

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: P1432689

Luminaire Tested: EHBR1-36-UNV-ASM-L835-UPL40

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432689
REPORT IS A COMBINATION OF REPORTS P1431778 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-36-UNV-ASM-L835-UPL40
Description: Elevate Round Highbay at, 36000 lumens, 3500K 80CRI LEDs with ASM lens
Light Source: -
Ballast/Driver: -

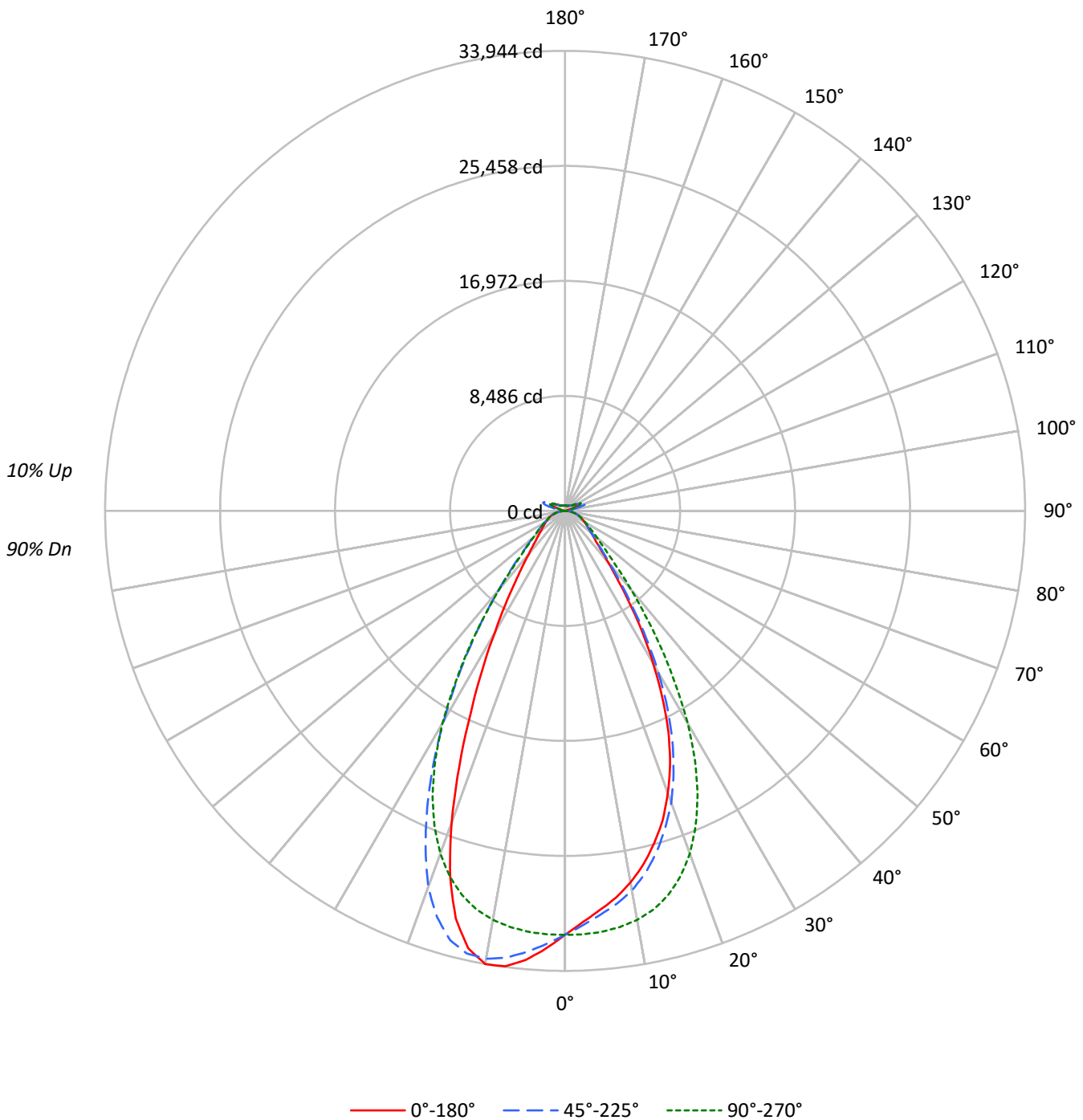
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38739.8 lumens
Efficiency: N/A
Efficacy: 174.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 0.99 / 0.92
Luminous Opening: Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type: Direct

