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:

Luminaire Tested: EHBR1-48-UNV-TASM-L950-UPL15

Issue Date: 3/20/2026

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	
	REPORT IS A COMBINATION OF REPORTS P1431837 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-TASM-L950-UPL15
Description:	Elevate Round Highbay at, 48000 lumens, 5000K 90CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	45490.4 lumens
Efficiency:	N/A
Efficacy:	169.8 lumens/watt
Spacing Criteria (0/90/45):	0.99 / 0.84 / 0.9
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	267.9
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

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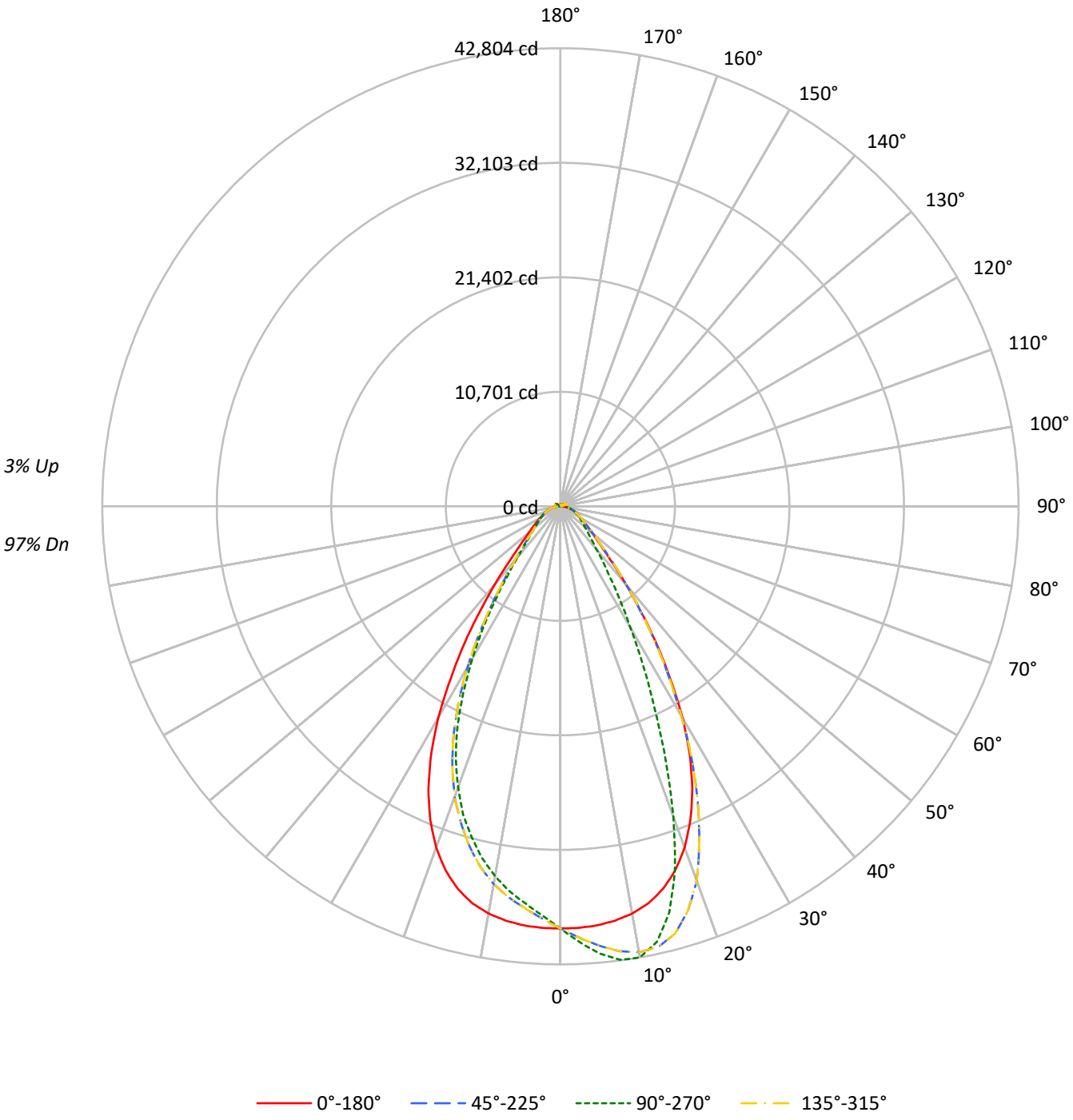
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																		
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	111	108	105	102	108	105	102	100	101	98	96	96	94	93	92	91	90	87
2	104	98	93	89	102	96	92	88	92	89	85	89	86	83	86	83	81	79
3	98	90	84	79	95	88	83	78	85	81	77	82	78	75	80	76	74	72
4	92	83	76	71	90	82	75	71	79	74	70	76	72	68	74	70	67	65
5	86	77	70	65	84	76	69	64	73	68	64	71	66	63	69	65	62	60
6	82	71	64	59	80	70	64	59	68	63	58	67	62	58	65	61	57	55
7	77	66	60	55	75	66	59	55	64	58	54	62	57	54	61	56	53	51
8	73	62	55	51	71	61	55	51	60	54	50	59	54	50	57	53	49	48
9	69	58	52	47	68	58	51	47	56	51	47	55	50	46	54	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	52	47	43	51	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	185247	185247	185247	185247
5°	184120	196422	184120	174565
10°	181856	201464	181856	165211
15°	176487	187223	176487	152611
20°	165060	150127	165060	135933
25°	146091	104016	146091	113918
30°	118620	67670	118620	85233
35°	85078	43825	85078	56742
40°	55006	30207	55006	35784
45°	34901	23399	34901	25497
50°	25918	19883	25918	21237
55°	21160	18112	21160	18747
60°	18324	17253	18324	17358
65°	16704	16640	16704	16569
70°	15831	16304	15831	16093
75°	14805	15771	14805	15300
80°	13006	14890	13006	13920
85°	8414	10631	8414	10137

