

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: P1433572

Luminaire Tested: EHBR1-42-UNV-A1-L935-UPL15

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433572
REPORT IS A COMBINATION OF REPORTS P1431797 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-42-UNV-A1-L935-UPL15
Description: Elevate Round Highbay at, 42000 lumens, 3500K 90CRI LEDs with A lens
Light Source: -
Ballast/Driver: -

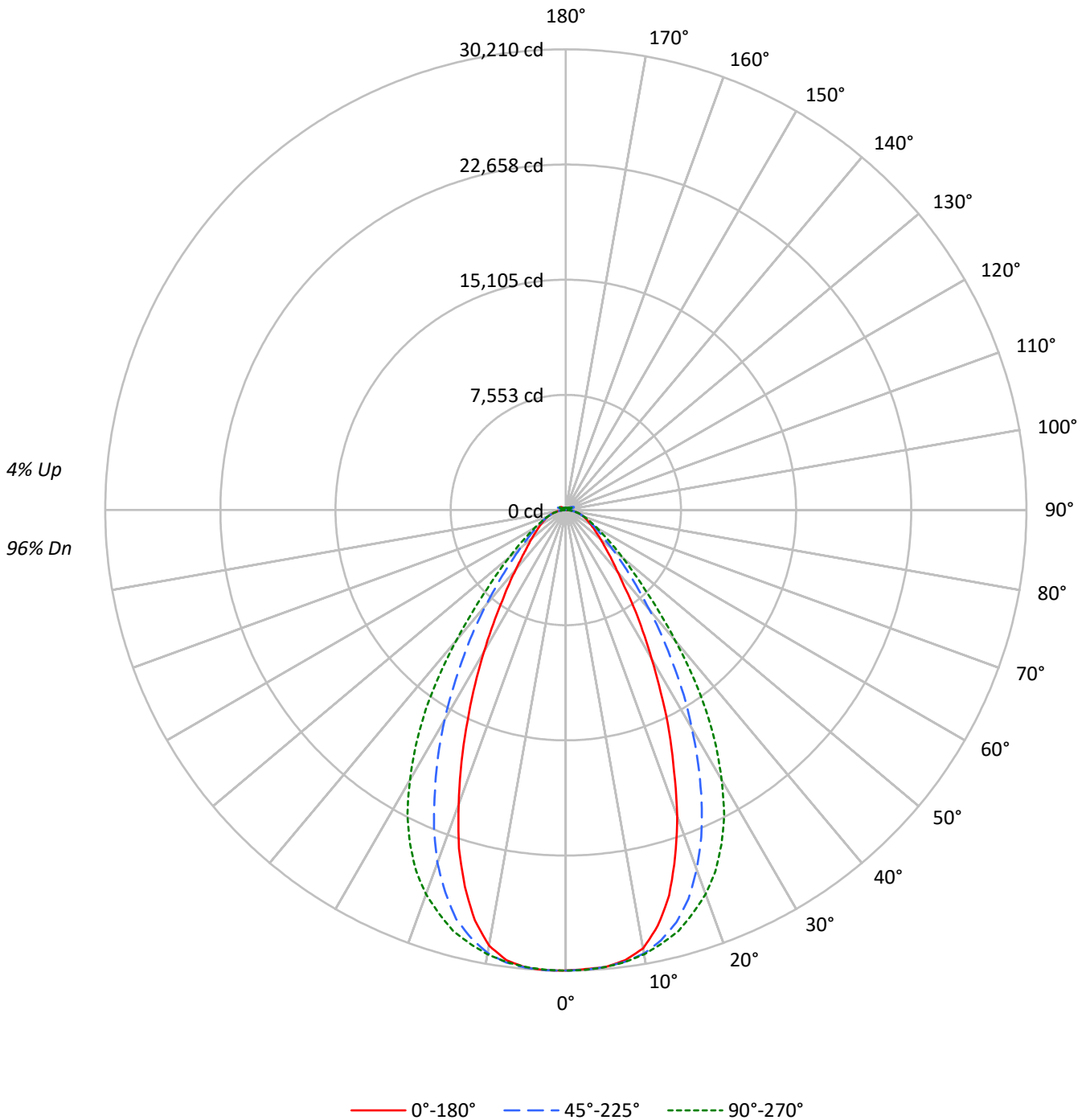
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38863.5 lumens
Efficiency: N/A
Efficacy: 166.3 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 1.07 / 0.95
Luminous Opening: Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type: Direct

