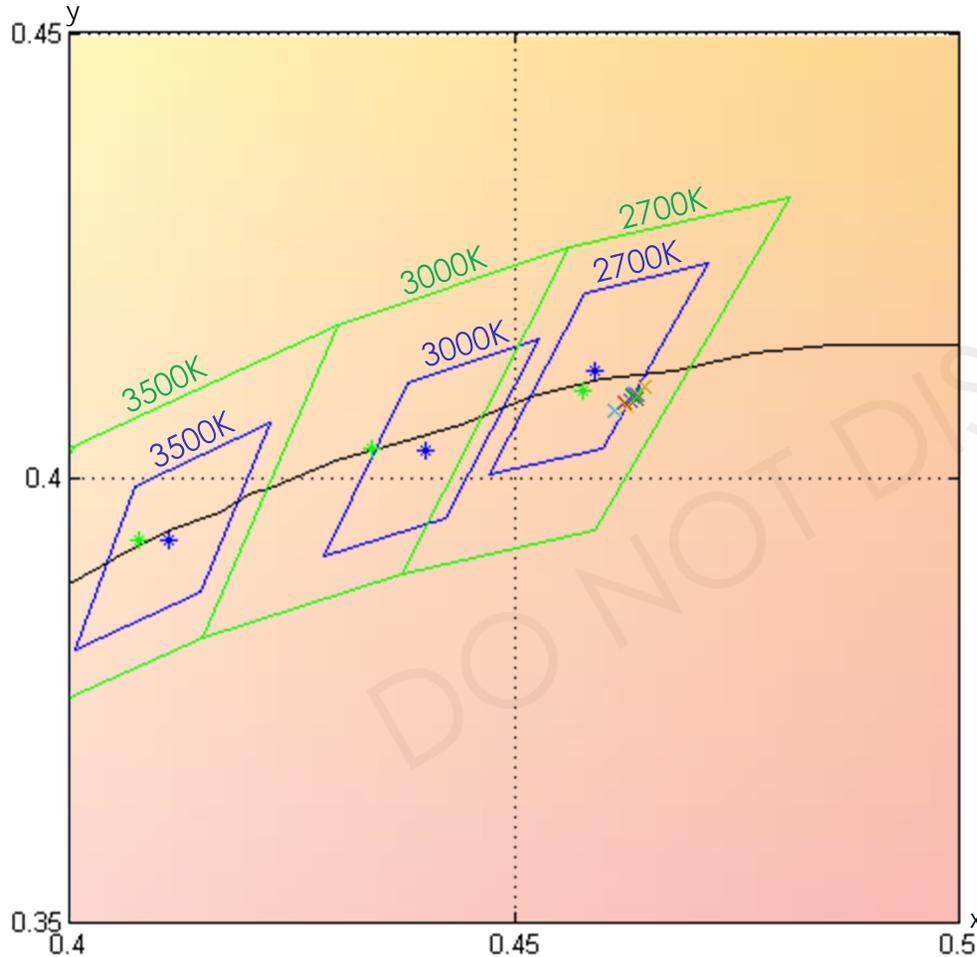


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-03-01	Base-Up	0.4624	0.4083
✘ Omni-03-01	Base-Down	0.4627	0.4080
✘ Omni-03-01	Horizontal	0.4627	0.4079
✘ Omni-03-02	Base-Up	0.4635	0.4096
✘ Omni-03-02	Base-Down	0.4635	0.4092
✘ Omni-03-02	Horizontal	0.4634	0.4090
✘ Omni-03-03	Base-Up	0.4614	0.4076
✘ Omni-03-04	Base-Up	0.4634	0.4092
✘ Omni-03-05	Base-Up	0.4631	0.4087
✘ Omni-03-06	Base-Down	0.4631	0.4087
✘ Omni-03-07	Base-Down	0.4640	0.4094
✘ Omni-03-08	Base-Down	0.4638	0.4093
✘ Omni-03-09	Base-Down	0.4647	0.4102
✘ Omni-03-10	Base-Down	0.4639	0.4089

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Photometric Summary: Omni-03



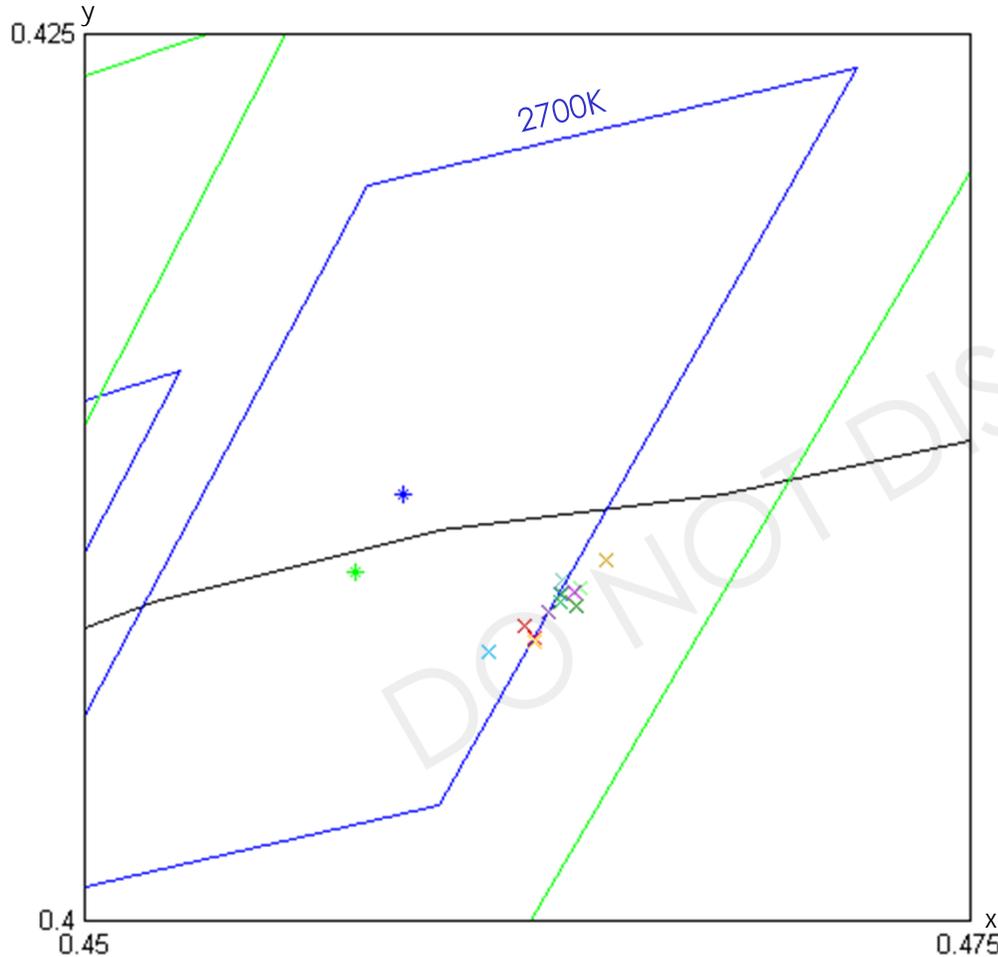
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-03-01	Base-Up	0.4624	0.4083
✖ Omni-03-01	Base-Down	0.4627	0.4080
✖ Omni-03-01	Horizontal	0.4627	0.4079
✖ Omni-03-02	Base-Up	0.4635	0.4096
✖ Omni-03-02	Base-Down	0.4635	0.4092
✖ Omni-03-02	Horizontal	0.4634	0.4090
✖ Omni-03-03	Base-Up	0.4614	0.4076
✖ Omni-03-04	Base-Up	0.4634	0.4092
✖ Omni-03-05	Base-Up	0.4631	0.4087
✖ Omni-03-06	Base-Down	0.4631	0.4087
✖ Omni-03-07	Base-Down	0.4640	0.4094
✖ Omni-03-08	Base-Down	0.4638	0.4093
✖ Omni-03-09	Base-Down	0.4647	0.4102
✖ Omni-03-10	Base-Down	0.4639	0.4089

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-03

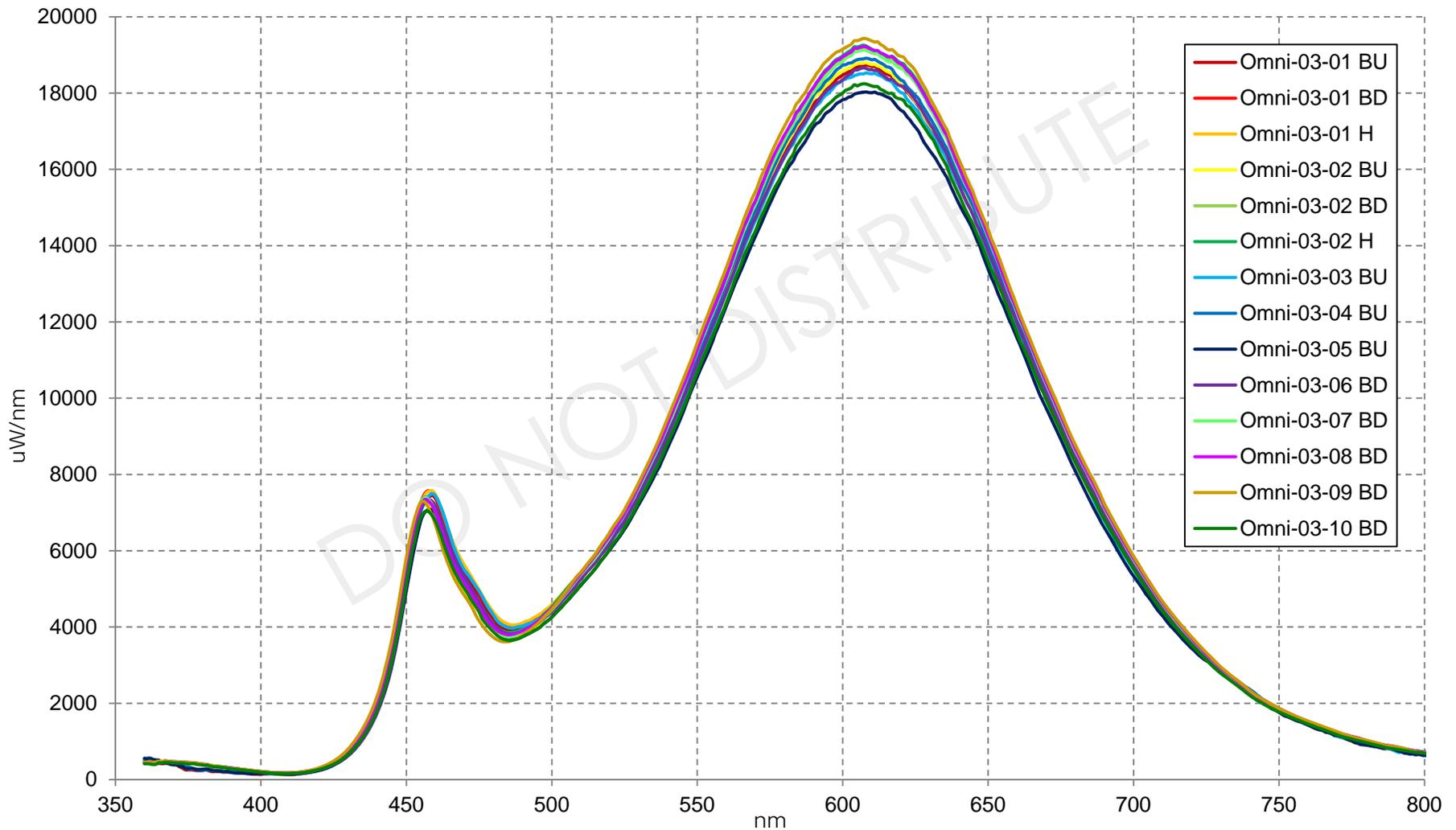


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
❌ Omni-03-01	Base-Up	0.4624	0.4083
❌ Omni-03-01	Base-Down	0.4627	0.4080
❌ Omni-03-01	Horizontal	0.4627	0.4079
❌ Omni-03-02	Base-Up	0.4635	0.4096
❌ Omni-03-02	Base-Down	0.4635	0.4092
❌ Omni-03-02	Horizontal	0.4634	0.4090
❌ Omni-03-03	Base-Up	0.4614	0.4076
❌ Omni-03-04	Base-Up	0.4634	0.4092
❌ Omni-03-05	Base-Up	0.4631	0.4087
❌ Omni-03-06	Base-Down	0.4631	0.4087
❌ Omni-03-07	Base-Down	0.4640	0.4094
❌ Omni-03-08	Base-Down	0.4638	0.4093
❌ Omni-03-09	Base-Down	0.4647	0.4102
❌ Omni-03-10	Base-Down	0.4639	0.4089

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Spectral Power Distribution: Omni-03



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Omni-04

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Photometric Summary: Omni-04

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-04-01	Base-Down	16.6	1257	1287	2659	80.4	77.5
Omni-04-02	Base-Down	15.3		1200	2673	80.9	78.4
Omni-04-06	Base-Down	16.0		1301	2683	80.3	81.3
Omni-04-07	Base-Down	15.9		1308	2689	81.0	82.3
Omni-04-08	Base-Down	16.3		1313	2686	80.8	80.6
Omni-04-09	Base-Down	16.3		1282	2681	81.1	78.7
Omni-04-10	Base-Down	15.9		1284	2686	80.9	80.8
Average	Base-Down	16.0		1278	2677	80.7	79.4
Omni-04-01	Base-Up	16.5		1251	2662	80.5	75.8
Omni-04-02	Base-Up	15.0		1162	2678	80.9	77.5
Omni-04-03	Base-Up	16.6		1246	2688	81.0	75.1
Omni-04-04	Base-Up	16.0		1186	2694	81.0	74.1
Omni-04-05	Base-Up	16.1		1278	2693	81.2	79.4
Average	Base-Up	16.0		1225	2683	80.9	76.4
Omni-04-01	Horizontal	16.5		1282	2662	80.5	77.7
Omni-04-02	Horizontal	15.1		1186	2677	81.1	78.5
Average	Horizontal	15.8		1234	2670	80.8	78.1
Average	All Orientations	16.0		1255	2679	80.8	78.4

Mfg. Rated Output (lumens): 1100

Electrical Summary: Omni-04

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-04-01	Base-Down	16.6	0.766	120	138	Pending	Pending
Omni-04-02	Base-Down	15.3	0.687	120	128	Pending	Pending
Omni-04-06	Base-Down	16.0	0.760	120	133	Pending	Pending
Omni-04-07	Base-Down	15.9	0.751	120	133	Pending	Pending
Omni-04-08	Base-Down	16.3	0.756	120	136	Pending	Pending
Omni-04-09	Base-Down	16.3	0.763	120	136	Pending	Pending
Omni-04-10	Base-Down	15.9	0.758	120	133	Pending	Pending
Average	Base-Down	16.0	0.749	120	134	Pending	Pending
Omni-04-01	Base-Up	16.5	0.766	120	138	Pending	Pending
Omni-04-02	Base-Up	15.0	0.764	120	125	Pending	Pending
Omni-04-03	Base-Up	16.6	0.752	120	138	Pending	Pending
Omni-04-04	Base-Up	16.0	0.735	120	133	Pending	Pending
Omni-04-05	Base-Up	16.1	0.742	120	134	Pending	Pending
Average	Base-Up	16.0	0.752	120	134	Pending	Pending
Omni-04-01	Horizontal	16.5	0.759	120	138	Pending	Pending
Omni-04-02	Horizontal	15.1	0.765	120	126	Pending	Pending
Average	Horizontal	15.8	0.762	120	132	Pending	Pending
Average	All Orientations	16.0	0.752	120	133	Pending	Pending

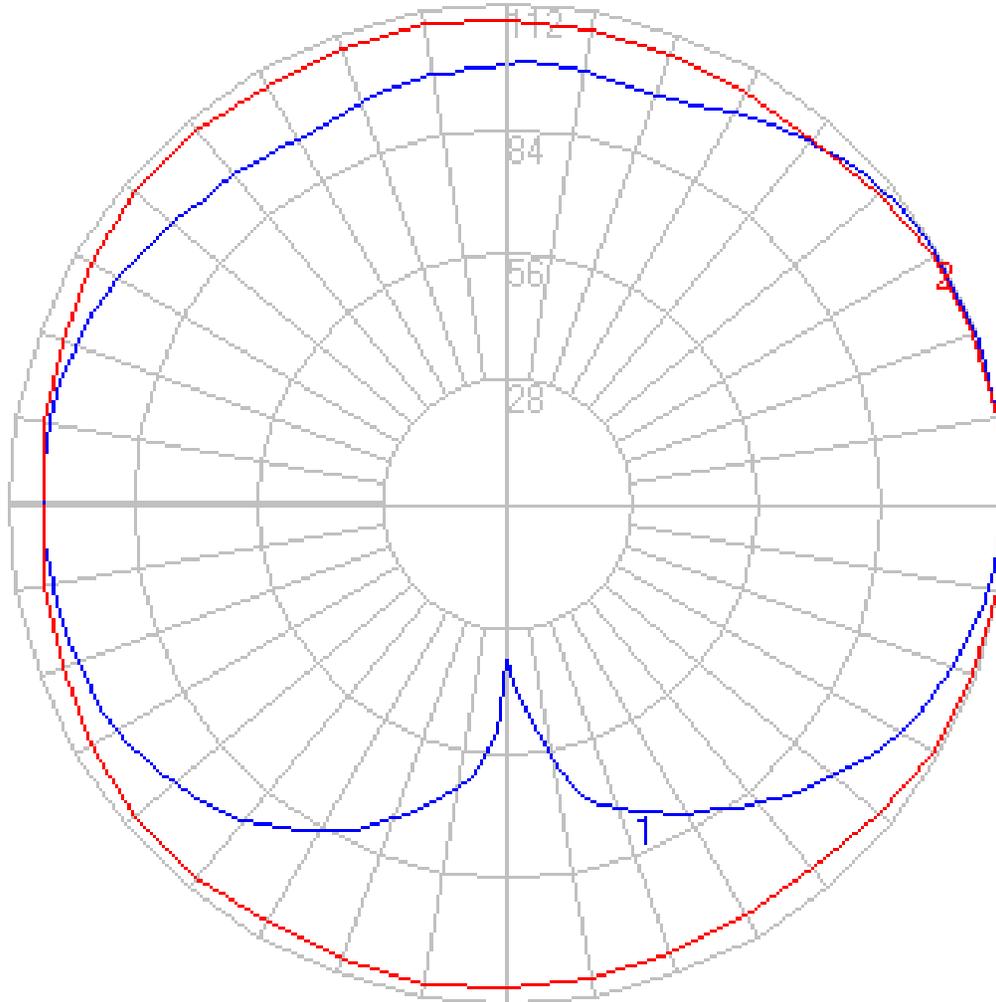
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CRI Chart: Omni-04

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-04-01	Base-Up	78.3	90.7	95.5	74.1	77.4	87.1	81.9	58.9	13.4	78.0	69.0	69.4	80.8	98.2	80.5
Omni-04-01	Base-Down	78.2	90.6	95.5	74.0	77.3	87.0	81.9	58.8	13.3	77.8	68.8	69.3	80.7	98.3	80.4
Omni-04-01	Horizontal	78.4	90.8	95.4	74.1	77.5	87.3	81.8	59.0	13.8	78.3	69.0	69.8	80.9	98.2	80.5
Omni-04-02	Base-Up	78.9	91.4	95.0	74.4	78.1	88.1	81.8	59.4	15.0	79.5	69.4	70.7	81.5	98.0	80.9
Omni-04-02	Base-Down	78.9	91.4	95.1	74.4	78.1	88.1	81.8	59.5	15.2	79.5	69.4	70.8	81.5	98.1	80.9
Omni-04-02	Horizontal	79.2	91.6	95.0	74.6	78.4	88.4	81.8	59.7	15.9	79.9	69.6	71.3	81.8	98.0	81.1
Omni-04-03	Base-Up	79.2	91.8	94.7	74.4	78.5	88.6	81.6	59.5	15.5	80.4	69.5	71.6	81.9	97.9	81.0
Omni-04-04	Base-Up	79.0	91.4	95.0	74.5	78.3	88.2	81.8	59.5	15.0	79.7	69.7	70.8	81.6	98.0	81.0
Omni-04-05	Base-Up	79.5	92.3	94.1	74.5	78.9	89.4	81.4	59.6	16.1	81.5	69.7	72.6	82.3	97.6	81.2
Omni-04-06	Base-Down	78.8	91.4	95.0	74.4	78.1	88.1	81.7	59.3	14.7	79.5	69.4	71.2	81.5	98.0	80.8
Omni-04-07	Base-Down	79.1	91.7	94.7	74.5	78.5	88.5	81.6	59.5	15.4	80.2	69.6	71.9	81.8	97.9	81.0
Omni-04-08	Base-Down	78.9	91.4	94.9	74.3	78.2	88.2	81.6	59.3	14.9	79.6	69.4	71.1	81.6	98.0	80.9
Omni-04-09	Base-Down	78.8	91.3	94.9	74.3	78.1	88.0	81.7	59.3	14.7	79.5	69.3	71.1	81.4	98.0	80.8
Omni-04-10	Base-Down	79.4	92.1	94.3	74.2	78.6	89.1	81.4	59.6	16.2	81.0	69.2	71.9	82.1	97.7	81.1

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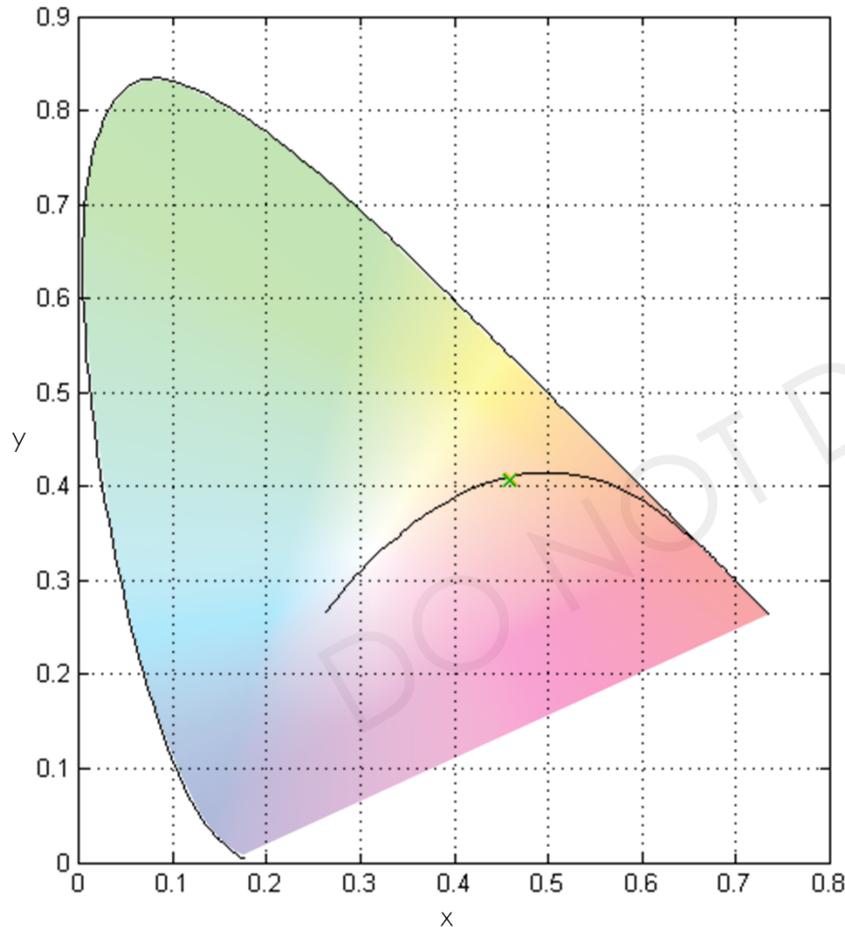
Goniophotometer Characterization: Omni-04



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-04

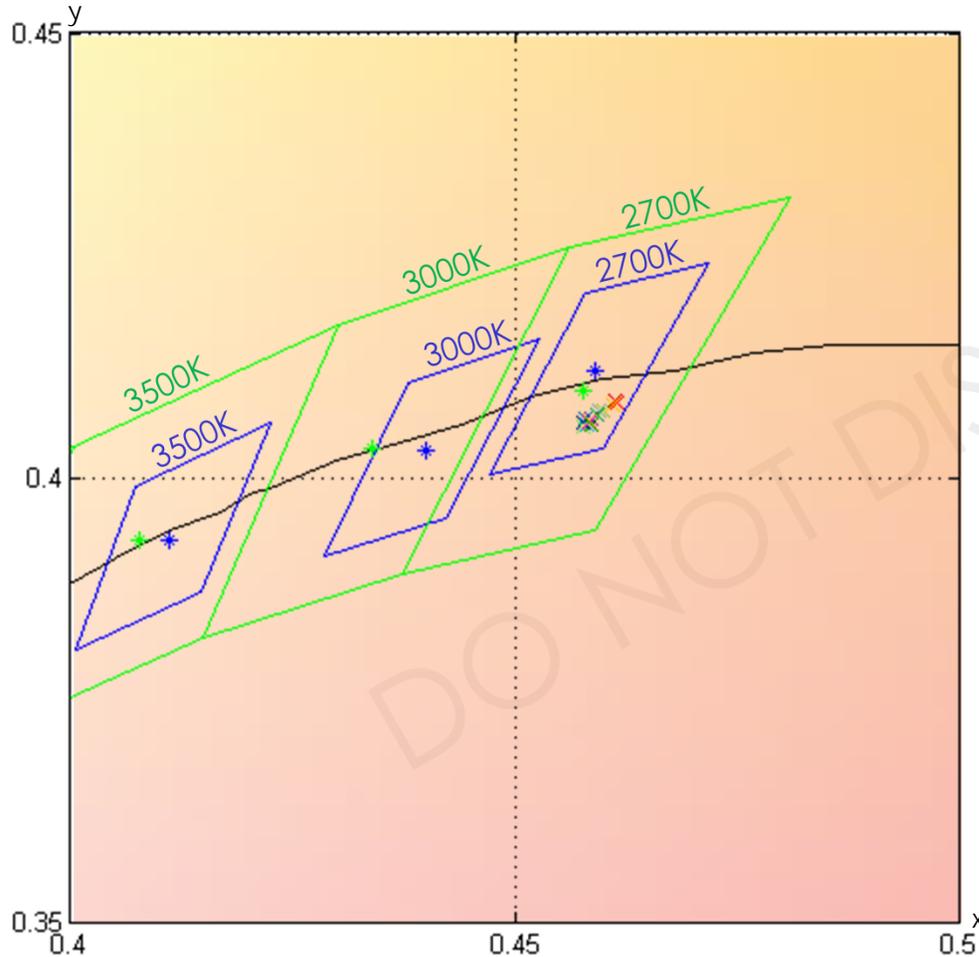


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-04-01	Base-Up	0.4614	0.4086
✘ Omni-04-01	Base-Down	0.4616	0.4085
✘ Omni-04-01	Horizontal	0.4611	0.4082
✘ Omni-04-02	Base-Up	0.4596	0.4075
✘ Omni-04-02	Base-Down	0.4599	0.4074
✘ Omni-04-02	Horizontal	0.4594	0.4070
✘ Omni-04-03	Base-Up	0.4581	0.4060
✘ Omni-04-04	Base-Up	0.4580	0.4067
✘ Omni-04-05	Base-Up	0.4578	0.4062
✘ Omni-04-06	Base-Down	0.4587	0.4066
✘ Omni-04-07	Base-Down	0.4578	0.4057
✘ Omni-04-08	Base-Down	0.4583	0.4062
✘ Omni-04-09	Base-Down	0.4584	0.4065
✘ Omni-04-10	Base-Down	0.4586	0.4060

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Photometric Summary: Omni-04



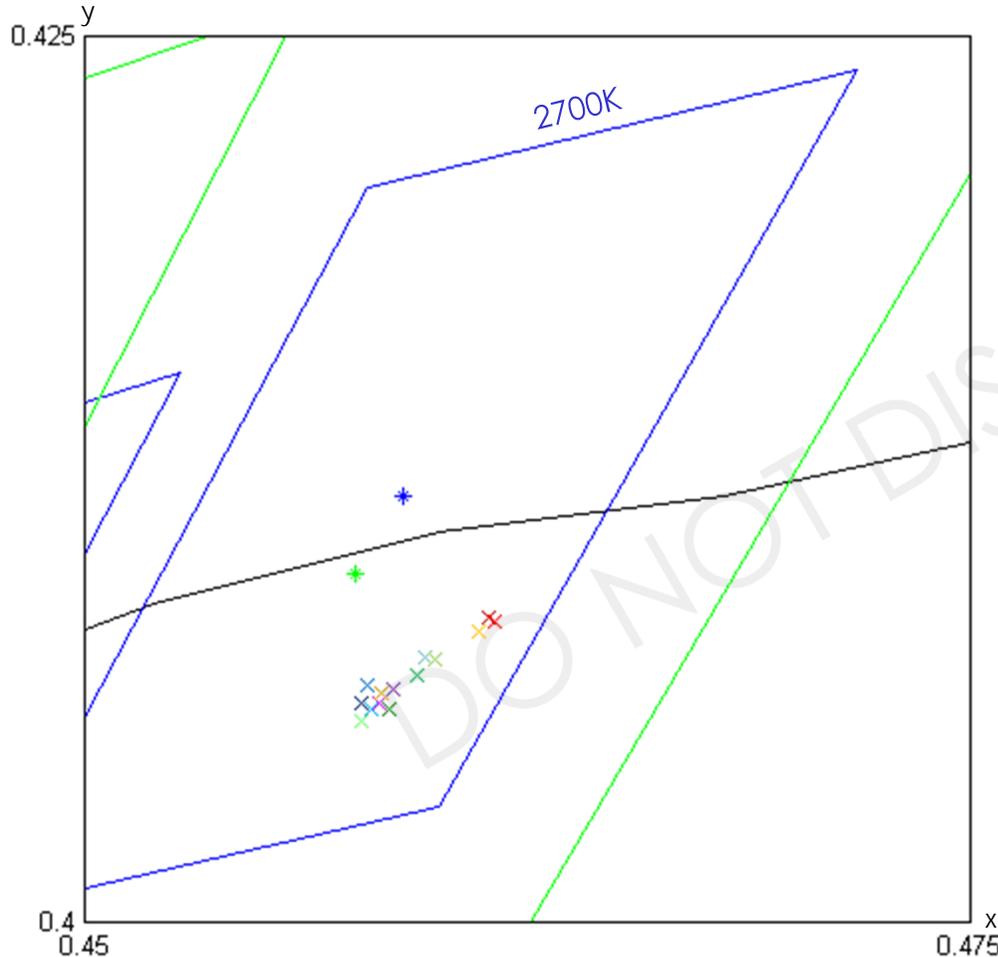
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-04-01	Base-Up	0.4614	0.4086
✖ Omni-04-01	Base-Down	0.4616	0.4085
✖ Omni-04-01	Horizontal	0.4611	0.4082
✖ Omni-04-02	Base-Up	0.4596	0.4075
✖ Omni-04-02	Base-Down	0.4599	0.4074
✖ Omni-04-02	Horizontal	0.4594	0.4070
✖ Omni-04-03	Base-Up	0.4581	0.4060
✖ Omni-04-04	Base-Up	0.4580	0.4067
✖ Omni-04-05	Base-Up	0.4578	0.4062
✖ Omni-04-06	Base-Down	0.4587	0.4066
✖ Omni-04-07	Base-Down	0.4578	0.4057
✖ Omni-04-08	Base-Down	0.4583	0.4062
✖ Omni-04-09	Base-Down	0.4584	0.4065
✖ Omni-04-10	Base-Down	0.4586	0.4060

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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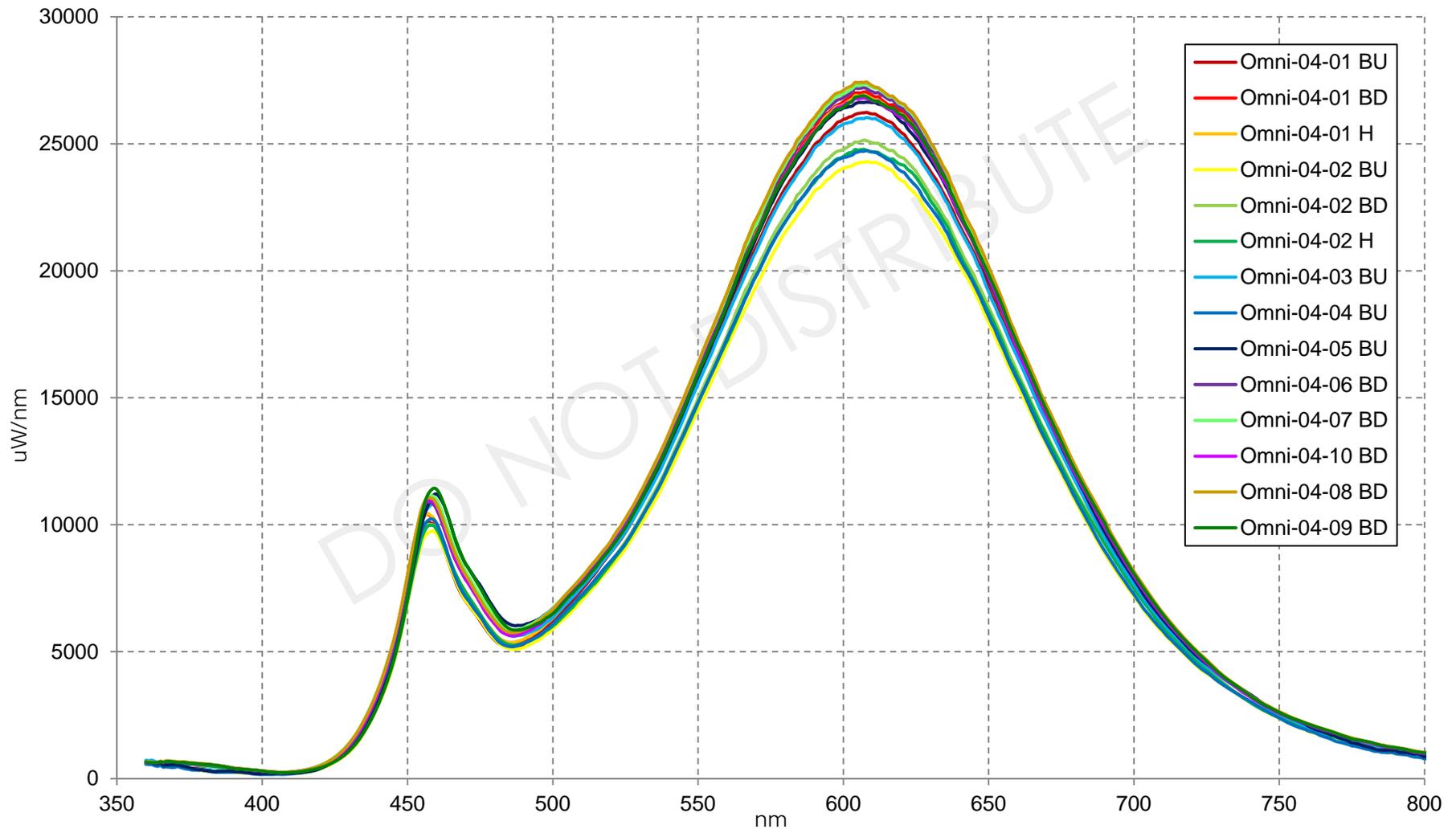
Photometric Summary: Omni-04



Serial #	Orientation	CIE X	CIE Y
✖ Omni-04-01	Base-Up	0.4614	0.4086
✖ Omni-04-01	Base-Down	0.4616	0.4085
✖ Omni-04-01	Horizontal	0.4611	0.4082
✖ Omni-04-02	Base-Up	0.4596	0.4075
✖ Omni-04-02	Base-Down	0.4599	0.4074
✖ Omni-04-02	Horizontal	0.4594	0.4070
✖ Omni-04-03	Base-Up	0.4581	0.4060
✖ Omni-04-04	Base-Up	0.4580	0.4067
✖ Omni-04-05	Base-Up	0.4578	0.4062
✖ Omni-04-06	Base-Down	0.4587	0.4066
✖ Omni-04-07	Base-Down	0.4578	0.4057
✖ Omni-04-08	Base-Down	0.4583	0.4062
✖ Omni-04-09	Base-Down	0.4584	0.4065
✖ Omni-04-10	Base-Down	0.4586	0.4060

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Spectral Power Distribution: Omni-04



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Omni-05

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Photometric Summary: Omni-05

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-05-01	Base-Down	9.7	1018	1033	2757	93.2	106.5
Omni-05-02	Base-Down	9.7		1002	2685	93.3	103.3
Omni-05-06	Base-Down	9.8		1007	2706	93.3	102.8
Omni-05-07	Base-Down	9.8		1009	2721	92.9	103.0
Omni-05-08	Base-Down	9.7		1001	2711	93.1	103.2
Omni-05-09	Base-Down	9.8		1018	2745	93.1	103.9
Omni-05-10	Base-Down	9.6		1011	2792	93.1	105.3
Average	Base-Down	9.7		1014	2735	93.1	104.1
Omni-05-01	Base-Up	9.8		1027	2763	93.1	104.8
Omni-05-02	Base-Up	9.8		994	2701	93.2	101.4
Omni-05-03	Base-Up	9.7		994	2718	92.8	102.5
Omni-05-04	Base-Up	9.7		1006	2756	93.1	103.7
Omni-05-05	Base-Up	9.8		996	2731	93.1	101.6
Average	Base-Up	9.8		1003	2734	93.1	102.8
Omni-05-01	Horizontal	9.7		1035	2762	93.2	106.7
Omni-05-02	Horizontal	9.7		996	2699	93.3	102.7
Average	Horizontal	9.7		1016	2731	93.3	104.7
Average	All Orientations	9.7		1009	2732	93.1	103.7

Mfg. Rated Output (lumens): 940

Electrical Summary: Omni-05

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-05-01	Base-Down	9.7	0.830	120	81	Pending	Pending
Omni-05-02	Base-Down	9.7	0.812	120	81	Pending	Pending
Omni-05-06	Base-Down	9.8	0.837	120	82	Pending	Pending
Omni-05-07	Base-Down	9.8	0.820	120	82	Pending	Pending
Omni-05-08	Base-Down	9.7	0.847	120	81	Pending	Pending
Omni-05-09	Base-Down	9.8	0.835	120	82	Pending	Pending
Omni-05-10	Base-Down	9.6	0.840	120	80	Pending	Pending
Average	Base-Down	9.7	0.832	120	81	Pending	Pending
Omni-05-01	Base-Up	9.8	0.832	120	82	Pending	Pending
Omni-05-02	Base-Up	9.8	0.810	120	82	Pending	Pending
Omni-05-03	Base-Up	9.7	0.816	120	81	Pending	Pending
Omni-05-04	Base-Up	9.7	0.810	120	81	Pending	Pending
Omni-05-05	Base-Up	9.8	0.799	120	82	Pending	Pending
Average	Base-Up	9.8	0.813	120	81	Pending	Pending
Omni-05-01	Horizontal	9.7	0.835	120	81	Pending	Pending
Omni-05-02	Horizontal	9.7	0.824	120	81	Pending	Pending
Average	Horizontal	9.7	0.830	120	81	Pending	Pending
Average	All Orientations	9.7	0.825	120	81	Pending	Pending

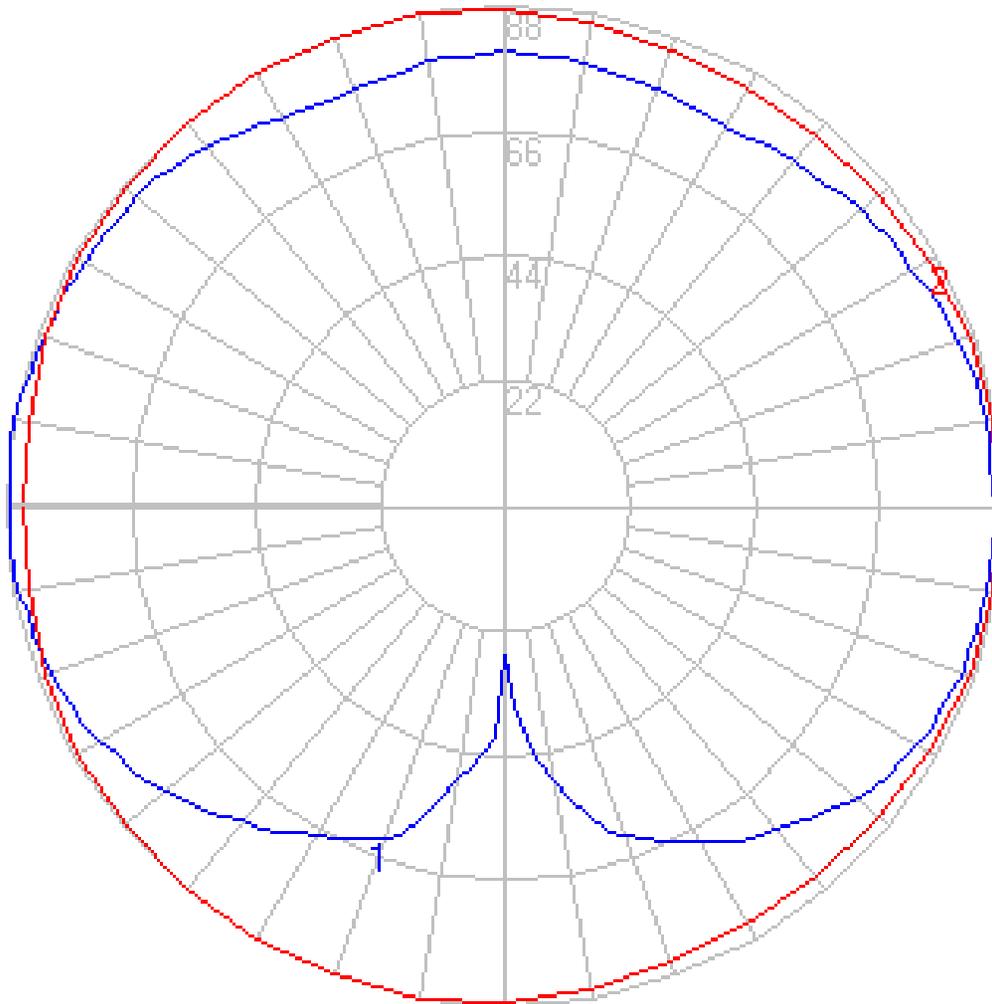
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CRI Chart: Omni-05

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-05-01	Base-Up	94.7	96.6	83.3	88.1	96.9	96.8	94.0	94.4	79.8	84.6	86.3	81.4	97.0	87.4	93.1
Omni-05-01	Base-Down	94.8	96.5	83.1	88.3	97.0	96.7	93.9	94.9	81.5	84.4	86.7	81.1	97.1	87.3	93.2
Omni-05-01	Horizontal	94.7	96.5	82.9	88.3	97.0	96.7	93.9	95.5	83.5	84.3	86.7	80.9	97.1	87.2	93.2
Omni-05-02	Base-Up	94.7	96.7	83.1	88.5	97.1	96.9	94.3	94.6	80.0	84.5	86.8	81.1	96.9	87.2	93.2
Omni-05-02	Base-Down	94.8	96.7	83.1	88.7	97.1	96.9	94.3	94.9	80.8	84.5	87.0	81.1	97.0	87.1	93.3
Omni-05-02	Horizontal	94.7	96.6	82.7	88.6	97.1	96.8	94.2	95.8	84.1	84.3	87.1	80.7	97.0	87.0	93.3
Omni-05-03	Base-Up	92.7	97.6	82.9	86.6	95.6	97.0	93.9	96.2	88.7	86.9	84.3	84.3	95.1	87.0	92.8
Omni-05-04	Base-Up	94.2	96.8	83.1	87.8	96.7	96.9	94.0	95.3	82.8	85.1	86.0	81.9	96.5	87.3	93.1
Omni-05-05	Base-Up	93.5	97.3	83.3	87.4	96.2	97.0	94.1	95.6	83.9	86.1	85.2	83.4	95.9	87.3	93.1
Omni-05-06	Base-Down	95.2	96.3	82.7	88.9	97.3	96.5	94.2	95.1	81.6	83.7	87.5	79.9	97.4	87.0	93.3
Omni-05-07	Base-Down	93.2	97.2	82.4	87.1	96.0	97.1	93.7	96.2	89.5	85.9	85.1	82.8	95.7	86.8	92.9
Omni-05-08	Base-Down	93.3	97.4	83.1	87.4	96.1	97.1	94.2	96.3	86.9	86.3	85.2	83.3	95.7	87.1	93.1
Omni-05-09	Base-Down	93.8	96.9	82.5	87.6	96.5	97.0	93.8	96.2	88.7	85.3	85.9	82.0	96.3	87.0	93.1
Omni-05-10	Base-Down	94.9	96.1	82.2	88.3	97.1	96.2	93.6	96.1	86.9	83.5	87.0	79.4	97.4	86.9	93.1

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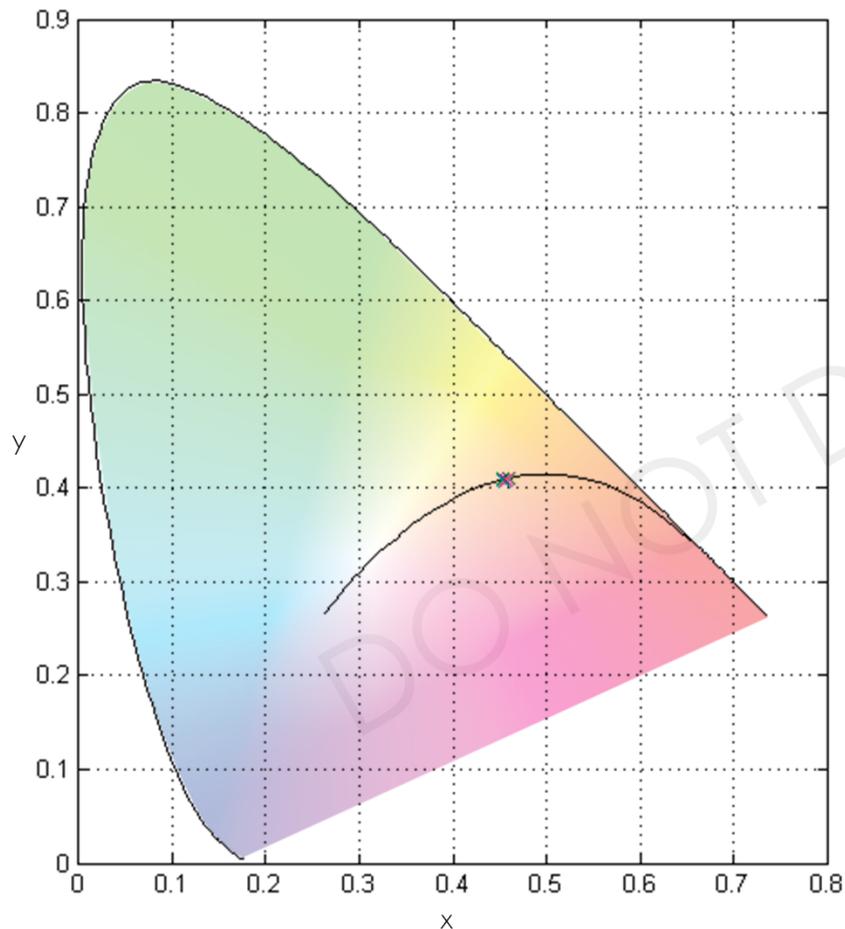
Goniophotometer Characterization: Omni-05



