

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: P1433606

Luminaire Tested: EHBR1-48-UNV-A1-L935-UPL24

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433606
REPORT IS A COMBINATION OF REPORTS P1431831 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-48-UNV-A1-L935-UPL24
Description: Elevate Round Highbay at, 49000 lumens, 3500K 90CRI LEDs with A lens
Light Source: -
Ballast/Driver: -

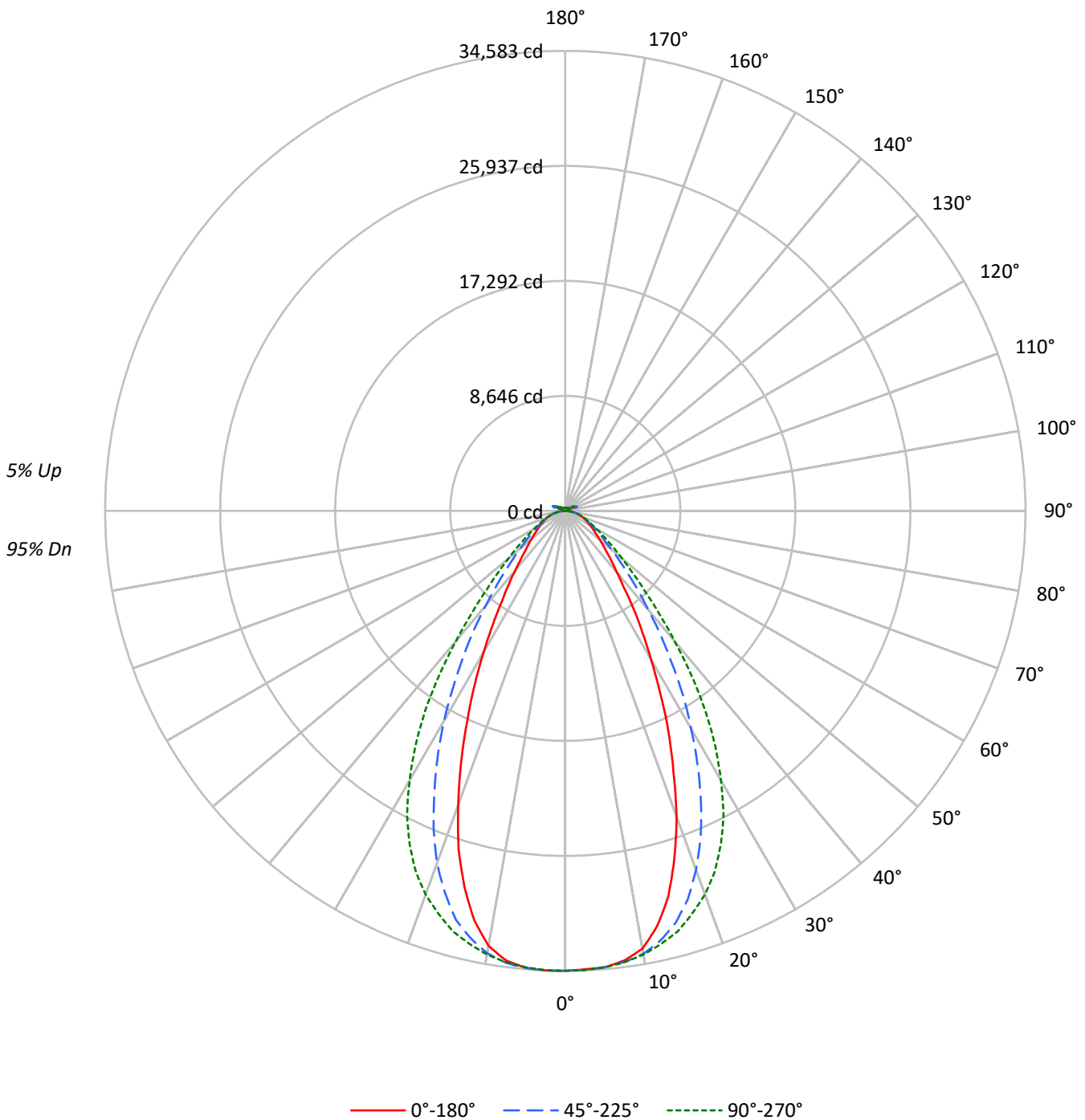
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45150.7 lumens
Efficiency: N/A
Efficacy: 164.1 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): 275.1
Input Voltage (V): NR
Input Current (A_{in}): 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: P1433606
CATALOG NUMBER: EHBR1-48-UNV-A1-L935-UPL24

