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: P1433743

Luminaire Tested: EHBR1-18-UNV-TASM-L940-UPL30

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:	P1433743
	REPORT IS A COMBINATION OF REPORTS P1431690 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-TASM-L940-UPL30
Description:	Elevate Round Highbay at, 18000 lumens, 4000K 90CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	19939.1 lumens
Efficiency:	N/A
Efficacy:	170.9 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:	Semi-Direct

Input Watts (W):	116.7
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

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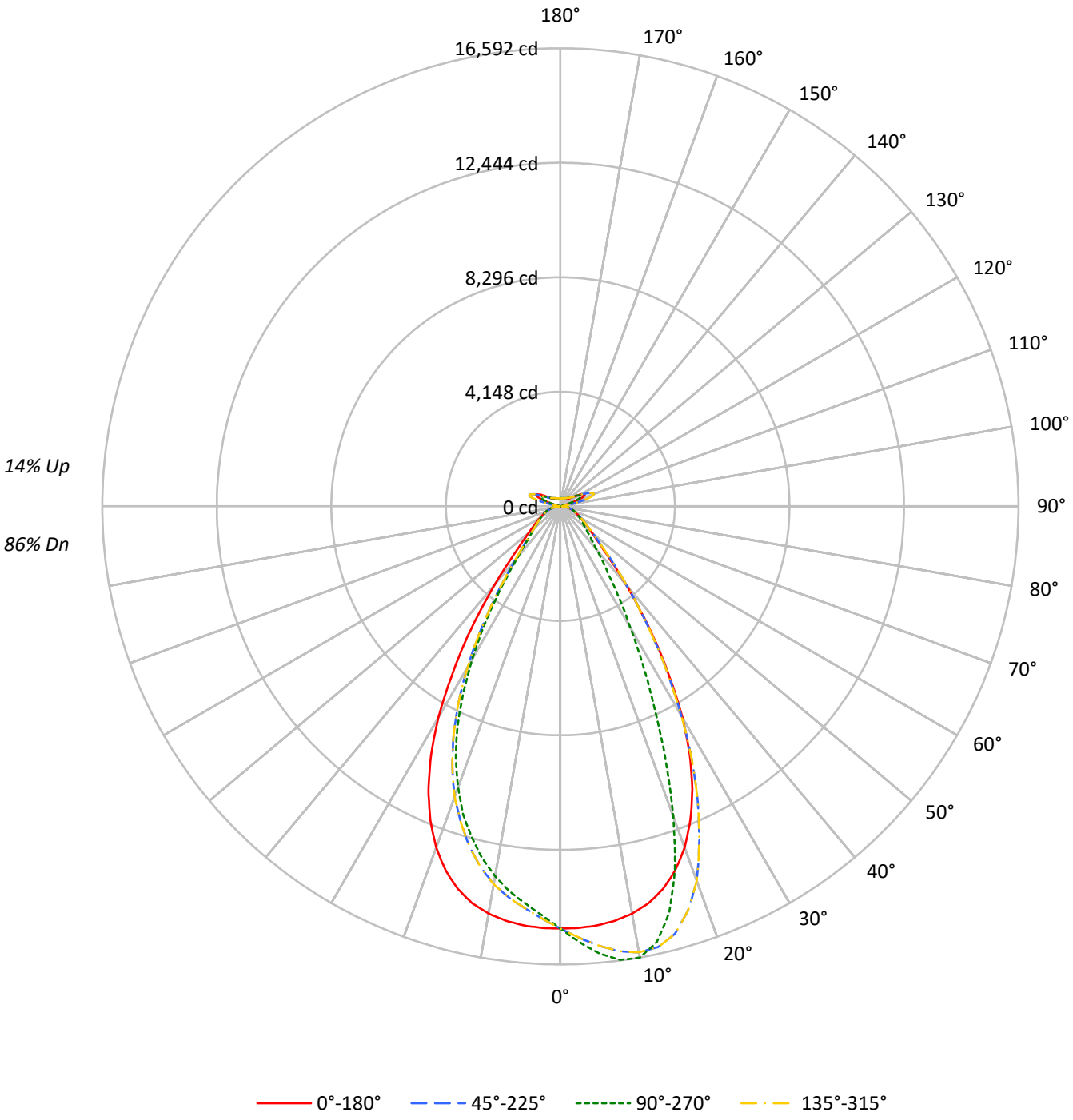
Luminous Intensity Polar Plot



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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	116	116	116	116	111	111	111	111	103	103	103	96	96	96	89	89	89	86
1	108	105	102	99	104	101	98	96	94	92	90	88	87	85	83	81	80	77
2	101	95	90	86	98	92	88	84	87	83	80	81	79	76	77	74	72	70
3	95	87	81	76	91	84	79	74	80	75	71	75	72	69	71	68	66	63
4	89	80	73	68	86	78	72	67	74	69	65	70	66	62	66	63	60	58
5	83	74	67	62	81	72	65	61	68	63	59	65	60	57	62	58	55	53
6	78	68	61	56	76	67	60	55	63	58	54	61	56	52	58	54	51	49
7	74	63	56	52	72	62	56	51	59	54	50	57	52	48	54	50	47	45
8	70	59	52	48	68	58	51	47	55	50	46	53	49	45	51	47	44	42
9	66	55	49	44	64	54	48	44	52	47	43	50	45	42	48	44	41	39
10	63	52	45	41	61	51	45	41	49	44	40	47	43	39	46	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	71808	71808	71808	71808
5°	71370	76139	71370	67667
10°	70493	78094	70493	64041
15°	68412	72573	68412	59156
20°	63982	58194	63982	52692
25°	56630	40320	56630	44158
30°	45981	26231	45981	33039
35°	32979	16987	32979	21995
40°	21322	11709	21322	13871
45°	13529	9069	13529	9883
50°	10046	7707	10046	8232
55°	8203	7021	8203	7267
60°	7103	6688	7103	6729
65°	6475	6450	6475	6423
70°	6137	6319	6137	6237
75°	5738	6114	5738	5931
80°	5041	5771	5041	5397
85°	3262	4120	3262	3931

