

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: P1433443

Luminaire Tested: EHBR1-18-UNV-A1-L935-UPL12

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433443
REPORT IS A COMBINATION OF REPORTS P1431668 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-18-UNV-A1-L935-UPL12
Description: Elevate Round Highbay at, 19000 lumens, 3500K 90CRI LEDs with A lens
Light Source: -
Ballast/Driver: -

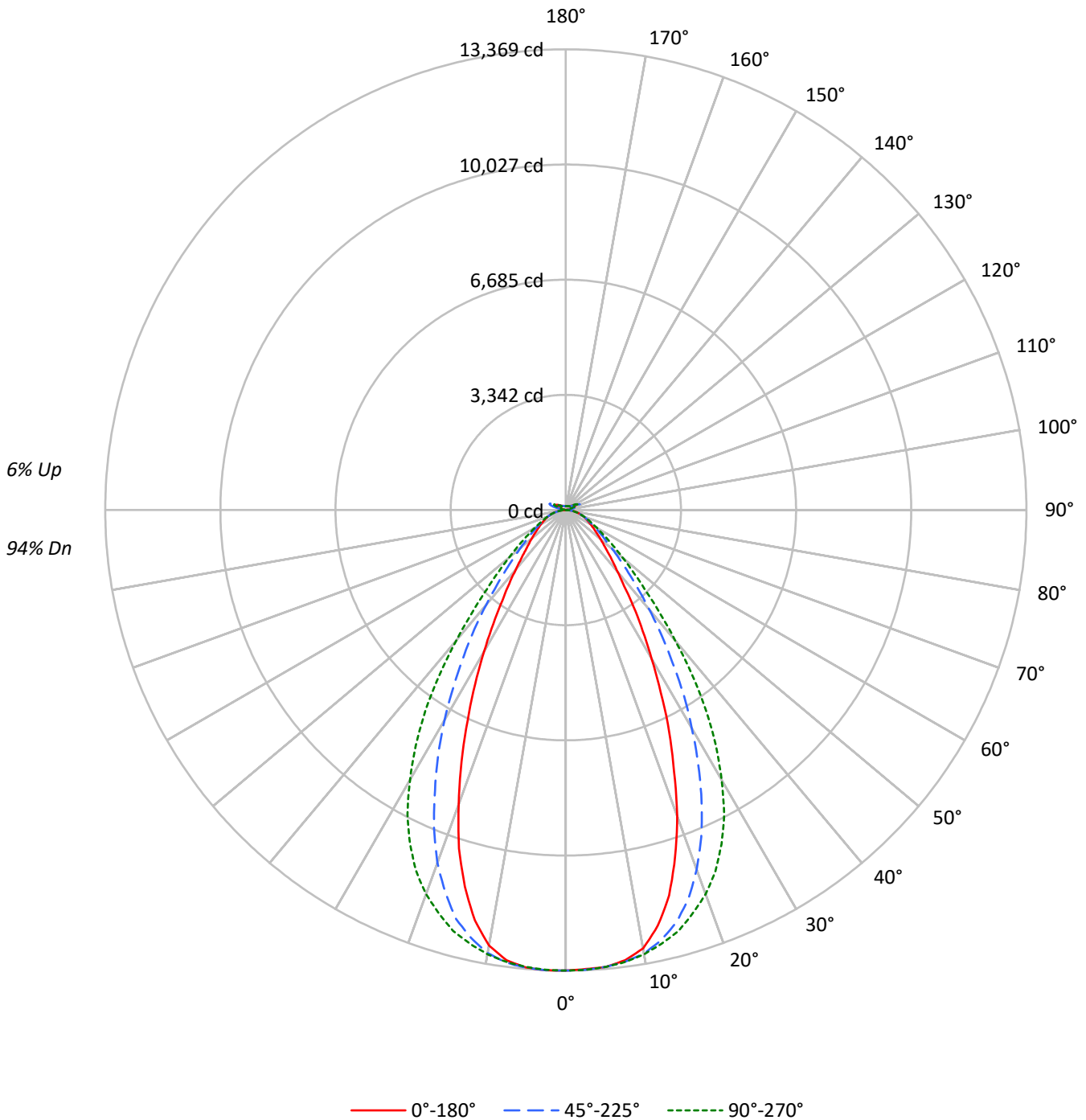
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17697.0 lumens
Efficiency: N/A
Efficacy: 173.3 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): 102.1
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: P1433443
CATALOG NUMBER: EHBR1-18-UNV-A1-L935-UPL12