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 49069 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3750.8	8.2
10°-20°	10204.3	22.4
20°-30°	11967.6	26.3
30°-40°	8322.7	18.3
40°-50°	4136.0	9.1
50°-60°	2473.8	5.4
60°-70°	1741.1	3.8
70°-80°	1121.6	2.5
80°-90°	358.7	0.8
90°-100°	38.5	0.1
100°-110°	243.5	0.5
110°-120°	448.4	1.0
120°-130°	267.7	0.6
130°-140°	163.5	0.4
140°-150°	114.7	0.3
150°-160°	76.5	0.2
160°-170°	45.6	0.1
170°-180°	15.5	0.0
0°-30°	25922.7	57.0
0°-40°	34245.4	75.3
0°-60°	40855.2	89.8
0°-90°	44076.6	96.9
90°-120°	730.3	1.6
90°-150°	1276.2	2.8
90°-180°	1414.0	3.1
0°-180°	45490.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	39447	39447	39447	39447	39447	
5°	39312	41939	39312	37272	39312	3731
15°	37026	39278	37026	32017	37026	10347
25°	29174	20772	29174	22749	29174	13208
35°	15615	8043	15615	10414	15615	9748
45°	5647	3786	5647	4125	5647	4621
55°	2860	2448	2860	2533	2860	2615
65°	1744	1737	1744	1729	1744	1751
75°	1043	1111	1043	1078	1043	1095
85°	289	365	289	348	289	322
90°	11	16	11	11	11	19
95°	21	23	21	18	21	22
105°	112	61	112	85	112	151
115°	477	411	477	387	477	435
125°	306	324	306	280	306	282
135°	196	228	196	206	196	156
145°	180	188	180	175	180	113
155°	163	171	163	160	163	76
165°	160	167	160	157	160	45
175°	163	170	163	160	163	15
180°	164	164	164	164	164	

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TEST NUMBER:
CATALOG NUMBER: EHBR1-48-UNV-TASM-L950-UPL15

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	39447.0	39447.0	39447.0	39447.0	*39447.0*	39447.0	39447.0	39447.0	39447.0	39447.0	39447.0
2.5°	39424.2	39933.8	40346.5	40618.7	*40753.4*	40618.7	40346.5	39933.8	39424.2	38917.4	38569.0
5°	39312.5	40333.2	41197.9	41763.8	*41939.1*	41763.8	41197.9	40333.2	39312.5	38347.9	37708.1
7.5°	39045.4	40635.7	41920.6	42581.1	*42742.4*	42581.1	41920.6	40635.7	39045.4	37679.9	36871.4
10°	*38637.9*	*40826.6*	*42311.1*	*42784.6*	*42803.8*	*42784.6*	*42311.1*	*40826.6*	*38637.9*	*36798.2*	*35844.8*
12.5°	37987.7	40758.6	42180.2	42024.8	*41672.1*	42024.8	42180.2	40758.6	37987.7	35721.3	34518.5
15°	37026.0	40355.4	41351.1	40086.9	*39278.4*	40086.9	41351.1	40355.4	37026.0	34267.0	32872.0
17.5°	35670.9	39600.9	39620.1	37119.2	*35594.0*	37119.2	39620.1	39600.9	35670.9	32488.8	30952.4
20°	33924.6	38390.8	37236.8	32662.6	*30855.5*	32662.6	37236.8	38390.8	33924.6	30386.6	28879.1
22.5°	31735.0	36759.0	33917.9	28179.3	*25714.0*	28179.3	33917.9	36759.0	31735.0	27941.9	26373.0
25°	29174.2	34759.6	30347.4	23294.4	*20772.0*	23294.4	30347.4	34759.6	29174.2	25028.9	23610.3
27.5°	26162.2	32225.5	26545.3	19035.2	*16708.2*	19035.2	26545.3	32225.5	26162.2	22021.4	20572.3
30°	22816.5	28976.7	22588.7	15159.2	*13016.3*	15159.2	22588.7	28976.7	22816.5	18642.5	17345.1
32.5°	19070.7	25792.3	18788.9	12146.5	*10331.3*	12146.5	18788.9	25792.3	19070.7	15418.2	14062.3
35°	15614.9	21808.3	15362.7	9544.2	*8043.4*	9544.2	15362.7	21808.3	15614.9	12374.3	11042.9
37.5°	12254.5	18044.0	12246.4	7685.4	*6524.1*	7685.4	12246.4	18044.0	12254.5	9620.4	8539.8
40°	9533.9	14108.9	9595.3	6135.0	*5235.6*	6135.0	9595.3	14108.9	9533.9	7320.0	6628.4
42.5°	7223.9	10788.4	7541.9	5035.1	*4447.0*	5035.1	7541.9	10788.4	7223.9	5767.4	5249.6
45°	5646.8	7939.1	5889.5	4248.1	*3785.8*	4248.1	5889.5	7939.1	5646.8	4644.5	4296.9
47.5°	4598.6	6135.8	4773.2	3643.7	*3319.7*	3643.7	4773.2	6135.8	4598.6	3928.5	3668.1
50°	3862.7	4708.1	3963.2	3180.6	*2963.2*	3180.6	3963.2	4708.1	3862.7	3364.1	3190.3
52.5°	3318.2	3839.7	3375.2	2834.5	*2688.0*	2834.5	3375.2	3839.7	3318.2	2943.2	2835.3
55°	2859.6	3228.0	2935.1	2549.0	*2447.7*	2549.0	2935.1	3228.0	2859.6	2619.3	2539.4
57.5°	2511.3	2738.4	2549.0	2305.6	*2238.3*	2305.6	2549.0	2738.4	2511.3	2330.8	2287.9
60°	2202.8	2371.5	2249.4	2093.3	*2074.1*	2093.3	2249.4	2371.5	2202.8	2097.0	2069.0
62.5°	1965.4	2071.9	1989.0	1902.5	*1885.5*	1902.5	1989.0	2071.9	1965.4	1884.0	1889.2
65°	1743.5	1842.6	1777.5	1730.8	*1736.8*	1730.8	1777.5	1842.6	1743.5	1705.8	1713.8
67.5°	1571.9	1623.6	1595.5	1568.9	*1575.6*	1568.9	1595.5	1623.6	1571.9	1534.9	1547.4
70°	1389.1	1444.6	1415.8	1419.5	*1430.6*	1419.5	1415.8	1444.6	1389.1	1378.1	1387.6
72.5°	1214.5	1257.5	1247.9	1256.7	*1268.6*	1256.7	1247.9	1257.5	1214.5	1213.1	1213.8
75°	1042.9	1075.5	1079.9	1092.5	*1111.0*	1092.5	1079.9	1075.5	1042.9	1031.9	1045.2
77.5°	855.8	892.8	906.9	923.9	*951.2*	923.9	906.9	892.8	855.8	863.2	869.8
80°	684.2	701.2	732.3	744.9	*783.3*	744.9	732.3	701.2	684.2	671.7	681.2
82.5°	500.8	516.3	543.0	566.6	*588.8*	566.6	543.0	516.3	500.8	494.8	495.6
85°	289.2	312.9	330.7	358.7	*365.4*	358.7	330.7	312.9	289.2	295.9	289.2
87.5°	101.4	108.7	124.2	135.4	*136.1*	135.4	124.2	108.7	101.4	103.6	93.9
90°	10.7	18.4	31.4	19.8	*15.9*	19.8	31.4	18.4	10.7	18.4	28.4
92.5°	13.8	24.5	43.7	25.2	*19.8*	25.2	43.7	24.5	13.8	23.8	45.2
95°	20.7	29.9	55.2	27.5	*22.9*	27.5	55.2	29.9	20.7	31.5	63.0
97.5°	31.4	36.8	62.2	29.1	*26.7*	29.1	62.2	36.8	31.4	38.4	72.2
100°	41.4	41.4	112.1	32.9	*29.7*	32.9	112.1	41.4	41.4	47.6	112.1
102.5°	62.2	80.6	257.9	62.8	*35.1*	62.8	257.9	80.6	62.2	88.3	237.3
105°	112.1	181.9	452.3	155.7	*61.2*	155.7	452.3	181.9	112.1	183.5	422.4
107.5°	211.2	337.8	582.1	303.2	*135.7*	303.2	582.1	337.8	211.2	324.1	557.6
110°	337.1	471.5	635.0	413.8	*269.4*	413.8	635.0	471.5	337.1	444.6	584.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	438.4	525.2	620.5	458.3	*370.7*	458.3	620.5	525.2	438.4	490.7	559.8
115°	476.8	517.6	554.4	456.8	*410.7*	456.8	554.4	517.6	476.8	479.1	500.0
117.5°	460.7	473.8	479.1	429.2	*413.0*	429.2	479.1	473.8	460.7	431.6	424.7
120°	416.2	410.9	404.6	388.5	*389.9*	388.5	404.6	410.9	416.2	377.0	354.7
122.5°	360.9	349.3	342.4	347.7	*358.5*	347.7	342.4	349.3	360.9	321.7	304.8
125°	306.3	294.8	299.4	312.4	*323.9*	312.4	299.4	294.8	306.3	274.1	269.4
127.5°	261.0	255.6	267.9	282.5	*292.4*	282.5	267.9	255.6	261.0	240.3	244.2
130°	228.7	229.5	245.7	258.6	*264.7*	258.6	245.7	229.5	228.7	218.7	228.7
132.5°	208.7	214.2	229.5	240.9	*244.7*	240.9	229.5	214.2	208.7	206.4	218.7
135°	196.4	204.1	218.7	225.6	*227.8*	225.6	218.7	204.1	196.4	197.9	208.7
137.5°	189.4	197.3	207.9	214.1	*213.2*	214.1	207.9	197.3	189.4	192.5	201.0
140°	185.6	193.3	198.0	204.8	*204.8*	204.8	198.0	193.3	185.6	187.1	194.1
142.5°	181.7	188.7	191.0	196.3	*195.6*	196.3	191.0	188.7	181.7	183.3	187.9
145°	180.2	185.5	183.3	189.4	*188.5*	189.4	183.3	185.5	180.2	180.2	183.2
147.5°	176.3	180.2	177.9	183.2	*182.4*	183.2	177.9	180.2	176.3	176.3	177.7
150°	172.4	175.4	171.7	177.7	*178.5*	177.7	171.7	175.4	172.4	171.6	173.1
152.5°	167.0	170.0	167.0	173.8	*173.8*	173.8	167.0	170.0	167.0	166.2	167.7
155°	163.1	164.6	163.1	170.0	*170.8*	170.0	163.1	164.6	163.1	162.3	163.8
157.5°	160.7	162.2	161.5	167.6	*168.4*	167.6	161.5	162.2	160.7	160.7	161.5
160°	159.9	161.4	161.4	166.8	*167.5*	166.8	161.4	161.4	159.9	159.9	160.6
162.5°	159.8	159.8	160.6	165.9	*167.4*	165.9	160.6	159.8	159.8	159.8	160.6
165°	159.7	160.6	160.5	165.0	*167.2*	165.0	160.5	160.6	159.7	159.8	159.8
167.5°	160.5	159.7	161.2	165.8	*168.0*	165.8	161.2	159.7	160.5	160.5	160.5
170°	159.7	160.5	161.1	165.7	*167.9*	165.7	161.1	160.5	159.7	160.5	160.5
172.5°	161.9	161.9	162.6	166.3	*169.3*	166.3	162.6	161.9	161.9	161.9	162.7
175°	163.4	163.3	164.1	167.0	*170.0*	167.0	164.1	163.3	163.4	162.7	162.7
177.5°	162.6	164.1	165.5	168.5	*172.3*	168.5	165.5	164.1	162.6	162.7	162.7
180°	164.1	164.1	164.1	164.1	*164.1*	164.1	164.1	164.1	164.1	164.1	164.1