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 19020 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1453.9	7.3
10°-20°	3955.5	19.8
20°-30°	4639.0	23.3
30°-40°	3226.1	16.2
40°-50°	1603.2	8.0
50°-60°	958.9	4.8
60°-70°	674.9	3.4
70°-80°	434.8	2.2
80°-90°	143.1	0.7
90°-100°	75.6	0.4
100°-110°	496.3	2.5
110°-120°	917.3	4.6
120°-130°	544.8	2.7
130°-140°	328.9	1.6
140°-150°	227.0	1.1
150°-160°	147.6	0.7
160°-170°	84.2	0.4
170°-180°	27.9	0.1
0°-30°	10048.5	50.4
0°-40°	13274.6	66.6
0°-60°	15836.7	79.4
0°-90°	17089.5	85.7
90°-120°	1489.2	7.5
90°-150°	2589.8	13.0
90°-180°	2850.0	14.3
0°-180°	19939.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	15291	15291	15291	15291	15291	
5°	15239	16257	15239	14448	15239	1446
15°	14352	15226	14352	12411	14352	4011
25°	11309	8052	11309	8818	11309	5120
35°	6053	3118	6053	4037	6053	3779
45°	2189	1467	2189	1599	2189	1791
55°	1108	949	1108	982	1108	1014
65°	676	673	676	670	676	679
75°	404	431	404	418	404	424
85°	112	142	112	135	112	125
90°	21	23	21	21	21	15
95°	40	37	40	35	40	43
105°	228	115	228	173	228	307
115°	976	833	976	793	976	890
125°	625	653	625	572	625	575
135°	394	455	394	418	394	312
145°	355	372	355	346	355	223
155°	316	329	316	305	316	147
165°	295	303	295	289	295	84
175°	293	296	293	288	293	28
180°	292	292	292	292	292	

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TEST NUMBER: P1433743
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9
2.5°	15282.0	15479.6	15639.5	15745.1	15797.3	15745.1	15639.5	15479.6	15282.0	15085.6	14950.6
5°	15238.7	15634.4	15969.6	16188.9	16256.9	16188.9	15969.6	15634.4	15238.7	14864.9	14616.8
7.5°	15135.2	15751.7	16249.8	16505.8	16568.3	16505.8	16249.8	15751.7	15135.2	14605.9	14292.6
10°	14977.2	15825.7	16401.2	16584.6	16592.1	16584.6	16401.2	15825.7	14977.2	14264.2	13894.6
12.5°	14725.2	15799.3	16350.4	16290.2	16153.3	16290.2	16350.4	15799.3	14725.2	13846.7	13380.5
15°	14352.5	15643.0	16029.0	15538.9	15225.5	15538.9	16029.0	15643.0	14352.5	13282.9	12742.2
17.5°	13827.2	15350.5	15358.0	14388.6	13797.3	14388.6	15358.0	15350.5	13827.2	12593.6	11998.1
20°	13150.2	14881.5	14434.2	12661.1	11960.6	12661.1	14434.2	14881.5	13150.2	11778.8	11194.5
22.5°	12301.5	14249.0	13147.6	10923.2	9967.5	10923.2	13147.6	14249.0	12301.5	10831.1	10223.0
25°	11308.9	13473.9	11763.6	9029.6	8051.9	9029.6	11763.6	13473.9	11308.9	9702.0	9152.0
27.5°	10141.2	12491.6	10289.8	7378.6	6476.6	7378.6	10289.8	12491.6	10141.2	8536.2	7974.5
30°	8844.4	11232.3	8756.1	5876.2	5045.5	5876.2	8756.1	11232.3	8844.4	7226.4	6723.5
32.5°	7392.4	9998.0	7283.1	4708.4	4004.8	4708.4	7283.1	9998.0	7392.4	5976.5	5451.0
35°	6052.8	8453.6	5955.1	3699.7	3117.8	3699.7	5955.1	8453.6	6052.8	4796.7	4280.5
37.5°	4750.2	6994.4	4747.1	2979.1	2529.0	2979.1	4747.1	6994.4	4750.2	3729.2	3310.2
40°	3695.7	5469.0	3719.4	2378.1	2029.5	2378.1	3719.4	5469.0	3695.7	2837.4	2569.4
42.5°	2800.2	4181.9	2923.5	1951.8	1723.8	1951.8	2923.5	4181.9	2800.2	2235.6	2034.9
45°	2188.9	3077.4	2282.9	1646.7	1467.4	1646.7	2282.9	3077.4	2188.9	1800.4	1665.6
47.5°	1782.6	2378.4	1850.2	1412.4	1286.8	1412.4	1850.2	2378.4	1782.6	1522.8	1421.9
50°	1497.2	1825.0	1536.3	1232.9	1148.6	1232.9	1536.3	1825.0	1497.2	1304.0	1236.7
52.5°	1286.2	1488.4	1308.3	1098.8	1042.0	1098.8	1308.3	1488.4	1286.2	1140.9	1099.1
55°	1108.5	1251.3	1137.7	988.1	948.8	988.1	1137.7	1251.3	1108.5	1015.3	984.4
57.5°	973.5	1061.4	988.1	893.7	867.6	893.7	988.1	1061.4	973.5	903.5	886.8
60°	853.9	919.3	871.9	811.5	804.0	811.5	871.9	919.3	853.9	812.9	802.0
62.5°	761.8	803.1	771.0	737.5	730.9	737.5	771.0	803.1	761.8	730.3	732.3
65°	675.8	714.2	689.0	671.0	673.2	671.0	689.0	714.2	675.8	661.2	664.4
67.5°	609.3	629.3	618.4	608.2	610.7	608.2	618.4	629.3	609.3	594.9	599.8
70°	538.5	560.0	548.8	550.2	554.5	550.2	548.8	560.0	538.5	534.2	537.9
72.5°	470.8	487.4	483.7	487.2	491.7	487.2	483.7	487.4	470.8	470.2	470.5
75°	404.2	416.9	418.6	423.5	430.7	423.5	418.6	416.9	404.2	400.0	405.2
77.5°	331.8	346.1	351.5	358.1	368.7	358.1	351.5	346.1	331.8	334.6	337.2
80°	265.2	271.9	283.9	288.7	303.6	288.7	283.9	271.9	265.2	260.4	264.1
82.5°	194.2	200.1	210.5	219.6	228.3	219.6	210.5	200.1	194.2	191.8	192.1
85°	112.1	121.3	128.2	139.1	141.6	139.1	128.2	121.3	112.1	114.7	112.1
87.5°	39.3	42.1	48.2	52.5	52.7	52.5	48.2	42.1	39.3	40.2	36.4
90°	20.8	35.3	60.8	33.3	22.8	33.3	60.8	35.3	20.8	36.6	57.1
92.5°	27.1	47.9	86.1	44.3	30.7	44.3	86.1	47.9	27.1	47.6	91.9
95°	40.1	59.0	109.7	49.0	37.1	49.0	109.7	59.0	40.1	63.4	128.1
97.5°	62.1	73.1	124.0	52.2	44.9	52.2	124.0	73.1	62.1	77.6	147.1
100°	82.6	82.6	226.6	60.1	51.2	60.1	226.6	82.6	82.6	95.3	229.2
102.5°	125.3	161.8	525.2	120.5	62.3	120.5	525.2	161.8	125.3	179.0	486.4
105°	227.9	370.2	924.6	311.4	114.7	311.4	924.6	370.2	227.9	374.7	866.9
107.5°	431.4	690.6	1191.3	614.5	267.8	614.5	1191.3	690.6	431.4	663.5	1143.4
110°	690.3	965.3	1300.2	841.8	542.5	841.8	1300.2	965.3	690.3	911.3	1198.7