Input Watts (W): 222
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: P1432689
CATALOG NUMBER: EHBR1-36-UNV-ASM-L835-UPL40

Luminous Intensity Polar Plot





TEST NUMBER: P1432689

CATALOG NUMBER: EHBR1-36-UNV-ASM-L835-UPL40

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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90	90	90
1	109	106	103	100	106	103	100	98	97	95	93	92	90	88	87	85	84	81	81	81
2	102	96	91	87	99	94	89	86	89	85	82	84	81	79	80	78	76	74	74	74
3	96	88	82	77	93	86	81	76	82	77	74	78	74	71	75	72	69	67	67	67
4	90	81	74	69	87	79	73	68	76	71	67	72	68	65	69	66	63	61	61	61
5	85	75	68	63	82	73	67	62	70	65	61	67	63	59	65	61	58	56	56	56
6	80	69	62	58	77	68	62	57	65	60	56	63	58	55	61	57	53	52	52	52
7	75	65	58	53	73	63	57	52	61	56	51	59	54	51	57	53	50	48	48	48
8	71	60	54	49	69	59	53	49	57	52	48	55	51	47	54	49	46	44	44	44
9	67	57	50	45	66	56	49	45	54	48	44	52	47	44	51	46	43	42	42	42
10	64	53	47	42	62	52	46	42	51	45	42	49	44	41	48	44	40	39	39	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	146905	146905	146905	146905	146905
5°	138433	140051	146011	153013	155766
10°	131016	133790	144216	157926	159765
15°	121023	124255	139958	156306	148471
20°	107797	111428	130896	143676	119054
25°	90339	93759	115853	120512	82488
30°	67592	71510	94068	93129	53664
35°	44997	47714	67469	66379	34754
40°	28378	30327	43620	43901	23954
45°	20219	21060	27677	28866	18555
50°	16842	16976	20554	21088	15767
55°	14866	14902	16781	17224	14364
60°	13765	13648	14531	14838	13682
65°	13140	13021	13246	13505	13195
70°	12762	12541	12555	12795	12930
75°	12133	11765	11741	12157	12508
80°	11040	10269	10314	11040	11808
85°	8039	6672	6672	7629	8429

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
 Vertical Angle: 45°
 Luminance: 38912 cd/sqm



TEST NUMBER: P1432689
 CATALOG NUMBER: EHBR1-36-UNV-ASM-L835-UPL40

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2974.5	7.7
10°-20°	8092.2	20.9
20°-30°	9490.5	24.5
30°-40°	6600.1	17.0
40°-50°	3279.9	8.5
50°-60°	1961.7	5.1
60°-70°	1380.8	3.6
70°-80°	889.4	2.3
80°-90°	289.2	0.7
90°-100°	100.6	0.3
100°-110°	657.6	1.7
110°-120°	1215.0	3.1
120°-130°	722.0	1.9
130°-140°	436.5	1.1
140°-150°	302.0	0.8
150°-160°	197.0	0.5
160°-170°	113.1	0.3
170°-180°	37.6	0.1
0°-30°	20557.2	53.1
0°-40°	27157.3	70.1
0°-60°	32399.0	83.6
0°-90°	34958.3	90.2
90°-120°	1973.3	5.1
90°-150°	3433.8	8.9
90°-180°	3781.0	9.8
0°-180°	38739.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	31282	31282	31282	31282	31282	
5°	29558	29903	31176	32671	33258	2772
15°	25390	26068	29362	32792	31148	7081
25°	18041	18724	23136	24066	16473	8140
35°	8259	8757	12383	12183	6379	5261
45°	3271	3408	4478	4670	3002	2644
55°	2009	2014	2268	2328	1941	1823
65°	1372	1359	1383	1410	1377	1362
75°	855	829	827	856	881	902
85°	276	229	229	262	290	284
90°	28	76	28	81	32	27
95°	46	170	53	146	51	45
105°	229	1148	302	1225	154	306
115°	1050	1357	1293	1503	1104	967
125°	758	727	828	806	867	691
135°	554	558	523	584	604	434
145°	460	481	473	484	495	291
155°	408	422	421	421	439	190
165°	388	398	396	395	408	111
175°	388	394	395	392	401	37
180°	394	394	394	394	394	



