

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1431651

Luminaire Tested: EHBR1-12-UNV-ASM-L950

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1431651
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-4)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-12-UNV-ASM-L950
Description: Elevate Round Highbay at, 12000 lumens, 5000K 90CRI LEDs with ASM lens
Light Source: -
Ballast/Driver: -

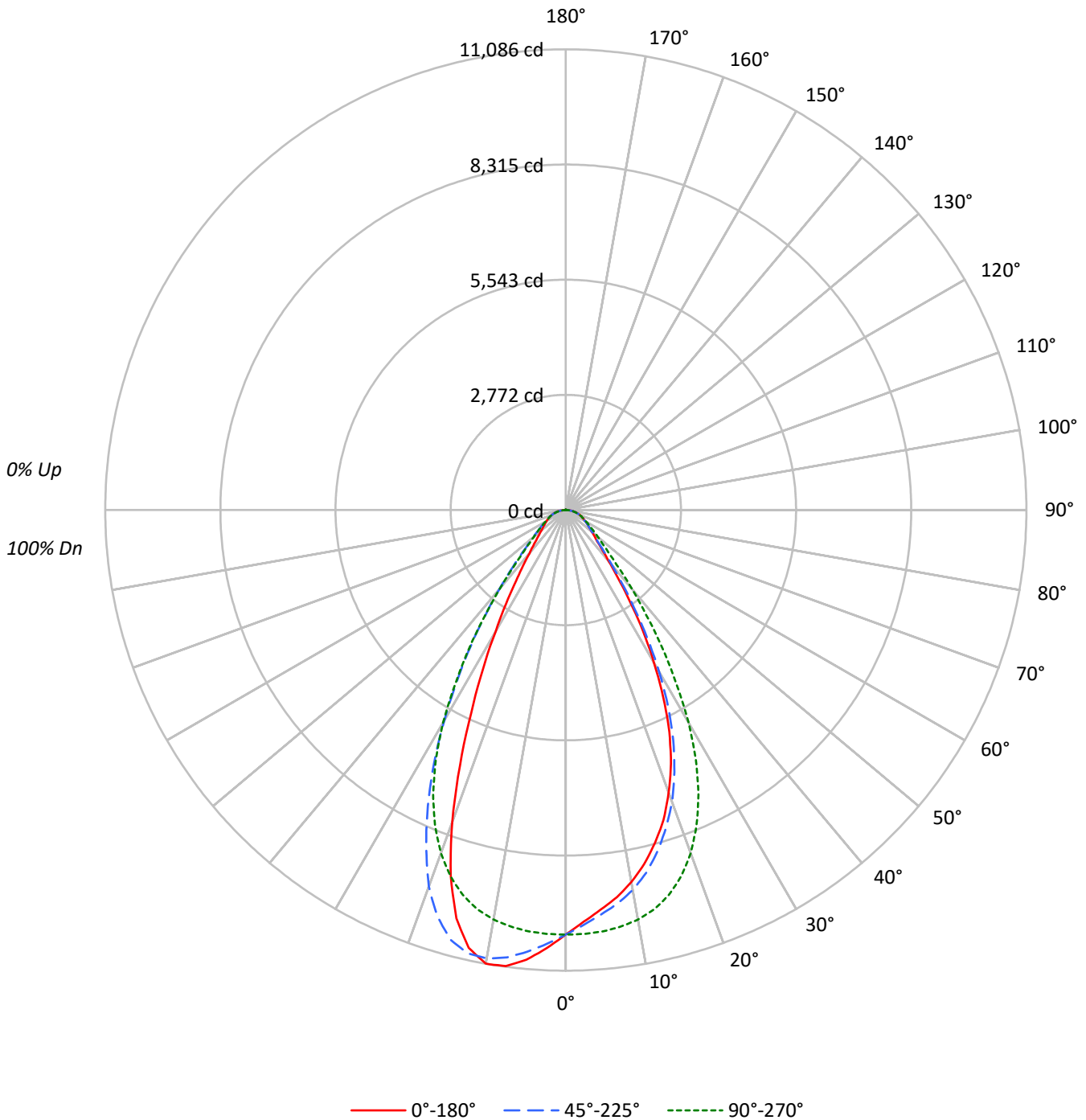
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11423.4 lumens
Efficiency: N/A
Efficacy: 176.6 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 0.99 / 0.92
Luminous Opening: Circular (Dia: 1.71' x H: 0')
CIE Type: Direct