Luminous Intensity Polar Plot





TEST NUMBER: P1433606
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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	108	108	108	103	103	103	98	98	98	98	98	98	95
1	110	107	104	101	107	104	101	99	99	97	95	95	93	91	90	89	88	88	88	88	85
2	103	97	92	87	100	95	90	86	91	87	83	87	84	81	83	81	78	78	78	78	76
3	96	88	82	77	94	86	81	76	83	78	74	80	76	72	77	74	71	71	71	71	69
4	90	81	74	69	88	79	73	68	76	71	67	74	69	65	71	67	64	64	64	64	62
5	85	74	67	62	82	73	66	62	71	65	61	68	63	59	66	62	59	59	59	59	57
6	79	69	62	56	77	68	61	56	66	60	55	64	58	54	62	57	54	54	54	54	52
7	75	64	57	52	73	63	56	51	61	55	51	59	54	50	58	53	49	49	49	49	48
8	71	59	52	48	69	59	52	47	57	51	47	55	50	46	54	49	46	46	46	46	44
9	67	55	49	44	65	55	48	44	53	47	43	52	47	43	51	46	43	43	43	43	41
10	63	52	45	41	62	51	45	41	50	44	40	49	44	40	48	43	40	40	40	40	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	162339	162339	162339	162339	162339
5°	161265	161242	161248	161533	161435
10°	157280	159113	159365	158916	156251
15°	142784	152748	155891	151522	139506
20°	118985	139745	149291	137113	114353
25°	92018	120831	138495	116418	87250
30°	67073	98402	121657	94668	63663
35°	48349	75845	99984	72578	45193
40°	34784	56017	73683	53653	33711
45°	27409	40982	51462	39205	26461
50°	22741	30791	37248	29776	22395
55°	19861	24313	28208	23906	19593
60°	17912	20297	22476	20170	18038
65°	16752	17904	18888	17960	16912
70°	15909	16289	16792	16379	16066
75°	14842	14749	14842	14791	14985
80°	13405	12443	12168	12635	13405
85°	9290	7879	7795	8007	9564

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 53919 cd/sqm



TEST NUMBER: P1433606
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3264.5	7.2
10°-20°	8773.8	19.4
20°-30°	10668.9	23.6
30°-40°	8690.6	19.2
40°-50°	5217.8	11.6
50°-60°	3002.9	6.7
60°-70°	1879.3	4.2
70°-80°	1106.8	2.5
80°-90°	327.6	0.7
90°-100°	58.2	0.1
100°-110°	384.6	0.9
110°-120°	711.3	1.6
120°-130°	422.3	0.9
130°-140°	256.1	0.6
140°-150°	178.6	0.4
150°-160°	117.2	0.3
160°-170°	67.6	0.1
170°-180°	22.6	0.0
0°-30°	22707.2	50.3
0°-40°	31397.8	69.5
0°-60°	39618.5	87.7
0°-90°	42932.3	95.1
90°-120°	1154.1	2.6
90°-150°	2011.1	4.5
90°-180°	2218.0	4.9
0°-180°	45150.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	34569	34569	34569	34569	34569	
5°	34433	34428	34429	34490	34469	3254
15°	29955	32046	32705	31789	29268	8241
25°	18376	24130	27657	23249	17424	8372
35°	8874	13920	18351	13321	8295	5614
45°	4435	6631	8326	6343	4281	3498
55°	2684	3286	3812	3231	2648	2426
65°	1748	1869	1972	1875	1765	1738
75°	1046	1039	1046	1042	1056	1107
85°	319	271	268	275	329	341
90°	17	44	16	47	17	24
95°	28	99	31	85	28	27
105°	135	672	176	717	88	180
115°	616	795	757	880	646	568
125°	446	425	484	471	507	406
135°	327	328	307	342	354	256
145°	272	284	279	287	293	173
155°	244	250	249	251	263	114
165°	235	238	235	236	244	67
175°	237	238	235	236	242	23
180°	238	238	238	238	238	



