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: P1433458

Luminaire Tested: EHBR1-18-UNV-TASM-L935

Issue Date: 3/13/2026

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1433458
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-4)
Test Lab:	INNOVATION CENTER
Issue Date:	3/13/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-TASM-L935
Description:	Elevate Round Highbay at, 18000 lumens, 3500K 90CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	16632.9 lumens
Efficiency:	N/A
Efficacy:	175.6 lumens/watt
Spacing Criteria (0/90/45):	0.99 / 0.84 / 0.9
Luminous Opening:	Circular (Dia: 1.71' x H: 0')
CIE Type:	Direct

Input Watts (W):	94.7
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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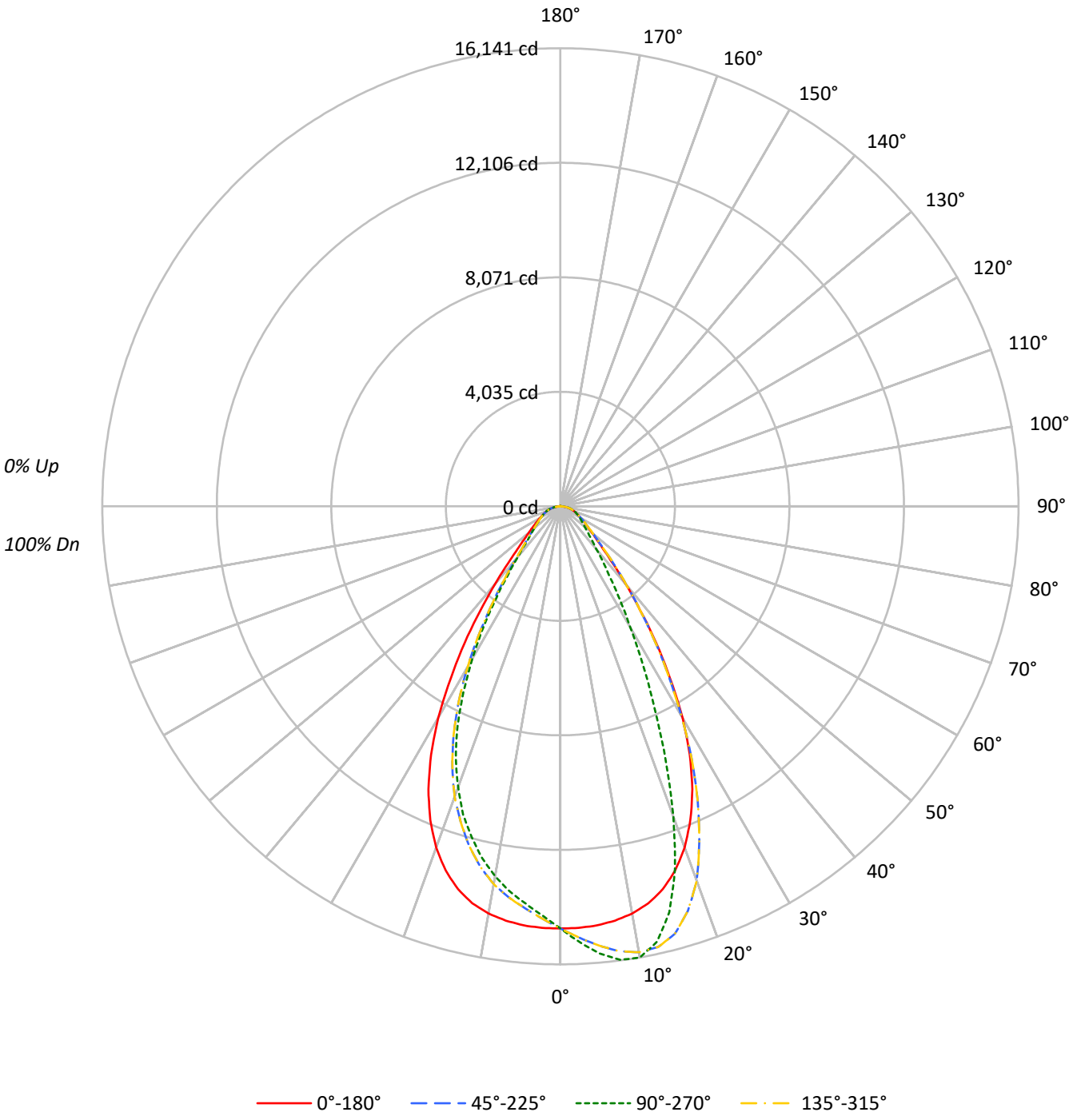
Luminous Intensity Polar Plot



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	49
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	69856	69856	69856	69856
5°	69884	74553	69884	66258
10°	69479	76970	69479	63120
15°	67882	72011	67882	58698
20°	63932	58149	63932	52651
25°	57006	40588	57006	44451
30°	46656	26616	46656	33524
35°	33757	17388	33757	22514
40°	22040	12103	22040	14338
45°	14142	9481	14142	10331
50°	10642	8164	10642	8720
55°	8829	7557	8829	7822
60°	7802	7347	7802	7391
65°	7306	7277	7306	7247
70°	7193	7406	7193	7311
75°	7136	7602	7136	7374
80°	6977	7989	6977	7469
85°	5873	7425	5873	7080