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	39447.0	39447.0	39447.0	39447.0	39447.0	39447.0
2.5°	38301.2	38276.2	38301.2	38569.0	38917.4	39424.2
5°	37411.4	37272.3	37411.4	37708.1	38347.9	39312.5
7.5°	36375.1	36294.5	36375.1	36871.4	37679.9	39045.4
10°	*35284.0*	*35101.4*	*35284.0*	*35844.8*	*36798.2*	*38637.9*
12.5°	33939.3	33697.5	33939.3	34518.5	35721.3	37987.7
15°	32229.1	32016.9	32229.1	32872.0	34267.0	37026.0
17.5°	30394.0	30201.7	30394.0	30952.4	32488.8	35670.9
20°	28089.1	27938.2	28089.1	28879.1	30386.6	33924.6
22.5°	25671.0	25529.7	25671.0	26373.0	27941.9	31735.0
25°	22826.2	22749.3	22826.2	23610.3	25028.9	29174.2
27.5°	19752.0	19621.1	19752.0	20572.3	22021.4	26162.2
30°	16611.3	16394.6	16611.3	17345.1	18642.5	22816.5
32.5°	13539.3	13383.2	13539.3	14062.3	15418.2	19070.7
35°	10570.3	10414.2	10570.3	11042.9	12374.3	15614.9
37.5°	8236.5	7960.6	8236.5	8539.8	9620.4	12254.5
40°	6246.7	6202.3	6246.7	6628.4	7320.0	9533.9
42.5°	5085.4	4964.8	5085.4	5249.6	5767.4	7223.9
45°	4172.7	4125.3	4172.7	4296.9	4644.5	5646.8
47.5°	3588.2	3609.0	3588.2	3668.1	3928.5	4598.6
50°	3152.6	3165.1	3152.6	3190.3	3364.1	3862.7
52.5°	2831.6	2820.4	2831.6	2835.3	2943.2	3318.2
55°	2547.5	2533.4	2547.5	2539.4	2619.3	2859.6
57.5°	2299.0	2309.3	2299.0	2287.9	2330.8	2511.3
60°	2077.0	2086.7	2077.0	2069.0	2097.0	2202.8
62.5°	1889.9	1895.9	1889.9	1889.2	1884.0	1965.4
65°	1722.8	1729.4	1722.8	1713.8	1705.8	1743.5
67.5°	1563.0	1563.0	1563.0	1547.4	1534.9	1571.9
70°	1412.8	1412.1	1412.8	1387.6	1378.1	1389.1
72.5°	1232.3	1250.1	1232.3	1213.8	1213.1	1214.5
75°	1057.1	1077.8	1057.1	1045.2	1031.9	1042.9
77.5°	879.5	911.3	879.5	869.8	863.2	855.8
80°	697.5	732.3	697.5	681.2	671.7	684.2
82.5°	515.6	541.5	515.6	495.6	494.8	500.8
85°	307.0	348.4	307.0	289.2	295.9	289.2
87.5°	98.4	125.7	98.4	93.9	103.6	101.4
90°	16.9	10.7	16.9	28.4	18.4	10.7
92.5°	25.4	15.3	25.4	45.2	23.8	13.8
95°	29.2	17.7	29.2	63.0	31.5	20.7
97.5°	32.2	22.9	32.2	72.2	38.4	31.4
100°	37.6	29.9	37.6	112.1	47.6	41.4
102.5°	79.1	49.9	79.1	237.3	88.3	62.2
105°	165.8	85.2	165.8	422.4	183.5	112.1
107.5°	296.4	146.6	296.4	557.6	324.1	211.2
110°	393.2	272.6	393.2	584.4	444.6	337.1