TEST NUMBER: P1433606
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	34568.9	34568.9	34568.9	34568.9	34568.9	34568.9	34568.9	34568.9	34568.9
2.5°	34492.8	34524.0	34537.1	34544.3	34552.2	34574.0	34583.4	34568.2	34581.2
5°	34432.7	34434.9	34427.7	34460.3	34429.1	34450.9	34489.9	34474.8	34469.0
7.5°	34082.4	34154.8	34197.5	34208.3	34214.1	34240.9	34268.4	34112.7	34089.6
10°	33416.2	33537.1	33805.7	33882.5	33859.3	33902.8	33763.8	33356.8	33197.6
12.5°	31955.8	32380.9	33078.9	33389.5	33333.0	33371.3	32897.8	32039.1	31545.4
15°	29955.4	30578.8	32045.7	32658.2	32705.2	32658.2	31788.6	30115.4	29267.6
17.5°	27296.0	28447.2	30606.9	31795.9	31727.8	31750.2	30099.4	27626.1	26656.0
20°	24454.9	25682.1	28721.6	30704.7	30683.7	30557.7	28180.8	24919.0	23502.8
22.5°	21241.7	22824.4	26561.1	29363.1	29355.1	29145.1	25844.3	21962.7	20437.9
25°	18375.9	19928.2	24129.8	27719.6	27657.3	27418.4	23248.6	19013.8	17423.8
27.5°	15413.2	17027.0	21534.1	25793.6	25750.9	25490.3	20767.4	16257.4	14744.2
30°	12901.5	14377.1	18927.6	23674.4	23400.7	23371.0	18209.4	13705.2	12245.5
32.5°	10749.7	12014.6	16470.3	21458.1	20973.7	21112.1	15660.1	11570.8	10124.2
35°	8873.7	9988.0	13920.2	18895.1	18350.6	18529.4	13320.7	9494.3	8294.6
37.5°	7202.0	8273.5	11759.0	16402.2	15569.6	15907.0	11263.1	7928.8	6967.3
40°	6029.0	6879.0	9709.2	13666.8	12771.2	13320.7	9299.5	6613.3	5842.9
42.5°	5194.9	5749.6	8013.6	11055.2	10368.1	10757.7	7664.6	5528.7	4952.4
45°	4434.7	4877.1	6630.7	8723.9	8326.4	8687.6	6343.2	4714.2	4281.2
47.5°	3873.6	4214.6	5458.5	7044.8	6797.9	6912.3	5297.8	4113.9	3762.1
50°	3389.2	3652.8	4588.9	5685.9	5551.2	5621.4	4437.6	3579.6	3337.7
52.5°	3012.7	3206.1	3848.9	4672.9	4606.3	4617.1	3781.7	3148.8	2973.6
55°	2684.0	2818.7	3285.6	3828.0	3812.0	3814.9	3230.6	2790.4	2647.8
57.5°	2396.5	2508.1	2823.8	3215.4	3192.3	3197.4	2797.7	2478.4	2386.4
60°	2153.3	2227.8	2440.0	2717.3	2702.0	2695.6	2424.8	2200.3	2168.5
62.5°	1937.6	1985.3	2132.2	2329.2	2300.3	2306.8	2131.5	1987.5	1940.4
65°	1748.5	1765.2	1868.8	1990.4	1971.5	1987.5	1874.6	1776.0	1765.2
67.5°	1563.9	1580.5	1641.4	1723.2	1701.5	1714.5	1642.8	1584.9	1575.5
70°	1395.9	1395.2	1429.3	1473.4	1473.4	1475.6	1437.2	1402.5	1409.7
72.5°	1222.2	1217.8	1228.0	1257.6	1249.6	1277.2	1236.7	1225.8	1227.3
75°	1045.5	1033.2	1039.0	1054.2	1045.5	1060.0	1041.9	1055.6	1055.6
77.5°	879.0	855.8	848.6	850.8	834.8	856.6	860.8	870.3	892.0
80°	705.2	672.6	654.6	653.8	640.1	653.8	664.7	684.2	705.2
82.5°	523.5	495.2	464.9	459.1	450.4	458.3	472.8	495.9	530.0
85°	319.3	289.6	270.8	260.7	267.9	267.9	275.2	307.7	328.7
87.5°	115.1	100.6	82.6	83.3	85.5	88.4	92.0	115.8	126.7
90°	17.4	25.7	44.1	28.2	16.0	26.9	46.6	24.5	16.7
92.5°	24.0	39.2	71.1	36.7	20.8	36.7	66.2	33.1	22.7
95°	28.4	45.3	99.2	49.0	30.6	45.3	84.6	36.7	27.6
97.5°	35.7	50.2	113.9	60.0	47.8	56.4	95.5	39.2	33.8
100°	46.8	58.8	177.6	73.5	63.7	63.7	175.2	45.3	39.4
102.5°	78.6	125.0	377.3	138.4	96.8	125.0	406.7	91.9	48.0
105°	135.0	263.4	672.5	290.3	176.4	286.7	716.6	240.1	88.5
107.5°	232.9	471.7	886.8	514.5	334.4	535.3	923.6	475.3	207.3
110°	433.9	625.9	929.7	706.8	535.3	748.4	1008.1	651.7	420.4