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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°	898.8	1075.8	1270.2	933.3	*750.8*	933.3	1270.2	1075.8	898.8	1006.1	1148.2
115°	976.4	1060.0	1134.5	930.2	*832.9*	930.2	1134.5	1060.0	976.4	982.4	1025.0
117.5°	943.2	970.0	979.8	873.4	*837.6*	873.4	979.8	970.0	943.2	883.2	870.3
120°	851.6	840.6	825.3	789.8	*790.3*	789.8	825.3	840.6	851.6	771.1	726.7
122.5°	736.7	713.0	697.5	704.8	*725.6*	704.8	697.5	713.0	736.7	656.2	622.8
125°	624.7	600.9	607.8	632.1	*653.3*	632.1	607.8	600.9	624.7	557.0	548.8
127.5°	530.2	519.1	543.1	570.6	*588.5*	570.6	543.1	519.1	530.2	487.5	496.8
130°	462.6	465.5	497.3	520.3	*531.7*	520.3	497.3	465.5	462.6	442.1	463.9
132.5°	420.4	432.6	462.9	482.8	*489.3*	482.8	462.9	432.6	420.4	414.3	440.9
135°	393.8	412.1	439.6	452.5	*454.6*	452.5	439.6	412.1	393.8	395.7	420.4
137.5°	378.2	396.7	417.5	427.5	*424.6*	427.5	417.5	396.7	378.2	383.3	402.0
140°	369.1	387.5	397.0	408.5	*406.0*	408.5	397.0	387.5	369.1	372.3	386.4
142.5°	359.9	376.8	381.4	389.9	*387.0*	389.9	381.4	376.8	359.9	363.1	372.6
145°	355.4	367.8	364.4	375.7	*371.5*	375.7	364.4	367.8	355.4	356.7	361.8
147.5°	347.6	356.7	352.0	361.8	*357.6*	361.8	352.0	356.7	347.6	347.6	349.5
150°	338.4	344.7	338.1	349.5	*348.4*	349.5	338.1	344.7	338.4	336.8	338.7
152.5°	326.0	332.3	326.0	338.9	*337.6*	338.9	326.0	332.3	326.0	324.4	326.3
155°	315.5	318.7	315.5	328.4	*328.7*	328.4	315.5	318.7	315.5	315.3	315.8
157.5°	308.2	310.1	308.5	319.9	*320.2*	319.9	308.5	310.1	308.2	308.2	308.5
160°	301.5	304.6	303.3	313.1	*313.4*	313.1	303.3	304.6	301.5	302.8	303.1
162.5°	298.9	298.9	297.9	307.6	*308.2*	307.6	297.9	298.9	298.9	298.9	300.5
165°	295.1	296.6	294.0	300.8	*303.1*	300.8	294.0	296.6	295.1	296.4	296.4
167.5°	294.0	292.4	293.0	298.7	*300.8*	298.7	293.0	292.4	294.0	295.3	295.3
170°	291.1	291.4	290.5	296.1	*298.2*	296.1	290.5	291.4	291.1	292.7	294.0
172.5°	292.1	292.1	289.7	293.7	*297.5*	293.7	289.7	292.1	292.1	293.3	294.9
175°	292.6	291.3	290.3	292.7	*296.4*	292.7	290.3	291.3	292.6	292.4	292.4
177.5°	291.0	291.6	292.2	294.6	*299.9*	294.6	292.2	291.6	291.0	292.4	292.4
180°	291.6	291.6	291.6	291.6	*291.6*	291.6	291.6	291.6	291.6	291.6	291.6

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9
2.5°	14846.8	14837.0	14846.8	14950.6	15085.6	15282.0
5°	14501.8	14448.0	14501.8	14616.8	14864.9	15238.7
7.5°	14100.1	14068.9	14100.1	14292.6	14605.9	15135.2
10°	*13677.2*	*13606.4*	*13677.2*	*13894.6*	*14264.2*	*14977.2*
12.5°	13156.0	13062.1	13156.0	13380.5	13846.7	14725.2
15°	12493.0	12410.7	12493.0	12742.2	13282.9	14352.5
17.5°	11781.7	11707.1	11781.7	11998.1	12593.6	13827.2
20°	10888.2	10829.7	10888.2	11194.5	11778.8	13150.2
22.5°	9950.9	9896.1	9950.9	10223.0	10831.1	12301.5
25°	8848.1	8818.3	8848.1	9152.0	9702.0	11308.9
27.5°	7656.5	7605.8	7656.5	7974.5	8536.2	10141.2
30°	6439.1	6355.0	6439.1	6723.5	7226.4	8844.4
32.5°	5248.2	5187.8	5248.2	5451.0	5976.5	7392.4
35°	4097.4	4036.8	4097.4	4280.5	4796.7	6052.8
37.5°	3192.8	3085.8	3192.8	3310.2	3729.2	4750.2
40°	2421.4	2404.2	2421.4	2569.4	2837.4	3695.7
42.5°	1971.3	1924.5	1971.3	2034.9	2235.6	2800.2
45°	1617.4	1599.1	1617.4	1665.6	1800.4	2188.9
47.5°	1390.9	1399.0	1390.9	1421.9	1522.8	1782.6
50°	1222.0	1226.9	1222.0	1236.7	1304.0	1497.2
52.5°	1097.6	1093.3	1097.6	1099.1	1140.9	1286.2
55°	987.5	982.0	987.5	984.4	1015.3	1108.5
57.5°	891.1	895.1	891.1	886.8	903.5	973.5
60°	805.1	808.9	805.1	802.0	812.9	853.9
62.5°	732.6	734.9	732.6	732.3	730.3	761.8
65°	667.8	670.4	667.8	664.4	661.2	675.8
67.5°	605.8	605.8	605.8	599.8	594.9	609.3
70°	547.6	547.3	547.6	537.9	534.2	538.5
72.5°	477.7	484.5	477.7	470.5	470.2	470.8
75°	409.7	417.8	409.7	405.2	400.0	404.2
77.5°	340.9	353.3	340.9	337.2	334.6	331.8
80°	270.4	283.9	270.4	264.1	260.4	265.2
82.5°	199.8	209.9	199.8	192.1	191.8	194.2
85°	119.0	135.1	119.0	112.1	114.7	112.1
87.5°	38.1	48.7	38.1	36.4	40.2	39.3
90°	33.4	20.8	33.4	57.1	36.6	20.8
92.5°	50.8	30.3	50.8	91.9	47.6	27.1
95°	58.7	35.0	58.7	128.1	63.4	40.1
97.5°	65.0	44.7	65.0	147.1	77.6	62.1
100°	76.0	59.0	76.0	229.2	95.3	82.6
102.5°	161.3	100.0	161.3	486.4	179.0	125.3
105°	339.7	172.6	339.7	866.9	374.7	227.9
107.5°	608.0	298.9	608.0	1143.4	663.5	431.4
110°	806.9	557.8	806.9	1198.7	911.3	690.3

