

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: P1431771

Luminaire Tested: EHBR1-36-UNV-A1-L950

Issue Date: 3/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1431771  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-36-UNV-A1-L950  
Description: Elevate Round Highbay at, 36000 lumens, 5000K 90CRI LEDs with A lens  
Light Source: -  
Ballast/Driver: -

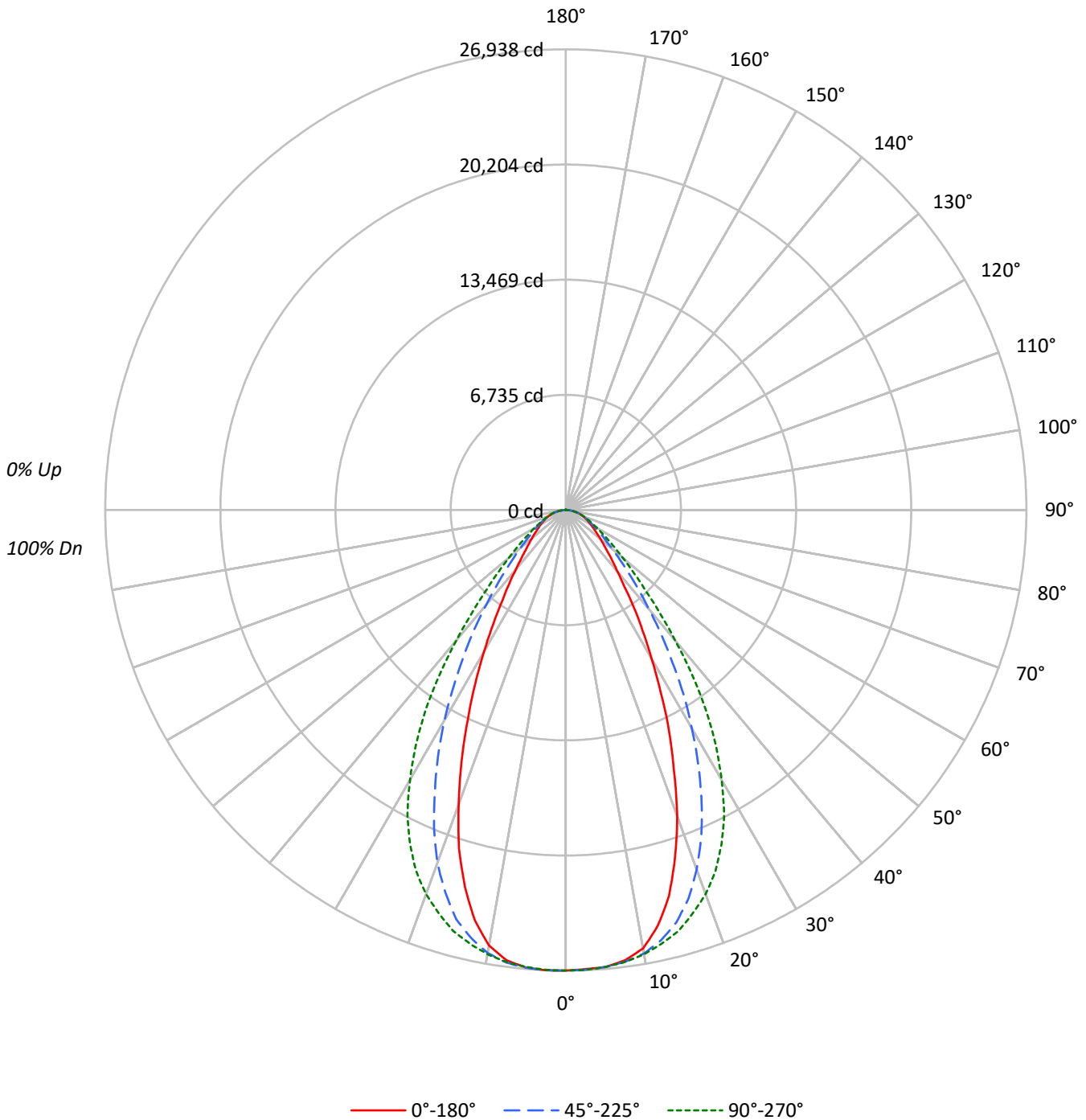
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33450.9 lumens  
Efficiency: N/A  
Efficacy: 174.8 lumens/watt  
Spacing Criteria (0/90/45): 0.8 / 1.07 / 0.95  
Luminous Opening: Circular (Dia: 1.71' x H: 0')  
CIE Type: Direct

Input Watts (W): 191.4  
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: P1431771  
CATALOG NUMBER: EHBR1-36-UNV-A1-L950