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-05

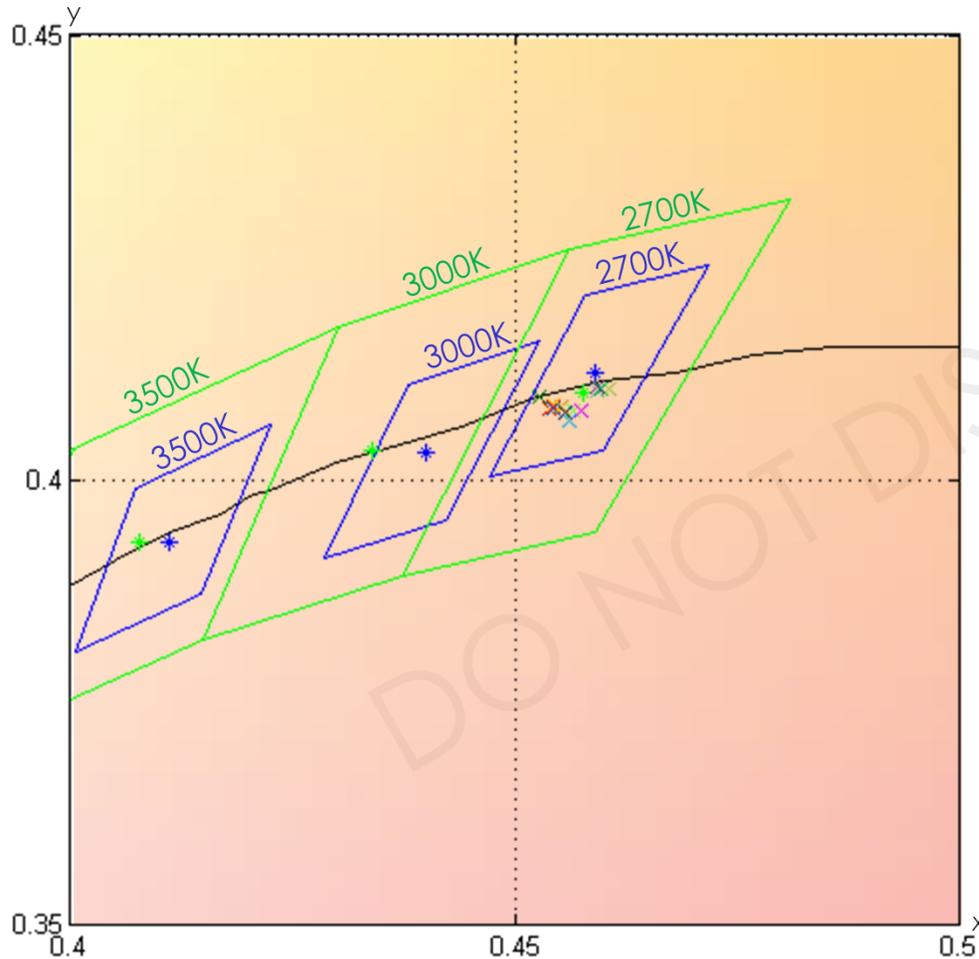


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-05-01	Base-Up	0.4540	0.4080
✖ Omni-05-01	Base-Down	0.4544	0.4081
✖ Omni-05-01	Horizontal	0.4543	0.4085
✖ Omni-05-02	Base-Up	0.4594	0.4099
✖ Omni-05-02	Base-Down	0.4607	0.4103
✖ Omni-05-02	Horizontal	0.4597	0.4103
✖ Omni-05-03	Base-Up	0.4562	0.4066
✖ Omni-05-04	Base-Up	0.4543	0.4079
✖ Omni-05-05	Base-Up	0.4558	0.4074
✖ Omni-05-06	Base-Down	0.4593	0.4105
✖ Omni-05-07	Base-Down	0.4567	0.4077
✖ Omni-05-08	Base-Down	0.4574	0.4077
✖ Omni-05-09	Base-Down	0.4552	0.4082
✖ Omni-05-10	Base-Down	0.4527	0.4093

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Photometric Summary: Omni-05



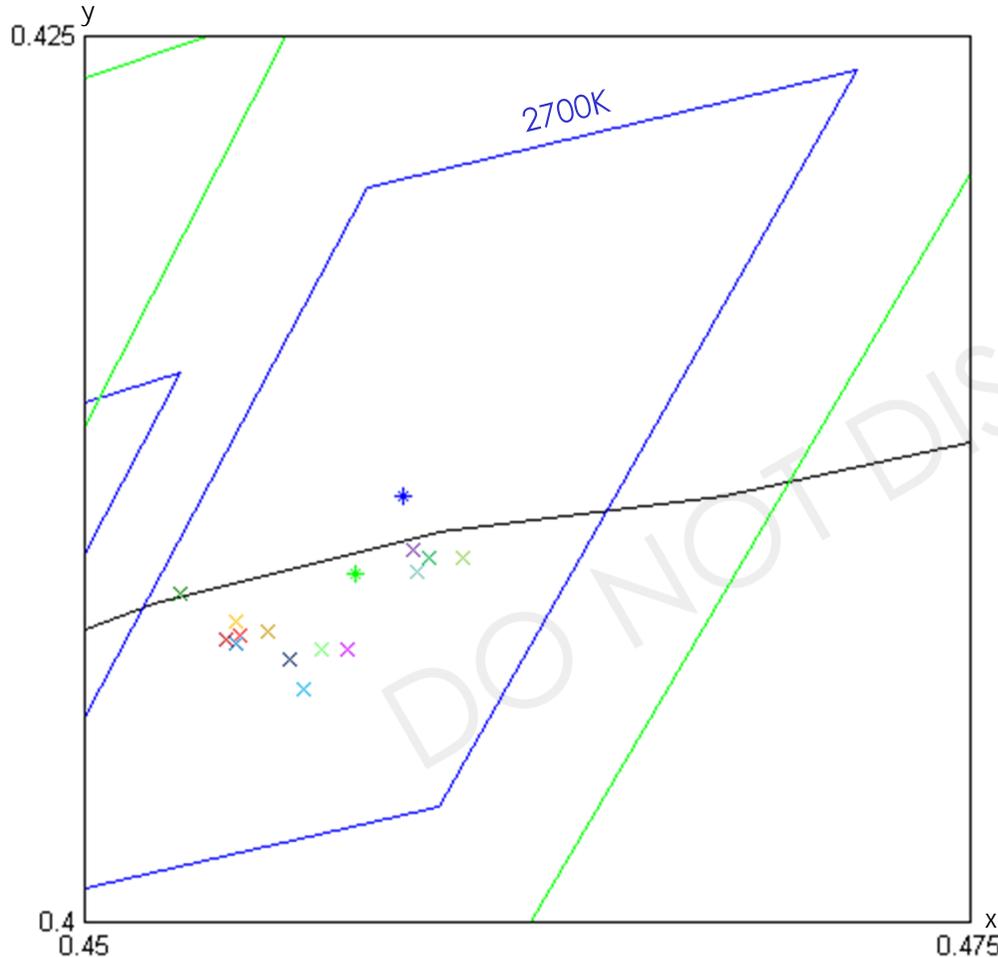
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-05-01	Base-Up	0.4540	0.4080
✖ Omni-05-01	Base-Down	0.4544	0.4081
✖ Omni-05-01	Horizontal	0.4543	0.4085
✖ Omni-05-02	Base-Up	0.4594	0.4099
✖ Omni-05-02	Base-Down	0.4607	0.4103
✖ Omni-05-02	Horizontal	0.4597	0.4103
✖ Omni-05-03	Base-Up	0.4562	0.4066
✖ Omni-05-04	Base-Up	0.4543	0.4079
✖ Omni-05-05	Base-Up	0.4558	0.4074
✖ Omni-05-06	Base-Down	0.4593	0.4105
✖ Omni-05-07	Base-Down	0.4567	0.4077
✖ Omni-05-08	Base-Down	0.4574	0.4077
✖ Omni-05-09	Base-Down	0.4552	0.4082
✖ Omni-05-10	Base-Down	0.4527	0.4093

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-05

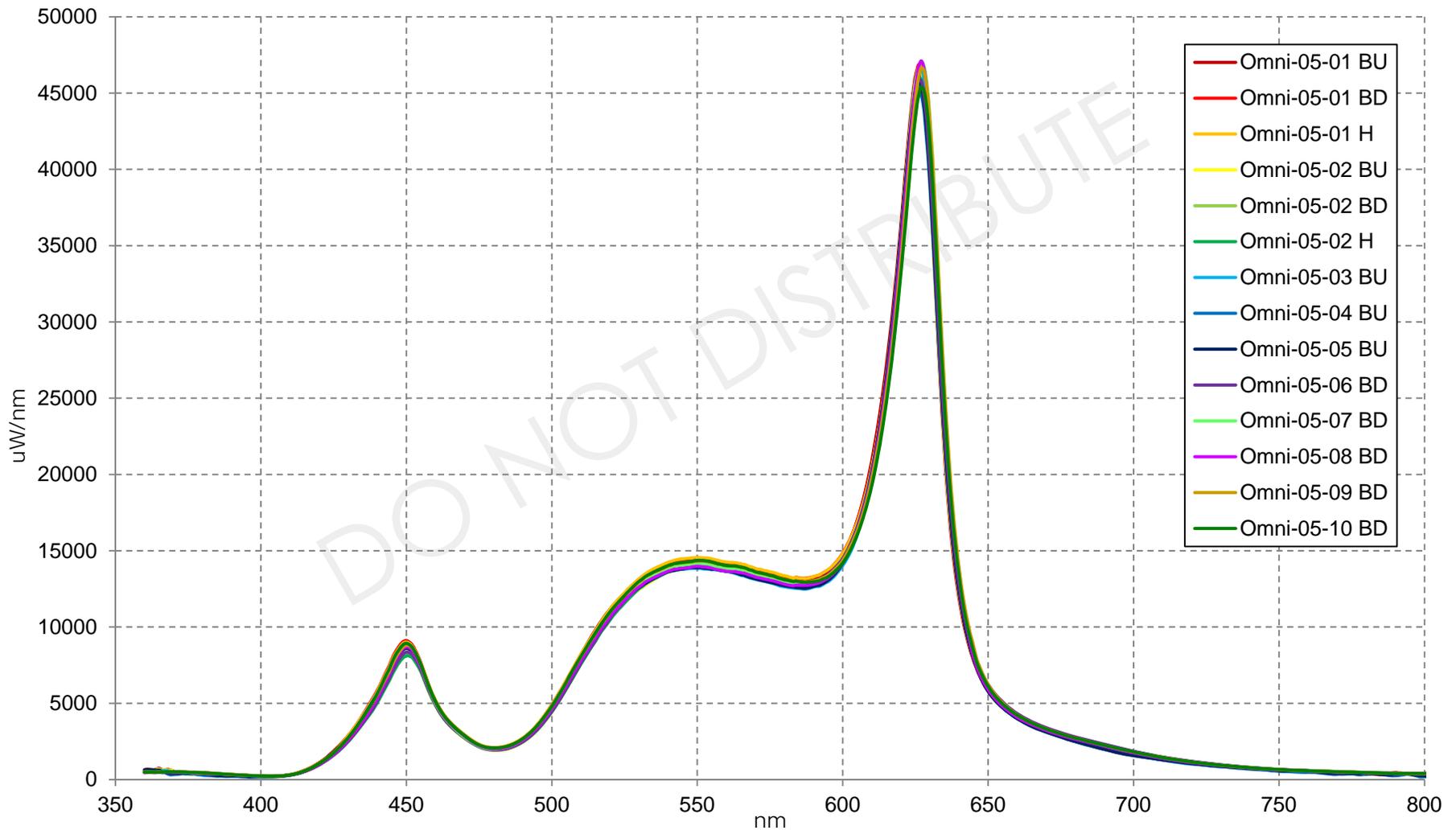


Serial #	Orientation	CIE X	CIE Y
❌ Omni-05-01	Base-Up	0.4540	0.4080
❌ Omni-05-01	Base-Down	0.4544	0.4081
❌ Omni-05-01	Horizontal	0.4543	0.4085
❌ Omni-05-02	Base-Up	0.4594	0.4099
❌ Omni-05-02	Base-Down	0.4607	0.4103
❌ Omni-05-02	Horizontal	0.4597	0.4103
❌ Omni-05-03	Base-Up	0.4562	0.4066
❌ Omni-05-04	Base-Up	0.4543	0.4079
❌ Omni-05-05	Base-Up	0.4558	0.4074
❌ Omni-05-06	Base-Down	0.4593	0.4105
❌ Omni-05-07	Base-Down	0.4567	0.4077
❌ Omni-05-08	Base-Down	0.4574	0.4077
❌ Omni-05-09	Base-Down	0.4552	0.4082
❌ Omni-05-10	Base-Down	0.4527	0.4093

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-05



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Omni-06

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Photometric Summary: Omni-06

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-06-01	Base-Down	13.4	873	880	2962	83.3	65.7
Omni-06-02	Base-Down	13.1		879	2978	83.5	67.1
Omni-06-06	Base-Down	13.5		889	2947	83.3	65.9
Omni-06-07	Base-Down	13.4		883	2953	83.3	65.9
Omni-06-08	Base-Down	13.2		878	2952	83.2	66.5
Omni-06-09	Base-Down	12.7		808	2959	83.3	63.6
Omni-06-10	Base-Down	13.1		893	2968	83.3	68.2
Average	Base-Down	13.2		871	2961	83.3	66.0
Omni-06-01	Base-Up	13.2		861	2966	82.9	65.2
Omni-06-02	Base-Up	13.4		884	2979	83.0	66.0
Omni-06-03	Base-Up	13.4		906	2943	81.5	67.6
Omni-06-04	Base-Up	13.5		882	2956	83.0	65.3
Omni-06-05	Base-Up	13.7		870	2958	81.4	63.5
Average	Base-Up	13.4		881	2960	82.4	65.5
Omni-06-01	Horizontal	13.2		873	2959	83.2	66.1
Omni-06-02	Horizontal	13.0		881	2972	83.3	67.8
Average	Horizontal	13.1		877	2966	83.3	67.0
Average	All Orientations	13.3		876	2961	83.0	66.0

Mfg. Rated Output (lumens): 800

Electrical Summary: Omni-06

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-06-01	Base-Down	13.4	0.866	120	112	Pending	Pending
Omni-06-02	Base-Down	13.1	0.870	120	109	Pending	Pending
Omni-06-06	Base-Down	13.5	0.871	120	113	Pending	Pending
Omni-06-07	Base-Down	13.4	0.871	120	112	Pending	Pending
Omni-06-08	Base-Down	13.2	0.869	120	110	Pending	Pending
Omni-06-09	Base-Down	12.7	0.871	120	106	Pending	Pending
Omni-06-10	Base-Down	13.1	0.869	120	109	Pending	Pending
Average	Base-Down	13.2	0.870	120	110	Pending	Pending
Omni-06-01	Base-Up	13.2	0.864	120	110	Pending	Pending
Omni-06-02	Base-Up	13.4	0.864	120	112	Pending	Pending
Omni-06-03	Base-Up	13.4	0.888	120	112	Pending	Pending
Omni-06-04	Base-Up	13.5	0.868	120	113	Pending	Pending
Omni-06-05	Base-Up	13.7	0.894	120	114	Pending	Pending
Average	Base-Up	13.4	0.876	120	112	Pending	Pending
Omni-06-01	Horizontal	13.2	0.865	120	110	Pending	Pending
Omni-06-02	Horizontal	13.0	0.867	120	108	Pending	Pending
Average	Horizontal	13.1	0.866	120	109	Pending	Pending
Average	All Orientations	13.3	0.871	120	111	Pending	Pending

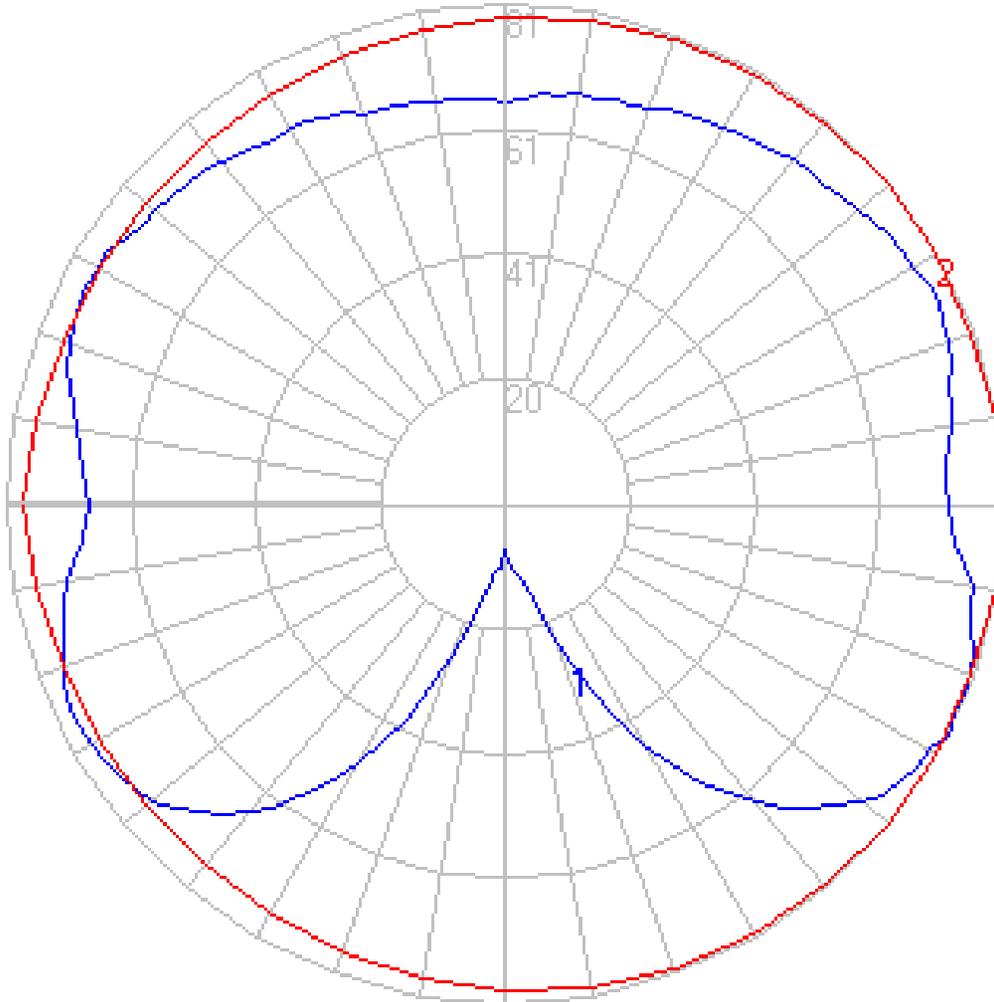
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CRI Chart: Omni-06

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-06-01	Base-Up	81.5	91.9	95.9	78.2	80.9	88.6	83.4	63.0	19.0	80.2	74.9	70.2	83.9	98.5	82.9
Omni-06-01	Base-Down	81.9	92.2	95.9	78.6	81.4	89.0	83.5	63.5	20.4	80.8	75.3	70.9	84.4	98.5	83.3
Omni-06-01	Horizontal	81.9	92.3	95.8	78.5	81.4	89.1	83.5	63.4	20.4	80.9	75.1	71.0	84.4	98.5	83.2
Omni-06-02	Base-Up	81.7	92.2	95.8	78.3	81.2	88.8	83.4	63.1	19.4	80.7	74.9	70.3	84.2	98.4	83.0
Omni-06-02	Base-Down	82.2	92.5	95.8	78.8	81.7	89.3	83.6	63.8	21.3	81.4	75.5	71.0	84.7	98.5	83.5
Omni-06-02	Horizontal	82.1	92.5	95.7	78.5	81.6	89.3	83.4	63.5	20.8	81.4	75.2	71.1	84.6	98.4	83.3
Omni-06-03	Base-Up	79.6	89.0	95.5	78.2	78.9	84.6	84.0	62.1	14.7	73.8	75.0	67.1	81.4	97.4	81.5
Omni-06-04	Base-Up	81.6	92.1	95.8	78.2	81.0	88.9	83.4	62.9	19.2	80.7	74.8	70.4	84.1	98.5	83.0
Omni-06-05	Base-Up	79.4	88.8	95.5	78.2	78.6	84.3	84.2	62.1	14.2	73.4	74.8	66.3	81.1	97.4	81.4
Omni-06-06	Base-Down	82.0	92.4	95.8	78.5	81.4	89.2	83.4	63.4	20.5	81.1	75.2	71.1	84.4	98.5	83.3
Omni-06-07	Base-Down	82.0	92.4	95.8	78.5	81.4	89.3	83.5	63.4	20.5	81.2	75.2	70.9	84.5	98.5	83.3
Omni-06-08	Base-Down	81.9	92.2	95.9	78.5	81.3	89.0	83.6	63.5	20.5	80.8	75.2	70.9	84.3	98.5	83.2
Omni-06-09	Base-Down	82.1	92.5	95.8	78.5	81.5	89.3	83.5	63.5	20.8	81.3	75.2	70.8	84.6	98.5	83.3
Omni-06-10	Base-Down	82.1	92.4	95.8	78.6	81.5	89.2	83.6	63.6	20.8	81.1	75.3	70.7	84.5	98.5	83.3

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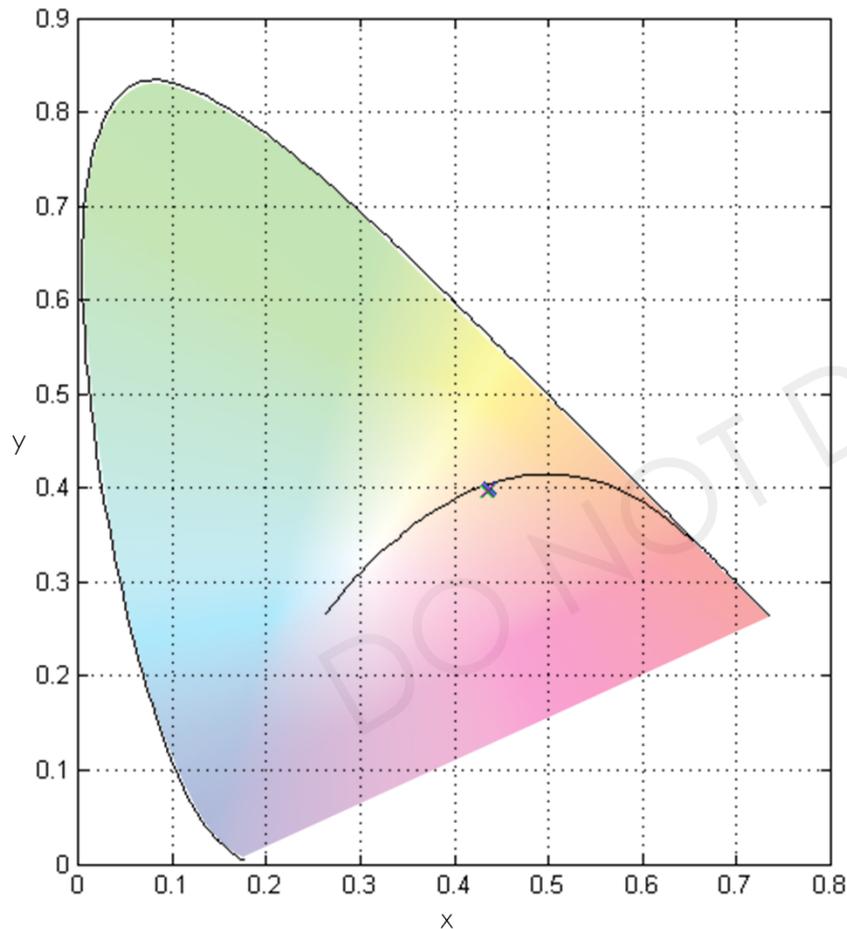
Goniophotometer Characterization: Omni-06



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-06

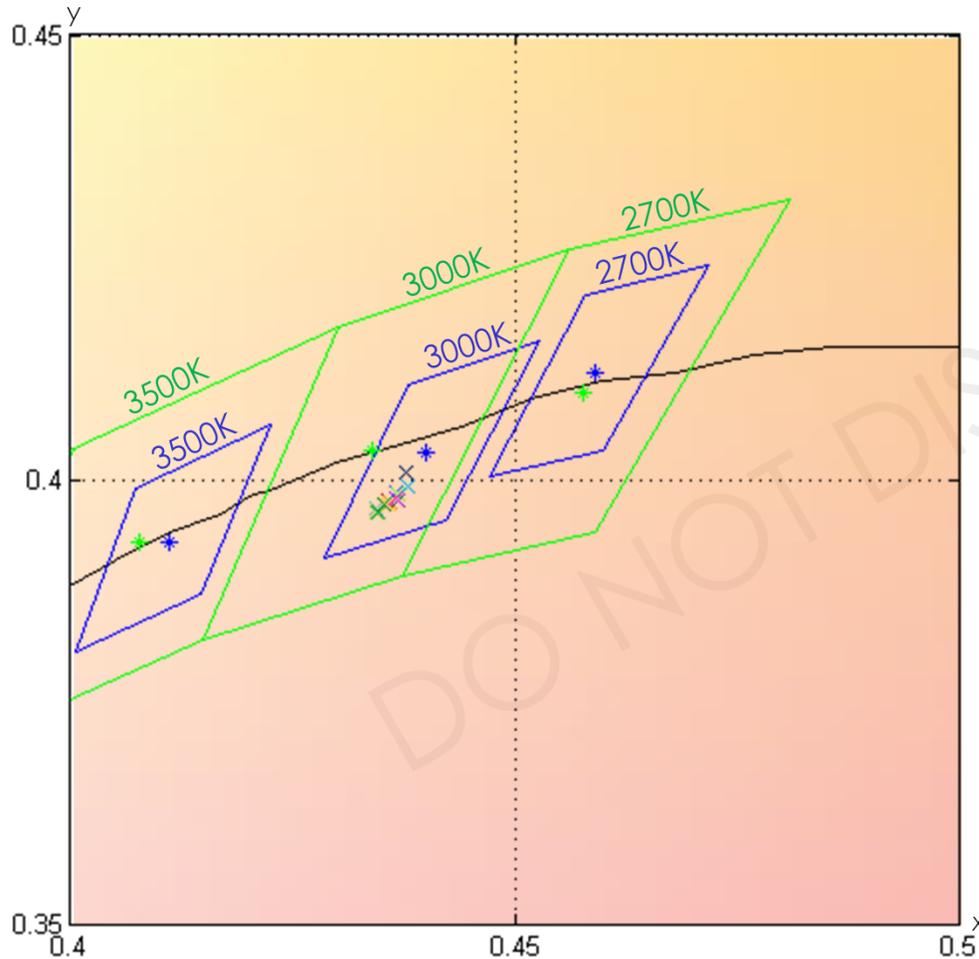


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-06-01	Base-Up	0.4357	0.3976
✘ Omni-06-01	Base-Down	0.4358	0.3972
✘ Omni-06-01	Horizontal	0.4358	0.3971
✘ Omni-06-02	Base-Up	0.4345	0.3967
✘ Omni-06-02	Base-Down	0.4344	0.3963
✘ Omni-06-02	Horizontal	0.4346	0.3962
✘ Omni-06-03	Base-Up	0.4379	0.3992
✘ Omni-06-04	Base-Up	0.4367	0.3985
✘ Omni-06-05	Base-Up	0.4377	0.4008
✘ Omni-06-06	Base-Down	0.4368	0.3976
✘ Omni-06-07	Base-Down	0.4368	0.3983
✘ Omni-06-08	Base-Down	0.4367	0.3979
✘ Omni-06-09	Base-Down	0.4360	0.3975
✘ Omni-06-10	Base-Down	0.4354	0.3972

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Photometric Summary: Omni-06



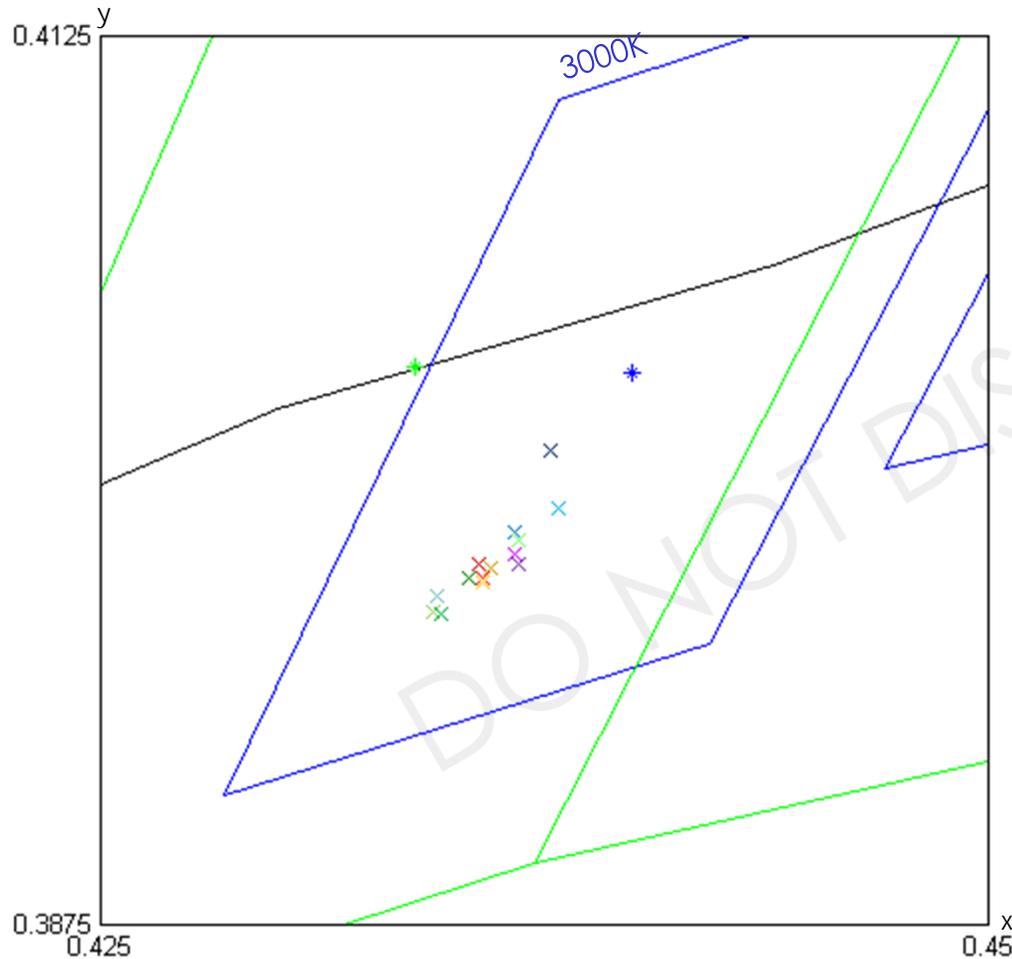
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
❌ Omni-06-01	Base-Up	0.4357	0.3976
❌ Omni-06-01	Base-Down	0.4358	0.3972
❌ Omni-06-01	Horizontal	0.4358	0.3971
❌ Omni-06-02	Base-Up	0.4345	0.3967
❌ Omni-06-02	Base-Down	0.4344	0.3963
❌ Omni-06-02	Horizontal	0.4346	0.3962
❌ Omni-06-03	Base-Up	0.4379	0.3992
❌ Omni-06-04	Base-Up	0.4367	0.3985
❌ Omni-06-05	Base-Up	0.4377	0.4008
❌ Omni-06-06	Base-Down	0.4368	0.3976
❌ Omni-06-07	Base-Down	0.4368	0.3983
❌ Omni-06-08	Base-Down	0.4367	0.3979
❌ Omni-06-09	Base-Down	0.4360	0.3975
❌ Omni-06-10	Base-Down	0.4354	0.3972

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-06



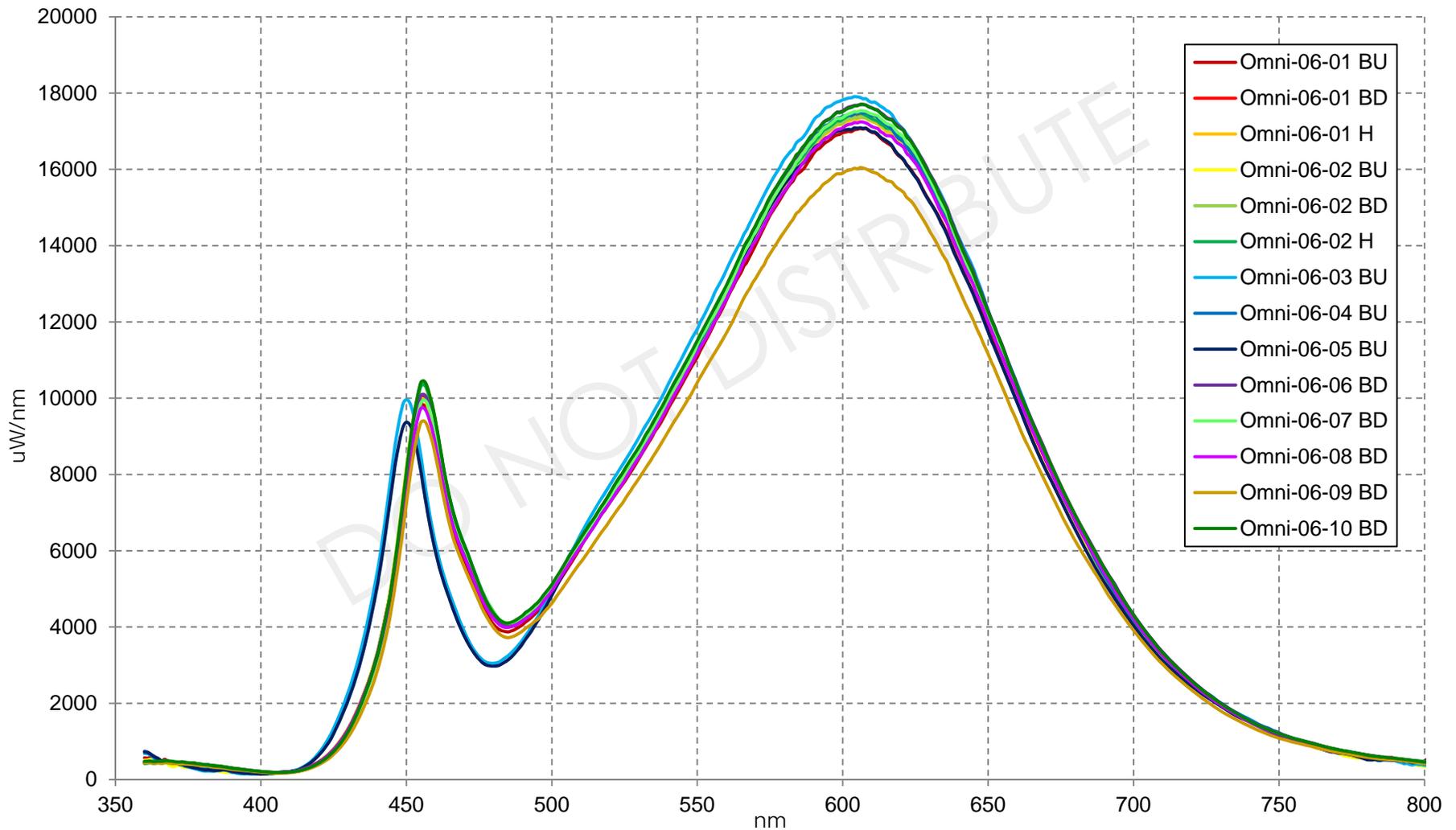
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-06-01	Base-Up	0.4357	0.3976
✖ Omni-06-01	Base-Down	0.4358	0.3972
✖ Omni-06-01	Horizontal	0.4358	0.3971
✖ Omni-06-02	Base-Up	0.4345	0.3967
✖ Omni-06-02	Base-Down	0.4344	0.3963
✖ Omni-06-02	Horizontal	0.4346	0.3962
✖ Omni-06-03	Base-Up	0.4379	0.3992
✖ Omni-06-04	Base-Up	0.4367	0.3985
✖ Omni-06-05	Base-Up	0.4377	0.4008
✖ Omni-06-06	Base-Down	0.4368	0.3976
✖ Omni-06-07	Base-Down	0.4368	0.3983
✖ Omni-06-08	Base-Down	0.4367	0.3979
✖ Omni-06-09	Base-Down	0.4360	0.3975
✖ Omni-06-10	Base-Down	0.4354	0.3972

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-06



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Omni-07

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Photometric Summary: Omni-07

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-07-01	Base-Down	12.6	944	948	2927	79.5	75.2
Omni-07-02	Base-Down	13.1		957	2931	79.4	73.1
Omni-07-06	Base-Down	12.5		892	2735	80.2	71.4
Omni-07-07	Base-Down	12.8		917	2743	79.6	71.6
Omni-07-08	Base-Down	11.9		839	2764	81.7	70.5
Omni-07-09	Base-Down	13.2		932	2827	79.7	70.6
Omni-07-10	Base-Down	12.7		914	2753	80.1	72.0
Average	Base-Down	12.7		917	2827	79.9	72.4
Omni-07-01	Base-Up	12.5		934	2939	79.2	74.7
Omni-07-02	Base-Up	13.0		939	2945	79.1	72.2
Omni-07-03	Base-Up	12.9		921	2748	79.9	71.4
Omni-07-04	Base-Up	12.8		899	2751	79.9	70.2
Omni-07-05	Base-Up	12.3		850	2782	81.3	69.1
Average	Base-Up	12.7		909	2833	79.9	71.5
Omni-07-01	Horizontal	12.5		934	2931	79.4	74.7
Omni-07-02	Horizontal	13.1		947	2936	79.4	72.3
Average	Horizontal	12.8		941	2934	79.4	73.5
Average	All Orientations	12.7		916	2837	79.9	72.1

Mfg. Rated Output (lumens): 900

Electrical Summary: Omni-07

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-07-01	Base-Down	12.6	0.969	120	105	Pending	Pending
Omni-07-02	Base-Down	13.1	0.967	120	109	Pending	Pending
Omni-07-06	Base-Down	12.5	0.968	120	104	Pending	Pending
Omni-07-07	Base-Down	12.8	0.967	120	107	Pending	Pending
Omni-07-08	Base-Down	11.9	0.965	120	99	Pending	Pending
Omni-07-09	Base-Down	13.2	0.966	120	110	Pending	Pending
Omni-07-10	Base-Down	12.7	0.971	120	106	Pending	Pending
Average	Base-Down	12.7	0.968	120	106	Pending	Pending
Omni-07-01	Base-Up	12.5	0.967	120	104	Pending	Pending
Omni-07-02	Base-Up	13.0	0.966	120	108	Pending	Pending
Omni-07-03	Base-Up	12.9	0.965	120	108	Pending	Pending
Omni-07-04	Base-Up	12.8	0.968	120	107	Pending	Pending
Omni-07-05	Base-Up	12.3	0.967	120	103	Pending	Pending
Average	Base-Up	12.7	0.967	120	106	Pending	Pending
Omni-07-01	Horizontal	12.5	0.969	120	104	Pending	Pending
Omni-07-02	Horizontal	13.1	0.968	120	109	Pending	Pending
Average	Horizontal	12.8	0.969	120	107	Pending	Pending
Average	All Orientations	12.7	0.967	120	106	Pending	Pending

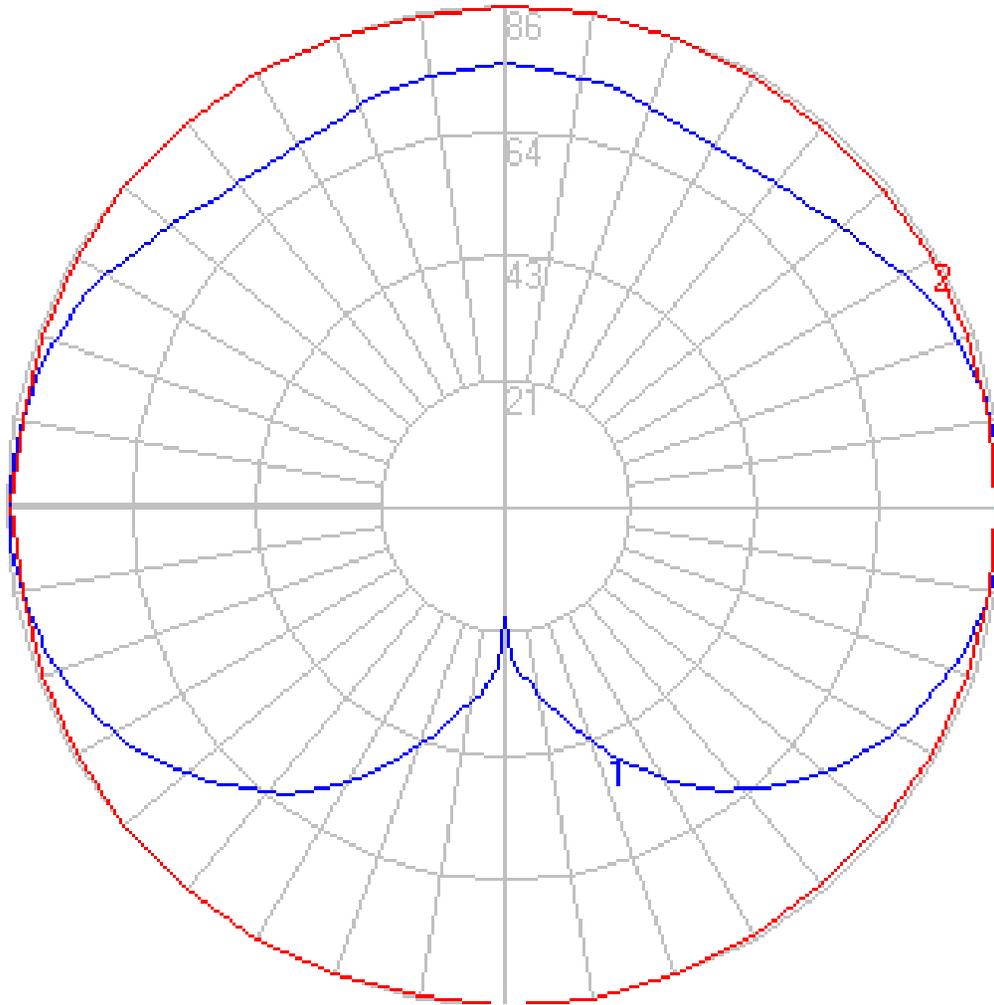
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CRI Chart: Omni-07

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-07-01	Base-Up	76.2	88.0	96.4	75.8	76.2	84.7	81.6	54.5	-3.5	73.2	73.1	67.0	78.5	98.3	79.2
Omni-07-01	Base-Down	76.7	88.4	96.4	76.1	76.7	85.1	81.8	55.1	-1.7	73.8	73.5	67.7	79.0	98.4	79.5
Omni-07-01	Horizontal	76.6	88.4	96.3	75.9	76.6	85.1	81.7	55.0	-1.8	73.9	73.1	67.5	79.0	98.4	79.5
Omni-07-02	Base-Up	76.1	87.9	96.4	75.7	76.1	84.5	81.7	54.4	-3.8	73.0	72.9	66.7	78.4	98.3	79.1
Omni-07-02	Base-Down	76.5	88.2	96.4	76.0	76.5	84.9	81.8	55.0	-2.0	73.6	73.3	67.4	78.9	98.4	79.4
Omni-07-02	Horizontal	76.5	88.3	96.4	75.8	76.5	85.0	81.8	55.0	-2.0	73.7	73.0	67.4	78.9	98.4	79.4
Omni-07-03	Base-Up	78.7	92.5	91.8	74.6	79.1	90.7	78.2	53.6	2.8	83.1	71.9	76.0	82.0	96.2	79.9
Omni-07-04	Base-Up	78.6	92.2	92.2	74.7	79.0	90.4	78.4	53.8	2.9	82.6	72.0	75.6	81.9	96.4	79.9
Omni-07-05	Base-Up	79.1	90.6	95.9	77.4	79.0	88.3	82.2	58.0	8.4	78.7	74.9	71.7	81.5	98.4	81.3
Omni-07-06	Base-Down	79.0	92.6	92.0	75.0	79.5	91.0	78.4	54.2	4.5	83.4	72.4	76.6	82.3	96.3	80.2
Omni-07-07	Base-Down	77.8	91.0	93.6	74.8	78.0	88.9	79.2	53.7	1.4	79.8	72.1	73.9	80.8	97.1	79.6
Omni-07-08	Base-Down	79.8	91.4	95.3	77.4	79.7	89.5	82.0	58.4	10.4	80.5	74.9	73.1	82.3	98.1	81.7
Omni-07-09	Base-Down	77.4	89.9	95.0	75.4	77.5	87.2	80.3	54.5	0.6	77.3	72.7	71.5	80.1	97.9	79.7
Omni-07-10	Base-Down	78.8	92.3	92.3	74.9	79.2	90.6	78.6	54.1	3.6	82.7	72.3	75.9	82.1	96.4	80.1