TEST NUMBER: P1433743
CATALOG NUMBER: EHBR1-18-UNV-TASM-L940-UPL30

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	866.9	753.5	866.9	1148.2	1006.1	898.8
115°	833.7	792.9	833.7	1025.0	982.4	976.4
117.5°	761.2	766.1	761.2	870.3	883.2	943.2
120°	677.5	709.3	677.5	726.7	771.1	851.6
122.5°	600.4	638.3	600.4	622.8	656.2	736.7
125°	534.1	572.2	534.1	548.8	557.0	624.7
127.5°	488.3	513.9	488.3	496.8	487.5	530.2
130°	452.3	474.4	452.3	463.9	442.1	462.6
132.5°	427.3	441.5	427.3	440.9	414.3	420.4
135°	405.5	417.8	405.5	420.4	395.7	393.8
137.5°	386.8	397.6	386.8	402.0	383.3	378.2
140°	370.1	379.3	370.1	386.4	372.3	369.1
142.5°	353.0	359.3	353.0	372.6	363.1	359.9
145°	341.0	345.7	341.0	361.8	356.7	355.4
147.5°	330.5	333.6	330.5	349.5	347.6	347.6
150°	320.0	323.2	320.0	338.7	336.8	338.4
152.5°	309.2	312.7	309.2	326.3	324.4	326.0
155°	301.9	305.3	301.9	315.8	315.3	315.5
157.5°	297.8	299.9	297.8	308.5	308.2	308.2
160°	293.9	295.8	293.9	303.1	302.8	301.5
162.5°	289.7	291.6	289.7	300.5	298.9	298.9
165°	288.7	289.0	288.7	296.4	296.4	295.1
167.5°	287.4	289.0	287.4	295.3	295.3	294.0
170°	287.7	288.0	287.7	294.0	292.7	291.1
172.5°	288.3	288.5	288.3	294.9	293.3	292.1
175°	287.3	287.6	287.3	292.4	292.4	292.6
177.5°	289.2	289.5	289.2	292.4	292.4	291.0
180°	291.6	291.6	291.6	291.6	291.6	291.6

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

Scaled Data Report

TEST NUMBER: P1433743
CATALOG NUMBER: EHBR1-18-UNV-TASM-L940-UPL30

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	14.88	15.89	15.49	16.48	17.14	14.20	15.21	14.80	15.80	16.45
	3H	16.43	17.32	17.04	17.92	18.62	16.05	16.94	16.66	17.54	18.24
	4H	17.06	17.90	17.70	18.51	19.23	16.82	17.66	17.46	18.28	18.99
	6H	17.54	18.31	18.18	18.94	19.66	17.46	18.24	18.11	18.86	19.59
	8H	17.69	18.42	18.35	19.06	19.79	17.68	18.41	18.34	19.06	19.79
	12H	17.76	18.45	18.42	19.09	19.84	17.81	18.51	18.47	19.14	19.89
4H	2H	15.29	16.13	15.93	16.74	17.46	14.77	15.61	15.41	16.22	16.94
	3H	17.08	17.78	17.73	18.43	19.16	16.82	17.52	17.47	18.17	18.90
	4H	17.86	18.48	18.52	19.14	19.91	17.73	18.36	18.39	19.01	19.78
	6H	18.47	19.01	19.15	19.69	20.47	18.50	19.04	19.18	19.72	20.50
	8H	18.66	19.17	19.35	19.85	20.63	18.77	19.27	19.46	19.95	20.73
	12H	18.77	19.21	19.47	19.92	20.71	18.93	19.38	19.64	20.09	20.87
8H	4H	18.10	18.61	18.79	19.29	20.07	18.00	18.51	18.69	19.19	19.97
	6H	18.84	19.25	19.56	19.98	20.77	18.91	19.32	19.63	20.04	20.83
	8H	19.11	19.48	19.85	20.21	21.01	19.26	19.63	20.00	20.36	21.16
	12H	19.28	19.60	20.01	20.32	21.19	19.51	19.83	20.24	20.54	21.41
12H	4H	18.11	18.55	18.81	19.26	20.05	18.01	18.46	18.72	19.17	19.95
	6H	18.89	19.25	19.62	19.98	20.79	18.95	19.32	19.69	20.05	20.85
	8H	19.20	19.52	19.93	20.24	21.11	19.35	19.67	20.08	20.39	21.26

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

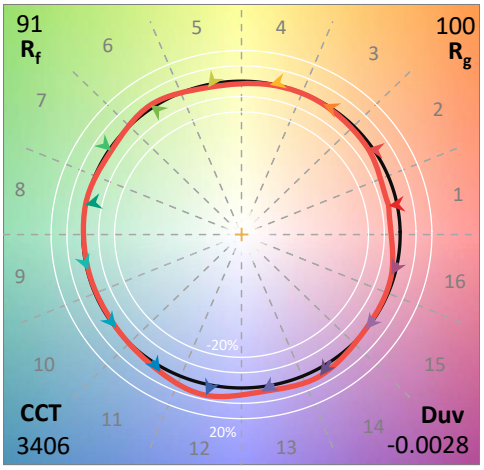
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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	CRI (Ra):	94.6		
CIE u':	0.2394	R1:	96.6	R9:	63.8
CIE v':	0.5094	R2:	98.4	R10:	94.7
Duv:	-0.0028	R3:	98.1	R11:	96.6
CIE x:	0.4076	R4:	95.8	R12:	80.9
CIE y:	0.3856	R5:	96.2	R13:	97.4
CIE z:	0.2068	R6:	95.4	R14:	98.3
Peak Wavelength (nm):	630	R7:	91.8	R15:	93.1
Dominant Wavelength (nm):	582	R8:	84.4		
Purity:	38.0517				
Rf:	91.3				
Rg:	100				