TEST NUMBER: P1432689
 CATALOG NUMBER: EHBR1-36-UNV-ASM-L835-UPL40

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	31282.4	31282.4	31282.4	31282.4	31282.4	31282.4	31282.4	31282.4	31282.4
2.5°	30353.8	30373.7	30586.0	30862.3	31264.1	31668.3	31995.6	32211.5	32318.2
5°	29557.7	29668.0	29903.2	30410.7	31175.6	31985.1	32670.8	33119.6	33258.5
7.5°	28782.3	28846.3	29239.9	29880.9	30963.8	32225.0	33243.9	33767.7	33895.6
10°	27836.1	27981.0	28425.6	29181.8	30640.6	32376.3	33553.6	33929.0	33944.3
12.5°	26722.8	26914.6	27373.8	28327.7	30125.0	32322.4	33449.8	33326.6	33046.7
15°	25390.0	25558.4	26068.1	27174.5	29362.4	32002.7	32792.2	31789.7	31148.5
17.5°	23950.5	24103.0	24545.9	25764.2	28287.8	31404.3	31419.6	29436.3	28226.8
20°	22155.5	22275.2	22901.7	24097.2	26902.9	30444.7	29529.6	25902.1	24469.1
22.5°	20245.6	20357.6	20914.3	22158.5	25166.5	29150.6	26897.5	22346.8	20391.6
25°	18040.6	18101.6	18723.5	19848.5	23135.7	27565.1	24066.1	18473.0	16472.7
27.5°	15560.0	15663.7	16314.3	17463.4	20747.1	25555.4	21051.0	15095.4	13249.9
30°	13001.2	13173.1	13754.9	14783.9	18094.0	22979.1	17913.4	12021.6	10322.3
32.5°	10613.2	10736.9	11151.7	12226.9	15123.5	20453.9	14900.0	9632.4	8192.9
35°	8258.6	8382.4	8757.3	9813.1	12382.9	17294.5	12183.0	7568.8	6378.6
37.5°	6312.9	6531.7	6772.2	7629.2	9718.0	14309.3	9711.6	6094.7	5173.7
40°	4918.6	4953.8	5256.4	5804.9	7560.5	11188.6	7609.2	4865.2	4151.9
42.5°	3937.2	4032.8	4163.1	4573.6	5728.7	8555.5	5980.9	3993.0	3526.5
45°	3271.4	3308.9	3407.5	3683.2	4478.0	6295.8	4670.4	3368.8	3002.2
47.5°	2862.0	2845.5	2908.9	3115.4	3646.9	4865.8	3785.3	2889.5	2632.7
50°	2510.0	2500.0	2530.0	2667.8	3063.2	3733.7	3142.9	2522.3	2349.9
52.5°	2236.6	2245.5	2248.4	2334.1	2631.4	3045.0	2676.6	2247.8	2131.7
55°	2009.0	2020.2	2013.8	2077.1	2267.8	2559.8	2327.6	2021.4	1941.1
57.5°	1831.3	1823.2	1814.3	1848.4	1991.5	2171.6	2021.4	1828.4	1775.1
60°	1654.8	1647.1	1640.7	1663.0	1746.8	1880.7	1783.8	1660.0	1644.8
62.5°	1503.4	1498.8	1498.2	1494.0	1558.6	1643.1	1577.3	1508.7	1495.2
65°	1371.5	1366.1	1359.1	1352.6	1382.6	1461.2	1409.6	1372.6	1377.3
67.5°	1239.5	1239.5	1227.2	1217.2	1246.5	1287.6	1265.3	1244.1	1249.5
70°	1119.8	1120.4	1100.4	1092.9	1101.6	1145.6	1122.7	1125.6	1134.5
72.5°	991.3	977.3	962.6	962.0	963.2	997.2	989.6	996.6	1006.0
75°	854.7	838.2	828.8	818.3	827.1	852.9	856.4	866.4	881.1
77.5°	722.7	697.4	689.9	684.5	678.7	708.0	719.1	732.6	754.3
80°	580.8	553.1	540.2	532.7	542.6	556.1	580.8	590.7	621.2
82.5°	429.4	408.8	393.0	392.4	397.1	409.4	430.6	449.4	466.9
85°	276.3	243.4	229.3	234.7	229.3	248.1	262.2	284.5	289.7
87.5°	99.7	78.1	74.5	82.1	80.4	86.2	98.5	107.3	107.9
90°	27.7	44.5	75.8	48.7	27.7	47.1	81.2	45.3	31.8
92.5°	40.2	67.5	121.8	63.2	36.1	63.8	114.6	59.9	42.3
95°	46.5	77.9	169.8	84.2	53.4	78.4	145.9	66.1	50.6
97.5°	59.6	86.2	194.9	103.0	82.6	97.3	164.8	70.4	61.1
100°	78.4	100.8	303.6	126.5	109.9	109.9	300.5	80.8	69.4
102.5°	132.9	213.7	644.2	237.3	166.2	214.9	696.1	160.8	84.1
105°	228.9	449.8	1147.7	496.4	302.1	490.7	1224.7	413.6	153.6
107.5°	396.1	805.1	1514.0	878.8	571.6	914.9	1577.8	814.8	356.3
110°	738.8	1068.3	1587.1	1206.8	914.3	1278.5	1722.0	1115.7	719.9