Input Watts (W): 233.7
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: P1433572
CATALOG NUMBER: EHBR1-42-UNV-A1-L935-UPL15

Luminous Intensity Polar Plot





TEST NUMBER: P1433572
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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	0
RCR																					
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	99	99	99	96
1	111	107	104	101	108	105	102	99	100	98	96	96	94	92	92	90	89	89	89	89	87
2	104	97	92	88	101	95	91	87	91	87	84	88	85	82	84	82	80	80	80	80	77
3	97	89	82	78	94	87	81	77	84	79	75	81	77	73	78	75	72	72	72	72	70
4	91	81	74	69	88	80	73	69	77	72	67	75	70	66	72	68	65	65	65	65	63
5	85	75	68	62	83	74	67	62	71	65	61	69	64	60	67	63	59	59	59	59	57
6	80	69	62	57	78	68	61	56	66	60	56	64	59	55	63	58	54	54	54	54	53
7	75	64	57	52	73	63	57	52	62	56	51	60	55	51	58	54	50	50	50	50	48
8	71	60	53	48	69	59	52	48	57	52	47	56	51	47	55	50	46	46	46	46	45
9	67	56	49	44	66	55	49	44	54	48	44	53	47	43	51	47	43	43	43	43	42
10	63	52	46	41	62	52	45	41	51	45	41	50	44	41	49	44	40	40	40	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	141810	141810	141810	141810	141810
5°	140873	140852	140858	141107	141021
10°	137390	138992	139212	138820	136492
15°	124728	133432	136178	132362	121864
20°	103939	122073	130413	119774	99892
25°	80382	105551	120981	101696	76217
30°	58591	85959	106273	82697	55613
35°	42235	66254	87340	63401	39478
40°	30386	48933	64366	46869	29448
45°	23943	35799	44955	34247	23114
50°	19865	26897	32537	26011	19564
55°	17349	21239	24640	20883	17116
60°	15647	17730	19635	17620	15757
65°	14633	15639	16500	15688	14772
70°	13897	14229	14669	14307	14034
75°	12965	12884	12965	12920	13091
80°	11709	10867	10628	11037	11709
85°	8115	6884	6808	6995	8353

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 47101 cd/sqm



TEST NUMBER: P1433572
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2851.7	7.3
10°-20°	7664.3	19.7
20°-30°	9319.7	24.0
30°-40°	7591.6	19.5
40°-50°	4558.0	11.7
50°-60°	2623.2	6.7
60°-70°	1641.7	4.2
70°-80°	966.9	2.5
80°-90°	285.1	0.7
90°-100°	35.6	0.1
100°-110°	235.3	0.6
110°-120°	435.1	1.1
120°-130°	258.4	0.7
130°-140°	157.2	0.4
140°-150°	110.3	0.3
150°-160°	72.8	0.2
160°-170°	42.4	0.1
170°-180°	14.2	0.0
0°-30°	19835.7	51.0
0°-40°	27427.4	70.6
0°-60°	34608.5	89.1
0°-90°	37502.2	96.5
90°-120°	706.0	1.8
90°-150°	1231.9	3.2
90°-180°	1361.0	3.5
0°-180°	38863.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	30198	30198	30198	30198	30198	
5°	30079	30074	30075	30128	30110	2843
15°	26167	27993	28569	27769	25566	7199
25°	16052	21078	24160	20309	15220	7314
35°	7752	12160	16030	11636	7246	4904
45°	3874	5792	7274	5541	3740	3056
55°	2345	2870	3330	2822	2313	2119
65°	1527	1632	1722	1638	1542	1519
75°	913	908	913	910	922	967
85°	279	237	234	240	287	298
90°	11	27	10	28	10	19
95°	18	61	19	52	17	17
105°	83	411	108	438	54	111
115°	377	486	463	538	395	348
125°	273	260	296	288	311	249
135°	201	201	188	210	217	157
145°	168	175	172	177	181	107
155°	152	155	154	156	164	71
165°	148	149	147	148	154	42
175°	151	150	148	149	154	14
180°	150	150	150	150	150	