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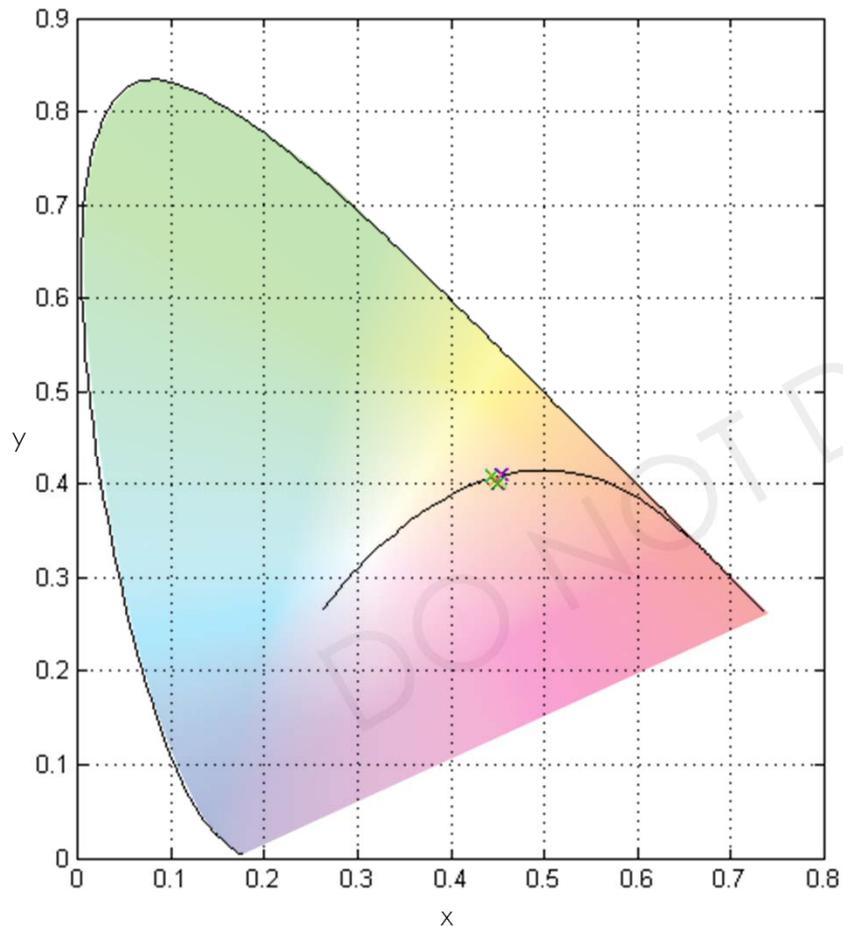
Goniophotometer Characterization: Omni-07



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-07

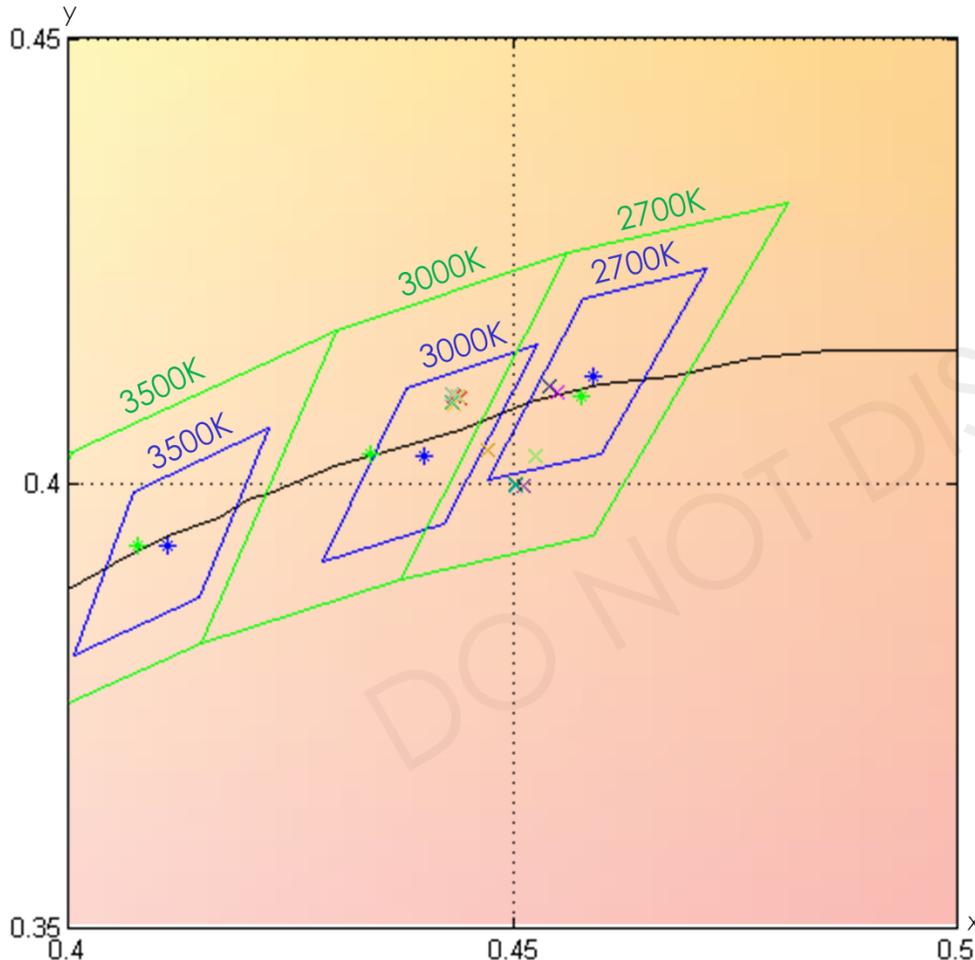


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-07-01	Base-Up	0.4433	0.4098
✖ Omni-07-01	Base-Down	0.4440	0.4096
✖ Omni-07-01	Horizontal	0.4434	0.4089
✖ Omni-07-02	Base-Up	0.4431	0.4100
✖ Omni-07-02	Base-Down	0.4438	0.4097
✖ Omni-07-02	Horizontal	0.4432	0.4090
✖ Omni-07-03	Base-Up	0.4504	0.3996
✖ Omni-07-04	Base-Up	0.4504	0.3999
✖ Omni-07-05	Base-Up	0.4541	0.4108
✖ Omni-07-06	Base-Down	0.4512	0.3996
✖ Omni-07-07	Base-Down	0.4526	0.4030
✖ Omni-07-08	Base-Down	0.4551	0.4103
✖ Omni-07-09	Base-Down	0.4473	0.4036
✖ Omni-07-10	Base-Down	0.4503	0.4000

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Photometric Summary: Omni-07



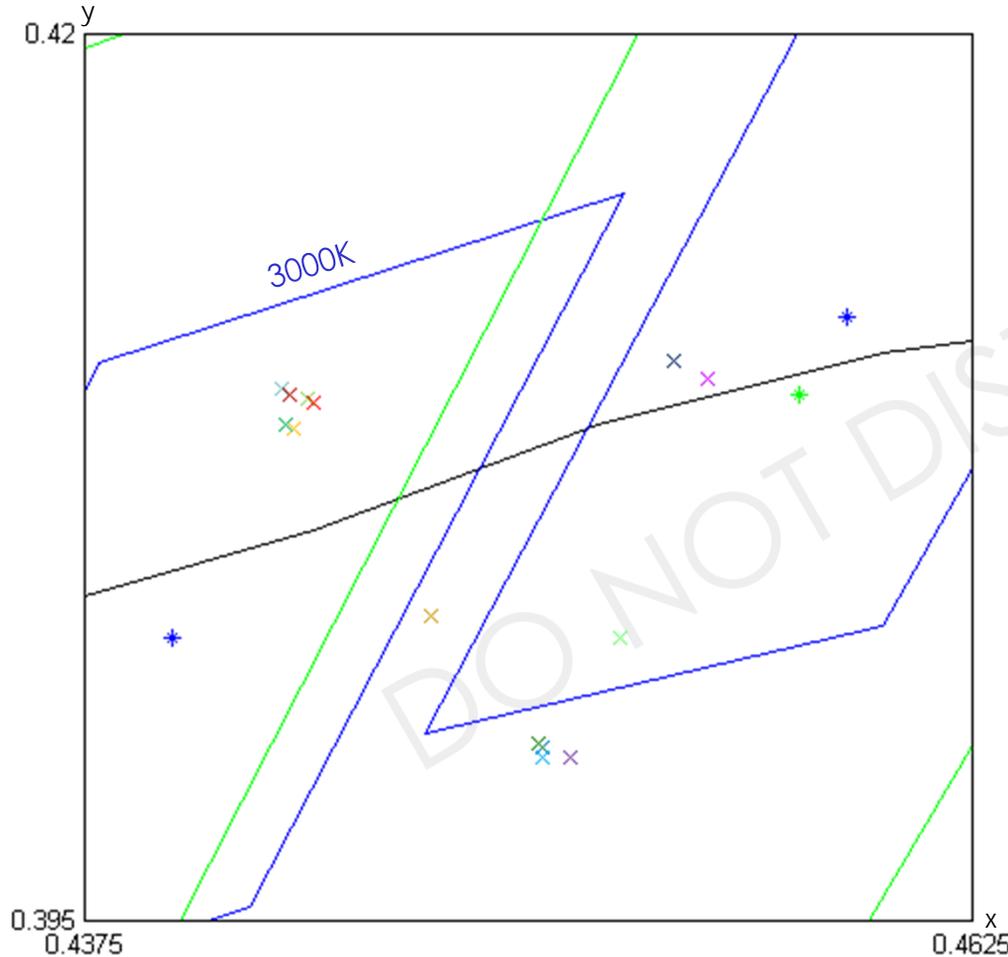
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
❌ Omni-07-01	Base-Up	0.4433	0.4098
❌ Omni-07-01	Base-Down	0.4440	0.4096
❌ Omni-07-01	Horizontal	0.4434	0.4089
❌ Omni-07-02	Base-Up	0.4431	0.4100
❌ Omni-07-02	Base-Down	0.4438	0.4097
❌ Omni-07-02	Horizontal	0.4432	0.4090
❌ Omni-07-03	Base-Up	0.4504	0.3996
❌ Omni-07-04	Base-Up	0.4504	0.3999
❌ Omni-07-05	Base-Up	0.4541	0.4108
❌ Omni-07-06	Base-Down	0.4512	0.3996
❌ Omni-07-07	Base-Down	0.4526	0.4030
❌ Omni-07-08	Base-Down	0.4551	0.4103
❌ Omni-07-09	Base-Down	0.4473	0.4036
❌ Omni-07-10	Base-Down	0.4503	0.4000

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-07

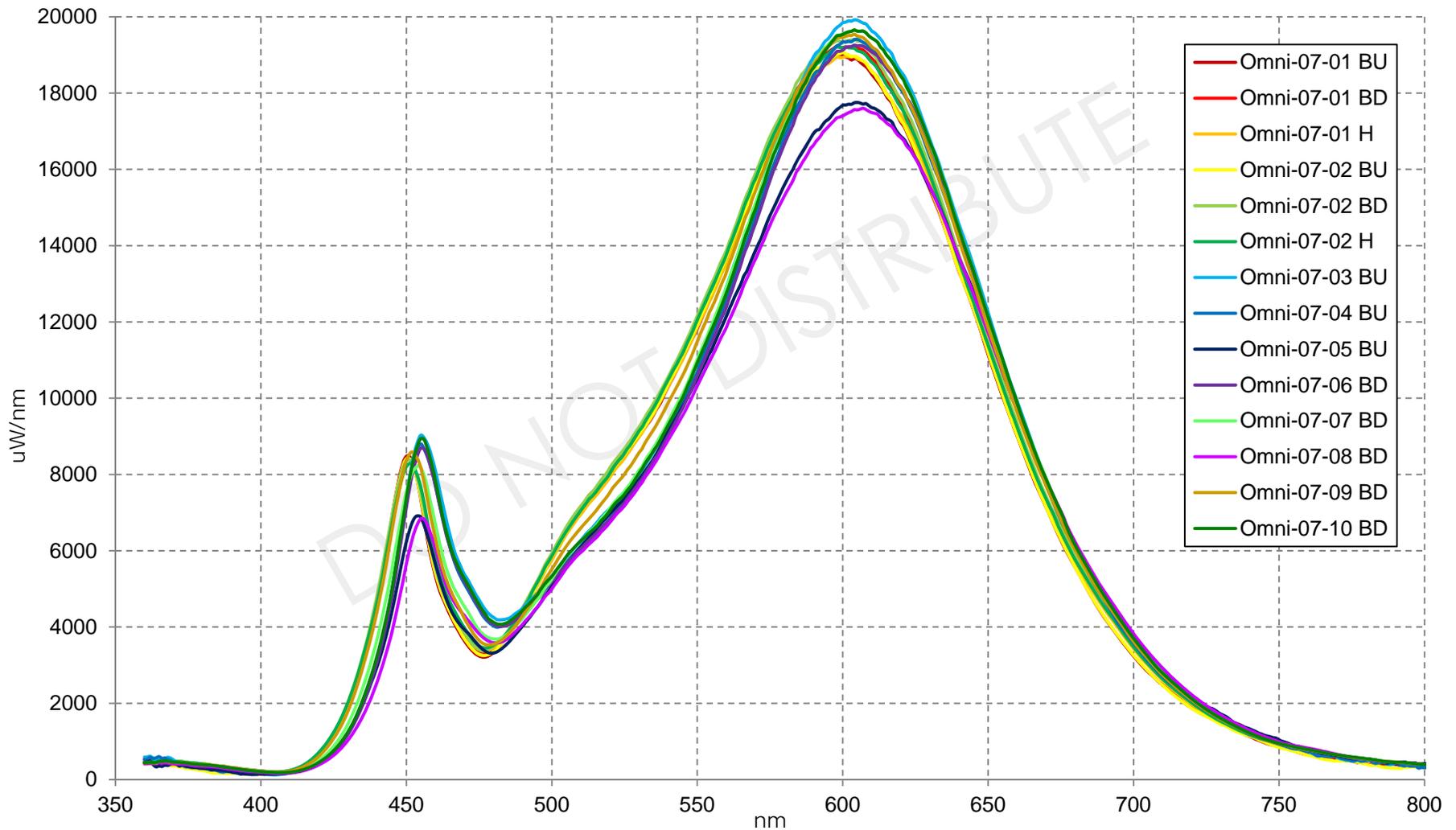


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-07-01	Base-Up	0.4433	0.4098
✖ Omni-07-01	Base-Down	0.4440	0.4096
✖ Omni-07-01	Horizontal	0.4434	0.4089
✖ Omni-07-02	Base-Up	0.4431	0.4100
✖ Omni-07-02	Base-Down	0.4438	0.4097
✖ Omni-07-02	Horizontal	0.4432	0.4090
✖ Omni-07-03	Base-Up	0.4504	0.3996
✖ Omni-07-04	Base-Up	0.4504	0.3999
✖ Omni-07-05	Base-Up	0.4541	0.4108
✖ Omni-07-06	Base-Down	0.4512	0.3996
✖ Omni-07-07	Base-Down	0.4526	0.4030
✖ Omni-07-08	Base-Down	0.4551	0.4103
✖ Omni-07-09	Base-Down	0.4473	0.4036
✖ Omni-07-10	Base-Down	0.4503	0.4000

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Spectral Power Distribution: Omni-07



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Omni-08

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Photometric Summary: Omni-08

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-08-01	Base-Down	10.0	584	612	3006	80.2	61.2
Omni-08-02	Base-Down	9.9		610	2982	80.1	61.6
Omni-08-06	Base-Down	9.6		613	3071	80.9	63.9
Omni-08-07	Base-Down	9.8		646	3019	79.5	65.9
Omni-08-08	Base-Down	10.3		649	3035	79.5	63.0
Omni-08-09	Base-Down	10.0		635	3009	79.9	63.5
Omni-08-10	Base-Down	10.2		617	2995	79.7	60.5
Average	Base-Down	10.0		623	3017	80.0	62.4
Omni-08-01	Base-Up	10.0		598	3018	79.9	59.8
Omni-08-02	Base-Up	9.9		598	2996	79.9	60.4
Omni-08-03	Base-Up	10.0		612	3014	79.8	61.2
Omni-08-04	Base-Up	9.8		615	3056	79.2	62.8
Omni-08-05	Base-Up	10.1		611	3065	80.9	60.5
Average	Base-Up	10.0		607	3030	79.9	60.9
Omni-08-01	Horizontal	9.9		612	3005	80.2	61.8
Omni-08-02	Horizontal	9.9		613	2983	80.1	61.9
Average	Horizontal	9.9		613	2994	80.2	61.9
Average	All Orientations	10.0		617	3018	80.0	62.0

Mfg. Rated Output (lumens): 600

Electrical Summary: Omni-08

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-08-01	Base-Down	10.0	0.857	120	83	Pending	Pending
Omni-08-02	Base-Down	9.9	0.853	120	83	Pending	Pending
Omni-08-06	Base-Down	9.6	0.849	120	80	Pending	Pending
Omni-08-07	Base-Down	9.8	0.855	120	82	Pending	Pending
Omni-08-08	Base-Down	10.3	0.859	120	86	Pending	Pending
Omni-08-09	Base-Down	10.0	0.857	120	83	Pending	Pending
Omni-08-10	Base-Down	10.2	0.859	120	85	Pending	Pending
Average	Base-Down	10.0	0.856	120	83	Pending	Pending
Omni-08-01	Base-Up	10.0	0.854	120	83	Pending	Pending
Omni-08-02	Base-Up	9.9	0.849	120	83	Pending	Pending
Omni-08-03	Base-Up	10.0	0.850	120	83	Pending	Pending
Omni-08-04	Base-Up	9.8	0.848	120	82	Pending	Pending
Omni-08-05	Base-Up	10.1	0.854	120	84	Pending	Pending
Average	Base-Up	10.0	0.851	120	83	Pending	Pending
Omni-08-01	Horizontal	9.9	0.860	120	83	Pending	Pending
Omni-08-02	Horizontal	9.9	0.854	120	83	Pending	Pending
Average	Horizontal	9.9	0.857	120	83	Pending	Pending
Average	All Orientations	10.0	0.854	120	83	Pending	Pending

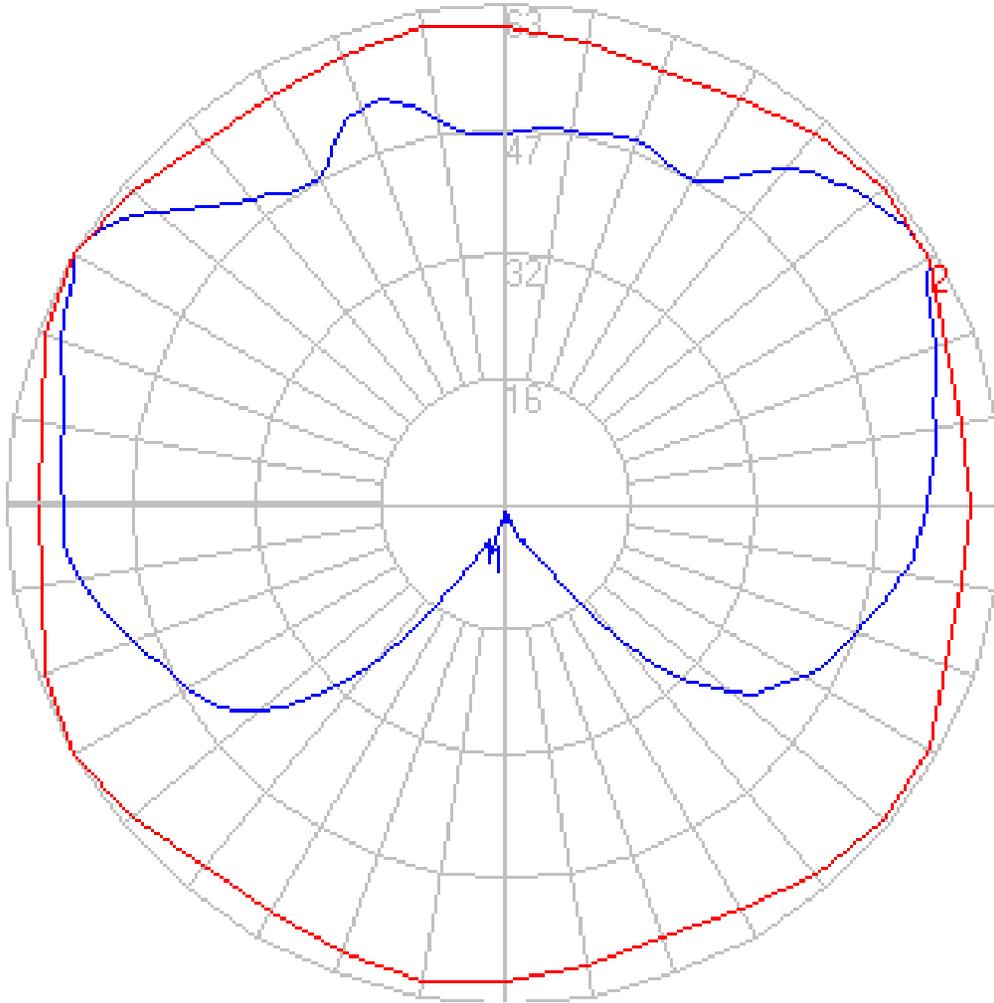
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CRI Chart: Omni-08

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-08-01	Base-Up	77.9	86.3	93.1	78.2	77.1	80.9	84.2	61.6	10.0	67.9	75.3	63.3	79.1	95.8	79.9
Omni-08-01	Base-Down	78.2	86.4	93.1	78.5	77.4	81.2	84.3	62.0	11.3	68.3	75.6	63.7	79.4	95.8	80.2
Omni-08-01	Horizontal	78.2	86.5	93.2	78.5	77.4	81.3	84.3	62.1	11.4	68.4	75.6	63.8	79.5	95.8	80.2
Omni-08-02	Base-Up	77.9	86.5	93.4	78.0	77.1	81.2	84.0	61.4	10.1	68.3	74.9	63.5	79.2	95.9	79.9
Omni-08-02	Base-Down	78.2	86.6	93.4	78.2	77.3	81.4	84.2	61.7	11.1	68.7	75.2	63.8	79.4	96.0	80.1
Omni-08-02	Horizontal	78.2	86.7	93.5	78.2	77.3	81.5	84.1	61.7	11.1	68.8	75.1	64.0	79.5	96.0	80.1
Omni-08-03	Base-Up	77.7	86.2	93.2	78.1	76.9	80.8	84.2	61.3	9.4	67.7	75.1	63.0	79.0	95.8	79.8
Omni-08-04	Base-Up	76.9	85.0	92.3	78.3	76.1	79.4	84.6	61.3	7.5	65.3	75.3	61.4	77.9	95.3	79.2
Omni-08-05	Base-Up	79.3	87.2	93.2	79.1	78.6	82.2	84.2	63.2	14.3	69.8	76.4	65.8	80.6	95.8	80.9
Omni-08-06	Base-Down	79.2	87.0	93.0	79.3	78.5	82.0	84.6	63.4	14.2	69.4	76.7	65.5	80.4	95.7	80.9
Omni-08-07	Base-Down	77.3	85.5	92.6	78.3	76.4	80.0	84.5	61.4	8.7	66.3	75.3	62.2	78.4	95.5	79.5
Omni-08-08	Base-Down	77.3	85.4	92.5	78.3	76.4	79.9	84.5	61.6	8.8	66.2	75.3	62.0	78.3	95.4	79.5
Omni-08-09	Base-Down	77.8	86.1	93.1	78.3	77.0	80.8	84.5	61.8	10.2	67.6	75.3	62.9	79.0	95.7	79.9
Omni-08-10	Base-Down	77.5	85.8	92.9	78.2	76.7	80.4	84.3	61.5	9.6	67.1	75.2	62.8	78.7	95.6	79.7

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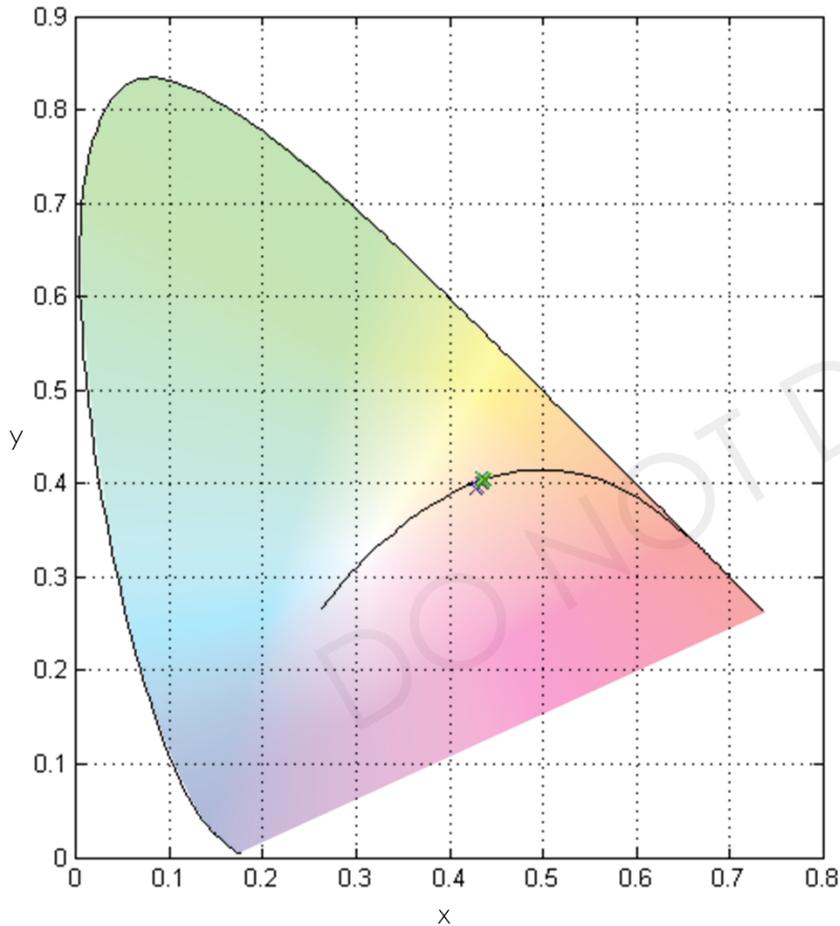
Goniophotometer Characterization: Omni-08



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-08

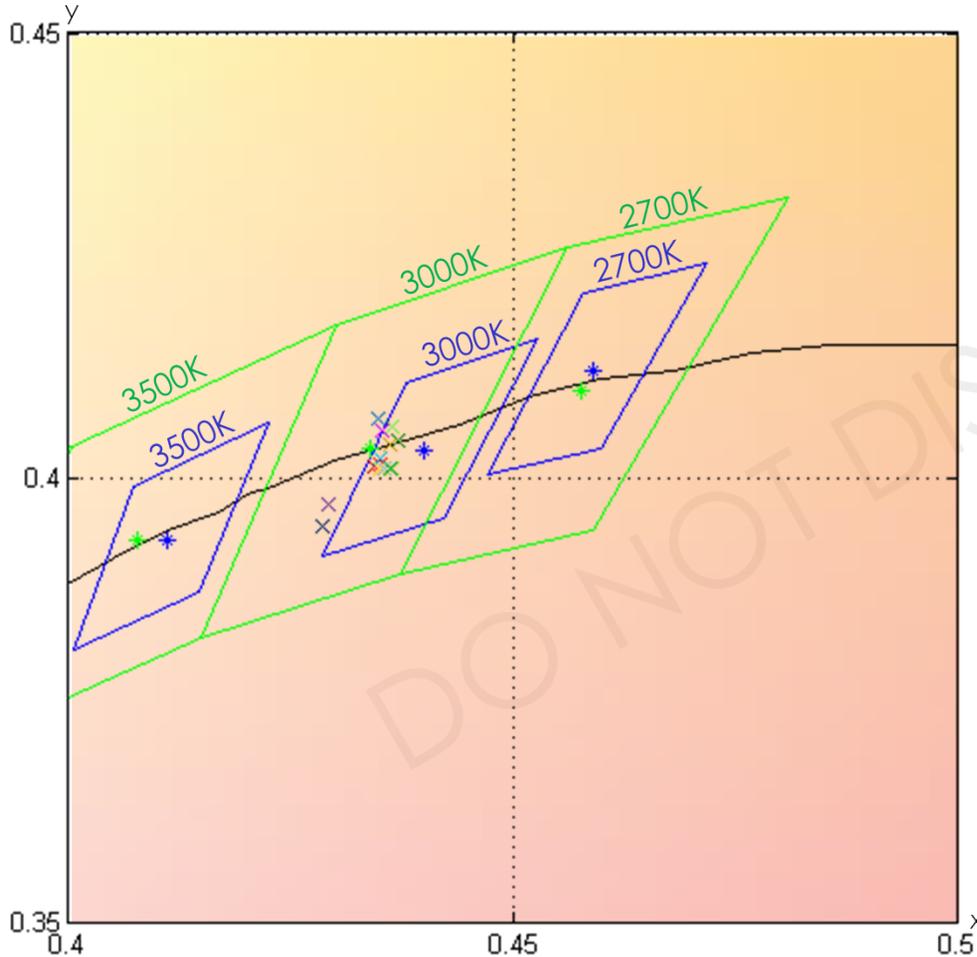


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-08-01	Base-Up	0.4344	0.4012
✖ Omni-08-01	Base-Down	0.4352	0.4014
✖ Omni-08-01	Horizontal	0.4351	0.4011
✖ Omni-08-02	Base-Up	0.4355	0.4009
✖ Omni-08-02	Base-Down	0.4365	0.4011
✖ Omni-08-02	Horizontal	0.4363	0.4009
✖ Omni-08-03	Base-Up	0.4351	0.4022
✖ Omni-08-04	Base-Up	0.4348	0.4067
✖ Omni-08-05	Base-Up	0.4286	0.3945
✖ Omni-08-06	Base-Down	0.4293	0.3969
✖ Omni-08-07	Base-Down	0.4365	0.4058
✖ Omni-08-08	Base-Down	0.4353	0.4053
✖ Omni-08-09	Base-Down	0.4361	0.4038
✖ Omni-08-10	Base-Down	0.4372	0.4042

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Photometric Summary: Omni-08



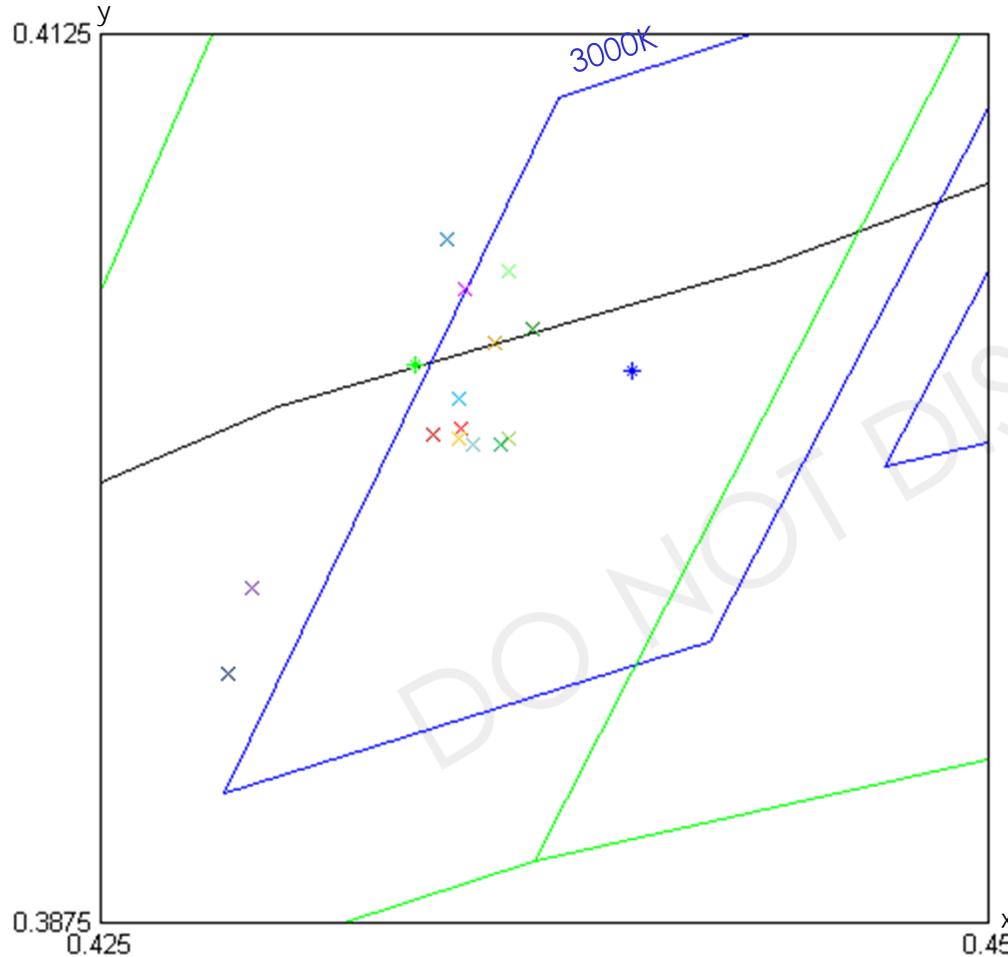
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-08-01	Base-Up	0.4344	0.4012
✖ Omni-08-01	Base-Down	0.4352	0.4014
✖ Omni-08-01	Horizontal	0.4351	0.4011
✖ Omni-08-02	Base-Up	0.4355	0.4009
✖ Omni-08-02	Base-Down	0.4365	0.4011
✖ Omni-08-02	Horizontal	0.4363	0.4009
✖ Omni-08-03	Base-Up	0.4351	0.4022
✖ Omni-08-04	Base-Up	0.4348	0.4067
✖ Omni-08-05	Base-Up	0.4286	0.3945
✖ Omni-08-06	Base-Down	0.4293	0.3969
✖ Omni-08-07	Base-Down	0.4365	0.4058
✖ Omni-08-08	Base-Down	0.4353	0.4053
✖ Omni-08-09	Base-Down	0.4361	0.4038
✖ Omni-08-10	Base-Down	0.4372	0.4042

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-08



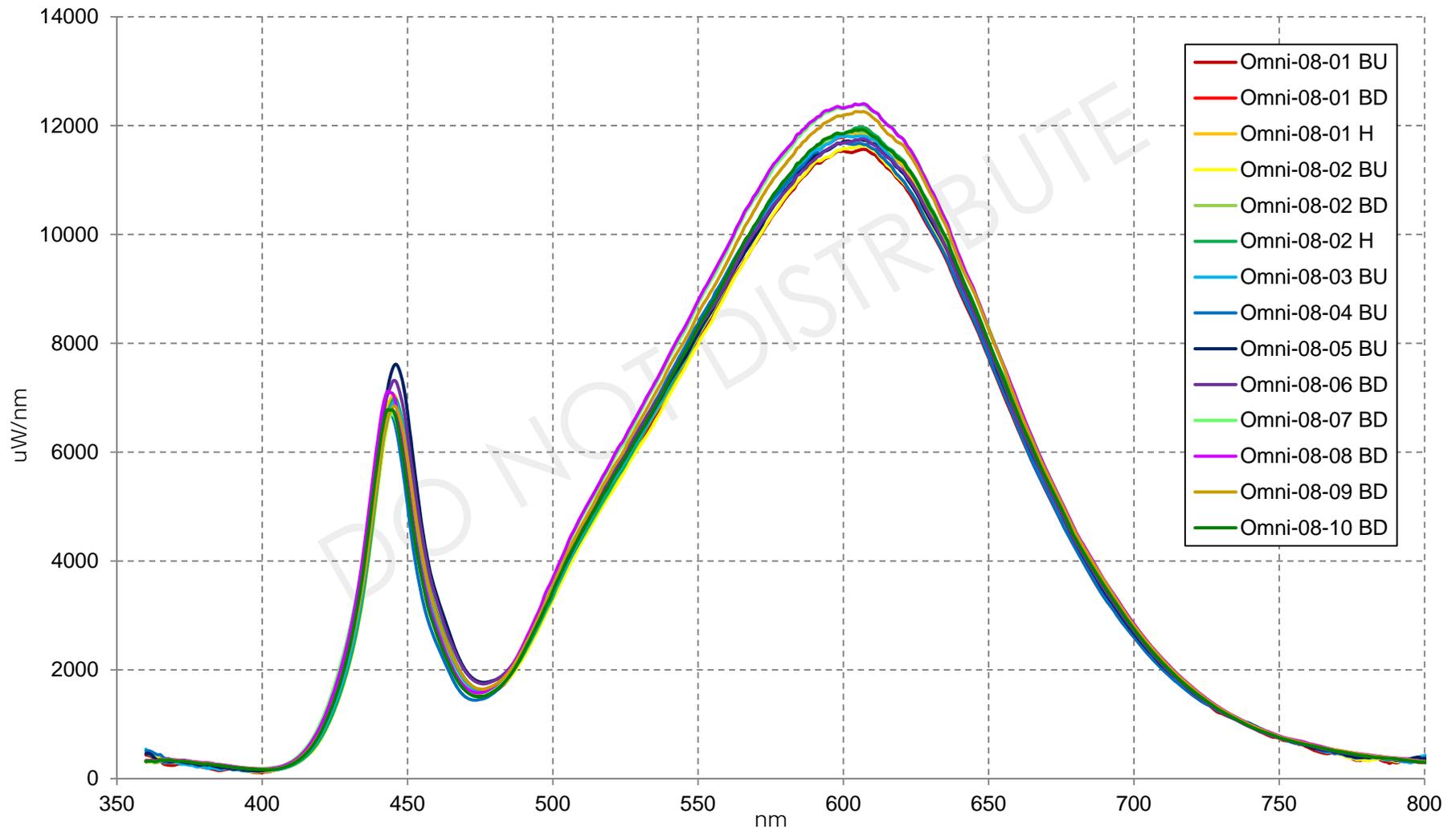
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-08-01	Base-Up	0.4344	0.4012
✖ Omni-08-01	Base-Down	0.4352	0.4014
✖ Omni-08-01	Horizontal	0.4351	0.4011
✖ Omni-08-02	Base-Up	0.4355	0.4009
✖ Omni-08-02	Base-Down	0.4365	0.4011
✖ Omni-08-02	Horizontal	0.4363	0.4009
✖ Omni-08-03	Base-Up	0.4351	0.4022
✖ Omni-08-04	Base-Up	0.4348	0.4067
✖ Omni-08-05	Base-Up	0.4286	0.3945
✖ Omni-08-06	Base-Down	0.4293	0.3969
✖ Omni-08-07	Base-Down	0.4365	0.4058
✖ Omni-08-08	Base-Down	0.4353	0.4053
✖ Omni-08-09	Base-Down	0.4361	0.4038
✖ Omni-08-10	Base-Down	0.4372	0.4042

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-08



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Omni-09

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Photometric Summary: Omni-09

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-09-01	Base-Down	13.4	829	857	3058	84.2	64.0
Omni-09-02	Base-Down	13.4		865	3075	84.2	64.6
Omni-09-06	Base-Down	13.3		840	3074	84.3	63.2
Omni-09-07	Base-Down	13.3		844	3046	84.5	63.5
Omni-09-08	Base-Down	13.5		857	2969	81.2	63.5
Omni-09-09	Base-Down	13.3		858	3083	84.2	64.5
Omni-09-10	Base-Down	13.5		876	2974	81.0	64.9
Average	Base-Down	13.4		855	3044	83.4	63.9
Omni-09-01	Base-Up	13.3		843	3072	83.4	63.4
Omni-09-02	Base-Up	13.4		850	3087	83.9	63.4
Omni-09-03	Base-Up	13.2		829	3095	84.2	62.8
Omni-09-04	Base-Up	13.3		823	3089	84.0	61.9
Omni-09-05	Base-Up	13.2		819	3109	83.9	62.0
Average	Base-Up	13.3		833	3090	83.9	62.7
Omni-09-01	Horizontal	13.3		853	3065	84.1	64.1
Omni-09-02	Horizontal	9.9		613	2983	80.1	61.9
Average	Horizontal	11.6		733	3024	82.1	63.0
Average	All Orientations	13.1		831	3056	83.4	63.4

Mfg. Rated Output (lumens): 800

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Electrical Summary: Omni-09

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-09-01	Base-Down	13.4	0.998	120	112	Pending	Pending
Omni-09-02	Base-Down	13.4	0.998	120	112	Pending	Pending
Omni-09-06	Base-Down	13.3	0.997	120	111	Pending	Pending
Omni-09-07	Base-Down	13.3	0.997	120	111	Pending	Pending
Omni-09-08	Base-Down	13.5	0.998	120	113	Pending	Pending
Omni-09-09	Base-Down	13.3	0.998	120	111	Pending	Pending
Omni-09-10	Base-Down	13.5	0.998	120	113	Pending	Pending
Average	Base-Down	13.4	0.998	120	112	Pending	Pending
Omni-09-01	Base-Up	13.3	0.998	120	111	Pending	Pending
Omni-09-02	Base-Up	13.4	0.998	120	112	Pending	Pending
Omni-09-03	Base-Up	13.2	0.998	120	110	Pending	Pending
Omni-09-04	Base-Up	13.3	0.998	120	111	Pending	Pending
Omni-09-05	Base-Up	13.2	0.998	120	110	Pending	Pending
Average	Base-Up	13.3	0.998	120	111	Pending	Pending
Omni-09-01	Horizontal	13.3	0.998	120	111	Pending	Pending
Omni-09-02	Horizontal	9.9	0.854	120	83	Pending	Pending
Average	Horizontal	11.6	0.926	120	97	Pending	Pending
Average	All Orientations	13.1	0.988	120	109	Pending	Pending

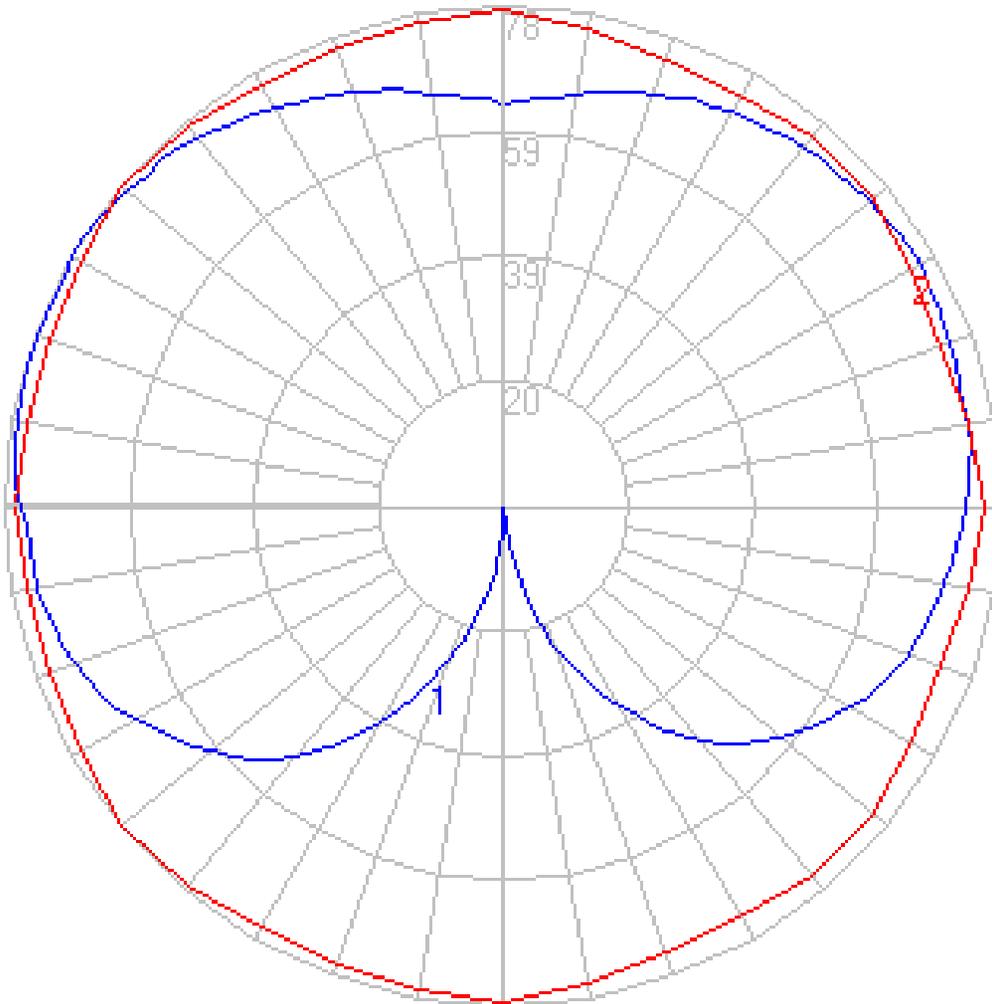
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CRI Chart: Omni-09

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-09-01	Base-Up	82.4	88.6	94.6	84.4	82.0	85.6	87.2	66.7	20.0	73.7	84.1	69.1	83.5	96.6	83.9
Omni-09-01	Base-Down	82.8	88.8	94.6	84.6	82.3	85.9	87.4	67.2	21.5	74.2	84.2	69.6	83.8	96.6	84.2
Omni-09-01	Horizontal	82.7	88.8	94.7	84.4	82.2	85.8	87.3	67.0	21.0	74.1	83.9	69.4	83.7	96.6	84.1
Omni-09-02	Base-Up	82.3	88.5	94.8	84.2	81.8	85.5	87.3	66.5	19.4	73.6	83.8	68.6	83.3	96.7	83.9
Omni-09-02	Base-Down	82.7	88.8	94.7	84.5	82.2	85.8	87.5	67.2	21.2	74.1	84.1	69.1	83.7	96.6	84.2
Omni-09-02	Horizontal	82.6	88.8	94.7	84.4	82.1	85.7	87.5	67.0	20.9	74.0	83.8	68.9	83.6	96.6	84.1
Omni-09-03	Base-Up	82.7	88.8	94.9	84.5	82.3	85.9	87.5	67.1	20.9	74.3	84.1	69.1	83.7	96.7	84.2
Omni-09-04	Base-Up	82.4	88.8	95.1	84.2	82.0	85.9	87.3	66.5	19.7	74.2	83.7	69.0	83.5	96.9	84.0
Omni-09-05	Base-Up	82.4	88.5	94.6	84.4	82.0	85.5	87.4	66.7	19.6	73.6	84.0	68.6	83.4	96.6	83.9
Omni-09-06	Base-Down	82.9	89.0	94.9	84.6	82.4	86.1	87.5	67.3	21.7	74.6	84.2	69.6	84.0	96.7	84.3
Omni-09-07	Base-Down	83.0	89.4	95.4	84.6	82.6	86.6	87.4	67.2	22.0	75.4	84.1	70.2	84.2	97.0	84.5
Omni-09-08	Base-Down	79.0	88.0	95.8	79.5	78.7	84.5	83.9	60.1	7.9	72.6	77.8	67.9	80.7	97.6	81.2
Omni-09-09	Base-Down	82.8	88.9	94.8	84.5	82.3	86.0	87.5	67.2	21.2	74.3	84.1	69.2	83.8	96.7	84.2
Omni-09-10	Base-Down	78.6	87.5	95.7	79.5	78.3	83.9	84.2	60.0	7.0	71.6	77.8	66.5	80.2	97.4	81.0