Luminous Intensity Polar Plot





TEST NUMBER: P1433443
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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	114	114	114	114	108	108	108	102	102	102	96	96	96	94				94
1	110	107	103	100	107	104	101	98	98	96	94	94	92	90	89	88	86				84	
2	103	97	91	87	100	94	90	86	90	86	83	86	83	80	82	80	77				75	
3	96	88	82	77	93	86	80	76	82	78	74	79	75	72	76	73	70				68	
4	90	81	74	68	87	79	73	68	76	70	66	73	68	65	70	66	63				61	
5	84	74	67	62	82	73	66	61	70	64	60	68	63	59	65	61	58				56	
6	79	68	61	56	77	67	61	56	65	59	55	63	58	54	61	56	53				51	
7	74	63	56	51	73	62	56	51	60	55	50	59	53	50	57	52	49				47	
8	70	59	52	47	68	58	52	47	56	51	46	55	50	46	53	49	45				44	
9	66	55	48	44	65	54	48	43	53	47	43	51	46	42	50	45	42				40	
10	63	52	45	41	61	51	45	40	50	44	40	48	43	40	47	43	39				38	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	62754	62754	62754	62754	62754
5°	62340	62330	62333	62444	62405
10°	60799	61507	61605	61431	60401
15°	55195	59047	60262	58573	53928
20°	45995	54021	57711	53003	44204
25°	35571	46709	53537	45003	33728
30°	25928	38039	47028	36595	24610
35°	18690	29319	38650	28056	17470
40°	13446	21655	28483	20741	13032
45°	10595	15842	19893	15156	10229
50°	8791	11903	14399	11510	8658
55°	7678	9398	10904	9241	7574
60°	6924	7846	8689	7797	6973
65°	6476	6920	7301	6942	6538
70°	6150	6297	6490	6332	6211
75°	5736	5701	5736	5718	5792
80°	5182	4809	4703	4883	5182
85°	3590	3046	3014	3093	3698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 20844 cd/sqm



TEST NUMBER: P1433443
 CATALOG NUMBER: EHBR1-18-UNV-A1-L935-UPL12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1261.9	7.1
10°-20°	3391.6	19.2
20°-30°	4124.2	23.3
30°-40°	3359.5	19.0
40°-50°	2017.0	11.4
50°-60°	1160.8	6.6
60°-70°	726.5	4.1
70°-80°	427.9	2.4
80°-90°	127.1	0.7
90°-100°	28.9	0.2
100°-110°	191.1	1.1
110°-120°	353.4	2.0
120°-130°	209.8	1.2
130°-140°	127.0	0.7
140°-150°	88.3	0.5
150°-160°	57.7	0.3
160°-170°	33.1	0.2
170°-180°	11.0	0.1
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0°-30°	8777.8	49.6
0°-40°	12137.3	68.6
0°-60°	15315.1	86.5
0°-90°	16596.5	93.8
90°-120°	573.4	3.2
90°-150°	998.5	5.6
90°-180°	1100.0	6.2
0°-180°	17697.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	13363	13363	13363	13363	13363	
5°	13310	13308	13309	13333	13324	1258
15°	11580	12388	12643	12288	11314	3186
25°	7104	9328	10691	8987	6736	3236
35°	3430	5381	7094	5149	3206	2170
45°	1714	2563	3219	2452	1655	1352
55°	1038	1270	1474	1249	1024	938
65°	676	722	762	725	682	672
75°	404	402	404	403	408	428
85°	123	105	104	106	127	132
90°	8	22	8	23	8	10
95°	14	49	15	42	14	13
105°	67	334	88	356	44	89
115°	306	395	376	437	321	282
125°	221	211	240	234	252	202
135°	162	162	152	170	176	127
145°	135	140	138	142	145	85
155°	120	123	123	124	129	56
165°	115	117	116	116	120	33
175°	116	116	115	115	118	11
180°	116	116	116	116	116	