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 19883 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1414.4	8.5
10°-20°	3848.0	23.1
20°-30°	4513.0	27.1
30°-40°	3138.5	18.9
40°-50°	1559.7	9.4
50°-60°	932.9	5.6
60°-70°	656.6	3.9
70°-80°	423.0	2.5
80°-90°	134.3	0.8
90°-100°	0.8	0.0
100°-110°	0.9	0.0
110°-120°	0.9	0.0
120°-130°	1.2	0.0
130°-140°	1.6	0.0
140°-150°	2.0	0.0
150°-160°	2.2	0.0
160°-170°	2.1	0.0
170°-180°	0.9	0.0
0°-30°	9775.4	58.8
0°-40°	12913.9	77.6
0°-60°	15406.4	92.6
0°-90°	16620.3	99.9
90°-120°	2.6	0.0
90°-150°	7.4	0.0
90°-180°	13.0	0.1
0°-180°	16632.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	14875	14875	14875	14875	14875	
5°	14825	15815	14825	14055	14825	1407
15°	13962	14812	13962	12074	13962	3902
25°	11002	7833	11002	8579	11002	4981
35°	5888	3033	5888	3927	5888	3676
45°	2129	1428	2129	1556	2129	1742
55°	1078	923	1078	955	1078	986
65°	658	655	658	652	658	660
75°	393	419	393	406	393	413
85°	109	138	109	131	109	121
90°	0	2	0	0	0	5
95°	0	2	0	0	0	0
105°	0	2	0	0	0	1
115°	1	2	1	0	1	1
125°	1	3	1	1	1	1
135°	2	3	2	1	2	2
145°	3	4	3	3	3	2
155°	4	5	4	5	4	2
165°	8	9	8	8	8	2
175°	10	12	10	10	10	1
180°	10	10	10	10	10	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	14875.4	14875.4	14875.4	14875.4	14875.4	14875.4	14875.4	14875.4	14875.4	14875.4	14875.4
2.5°	14866.7	15058.9	15214.6	15317.2	15368.0	15317.2	15214.6	15058.9	14866.7	14675.7	14544.3
5°	14824.7	15209.6	15535.7	15749.0	15815.1	15749.0	15535.7	15209.6	14824.7	14460.9	14219.6
7.5°	14724.0	15323.7	15808.2	16057.3	16118.1	16057.3	15808.2	15323.7	14724.0	14209.0	13904.2
10°	14570.3	15395.6	15955.5	16133.9	16141.2	16133.9	15955.5	15395.6	14570.3	13876.5	13517.0
12.5°	14325.1	15370.0	15906.1	15847.5	15714.4	15847.5	15906.1	15370.0	14325.1	13470.4	13016.9
15°	13962.5	15217.9	15593.4	15116.7	14811.8	15116.7	15593.4	15217.9	13962.5	12922.0	12396.0
17.5°	13451.5	14933.4	14940.7	13997.6	13422.4	13997.6	14940.7	14933.4	13451.5	12251.4	11672.1
20°	12792.8	14477.1	14042.0	12317.0	11635.6	12317.0	14042.0	14477.1	12792.8	11458.7	10890.3
22.5°	11967.2	13861.8	12790.3	10626.4	9696.6	10626.4	12790.3	13861.8	11967.2	10536.8	9945.2
25°	11001.6	13107.8	11444.0	8784.2	7833.1	8784.2	11444.0	13107.8	11001.6	9438.3	8903.3
27.5°	9865.7	12152.2	10010.2	7178.1	6300.6	7178.1	10010.2	12152.2	9865.7	8304.2	7757.8
30°	8604.1	10927.1	8518.1	5716.5	4908.4	5716.5	8518.1	10927.1	8604.1	7030.0	6540.8
32.5°	7191.5	9726.3	7085.2	4580.4	3896.0	4580.4	7085.2	9726.3	7191.5	5814.1	5302.8
35°	5888.3	8223.9	5793.3	3599.1	3033.1	3599.1	5793.3	8223.9	5888.3	4666.3	4164.2
37.5°	4621.1	6804.4	4618.1	2898.2	2460.2	2898.2	4618.1	6804.4	4621.1	3627.9	3220.3
40°	3595.2	5320.4	3618.3	2313.5	1974.3	2313.5	3618.3	5320.4	3595.2	2760.3	2499.6
42.5°	2724.1	4068.2	2844.1	1898.8	1677.0	1898.8	2844.1	4068.2	2724.1	2174.8	1979.6
45°	2129.4	2993.8	2220.9	1601.9	1427.6	1601.9	2220.9	2993.8	2129.4	1751.5	1620.3
47.5°	1734.2	2313.8	1800.0	1374.0	1251.8	1374.0	1800.0	2313.8	1734.2	1481.4	1383.2
50°	1456.6	1775.4	1494.5	1199.4	1117.4	1199.4	1494.5	1775.4	1456.6	1268.6	1203.1
52.5°	1251.3	1448.0	1272.8	1068.9	1013.6	1068.9	1272.8	1448.0	1251.3	1109.9	1069.2
55°	1078.4	1217.3	1106.8	961.3	923.0	961.3	1106.8	1217.3	1078.4	987.7	957.6
57.5°	947.0	1032.6	961.3	869.4	844.1	869.4	961.3	1032.6	947.0	879.0	862.7
60°	830.7	894.3	848.2	789.4	782.2	789.4	848.2	894.3	830.7	790.8	780.2
62.5°	741.1	781.3	750.1	717.5	711.0	717.5	750.1	781.3	741.1	710.5	712.4
65°	657.5	694.8	670.3	652.7	654.9	652.7	670.3	694.8	657.5	643.2	646.3
67.5°	592.7	612.2	601.6	591.7	594.1	591.7	601.6	612.2	592.7	578.8	583.5
70°	523.9	544.8	533.9	535.3	539.4	535.3	533.9	544.8	523.9	519.7	523.3
72.5°	458.0	474.2	470.6	473.9	478.4	473.9	470.6	474.2	458.0	457.4	457.7
75°	393.3	405.6	407.2	412.0	419.0	412.0	407.2	405.6	393.3	389.1	394.2
77.5°	322.7	336.7	342.0	348.4	358.7	348.4	342.0	336.7	322.7	325.6	328.0
80°	258.0	264.5	276.2	280.9	295.4	280.9	276.2	264.5	258.0	253.3	256.9
82.5°	188.9	194.7	204.7	213.6	222.1	213.6	204.7	194.7	188.9	186.6	186.9
85°	109.0	118.0	124.7	135.3	137.8	135.3	124.7	118.0	109.0	111.6	109.0
87.5°	38.2	41.0	46.9	51.0	51.3	51.0	46.9	41.0	38.2	39.1	35.4
90°	0.3	0.5	0.8	1.6	2.3	1.6	0.8	0.5	0.3	0.3	0.3
92.5°	0.3	0.5	0.8	1.6	2.3	1.6	0.8	0.5	0.3	0.3	0.3
95°	0.5	0.5	0.8	1.6	2.3	1.6	0.8	0.5	0.5	0.3	0.3
97.5°	0.5	0.5	0.8	1.6	2.3	1.6	0.8	0.5	0.5	0.3	0.3
100°	0.5	0.5	0.8	1.6	2.3	1.6	0.8	0.5	0.5	0.5	0.3
102.5°	0.5	0.8	1.1	2.0	2.3	2.0	1.1	0.8	0.5	0.5	0.3
105°	0.5	0.8	1.1	2.0	2.5	2.0	1.1	0.8	0.5	0.5	0.3
107.5°	0.5	0.8	1.1	2.0	2.5	2.0	1.1	0.8	0.5	0.5	0.5
110°	0.5	0.8	1.1	2.0	2.5	2.0	1.1	0.8	0.5	0.5	0.5