TEST NUMBER: P1433572
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	30197.5	30197.5	30197.5	30197.5	30197.5	30197.5	30197.5	30197.5	30197.5
2.5°	30131.0	30158.2	30169.6	30175.9	30182.9	30201.9	30210.1	30196.8	30208.2
5°	30078.6	30080.5	30074.1	30102.6	30075.4	30094.3	30128.5	30115.3	30110.2
7.5°	29772.4	29835.7	29873.0	29882.4	29887.5	29911.0	29935.0	29799.0	29778.7
10°	29190.5	29296.2	29530.8	29597.8	29577.6	29615.6	29494.2	29138.7	28999.6
12.5°	27914.9	28286.1	28895.8	29167.1	29117.8	29151.3	28737.7	27987.6	27556.2
15°	26167.3	26711.9	27993.3	28528.4	28569.4	28528.4	27768.8	26307.1	25566.5
17.5°	23844.3	24849.8	26736.6	27775.0	27715.6	27735.2	26293.2	24132.7	23285.2
20°	21362.4	22434.5	25089.6	26821.9	26803.6	26693.5	24617.1	21767.9	20530.7
22.5°	18555.5	19938.1	23202.3	25650.0	25643.0	25459.6	22576.1	19185.5	17853.4
25°	16052.2	17408.2	21078.4	24214.2	24159.9	23951.1	20308.7	16609.4	15220.5
27.5°	13464.1	14873.9	18811.1	22531.9	22494.6	22266.9	18141.2	14201.6	12879.7
30°	11270.0	12559.0	16534.1	20680.6	20441.5	20415.6	15906.7	11972.1	10697.1
32.5°	9390.3	10495.3	14387.5	18744.6	18321.5	18442.3	13679.8	10107.6	8843.9
35°	7751.6	8725.0	12160.0	16505.6	16030.1	16186.2	11636.3	8293.6	7245.7
37.5°	6291.2	7227.3	10272.0	14328.1	13600.8	13895.4	9838.8	6926.2	6086.3
40°	5266.6	6009.1	8481.4	11938.5	11156.2	11636.3	8123.5	5777.0	5104.1
42.5°	4538.0	5022.4	7000.2	9657.2	9057.0	9397.3	6695.3	4829.6	4326.1
45°	3873.9	4260.4	5792.2	7620.7	7273.5	7589.1	5541.1	4118.0	3739.8
47.5°	3383.7	3681.6	4768.2	6154.0	5938.3	6038.2	4627.8	3593.7	3286.4
50°	2960.6	3190.8	4008.6	4966.8	4849.1	4910.5	3876.5	3126.9	2915.7
52.5°	2631.7	2800.6	3362.2	4082.0	4023.8	4033.3	3303.4	2750.6	2597.5
55°	2344.6	2462.2	2870.2	3343.9	3329.9	3332.5	2822.1	2437.6	2313.0
57.5°	2093.5	2190.9	2466.7	2808.8	2788.6	2793.0	2443.9	2165.0	2084.6
60°	1881.0	1946.2	2131.4	2373.7	2360.4	2354.7	2118.2	1922.1	1894.2
62.5°	1692.5	1734.3	1862.6	2034.7	2009.3	2015.0	1862.0	1736.2	1695.0
65°	1527.4	1541.9	1632.4	1738.7	1722.2	1736.2	1637.5	1551.5	1541.9
67.5°	1366.1	1380.7	1433.8	1505.3	1486.3	1497.7	1435.1	1384.5	1376.3
70°	1219.4	1218.7	1248.5	1287.1	1287.1	1289.0	1255.4	1225.1	1231.4
72.5°	1067.7	1063.9	1072.6	1098.6	1091.7	1115.7	1080.3	1070.7	1072.0
75°	913.3	902.5	907.6	920.9	913.3	925.9	910.1	922.2	922.2
77.5°	767.8	747.5	741.3	743.2	729.2	748.2	752.0	760.2	779.2
80°	616.0	587.6	571.7	571.1	559.1	571.1	580.6	597.7	616.0
82.5°	457.2	432.6	406.0	401.0	393.4	400.3	413.0	433.2	463.0
85°	278.9	253.0	236.6	227.7	234.0	234.0	240.4	268.8	287.1
87.5°	100.6	87.9	72.1	72.8	74.6	77.1	80.3	101.2	110.7
90°	11.0	15.8	27.0	17.2	9.7	16.5	28.5	15.0	10.3
92.5°	14.9	24.0	43.4	22.5	12.8	22.5	40.4	20.2	14.1
95°	17.8	27.7	60.7	30.0	18.8	27.7	51.7	22.5	17.1
97.5°	22.2	30.7	69.7	36.7	29.2	34.4	58.5	24.0	20.8
100°	29.0	36.0	108.7	45.0	39.0	39.0	107.1	27.7	24.5
102.5°	48.5	76.4	230.8	84.7	59.2	76.4	248.7	56.2	29.7
105°	82.9	161.1	411.3	177.6	107.9	175.3	438.3	146.8	54.5
107.5°	142.8	288.4	542.4	314.7	204.6	327.4	564.9	290.7	127.2
110°	265.7	382.8	568.6	432.2	327.4	457.8	616.6	398.6	257.5