Input Watts (W): 64.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1431651
CATALOG NUMBER: EHBR1-12-UNV-ASM-L950

Luminous Intensity Polar Plot





TEST NUMBER: P1431651
 CATALOG NUMBER: EHBR1-12-UNV-ASM-L950

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90	90	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81	81	81
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74	74	74
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	67	67	67
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	62	62	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57	57	57
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53	53	53
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	49	49	49
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46	46	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43	43	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	47977	47977	47977	47977	47977
5°	45505	46037	47996	50298	51203
10°	43350	44268	47717	52255	52863
15°	40314	41391	46621	52066	49457
20°	36160	37378	43908	48195	39936
25°	30529	31684	39151	40726	27876
30°	23025	24359	32044	31724	18280
35°	15462	16396	23184	22809	11943
40°	9847	10524	15137	15234	8312
45°	7096	7390	9712	10130	6512
50°	5989	6037	7309	7499	5606
55°	5372	5384	6064	6224	5190
60°	5076	5032	5358	5472	5045
65°	4977	4931	5017	5116	4998
70°	5021	4935	4940	5034	5087
75°	5064	4912	4901	5075	5220
80°	5127	4771	4792	5127	5487
85°	4860	4036	4036	4618	5103

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
 Vertical Angle: 45°
 Luminance: 13655 cd/sqm



TEST NUMBER: P1431651
 CATALOG NUMBER: EHBR1-12-UNV-ASM-L950

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	971.4	8.5
10°-20°	2642.8	23.1
20°-30°	3099.5	27.1
30°-40°	2155.5	18.9
40°-50°	1071.2	9.4
50°-60°	640.7	5.6
60°-70°	450.9	3.9
70°-80°	290.5	2.5
80°-90°	92.3	0.8
90°-100°	0.5	0.0
100°-110°	0.6	0.0
110°-120°	0.7	0.0
120°-130°	0.8	0.0
130°-140°	1.1	0.0
140°-150°	1.4	0.0
150°-160°	1.5	0.0
160°-170°	1.5	0.0
170°-180°	0.6	0.0
0°-30°	6713.7	58.8
0°-40°	8869.2	77.6
0°-60°	10581.0	92.6
0°-90°	11414.7	99.9
90°-120°	1.8	0.0
90°-150°	5.1	0.0
90°-180°	9.0	0.1
0°-180°	11423.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10216	10216	10216	10216	10216	
5°	9653	9766	10182	10670	10862	905
15°	8292	8514	9589	10709	10173	2312
25°	5892	6115	7556	7860	5380	2658
35°	2697	2860	4044	3979	2083	1718
45°	1068	1113	1462	1525	980	864
55°	656	658	741	760	634	595
65°	448	444	452	460	450	445
75°	279	271	270	280	288	295
85°	90	75	75	86	95	93
90°	0	0	0	1	2	5
95°	0	0	0	1	2	0
105°	0	0	0	1	2	0
115°	0	0	1	1	2	0
125°	1	1	1	1	2	0
135°	1	1	2	2	2	1
145°	2	2	2	2	2	1
155°	4	3	3	3	3	2
165°	5	5	5	6	6	1
175°	6	6	7	7	8	1
180°	7	7	7	7	7	