### Luminous Intensity Polar Plot





TEST NUMBER: P1431771  
 CATALOG NUMBER: EHBR1-36-UNV-A1-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	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90	90	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80	80	80
3	98	90	83	78	95	88	82	78	85	81	77	83	79	75	80	77	74	72	72	72
4	91	82	75	70	89	81	75	70	79	73	69	77	72	68	75	71	67	65	65	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60	60	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55	55	55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50	50	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46	46	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43	43	43
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40	40	40

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	126448	126448	126448	126448	126448
5°	126431	126412	126418	126642	126564
10°	124117	125564	125764	125408	123305
15°	113438	121353	123851	120380	110833
20°	95193	111802	119440	109697	91487
25°	74165	97388	111624	93831	70323
30°	54493	79945	98839	76912	51722
35°	39625	62160	81943	59483	37038
40°	28789	46362	60983	44405	27900
45°	22941	34301	43072	32813	22147
50°	19287	26114	31590	25253	18994
55°	17117	20953	24311	20603	16886
60°	15753	17850	19768	17739	15863
65°	15134	16173	17063	16224	15278
70°	14929	15286	15757	15371	15076
75°	14777	14684	14777	14726	14920
80°	14855	13787	13484	14001	14855
85°	13400	11364	11245	11547	13799

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 45129 cd/sqm



TEST NUMBER: P1431771  
 CATALOG NUMBER: EHBR1-36-UNV-A1-L950

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2542.8	7.6
10°-20°	6834.0	20.4
20°-30°	8310.1	24.8
30°-40°	6769.2	20.2
40°-50°	4064.3	12.1
50°-60°	2339.0	7.0
60°-70°	1463.8	4.4
70°-80°	862.1	2.6
80°-90°	252.1	0.8
90°-100°	0.1	0.0
100°-110°	0.1	0.0
110°-120°	0.2	0.0
120°-130°	0.4	0.0
130°-140°	1.7	0.0
140°-150°	3.1	0.0
150°-160°	3.4	0.0
160°-170°	3.0	0.0
170°-180°	1.3	0.0
0°-30°	17687.0	52.9
0°-40°	24456.2	73.1
0°-60°	30859.4	92.3
0°-90°	33437.5	100.0
90°-120°	0.4	0.0
90°-150°	5.6	0.0
90°-180°	13.0	0.0
0°-180°	33450.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	26926	26926	26926	26926	26926	
5°	26820	26816	26817	26865	26848	2535
15°	23333	24961	25474	24761	22797	6419
25°	14313	18795	21543	18109	13572	6521
35°	6912	10843	14294	10376	6461	4373
45°	3454	5165	6486	4941	3335	2725
55°	2091	2559	2969	2516	2062	1890
65°	1362	1456	1536	1460	1375	1354
75°	814	809	814	812	822	863
85°	249	211	209	214	256	265
90°	1	0	0	0	1	13
95°	1	0	0	0	1	1
105°	1	0	0	0	1	1
115°	1	0	0	0	1	1
125°	2	0	0	1	2	1
135°	3	2	2	2	3	2
145°	5	5	5	5	6	3
155°	8	7	6	7	9	4
165°	13	11	10	11	13	4
175°	17	15	12	15	17	1
180°	15	15	15	15	15	