TEST NUMBER: P1433443
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	13363.1	13363.1	13363.1	13363.1	13363.1	13363.1	13363.1	13363.1	13363.1
2.5°	13333.7	13345.8	13350.8	13353.6	13356.7	13365.1	13368.7	13362.8	13367.9
5°	13310.5	13311.4	13308.5	13321.1	13309.1	13317.5	13332.7	13326.8	13324.5
7.5°	13175.0	13203.1	13219.5	13223.7	13226.0	13236.3	13247.0	13186.8	13177.9
10°	12917.6	12964.3	13068.1	13097.8	13088.9	13105.6	13051.9	12894.6	12833.0
12.5°	12353.0	12517.3	12787.1	12907.2	12885.4	12900.2	12717.2	12385.2	12194.3
15°	11579.7	11820.7	12387.7	12624.5	12642.7	12624.5	12288.4	11641.5	11313.8
17.5°	10551.7	10996.7	11831.6	12291.2	12264.8	12273.5	11635.4	10679.3	10304.2
20°	9453.4	9927.8	11102.8	11869.4	11861.2	11812.6	10893.7	9632.8	9085.3
22.5°	8211.3	8823.1	10267.6	11350.8	11347.7	11266.5	9990.5	8490.0	7900.6
25°	7103.5	7703.5	9327.8	10715.4	10691.3	10599.0	8987.1	7350.1	6735.5
27.5°	5958.2	6582.0	8324.4	9970.9	9954.4	9853.6	8027.9	6284.6	5699.5
30°	4987.3	5557.7	7316.8	9151.7	9045.9	9034.4	7039.1	5298.0	4733.7
32.5°	4155.4	4644.4	6366.8	8295.0	8107.8	8161.1	6053.6	4472.8	3913.6
35°	3430.3	3861.1	5381.1	7304.2	7093.7	7162.8	5149.3	3670.1	3206.3
37.5°	2784.1	3198.3	4545.6	6340.5	6018.7	6149.1	4353.9	3065.0	2693.3
40°	2330.6	2659.2	3753.3	5283.1	4936.9	5149.3	3594.9	2556.5	2258.7
42.5°	2008.2	2222.6	3097.7	4273.5	4008.0	4158.5	2962.9	2137.2	1914.4
45°	1714.3	1885.3	2563.2	3372.4	3218.6	3358.3	2452.1	1822.4	1655.0
47.5°	1497.3	1629.2	2110.0	2723.2	2627.8	2672.0	2047.9	1590.3	1454.3
50°	1310.1	1412.1	1773.9	2197.9	2145.9	2173.0	1715.4	1383.8	1290.3
52.5°	1164.6	1239.3	1487.8	1806.4	1780.7	1784.8	1461.8	1217.2	1149.5
55°	1037.6	1089.6	1270.1	1479.8	1473.6	1474.7	1248.8	1078.7	1023.5
57.5°	926.5	969.5	1091.6	1242.9	1234.1	1236.0	1081.4	958.1	922.5
60°	832.4	861.2	943.2	1050.4	1044.5	1042.0	937.3	850.6	838.3
62.5°	749.0	767.5	824.3	900.3	889.2	891.7	823.9	768.3	750.1
65°	675.9	682.4	722.3	769.4	762.1	768.3	724.6	686.5	682.4
67.5°	604.5	611.0	634.5	666.2	657.7	662.8	635.1	612.7	609.1
70°	539.6	539.4	552.5	569.5	569.5	570.4	555.6	542.2	545.0
72.5°	472.5	470.7	474.6	486.2	483.1	493.7	478.1	473.8	474.4
75°	404.1	399.4	401.6	407.5	404.1	409.8	402.8	408.0	408.0
77.5°	339.8	330.8	328.0	328.9	322.7	331.1	332.8	336.4	344.9
80°	272.6	260.0	253.0	252.8	247.4	252.8	256.9	264.5	272.6
82.5°	202.4	191.4	179.7	177.5	174.1	177.2	182.8	191.7	204.9
85°	123.4	111.9	104.7	100.8	103.6	103.6	106.3	118.9	127.1
87.5°	44.5	38.9	31.9	32.2	33.0	34.2	35.5	44.8	48.9
90°	8.4	12.8	21.9	14.0	7.9	13.4	23.1	12.1	8.2
92.5°	11.9	19.5	35.3	18.2	10.3	18.2	32.9	16.4	11.2
95°	14.0	22.5	49.3	24.4	15.2	22.5	42.0	18.2	13.7
97.5°	17.6	24.9	56.6	29.8	23.7	28.0	47.5	19.5	16.7
100°	23.0	29.2	88.3	36.5	31.6	31.6	87.0	22.5	19.4
102.5°	38.9	62.1	187.5	68.8	48.1	62.1	202.1	45.7	23.7
105°	66.9	130.9	334.2	144.3	87.6	142.5	356.1	119.3	43.8
107.5°	115.6	234.4	440.7	255.7	166.2	266.0	459.0	236.2	102.8
110°	215.4	311.1	462.0	351.2	266.0	372.0	500.9	323.8	208.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	290.9	334.2	442.6	387.7	346.3	414.6	489.4	359.2	289.0
115°	306.2	321.4	395.1	378.6	376.2	408.5	437.0	357.9	320.8
117.5°	296.0	293.4	335.4	340.2	363.4	373.8	377.4	336.0	322.6
120°	273.9	261.1	280.0	297.0	328.1	323.8	317.8	304.0	304.3
122.5°	246.7	231.6	239.8	252.6	283.7	274.5	268.5	271.2	279.6
125°	221.1	206.0	211.3	214.3	240.4	231.3	234.0	243.2	251.6
127.5°	198.7	188.3	191.1	187.5	203.9	199.7	209.1	219.7	226.7
130°	183.4	174.6	178.6	169.8	178.0	179.3	191.7	200.2	204.7
132.5°	170.9	165.1	170.0	159.4	161.9	167.0	178.5	186.2	188.6
135°	162.1	156.9	162.4	152.4	152.1	159.3	169.7	174.6	175.5
137.5°	154.2	149.9	155.3	148.1	146.2	153.5	161.4	165.1	164.2
140°	147.5	143.6	149.6	144.2	142.9	150.3	153.9	158.4	157.2
142.5°	139.8	137.4	144.5	140.8	139.6	146.6	148.4	151.4	150.5
145°	134.6	132.8	140.5	138.6	138.0	143.1	141.9	146.5	144.7
147.5°	130.6	129.1	135.9	135.2	135.2	138.8	137.3	141.3	139.7
150°	126.6	125.1	131.9	131.2	131.9	134.3	132.1	136.9	136.6
152.5°	122.6	121.1	127.2	126.3	127.0	129.4	127.5	132.7	132.6
155°	119.8	118.4	123.3	122.7	122.7	124.3	123.5	129.0	129.2
157.5°	118.3	117.0	120.8	120.3	120.3	121.1	121.1	125.9	126.3
160°	117.0	115.8	118.9	118.4	117.7	119.2	119.2	123.4	123.7
162.5°	115.7	114.6	117.9	117.0	116.7	117.0	117.1	121.5	121.8
165°	114.7	114.2	116.7	116.1	115.5	116.1	115.8	118.7	119.6
167.5°	115.0	114.2	116.4	115.8	115.3	114.7	115.5	117.8	118.7
170°	114.7	114.5	116.1	114.9	114.0	114.3	114.5	116.9	117.7
172.5°	115.3	115.0	116.6	115.5	114.6	114.8	114.5	116.2	117.7
175°	115.6	114.9	116.2	115.4	115.1	114.7	115.0	116.1	118.0
177.5°	116.5	115.9	116.5	115.6	114.7	115.0	115.8	117.1	119.5
180°	115.8	115.8	115.8	115.8	115.8	115.8	115.8	115.8	115.8