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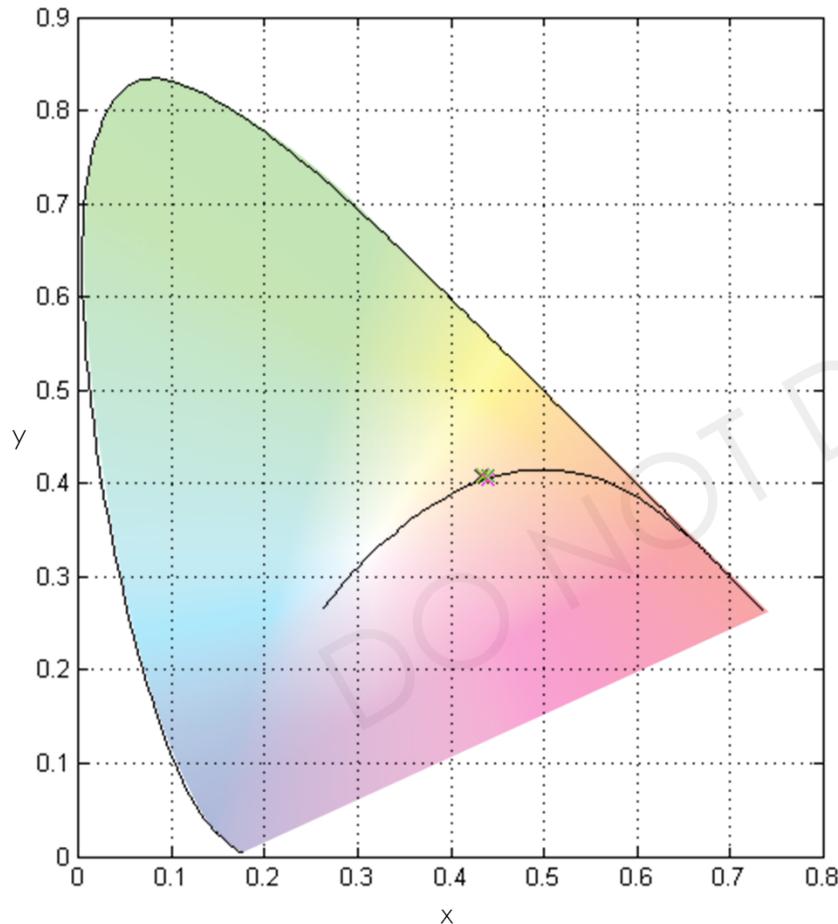
Goniophotometer Characterization: Omni-09



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-09

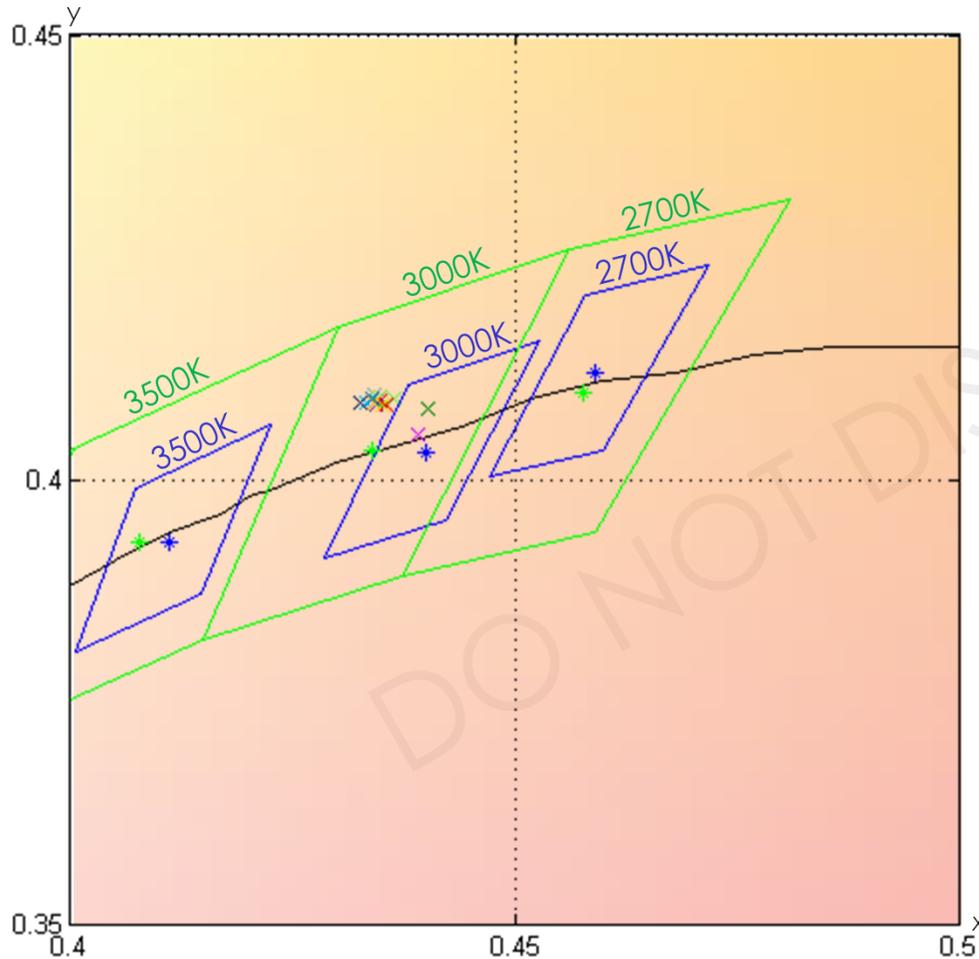


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-09-01	Base-Up	0.4349	0.4088
✘ Omni-09-01	Base-Down	0.4355	0.4085
✘ Omni-09-01	Horizontal	0.4350	0.4083
✘ Omni-09-02	Base-Up	0.4343	0.4095
✘ Omni-09-02	Base-Down	0.4349	0.4092
✘ Omni-09-02	Horizontal	0.4344	0.4089
✘ Omni-09-03	Base-Up	0.4334	0.4086
✘ Omni-09-04	Base-Up	0.4339	0.4090
✘ Omni-09-05	Base-Up	0.4326	0.4087
✘ Omni-09-06	Base-Down	0.4345	0.4084
✘ Omni-09-07	Base-Down	0.4365	0.4090
✘ Omni-09-08	Base-Down	0.4391	0.4050
✘ Omni-09-09	Base-Down	0.4341	0.4087
✘ Omni-09-10	Base-Down	0.4403	0.4080

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Photometric Summary: Omni-09



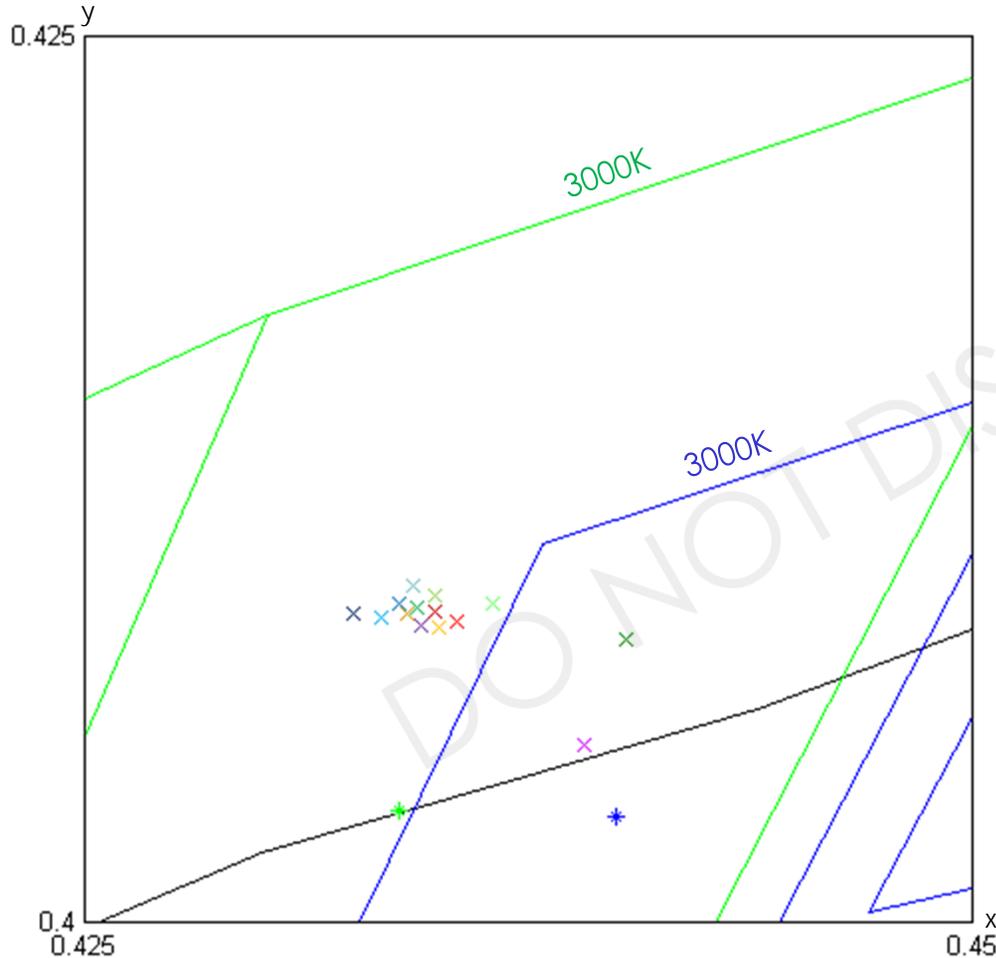
Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Serial #	Orientation	CIE X	CIE Y
✖ Omni-09-01	Base-Up	0.4349	0.4088
✖ Omni-09-01	Base-Down	0.4355	0.4085
✖ Omni-09-01	Horizontal	0.4350	0.4083
✖ Omni-09-02	Base-Up	0.4343	0.4095
✖ Omni-09-02	Base-Down	0.4349	0.4092
✖ Omni-09-02	Horizontal	0.4344	0.4089
✖ Omni-09-03	Base-Up	0.4334	0.4086
✖ Omni-09-04	Base-Up	0.4339	0.4090
✖ Omni-09-05	Base-Up	0.4326	0.4087
✖ Omni-09-06	Base-Down	0.4345	0.4084
✖ Omni-09-07	Base-Down	0.4365	0.4090
✖ Omni-09-08	Base-Down	0.4391	0.4050
✖ Omni-09-09	Base-Down	0.4341	0.4087
✖ Omni-09-10	Base-Down	0.4403	0.4080

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Photometric Summary: Omni-09

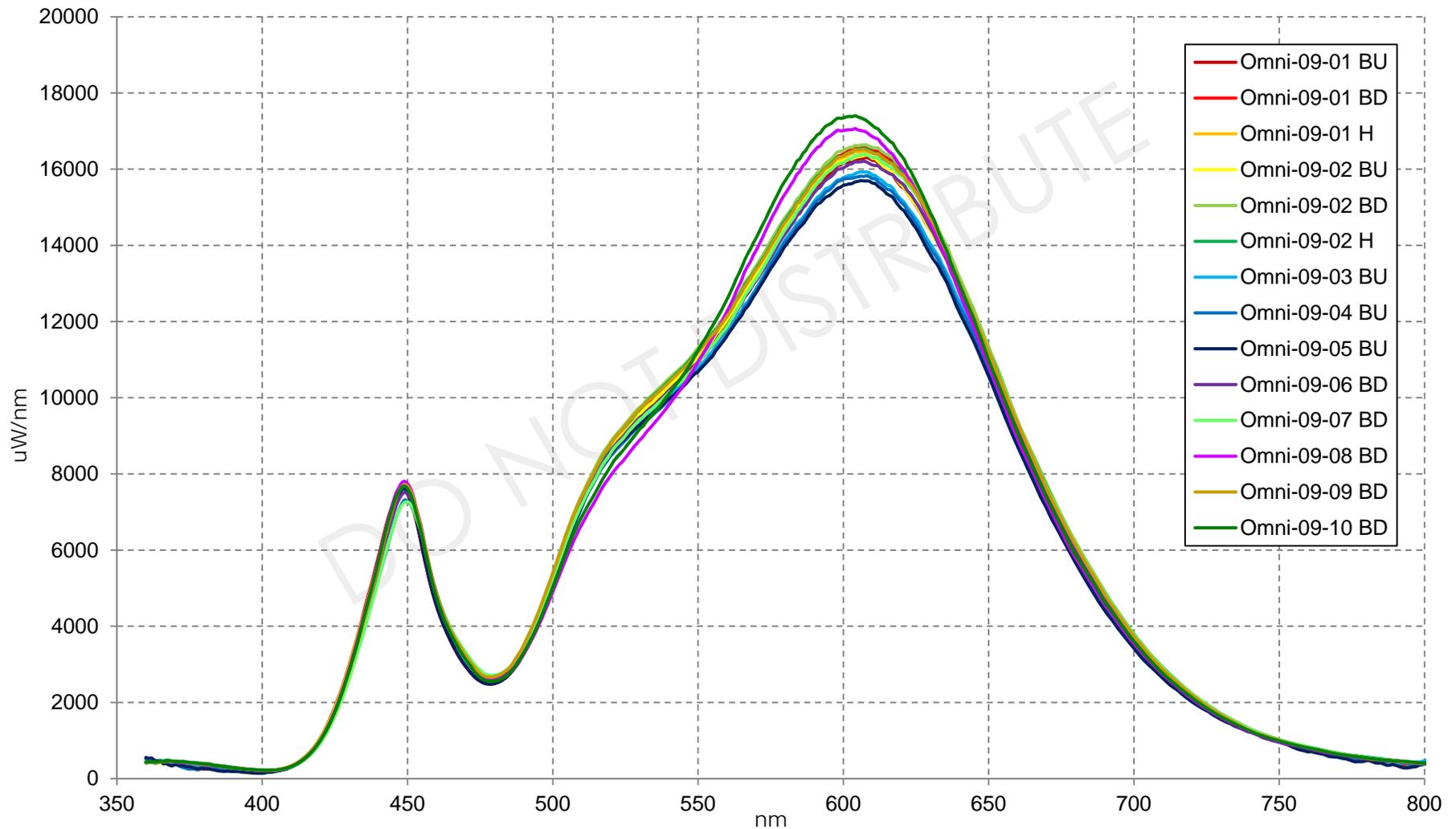


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-09-01	Base-Up	0.4349	0.4088
✖ Omni-09-01	Base-Down	0.4355	0.4085
✖ Omni-09-01	Horizontal	0.4350	0.4083
✖ Omni-09-02	Base-Up	0.4343	0.4095
✖ Omni-09-02	Base-Down	0.4349	0.4092
✖ Omni-09-02	Horizontal	0.4344	0.4089
✖ Omni-09-03	Base-Up	0.4334	0.4086
✖ Omni-09-04	Base-Up	0.4339	0.4090
✖ Omni-09-05	Base-Up	0.4326	0.4087
✖ Omni-09-06	Base-Down	0.4345	0.4084
✖ Omni-09-07	Base-Down	0.4365	0.4090
✖ Omni-09-08	Base-Down	0.4391	0.4050
✖ Omni-09-09	Base-Down	0.4341	0.4087
✖ Omni-09-10	Base-Down	0.4403	0.4080

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Spectral Power Distribution: Omni-09



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Omni-10

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Photometric Summary: Omni-10

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-10-01	Base-Down	11.9	798	811	2604	82.9	68.0
Omni-10-02	Base-Down	11.9		811	2586	83.8	67.9
Omni-10-06	Base-Down	12.0		763	2875	91.5	63.6
Omni-10-07	Base-Down	12.1		807	2661	84.4	66.7
Omni-10-08	Base-Down	12.3		825	2684	84.3	67.1
Omni-10-09	Base-Down	12.0		776	2811	89.3	64.7
Omni-10-10	Base-Down	12.0		771	2886	93.3	64.2
Average	Base-Down	12.0		794	2710	86.5	66.0
Omni-10-01	Base-Up	12.0		789	2576	82.6	65.8
Omni-10-02	Base-Up	12.0		791	2553	83.5	65.9
Omni-10-03	Base-Up	11.9		786	2689	88.1	66.1
Omni-10-04	Base-Up	12.1		807	2631	83.5	66.7
Omni-10-05	Base-Up	12.3		761	2838	91.7	61.9
Average	Base-Up	12.1		787	2657	85.9	65.3
Omni-10-01	Horizontal	11.9		825	2564	82.7	69.3
Omni-10-02	Horizontal	12.0		831	2529	83.5	69.3
Average	Horizontal	12.0		828	2547	83.1	69.3
Average	All Orientations	12.0		797	2678	86.1	66.2

Mfg. Rated Output (lumens): 810

Electrical Summary: Omni-10

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-10-01	Base-Down	11.9	0.975	120	99	Pending	Pending
Omni-10-02	Base-Down	11.9	0.972	120	100	Pending	Pending
Omni-10-06	Base-Down	12.0	0.974	120	100	Pending	Pending
Omni-10-07	Base-Down	12.1	0.968	120	101	Pending	Pending
Omni-10-08	Base-Down	12.3	0.976	120	103	Pending	Pending
Omni-10-09	Base-Down	12.0	0.966	120	100	Pending	Pending
Omni-10-10	Base-Down	12.0	0.971	120	100	Pending	Pending
Average	Base-Down	12.0	0.972	120	100	Pending	Pending
Omni-10-01	Base-Up	12.0	0.976	120	100	Pending	Pending
Omni-10-02	Base-Up	12.0	0.976	120	100	Pending	Pending
Omni-10-03	Base-Up	11.9	0.968	120	99	Pending	Pending
Omni-10-04	Base-Up	12.1	0.964	120	101	Pending	Pending
Omni-10-05	Base-Up	12.3	0.974	120	103	Pending	Pending
Average	Base-Up	12.1	0.972	120	101	Pending	Pending
Omni-10-01	Horizontal	11.9	0.975	120	99	Pending	Pending
Omni-10-02	Horizontal	12.0	0.976	120	100	Pending	Pending
Average	Horizontal	12.0	0.976	120	100	Pending	Pending
Average	All Orientations	12.0	0.972	120	100	Pending	Pending

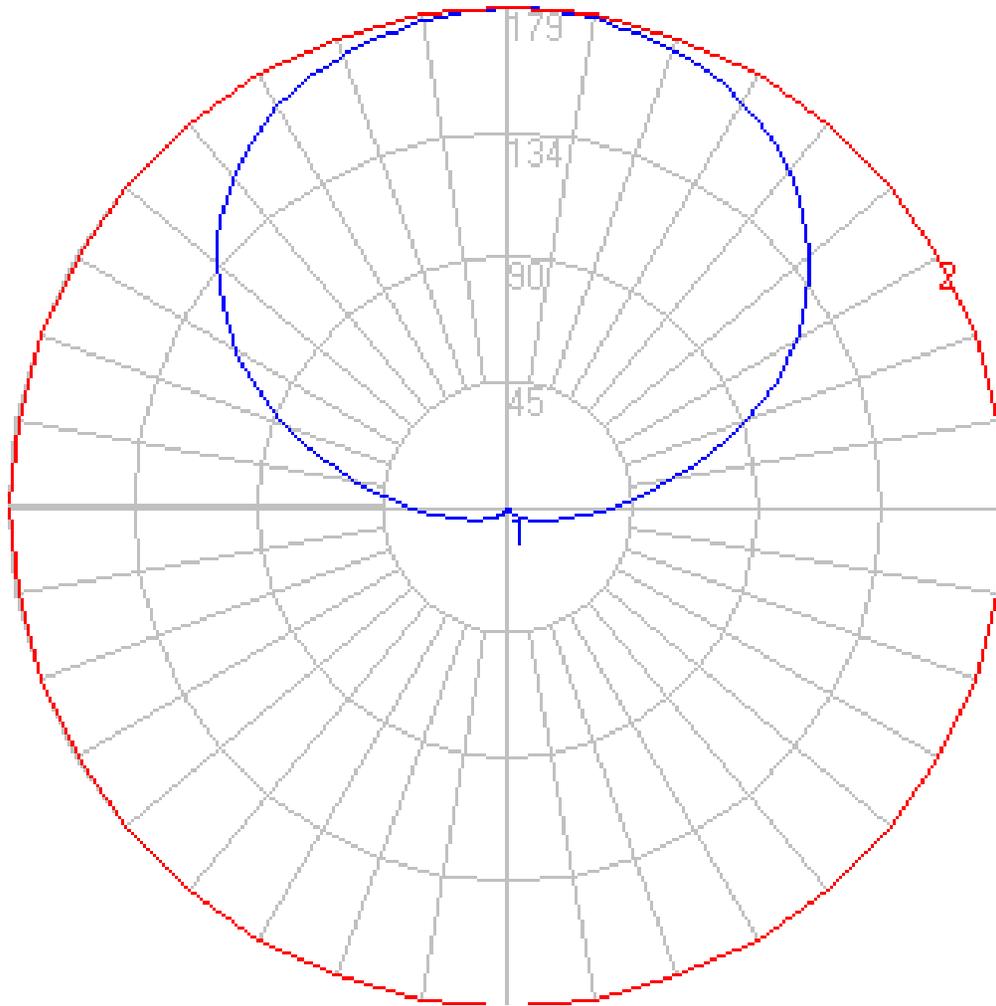
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CRI Chart: Omni-10

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-10-01	Base-Up	79.8	94.1	81.9	74.7	81.5	89.3	88.2	71.0	48.4	94.6	68.3	92.1	83.0	86.5	82.6
Omni-10-01	Base-Down	80.5	94.6	81.5	75.4	82.3	90.5	87.8	70.4	46.8	95.6	69.5	93.7	83.7	86.4	82.9
Omni-10-01	Horizontal	80.0	94.2	81.9	74.9	81.7	89.4	88.4	71.3	48.9	94.8	68.6	92.1	83.2	86.4	82.7
Omni-10-02	Base-Up	81.6	96.0	80.1	74.7	83.3	92.2	87.3	72.6	53.3	97.7	68.7	93.4	85.0	85.5	83.5
Omni-10-02	Base-Down	82.4	96.6	79.6	75.5	84.1	93.7	86.7	71.8	51.6	97.7	70.1	94.5	85.9	85.4	83.8
Omni-10-02	Horizontal	81.5	95.9	80.3	74.7	83.1	91.8	87.6	73.2	54.6	97.6	68.5	92.8	84.9	85.6	83.5
Omni-10-03	Base-Up	87.0	98.8	81.1	80.1	89.1	96.5	89.7	82.0	73.4	93.7	75.9	92.7	90.3	86.3	88.1
Omni-10-04	Base-Up	81.2	95.2	81.4	75.9	83.1	91.2	88.0	71.8	49.9	96.6	70.1	95.4	84.5	86.3	83.5
Omni-10-05	Base-Up	91.5	97.9	83.2	84.5	93.6	97.8	92.4	92.7	95.9	89.2	81.7	88.4	94.4	87.7	91.7
Omni-10-06	Base-Down	92.0	97.5	82.6	84.9	94.0	98.1	91.7	91.1	93.2	88.4	82.5	87.2	95.0	87.5	91.5
Omni-10-07	Base-Down	82.4	95.9	81.5	77.3	84.5	92.4	88.4	73.1	52.4	97.6	72.1	97.6	85.7	86.5	84.4
Omni-10-08	Base-Down	82.6	96.2	81.1	77.5	84.7	93.2	87.6	71.4	48.8	97.9	72.5	98.2	85.9	86.4	84.3
Omni-10-09	Base-Down	88.6	99.0	81.9	83.1	91.1	97.7	90.4	82.3	72.4	92.9	79.8	91.4	91.8	87.1	89.3
Omni-10-10	Base-Down	92.1	98.0	83.8	86.0	94.4	97.8	93.2	93.3	96.1	89.3	83.4	87.9	94.9	88.1	92.3

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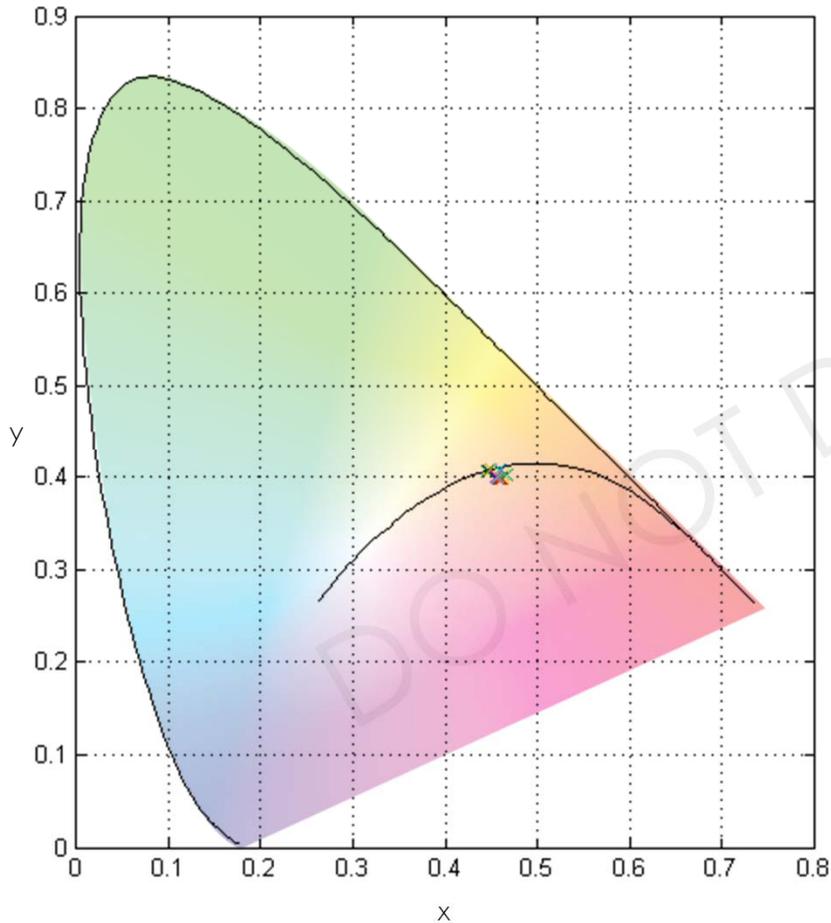
Goniophotometer Characterization: Omni-10



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-10

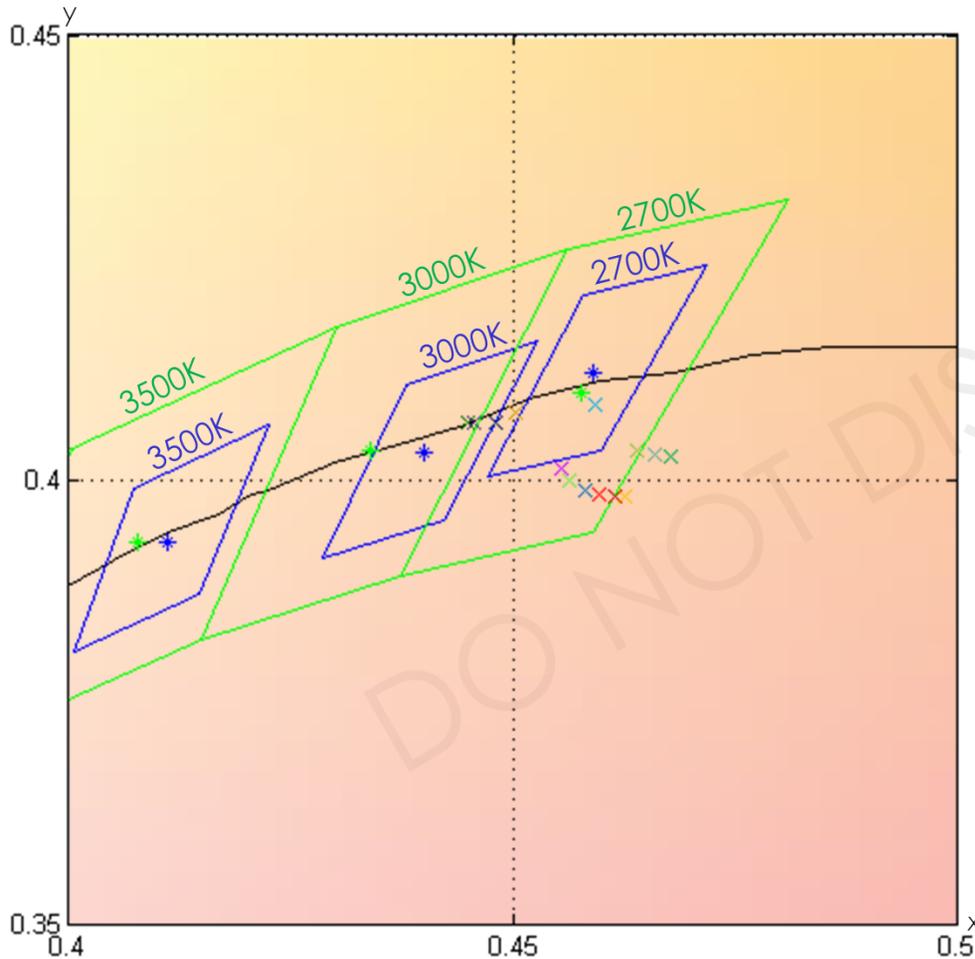


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-10-01	Base-Up	0.4616	0.3980
✖ Omni-10-01	Base-Down	0.4597	0.3983
✖ Omni-10-01	Horizontal	0.4626	0.3982
✖ Omni-10-02	Base-Up	0.4661	0.4027
✖ Omni-10-02	Base-Down	0.4640	0.4033
✖ Omni-10-02	Horizontal	0.4678	0.4026
✖ Omni-10-03	Base-Up	0.4594	0.4085
✖ Omni-10-04	Base-Up	0.4581	0.3988
✖ Omni-10-05	Base-Up	0.4480	0.4063
✖ Omni-10-06	Base-Down	0.4457	0.4063
✖ Omni-10-07	Base-Down	0.4565	0.3999
✖ Omni-10-08	Base-Down	0.4556	0.4012
✖ Omni-10-09	Base-Down	0.4503	0.4074
✖ Omni-10-10	Base-Down	0.4449	0.4063

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Photometric Summary: Omni-10



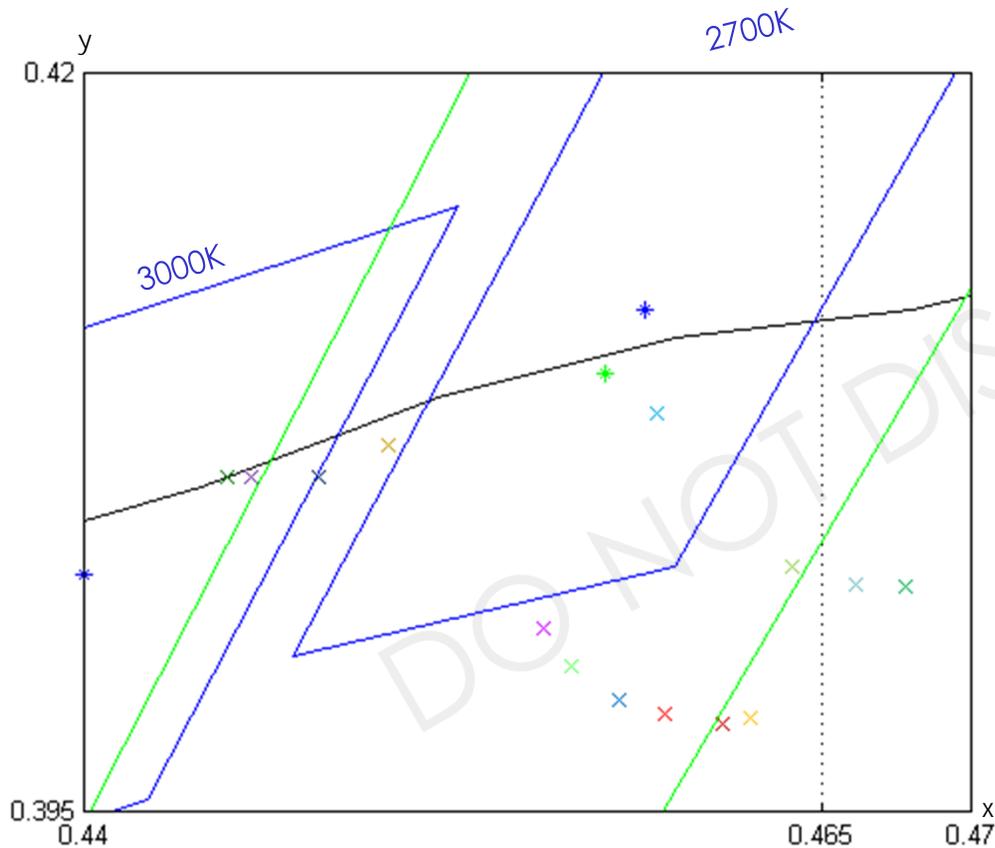
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-10-01	Base-Up	0.4616	0.3980
✖ Omni-10-01	Base-Down	0.4597	0.3983
✖ Omni-10-01	Horizontal	0.4626	0.3982
✖ Omni-10-02	Base-Up	0.4661	0.4027
✖ Omni-10-02	Base-Down	0.4640	0.4033
✖ Omni-10-02	Horizontal	0.4678	0.4026
✖ Omni-10-03	Base-Up	0.4594	0.4085
✖ Omni-10-04	Base-Up	0.4581	0.3988
✖ Omni-10-05	Base-Up	0.4480	0.4063
✖ Omni-10-06	Base-Down	0.4457	0.4063
✖ Omni-10-07	Base-Down	0.4565	0.3999
✖ Omni-10-08	Base-Down	0.4556	0.4012
✖ Omni-10-09	Base-Down	0.4503	0.4074
✖ Omni-10-10	Base-Down	0.4449	0.4063

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-10



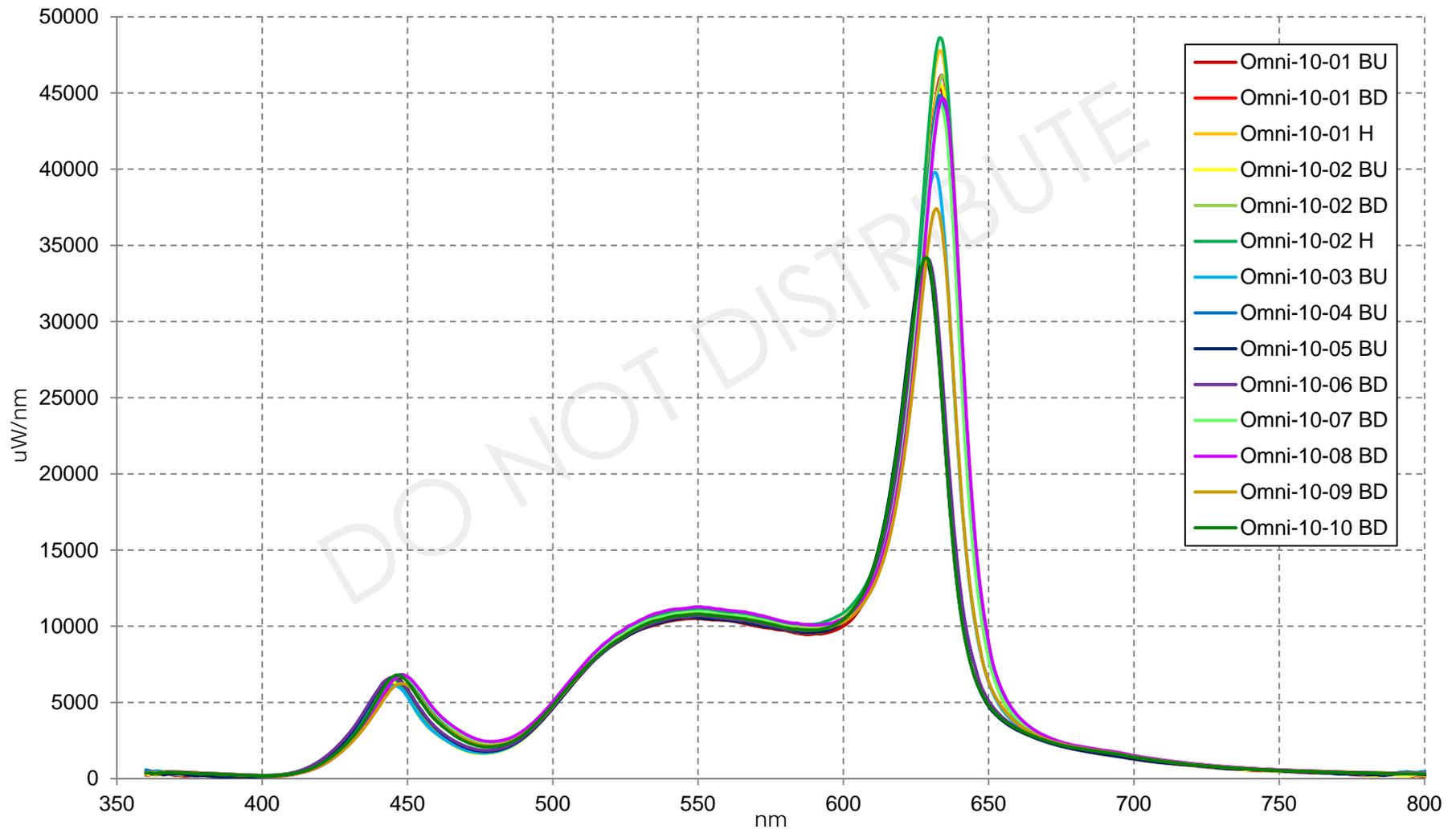
Serial #	Orientation	CIE X	CIE Y
❌ Omni-10-01	Base-Up	0.4616	0.3980
❌ Omni-10-01	Base-Down	0.4597	0.3983
❌ Omni-10-01	Horizontal	0.4626	0.3982
❌ Omni-10-02	Base-Up	0.4661	0.4027
❌ Omni-10-02	Base-Down	0.4640	0.4033
❌ Omni-10-02	Horizontal	0.4678	0.4026
❌ Omni-10-03	Base-Up	0.4594	0.4085
❌ Omni-10-04	Base-Up	0.4581	0.3988
❌ Omni-10-05	Base-Up	0.4480	0.4063
❌ Omni-10-06	Base-Down	0.4457	0.4063
❌ Omni-10-07	Base-Down	0.4565	0.3999
❌ Omni-10-08	Base-Down	0.4556	0.4012
❌ Omni-10-09	Base-Down	0.4503	0.4074
❌ Omni-10-10	Base-Down	0.4449	0.4063

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-10



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Omni-11

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Photometric Summary: Omni-11

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-11-01	Base-Down	12.8	896	888	2988	83.1	69.4
Omni-11-02	Base-Down	12.6		851	2878	82.4	67.5
Average	Base-Down	12.7		870	2933	82.8	68.5
Omni-11-01	Base-Up	13.0		881	3007	82.7	67.8
Omni-11-02	Base-Up	12.8		841	2894	82.0	65.7
Average	Base-Up	12.9		861	2951	82.4	66.7
Omni-11-01	Horizontal	12.7		882	3001	83.1	69.4
Omni-11-02	Horizontal	12.3		838	2889	82.4	68.1
Average	Horizontal	12.5		860	2945	82.8	68.8
Average	All Orientations	12.7		864	2943	82.6	68.0

Mfg. Rated Output (lumens): 800

Electrical Summary: Omni-11

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-11-01	Base-Down	12.8	0.859	120	107	Pending	Pending
Omni-11-02	Base-Down	12.6	0.859	120	105	Pending	Pending
Average	Base-Down	12.7	0.859	120	106	Pending	Pending
Omni-11-01	Base-Up	13.0	0.852	120	108	Pending	Pending
Omni-11-02	Base-Up	12.8	0.848	120	107	Pending	Pending
Average	Base-Up	12.9	0.850	120	108	Pending	Pending
Omni-11-01	Horizontal	12.7	0.860	120	106	Pending	Pending
Omni-11-02	Horizontal	12.3	0.856	120	103	Pending	Pending
Average	Horizontal	12.5	0.858	120	104	Pending	Pending
Average	All Orientations	12.7	0.856	120	106	Pending	Pending

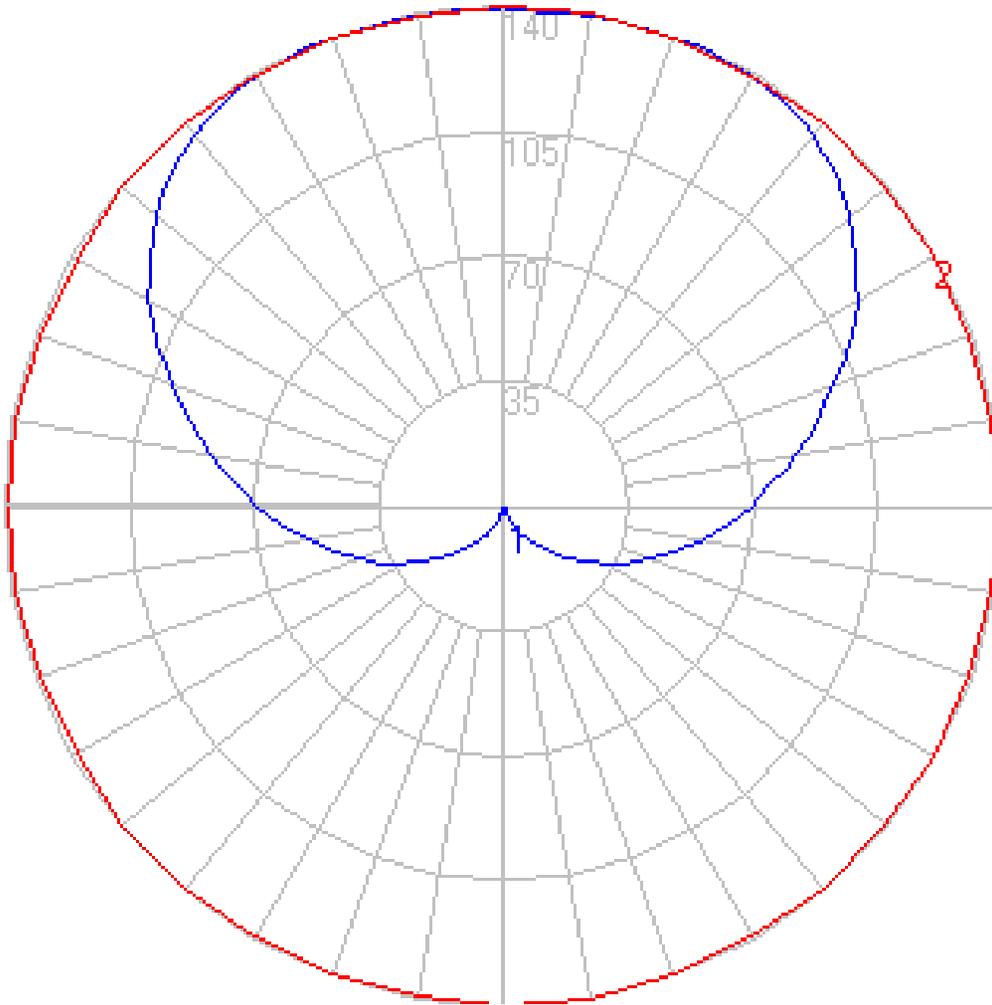
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CRI Chart: Omni-11

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-11-01	Base-Up	80.9	91.0	96.3	78.6	80.4	87.3	84.1	63.1	17.8	78.2	75.3	69.0	83.1	98.4	82.7
Omni-11-01	Base-Down	81.4	91.2	96.4	79.0	80.8	87.7	84.3	63.7	19.5	78.8	75.8	69.7	83.6	98.4	83.1
Omni-11-01	Horizontal	81.5	91.4	96.3	79.0	81.0	87.9	84.2	63.8	19.7	79.1	75.7	70.0	83.7	98.4	83.1
Omni-11-02	Base-Up	80.3	89.6	95.6	78.9	79.9	85.8	83.5	62.4	16.7	75.4	76.1	71.7	82.2	97.6	82.0
Omni-11-02	Base-Down	80.8	89.8	95.7	79.2	80.3	86.1	83.7	63.1	18.5	75.9	76.4	72.3	82.6	97.6	82.4
Omni-11-02	Horizontal	80.8	90.0	95.7	79.1	80.3	86.3	83.6	63.0	18.4	76.2	76.3	72.6	82.6	97.6	82.4

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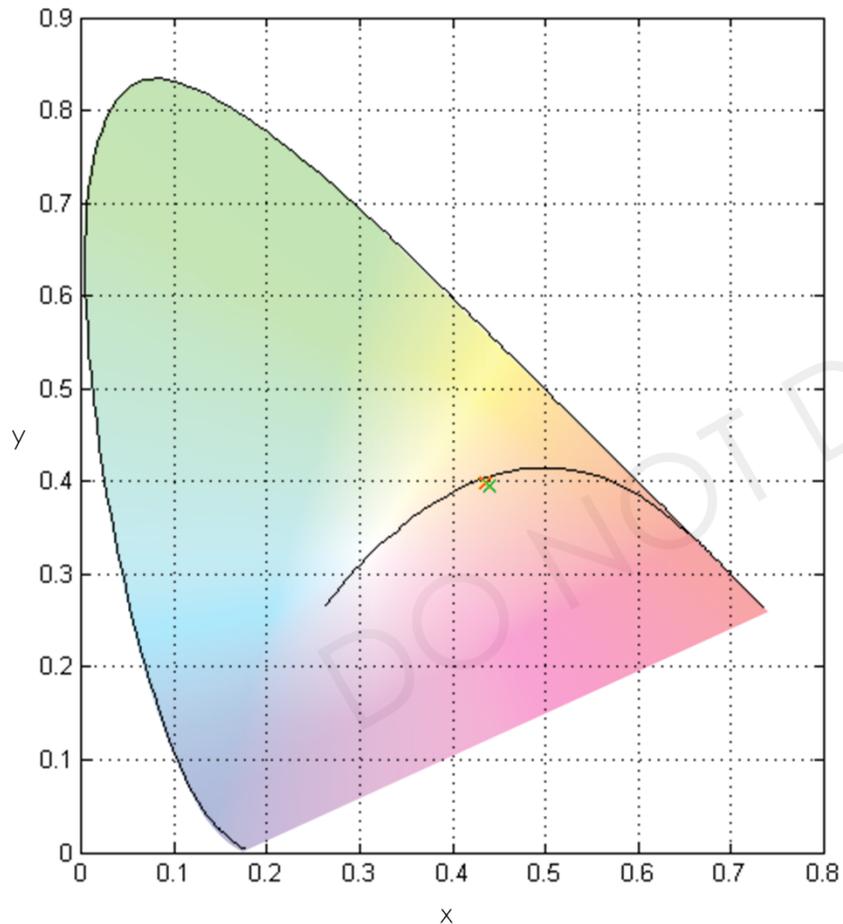
Goniophotometer Characterization: Omni-11