TEST NUMBER: P1433572
 CATALOG NUMBER: EHBR1-42-UNV-A1-L935-UPL15

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	358.6	411.3	544.6	477.2	426.2	510.2	602.3	442.0	356.4
115°	377.4	395.5	486.2	465.9	463.0	502.7	537.9	440.5	395.3
117.5°	365.3	361.1	412.8	418.8	447.3	460.0	464.5	413.6	397.6
120°	337.6	321.4	344.6	365.6	403.8	398.6	391.1	374.5	375.1
122.5°	304.5	285.3	295.2	310.9	349.1	337.9	330.4	334.0	345.0
125°	273.1	253.9	259.9	263.7	295.9	284.7	288.3	299.5	310.6
127.5°	245.3	232.1	235.3	230.8	251.0	245.7	257.6	271.0	279.9
130°	226.7	215.5	220.1	209.0	219.4	220.9	236.6	247.0	252.9
132.5°	211.5	204.2	210.2	196.8	199.8	206.5	220.7	230.3	233.3
135°	200.9	194.3	201.0	188.4	188.3	197.3	210.1	216.1	217.4
137.5°	191.2	186.0	192.7	183.7	181.4	190.5	200.2	204.7	203.8
140°	183.5	178.4	185.9	179.1	177.6	186.6	191.1	196.9	195.5
142.5°	174.4	171.4	179.7	175.3	173.7	182.6	184.9	188.6	187.8
145°	168.3	166.0	175.1	172.9	172.1	178.7	177.3	183.2	180.9
147.5°	164.2	162.1	169.8	169.0	169.0	173.6	171.9	177.0	175.5
150°	159.6	157.4	165.1	164.4	165.1	168.1	165.8	172.3	172.2
152.5°	155.0	152.8	159.8	158.4	159.2	162.1	160.4	167.0	167.6
155°	151.9	149.7	155.2	153.9	153.9	156.1	155.8	163.1	163.8
157.5°	150.7	148.7	152.7	151.4	151.4	152.8	153.4	159.9	160.5
160°	149.8	147.7	151.0	149.7	149.0	151.1	151.6	157.4	158.1
162.5°	148.8	146.8	150.1	148.7	148.1	148.7	149.3	155.7	156.3
165°	147.9	146.6	149.2	147.9	147.1	147.9	148.3	152.5	153.9
167.5°	148.5	147.2	149.0	147.7	147.0	146.3	148.2	151.7	153.0
170°	148.4	147.7	148.9	146.9	145.6	146.2	147.3	150.7	152.1
172.5°	149.6	149.0	150.2	148.2	146.8	147.5	147.7	150.5	152.6
175°	150.8	149.5	150.5	148.7	148.1	147.9	149.0	151.0	153.8
177.5°	152.2	150.9	151.2	149.3	147.9	148.5	150.4	152.4	155.9
180°	150.4	150.4	150.4	150.4	150.4	150.4	150.4	150.4	150.4