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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	15.80	16.96	16.27	17.40	17.88	16.78	17.94	17.25	18.39	18.86
	3H	17.28	18.31	17.76	18.77	19.29	18.04	19.07	18.53	19.53	20.05
	4H	17.88	18.84	18.39	19.32	19.85	18.54	19.51	19.05	19.98	20.52
	6H	18.34	19.23	18.86	19.72	20.27	18.90	19.78	19.42	20.28	20.82
	8H	18.49	19.33	19.03	19.84	20.40	18.99	19.83	19.53	20.34	20.90
	12H	18.57	19.37	19.11	19.87	20.45	19.03	19.83	19.57	20.34	20.92
4H	2H	16.32	17.28	16.83	17.76	18.29	17.10	18.06	17.61	18.54	19.07
	3H	18.00	18.79	18.52	19.32	19.87	18.59	19.38	19.11	19.90	20.46
	4H	18.72	19.43	19.26	19.96	20.55	19.21	19.92	19.75	20.46	21.05
	6H	19.30	19.91	19.86	20.47	21.08	19.68	20.30	20.25	20.86	21.47
	8H	19.48	20.06	20.05	20.62	21.23	19.82	20.39	20.39	20.95	21.57
	12H	19.59	20.10	20.18	20.69	21.31	19.89	20.39	20.48	20.99	21.60
8H	4H	18.94	19.52	19.51	20.07	20.69	19.39	19.96	19.96	20.52	21.14
	6H	19.63	20.10	20.23	20.71	21.33	19.97	20.44	20.57	21.04	21.67
	8H	19.88	20.30	20.50	20.92	21.55	20.16	20.58	20.79	21.20	21.84
	12H	20.05	20.42	20.66	21.02	21.72	20.28	20.65	20.90	21.25	21.96
12H	4H	18.94	19.45	19.53	20.04	20.66	19.38	19.89	19.97	20.48	21.10
	6H	19.65	20.07	20.28	20.69	21.33	19.99	20.41	20.61	21.03	21.66
	8H	19.95	20.32	20.56	20.92	21.62	20.23	20.59	20.84	21.19	21.90