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

Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-48-UNV-TASM-L950-UPL15

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	422.4	367.8	422.4	559.8	490.7	438.4
115°	406.2	387.1	406.2	500.0	479.1	476.8
117.5°	370.9	374.0	370.9	424.7	431.6	460.7
120°	330.2	346.3	330.2	354.7	377.0	416.2
122.5°	293.3	311.7	293.3	304.8	321.7	360.9
125°	261.1	280.2	261.1	269.4	274.1	306.3
127.5°	238.8	251.8	238.8	244.2	240.3	261.0
130°	221.9	232.7	221.9	228.7	218.7	228.7
132.5°	210.4	217.2	210.4	218.7	206.4	208.7
135°	200.3	205.7	200.3	208.7	197.9	196.4
137.5°	191.9	196.5	191.9	201.0	192.5	189.4
140°	184.9	188.8	184.9	194.1	187.1	185.6
142.5°	177.2	180.2	177.2	187.9	183.3	181.7
145°	172.5	174.9	172.5	183.2	180.2	180.2
147.5°	168.5	170.1	168.5	177.7	176.3	176.3
150°	164.6	166.2	164.6	173.1	171.6	172.4
152.5°	160.0	162.3	160.0	167.7	166.2	167.0
155°	157.7	160.0	157.7	163.8	162.3	163.1
157.5°	156.8	159.1	156.8	161.5	160.7	160.7
160°	156.7	158.3	156.7	160.6	159.9	159.9
162.5°	156.0	157.5	156.0	160.6	159.8	159.8
165°	156.6	157.4	156.6	159.8	159.8	159.7
167.5°	156.6	157.4	156.6	160.5	160.5	160.5
170°	157.4	158.1	157.4	160.5	160.5	159.7
172.5°	158.9	159.6	158.9	162.7	161.9	161.9
175°	159.6	160.4	159.6	162.7	162.7	163.4
177.5°	161.1	161.9	161.1	162.7	162.7	162.6
180°	164.1	164.1	164.1	164.1	164.1	164.1

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

Scaled Data Report

TEST NUMBER: CATALOG
CATALOG NUMBER: EHBR1-48-UNV-TASM-L950-UPL15

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	19.07	20.22	19.49	20.60	21.00	18.38	19.54	18.81	19.92	20.32
	3H	20.62	21.65	21.05	22.04	22.49	20.23	21.26	20.67	21.66	22.11
	4H	21.25	22.21	21.71	22.63	23.09	21.02	21.98	21.48	22.39	22.86
	6H	21.74	22.62	22.21	23.05	23.53	21.66	22.54	22.13	22.98	23.45
	8H	21.89	22.72	22.38	23.18	23.66	21.88	22.72	22.37	23.17	23.66
	12H	21.96	22.76	22.45	23.21	23.71	22.01	22.81	22.50	23.26	23.76
4H	2H	19.48	20.45	19.95	20.86	21.32	18.96	19.92	19.42	20.34	20.80
	3H	21.28	22.08	21.75	22.54	23.02	21.02	21.82	21.49	22.28	22.76
	4H	22.06	22.77	22.55	23.25	23.77	21.93	22.64	22.42	23.12	23.64
	6H	22.68	23.29	23.19	23.80	24.34	22.70	23.32	23.22	23.82	24.37
	8H	22.87	23.44	23.40	23.95	24.50	22.97	23.55	23.50	24.05	24.60
	12H	22.98	23.48	23.52	24.02	24.57	23.14	23.65	23.69	24.19	24.74
8H	4H	22.31	22.88	22.83	23.39	23.93	22.21	22.79	22.74	23.29	23.84
	6H	23.05	23.52	23.61	24.07	24.63	23.12	23.58	23.67	24.14	24.69
	8H	23.32	23.74	23.90	24.31	24.87	23.47	23.89	24.05	24.46	25.02
	12H	23.50	23.86	24.07	24.41	25.05	23.72	24.08	24.29	24.63	25.28
12H	4H	22.32	22.83	22.86	23.37	23.91	22.22	22.73	22.77	23.27	23.82
	6H	23.09	23.51	23.67	24.08	24.65	23.16	23.58	23.74	24.15	24.71
	8H	23.41	23.78	23.98	24.33	24.97	23.57	23.93	24.14	24.48	25.12