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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°	0.5	0.8	1.1	2.0	*2.5*	2.0	1.1	0.8	0.5	0.5	0.5
115°	0.8	0.8	1.1	2.0	*2.5*	2.0	1.1	0.8	0.8	0.5	0.5
117.5°	0.8	0.8	1.1	2.0	*2.5*	2.0	1.1	0.8	0.8	0.8	0.5
120°	0.8	0.8	1.4	2.0	*2.5*	2.0	1.4	0.8	0.8	0.8	0.5
122.5°	1.1	1.1	1.4	2.3	*2.5*	2.3	1.4	1.1	1.1	1.1	0.8
125°	1.1	1.1	1.6	2.3	*2.8*	2.3	1.6	1.1	1.1	1.4	1.1
127.5°	1.4	1.4	1.6	2.3	*2.8*	2.3	1.6	1.4	1.4	1.4	1.1
130°	1.6	1.4	1.6	2.5	*2.8*	2.5	1.6	1.4	1.6	1.6	1.4
132.5°	2.0	1.6	2.0	2.8	*3.1*	2.8	2.0	1.6	2.0	2.3	2.0
135°	2.3	1.6	2.3	2.5	*3.1*	2.5	2.3	1.6	2.3	2.5	2.0
137.5°	2.5	2.0	2.3	2.8	*3.1*	2.8	2.3	2.0	2.5	2.8	2.5
140°	2.8	2.3	2.3	2.8	*3.4*	2.8	2.3	2.3	2.8	2.8	2.8
142.5°	3.1	2.5	2.5	3.1	*3.4*	3.1	2.5	2.5	3.1	3.1	3.1
145°	3.4	3.1	2.8	3.1	*3.6*	3.1	2.8	3.1	3.4	3.1	3.4
147.5°	3.4	3.1	3.1	3.4	*3.9*	3.4	3.1	3.1	3.4	3.4	3.6
150°	3.6	3.6	3.4	3.6	*4.2*	3.6	3.4	3.6	3.6	3.6	3.9
152.5°	3.9	3.9	3.9	4.2	*4.4*	4.2	3.9	3.9	3.9	3.9	4.2
155°	4.4	4.4	4.4	4.7	*5.0*	4.7	4.4	4.4	4.4	4.2	4.7
157.5°	5.0	5.3	5.3	5.6	*5.9*	5.6	5.3	5.3	5.0	5.0	5.3
160°	6.2	6.2	6.4	6.7	*7.0*	6.7	6.4	6.2	6.2	5.9	6.2
162.5°	6.7	6.7	7.3	7.5	*8.1*	7.5	7.3	6.7	6.7	6.7	6.7
165°	7.5	7.5	8.1	8.6	*9.2*	8.6	8.1	7.5	7.5	7.3	7.3
167.5°	8.1	8.1	8.6	9.5	*10.1*	9.5	8.6	8.1	8.1	7.8	7.8
170°	8.3	8.6	9.2	10.1	*10.6*	10.1	9.2	8.6	8.3	8.3	8.1
172.5°	9.2	9.2	10.1	10.9	*11.4*	10.9	10.1	9.2	9.2	8.9	8.9
175°	9.8	10.1	10.6	11.4	*12.0*	11.4	10.6	10.1	9.8	9.5	9.5
177.5°	9.8	10.3	10.9	11.7	*12.2*	11.7	10.9	10.3	9.8	9.5	9.5
180°	10.3	10.3	10.3	10.3	*10.3*	10.3	10.3	10.3	10.3	10.3	10.3

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	14875.4	14875.4	14875.4	14875.4	14875.4	14875.4
2.5°	14443.4	14433.8	14443.4	14544.3	14675.7	14866.7
5°	14107.8	14055.4	14107.8	14219.6	14460.9	14824.7
7.5°	13716.9	13686.6	13716.9	13904.2	14209.0	14724.0
10°	*13305.6*	*13236.7*	*13305.6*	*13517.0*	*13876.5*	*14570.3*
12.5°	12798.5	12707.2	12798.5	13016.9	13470.4	14325.1
15°	12153.5	12073.5	12153.5	12396.0	12922.0	13962.5
17.5°	11461.5	11388.9	11461.5	11672.1	12251.4	13451.5
20°	10592.4	10535.5	10592.4	10890.3	11458.7	12792.8
22.5°	9680.5	9627.2	9680.5	9945.2	10536.8	11967.2
25°	8607.7	8578.7	8607.7	8903.3	9438.3	11001.6
27.5°	7448.4	7399.1	7448.4	7757.8	8304.2	9865.7
30°	6264.1	6182.3	6264.1	6540.8	7030.0	8604.1
32.5°	5105.6	5046.8	5105.6	5302.8	5814.1	7191.5
35°	3986.0	3927.1	3986.0	4164.2	4666.3	5888.3
37.5°	3106.0	3001.9	3106.0	3220.3	3627.9	4621.1
40°	2355.6	2338.9	2355.6	2499.6	2760.3	3595.2
42.5°	1917.7	1872.2	1917.7	1979.6	2174.8	2724.1
45°	1573.5	1555.6	1573.5	1620.3	1751.5	2129.4
47.5°	1353.2	1360.9	1353.2	1383.2	1481.4	1734.2
50°	1188.8	1193.5	1188.8	1203.1	1268.6	1456.6
52.5°	1067.7	1063.6	1067.7	1069.2	1109.9	1251.3
55°	960.6	955.4	960.6	957.6	987.7	1078.4
57.5°	866.9	870.8	866.9	862.7	879.0	947.0
60°	783.3	786.9	783.3	780.2	790.8	830.7
62.5°	712.6	714.9	712.6	712.4	710.5	741.1
65°	649.7	652.2	649.7	646.3	643.2	657.5
67.5°	589.4	589.4	589.4	583.5	578.8	592.7
70°	532.7	532.5	532.7	523.3	519.7	523.9
72.5°	464.7	471.4	464.7	457.7	457.4	458.0
75°	398.6	406.4	398.6	394.2	389.1	393.3
77.5°	331.6	343.7	331.6	328.0	325.6	322.7
80°	263.0	276.2	263.0	256.9	253.3	258.0
82.5°	194.4	204.2	194.4	186.9	186.6	188.9
85°	115.7	131.4	115.7	109.0	111.6	109.0
87.5°	37.1	47.4	37.1	35.4	39.1	38.2
90°	0.3	0.3	0.3	0.3	0.3	0.3
92.5°	0.3	0.3	0.3	0.3	0.3	0.3
95°	0.3	0.3	0.3	0.3	0.3	0.5
97.5°	0.3	0.5	0.3	0.3	0.3	0.5
100°	0.3	0.5	0.3	0.3	0.5	0.5
102.5°	0.3	0.5	0.3	0.3	0.5	0.5
105°	0.3	0.5	0.3	0.3	0.5	0.5
107.5°	0.3	0.5	0.3	0.5	0.5	0.5
110°	0.3	0.5	0.3	0.5	0.5	0.5