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

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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

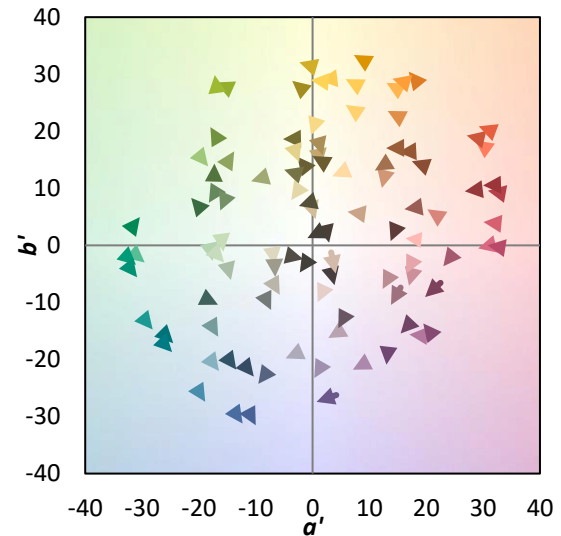
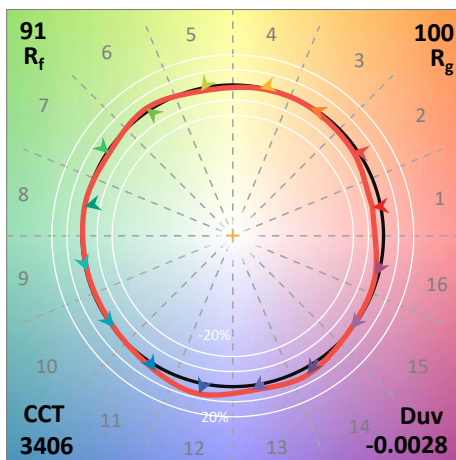
λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500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