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: SP1-2506-472-8

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

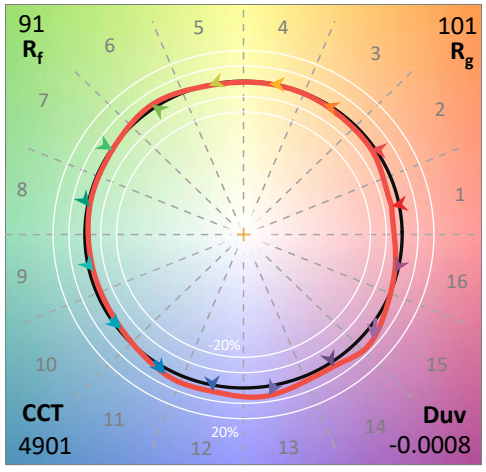
Test Information

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

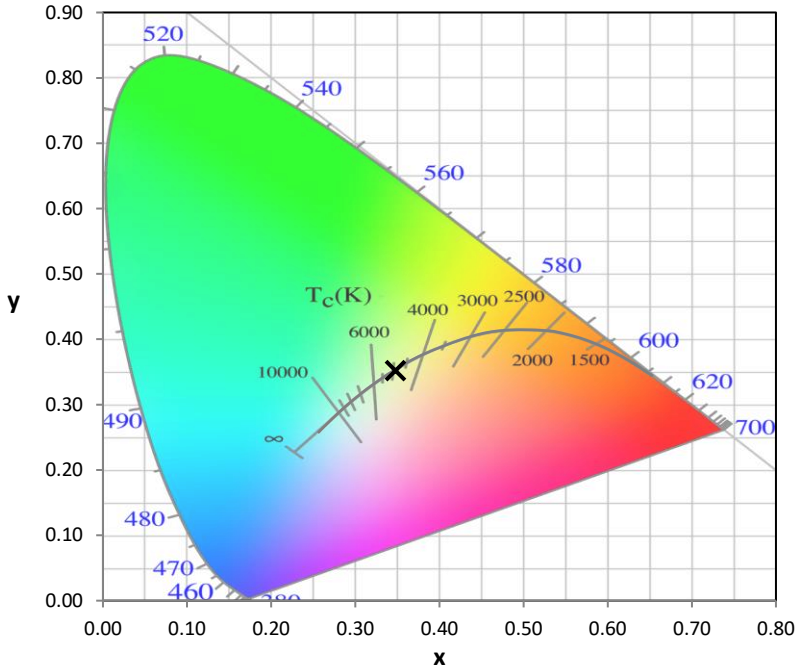
Stabilization Time:	35M
Operation Time:	1H 35M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-8

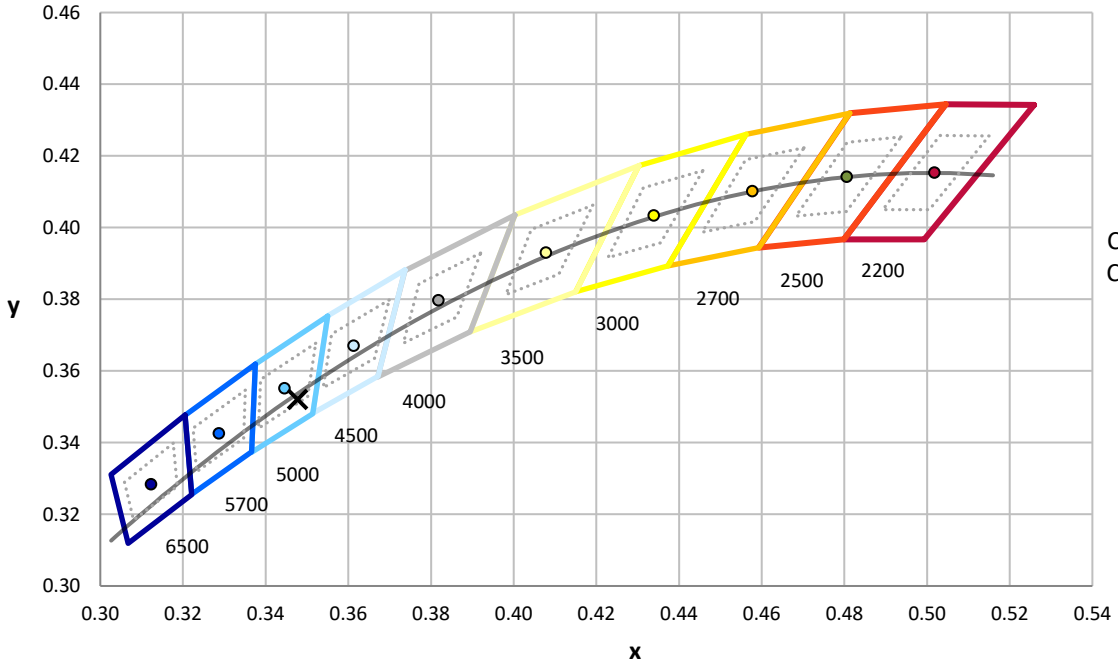
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