TEST NUMBER: P1433458
CATALOG NUMBER: EHBR1-18-UNV-TASM-L935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.3	0.5	0.3	0.5	0.5	0.5
115°	0.3	0.5	0.3	0.5	0.5	0.8
117.5°	0.3	0.5	0.3	0.5	0.8	0.8
120°	0.3	0.5	0.3	0.5	0.8	0.8
122.5°	0.5	0.5	0.5	0.8	1.1	1.1
125°	0.5	0.8	0.5	1.1	1.4	1.1
127.5°	0.5	0.8	0.5	1.1	1.4	1.4
130°	0.8	0.8	0.8	1.4	1.6	1.6
132.5°	1.1	1.1	1.1	2.0	2.3	2.0
135°	1.4	1.1	1.4	2.0	2.5	2.3
137.5°	1.6	1.4	1.6	2.5	2.8	2.5
140°	2.3	2.0	2.3	2.8	2.8	2.8
142.5°	2.5	2.5	2.5	3.1	3.1	3.1
145°	3.1	3.1	3.1	3.4	3.1	3.4
147.5°	3.6	3.6	3.6	3.6	3.4	3.4
150°	4.2	4.2	4.2	3.9	3.6	3.6
152.5°	4.4	4.7	4.4	4.2	3.9	3.9
155°	5.0	5.3	5.0	4.7	4.2	4.4
157.5°	5.6	6.2	5.6	5.3	5.0	5.0
160°	6.4	6.7	6.4	6.2	5.9	6.2
162.5°	7.0	7.3	7.0	6.7	6.7	6.7
165°	7.5	7.8	7.5	7.3	7.3	7.5
167.5°	7.8	7.8	7.8	7.8	7.8	8.1
170°	8.1	8.3	8.1	8.1	8.3	8.3
172.5°	8.6	8.9	8.6	8.9	8.9	9.2
175°	9.2	9.5	9.2	9.5	9.5	9.8
177.5°	9.5	9.8	9.5	9.5	9.5	9.8
180°	10.3	10.3	10.3	10.3	10.3	10.3

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

Scaled Data Report

TEST NUMBER: P1433458
CATALOG NUMBER: EHBR1-18-UNV-TASM-L935

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	16.40	17.61	16.77	17.93	18.24	15.72	16.93	16.09	17.24	17.56
	3H	18.04	19.12	18.43	19.45	19.82	17.67	18.75	18.05	19.08	19.45
	4H	18.75	19.75	19.15	20.10	20.49	18.53	19.53	18.94	19.89	20.27
	6H	19.32	20.24	19.74	20.61	21.01	19.28	20.20	19.70	20.58	20.97
	8H	19.52	20.39	19.96	20.79	21.20	19.57	20.44	20.01	20.83	21.24
	12H	19.65	20.48	20.08	20.86	21.30	19.77	20.60	20.20	20.98	21.42
4H	2H	16.87	17.87	17.27	18.22	18.61	16.35	17.35	16.76	17.71	18.09
	3H	18.78	19.60	19.19	20.01	20.41	18.53	19.35	18.94	19.76	20.17
	4H	19.63	20.37	20.07	20.80	21.24	19.53	20.27	19.96	20.69	21.14
	6H	20.36	21.00	20.82	21.44	21.92	20.42	21.06	20.89	21.51	21.98
	8H	20.62	21.21	21.09	21.66	22.14	20.77	21.36	21.24	21.81	22.29
	12H	20.79	21.31	21.27	21.79	22.27	21.02	21.54	21.51	22.03	22.50
8H	4H	19.94	20.54	20.42	20.99	21.46	19.87	20.46	20.34	20.91	21.39
	6H	20.82	21.30	21.33	21.80	22.29	20.92	21.40	21.43	21.90	22.39
	8H	21.17	21.60	21.70	22.12	22.62	21.37	21.80	21.89	22.32	22.81
	12H	21.43	21.81	21.95	22.31	22.88	21.73	22.10	22.24	22.60	23.18
12H	4H	19.97	20.50	20.46	20.98	21.46	19.90	20.42	20.39	20.91	21.38
	6H	20.89	21.32	21.42	21.84	22.34	20.99	21.43	21.52	21.94	22.44
	8H	21.31	21.68	21.82	22.18	22.76	21.51	21.89	22.03	22.38	22.96

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

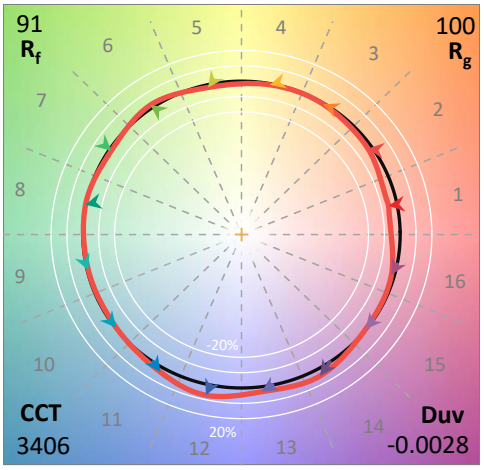
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