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-11

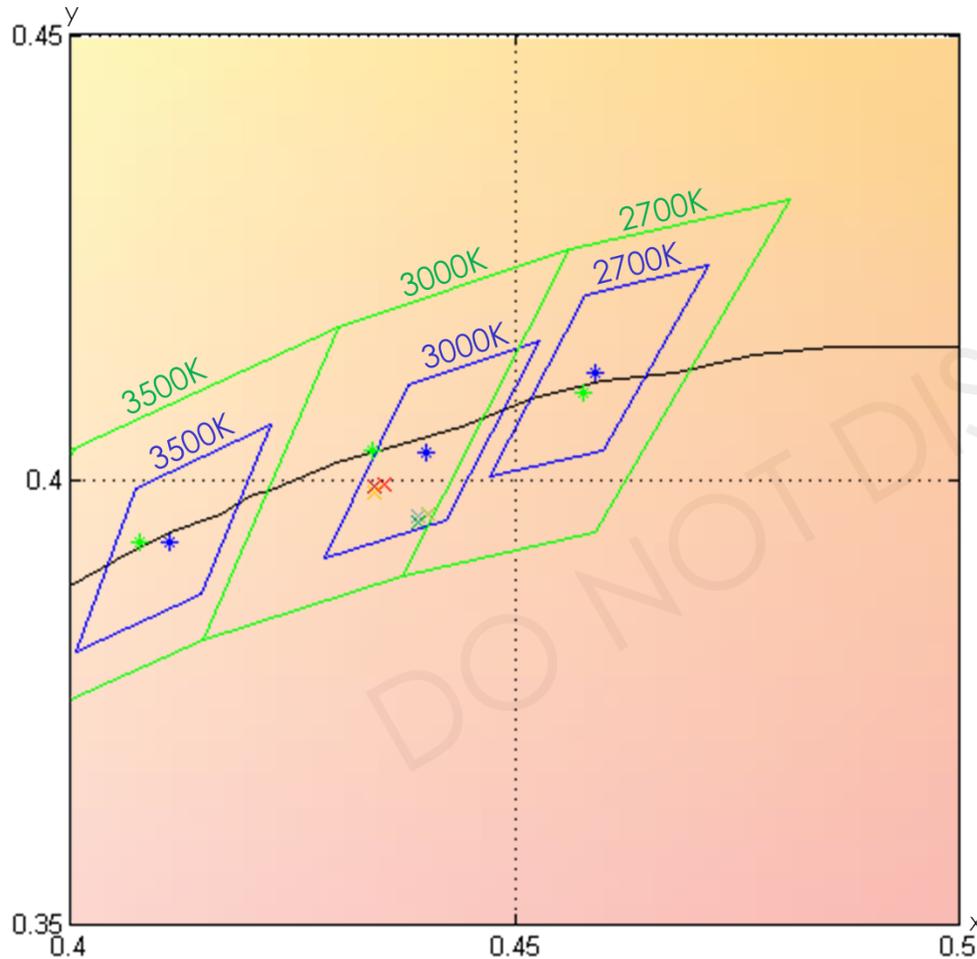


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-11-01	Base-Up	0.4341	0.3992
✘ Omni-11-01	Base-Down	0.4353	0.3995
✘ Omni-11-01	Horizontal	0.4341	0.3985
✘ Omni-11-02	Base-Up	0.4391	0.3958
✘ Omni-11-02	Base-Down	0.4402	0.3961
✘ Omni-11-02	Horizontal	0.4391	0.3952

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Photometric Summary: Omni-11



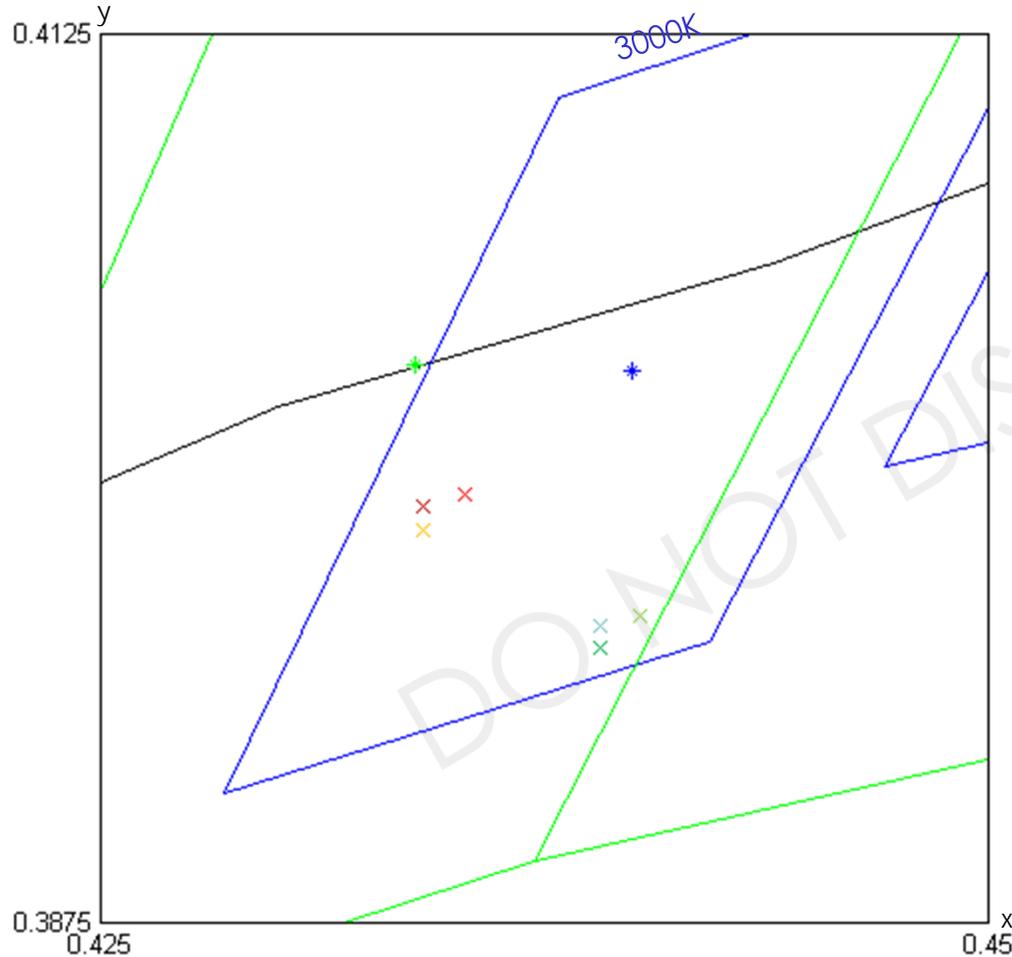
Serial #	Orientation	CIE X	CIE Y
✖ Omni-11-01	Base-Up	0.4341	0.3992
✖ Omni-11-01	Base-Down	0.4353	0.3995
✖ Omni-11-01	Horizontal	0.4341	0.3985
✖ Omni-11-02	Base-Up	0.4391	0.3958
✖ Omni-11-02	Base-Down	0.4402	0.3961
✖ Omni-11-02	Horizontal	0.4391	0.3952

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-11



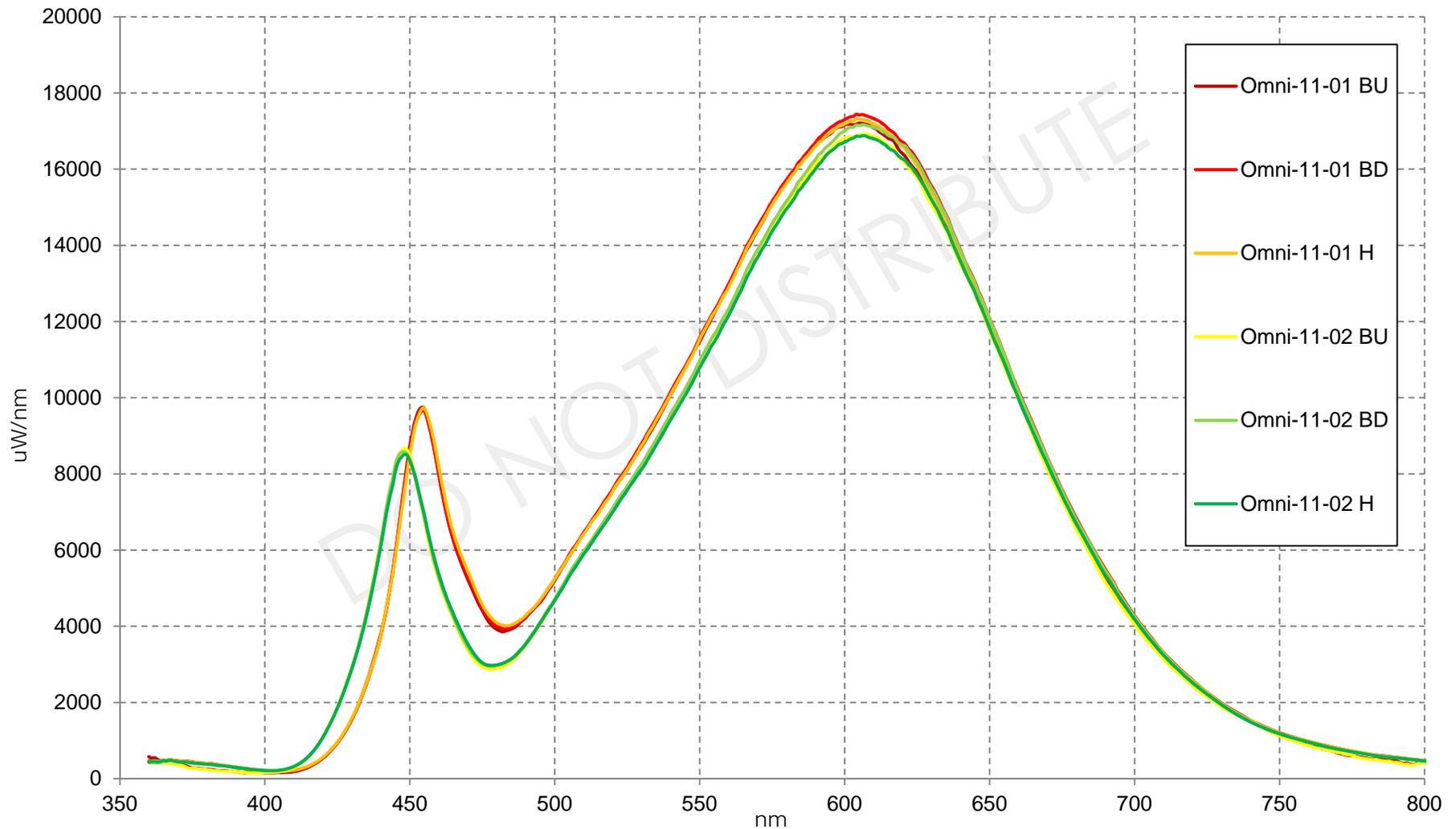
Serial #	Orientation	CIE X	CIE Y
✖ Omni-11-01	Base-Up	0.4341	0.3992
✖ Omni-11-01	Base-Down	0.4353	0.3995
✖ Omni-11-01	Horizontal	0.4341	0.3985
✖ Omni-11-02	Base-Up	0.4391	0.3958
✖ Omni-11-02	Base-Down	0.4402	0.3961
✖ Omni-11-02	Horizontal	0.4391	0.3952

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-11



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Omni-12

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Photometric Summary: Omni-12

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-12-01	Base-Down	9.8	733	746	4972	71.6	76.1
Omni-12-02	Base-Down	9.8		783	5202	71.8	79.9
Average	Base-Down	9.8		765	5087	71.7	78.0
Omni-12-01	Base-Up	10.0		725	5005	71.0	72.5
Omni-12-02	Base-Up	9.9		757	5245	71.4	76.5
Average	Base-Up	10.0		741	5125	71.2	74.5
Omni-12-01	Horizontal	9.7		749	4974	71.6	77.2
Omni-12-02	Horizontal	9.7		784	5208	71.8	80.8
Average	Horizontal	9.7		767	5091	71.7	79.0
Average	All Orientations	9.8		757	5101	71.5	77.2

Mfg. Rated Output (lumens): 720

Electrical Summary: Omni-12

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-12-01	Base-Down	9.8	0.805	120	82	Pending	Pending
Omni-12-02	Base-Down	9.8	0.805	120	82	Pending	Pending
Average	Base-Down	9.8	0.805	120	82	Pending	Pending
Omni-12-01	Base-Up	10.0	0.730	120	83	Pending	Pending
Omni-12-02	Base-Up	9.9	0.740	120	83	Pending	Pending
Average	Base-Up	10.0	0.735	120	83	Pending	Pending
Omni-12-01	Horizontal	9.7	0.815	120	81	Pending	Pending
Omni-12-02	Horizontal	9.7	0.813	120	81	Pending	Pending
Average	Horizontal	9.7	0.814	120	81	Pending	Pending
Average	All Orientations	9.8	0.785	120	82	Pending	Pending

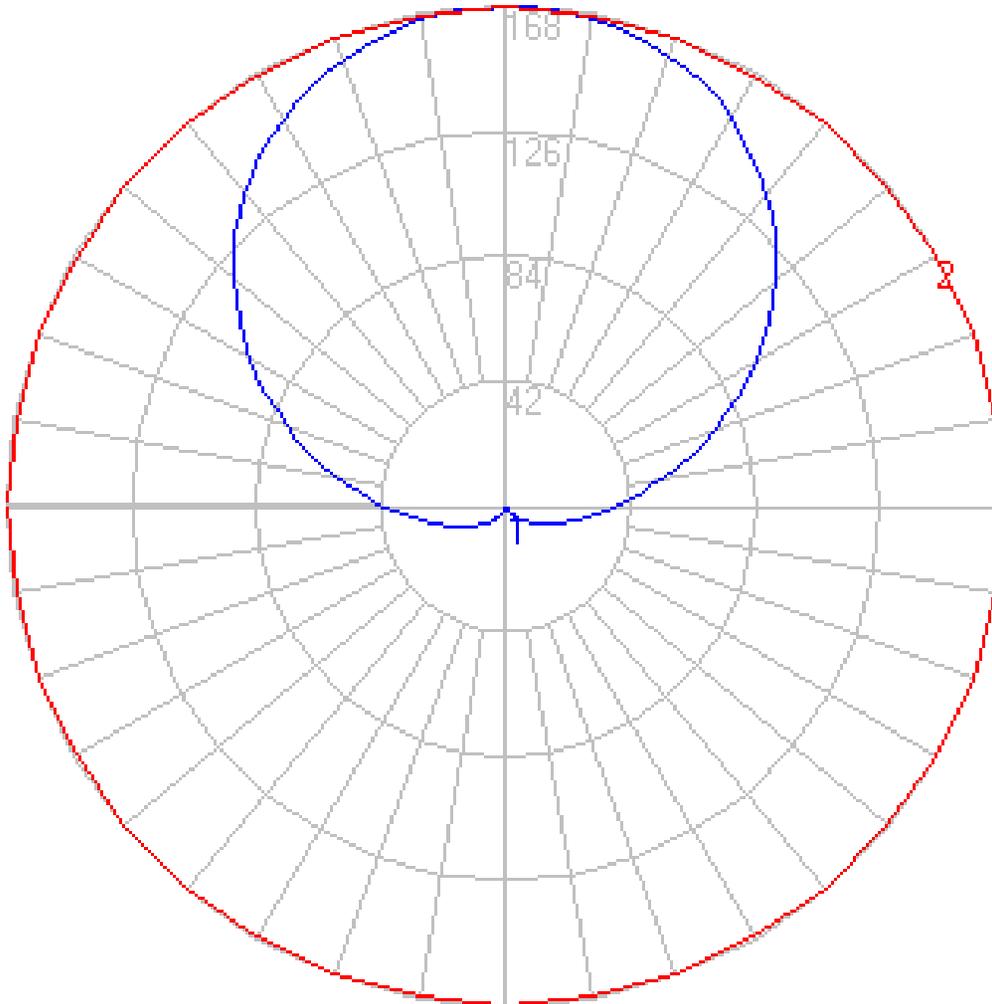
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CRI Chart: Omni-12

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-12-01	Base-Up	68.9	76.4	78.4	70.2	68.3	64.8	81.6	59.3	-21.1	40.4	63.2	37.0	69.8	87.4	71.0
Omni-12-01	Base-Down	69.3	77.1	79.0	70.1	68.1	65.2	83.4	60.7	-17.5	41.6	62.3	34.1	70.4	87.7	71.6
Omni-12-01	Horizontal	69.2	77.0	79.0	70.0	68.0	65.1	83.4	60.6	-17.7	41.6	62.2	34.0	70.3	87.7	71.6
Omni-12-02	Base-Up	70.5	76.1	76.1	71.8	69.9	64.4	80.9	61.9	-15.3	39.2	65.7	37.8	70.8	85.9	71.4
Omni-12-02	Base-Down	71.0	76.5	76.4	72.1	70.3	64.9	81.1	62.3	-13.6	40.1	65.9	38.5	71.2	86.1	71.8
Omni-12-02	Horizontal	71.0	76.5	76.4	72.1	70.3	64.9	81.1	62.3	-13.6	40.2	65.9	38.6	71.2	86.1	71.8

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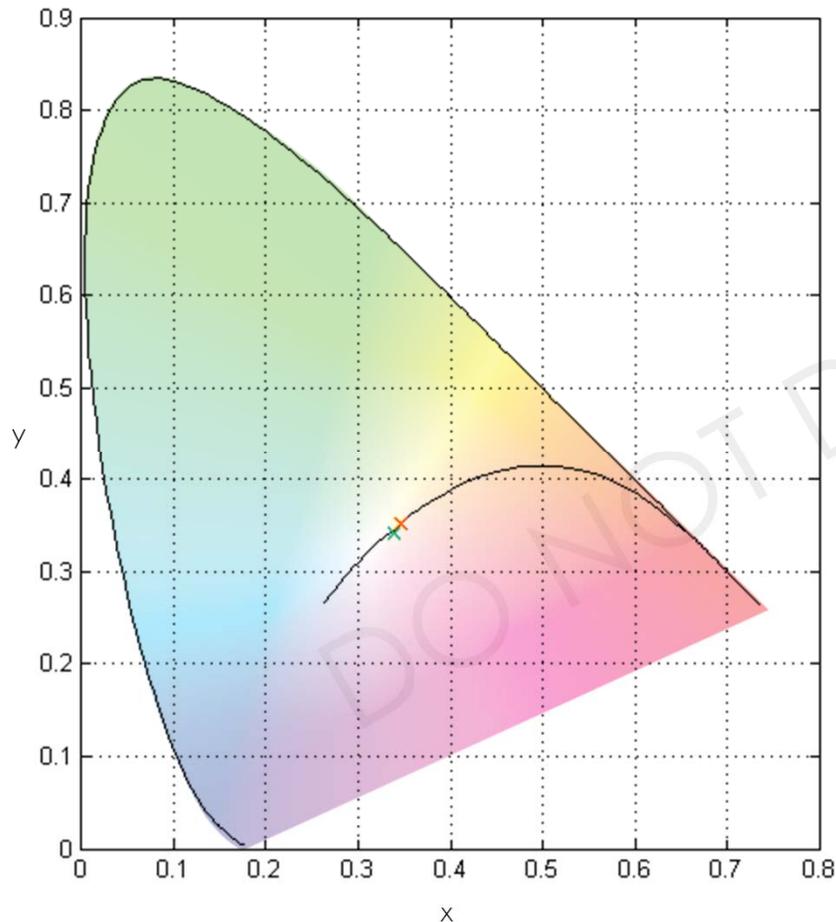
Goniophotometer Characterization: Omni-12



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-12

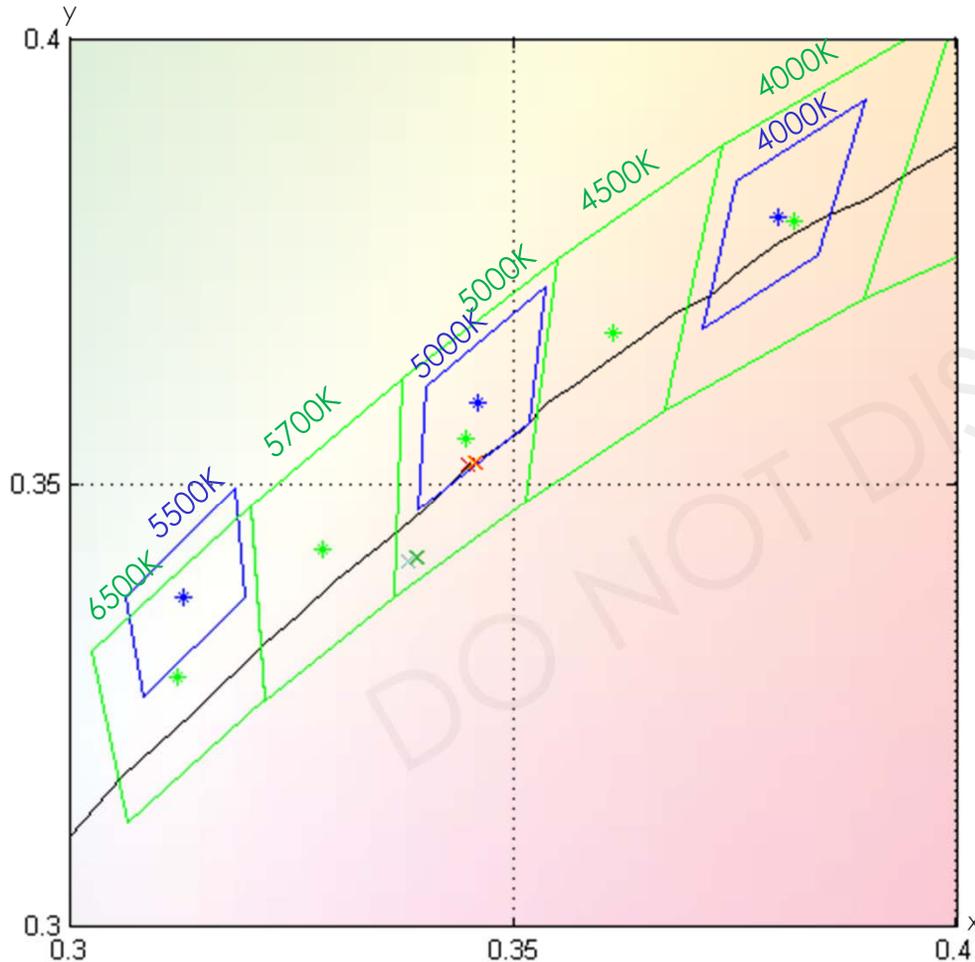


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-12-01	Base-Up	0.3449	0.3521
✘ Omni-12-01	Base-Down	0.3458	0.3524
✘ Omni-12-01	Horizontal	0.3456	0.3524
✘ Omni-12-02	Base-Up	0.3382	0.3411
✘ Omni-12-02	Base-Down	0.3393	0.3416
✘ Omni-12-02	Horizontal	0.3391	0.3416

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Photometric Summary: Omni-12



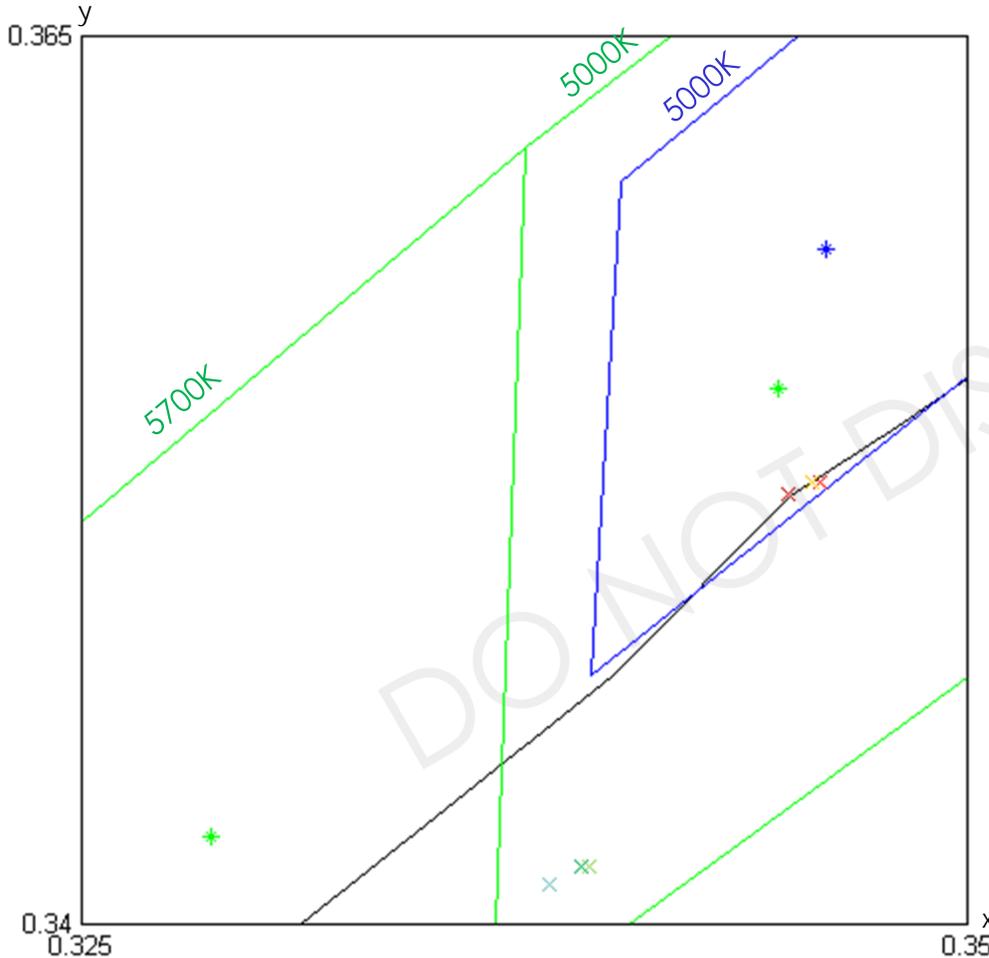
Serial #	Orientation	CIE X	CIE Y
✖ Omni-12-01	Base-Up	0.3449	0.3521
✖ Omni-12-01	Base-Down	0.3458	0.3524
✖ Omni-12-01	Horizontal	0.3456	0.3524
✖ Omni-12-02	Base-Up	0.3382	0.3411
✖ Omni-12-02	Base-Down	0.3393	0.3416
✖ Omni-12-02	Horizontal	0.3391	0.3416

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-12



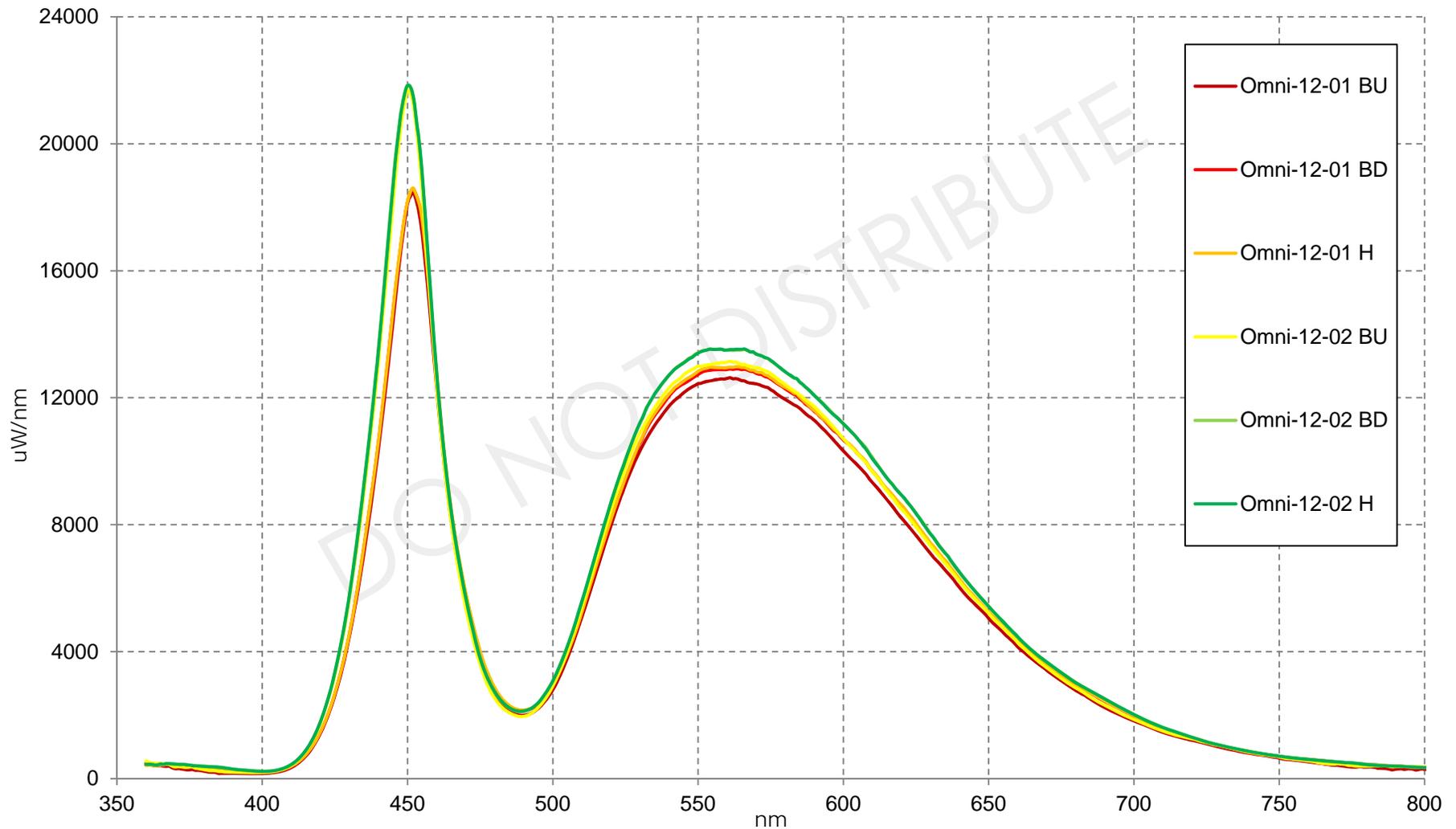
Serial #	Orientation	CIE X	CIE Y
✖ Omni-12-01	Base-Up	0.3449	0.3521
✖ Omni-12-01	Base-Down	0.3458	0.3524
✖ Omni-12-01	Horizontal	0.3456	0.3524
✖ Omni-12-02	Base-Up	0.3382	0.3411
✖ Omni-12-02	Base-Down	0.3393	0.3416
✖ Omni-12-02	Horizontal	0.3391	0.3416

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-12



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Omni-13

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Photometric Summary: Omni-13

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-13-01	Base-Down	10.1	753	783	3008	84.9	77.5
Omni-13-02	Base-Down	9.5		741	3013	84.4	78.0
Average	Base-Down	9.8		762	3011	84.7	77.8
Omni-13-01	Base-Up	10.0		757	3016	84.4	75.7
Omni-13-02	Base-Up	9.4		714	3026	84.0	76.0
Average	Base-Up	9.7		736	3021	84.2	75.8
Omni-13-01	Horizontal	10.0		764	3032	84.8	76.4
Omni-13-02	Horizontal	9.5		725	3036	84.4	76.3
Average	Horizontal	9.8		745	3034	84.6	76.4
Average	All Orientations	9.8		747	3022	84.5	76.6

Mfg. Rated Output (lumens): 810

Electrical Summary: Omni-13

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-13-01	Base-Down	10.1	0.938	120	84	Pending	Pending
Omni-13-02	Base-Down	9.5	0.953	120	79	Pending	Pending
Average	Base-Down	9.8	0.946	120	82	Pending	Pending
Omni-13-01	Base-Up	10.0	0.935	120	83	Pending	Pending
Omni-13-02	Base-Up	9.4	0.951	120	78	Pending	Pending
Average	Base-Up	9.7	0.943	120	81	Pending	Pending
Omni-13-01	Horizontal	10.0	0.937	120	83	Pending	Pending
Omni-13-02	Horizontal	9.5	0.952	120	79	Pending	Pending
Average	Horizontal	9.8	0.945	120	81	Pending	Pending
Average	All Orientations	9.8	0.944	120	81	Pending	Pending

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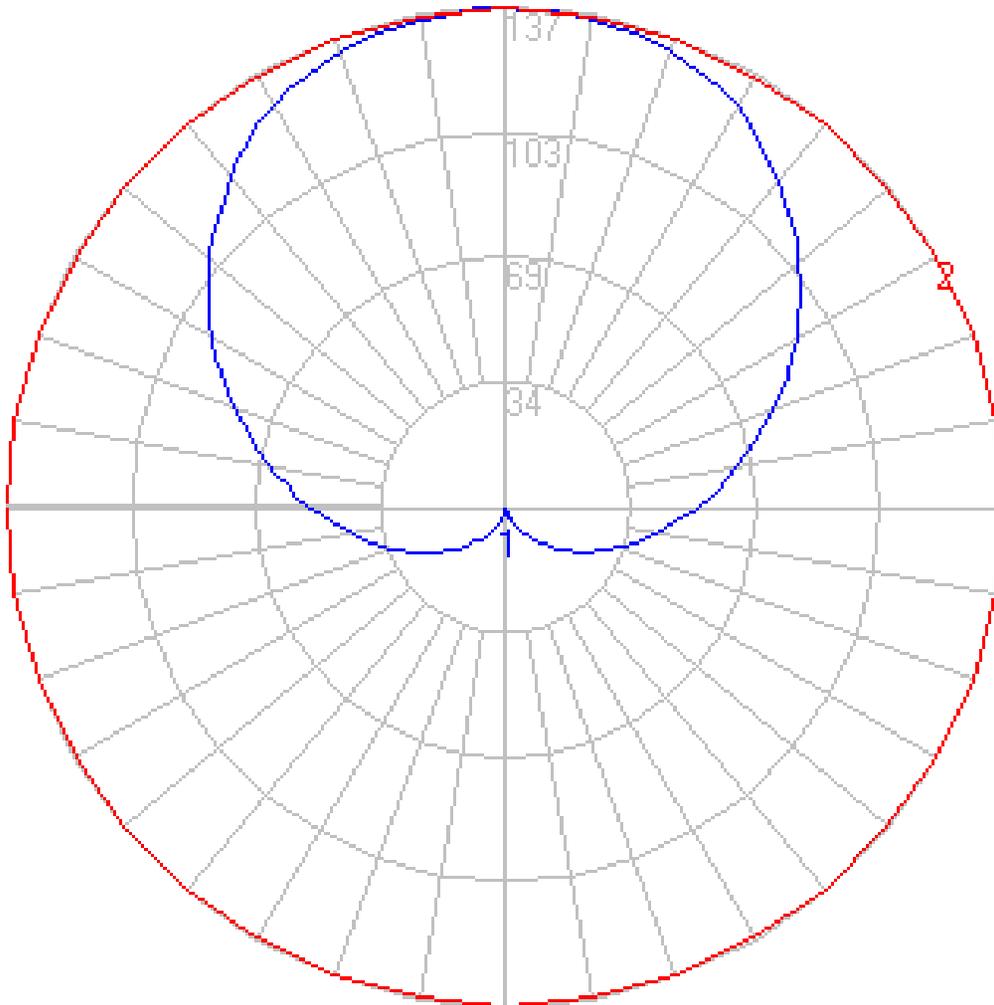
CRI Chart: Omni-13

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-13-01	Base-Up	85.6	88.3	87.6	85.0	81.5	83.3	91.5	72.6	29.6	67.2	80.0	53.6	85.4	91.1	84.4
Omni-13-01	Base-Down	86.0	88.6	87.6	85.4	81.9	83.6	91.9	73.8	32.7	67.8	80.4	54.4	85.8	91.1	84.9
Omni-13-01	Horizontal	85.7	88.5	87.6	85.0	81.7	83.3	92.1	74.3	33.8	67.6	79.9	54.2	85.5	91.2	84.8
Omni-13-02	Base-Up	85.1	87.5	86.4	84.9	81.0	82.0	91.7	73.3	30.6	65.3	79.9	52.1	84.7	90.5	84.0
Omni-13-02	Base-Down	85.6	87.8	86.4	85.2	81.4	82.3	91.9	74.4	33.5	65.9	80.1	52.9	85.1	90.4	84.4
Omni-13-02	Horizontal	85.4	87.7	86.3	85.0	81.2	82.0	92.2	75.0	34.8	65.8	79.8	52.6	84.9	90.5	84.4

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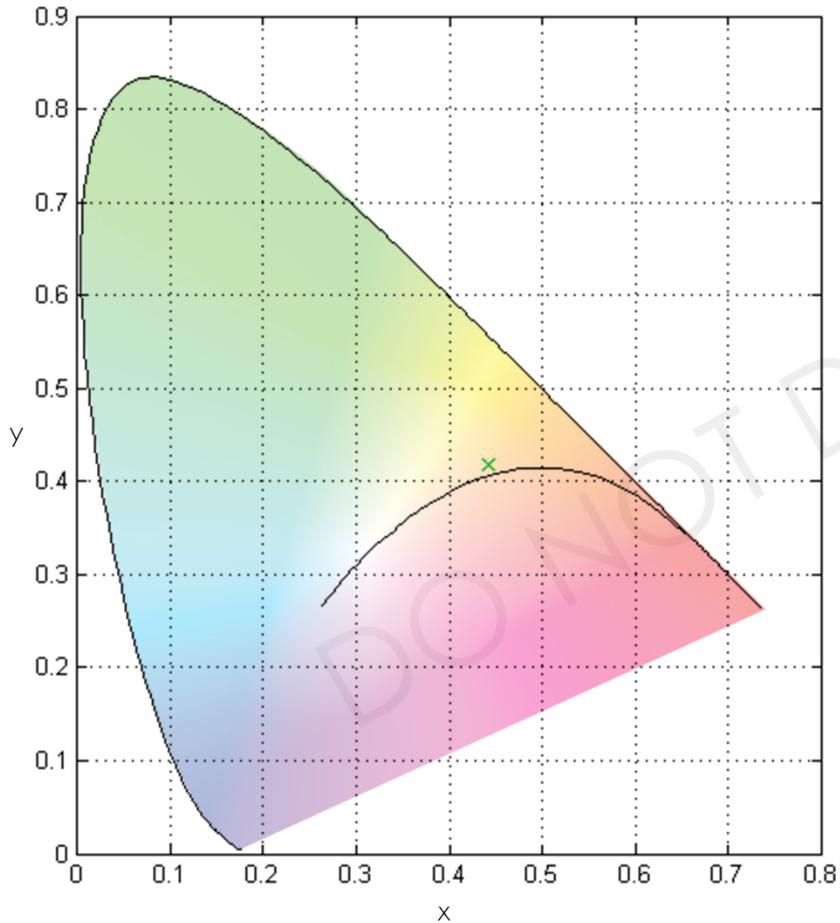
Goniophotometer Characterization: Omni-13



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-13

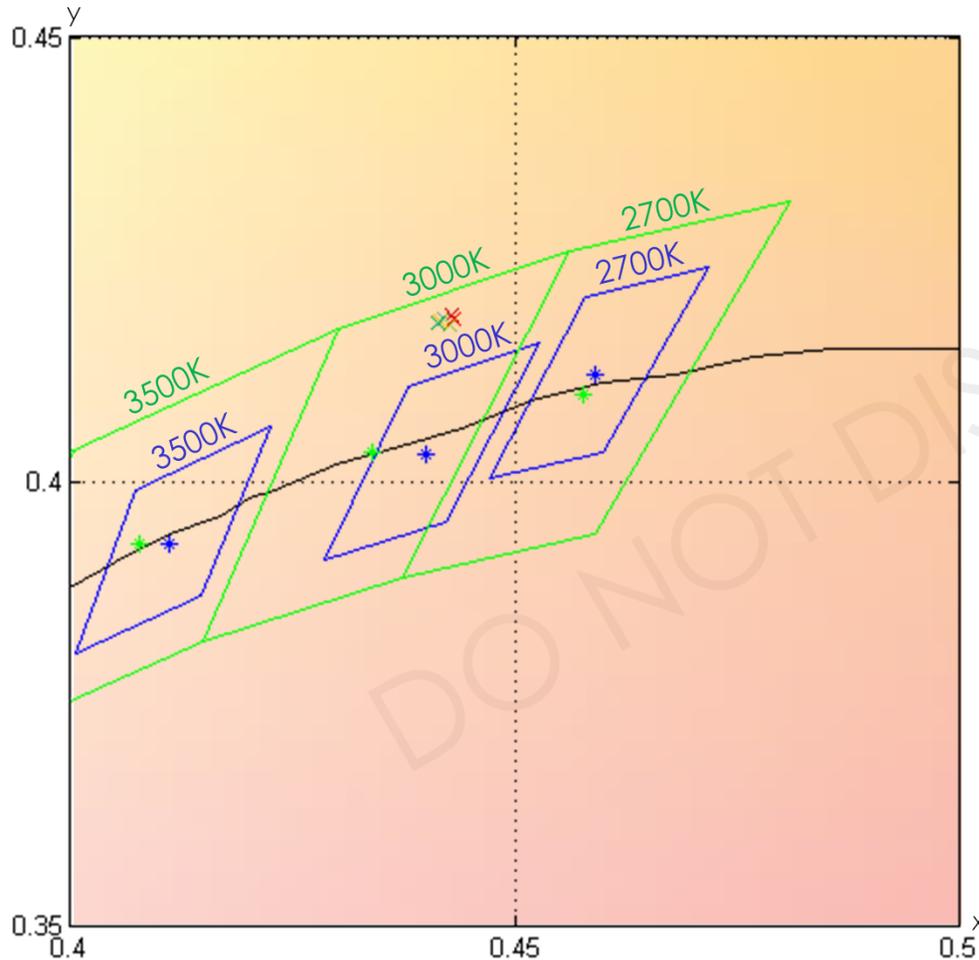


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-13-01	Base-Up	0.4429	0.4188
✘ Omni-13-01	Base-Down	0.4432	0.4183
✘ Omni-13-01	Horizontal	0.4416	0.4181
✘ Omni-13-02	Base-Up	0.4421	0.4183
✘ Omni-13-02	Base-Down	0.4427	0.4177
✘ Omni-13-02	Horizontal	0.4413	0.4178

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Photometric Summary: Omni-13



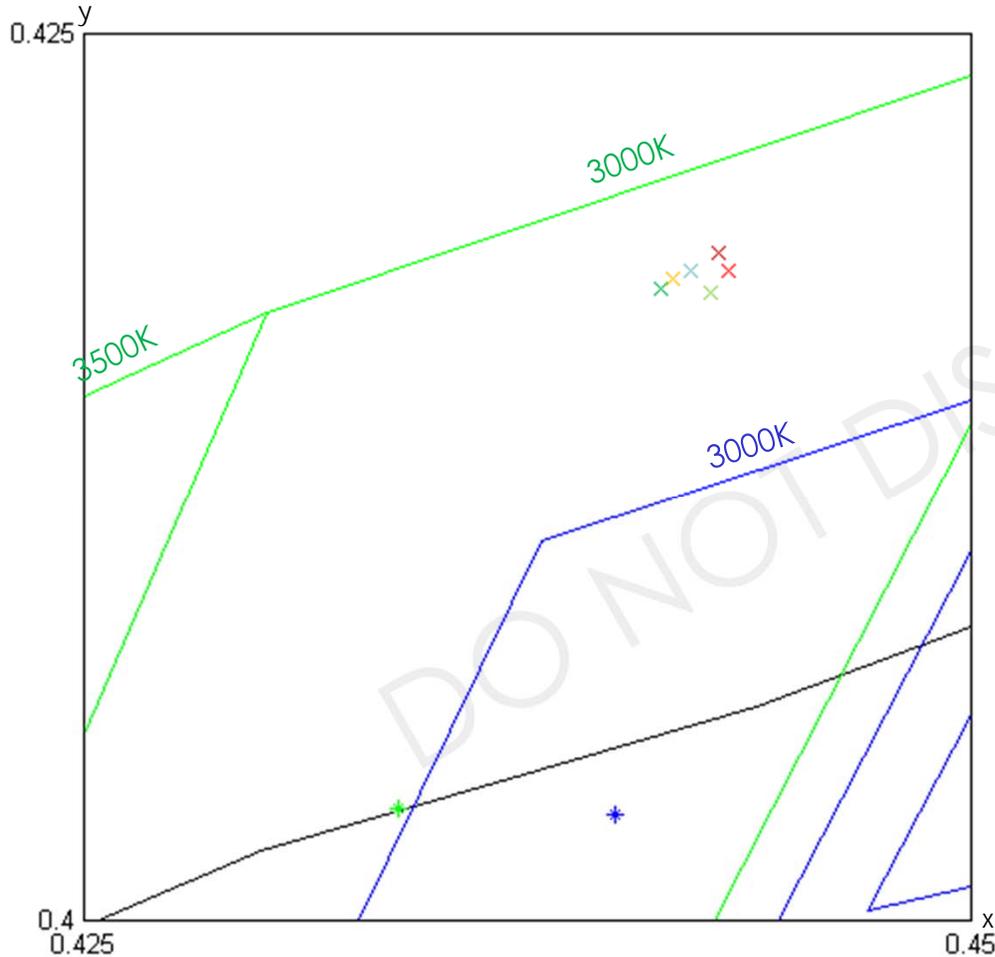
Serial #	Orientation	CIE X	CIE Y
✖ Omni-13-01	Base-Up	0.4429	0.4188
✖ Omni-13-01	Base-Down	0.4432	0.4183
✖ Omni-13-01	Horizontal	0.4416	0.4181
✖ Omni-13-02	Base-Up	0.4421	0.4183
✖ Omni-13-02	Base-Down	0.4427	0.4177
✖ Omni-13-02	Horizontal	0.4413	0.4178