TEST NUMBER: P1432689

CATALOG NUMBER: EHBR1-36-UNV-ASM-L835-UPL40

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	997.9	1147.7	1520.3	1332.2	1190.1	1424.7	1682.3	1237.0	995.7
115°	1050.1	1103.9	1357.3	1300.9	1293.1	1403.8	1502.7	1232.7	1104.3
117.5°	1014.6	1007.7	1152.5	1169.9	1249.2	1284.8	1297.9	1157.5	1110.6
120°	939.4	897.0	962.3	1021.5	1128.1	1113.4	1093.6	1046.8	1048.0
122.5°	845.4	795.2	825.0	869.5	976.1	944.7	924.4	934.5	962.2
125°	758.1	707.4	727.4	738.4	827.7	796.3	805.9	838.4	866.7
127.5°	680.8	646.8	658.4	646.5	702.9	688.3	720.2	756.9	781.0
130°	628.7	599.4	615.2	586.5	613.6	617.2	659.6	690.6	705.9
132.5°	585.3	566.5	584.9	550.0	557.8	574.0	614.2	641.1	650.1
135°	554.0	537.8	557.8	525.6	522.9	546.8	583.5	600.7	604.1
137.5°	527.4	513.4	533.9	509.4	502.6	526.5	554.2	568.0	564.4
140°	503.5	491.5	513.6	494.7	490.6	514.5	527.0	542.8	539.9
142.5°	477.5	469.1	495.4	482.9	478.7	500.5	506.8	518.4	514.8
145°	459.9	453.6	481.4	474.6	473.0	489.2	484.4	499.6	494.6
147.5°	444.4	440.2	465.3	462.6	462.6	474.6	468.3	481.4	476.3
150°	430.9	426.8	451.2	448.6	450.6	459.0	450.0	465.3	464.4
152.5°	417.5	412.7	435.1	432.4	434.5	442.9	434.5	451.8	450.3
155°	408.2	403.4	421.6	420.5	421.0	425.2	421.0	438.3	438.9
157.5°	401.6	398.3	412.3	411.7	411.7	414.5	412.3	427.5	428.1
160°	396.4	393.8	405.7	405.1	403.7	407.9	406.3	419.4	420.0
162.5°	391.4	388.7	402.7	400.6	400.6	400.6	399.7	412.8	414.0
165°	388.4	387.8	397.6	397.6	396.1	398.2	395.2	404.8	408.1
167.5°	388.4	386.2	396.7	396.7	395.2	393.1	394.4	402.3	405.6
170°	387.4	386.8	395.2	393.7	391.6	392.2	391.4	399.3	402.6
172.5°	388.7	388.1	397.0	395.0	393.4	393.4	391.0	396.9	402.2
175°	387.8	387.2	394.0	394.0	394.6	393.1	392.2	396.0	401.4
177.5°	390.4	389.8	394.0	394.0	392.5	393.7	394.9	398.6	406.1
180°	393.7	393.7	393.7	393.7	393.7	393.7	393.7	393.7	393.7