TEST NUMBER: P1431771  
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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	26926.2	26926.2	26926.2	26926.2	26926.2	26926.2	26926.2	26926.2	26926.2
2.5°	26867.0	26891.3	26901.4	26907.0	26913.3	26930.2	26937.5	26925.6	26935.8
5°	26820.2	26821.8	26816.2	26841.6	26817.4	26834.3	26864.8	26852.9	26848.3
7.5°	26547.2	26603.6	26636.9	26645.3	26649.9	26670.7	26692.1	26570.9	26552.9
10°	26028.4	26122.6	26331.7	26391.6	26373.6	26407.4	26299.0	25982.1	25858.1
12.5°	24890.9	25221.9	25765.5	26007.5	25963.5	25993.5	25624.6	24955.7	24571.1
15°	23332.7	23818.2	24960.8	25437.9	25474.5	25437.9	24760.6	23457.2	22796.9
17.5°	21261.2	22158.0	23840.2	24766.3	24713.2	24730.7	23444.9	21518.4	20762.7
20°	19048.2	20004.2	22371.7	23916.3	23900.0	23801.9	21950.4	19409.7	18306.6
22.5°	16545.4	17778.2	20688.9	22871.3	22865.1	22701.6	20130.5	17107.1	15919.4
25°	14313.3	15522.4	18795.0	21591.1	21542.6	21356.5	18108.7	14810.1	13571.7
27.5°	12005.5	13262.6	16773.3	20091.1	20057.7	19854.7	16176.1	12663.1	11484.4
30°	10049.2	11198.5	14743.0	18440.3	18227.2	18204.0	14183.6	10675.1	9538.2
32.5°	8373.1	9358.3	12828.9	16714.0	16336.7	16444.5	12197.9	9012.6	7885.9
35°	6911.9	7779.8	10842.7	14717.6	14293.5	14432.9	10375.7	7395.2	6460.7
37.5°	5609.7	6444.3	9159.2	12775.9	12127.4	12390.2	8773.0	6175.9	5427.0
40°	4696.1	5358.2	7562.7	10645.3	9947.7	10375.7	7243.5	5151.2	4551.2
42.5°	4046.4	4478.4	6241.9	8611.1	8075.9	8379.3	5970.0	4306.4	3857.5
45°	3454.3	3798.9	5164.8	6795.2	6485.5	6766.9	4940.8	3672.0	3334.7
47.5°	3017.2	3282.8	4251.7	5487.3	5295.0	5384.1	4126.5	3204.4	2930.3
50°	2639.9	2845.1	3574.4	4428.8	4323.9	4378.5	3456.5	2788.2	2599.8
52.5°	2346.7	2497.2	2998.0	3639.8	3587.9	3596.3	2945.6	2452.7	2316.2
55°	2090.6	2195.5	2559.2	2981.6	2969.3	2971.5	2516.4	2173.5	2062.4
57.5°	1866.7	1953.6	2199.4	2504.5	2486.5	2490.4	2179.1	1930.4	1858.8
60°	1677.2	1735.3	1900.5	2116.5	2104.7	2099.6	1888.7	1713.8	1689.0
62.5°	1509.2	1546.4	1660.9	1814.3	1791.7	1796.8	1660.3	1548.1	1511.4
65°	1362.0	1374.9	1455.5	1550.3	1535.6	1548.1	1460.1	1383.4	1374.9
67.5°	1218.2	1231.1	1278.5	1342.2	1325.3	1335.4	1279.6	1234.5	1227.2
70°	1087.3	1086.8	1113.3	1147.6	1147.6	1149.3	1119.5	1092.4	1098.0
72.5°	952.0	948.5	956.4	979.6	973.4	994.8	963.2	954.8	955.9
75°	814.4	804.8	809.3	821.2	814.4	825.6	811.6	822.3	822.3
77.5°	684.7	666.6	661.0	662.6	650.3	667.2	670.5	677.9	694.8
80°	549.3	523.9	509.8	509.2	498.6	509.2	517.7	532.9	549.3
82.5°	407.8	385.8	362.1	357.5	350.7	357.0	368.3	386.3	412.8
85°	248.7	225.6	210.9	203.0	208.7	208.7	214.3	239.7	256.1
87.5°	89.7	78.4	64.3	64.9	66.5	68.8	71.6	90.2	98.7
90°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
92.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
95°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
97.5°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
100°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
102.5°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
105°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
107.5°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
110°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1



TEST NUMBER: P1431771  
 CATALOG NUMBER: EHBR1-36-UNV-A1-L950

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
115°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
117.5°	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
120°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1
122.5°	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.6	1.7
125°	1.7	0.6	0.0	0.0	0.0	0.0	0.6	0.6	1.7
127.5°	1.7	0.6	0.0	0.0	0.0	0.0	0.6	1.1	1.7
130°	1.7	1.1	0.6	0.0	0.6	0.6	1.1	1.1	1.7
132.5°	2.2	1.7	1.7	1.1	1.1	1.7	1.7	2.2	2.2
135°	2.8	2.2	2.2	1.7	2.2	2.2	2.2	2.2	2.8
137.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.3
140°	3.9	3.3	3.3	3.3	3.3	3.3	3.3	3.9	3.9
142.5°	4.6	4.6	3.9	3.9	3.9	4.6	4.6	4.6	5.1
145°	5.1	5.1	4.6	4.6	4.6	5.1	5.1	5.7	5.7
147.5°	6.8	6.2	5.1	5.1	5.1	5.1	5.7	6.2	6.8
150°	7.3	6.8	5.7	5.7	5.7	5.7	6.2	7.3	7.9
152.5°	7.9	7.3	6.2	5.7	5.7	5.7	6.8	7.3	8.5
155°	8.5	7.9	6.8	5.7	5.7	6.2	7.3	8.5	9.0
157.5°	10.1	9.0	7.9	6.8	6.8	7.3	8.5	9.6	10.1
160°	11.2	10.1	9.0	7.9	7.9	8.5	9.6	10.7	11.2
162.5°	12.5	11.2	9.6	9.0	8.5	9.0	10.1	11.8	12.5
165°	13.0	11.8	10.7	9.6	9.6	9.6	11.2	12.5	13.0
167.5°	13.6	13.0	11.2	10.1	10.1	10.1	11.8	13.0	13.6
170°	14.1	13.6	11.8	10.7	10.1	10.7	12.5	13.6	14.1
172.5°	15.2	14.7	13.0	11.8	11.2	11.8	13.6	14.7	15.2
175°	16.9	15.8	14.7	13.0	12.5	13.0	14.7	15.8	16.9
177.5°	17.5	16.4	15.2	13.6	13.0	13.6	15.2	16.4	17.5
180°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2