Test Conditions

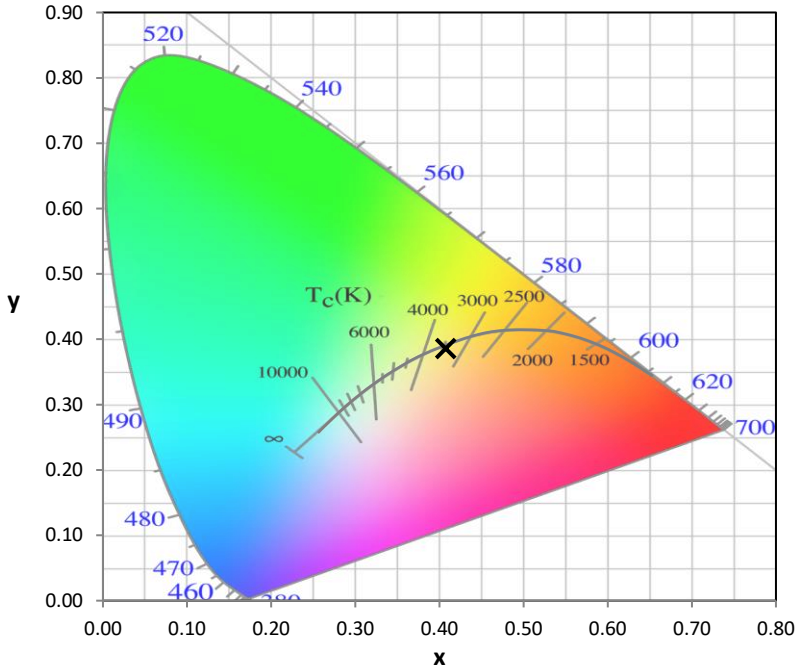
Stabilization Time:	35M
Operation Time:	1H 35M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-6

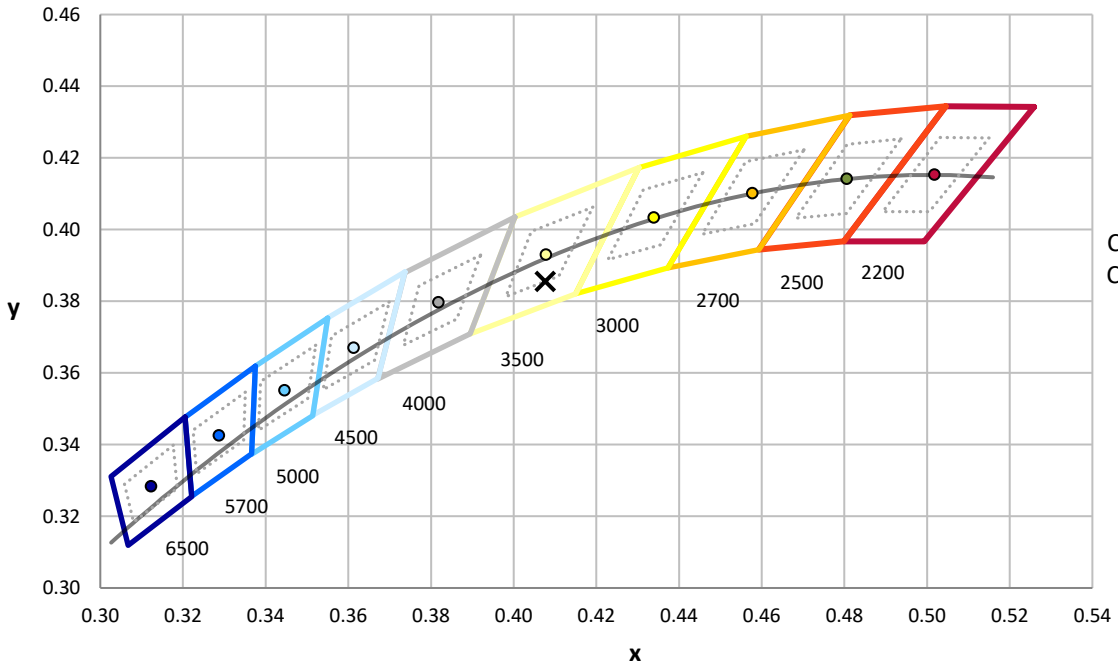
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