TEST NUMBER: P1432689
 CATALOG NUMBER: EHBR1-36-UNV-ASM-L835-UPL40

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	17.05	18.11	17.58	18.62	19.18	17.82	18.88	18.35	19.39	19.95
	3H	18.86	19.81	19.41	20.34	20.94	19.37	20.32	19.92	20.85	21.45
	4H	19.60	20.48	20.17	21.02	21.64	20.02	20.90	20.59	21.44	22.06
	6H	20.17	20.98	20.75	21.53	22.16	20.51	21.33	21.09	21.88	22.51
	8H	20.35	21.12	20.94	21.69	22.33	20.67	21.44	21.26	22.01	22.65
	12H	20.45	21.18	21.04	21.75	22.40	20.75	21.48	21.34	22.05	22.71
4H	2H	17.56	18.45	18.13	18.99	19.60	18.19	19.08	18.76	19.62	20.23
	3H	19.60	20.33	20.18	20.92	21.55	20.00	20.73	20.58	21.31	21.95
	4H	20.46	21.12	21.06	21.71	22.38	20.78	21.44	21.38	22.03	22.70
	6H	21.16	21.72	21.78	22.34	23.03	21.42	21.98	22.04	22.60	23.29
	8H	21.38	21.91	22.01	22.53	23.22	21.62	22.15	22.25	22.77	23.46
	12H	21.52	21.98	22.16	22.63	23.32	21.73	22.20	22.38	22.85	23.54
8H	4H	20.72	21.25	21.35	21.87	22.56	21.02	21.55	21.65	22.17	22.86
	6H	21.54	21.97	22.19	22.63	23.33	21.79	22.22	22.45	22.88	23.58
	8H	21.84	22.22	22.51	22.89	23.60	22.07	22.45	22.74	23.13	23.84
	12H	22.04	22.37	22.71	23.03	23.81	22.25	22.59	22.92	23.24	24.02
12H	4H	20.73	21.19	21.37	21.84	22.53	21.03	21.50	21.68	22.15	22.84
	6H	21.58	21.96	22.25	22.63	23.34	21.83	22.22	22.51	22.89	23.60
	8H	21.92	22.26	22.59	22.91	23.69	22.16	22.50	22.83	23.15	23.93

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



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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-3

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L835-N

Data in this report applies to families of products including EHBR-60-L835-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-3
 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-L835-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3500K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 3468
 CIE u': 0.2375
 CIE v': 0.5091
 Duv: -0.0021
 CIE x: 0.4049
 CIE y: 0.3856
 CIE z: 0.2095
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 581
 Purity: 37.24544
 Rf: 80.1
 Rg: 101

CRI (Ra):	82.1		
R1:	82.9	R9:	27.6
R2:	85.6	R10:	63.8
R3:	85.9	R11:	81.2
R4:	82.8	R12:	57.2
R5:	81.0	R13:	82.6
R6:	79.7	R14:	91.0
R7:	86.5	R15:	79.4
R8:	72.1		



Test Conditions

Stabilization Time: 39M
 Operation Time: 1H 39M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-3