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

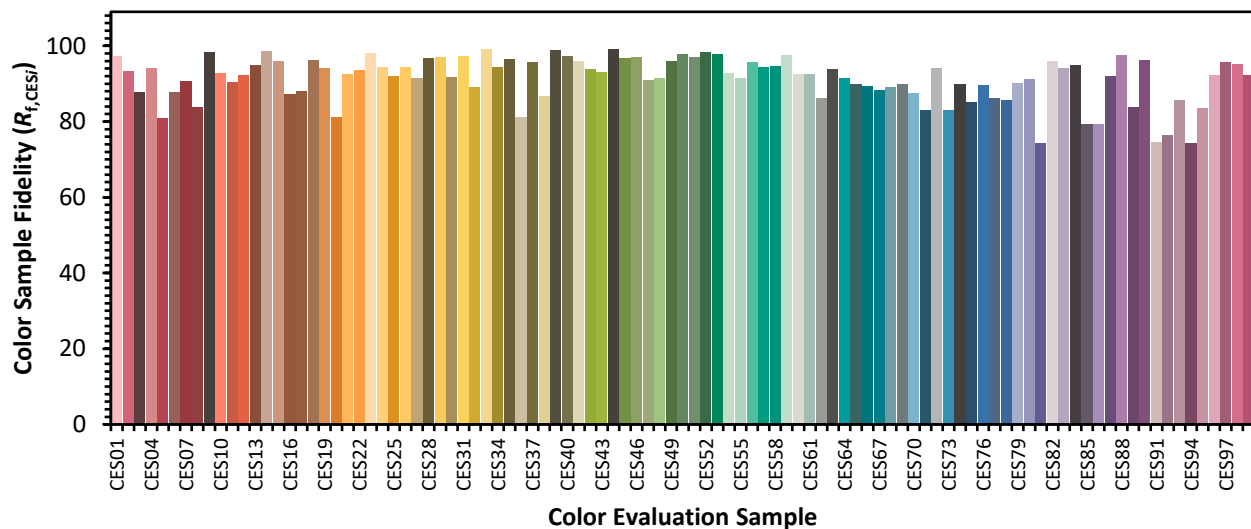


Color Vector Graphics

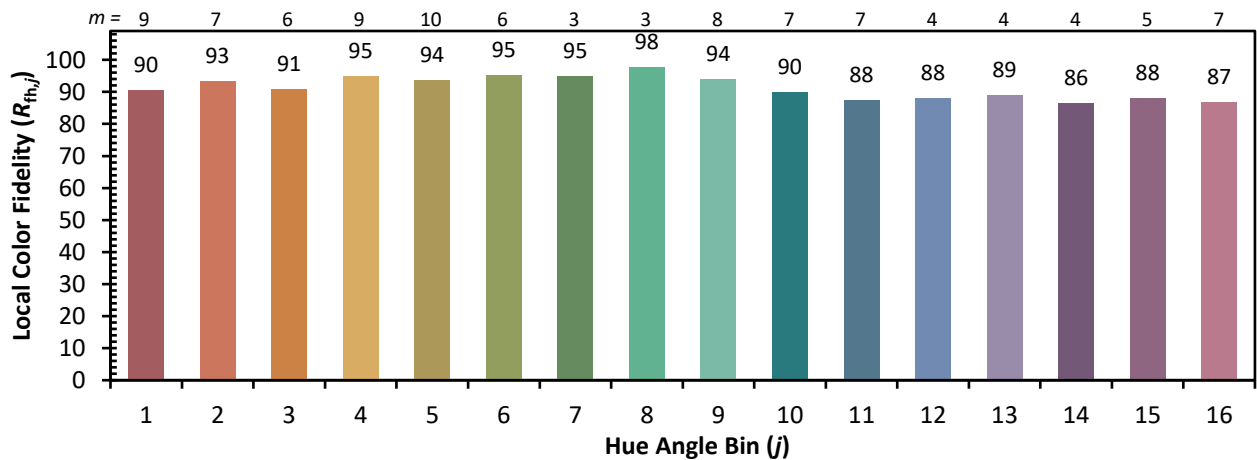


Individual Sample Fidelity Index ($R_{f,i}$)

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)