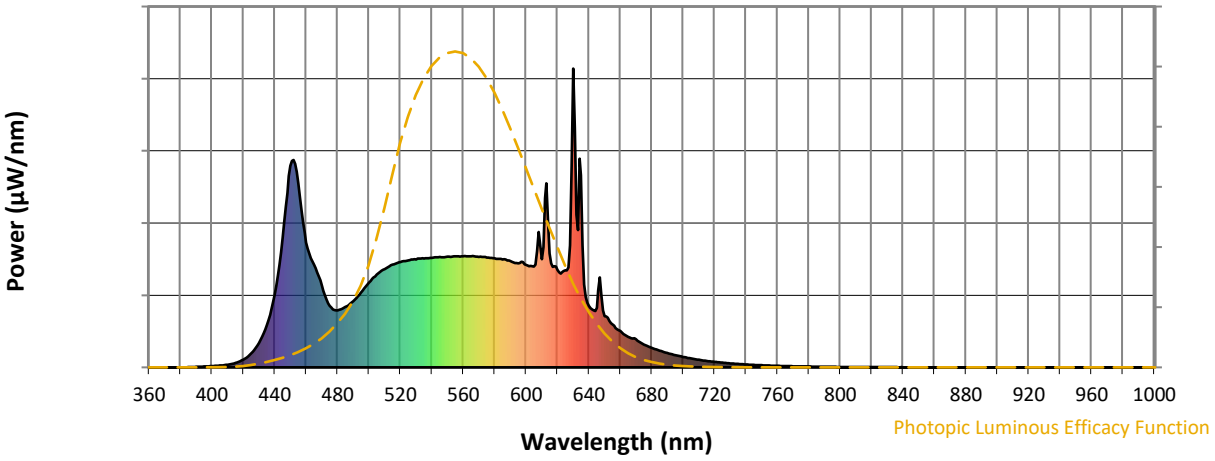


CCT = 4901K
CIE x = 0.3477
CIE y = 0.3520
Duv = -0.0008

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-8

Photopic Flux vs. Wavelength

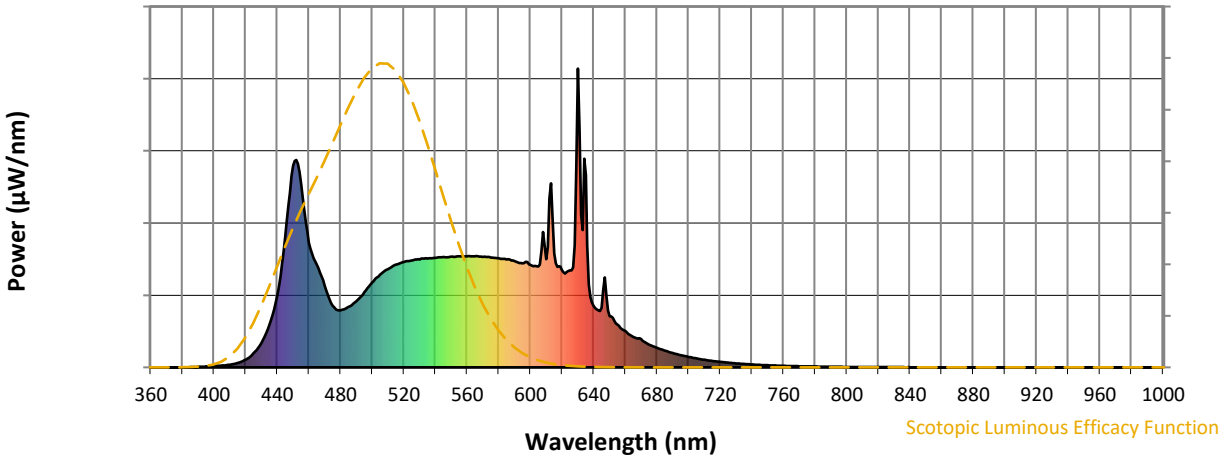


Photopic Lumens: NR

λ (nm)	Power W^/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	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

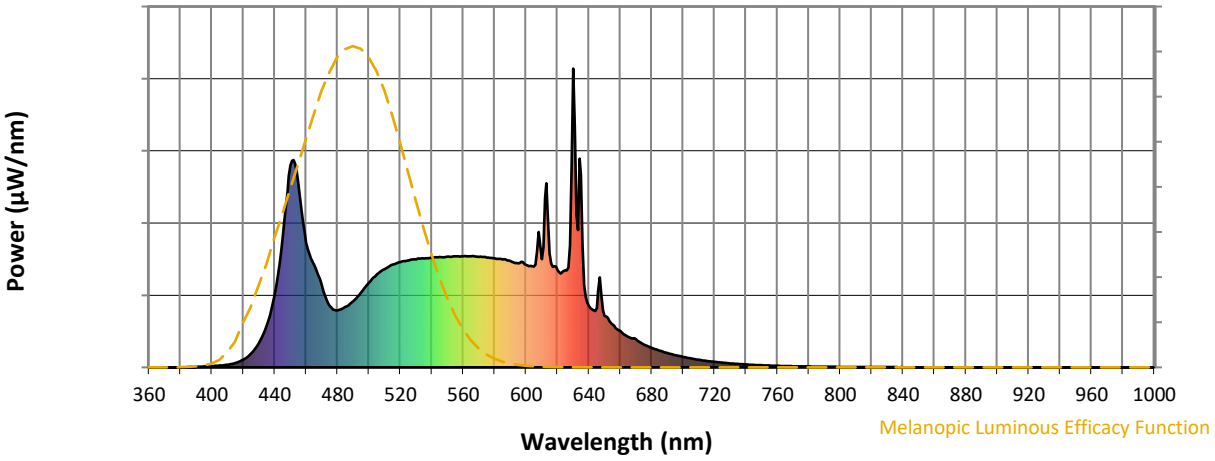


Scotopic Lumens: NR **S/P: 2.04**

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	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^/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	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			

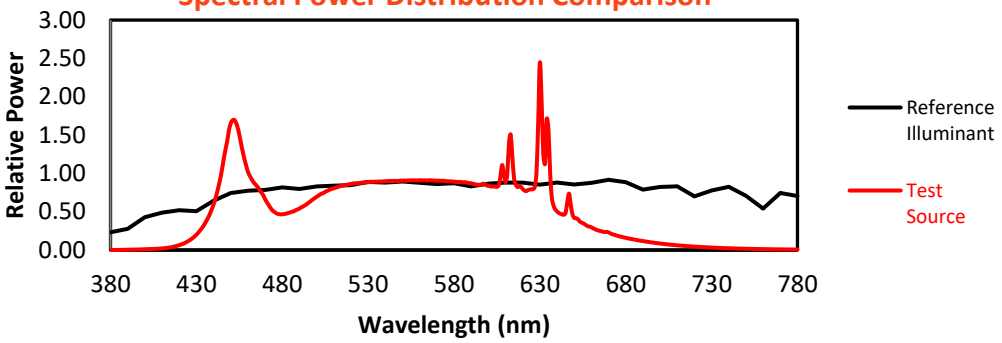
REPORT NUMBER: SP1-2506-472-8

TM-30-18

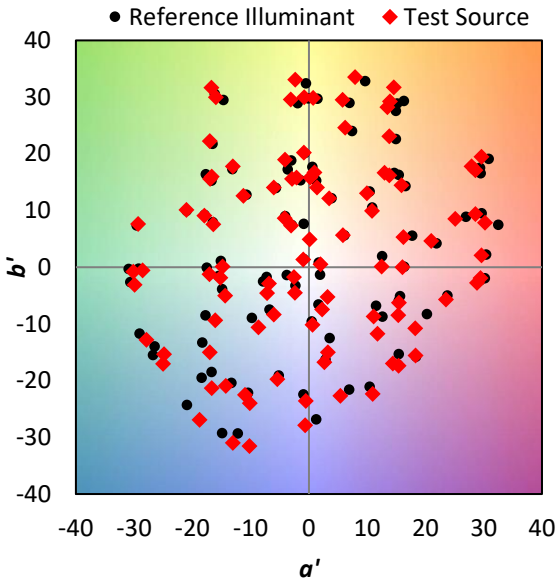
Summary

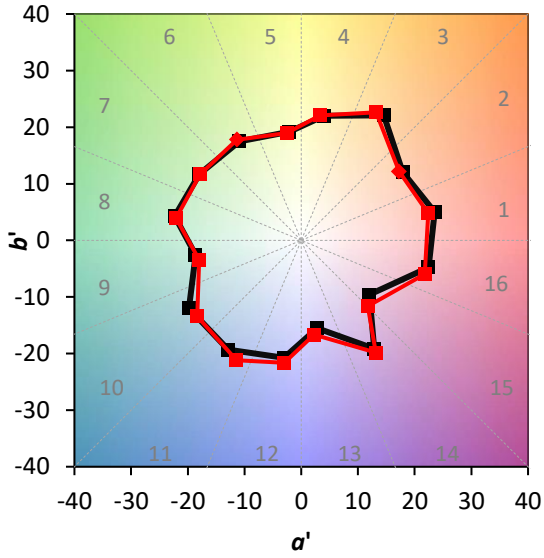
R_f = 90.7
R_g = 100.5
CIE R_a = 94.3
R_9 = 72.3