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: SP1-2506-472-3

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-3

Photopic Flux vs. Wavelength

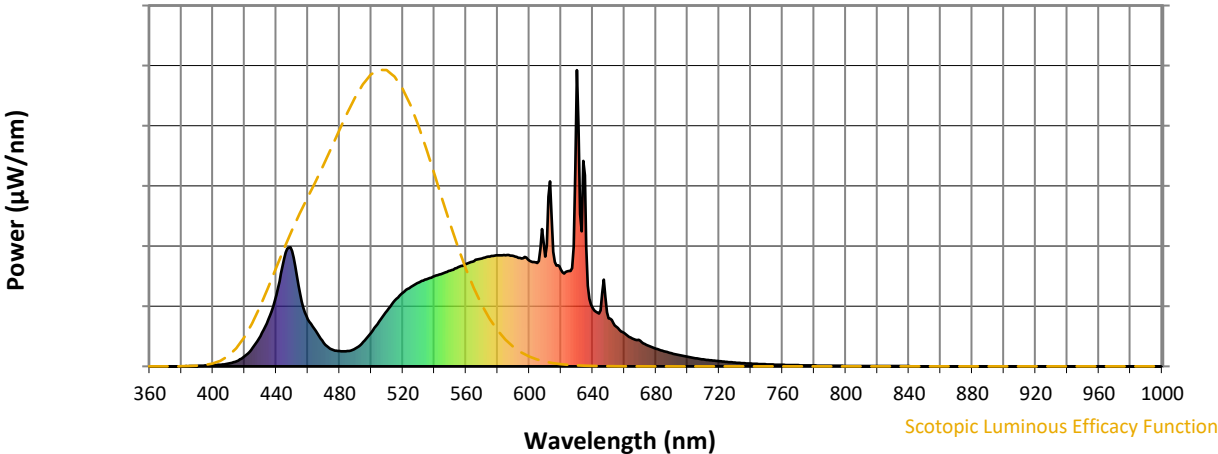


Photopic Lumens: NR

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	60	NR	620	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-3

Scotopic Flux vs. Wavelength

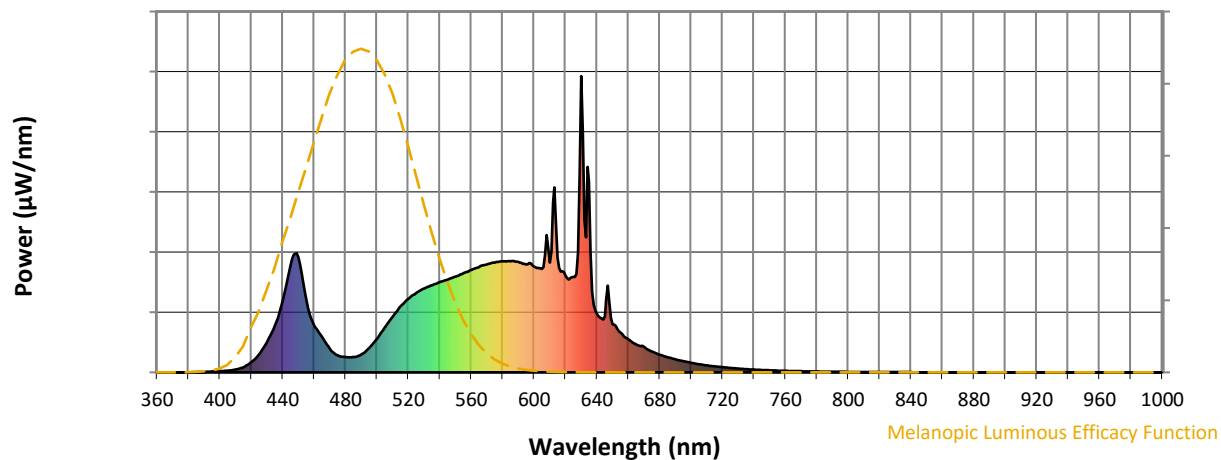


Scotopic Lumens: NR S/P: 1.43

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	60	NR	620	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-3