TEST NUMBER: P1431651
 CATALOG NUMBER: EHBR1-12-UNV-ASM-L950

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	10216.4	10216.4	10216.4	10216.4	10216.4	10216.4	10216.4	10216.4	10216.4
2.5°	9913.1	9919.6	9989.0	10079.2	10210.4	10342.4	10449.3	10519.8	10554.6
5°	9653.1	9689.2	9766.0	9931.7	10181.5	10445.8	10669.9	10816.4	10861.8
7.5°	9399.8	9420.8	9549.3	9758.7	10112.4	10524.3	10857.0	11028.0	11069.8
10°	9090.9	9138.2	9283.4	9530.4	10006.7	10573.7	10958.2	11080.7	11085.7
12.5°	8727.3	8789.9	8939.9	9251.4	9838.4	10556.0	10924.2	10884.0	10792.6
15°	8292.1	8347.0	8513.5	8874.8	9589.4	10451.6	10709.4	10382.1	10172.7
17.5°	7821.9	7871.7	8016.4	8414.2	9238.4	10256.2	10261.2	9613.4	9218.5
20°	7235.7	7274.8	7479.4	7869.8	8786.1	9942.8	9643.9	8459.3	7991.2
22.5°	6611.9	6648.6	6830.3	7236.7	8219.0	9520.2	8784.4	7298.2	6659.6
25°	5891.8	5911.8	6114.8	6482.2	7555.8	9002.4	7859.7	6033.0	5379.8
27.5°	5081.7	5115.5	5328.0	5703.3	6775.7	8346.0	6875.0	4930.0	4327.3
30°	4246.1	4302.2	4492.2	4828.2	5909.3	7504.6	5850.3	3926.1	3371.1
32.5°	3466.2	3506.6	3641.9	3993.1	4939.1	6680.0	4866.1	3145.8	2675.7
35°	2697.1	2737.5	2860.0	3204.8	4044.1	5648.2	3978.7	2471.8	2083.2
37.5°	2061.7	2133.2	2211.7	2491.6	3173.8	4673.3	3171.7	1990.4	1689.7
40°	1606.3	1617.9	1716.7	1895.8	2469.2	3654.0	2485.1	1588.9	1355.9
42.5°	1285.8	1317.0	1359.6	1493.7	1870.9	2794.1	1953.3	1304.0	1151.7
45°	1068.4	1080.7	1112.8	1202.9	1462.4	2056.1	1525.3	1100.2	980.5
47.5°	934.7	929.3	950.0	1017.5	1191.0	1589.1	1236.2	943.7	859.8
50°	819.8	816.5	826.3	871.2	1000.4	1219.4	1026.5	823.8	767.4
52.5°	730.5	733.3	734.3	762.2	859.4	994.4	874.1	734.1	696.2
55°	656.1	659.8	657.6	678.3	740.6	836.0	760.2	660.1	633.9
57.5°	598.1	595.4	592.5	603.6	650.4	709.2	660.1	597.1	579.7
60°	540.5	538.0	535.8	543.1	570.5	614.1	582.6	542.1	537.2
62.5°	491.0	489.5	489.3	488.0	509.0	536.6	515.1	492.7	488.3
65°	447.9	446.2	443.8	441.8	451.5	477.2	460.4	448.3	449.8
67.5°	404.8	404.8	400.7	397.5	407.1	420.5	413.2	406.3	408.1
70°	365.7	365.9	359.4	356.9	359.8	374.2	366.6	367.7	370.5
72.5°	323.8	319.2	314.4	314.1	314.6	325.7	323.1	325.5	328.5
75°	279.1	273.7	270.7	267.2	270.1	278.5	279.7	282.9	287.7
77.5°	236.0	227.8	225.3	223.5	221.7	231.3	234.9	239.2	246.4
80°	189.6	180.6	176.4	173.9	177.2	181.6	189.6	192.9	202.9
82.5°	140.2	133.5	128.3	128.1	129.7	133.7	140.6	146.7	152.5
85°	90.2	79.5	74.9	76.7	74.9	81.0	85.7	92.9	94.7
87.5°	32.6	25.5	24.3	26.9	26.2	28.2	32.1	35.0	35.2
90°	0.2	0.2	0.2	0.2	0.2	0.4	0.6	1.1	1.5
92.5°	0.2	0.2	0.2	0.2	0.2	0.4	0.6	1.1	1.5
95°	0.2	0.2	0.2	0.2	0.4	0.4	0.6	1.1	1.5
97.5°	0.4	0.2	0.2	0.2	0.4	0.4	0.6	1.1	1.5
100°	0.4	0.2	0.2	0.4	0.4	0.4	0.6	1.1	1.5
102.5°	0.4	0.2	0.2	0.4	0.4	0.6	0.7	1.3	1.5
105°	0.4	0.2	0.2	0.4	0.4	0.6	0.7	1.3	1.8
107.5°	0.4	0.2	0.4	0.4	0.4	0.6	0.7	1.3	1.8
110°	0.4	0.2	0.4	0.4	0.4	0.6	0.7	1.3	1.8