TEST NUMBER: P1433606
 CATALOG NUMBER: EHBR1-48-UNV-A1-L935-UPL24

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	585.8	672.5	890.6	780.3	697.0	834.2	984.9	722.7	582.0
115°	616.4	646.8	795.0	762.0	757.1	822.0	879.5	720.3	645.8
117.5°	596.3	590.5	674.9	684.7	731.3	752.2	759.5	676.2	649.5
120°	551.5	525.5	563.5	597.8	660.3	651.7	639.4	612.0	612.7
122.5°	497.0	466.2	482.6	508.4	570.8	552.5	540.2	545.8	563.2
125°	445.6	414.7	425.1	431.2	483.9	465.5	471.1	489.5	506.8
127.5°	400.3	379.2	384.6	377.3	410.4	401.8	420.9	442.5	456.6
130°	369.7	351.7	359.6	341.8	358.5	360.9	386.1	403.2	412.6
132.5°	344.7	332.9	342.7	321.2	326.1	336.6	359.9	375.3	380.2
135°	327.0	316.5	327.5	307.2	306.7	321.4	342.2	352.0	353.9
137.5°	311.1	302.5	313.5	298.8	295.2	309.9	325.8	333.2	331.4
140°	297.8	289.8	302.0	291.0	288.6	303.3	310.6	319.9	317.4
142.5°	282.7	277.7	291.7	284.4	282.0	296.1	299.8	305.9	304.2
145°	272.4	268.6	283.9	280.2	279.0	289.5	287.0	296.4	292.7
147.5°	264.7	261.6	274.8	273.5	273.5	281.0	278.0	286.0	283.1
150°	256.9	253.7	266.9	265.7	266.9	271.8	267.6	277.7	277.2
152.5°	249.1	245.9	257.9	255.9	257.1	262.0	258.6	269.1	269.4
155°	243.6	240.4	250.1	248.6	248.6	251.8	250.8	262.0	262.7
157.5°	240.9	238.2	245.3	243.9	243.9	245.9	246.1	256.1	256.9
160°	238.6	236.0	241.9	240.4	239.2	242.4	242.6	251.4	252.1
162.5°	236.5	233.7	240.2	238.2	237.5	238.2	238.5	248.0	248.7
165°	234.7	233.3	237.9	236.5	235.3	236.5	236.2	242.5	244.5
167.5°	235.5	233.5	237.5	236.0	234.7	233.6	235.7	240.8	242.8
170°	234.9	234.2	236.9	234.3	232.3	233.0	234.0	239.1	241.1
172.5°	236.4	235.6	238.4	235.7	233.7	234.5	234.2	238.1	241.3
175°	237.4	235.9	238.1	235.9	235.2	234.7	235.6	238.4	242.3
177.5°	239.3	237.8	238.8	236.6	234.7	235.5	237.6	240.3	245.4
180°	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6