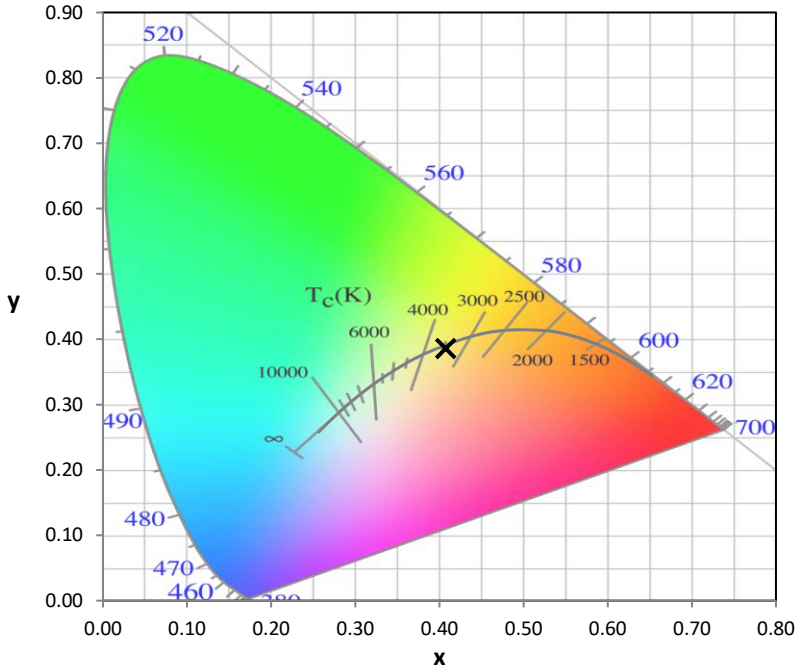
Stabilization Time:	35M
Operation Time:	1H 35M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-6

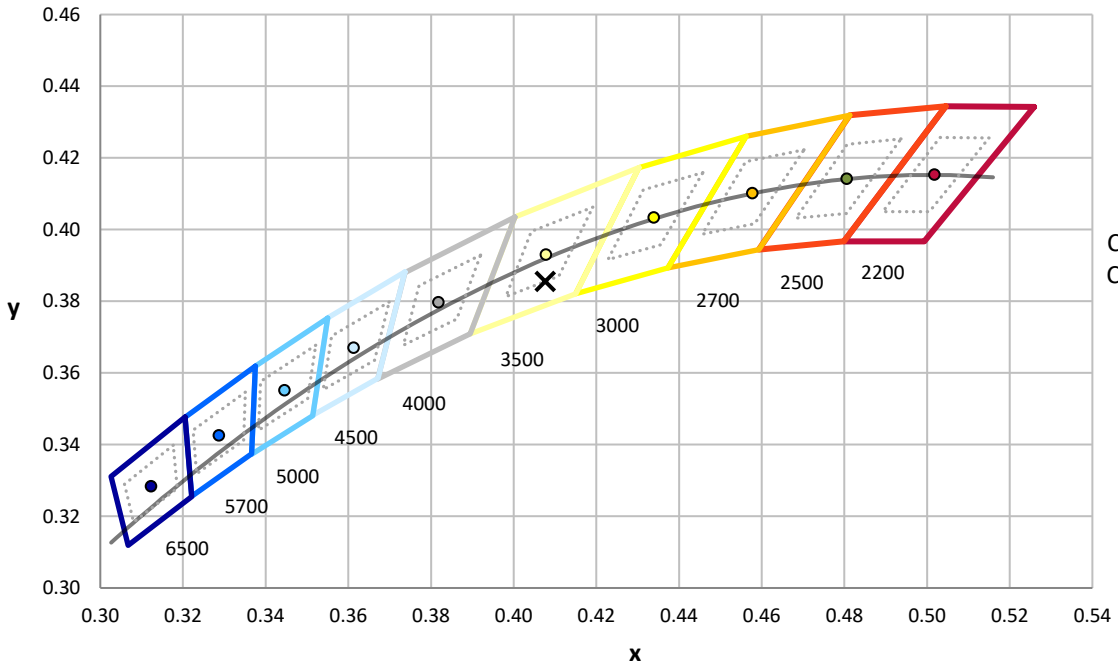
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