Melanopic Flux vs. Wavelength



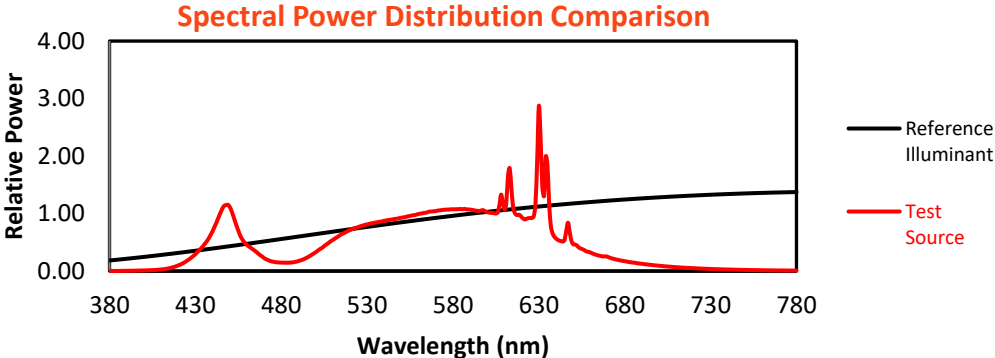
Melanopic Lumens: NR

M/P: 2.75

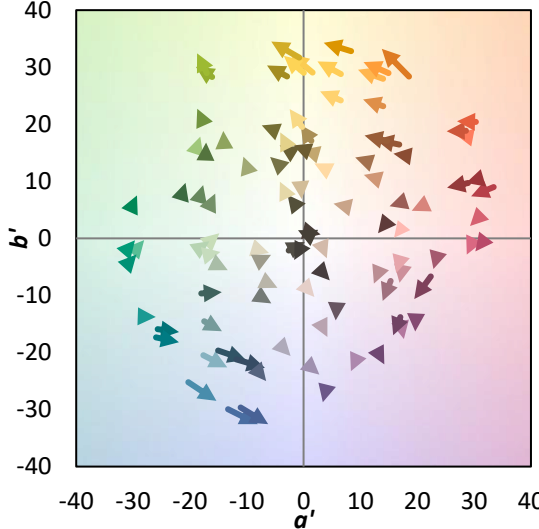
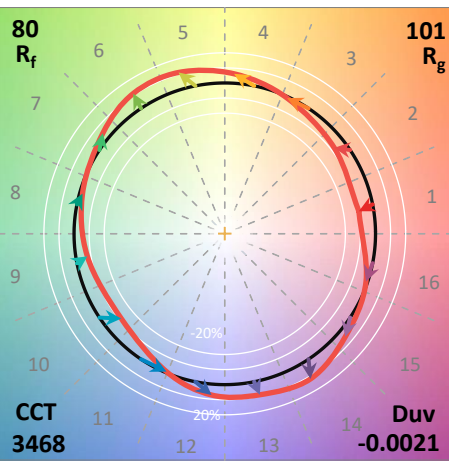
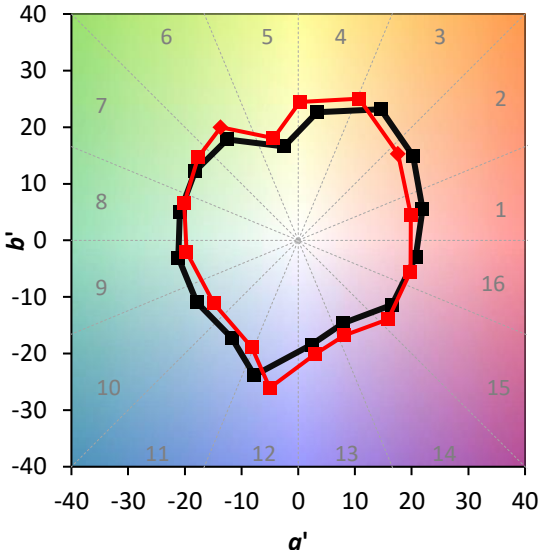
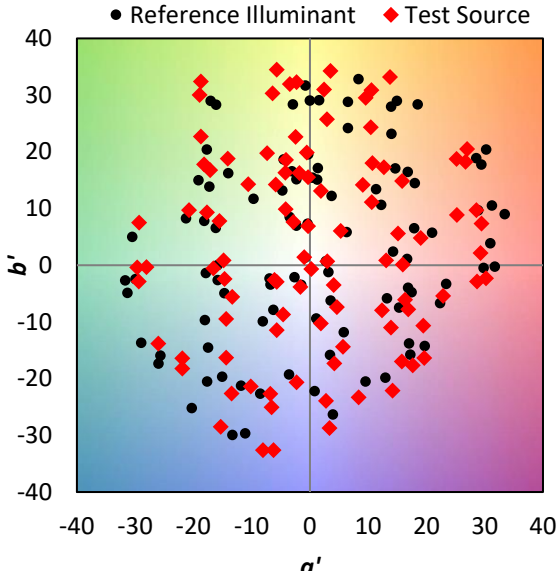
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	60	NR	620	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