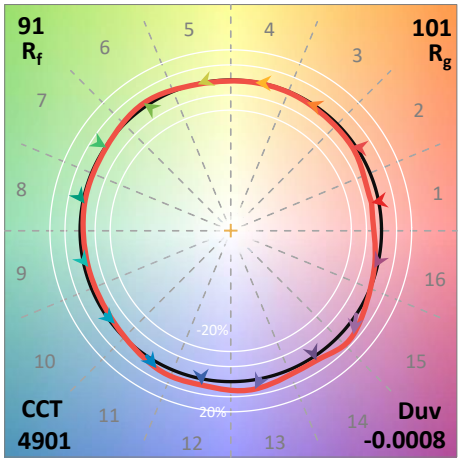
Spectral Power Distribution Comparison

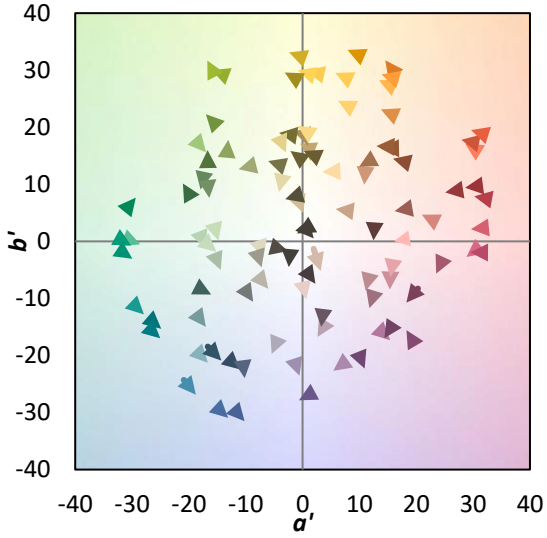


Color Vector Graphics







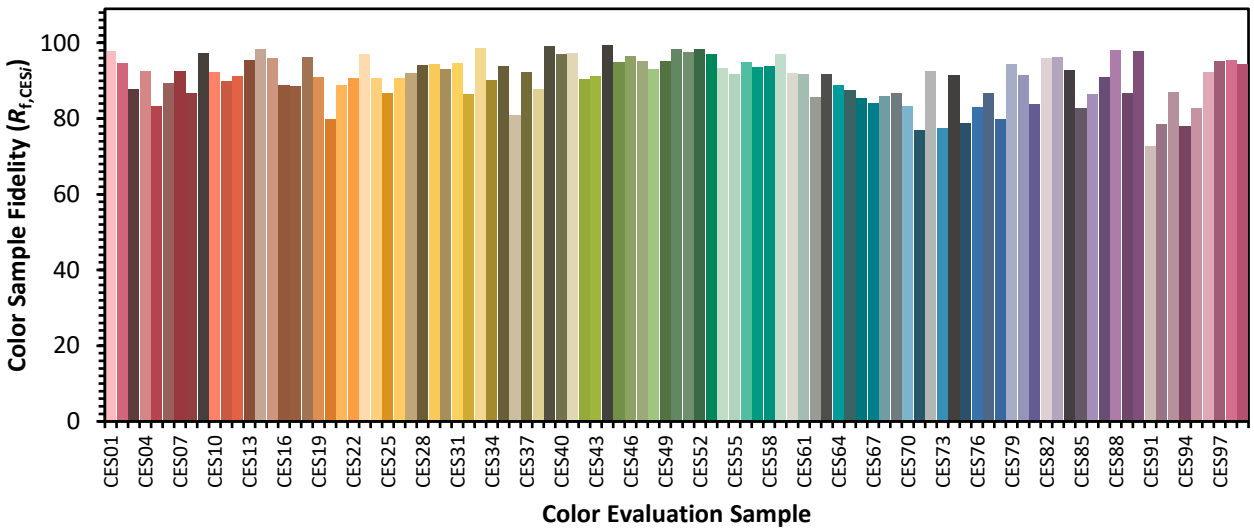


REPORT NUMBER: SP1-2506-472-8

TM-30-18

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	



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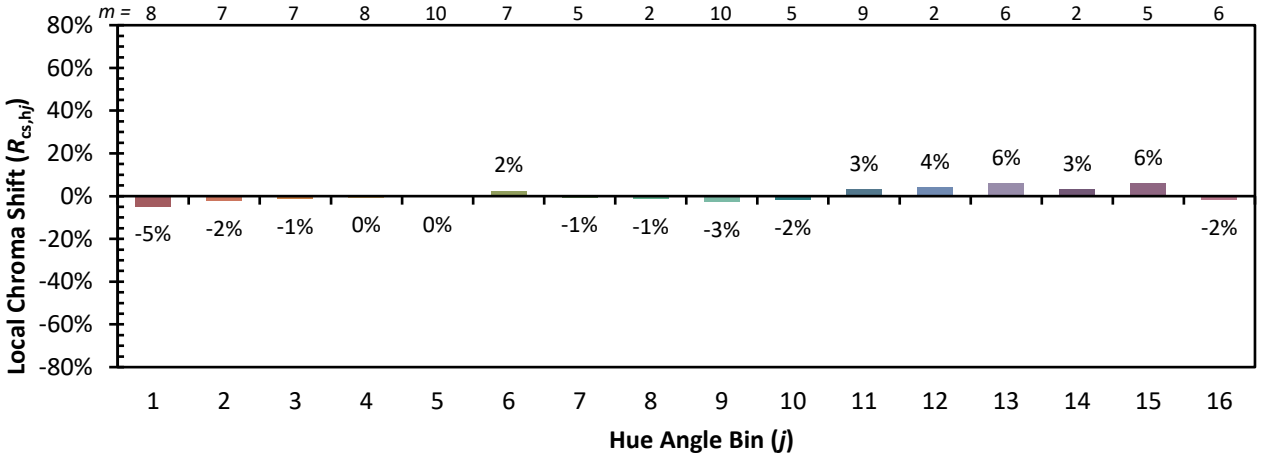