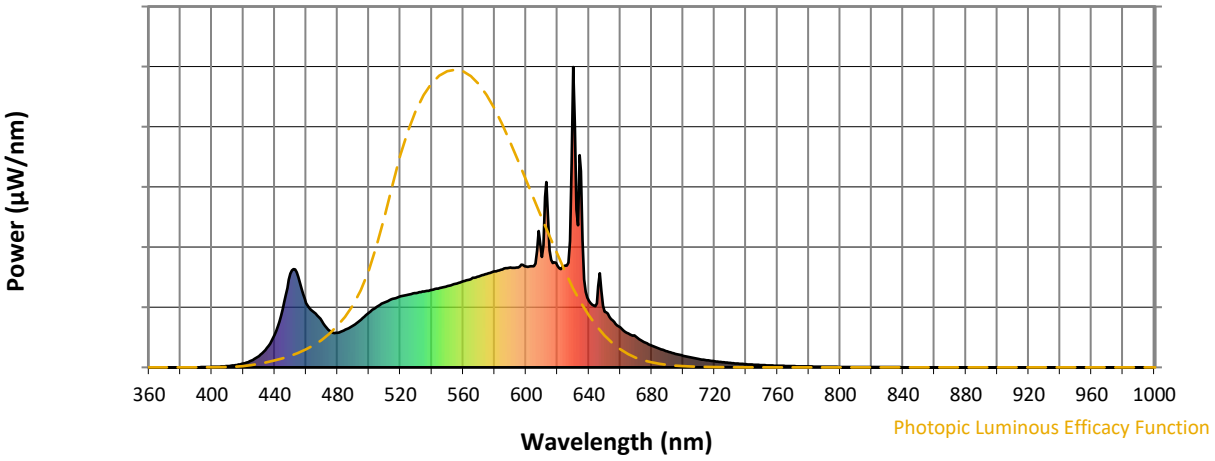


CCT = 3406K
CIE x = 0.4076
CIE y = 0.3856
Duv = -0.0028

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

Photopic Flux vs. Wavelength

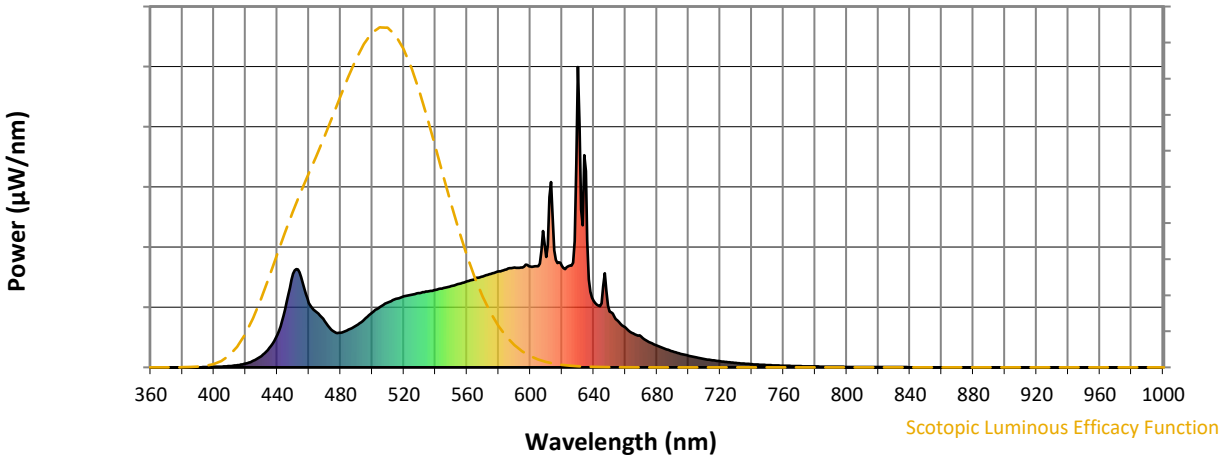


Photopic Lumens: NR

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

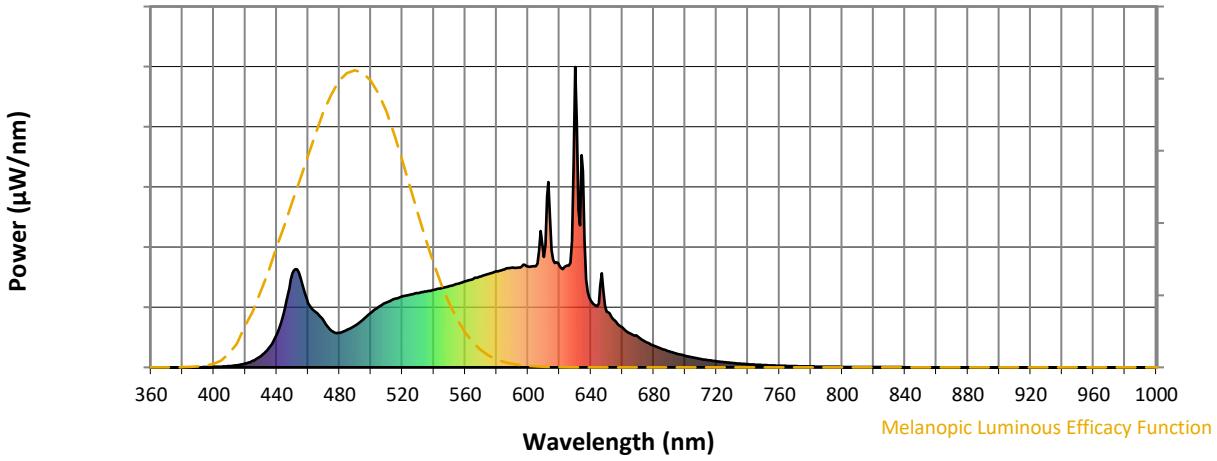


Scotopic Lumens: NR **S/P: 1.62**

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			

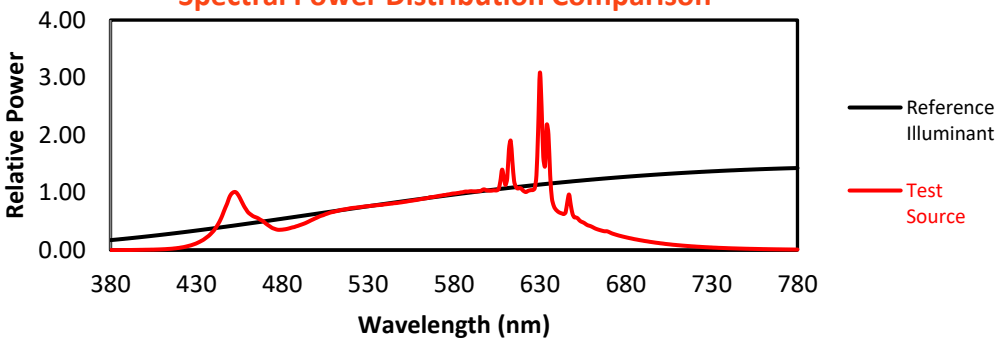
REPORT NUMBER: SP1-2506-472-6

TM-30-18

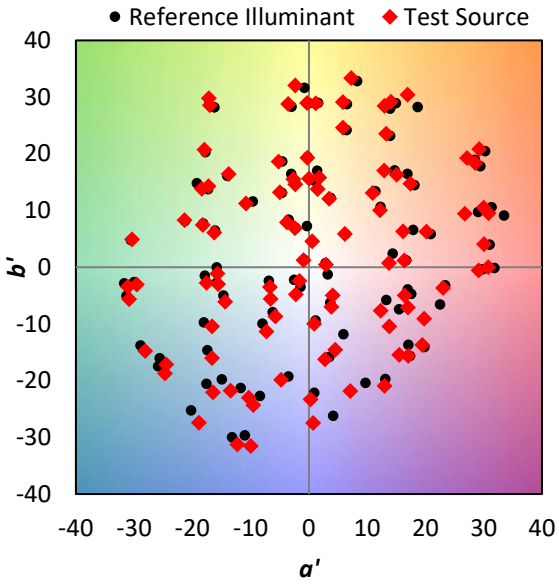
Summary

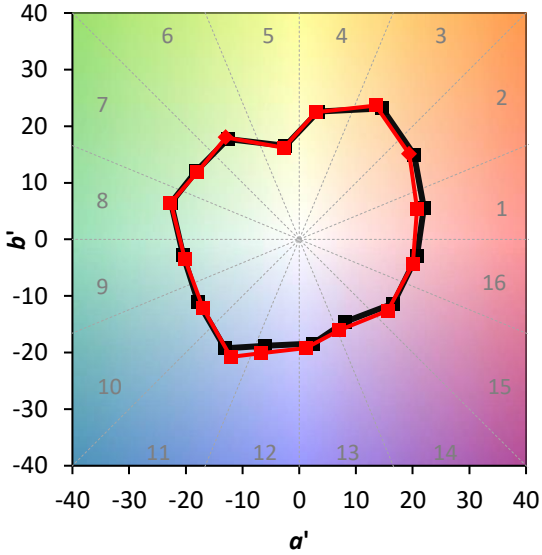
R_f = 91.3
R_g = 100
CIE R_a = 94.6
R_9 = 63.8