TEST NUMBER: P1433606
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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	20.39	19.65	20.80	21.24	20.18	21.37	20.64	21.78	22.23
	3H	20.68	21.73	21.15	22.17	22.65	21.45	22.50	21.91	22.93	23.42
	4H	21.28	22.26	21.77	22.72	23.22	21.95	22.93	22.44	23.38	23.88
	6H	21.75	22.65	22.25	23.12	23.64	22.30	23.21	22.80	23.67	24.19
	8H	21.90	22.75	22.41	23.24	23.76	22.40	23.25	22.92	23.74	24.27
	12H	21.97	22.79	22.49	23.27	23.82	22.44	23.26	22.96	23.74	24.28
4H	2H	19.72	20.70	20.21	21.16	21.66	20.50	21.48	20.99	21.94	22.44
	3H	21.41	22.22	21.91	22.72	23.24	21.99	22.80	22.49	23.30	23.82
	4H	22.12	22.85	22.64	23.36	23.92	22.61	23.34	23.14	23.85	24.41
	6H	22.70	23.33	23.25	23.87	24.45	23.09	23.72	23.64	24.26	24.84
	8H	22.89	23.48	23.44	24.01	24.60	23.23	23.81	23.78	24.35	24.93
	12H	23.00	23.51	23.57	24.08	24.67	23.29	23.81	23.86	24.38	24.97
8H	4H	22.35	22.93	22.90	23.47	24.06	22.80	23.38	23.35	23.92	24.50
	6H	23.04	23.52	23.62	24.10	24.69	23.38	23.85	23.96	24.44	25.03
	8H	23.29	23.72	23.89	24.32	24.92	23.57	24.00	24.17	24.60	25.20
	12H	23.46	23.83	24.05	24.41	25.09	23.69	24.07	24.29	24.65	25.33
12H	4H	22.35	22.87	22.92	23.44	24.02	22.79	23.31	23.36	23.88	24.47
	6H	23.06	23.49	23.66	24.09	24.69	23.40	23.83	24.00	24.42	25.03
	8H	23.36	23.73	23.95	24.31	24.99	23.63	24.01	24.23	24.59	25.27

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

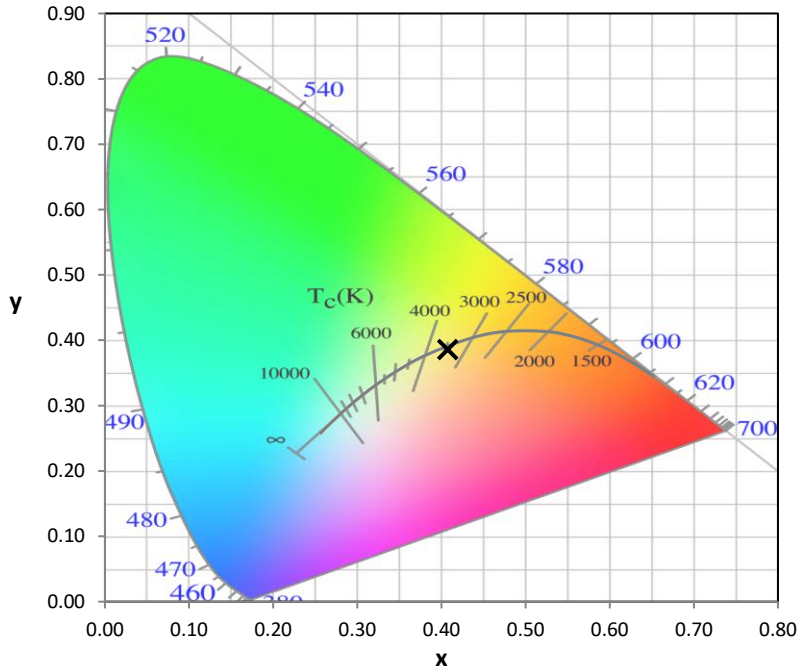
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