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-13



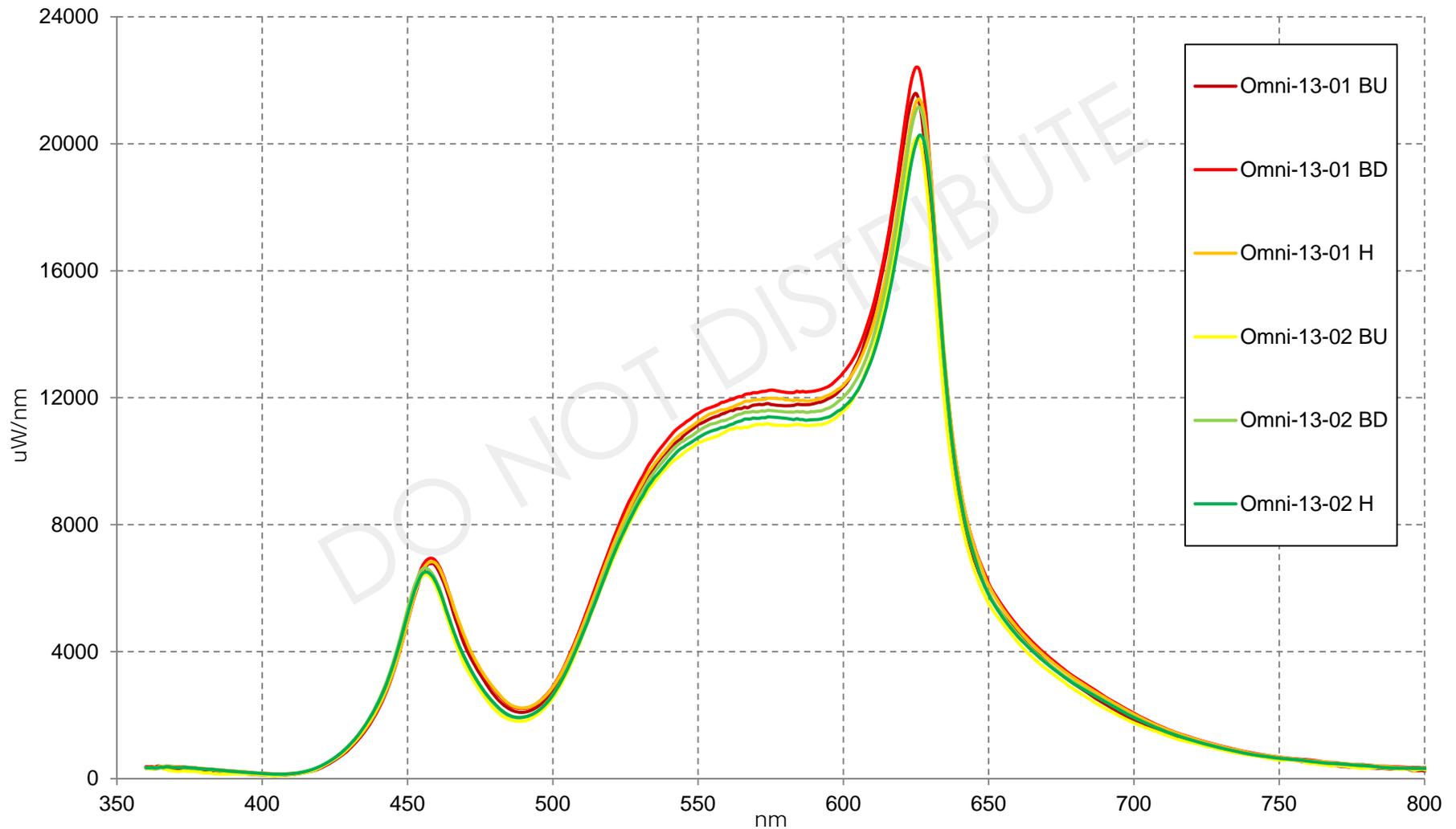
Serial #	Orientation	CIE X	CIE Y
✖ Omni-13-01	Base-Up	0.4429	0.4188
✖ Omni-13-01	Base-Down	0.4432	0.4183
✖ Omni-13-01	Horizontal	0.4416	0.4181
✖ Omni-13-02	Base-Up	0.4421	0.4183
✖ Omni-13-02	Base-Down	0.4427	0.4177
✖ Omni-13-02	Horizontal	0.4413	0.4178

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-13



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Omni-14

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Photometric Summary: Omni-14

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-14-01	Base-Down	13.7	754	752	2634	83.7	54.9
Omni-14-02	Base-Down	13.6		748	2611	83.7	55.0
Average	Base-Down	13.7		750	2623	83.7	54.9
Omni-14-01	Base-Up	14.1		759	2645	83.4	53.8
Omni-14-02	Base-Up	13.9		748	2621	83.4	53.8
Average	Base-Up	14.0		754	2633	83.4	53.8
Omni-14-01	Horizontal	13.6		732	2627	83.5	53.8
Omni-14-02	Horizontal	13.6		732	2604	83.5	53.8
Average	Horizontal	13.6		732	2616	83.5	53.8
Average	All Orientations	13.8		745	2624	83.5	54.2

Mfg. Rated Output (lumens): 800

Electrical Summary: Omni-14

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-14-01	Base-Down	13.7	0.991	120	114	Pending	Pending
Omni-14-02	Base-Down	13.6	0.991	120	113	Pending	Pending
Average	Base-Down	13.7	0.991	120	114	Pending	Pending
Omni-14-01	Base-Up	14.1	0.990	120	118	Pending	Pending
Omni-14-02	Base-Up	13.9	0.990	120	116	Pending	Pending
Average	Base-Up	14.0	0.990	120	117	Pending	Pending
Omni-14-01	Horizontal	13.6	0.990	120	113	Pending	Pending
Omni-14-02	Horizontal	13.6	0.990	120	113	Pending	Pending
Average	Horizontal	13.6	0.990	120	113	Pending	Pending
Average	All Orientations	13.8	0.990	120	115	Pending	Pending

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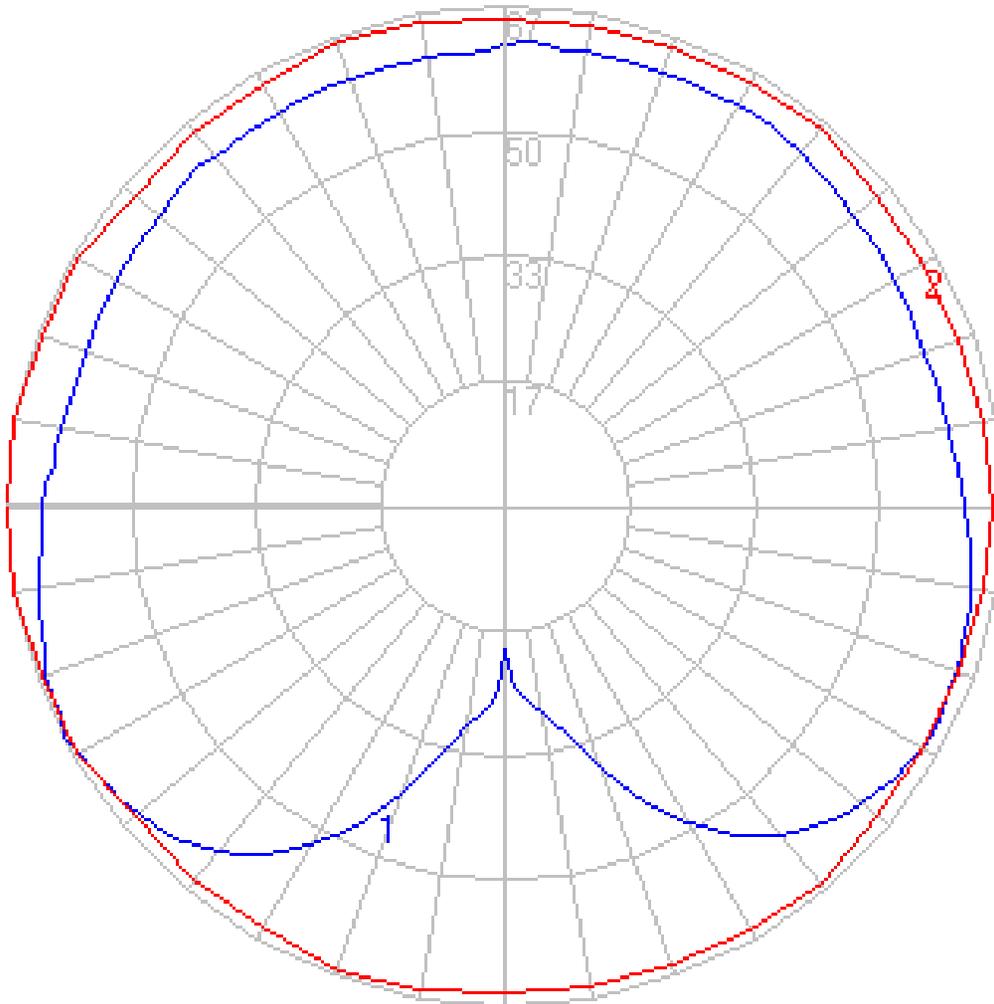
CRI Chart: Omni-14

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-14-01	Base-Up	81.9	91.6	96.5	79.9	81.5	89.3	83.4	62.9	21.4	80.3	77.7	76.0	84.0	98.6	83.4
Omni-14-01	Base-Down	82.4	91.8	96.6	80.3	81.9	89.6	83.6	63.5	23.0	80.7	78.2	76.6	84.4	98.7	83.7
Omni-14-01	Horizontal	82.2	92.0	96.3	79.8	81.8	89.9	83.3	63.0	22.3	81.2	77.5	77.0	84.3	98.7	83.5
Omni-14-02	Base-Up	82.0	91.7	96.5	79.8	81.5	89.4	83.2	62.8	21.6	80.5	77.6	76.3	84.1	98.6	83.4
Omni-14-02	Base-Down	82.4	91.9	96.5	80.1	81.9	89.8	83.4	63.3	22.9	81.0	78.0	77.1	84.4	98.7	83.7
Omni-14-02	Horizontal	82.2	92.2	96.1	79.7	81.9	90.1	83.0	62.8	22.3	81.5	77.4	77.6	84.4	98.6	83.5

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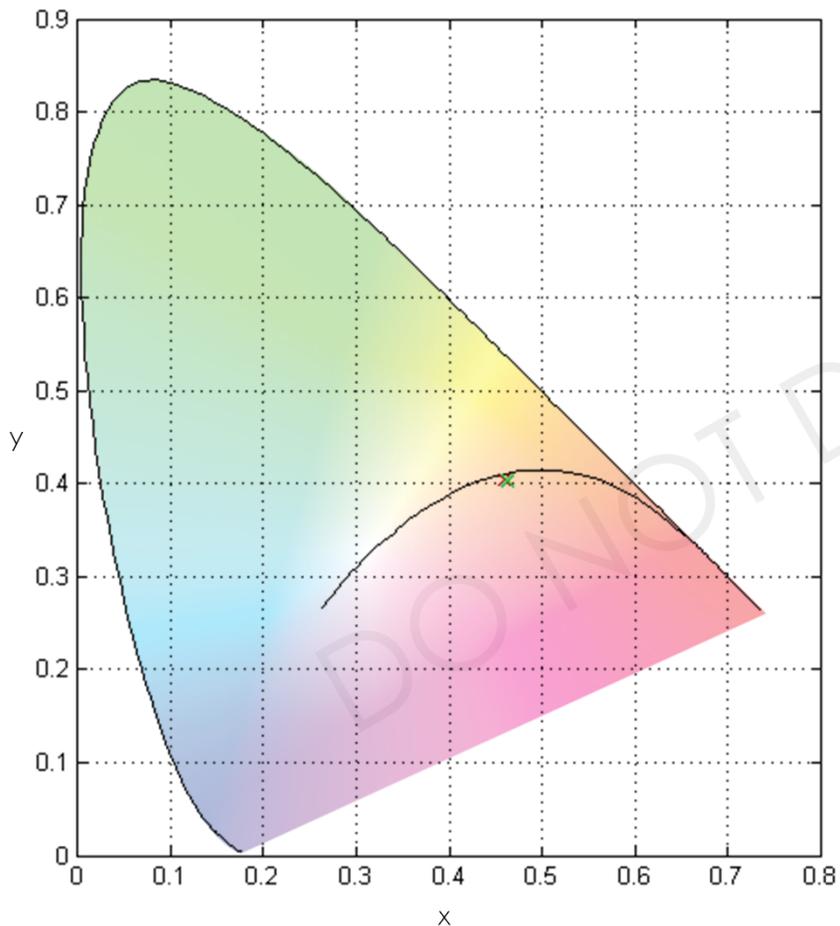
Goniophotometer Characterization: Omni-14



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-14

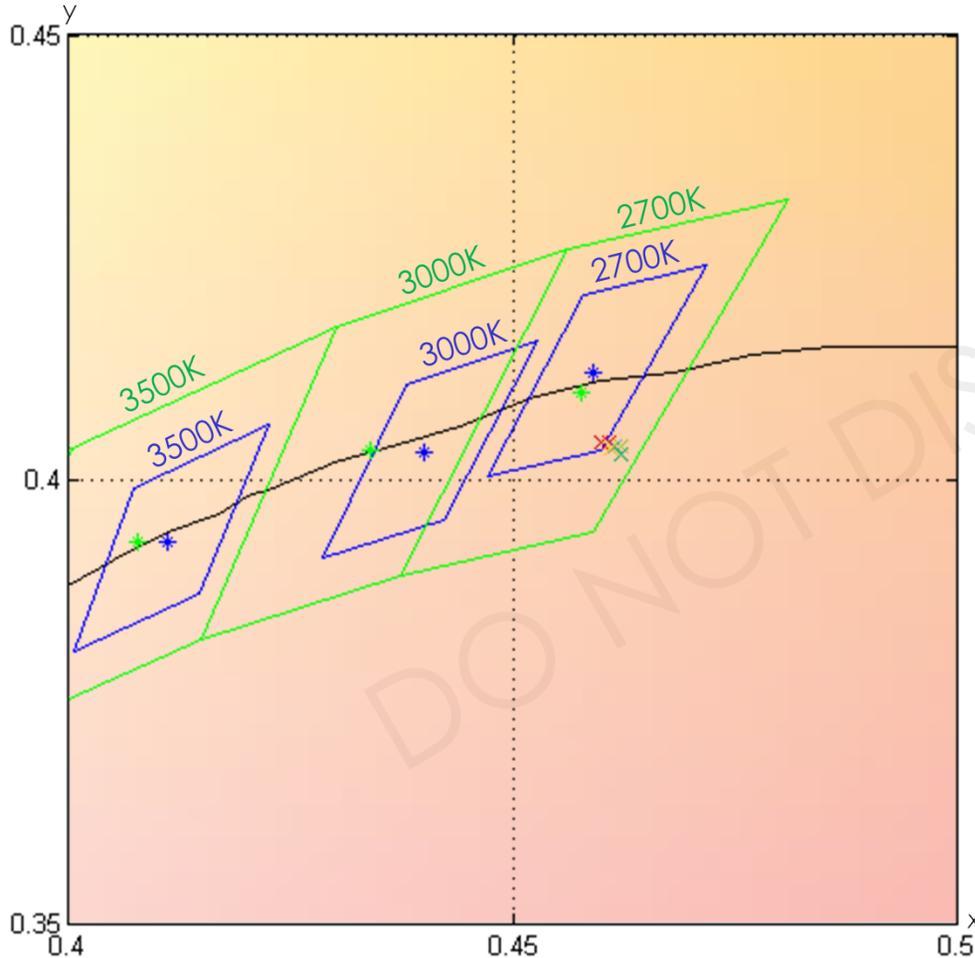


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-14-01	Base-Up	0.4600	0.4041
✘ Omni-14-01	Base-Down	0.4608	0.4041
✘ Omni-14-01	Horizontal	0.4610	0.4035
✘ Omni-14-02	Base-Up	0.4616	0.4037
✘ Omni-14-02	Base-Down	0.4622	0.4036
✘ Omni-14-02	Horizontal	0.4622	0.4027

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Photometric Summary: Omni-14



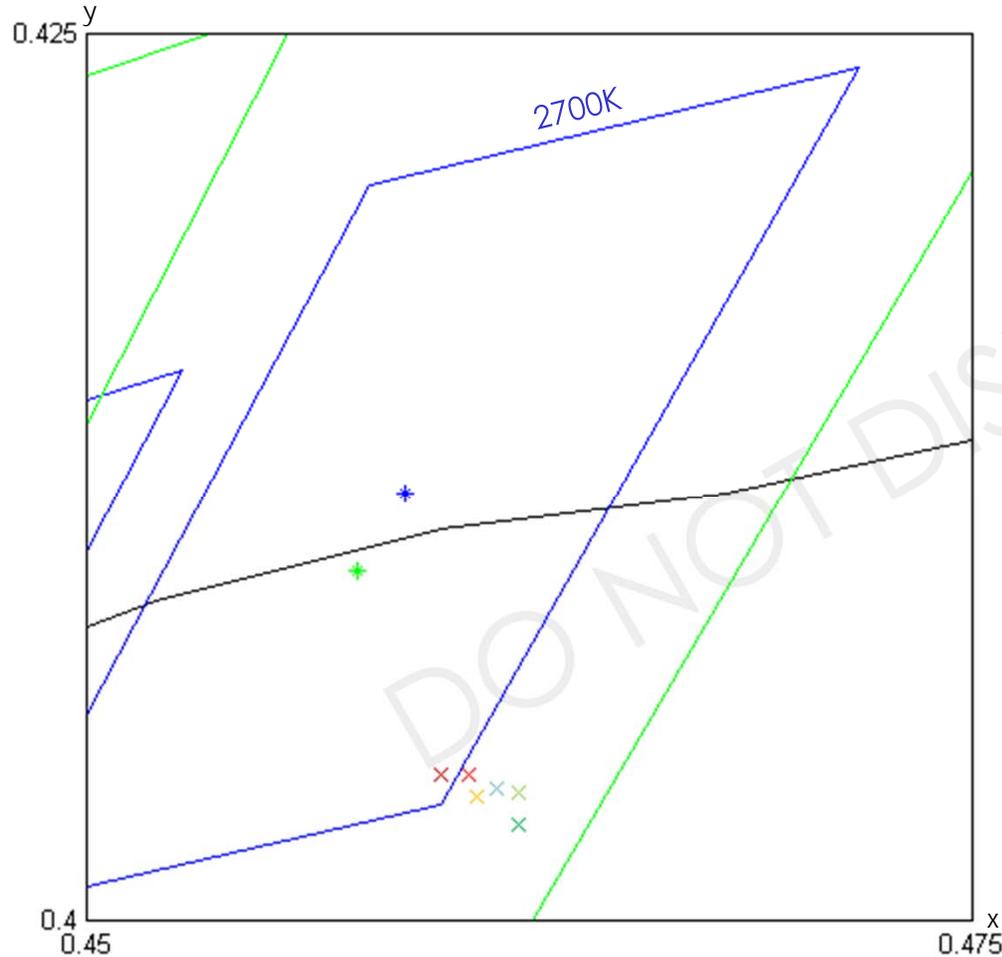
Serial #	Orientation	CIE X	CIE Y
✘ Omni-14-01	Base-Up	0.4600	0.4041
✘ Omni-14-01	Base-Down	0.4608	0.4041
✘ Omni-14-01	Horizontal	0.4610	0.4035
✘ Omni-14-02	Base-Up	0.4616	0.4037
✘ Omni-14-02	Base-Down	0.4622	0.4036
✘ Omni-14-02	Horizontal	0.4622	0.4027

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-14



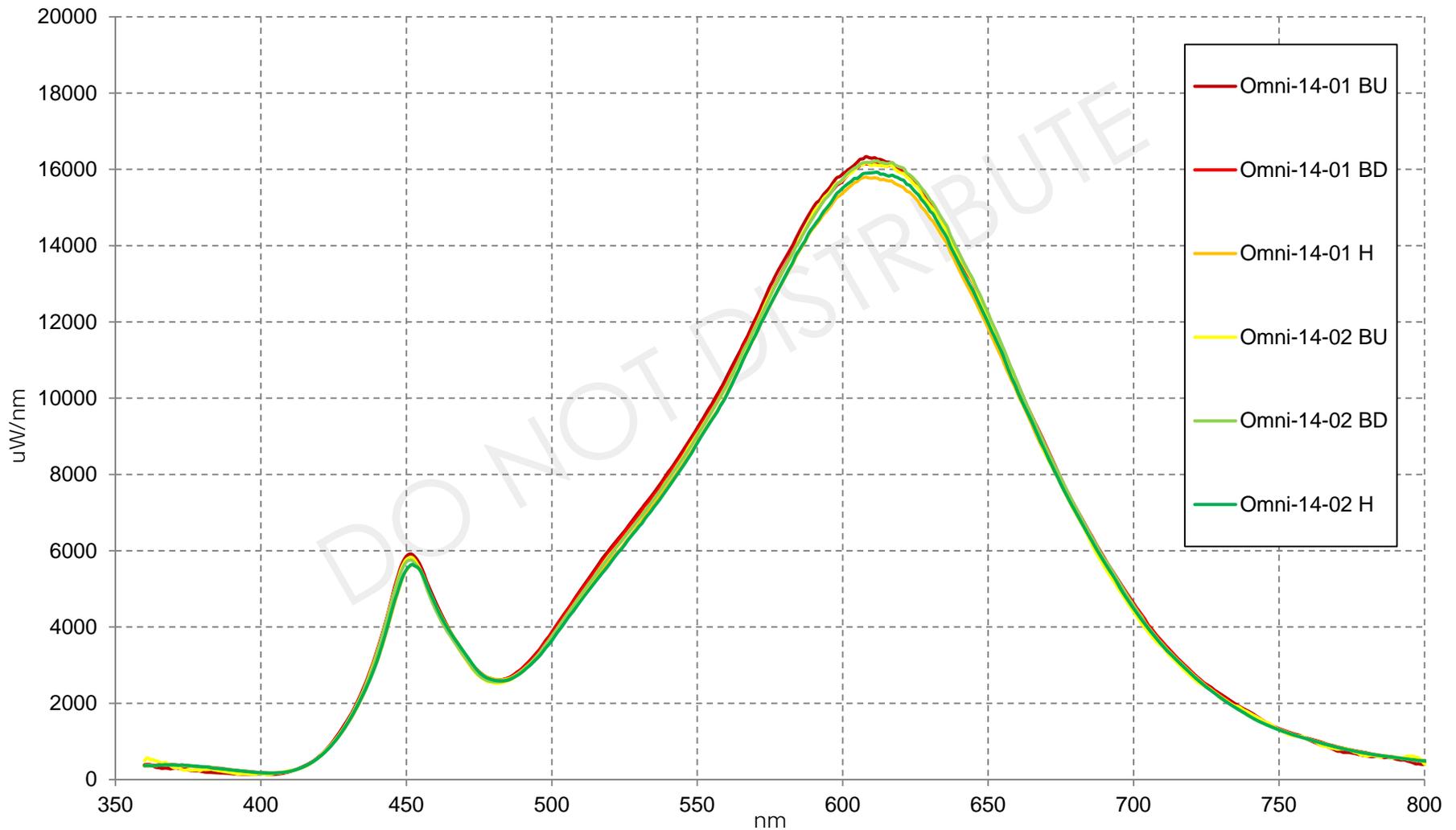
Serial #	Orientation	CIE X	CIE Y
✖ Omni-14-01	Base-Up	0.4600	0.4041
✖ Omni-14-01	Base-Down	0.4608	0.4041
✘ Omni-14-01	Horizontal	0.4610	0.4035
✚ Omni-14-02	Base-Up	0.4616	0.4037
✚ Omni-14-02	Base-Down	0.4622	0.4036
✚ Omni-14-02	Horizontal	0.4622	0.4027

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-14



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Omni-15

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Photometric Summary: Omni-15

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-15-01	Base-Down	12.1	853	875	2698	83.5	72.3
Omni-15-02	Base-Down	12.3		867	2768	83.1	70.5
Average	Base-Down	12.2		871	2733	83.3	71.4
Omni-15-01	Base-Up	12.1		847	2707	83.3	70.0
Omni-15-02	Base-Up	12.3		839	2774	82.8	68.2
Average	Base-Up	12.2		843	2741	83.1	69.1
Omni-15-01	Horizontal	12.0		851	2689	83.6	70.9
Omni-15-02	Horizontal	12.3		841	2757	83.2	68.4
Average	Horizontal	12.2		846	2723	83.4	69.6
Average	All Orientations	12.2		853	2732	83.3	70.1

Mfg. Rated Output (lumens): 810

Electrical Summary: Omni-15

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-15-01	Base-Down	12.1	0.916	120	101	Pending	Pending
Omni-15-02	Base-Down	12.3	0.912	120	103	Pending	Pending
Average	Base-Down	12.2	0.914	120	102	Pending	Pending
Omni-15-01	Base-Up	12.1	0.907	120	101	Pending	Pending
Omni-15-02	Base-Up	12.3	0.905	120	103	Pending	Pending
Average	Base-Up	12.2	0.906	120	102	Pending	Pending
Omni-15-01	Horizontal	12.0	0.911	120	100	Pending	Pending
Omni-15-02	Horizontal	12.3	0.909	120	103	Pending	Pending
Average	Horizontal	12.2	0.910	120	101	Pending	Pending
Average	All Orientations	12.2	0.910	120	102	Pending	Pending

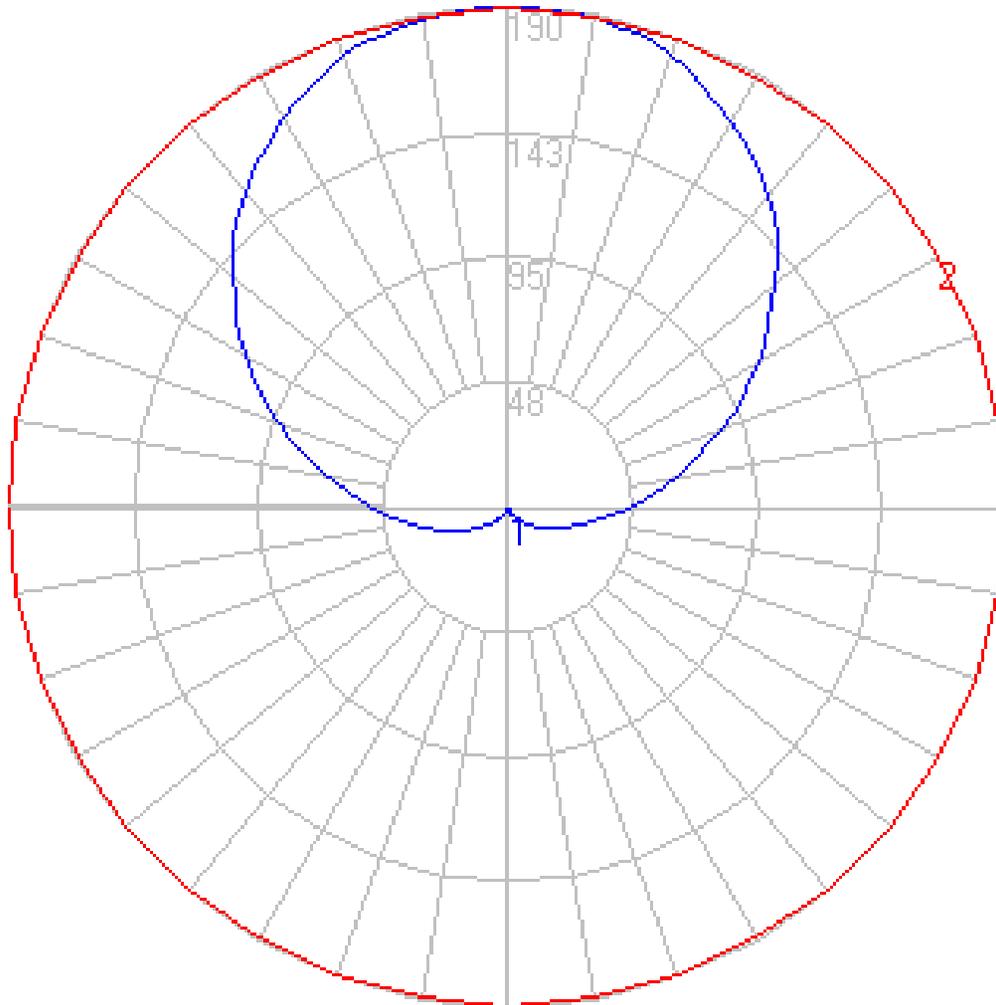
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CRI Chart: Omni-15

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-15-01	Base-Up	82.3	89.2	94.4	82.2	80.9	85.5	86.0	65.6	22.7	74.0	80.3	67.4	83.5	96.2	83.3
Omni-15-01	Base-Down	82.5	89.4	94.5	82.3	81.2	85.8	86.2	66.1	23.9	74.3	80.4	67.9	83.7	96.2	83.5
Omni-15-01	Horizontal	82.6	89.7	94.9	82.2	81.4	86.2	85.9	65.9	24.0	75.1	80.3	68.9	83.9	96.4	83.6
Omni-15-02	Base-Up	82.2	88.8	93.3	81.5	80.9	84.8	85.0	65.8	23.2	73.0	79.7	68.9	83.3	95.5	82.8
Omni-15-02	Base-Down	82.6	89.1	93.3	81.9	81.3	85.1	85.2	66.4	24.8	73.4	80.1	69.5	83.7	95.5	83.1
Omni-15-02	Horizontal	82.7	89.5	93.7	81.7	81.5	85.7	84.9	66.2	25.0	74.4	79.9	70.8	84.0	95.8	83.2

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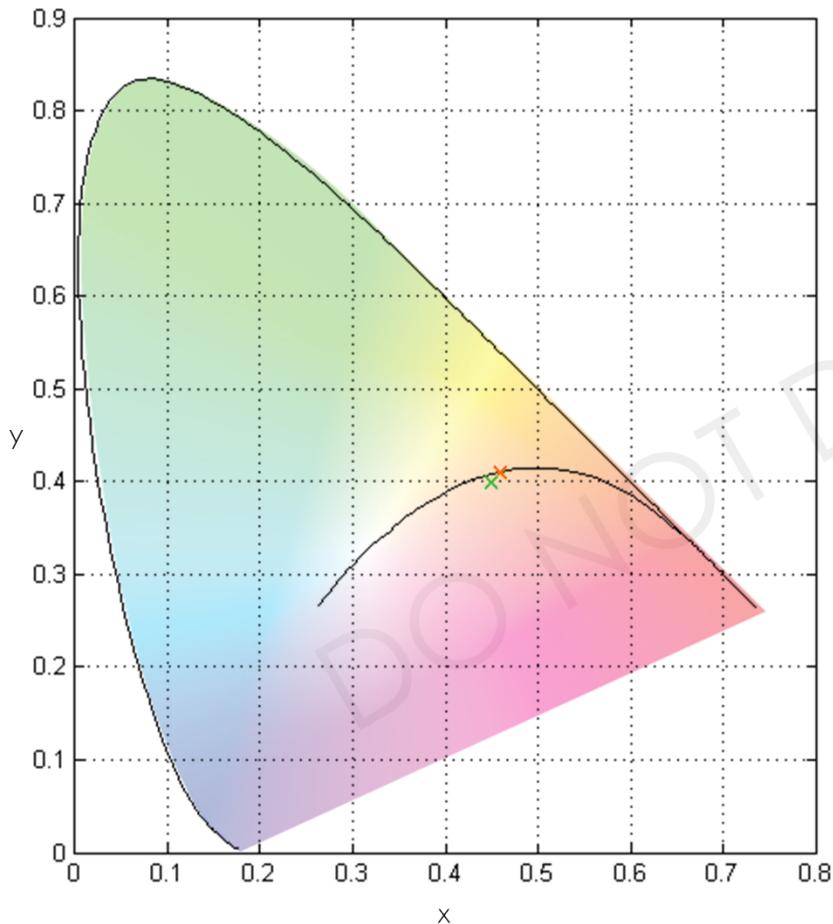
Goniophotometer Characterization: Omni-15



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-15

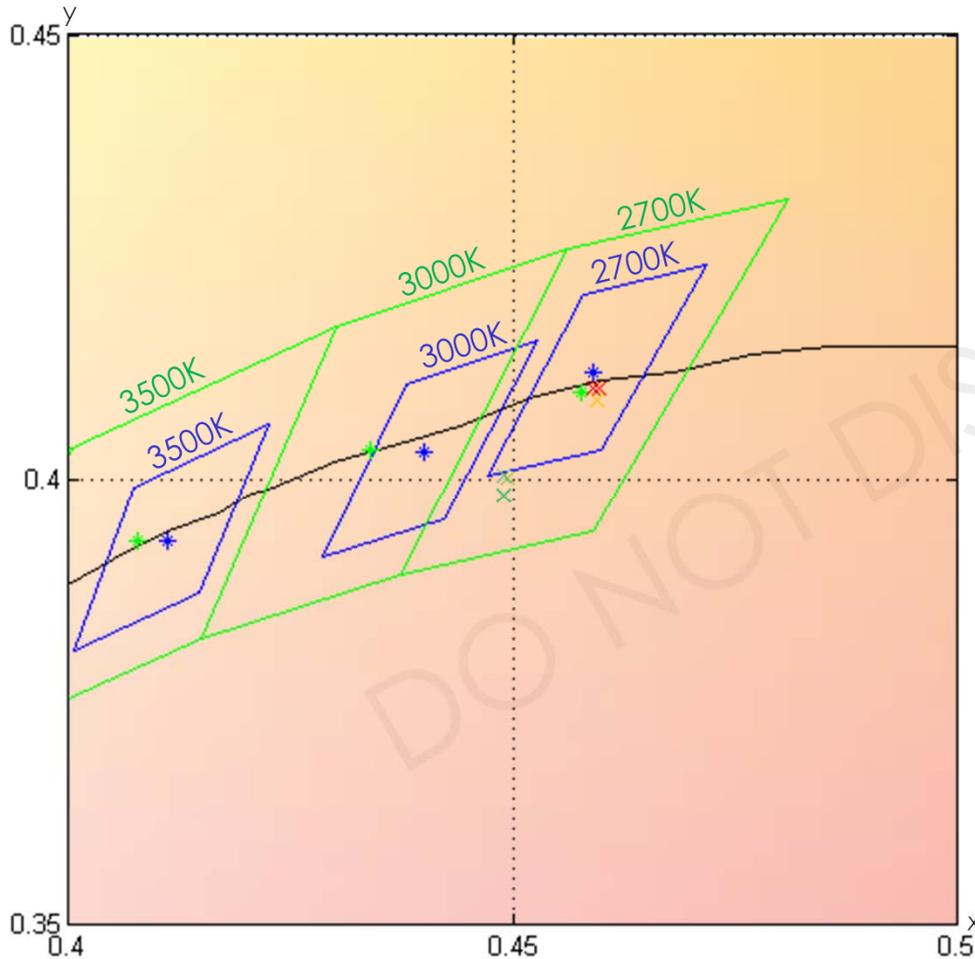


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-15-01	Base-Up	0.4591	0.4102
✘ Omni-15-01	Base-Down	0.4597	0.4103
✘ Omni-15-01	Horizontal	0.4596	0.4088
✘ Omni-15-02	Base-Up	0.4490	0.4003
✘ Omni-15-02	Base-Down	0.4494	0.4002
✘ Omni-15-02	Horizontal	0.4490	0.3981

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Photometric Summary: Omni-15



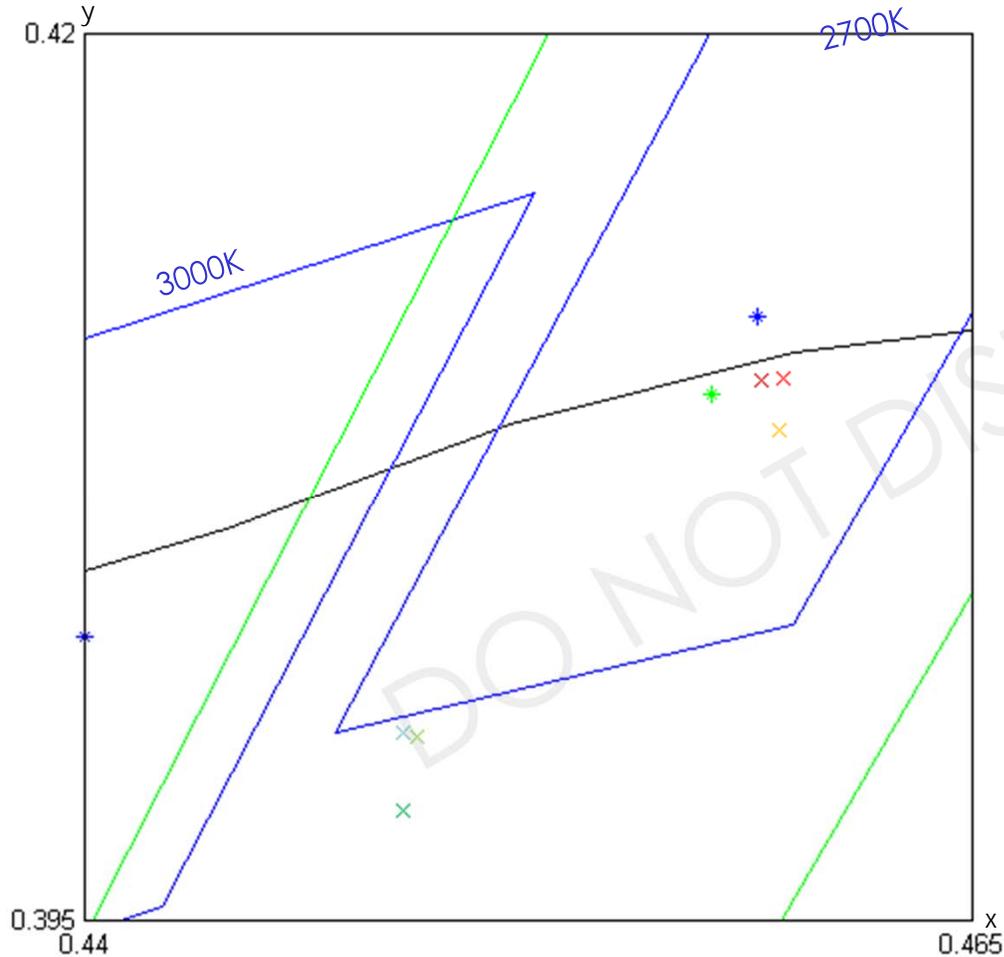
Serial #	Orientation	CIE X	CIE Y
✖ Omni-15-01	Base-Up	0.4591	0.4102
✖ Omni-15-01	Base-Down	0.4597	0.4103
✖ Omni-15-01	Horizontal	0.4596	0.4088
✖ Omni-15-02	Base-Up	0.4490	0.4003
✖ Omni-15-02	Base-Down	0.4494	0.4002
✖ Omni-15-02	Horizontal	0.4490	0.3981

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-15



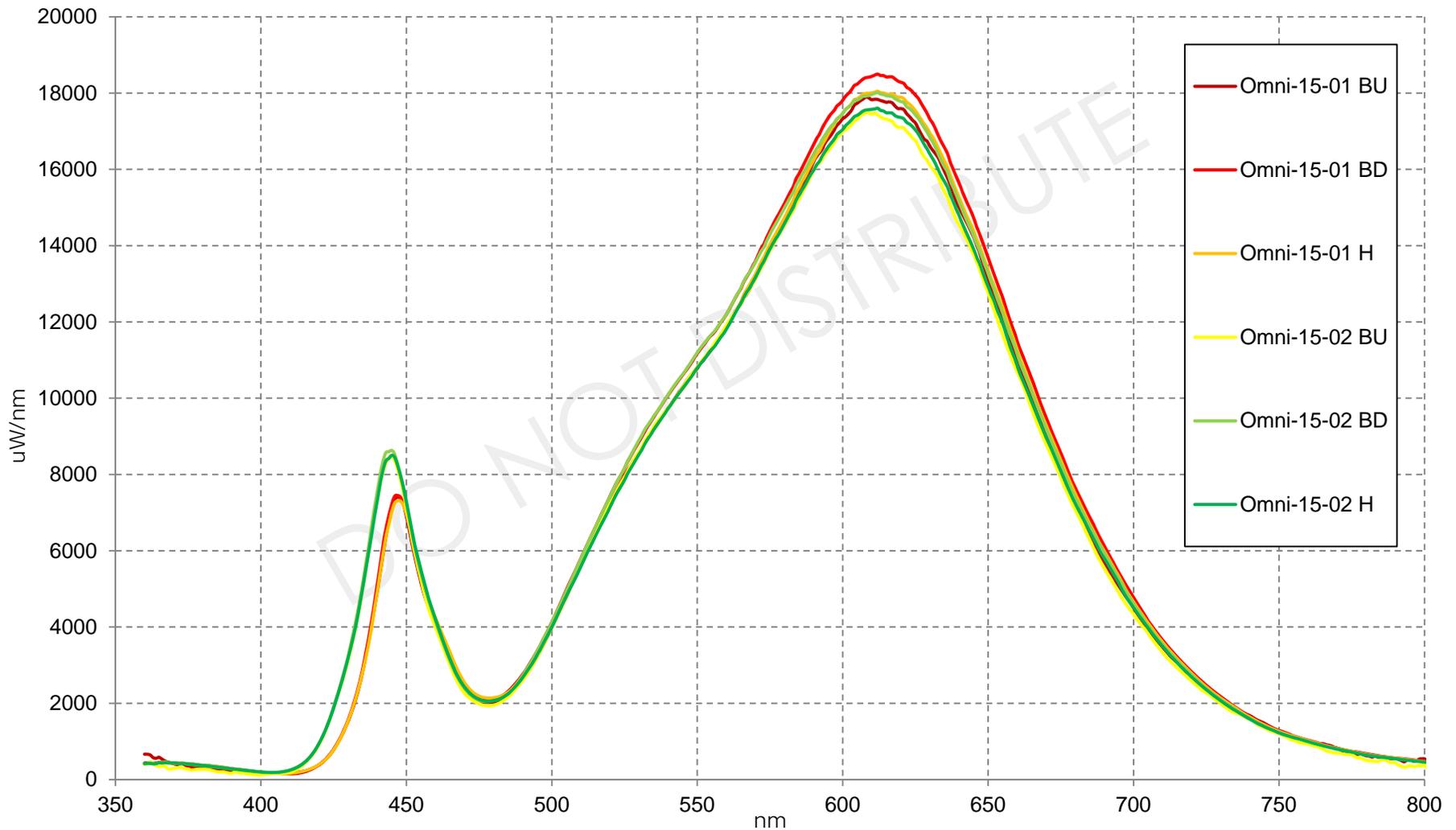
Serial #	Orientation	CIE X	CIE Y
✖ Omni-15-01	Base-Up	0.4591	0.4102
✖ Omni-15-01	Base-Down	0.4597	0.4103
✘ Omni-15-01	Horizontal	0.4596	0.4088
✚ Omni-15-02	Base-Up	0.4490	0.4003
✚ Omni-15-02	Base-Down	0.4494	0.4002
✚ Omni-15-02	Horizontal	0.4490	0.3981

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-15



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Omni-16

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Photometric Summary: Omni-16

Serial #	Position	Power (W)	Gonio Output		CCT	CRI	Efficacy
			(lm)	Sphere Output (lm)			
Omni-16-01	Base-Down	10.2	771	779	2761	90.7	76.4
Omni-16-02	Base-Down	10.0		819	2748	89.7	81.9
Average	Base-Down	10.1		799	2755	90.2	79.1
Omni-16-01	Base-Up	10.2		759	2749	90.6	74.4
Omni-16-02	Base-Up	10.1		806	2754	89.7	79.8
Average	Base-Up	10.2		783	2752	90.2	77.1
Omni-16-01	Horizontal	10.2		766	2839	90.8	75.1
Omni-16-02	Horizontal	9.9		804	2811	89.8	81.2
Average	Horizontal	10.1		785	2825	90.3	78.2
Average	All Orientations	10.1		789	2777	90.2	78.1

Mfg. Rated Output (lumens): 810

Electrical Summary: Omni-16

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-16-01	Base-Down	10.2	0.976	120	85	Pending	Pending
Omni-16-02	Base-Down	10.0	0.907	120	83	Pending	Pending
Average	Base-Down	10.1	0.942	120	84	Pending	Pending
Omni-16-01	Base-Up	10.2	0.973	120	85	Pending	Pending
Omni-16-02	Base-Up	10.1	0.800	120	84	Pending	Pending
Average	Base-Up	10.2	0.887	120	85	Pending	Pending
Omni-16-01	Horizontal	10.2	0.975	120	85	Pending	Pending
Omni-16-02	Horizontal	9.9	0.908	120	83	Pending	Pending
Average	Horizontal	10.1	0.942	120	84	Pending	Pending
Average	All Orientations	10.1	0.923	120	84	Pending	Pending

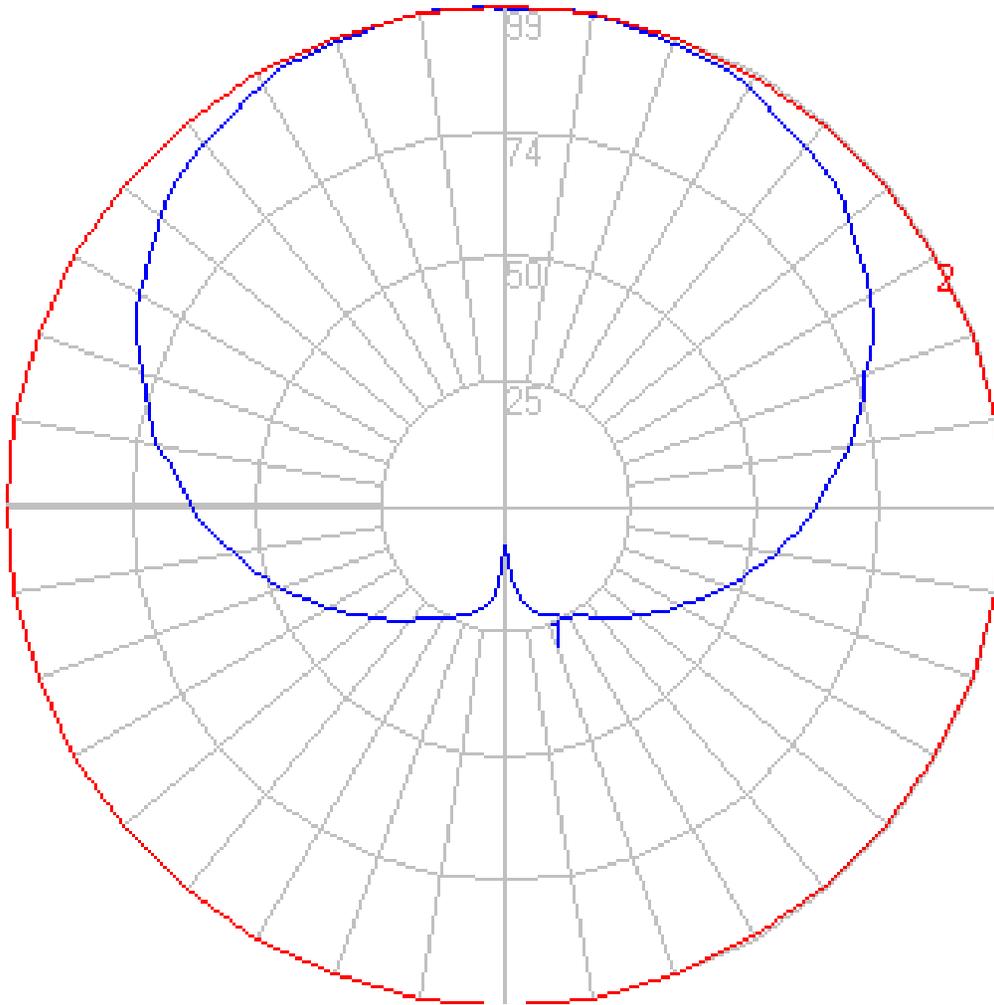
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CRI Chart: Omni-16