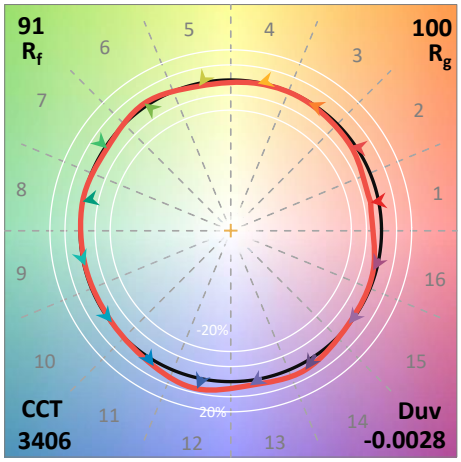
Spectral Power Distribution Comparison

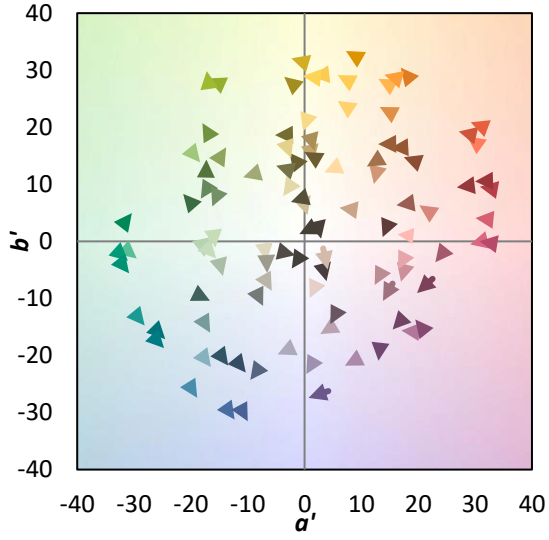


Color Vector Graphics







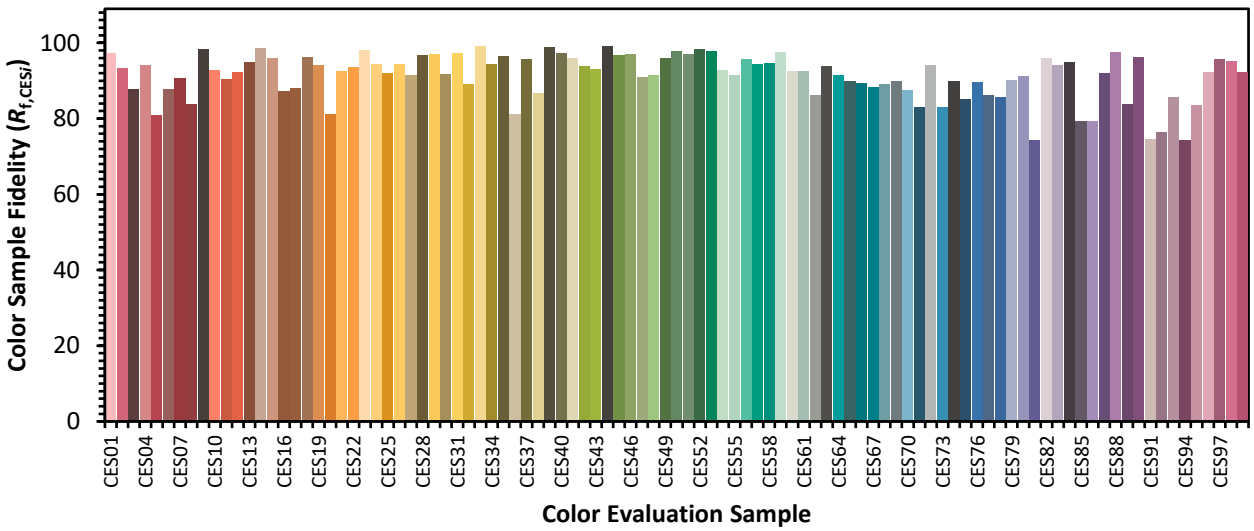


REPORT NUMBER: SP1-2506-472-6

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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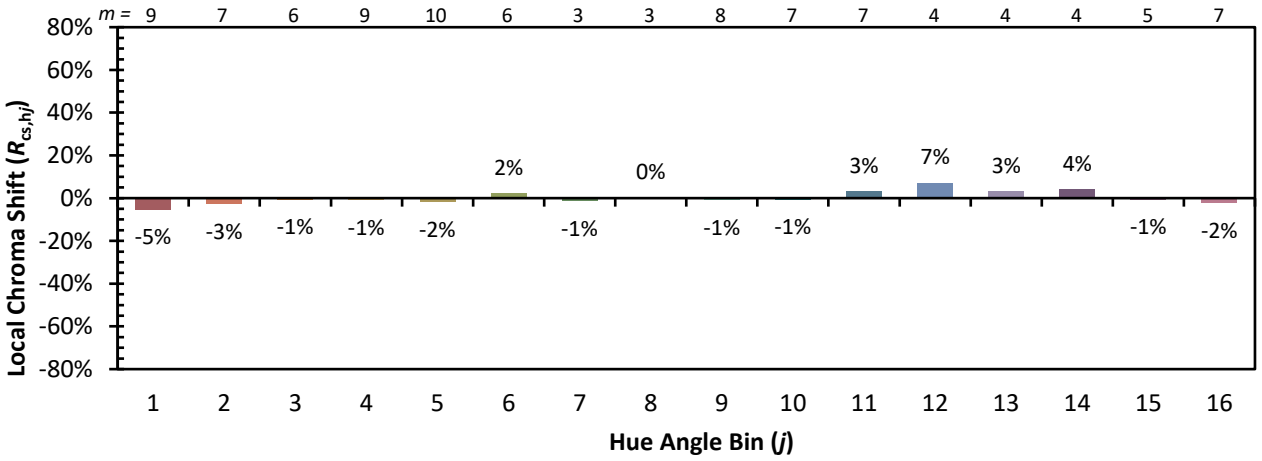