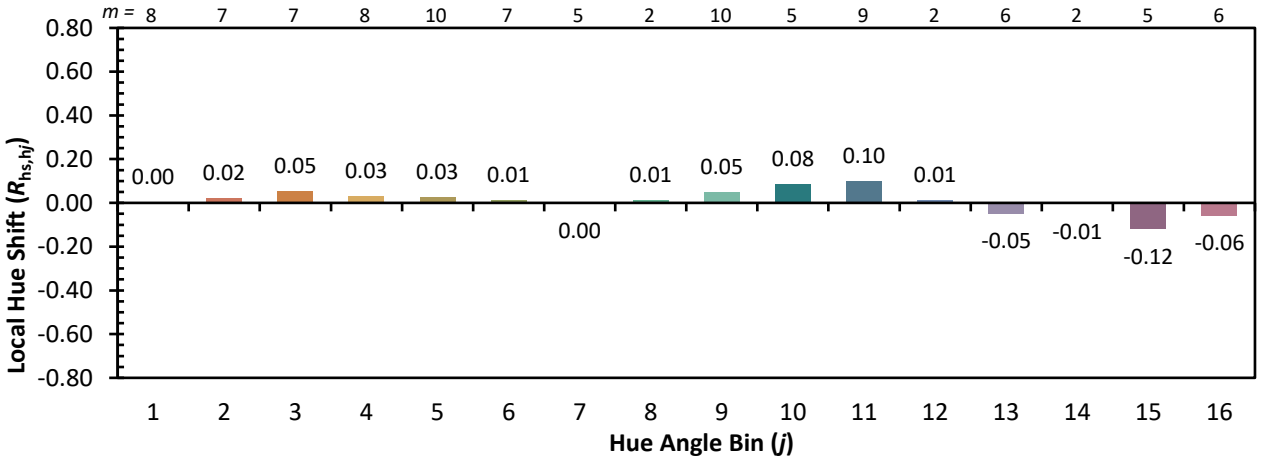
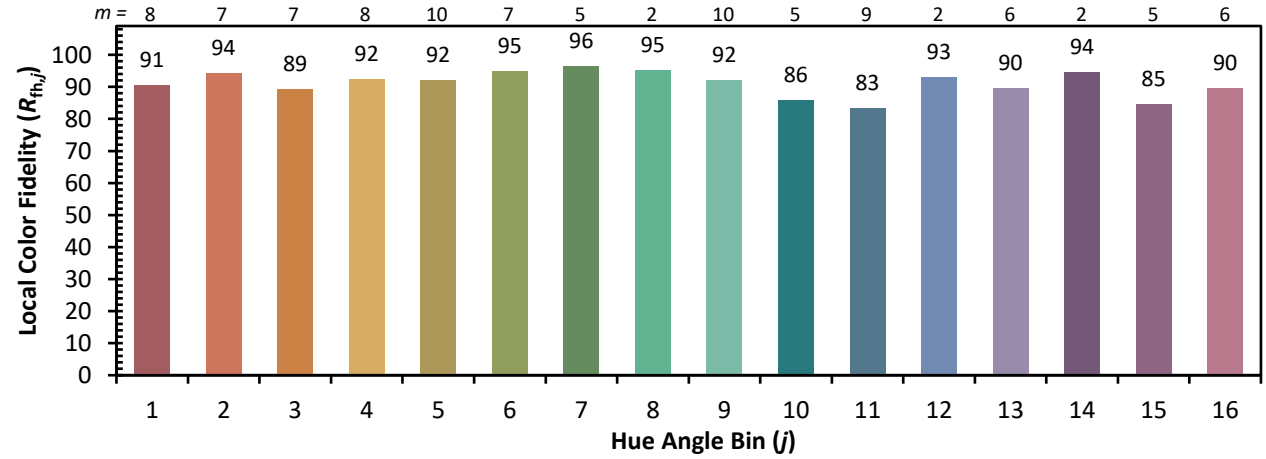
Color Rendition by Hue-Angle Bin







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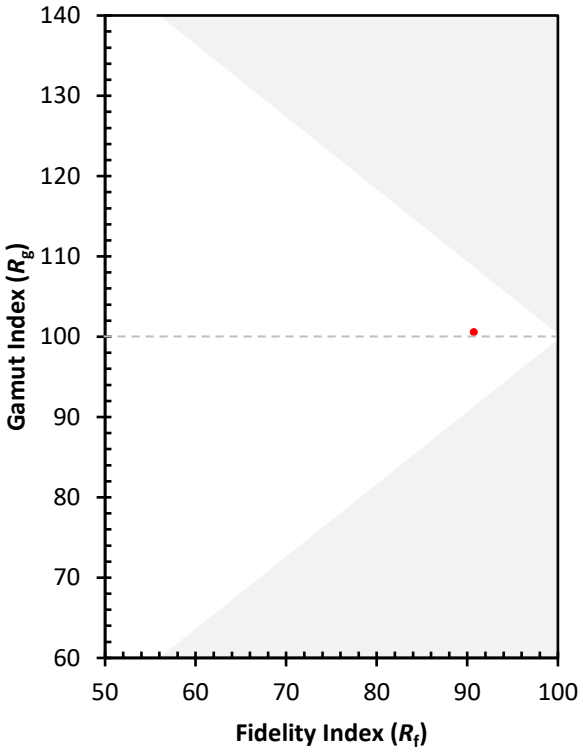
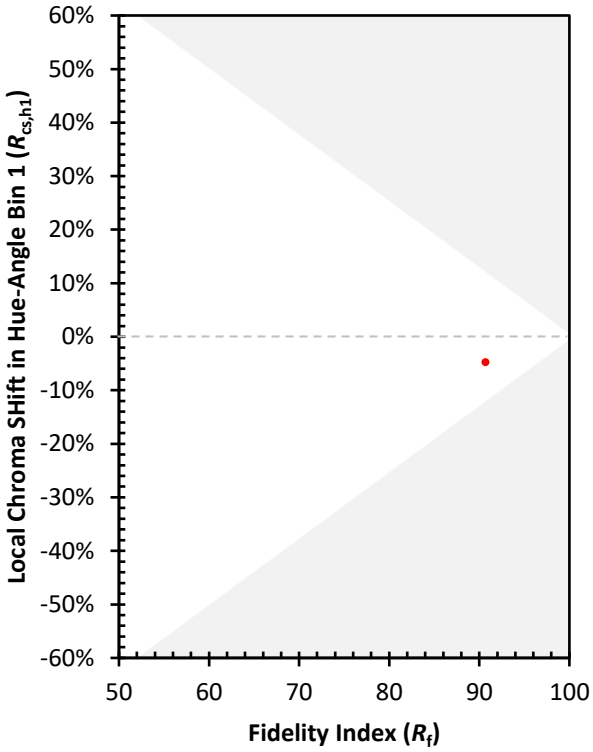
Measure Comparisons





(END OF REPORT)