Summary

$R_f = 80.1$
 $R_g = 101$
 $CIE R_a = 82.1$
 $R_9 = 27.6$



Color Vector Graphics



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

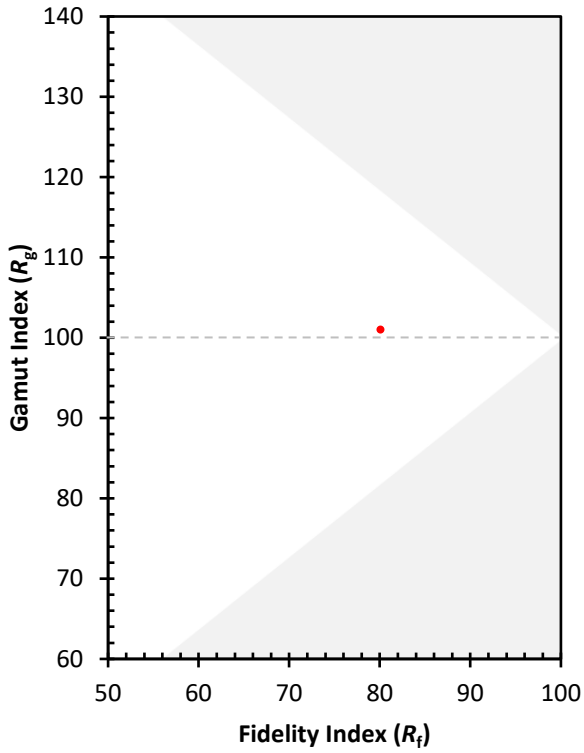
CES01 = 86	CES26 = 68	CES51 = 90	CES76 = 59
CES02 = 62	CES27 = 89	CES52 = 90	CES77 = 78
CES03 = 31	CES28 = 84	CES53 = 81	CES78 = 61
CES04 = 70	CES29 = 66	CES54 = 91	CES79 = 86
CES05 = 49	CES30 = 77	CES55 = 90	CES80 = 82
CES06 = 51	CES31 = 69	CES56 = 80	CES81 = 79
CES07 = 42	CES32 = 62	CES57 = 79	CES82 = 92
CES08 = 41	CES33 = 74	CES58 = 81	CES83 = 89
CES09 = 29	CES34 = 72	CES59 = 92	CES84 = 89
CES10 = 75	CES35 = 85	CES60 = 94	CES85 = 82
CES11 = 58	CES36 = 97	CES61 = 90	CES86 = 78
CES12 = 64	CES37 = 79	CES62 = 92	CES87 = 82
CES13 = 43	CES38 = 85	CES63 = 78	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 79	CES89 = 76
CES15 = 71	CES40 = 89	CES65 = 76	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 73	CES91 = 83
CES17 = 49	CES42 = 77	CES67 = 70	CES92 = 73
CES18 = 56	CES43 = 74	CES68 = 76	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 81	CES94 = 65
CES20 = 66	CES45 = 83	CES70 = 68	CES95 = 79
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 85
CES22 = 78	CES47 = 81	CES72 = 88	CES97 = 85
CES23 = 92	CES48 = 80	CES73 = 60	CES98 = 82
CES24 = 91	CES49 = 80	CES74 = 97	CES99 = 81
CES25 = 72	CES50 = 89	CES75 = 64	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)