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-16-01	Base-Up	89.7	98.3	83.2	82.3	91.6	96.3	91.8	91.3	93.3	91.5	78.8	91.0	92.5	87.5	90.6
Omni-16-01	Base-Down	90.3	98.2	82.8	82.8	92.2	97.1	91.5	90.6	92.2	90.7	79.6	89.9	93.1	87.3	90.7
Omni-16-01	Horizontal	91.5	97.6	82.1	83.7	93.3	97.9	90.9	89.7	90.5	88.7	81.2	87.5	94.5	87.1	90.8
Omni-16-02	Base-Up	88.6	98.2	83.1	80.8	90.3	95.6	91.2	89.6	90.0	92.7	77.0	90.9	91.5	87.4	89.7
Omni-16-02	Base-Down	88.8	98.3	82.9	81.0	90.5	95.9	91.1	89.3	89.4	92.5	77.2	90.6	91.7	87.3	89.7
Omni-16-02	Horizontal	89.6	98.2	82.2	81.6	91.2	97.3	90.4	87.8	86.4	91.1	78.4	89.7	92.6	87.1	89.8

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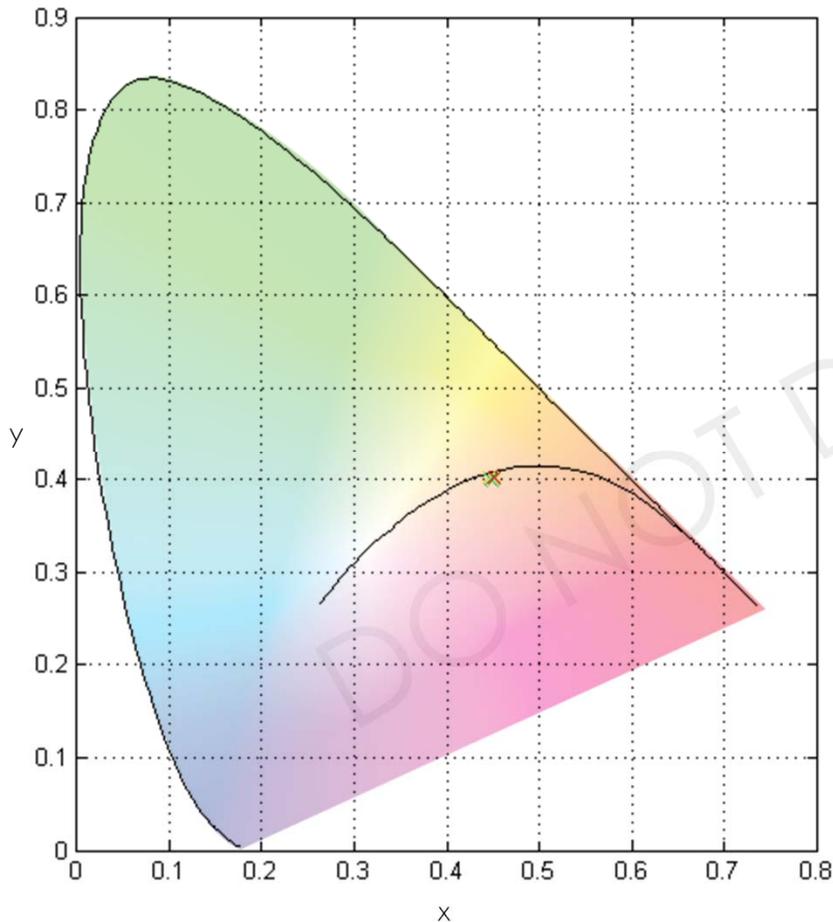
Goniophotometer Characterization: Omni-16



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-16

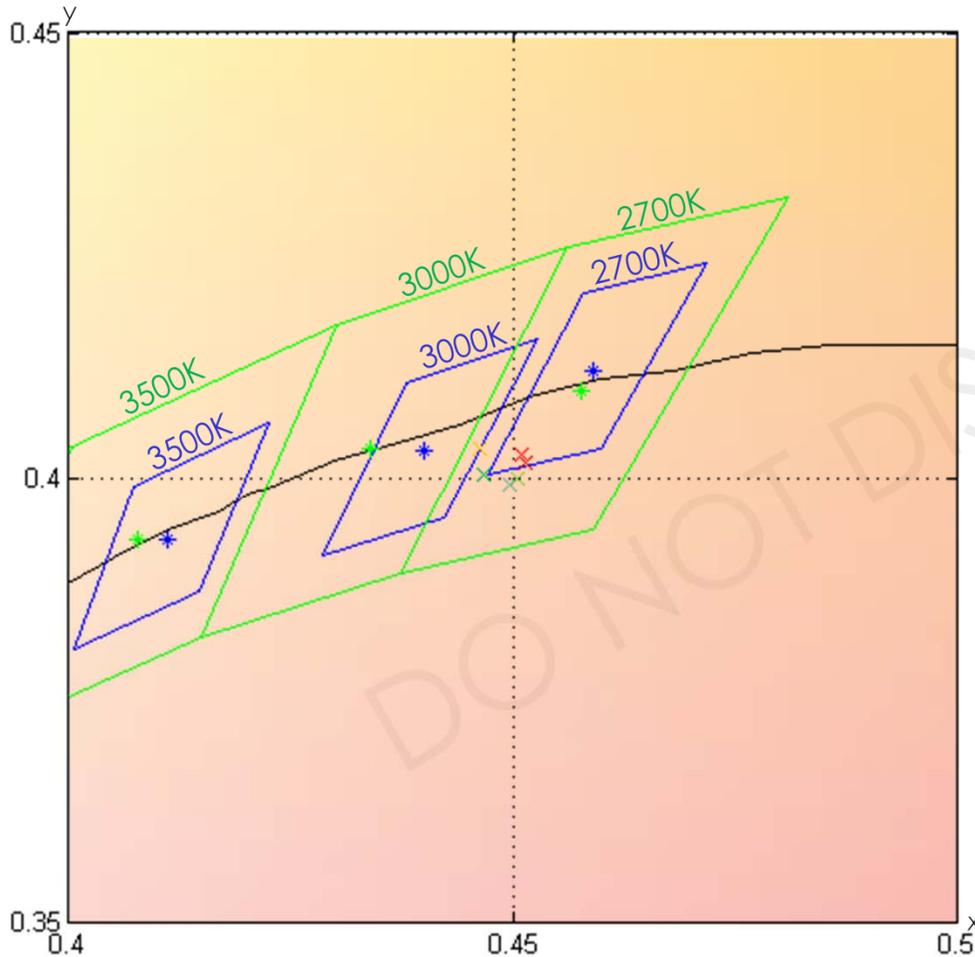


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-16-01	Base-Up	0.4515	0.4017
✘ Omni-16-01	Base-Down	0.4511	0.4025
✘ Omni-16-01	Horizontal	0.4464	0.4033
✘ Omni-16-02	Base-Up	0.4497	0.3992
✘ Omni-16-02	Base-Down	0.4505	0.3998
✘ Omni-16-02	Horizontal	0.4467	0.4003

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Photometric Summary: Omni-16



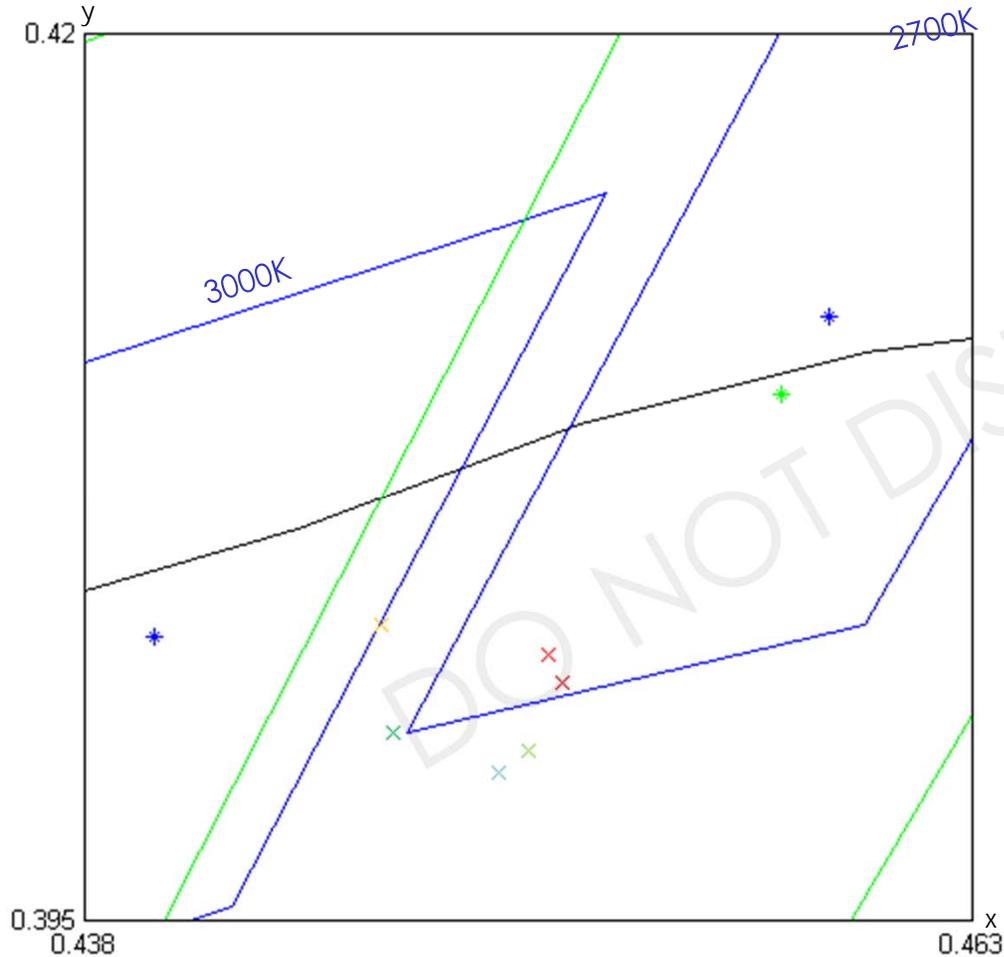
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-16-01	Base-Up	0.4515	0.4017
✖ Omni-16-01	Base-Down	0.4511	0.4025
✖ Omni-16-01	Horizontal	0.4464	0.4033
✖ Omni-16-02	Base-Up	0.4497	0.3992
✖ Omni-16-02	Base-Down	0.4505	0.3998
✖ Omni-16-02	Horizontal	0.4467	0.4003

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-16



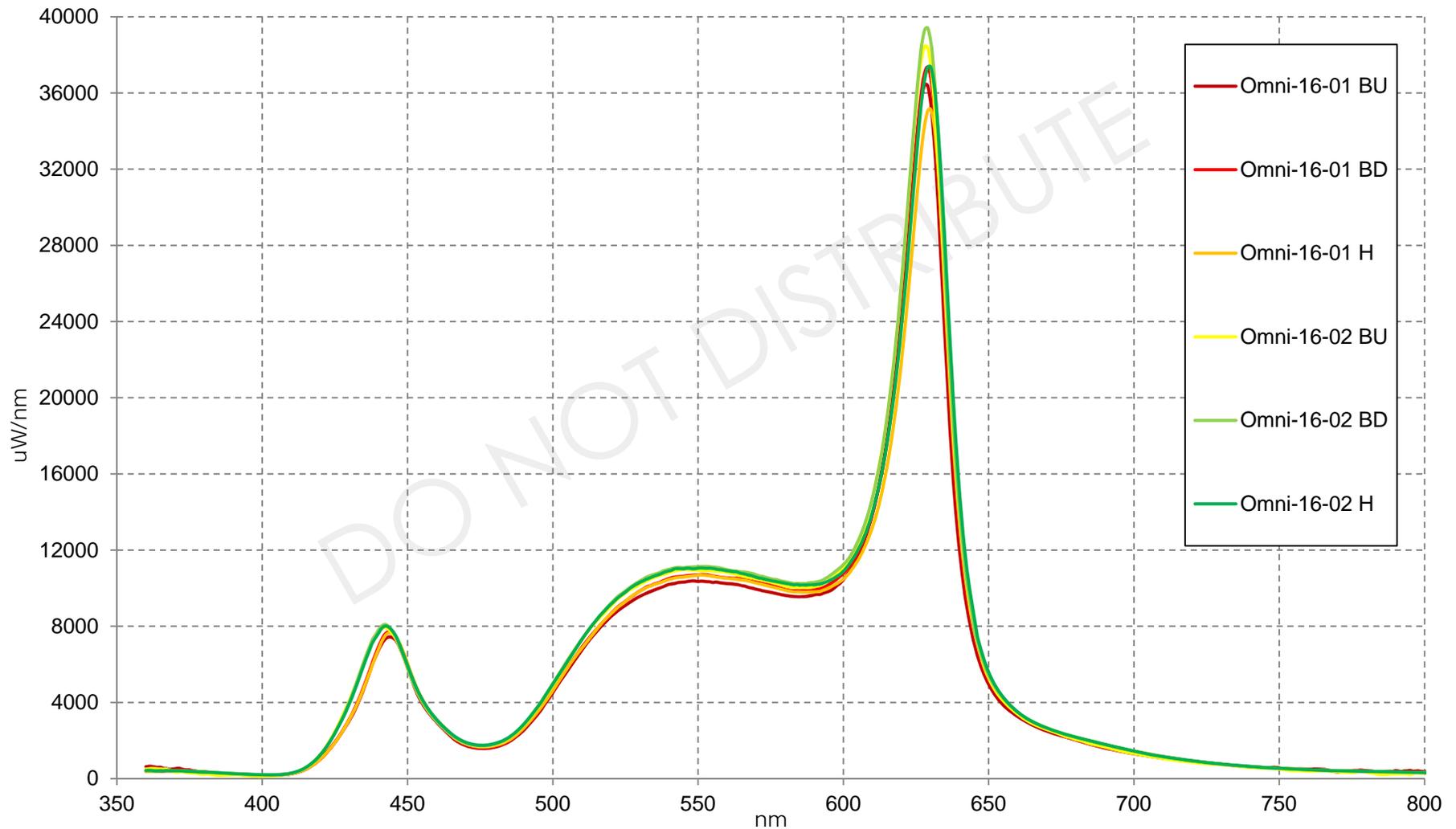
Serial #	Orientation	CIE X	CIE Y
✖ Omni-16-01	Base-Up	0.4515	0.4017
✖ Omni-16-01	Base-Down	0.4511	0.4025
✖ Omni-16-01	Horizontal	0.4464	0.4033
✖ Omni-16-02	Base-Up	0.4497	0.3992
✖ Omni-16-02	Base-Down	0.4505	0.3998
✖ Omni-16-02	Horizontal	0.4467	0.4003

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-16



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Omni-17

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Photometric Summary: Omni-17

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-17-01	Base-Down	9.8	967	1011	2724	93.1	103.2
Omni-17-02	Base-Down	9.7		1012	2769	93.2	104.7
Average	Base-Down	9.7		1012	2747	93.2	103.9
Omni-17-01	Base-Up	9.8		990	2736	93.0	101.0
Omni-17-02	Base-Up	9.7		971	2785	93.1	100.1
Average	Base-Up	9.8		981	2761	93.1	100.6
Omni-17-01	Horizontal	9.8		1008	2753	93.0	102.9
Omni-17-02	Horizontal	9.6		992	2815	93.1	103.3
Average	Horizontal	9.7		1000	2784	93.1	103.1
Average	All Orientations	9.7		997	2764	93.1	102.5

Mfg. Rated Output (lumens): 1013

Electrical Summary: Omni-17

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-17-01	Base-Down	9.8	0.945	120	82	Pending	Pending
Omni-17-02	Base-Down	9.7	0.944	120	81	Pending	Pending
Average	Base-Down	9.7	0.945	120	81	Pending	Pending
Omni-17-01	Base-Up	9.8	0.940	120	82	Pending	Pending
Omni-17-02	Base-Up	9.7	0.941	120	81	Pending	Pending
Average	Base-Up	9.8	0.941	120	81	Pending	Pending
Omni-17-01	Horizontal	9.8	0.945	120	82	Pending	Pending
Omni-17-02	Horizontal	9.6	0.942	120	80	Pending	Pending
Average	Horizontal	9.7	0.944	120	81	Pending	Pending
Average	All Orientations	9.7	0.943	120	81	Pending	Pending

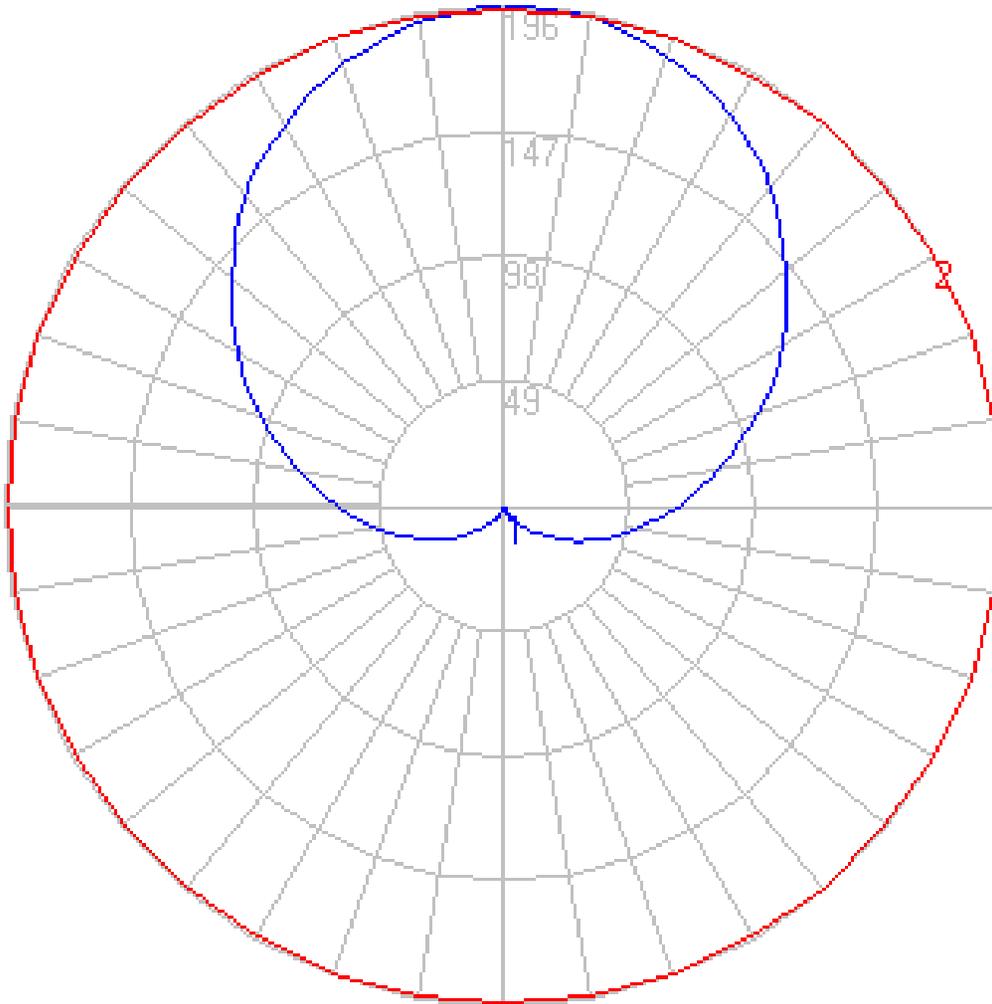
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CRI Chart: Omni-17

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-17-01	Base-Up	97.8	95.7	86.6	88.7	95.9	97.6	92.5	89.3	69.9	85.0	87.3	82.9	99.1	89.9	93.0
Omni-17-01	Base-Down	97.7	95.7	86.4	88.7	95.9	97.5	92.6	90.1	72.0	85.1	87.3	82.9	99.1	89.8	93.1
Omni-17-01	Horizontal	98.2	95.3	86.1	89.0	95.8	96.9	92.5	90.4	72.7	84.2	87.9	82.1	99.0	89.7	93.0
Omni-17-02	Base-Up	98.3	95.5	86.9	89.3	96.0	97.0	92.5	89.2	69.9	84.8	88.0	83.6	99.1	90.1	93.1
Omni-17-02	Base-Down	98.0	95.7	86.8	89.1	96.1	97.2	92.6	90.2	72.6	85.3	87.8	84.0	99.1	90.0	93.2
Omni-17-02	Horizontal	98.6	95.1	86.2	89.5	95.9	96.2	92.5	90.9	74.3	83.9	88.7	82.5	98.7	89.8	93.1

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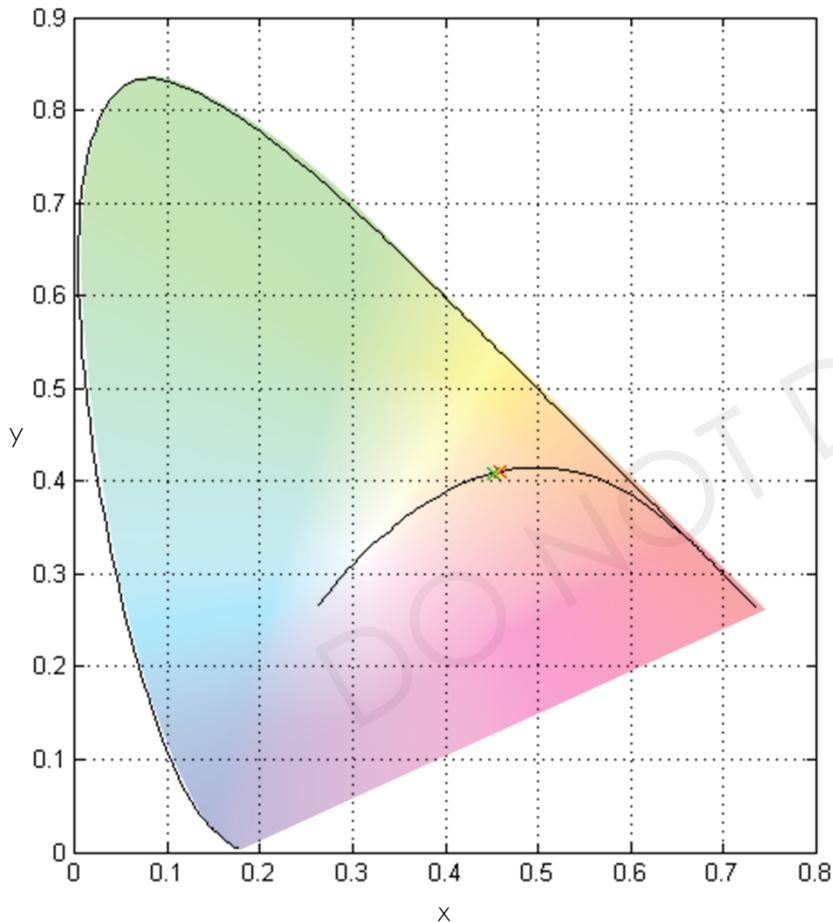
Goniophotometer Characterization: Omni-17



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-17

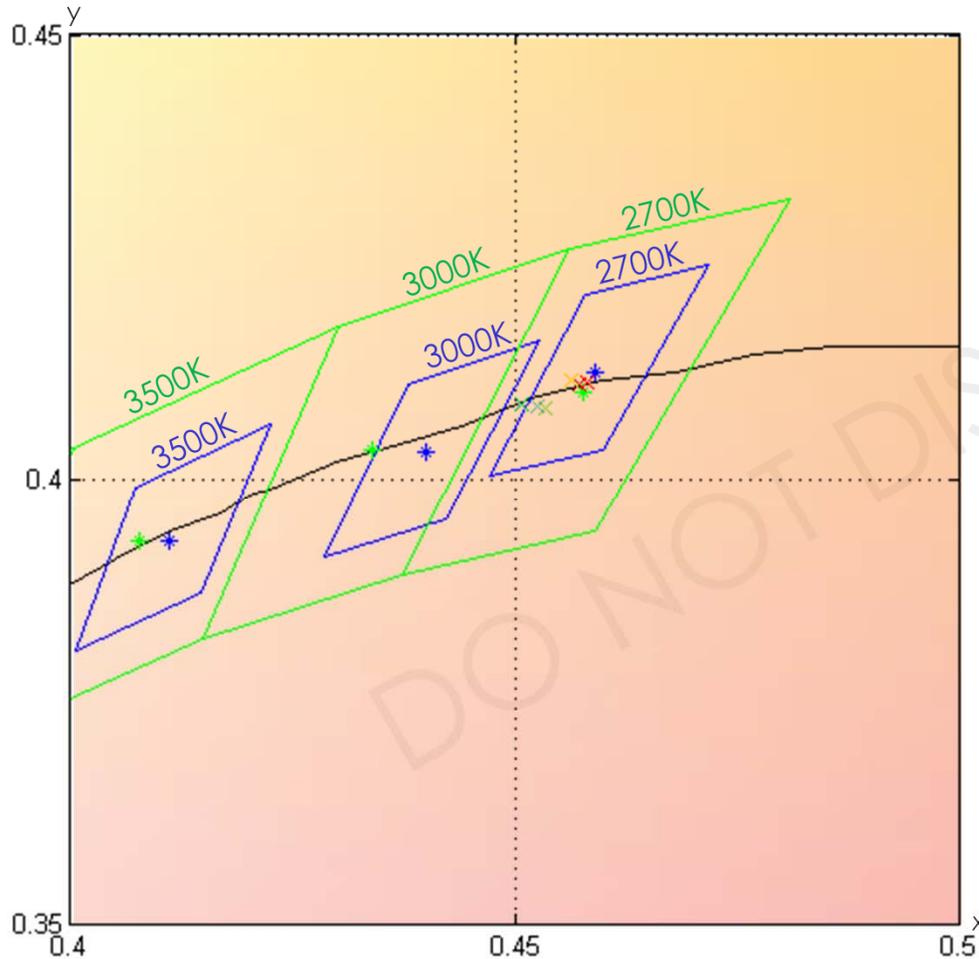


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-17-01	Base-Up	0.4572	0.4107
✘ Omni-17-01	Base-Down	0.4582	0.4108
✘ Omni-17-01	Horizontal	0.4563	0.4112
✘ Omni-17-02	Base-Up	0.4525	0.4082
✘ Omni-17-02	Base-Down	0.4534	0.4079
✘ Omni-17-02	Horizontal	0.4507	0.4085

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Photometric Summary: Omni-17



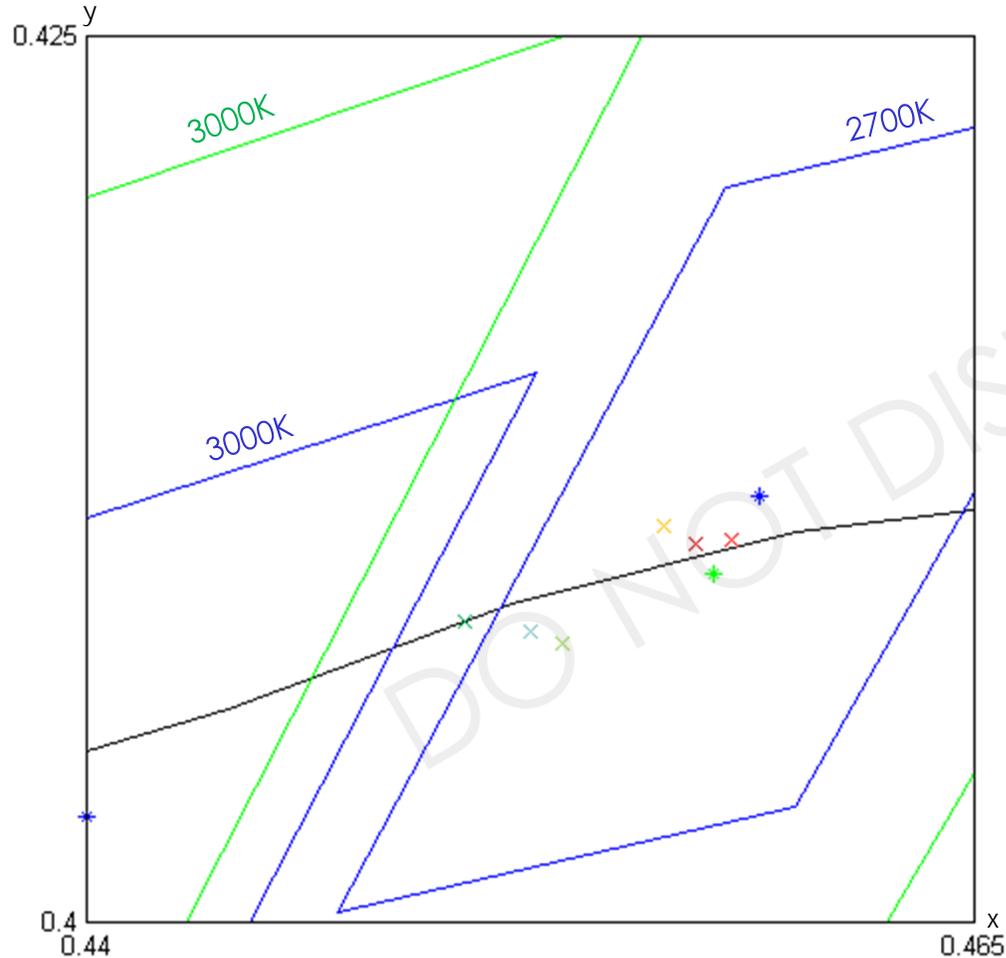
Serial #	Orientation	CIE X	CIE Y
✘ Omni-17-01	Base-Up	0.4572	0.4107
✘ Omni-17-01	Base-Down	0.4582	0.4108
✘ Omni-17-01	Horizontal	0.4563	0.4112
✘ Omni-17-02	Base-Up	0.4525	0.4082
✘ Omni-17-02	Base-Down	0.4534	0.4079
✘ Omni-17-02	Horizontal	0.4507	0.4085

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-17



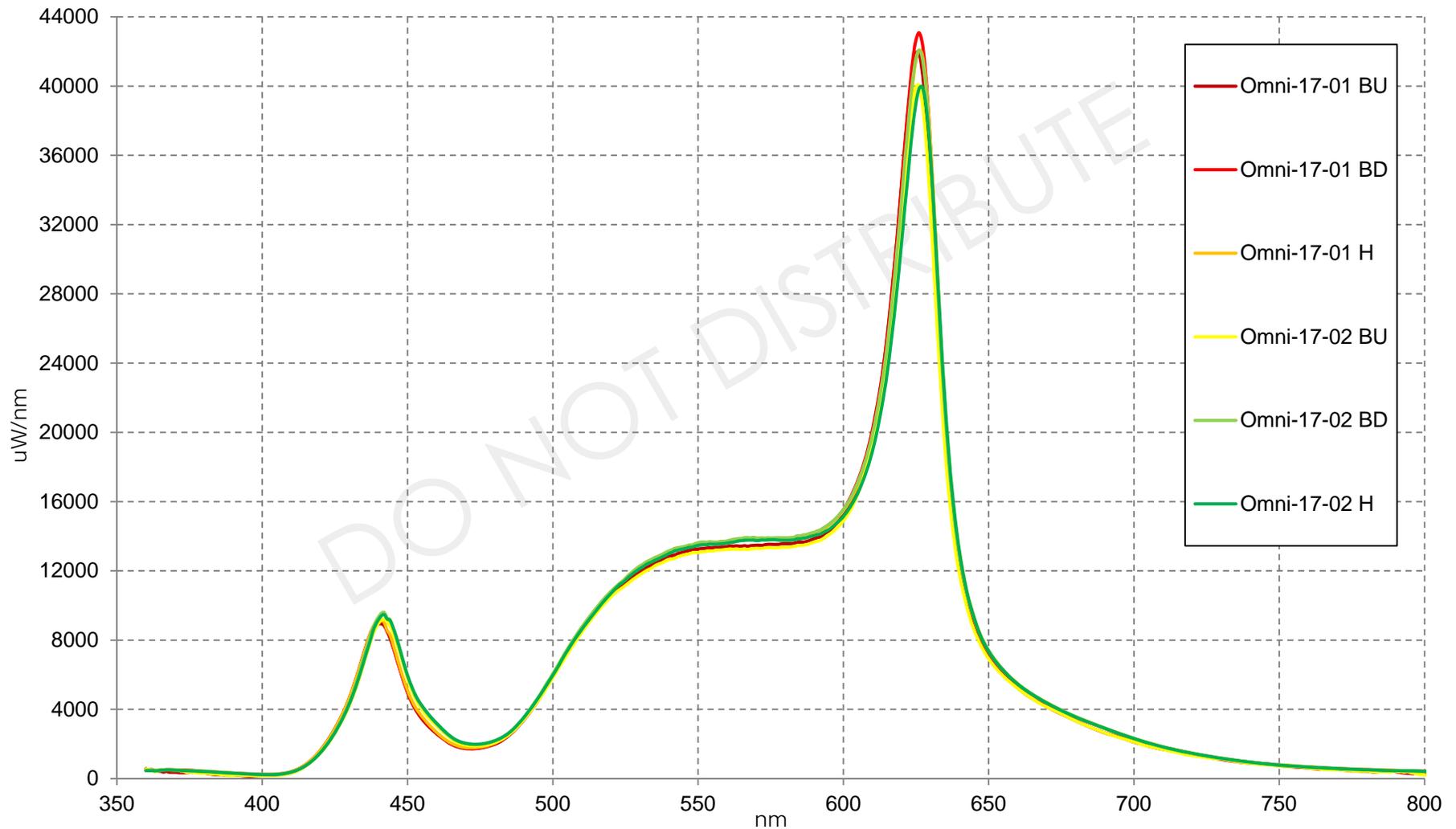
Serial #	Orientation	CIE X	CIE Y
✖ Omni-17-01	Base-Up	0.4572	0.4107
✖ Omni-17-01	Base-Down	0.4582	0.4108
✖ Omni-17-01	Horizontal	0.4563	0.4112
✖ Omni-17-02	Base-Up	0.4525	0.4082
✖ Omni-17-02	Base-Down	0.4534	0.4079
✖ Omni-17-02	Horizontal	0.4507	0.4085

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-17



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Omni-18

DO NOT DISTRIBUTE

Photometric Summary: Omni-18

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-18-01	Base-Down	12.6	761	799	2803	85.9	63.5
Omni-18-02	Base-Down	12.2		808	2863	85.5	66.0
Average	Base-Down	12.4		804	2833	85.7	64.8
Omni-18-01	Base-Up	12.5		774	2807	85.7	61.9
Omni-18-02	Base-Up	12.3		785	2869	85.2	63.8
Average	Base-Up	12.4		780	2838	85.5	62.9
Omni-18-01	Horizontal	12.5		776	2796	86.1	62.1
Omni-18-02	Horizontal	12.3		788	2858	85.7	64.1
Average	Horizontal	12.4		782	2827	85.9	63.1
Average	All Orientations	12.4		788	2833	85.7	63.6

Mfg. Rated Output (lumens): 800

Electrical Summary: Omni-18

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-18-01	Base-Down	12.6	0.908	120	105	Pending	Pending
Omni-18-02	Base-Down	12.2	0.892	120	102	Pending	Pending
Average	Base-Down	12.4	0.900	120	103	Pending	Pending
Omni-18-01	Base-Up	12.5	0.874	120	104	Pending	Pending
Omni-18-02	Base-Up	12.3	0.885	120	103	Pending	Pending
Average	Base-Up	12.4	0.892	120	103	Pending	Pending
Omni-18-01	Horizontal	12.5	0.900	120	104	Pending	Pending
Omni-18-02	Horizontal	12.3	0.892	120	103	Pending	Pending
Average	Horizontal	12.4	0.896	120	103	Pending	Pending
Average	All Orientations	12.4	0.892	120	103	Pending	Pending

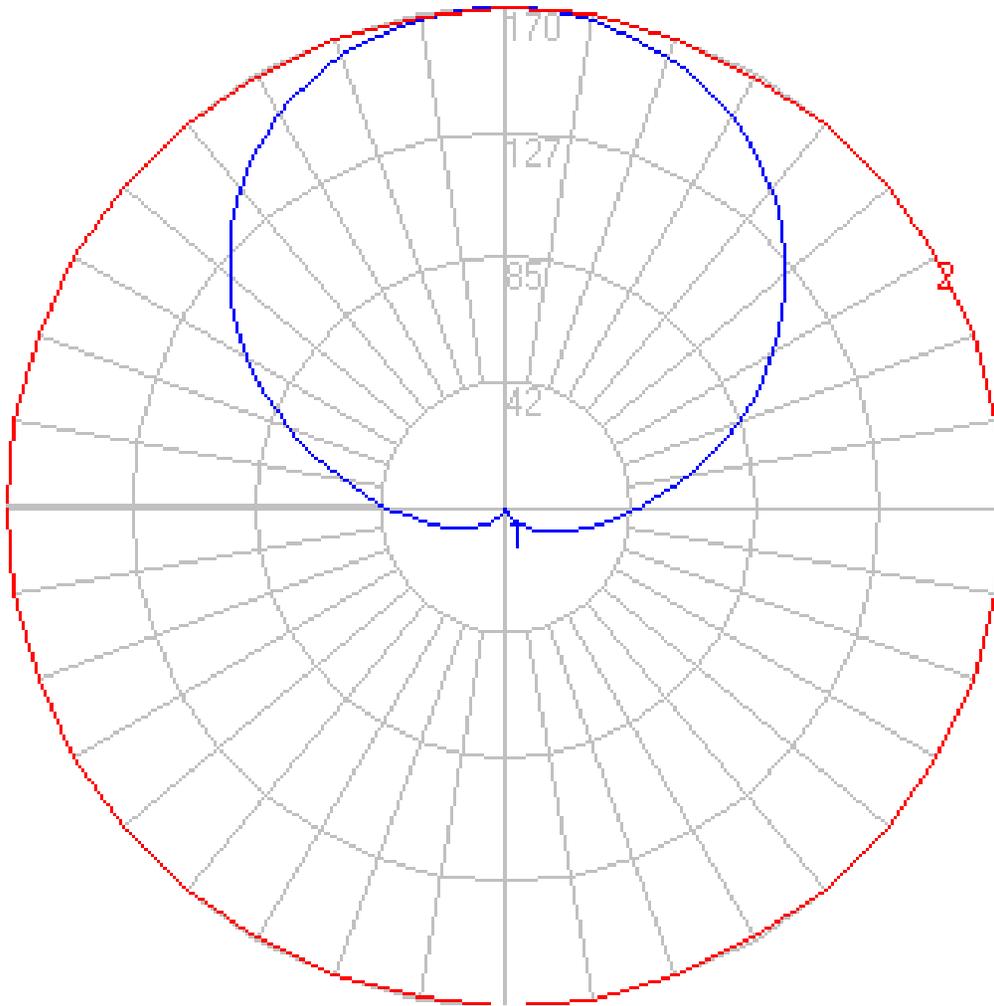
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CRI Chart: Omni-18

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-18-01	Base-Up	86.2	90.7	92.8	85.2	84.9	87.5	86.7	71.4	35.7	76.9	84.8	72.7	87.0	95.1	85.7
Omni-18-01	Base-Down	86.5	90.9	92.8	85.4	85.3	87.7	86.8	71.9	37.0	77.3	85.0	73.3	87.4	95.1	85.9
Omni-18-01	Horizontal	86.8	91.4	93.3	85.4	85.7	88.4	86.5	71.8	37.6	78.5	84.9	74.8	87.8	95.4	86.2
Omni-18-02	Base-Up	85.8	90.0	91.9	85.1	84.4	86.4	86.9	71.5	34.7	75.2	84.6	70.7	86.5	94.6	85.2
Omni-18-02	Base-Down	86.1	90.2	92.0	85.3	84.8	86.7	87.0	72.1	36.4	75.7	84.8	71.5	86.8	94.6	85.5
Omni-18-02	Horizontal	86.4	90.7	92.4	85.2	85.1	87.3	86.8	72.0	36.7	76.7	84.7	72.7	87.2	94.9	85.7

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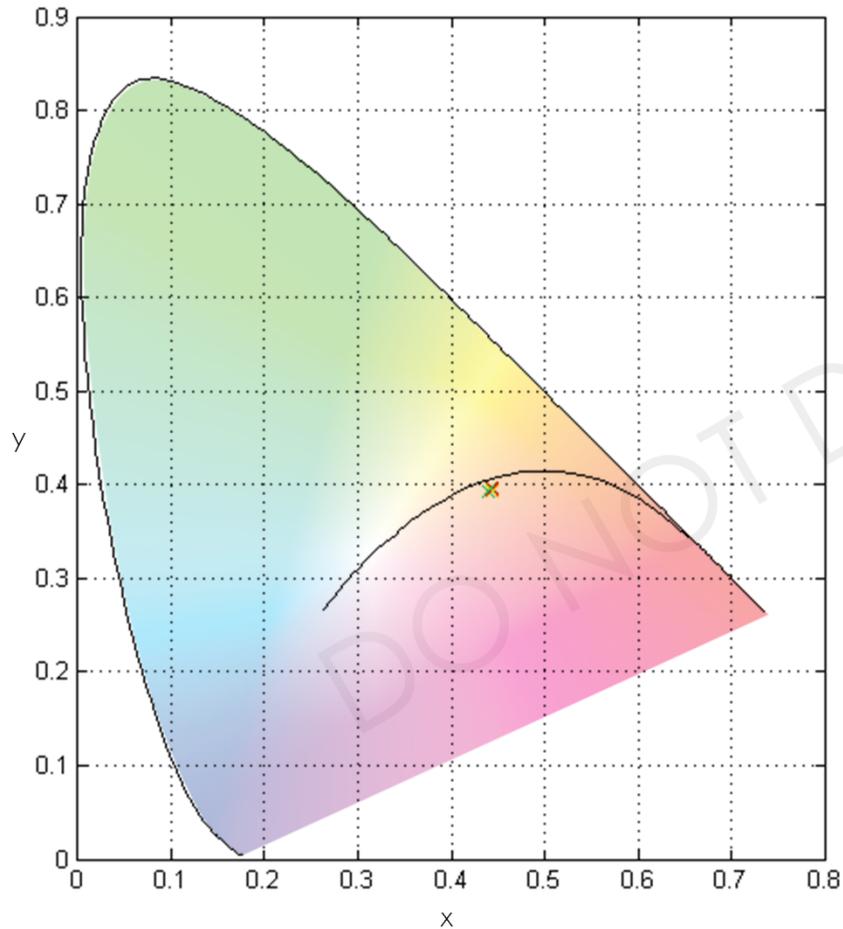
Goniophotometer Characterization: Omni-18



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-18

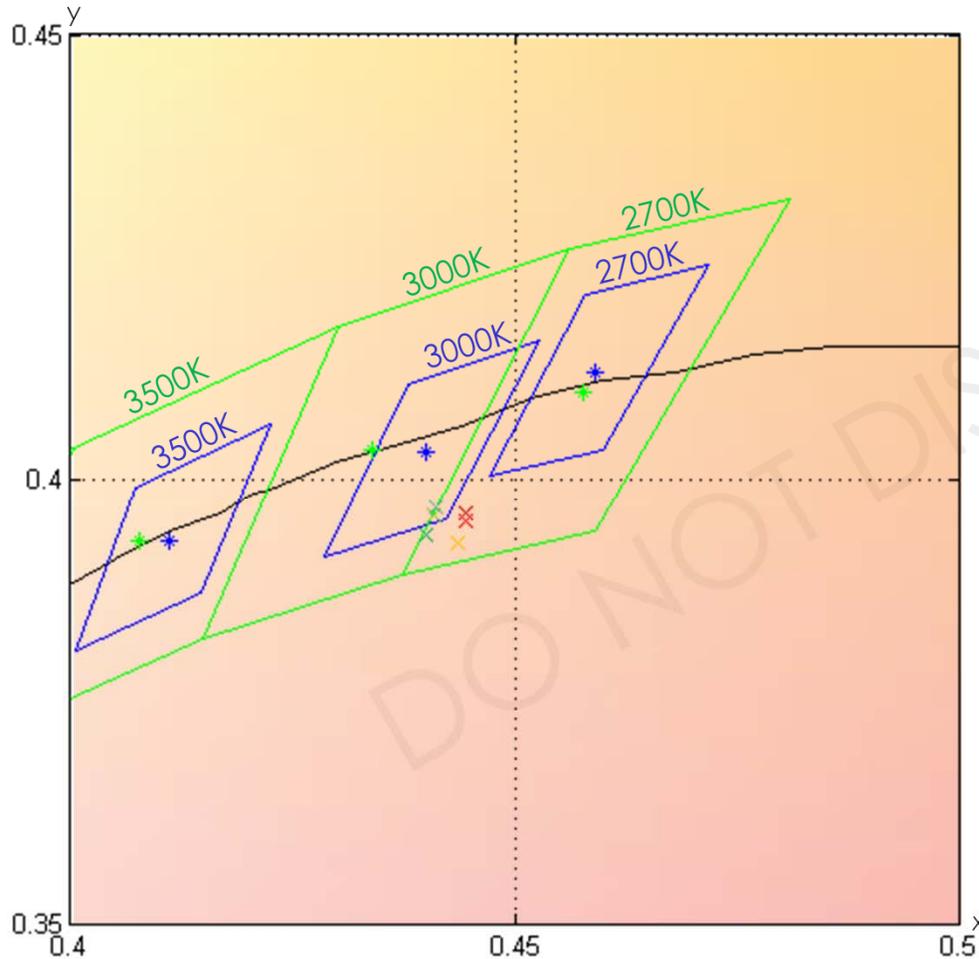


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-18-01	Base-Up	0.4446	0.3960
✘ Omni-18-01	Base-Down	0.4444	0.3951
✘ Omni-18-01	Horizontal	0.4436	0.3928
✘ Omni-18-02	Base-Up	0.4411	0.3968
✘ Omni-18-02	Base-Down	0.4410	0.3958
✘ Omni-18-02	Horizontal	0.4401	0.3935

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Photometric Summary: Omni-18