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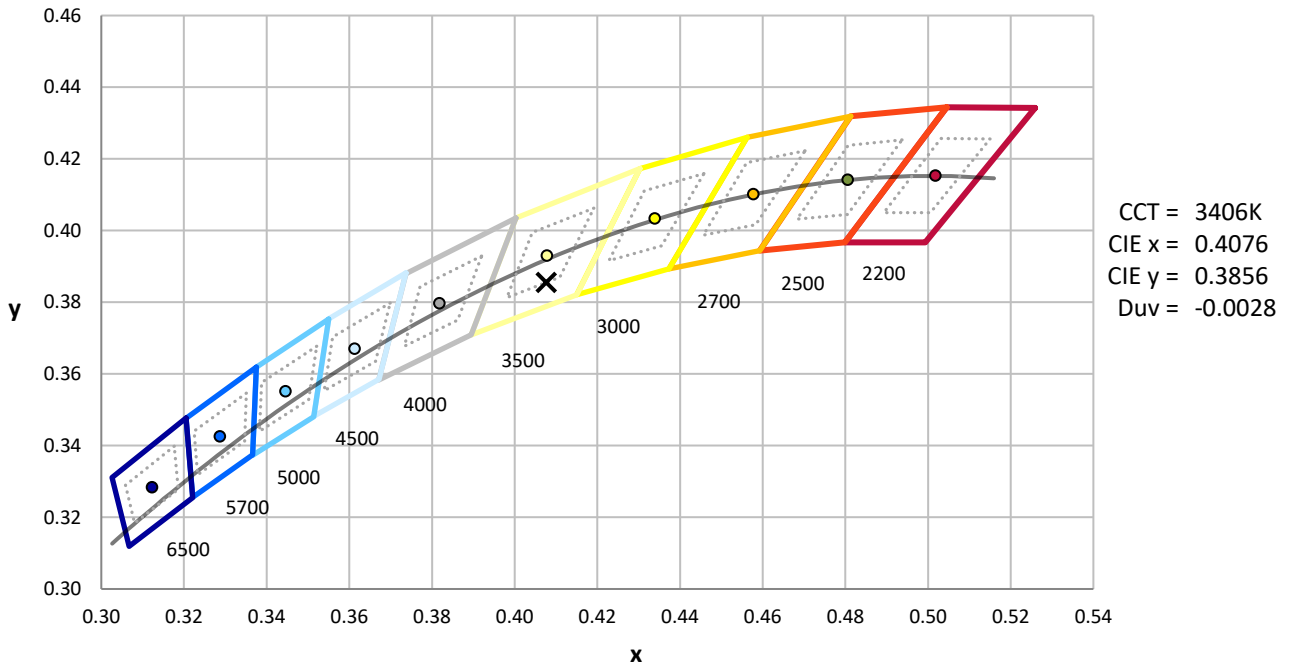
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

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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

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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



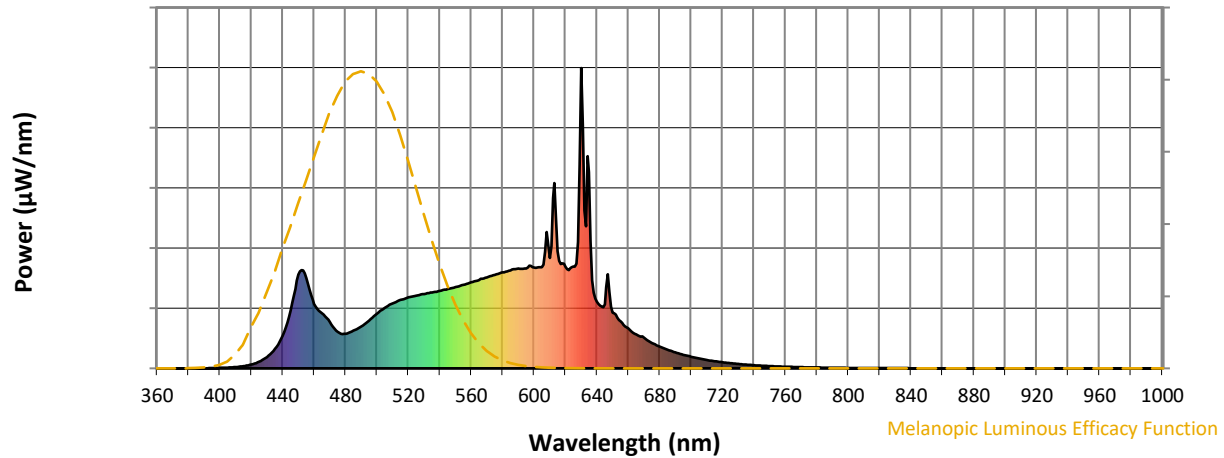
Scotopic Lumens: NR

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			

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Melanopic Flux vs. Wavelength