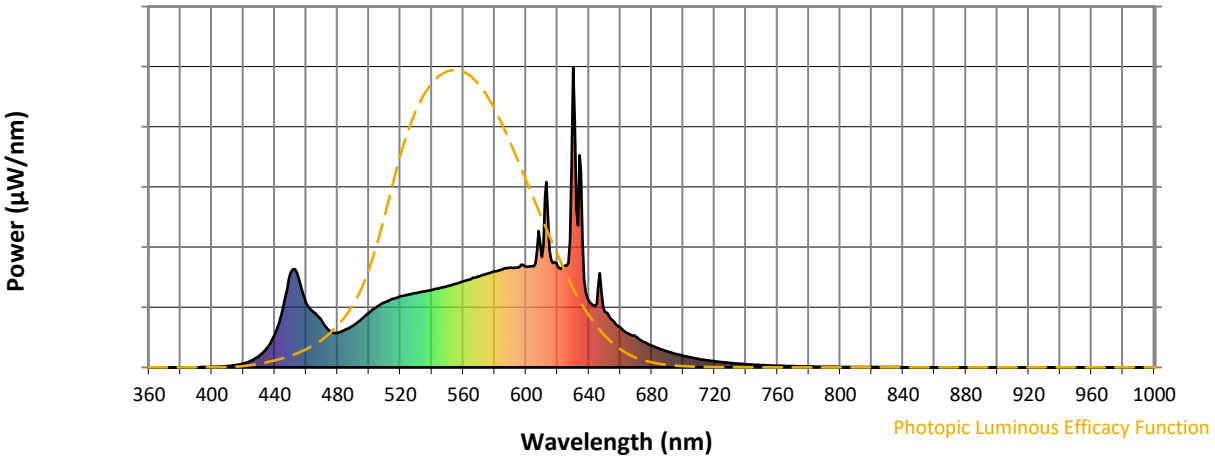


CCT = 3406K
CIE x = 0.4076
CIE y = 0.3856
Duv = -0.0028

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

Photopic Flux vs. Wavelength

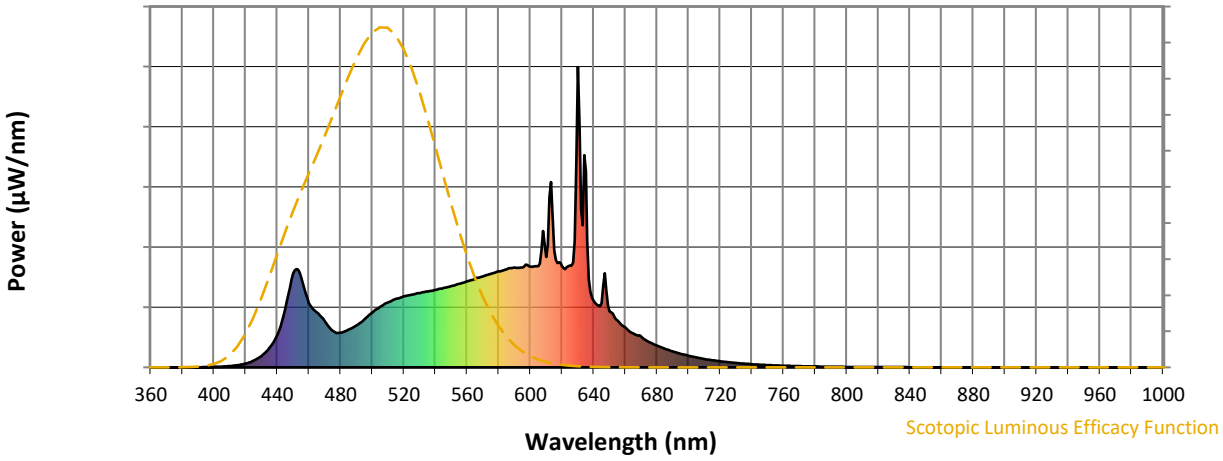


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2506-472-6

Scotopic Flux vs. Wavelength

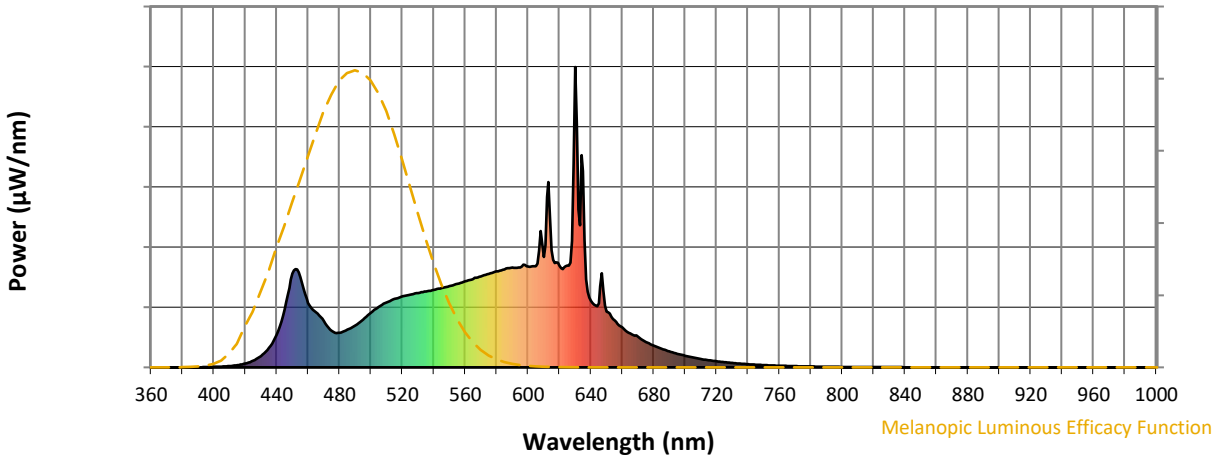


Scotopic Lumens: NR **S/P: 1.62**

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			

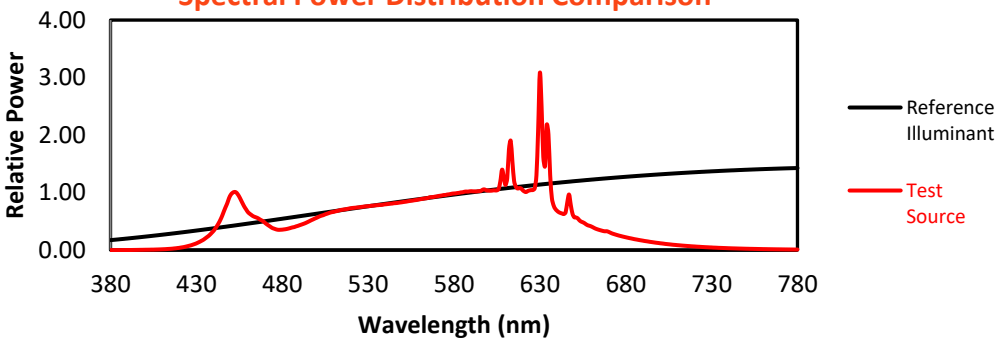
REPORT NUMBER: SP1-2506-472-6

TM-30-18

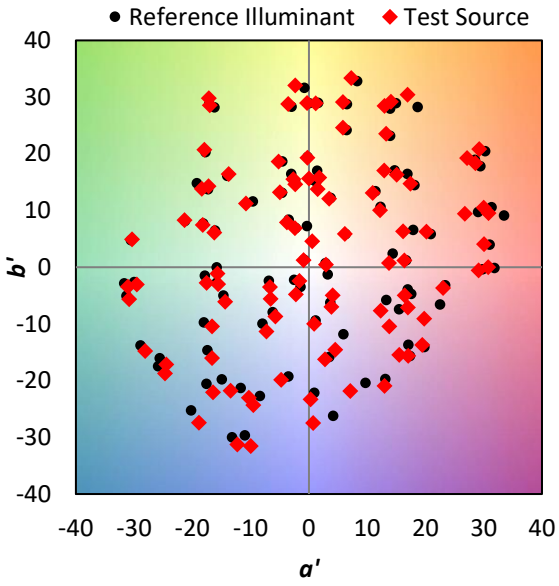
Summary

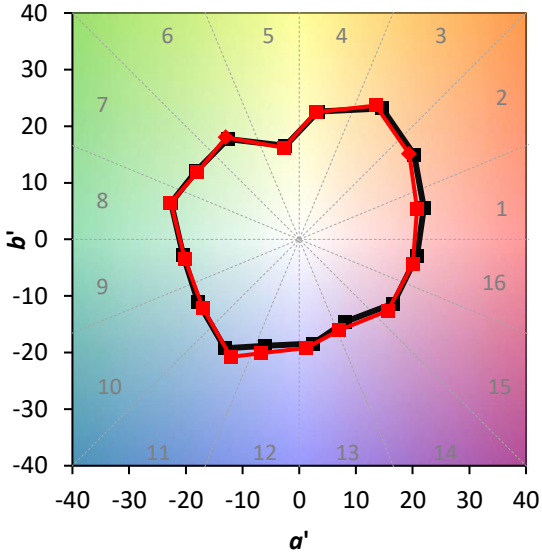
R_f = 91.3
R_g = 100
CIE R_a = 94.6
R_9 = 63.8