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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	18.84	20.05	19.27	20.44	20.84	19.82	21.03	20.25	21.42	21.83
	3H	20.32	21.40	20.77	21.80	22.25	21.09	22.16	21.53	22.57	23.02
	4H	20.93	21.93	21.39	22.35	22.82	21.59	22.59	22.05	23.01	23.48
	6H	21.39	22.31	21.87	22.75	23.24	21.95	22.87	22.42	23.31	23.79
	8H	21.54	22.41	22.03	22.87	23.37	22.04	22.91	22.54	23.38	23.87
	12H	21.62	22.45	22.11	22.90	23.42	22.08	22.92	22.58	23.37	23.88
4H	2H	19.37	20.37	19.83	20.79	21.26	20.15	21.15	20.61	21.57	22.04
	3H	21.05	21.87	21.53	22.35	22.84	21.64	22.46	22.11	22.93	23.42
	4H	21.77	22.51	22.26	22.99	23.52	22.26	23.00	22.76	23.49	24.01
	6H	22.35	22.99	22.87	23.50	24.05	22.74	23.38	23.26	23.89	24.44
	8H	22.54	23.13	23.07	23.64	24.20	22.87	23.47	23.40	23.98	24.53
	12H	22.64	23.17	23.19	23.72	24.27	22.94	23.47	23.49	24.01	24.57
8H	4H	21.99	22.59	22.52	23.10	23.66	22.44	23.04	22.97	23.55	24.10
	6H	22.68	23.17	23.25	23.73	24.29	23.02	23.51	23.59	24.07	24.63
	8H	22.94	23.37	23.52	23.95	24.52	23.22	23.65	23.80	24.23	24.80
	12H	23.10	23.49	23.68	24.04	24.69	23.34	23.72	23.91	24.28	24.93
12H	4H	22.00	22.52	22.54	23.07	23.62	22.44	22.97	22.99	23.51	24.07
	6H	22.71	23.14	23.29	23.72	24.29	23.04	23.48	23.63	24.06	24.63
	8H	23.00	23.38	23.58	23.94	24.59	23.28	23.66	23.86	24.22	24.87

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: SP1-2506-472-6

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L935-N

Data in this report applies to families of products including EHBR-60-L935-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-6
 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-L935-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 3406
 CIE u': 0.2394
 CIE v': 0.5094
 Duv: -0.0028
 CIE x: 0.4076
 CIE y: 0.3856
 CIE z: 0.2068
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 582
 Purity: 38.0517
 Rf: 91.3
 Rg: 100