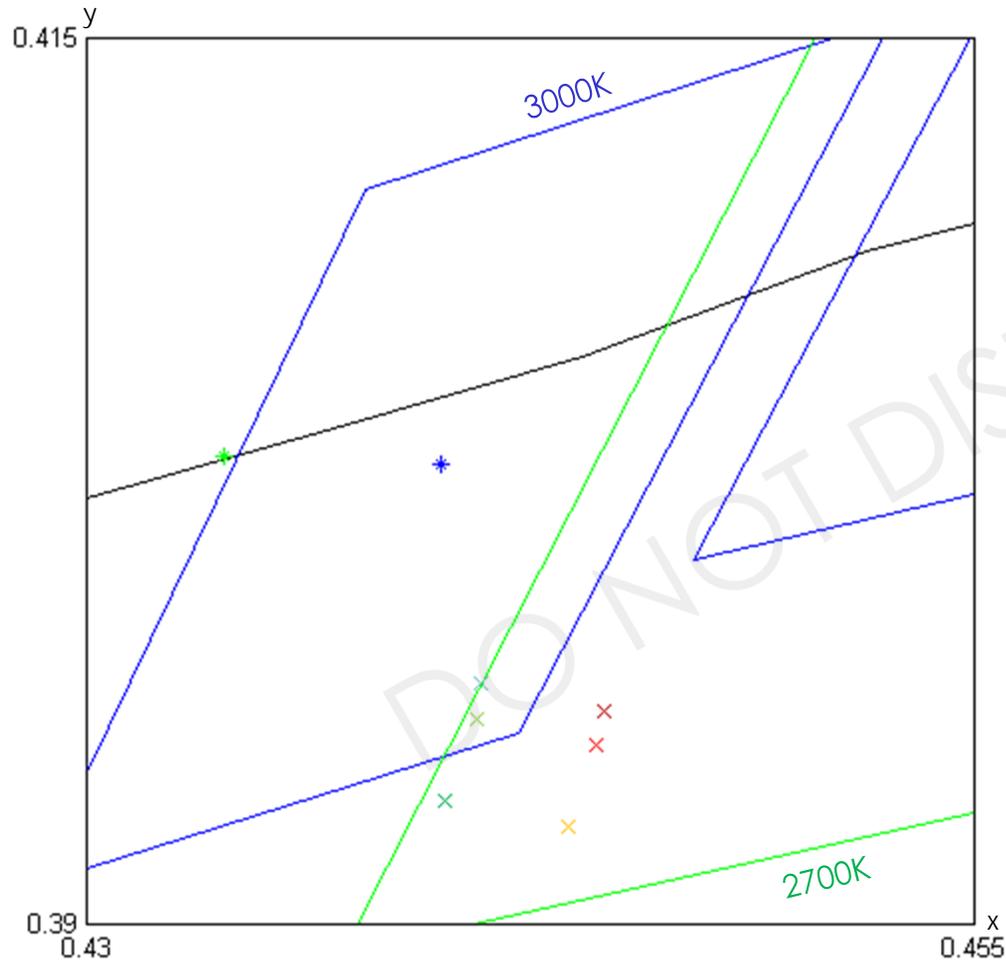
Serial #	Orientation	CIE X	CIE Y
✘ Omni-18-01	Base-Up	0.4446	0.3960
✘ Omni-18-01	Base-Down	0.4444	0.3951
✘ Omni-18-01	Horizontal	0.4436	0.3928
✘ Omni-18-02	Base-Up	0.4411	0.3968
✘ Omni-18-02	Base-Down	0.4410	0.3958
✘ Omni-18-02	Horizontal	0.4401	0.3935

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-18



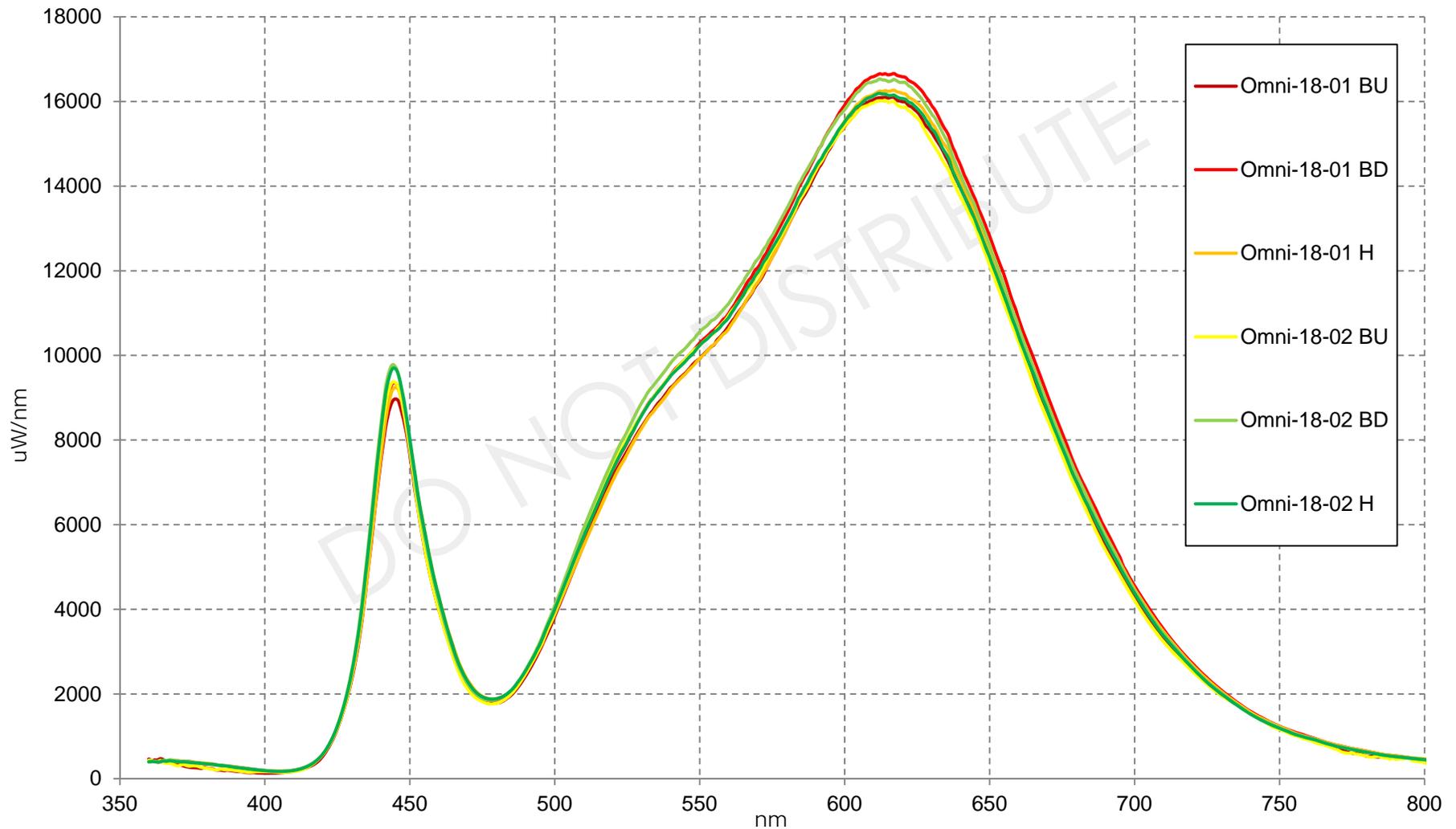
Serial #	Orientation	CIE X	CIE Y
✖ Omni-18-01	Base-Up	0.4446	0.3960
✖ Omni-18-01	Base-Down	0.4444	0.3951
✖ Omni-18-01	Horizontal	0.4436	0.3928
✖ Omni-18-02	Base-Up	0.4411	0.3968
✖ Omni-18-02	Base-Down	0.4410	0.3958
✖ Omni-18-02	Horizontal	0.4401	0.3935

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-18



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Omni-19

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Photometric Summary: Omni-19

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-19-01	Base-Down	10.8	663	677	2771	80.4	62.6
Omni-19-02	Base-Down	9.6		623	2747	83.2	65.0
Average	Base-Down	10.2		650	2759	81.8	63.8
Omni-19-01	Base-Up	10.8		652	2772	80.2	60.4
Omni-19-02	Base-Up	9.4		591	2749	82.9	62.9
Average	Base-Up	10.1		622	2761	81.6	61.6
Omni-19-01	Horizontal	11.0		675	2772	80.5	61.4
Omni-19-02	Horizontal	9.5		618	2746	83.2	65.1
Average	Horizontal	10.3		647	2759	81.9	63.2
Average	All Orientations	10.2		639	2760	81.7	62.9

Mfg. Rated Output (lumens): 710

Electrical Summary: Omni-19

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-19-01	Base-Down	10.8	0.513	120	90	Pending	Pending
Omni-19-02	Base-Down	9.6	0.501	120	80	Pending	Pending
Average	Base-Down	10.2	0.507	120	85	Pending	Pending
Omni-19-01	Base-Up	10.8	0.515	120	90	Pending	Pending
Omni-19-02	Base-Up	9.4	0.508	120	78	Pending	Pending
Average	Base-Up	10.1	0.512	120	84	Pending	Pending
Omni-19-01	Horizontal	11.0	0.505	120	92	Pending	Pending
Omni-19-02	Horizontal	9.5	0.495	120	79	Pending	Pending
Average	Horizontal	10.3	0.500	120	85	Pending	Pending
Average	All Orientations	10.2	0.506	120	85	Pending	Pending

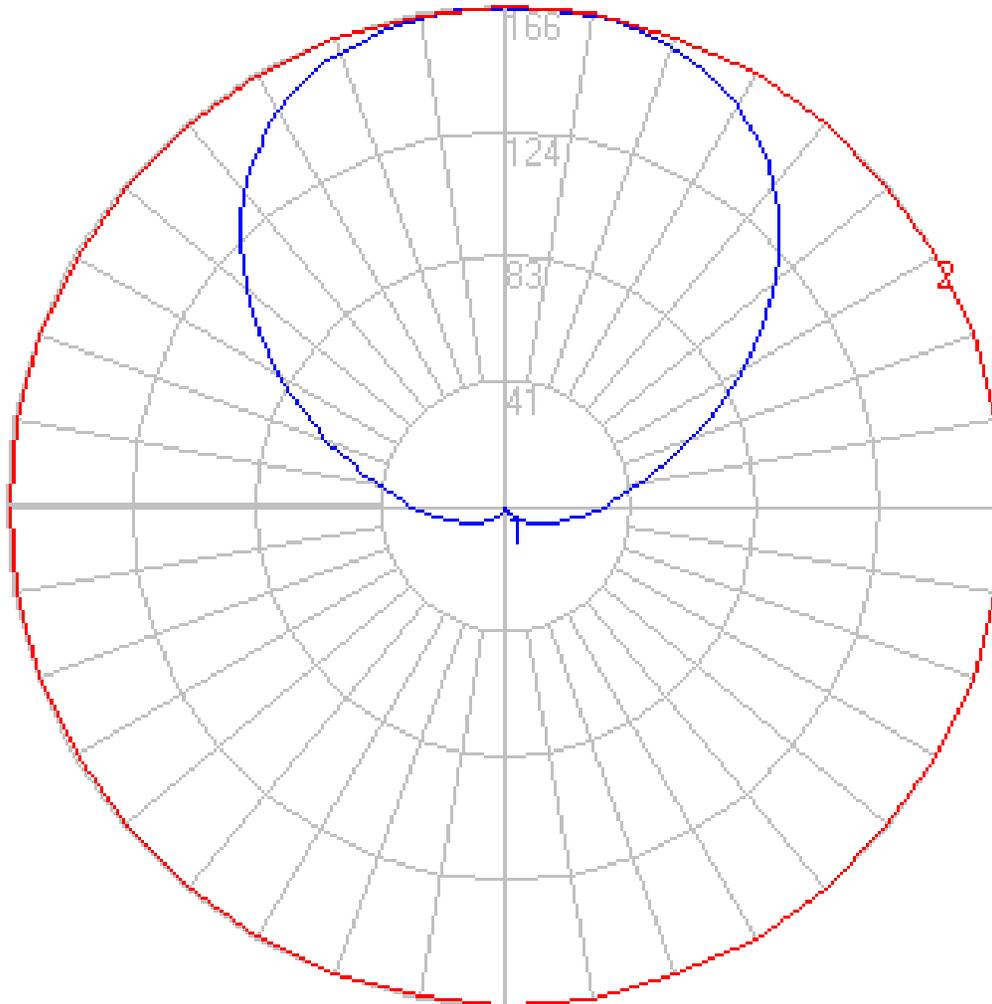
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CRI Chart: Omni-19

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-19-01	Base-Up	78.8	87.5	92.7	76.2	76.5	80.9	85.1	64.1	19.9	68.5	70.2	59.1	80.3	95.1	80.2
Omni-19-01	Base-Down	79.0	87.6	92.7	76.4	76.7	81.1	85.2	64.5	20.8	68.8	70.4	59.5	80.5	95.1	80.4
Omni-19-01	Horizontal	79.1	87.8	92.9	76.4	76.8	81.3	85.2	64.5	21.0	69.2	70.4	60.0	80.6	95.2	80.5
Omni-19-02	Base-Up	81.9	91.0	95.3	77.6	80.1	86.1	84.8	66.4	28.3	76.4	72.0	67.1	83.9	97.0	82.9
Omni-19-02	Base-Down	82.3	91.3	95.4	77.8	80.4	86.5	84.9	66.9	29.5	77.0	72.4	68.0	84.2	97.1	83.2
Omni-19-02	Horizontal	82.3	91.3	95.5	77.9	80.5	86.6	85.0	66.9	29.5	77.1	72.4	68.1	84.3	97.1	83.2

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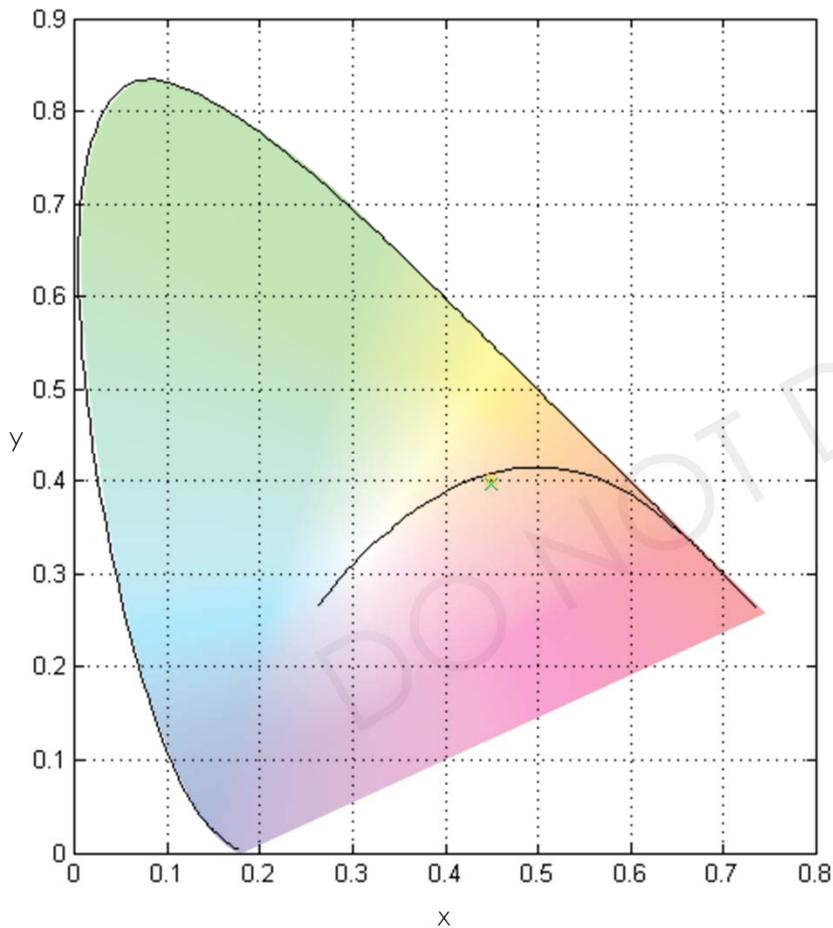
Goniophotometer Characterization: Omni-19



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-19

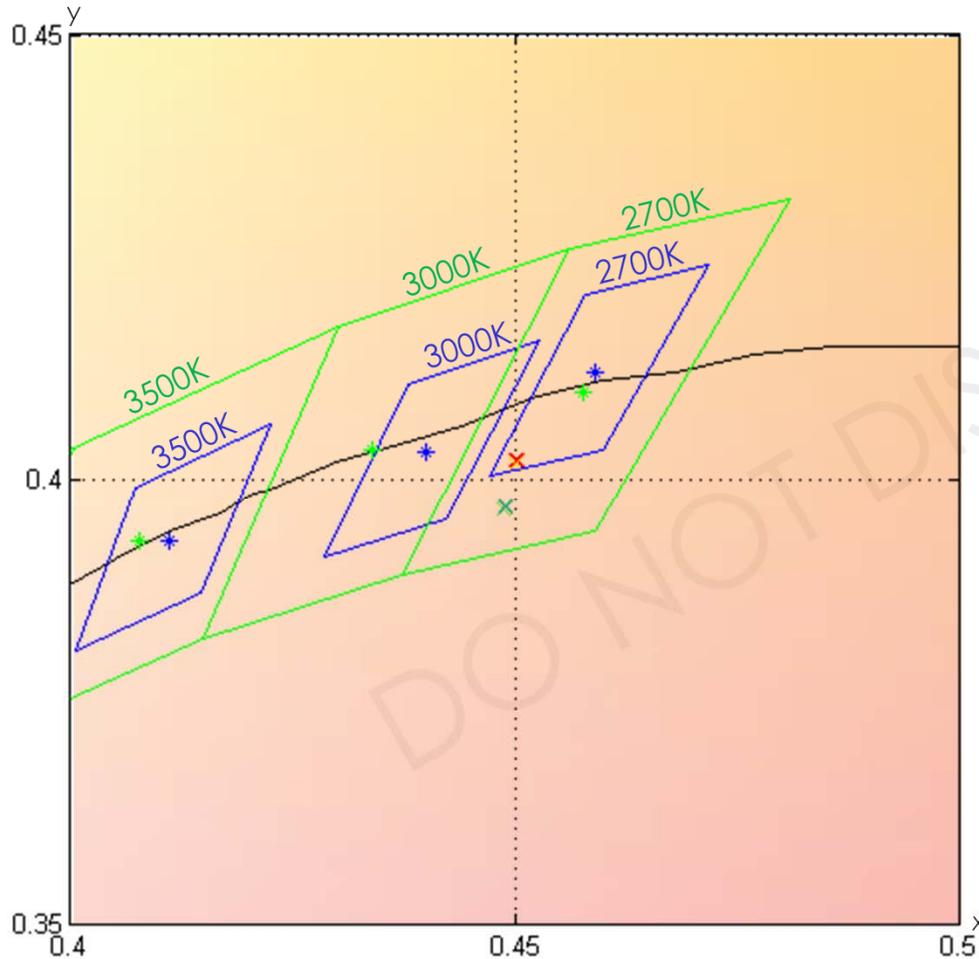


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-19-01	Base-Up	0.4501	0.4021
✘ Omni-19-01	Base-Down	0.4503	0.4021
✘ Omni-19-01	Horizontal	0.4500	0.4017
✘ Omni-19-02	Base-Up	0.4489	0.3970
✘ Omni-19-02	Base-Down	0.4488	0.3966
✘ Omni-19-02	Horizontal	0.4490	0.3968

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Photometric Summary: Omni-19



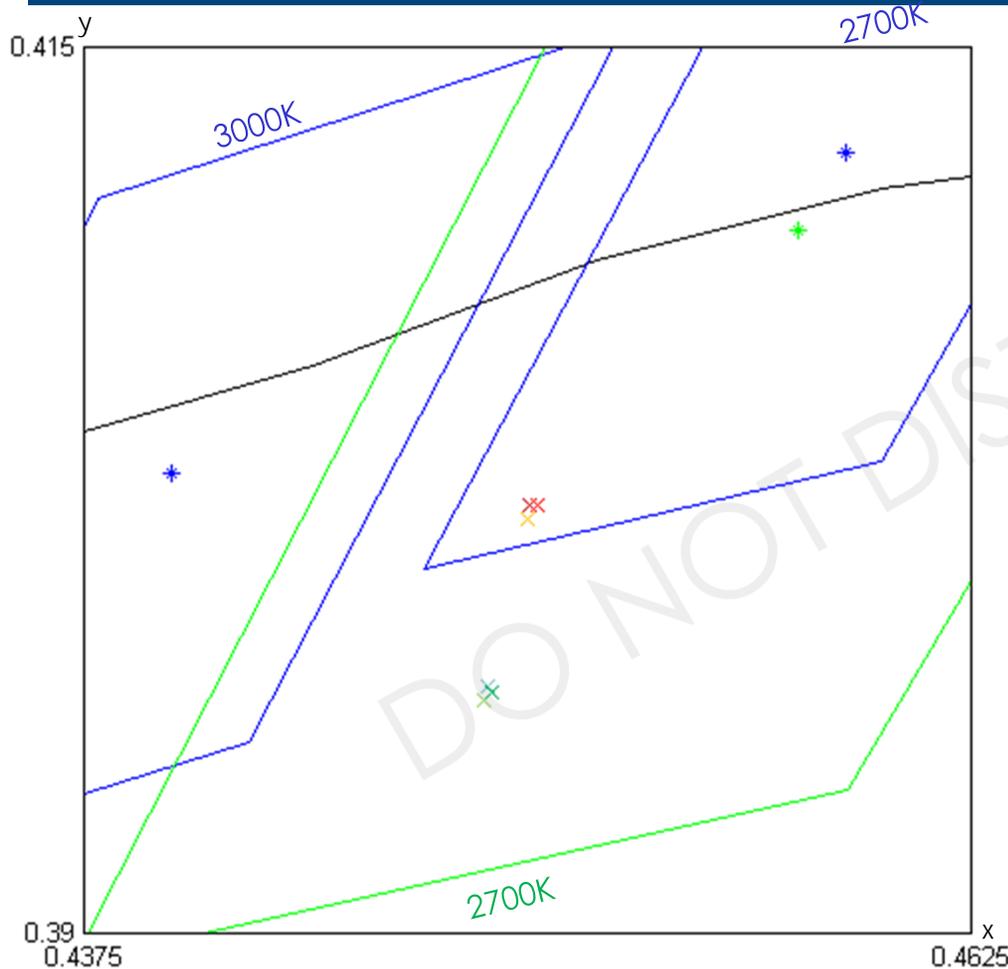
Serial #	Orientation	CIE X	CIE Y
✖ Omni-19-01	Base-Up	0.4501	0.4021
✖ Omni-19-01	Base-Down	0.4503	0.4021
✖ Omni-19-01	Horizontal	0.4500	0.4017
✖ Omni-19-02	Base-Up	0.4489	0.3970
✖ Omni-19-02	Base-Down	0.4488	0.3966
✖ Omni-19-02	Horizontal	0.4490	0.3968

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-19



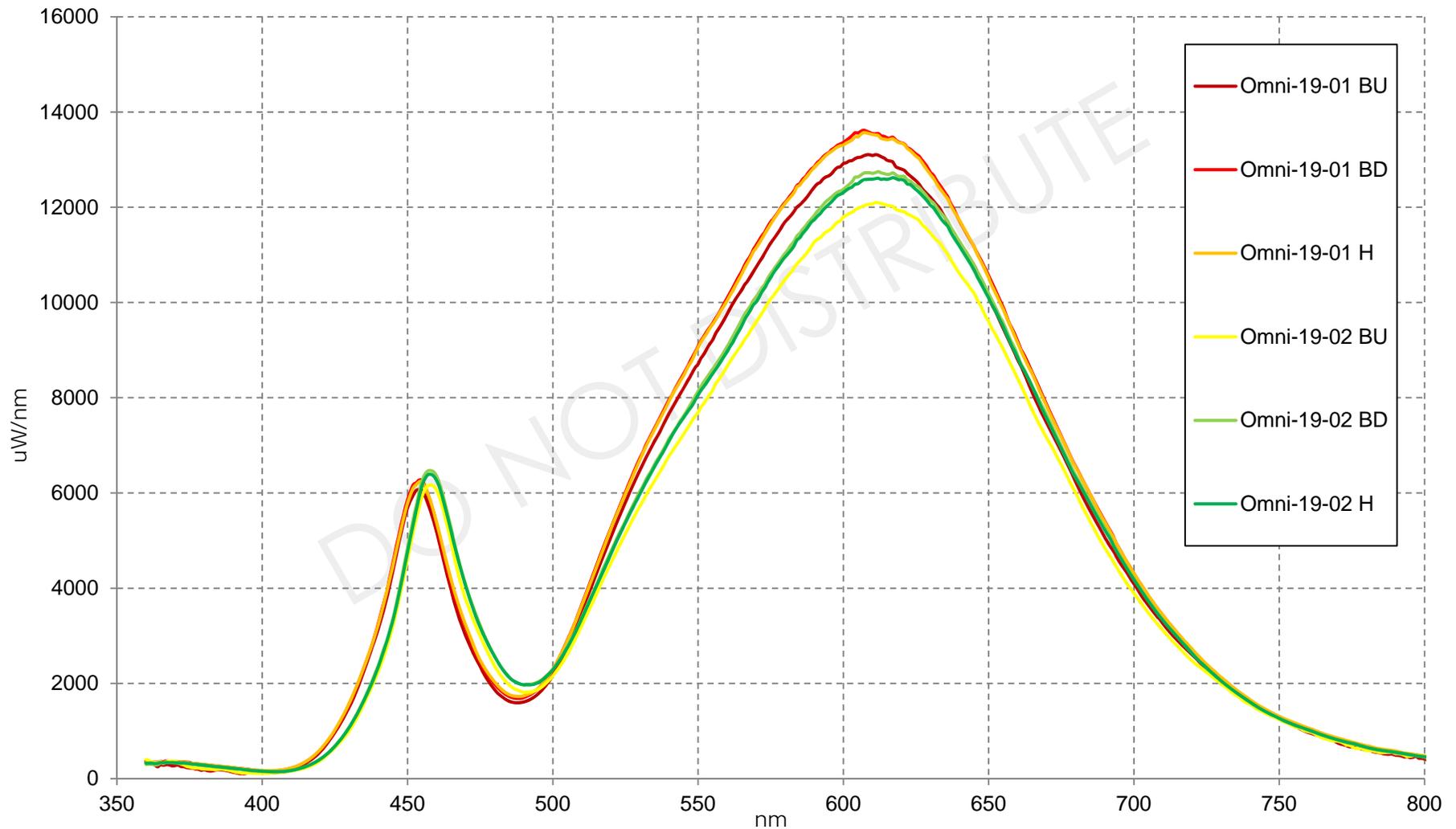
Serial #	Orientation	CIE X	CIE Y
✖ Omni-19-01	Base-Up	0.4501	0.4021
✖ Omni-19-01	Base-Down	0.4503	0.4021
✖ Omni-19-01	Horizontal	0.4500	0.4017
✖ Omni-19-02	Base-Up	0.4489	0.3970
✖ Omni-19-02	Base-Down	0.4488	0.3966
✖ Omni-19-02	Horizontal	0.4490	0.3968

Chromaticity Diagram CIE 1931, 2 Degree

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Spectral Power Distribution: Omni-19



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Omni-20

DO NOT DISTRIBUTE

Photometric Summary: Omni-20

Serial #	Position	Power (W)	Gonio Output (lm)	Sphere Output (lm)	CCT	CRI	Efficacy
Omni-20-01	Base-Down	15.0	1072	1114	2807	81.6	74.5
Omni-20-02	Base-Down	15.3		1126	2651	81.0	73.7
Average	Base-Down	15.1		1120	2729	81.3	74.1
Omni-20-01	Base-Up	14.9		1106	2711	81.3	74.2
Omni-20-02	Base-Up	15.3		1120	2653	80.6	73.2
Average	Base-Up	15.1		1113	2682	81.0	73.7
Omni-20-01	Horizontal	14.7		1102	2809	81.5	75.0
Omni-20-02	Horizontal	15.1		1119	2654	80.9	74.1
Average	Horizontal	14.9		1111	2732	81.2	74.5
Average	All Orientations	15.0		1115	2714	81.1	74.1

Mfg. Rated Output (lumens):

Electrical Summary: Omni-20

Serial #	Position	Power (W)	PF	Voltage	Current (mA)	Voltage THD%	Current THD%
Omni-20-01	Base-Down	15.0	0.941	120	125	Pending	Pending
Omni-20-02	Base-Down	15.3	0.941	120	127	Pending	Pending
Average	Base-Down	15.1	0.941	120	126	Pending	Pending
Omni-20-01	Base-Up	14.9	0.944	120	124	Pending	Pending
Omni-20-02	Base-Up	15.3	0.944	120	128	Pending	Pending
Average	Base-Up	15.1	0.944	120	126	Pending	Pending
Omni-20-01	Horizontal	14.7	0.944	120	123	Pending	Pending
Omni-20-02	Horizontal	15.1	0.947	120	126	Pending	Pending
Average	Horizontal	14.9	0.946	120	124	Pending	Pending
Average	All Orientations	15.0	0.944	120	125	Pending	Pending

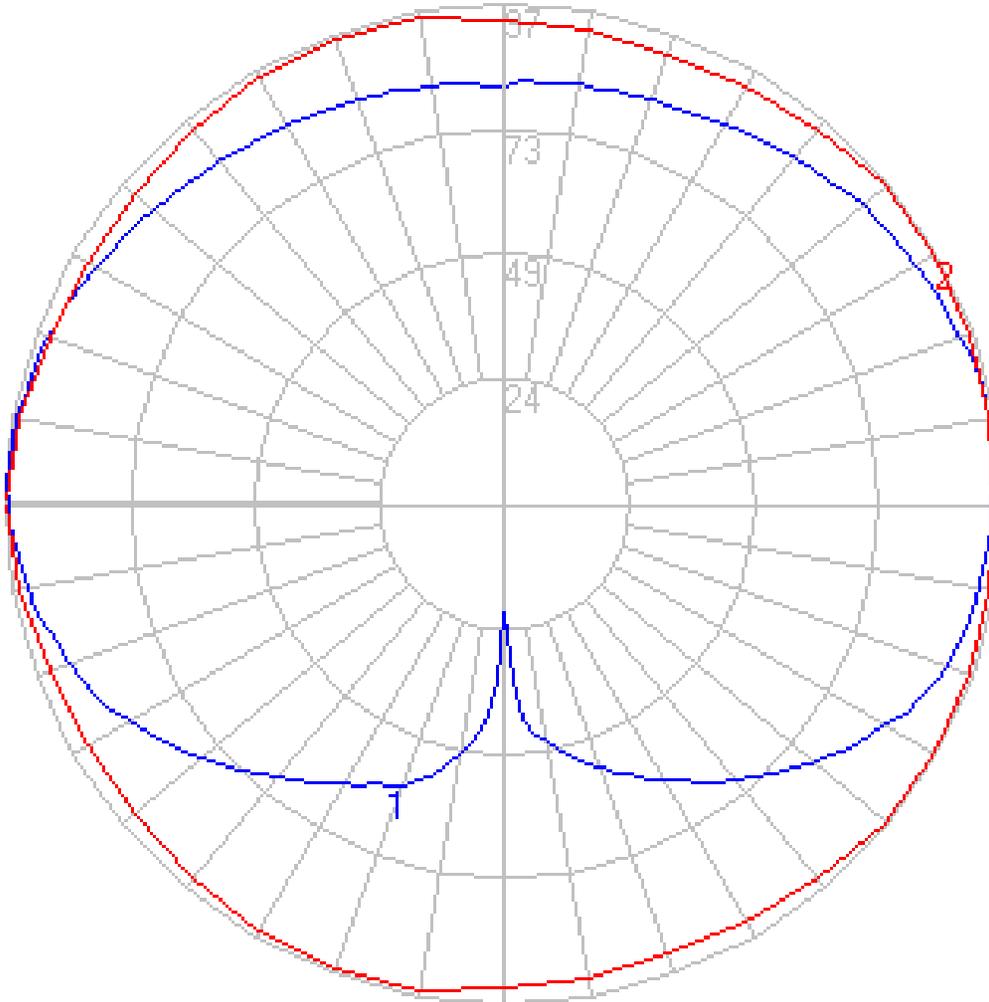
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CRI Chart: Omni-20

Serial #	Orientation	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	RA
Omni-20-01	Base-Up	79.2	89.4	96.3	77.4	78.5	85.6	83.3	60.6	13.3	75.1	73.9	68.6	81.2	98.1	81.3
Omni-20-01	Base-Down	79.5	89.7	96.3	77.7	78.8	85.9	83.5	61.2	14.7	75.6	74.2	69.2	81.5	98.1	81.6
Omni-20-01	Horizontal	79.5	89.7	96.3	77.5	78.8	85.9	83.4	61.0	14.3	75.7	74.0	69.1	81.5	98.1	81.5
Omni-20-02	Base-Up	78.3	89.5	96.5	76.1	77.6	85.9	82.3	58.5	10.8	75.6	72.5	69.5	80.5	98.4	80.6
Omni-20-02	Base-Down	78.8	89.7	96.5	76.6	78.0	86.3	82.5	59.2	12.5	76.0	73.0	70.1	80.9	98.5	81.0
Omni-20-02	Horizontal	78.7	89.7	96.5	76.5	78.0	86.3	82.4	59.1	12.3	76.1	72.9	70.2	80.9	98.5	80.9

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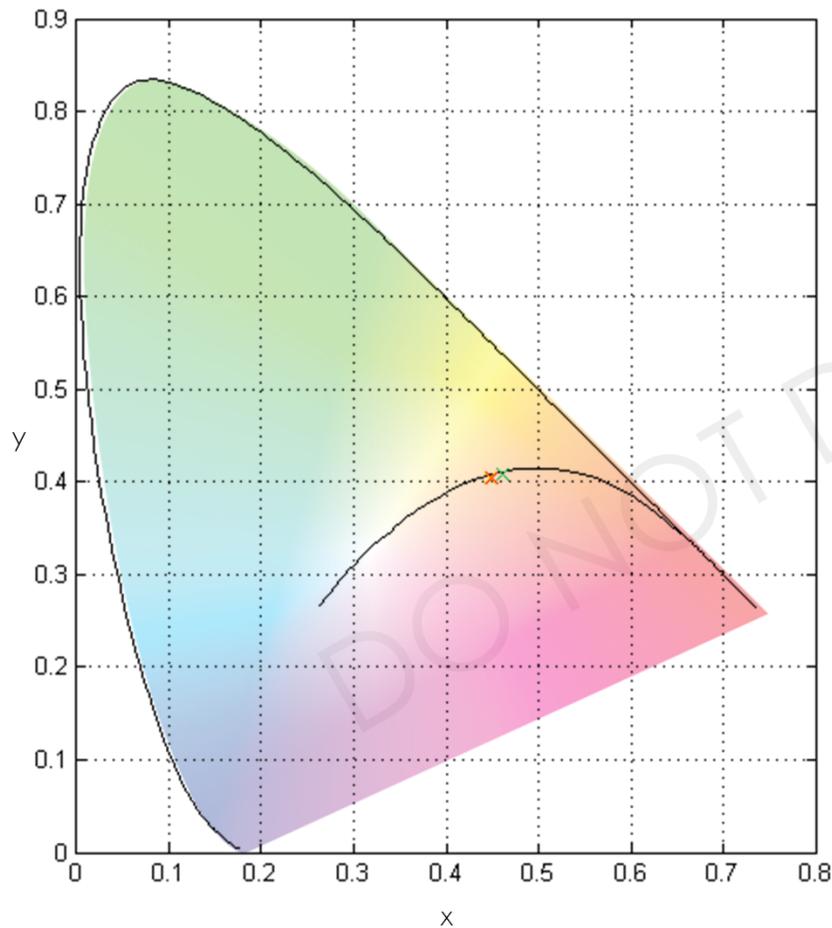
Goniophotometer Characterization: Omni-20



Vertical Plane Through Horizontal Angles:
Blue: 100° - 280° (Through Max Candela)

Horizontal Cone Through Vertical Angle:
Red: 42.5° (Through Max Candela)

Photometric Summary: Omni-20

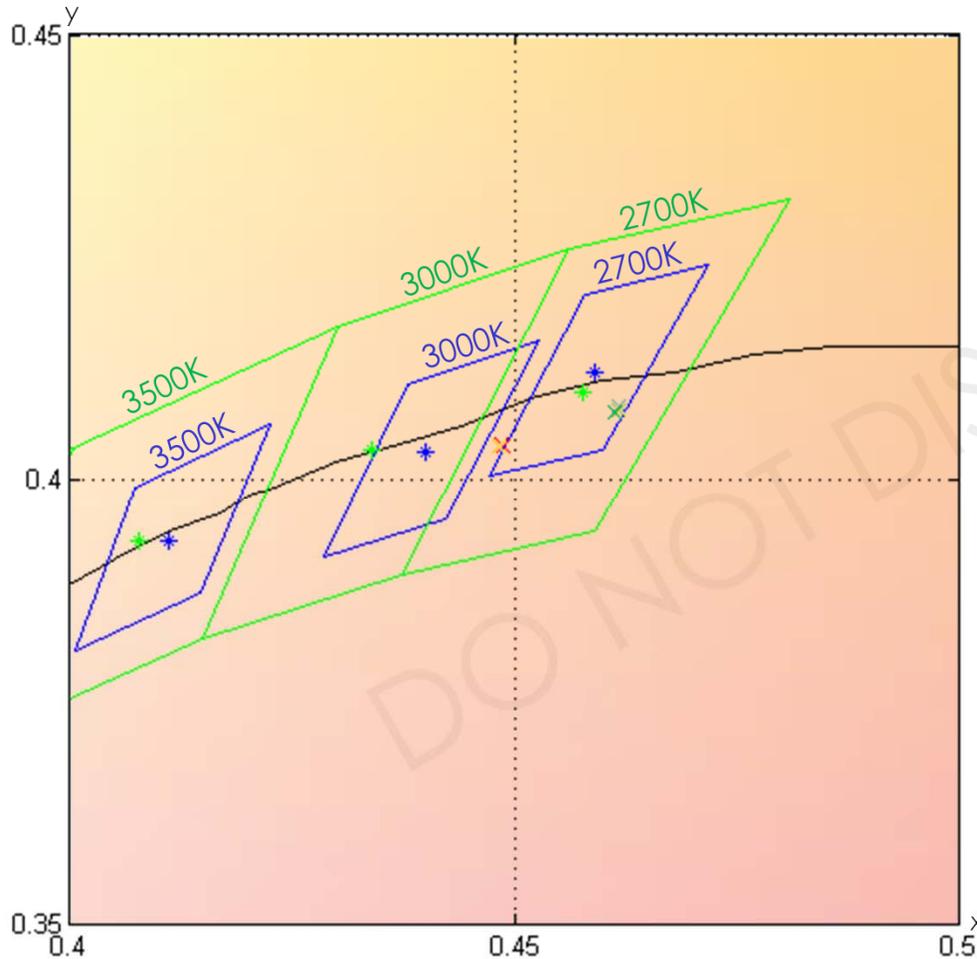


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✘ Omni-20-01	Base-Up	0.4485	0.4039
✘ Omni-20-01	Base-Down	0.4487	0.4038
✘ Omni-20-01	Horizontal	0.4484	0.4036
✘ Omni-20-02	Base-Up	0.4617	0.4081
✘ Omni-20-02	Base-Down	0.4618	0.4078
✘ Omni-20-02	Horizontal	0.4614	0.4076

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Photometric Summary: Omni-20



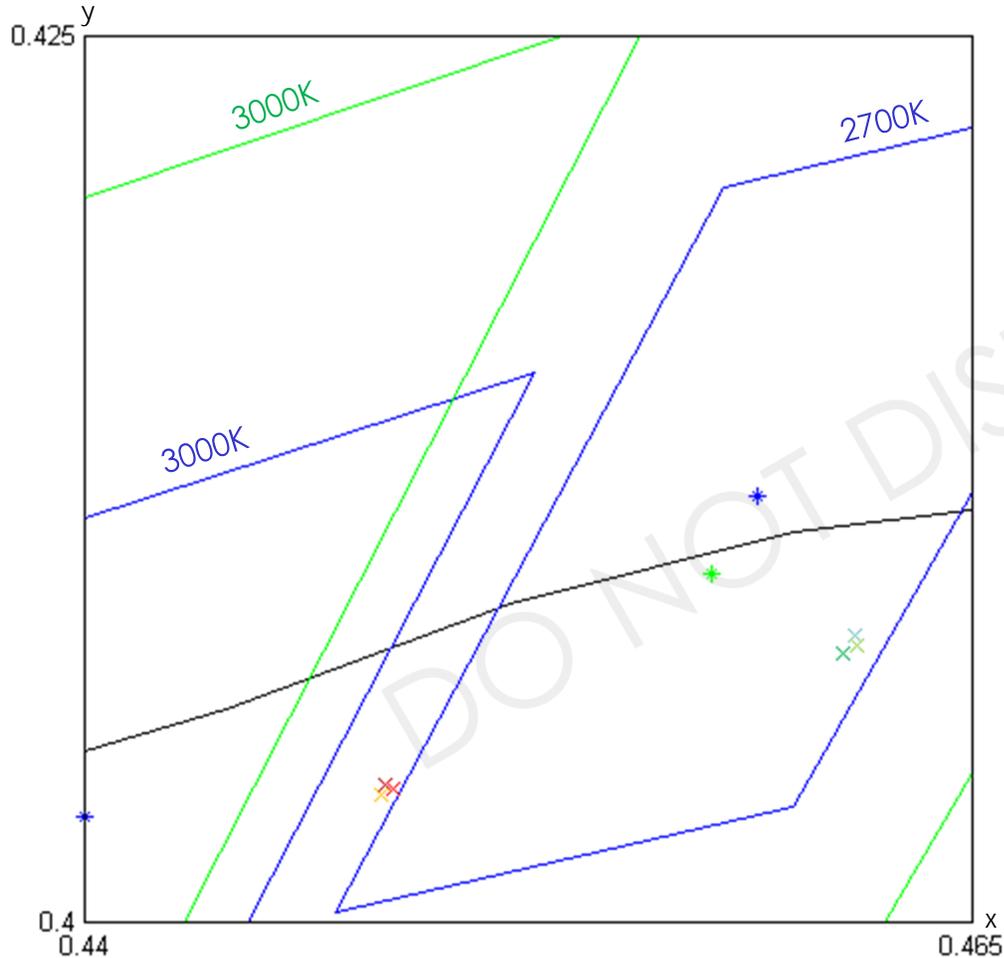
Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-20-01	Base-Up	0.4485	0.4039
✖ Omni-20-01	Base-Down	0.4487	0.4038
✖ Omni-20-01	Horizontal	0.4484	0.4036
✖ Omni-20-02	Base-Up	0.4617	0.4081
✖ Omni-20-02	Base-Down	0.4618	0.4078
✖ Omni-20-02	Horizontal	0.4614	0.4076

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

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Photometric Summary: Omni-20

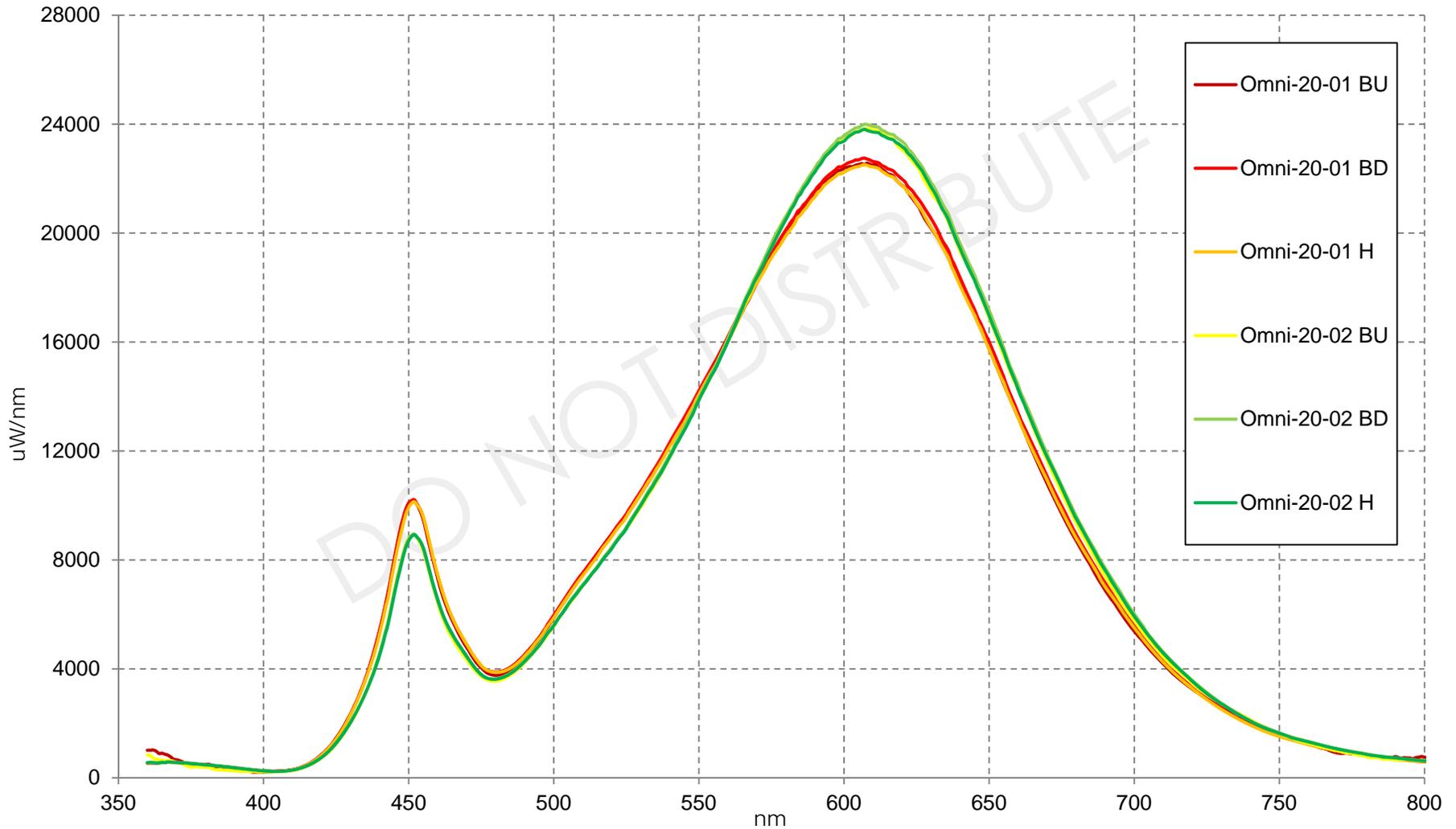


Chromaticity Diagram CIE 1931, 2 Degree

Serial #	Orientation	CIE X	CIE Y
✖ Omni-20-01	Base-Up	0.4485	0.4039
✖ Omni-20-01	Base-Down	0.4487	0.4038
✘ Omni-20-01	Horizontal	0.4484	0.4036
✚ Omni-20-02	Base-Up	0.4617	0.4081
✚ Omni-20-02	Base-Down	0.4618	0.4078
✚ Omni-20-02	Horizontal	0.4614	0.4076

Green Quadrangles: 7-Step MacAdam Ellipse Equivalent
Blue Quadrangles: 4-Step MacAdam Ellipse Equivalent

Spectral Power Distribution: Omni-20



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