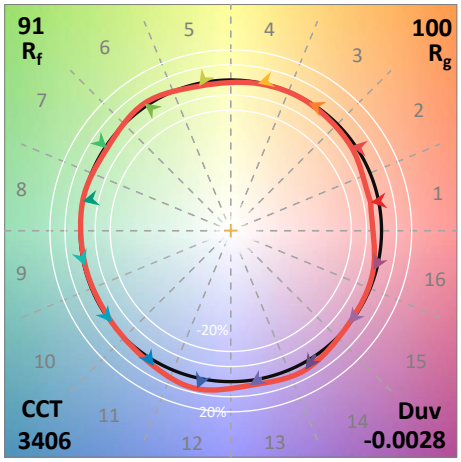
Spectral Power Distribution Comparison

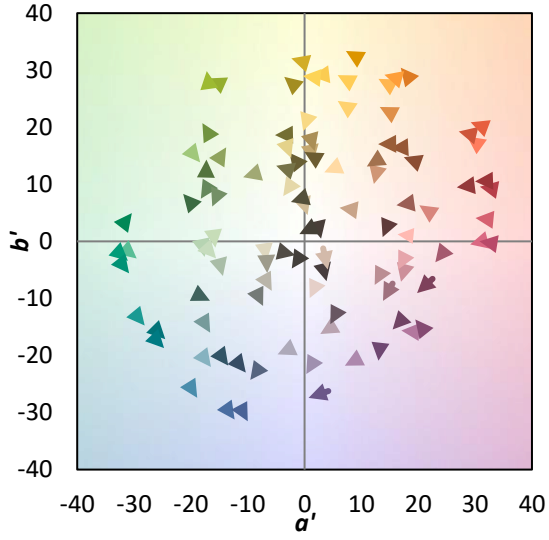


Color Vector Graphics







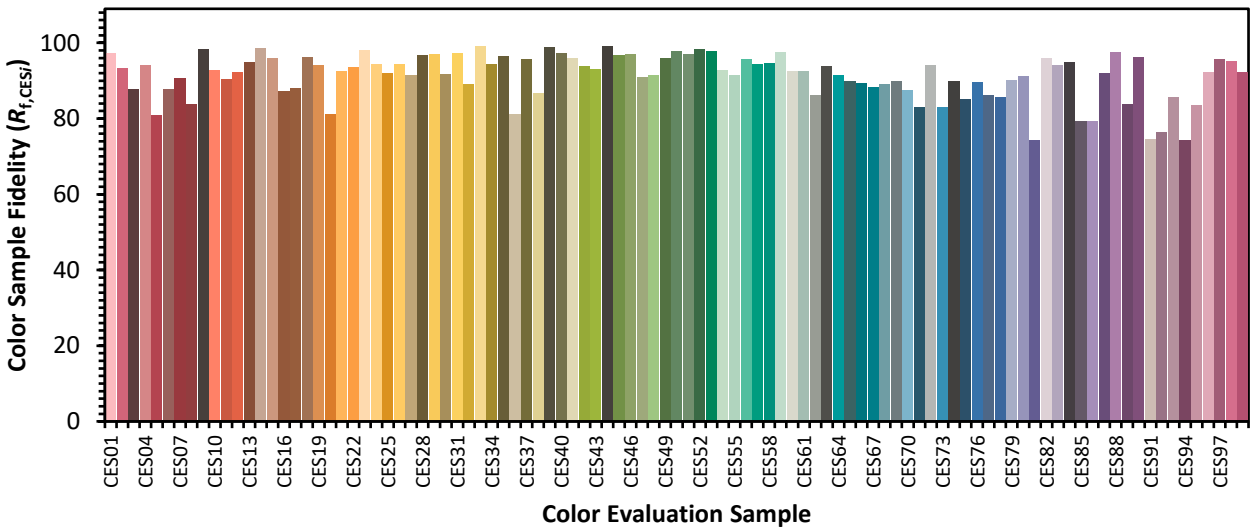


REPORT NUMBER: SP1-2506-472-6

TM-30-18

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	



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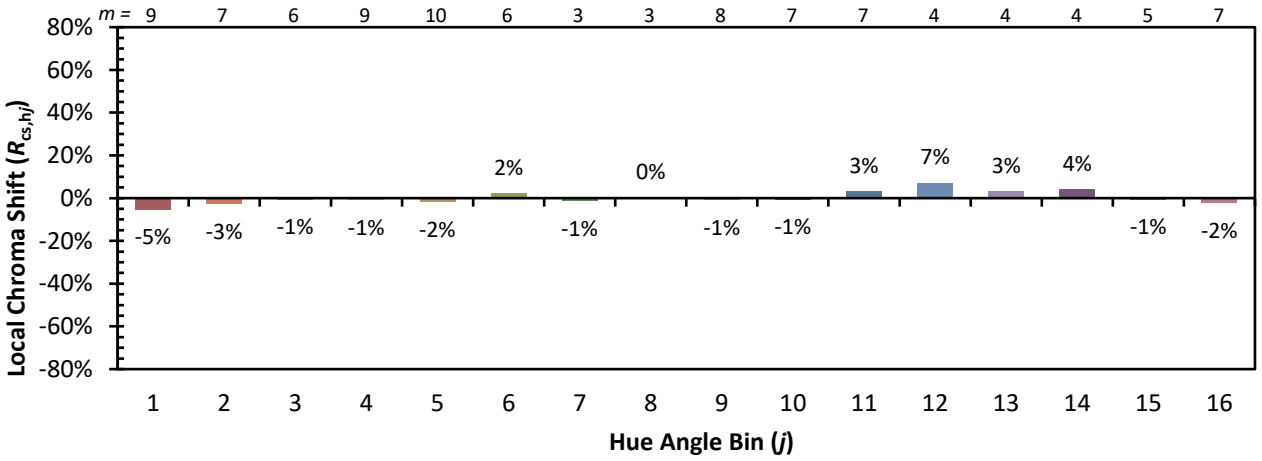