CRI (Ra):	94.6		
R1:	96.6	R9:	63.8
R2:	98.4	R10:	94.7
R3:	98.1	R11:	96.6
R4:	95.8	R12:	80.9
R5:	96.2	R13:	97.4
R6:	95.4	R14:	98.3
R7:	91.8	R15:	93.1
R8:	84.4		



Test Conditions

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

REPORT NUMBER: SP1-2506-472-6

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: SP1-2506-472-6

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: SP1-2506-472-6

Photopic Flux vs. Wavelength

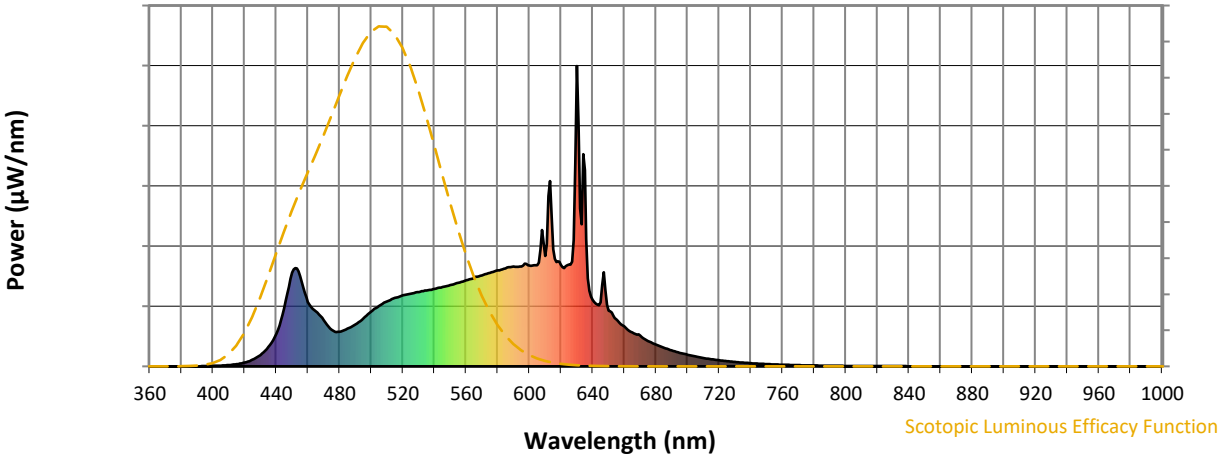


Photopic Lumens: NR

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.62

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.3

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

Summary

$R_f = 91.3$
 $R_g = 100$
 $CIE R_a = 94.6$
 $R_9 = 63.8$



Color Vector Graphics



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

CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 90
CES02 = 63	CES27 = 92	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 98	CES78 = 86
CES04 = 70	CES29 = 97	CES54 = 93	CES79 = 90
CES05 = 50	CES30 = 92	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 97	CES56 = 96	CES81 = 74
CES07 = 43	CES32 = 89	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 95	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 98	CES84 = 95
CES10 = 75	CES35 = 97	CES60 = 92	CES85 = 79
CES11 = 58	CES36 = 81	CES61 = 93	CES86 = 79
CES12 = 64	CES37 = 96	CES62 = 86	CES87 = 92
CES13 = 44	CES38 = 87	CES63 = 94	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 91	CES89 = 84
CES15 = 72	CES40 = 97	CES65 = 90	CES90 = 96
CES16 = 48	CES41 = 96	CES66 = 89	CES91 = 75
CES17 = 49	CES42 = 94	CES67 = 88	CES92 = 76
CES18 = 56	CES43 = 93	CES68 = 89	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 90	CES94 = 74
CES20 = 67	CES45 = 97	CES70 = 88	CES95 = 83
CES21 = 86	CES46 = 97	CES71 = 83	CES96 = 92
CES22 = 78	CES47 = 91	CES72 = 94	CES97 = 96
CES23 = 91	CES48 = 91	CES73 = 83	CES98 = 95
CES24 = 90	CES49 = 96	CES74 = 90	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 85	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)