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**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	19.20	20.47	19.57	20.78	21.10	20.18	21.45	20.55	21.76	22.08
	3H	20.77	21.89	21.15	22.22	22.59	21.52	22.65	21.91	22.98	23.35
	4H	21.44	22.49	21.84	22.84	23.22	22.08	23.13	22.49	23.48	23.87
	6H	21.99	22.95	22.41	23.33	23.72	22.51	23.48	22.93	23.85	24.25
	8H	22.19	23.10	22.62	23.50	23.90	22.65	23.57	23.08	23.96	24.36
	12H	22.32	23.19	22.75	23.58	24.01	22.73	23.60	23.16	23.99	24.42
4H	2H	19.77	20.82	20.18	21.17	21.56	20.54	21.59	20.95	21.94	22.33
	3H	21.56	22.43	21.98	22.83	23.24	22.13	23.00	22.55	23.40	23.81
	4H	22.36	23.13	22.79	23.55	24.00	22.83	23.60	23.27	24.02	24.47
	6H	23.04	23.71	23.51	24.16	24.63	23.40	24.07	23.86	24.52	24.98
	8H	23.29	23.91	23.76	24.36	24.84	23.58	24.21	24.06	24.66	25.13
	12H	23.46	24.01	23.95	24.50	24.97	23.70	24.25	24.19	24.74	25.21
8H	4H	22.64	23.26	23.11	23.71	24.18	23.06	23.68	23.53	24.13	24.61
	6H	23.46	23.97	23.96	24.46	24.95	23.76	24.27	24.27	24.77	25.25
	8H	23.79	24.24	24.31	24.76	25.25	24.02	24.48	24.55	25.00	25.49
	12H	24.04	24.44	24.55	24.93	25.51	24.22	24.62	24.73	25.11	25.69
12H	4H	22.66	23.21	23.14	23.69	24.17	23.07	23.62	23.56	24.11	24.58
	6H	23.50	23.96	24.03	24.48	24.97	23.81	24.26	24.33	24.78	25.27
	8H	23.89	24.29	24.41	24.79	25.36	24.12	24.52	24.64	25.02	25.59

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**

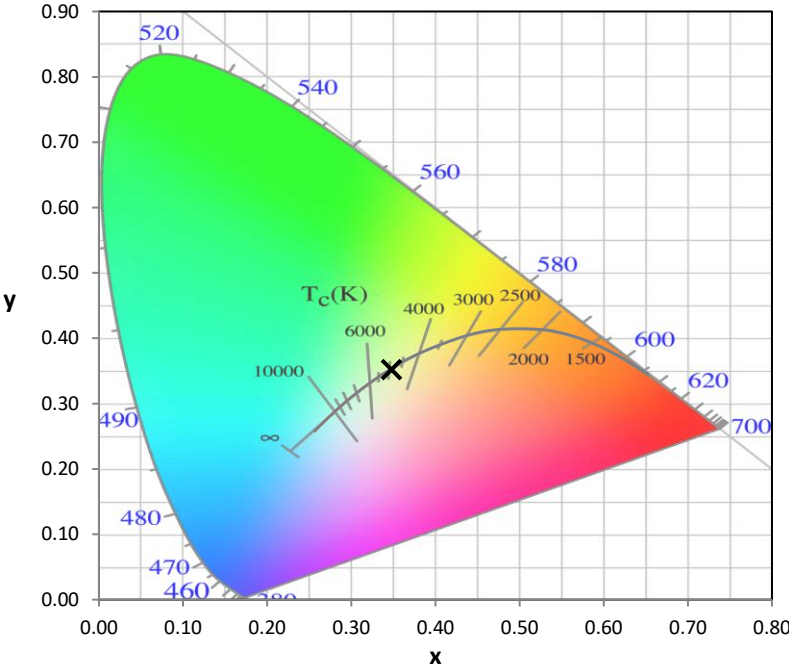
Stabilization Time: 35M  
 Operation Time: 1H 35M  
 Sphere Temperature (°C): 25.0

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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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)