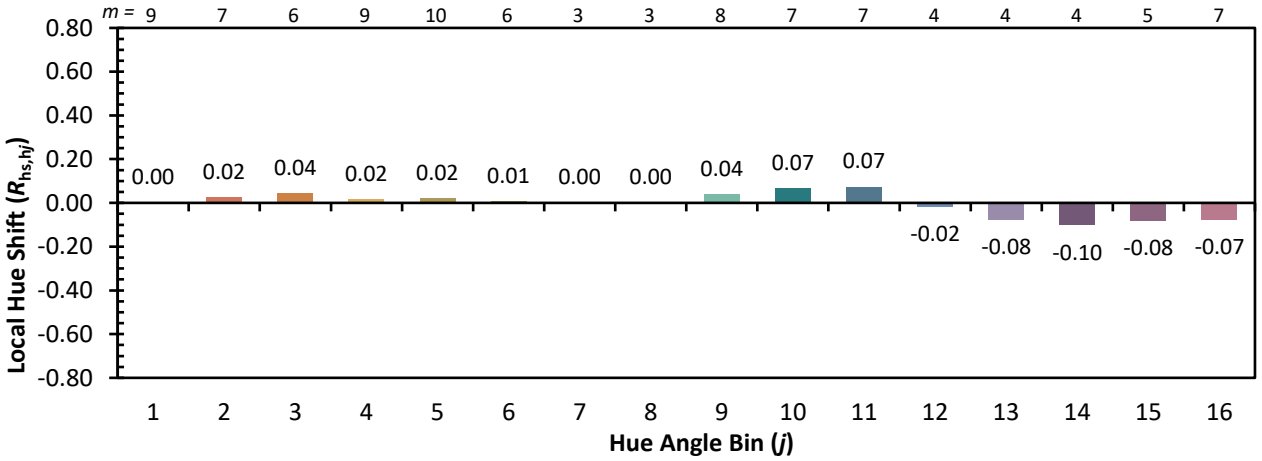
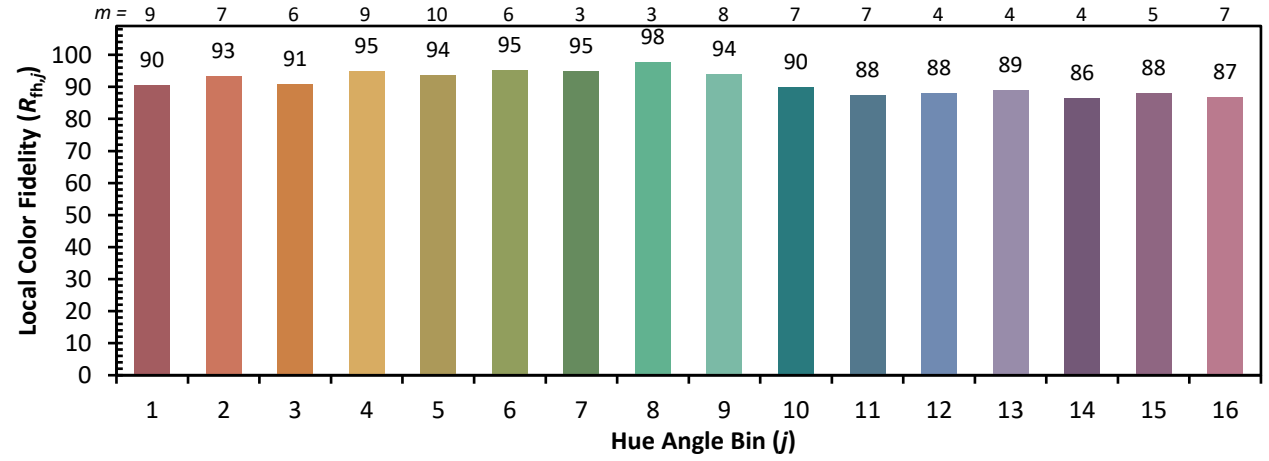
Color Rendition by Hue-Angle Bin







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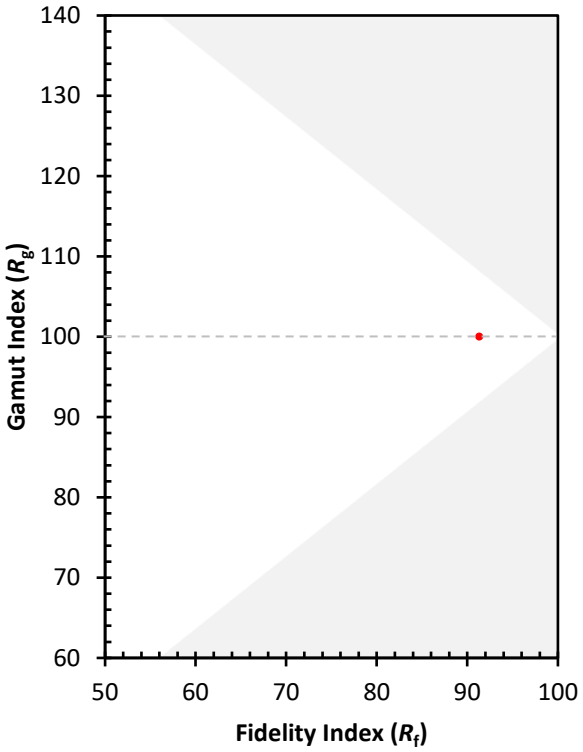
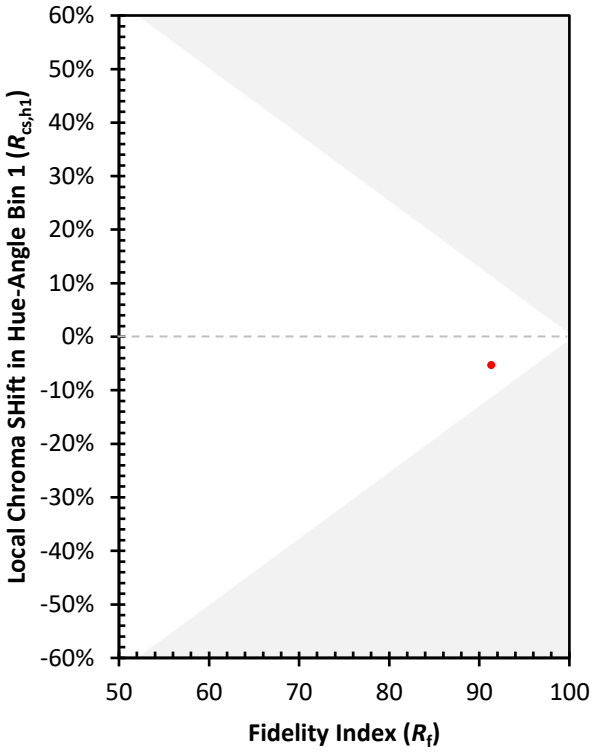
Measure Comparisons





(END OF REPORT)