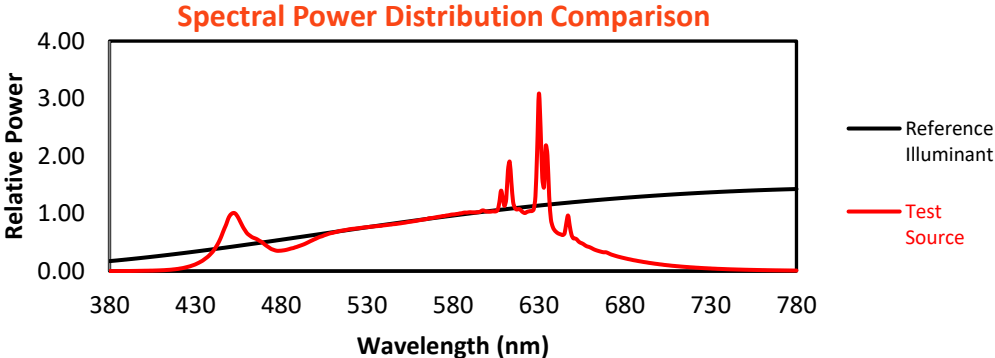
Melanopic Lumens: NR

M/P: 3.3

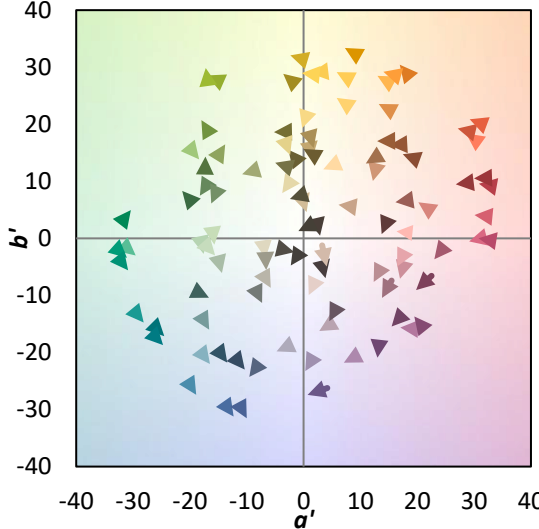
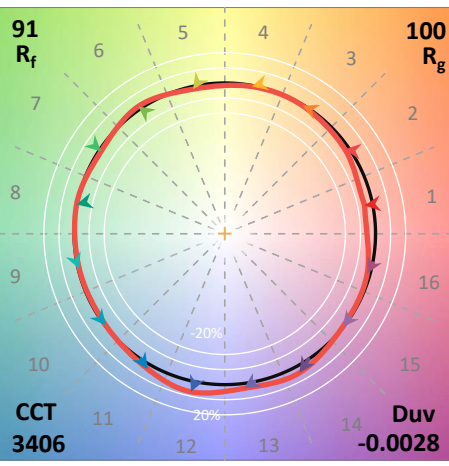
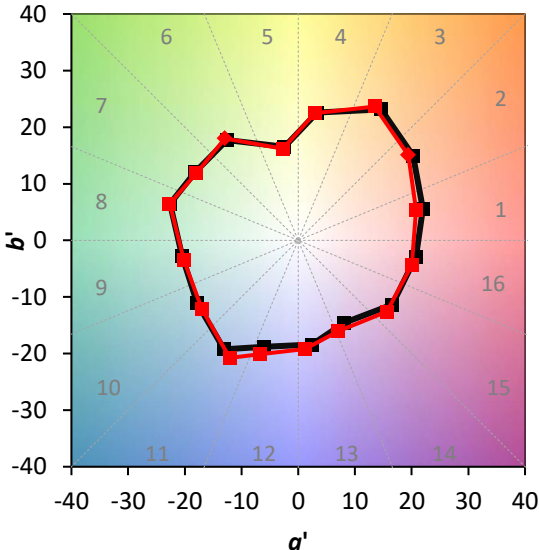
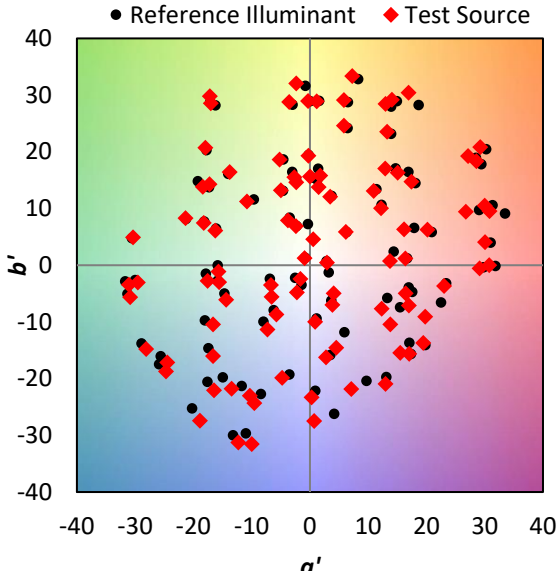
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	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)