TEST NUMBER: P1431651
 CATALOG NUMBER: EHBR1-12-UNV-ASM-L950

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.4	0.2	0.4	0.4	0.4	0.6	0.7	1.3	1.8
115°	0.4	0.2	0.4	0.4	0.6	0.6	0.7	1.3	1.8
117.5°	0.4	0.2	0.4	0.6	0.6	0.6	0.7	1.3	1.8
120°	0.4	0.2	0.4	0.6	0.6	0.6	0.9	1.3	1.8
122.5°	0.4	0.4	0.6	0.7	0.7	0.7	0.9	1.5	1.8
125°	0.6	0.4	0.7	0.9	0.7	0.7	1.1	1.5	2.0
127.5°	0.6	0.4	0.7	0.9	0.9	0.9	1.1	1.5	2.0
130°	0.6	0.6	0.9	1.1	1.1	0.9	1.1	1.8	2.0
132.5°	0.7	0.7	1.3	1.5	1.3	1.1	1.3	2.0	2.1
135°	0.7	0.9	1.3	1.8	1.5	1.1	1.5	1.8	2.1
137.5°	0.9	1.1	1.8	2.0	1.8	1.3	1.5	2.0	2.1
140°	1.3	1.5	2.0	2.0	2.0	1.5	1.5	2.0	2.3
142.5°	1.8	1.8	2.1	2.1	2.1	1.8	1.8	2.1	2.3
145°	2.1	2.1	2.3	2.1	2.3	2.1	2.0	2.1	2.5
147.5°	2.5	2.5	2.5	2.3	2.3	2.1	2.1	2.3	2.7
150°	2.9	2.9	2.7	2.5	2.5	2.5	2.3	2.5	2.9
152.5°	3.3	3.1	2.9	2.7	2.7	2.7	2.7	2.9	3.1
155°	3.6	3.4	3.3	2.9	3.1	3.1	3.1	3.3	3.4
157.5°	4.2	3.8	3.6	3.4	3.4	3.6	3.6	3.8	4.0
160°	4.6	4.4	4.2	4.0	4.2	4.2	4.4	4.6	4.8
162.5°	5.0	4.8	4.6	4.6	4.6	4.6	5.0	5.2	5.6
165°	5.4	5.2	5.0	5.0	5.2	5.2	5.6	5.9	6.3
167.5°	5.4	5.4	5.4	5.4	5.6	5.6	5.9	6.5	6.9
170°	5.8	5.6	5.6	5.8	5.8	5.9	6.3	6.9	7.2
172.5°	6.1	5.9	6.1	6.1	6.3	6.3	6.9	7.4	7.9
175°	6.5	6.3	6.5	6.5	6.7	6.9	7.2	7.9	8.3
177.5°	6.7	6.5	6.5	6.5	6.7	7.1	7.4	8.1	8.5
180°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1