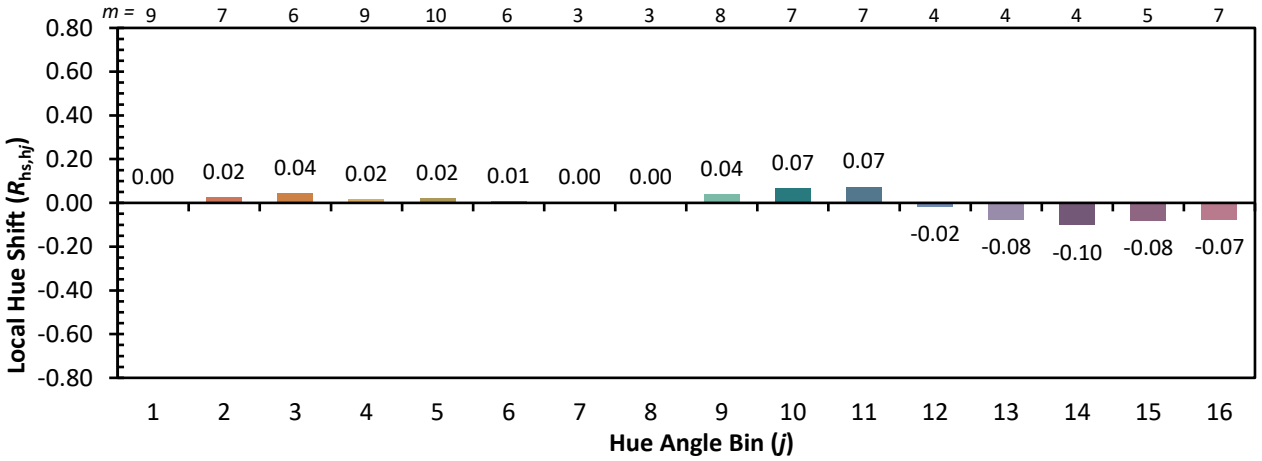
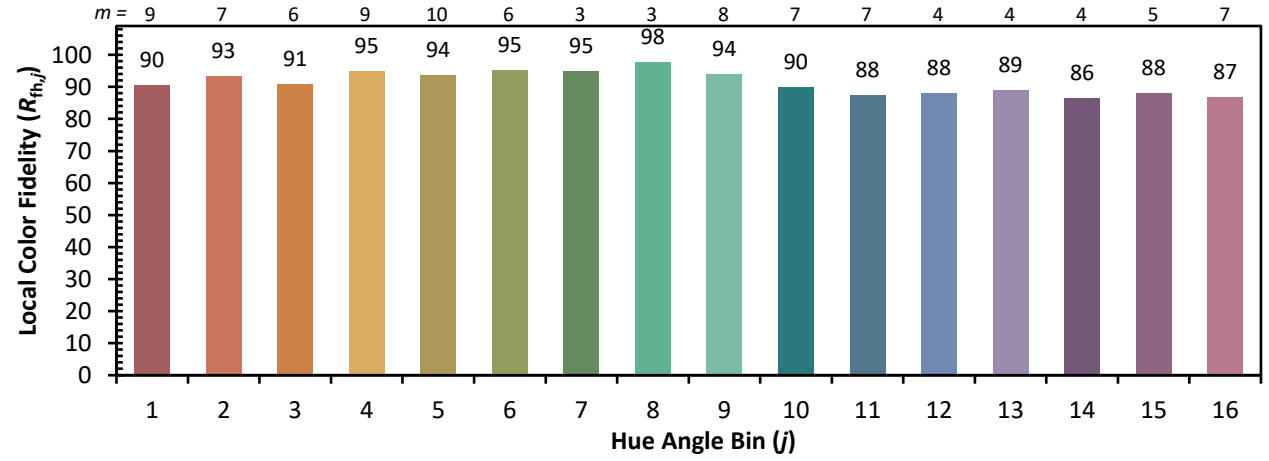
Color Rendition by Hue-Angle Bin







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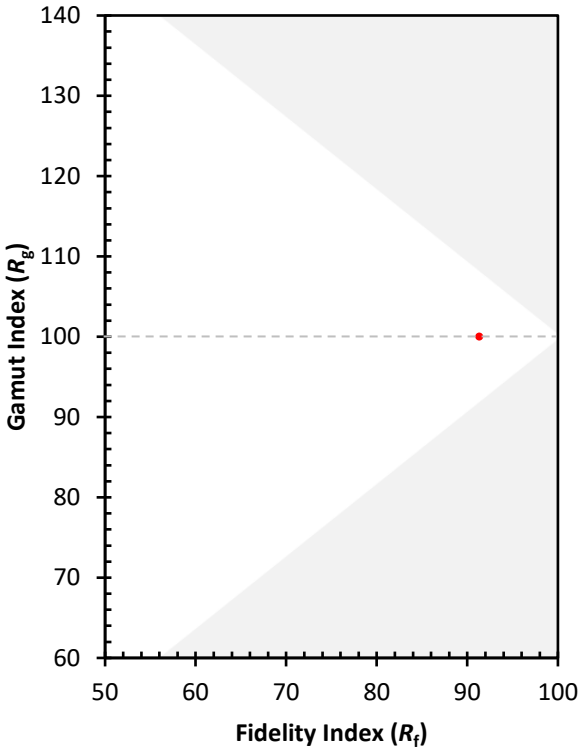
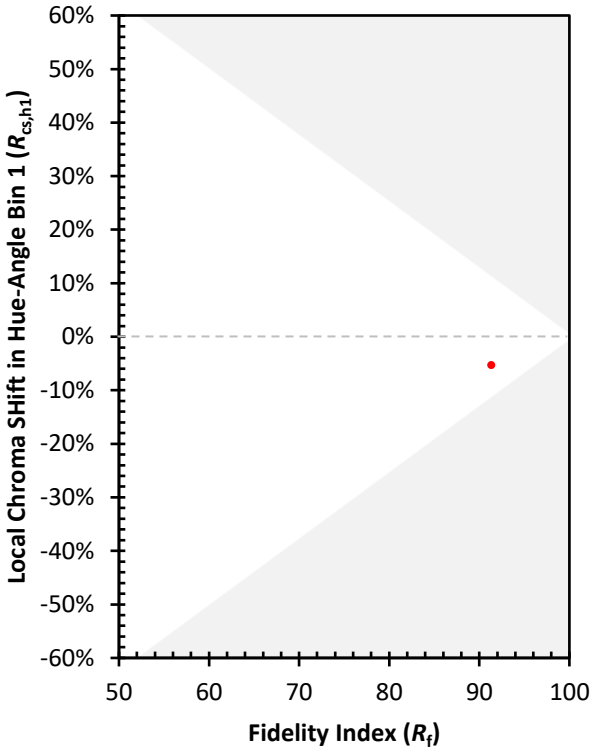
Measure Comparisons





(END OF REPORT)