TEST NUMBER: P1431651
 CATALOG NUMBER: EHBR1-12-UNV-ASM-L950

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.42	15.63	14.79	15.94	16.26	15.18	16.39	15.55	16.71	17.02
	3H	16.34	17.41	16.72	17.74	18.11	16.84	17.91	17.22	18.24	18.61
	4H	17.15	18.15	17.55	18.50	18.89	17.55	18.55	17.96	18.91	19.29
	6H	17.82	18.74	18.23	19.11	19.51	18.14	19.06	18.56	19.43	19.83
	8H	18.06	18.93	18.49	19.32	19.73	18.35	19.22	18.78	19.61	20.02
	12H	18.22	19.05	18.65	19.43	19.86	18.48	19.32	18.92	19.70	20.13
4H	2H	14.99	15.99	15.39	16.34	16.73	15.61	16.61	16.01	16.96	17.35
	3H	17.15	17.97	17.56	18.38	18.78	17.53	18.36	17.95	18.76	19.17
	4H	18.10	18.84	18.53	19.26	19.70	18.40	19.14	18.84	19.56	20.01
	6H	18.91	19.54	19.37	19.99	20.46	19.15	19.79	19.61	20.23	20.70
	8H	19.20	19.80	19.67	20.24	20.72	19.41	20.01	19.89	20.46	20.93
	12H	19.41	19.93	19.90	20.42	20.89	19.60	20.12	20.09	20.61	21.09
8H	4H	18.41	19.01	18.89	19.46	19.93	18.70	19.30	19.18	19.75	20.22
	6H	19.37	19.85	19.88	20.35	20.84	19.60	20.09	20.11	20.59	21.07
	8H	19.76	20.19	20.28	20.71	21.20	19.97	20.40	20.50	20.92	21.42
	12H	20.05	20.43	20.57	20.93	21.50	20.24	20.62	20.76	21.12	21.70
12H	4H	18.44	18.96	18.93	19.45	19.93	18.73	19.26	19.22	19.74	20.22
	6H	19.43	19.87	19.96	20.39	20.88	19.68	20.11	20.20	20.63	21.12
	8H	19.88	20.26	20.40	20.76	21.33	20.11	20.48	20.62	20.98	21.56

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-8

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L950-N

Data in this report applies to families of products including EHBR-60-L950-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-8
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/05/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Metalux
 Catalog Number: **EHBR-60-L950-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 4901
 CIE u': 0.2131
 CIE v': 0.4853
 Duv: -0.0008
 CIE x: 0.3477
 CIE y: 0.3520
 CIE z: 0.3003
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 574
 Purity: 9.953987
 Rf: 90.7
 Rg: 100.5

CRI (Ra):	94.3		
R1:	95.8	R9:	72.3
R2:	96.5	R10:	89.1
R3:	94.4	R11:	94.9
R4:	95.3	R12:	68.4
R5:	94.1	R13:	96.4
R6:	92.5	R14:	96.4
R7:	95.5	R15:	93.9
R8:	90.1		



Test Conditions

Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-8

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	10/22/2024	10/22/2025
Sphere Thermometer	ONSET IN0085	10/22/2024	10/22/2025
Room Thermometer	ONSET IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2506-472-8

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-8

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-8

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 2.04

λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 4.41

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

Summary

$R_f = 90.7$
 $R_g = 100.5$
 CIE $R_a = 94.3$
 $R_9 = 72.3$



Color Vector Graphics



Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 91	CES51 = 98	CES76 = 83
CES02 = 61	CES27 = 92	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 97	CES78 = 80
CES04 = 69	CES29 = 94	CES54 = 93	CES79 = 94
CES05 = 48	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 50	CES31 = 95	CES56 = 95	CES81 = 84
CES07 = 41	CES32 = 86	CES57 = 94	CES82 = 96
CES08 = 40	CES33 = 99	CES58 = 94	CES83 = 96
CES09 = 29	CES34 = 90	CES59 = 97	CES84 = 93
CES10 = 73	CES35 = 94	CES60 = 92	CES85 = 83
CES11 = 56	CES36 = 81	CES61 = 92	CES86 = 86
CES12 = 62	CES37 = 92	CES62 = 86	CES87 = 91
CES13 = 43	CES38 = 88	CES63 = 92	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 89	CES89 = 87
CES15 = 71	CES40 = 97	CES65 = 88	CES90 = 98
CES16 = 47	CES41 = 97	CES66 = 85	CES91 = 73
CES17 = 48	CES42 = 90	CES67 = 84	CES92 = 79
CES18 = 56	CES43 = 91	CES68 = 86	CES93 = 87
CES19 = 70	CES44 = 99	CES69 = 87	CES94 = 78
CES20 = 65	CES45 = 95	CES70 = 83	CES95 = 83
CES21 = 85	CES46 = 97	CES71 = 77	CES96 = 92
CES22 = 77	CES47 = 95	CES72 = 92	CES97 = 95
CES23 = 91	CES48 = 93	CES73 = 77	CES98 = 95
CES24 = 90	CES49 = 95	CES74 = 92	CES99 = 94
CES25 = 70	CES50 = 98	CES75 = 79	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)