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: P1432305

Luminaire Tested: EHBR1-18-UNV-TASM-L830-UPL40

Issue Date: 3/20/2026

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1432305
	REPORT IS A COMBINATION OF REPORTS P1431682 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-TASM-L830-UPL40
Description:	Elevate Round Highbay at, 18000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	20823.9 lumens
Efficiency:	N/A
Efficacy:	166.2 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):	125.3
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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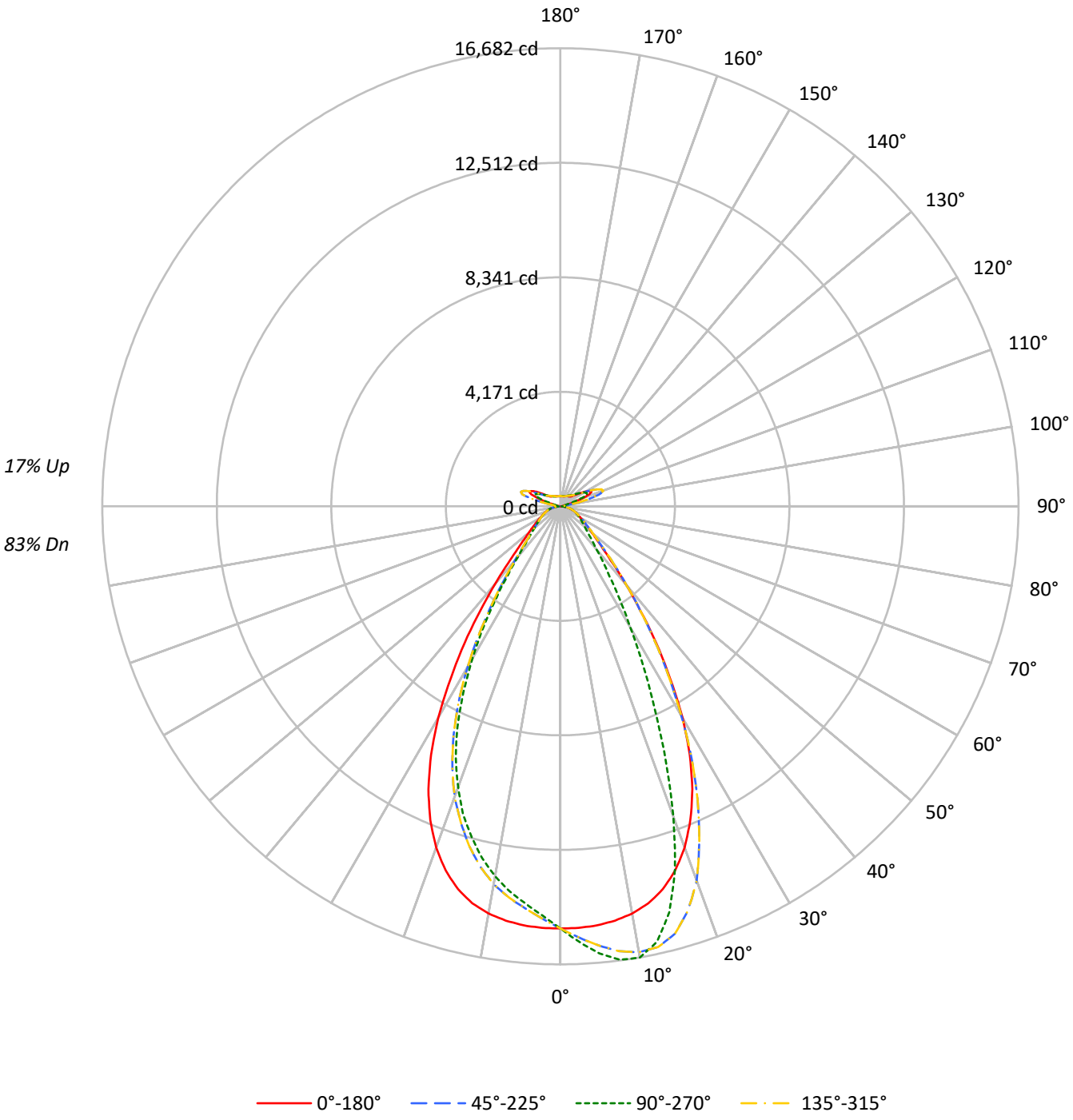
Luminous Intensity Polar Plot



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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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	83
1	108	104	101	98	103	100	97	95	93	91	89	86	84	83	80	79	78	74
2	100	94	89	85	96	91	87	83	85	81	78	79	76	74	74	72	70	67
3	94	86	80	75	90	83	78	73	78	74	70	73	70	67	69	66	64	61
4	88	79	72	67	85	77	70	66	72	67	63	68	64	61	64	61	58	56
5	83	73	66	61	79	71	64	60	67	61	57	63	59	55	60	56	53	51
6	78	67	60	55	75	65	59	54	62	57	53	59	54	51	56	52	49	47
7	73	62	56	51	71	61	54	50	58	52	48	55	50	47	53	49	46	44
8	69	58	51	47	67	57	50	46	54	49	45	52	47	44	49	45	42	41
9	65	54	48	43	63	53	47	43	51	45	42	49	44	41	47	43	40	38
10	62	51	45	40	60	50	44	40	48	43	39	46	41	38	44	40	37	36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	72198	72198	72198	72198
5°	71759	76553	71759	68035
10°	70876	78518	70876	64389
15°	68784	72968	68784	59478
20°	64330	58510	64330	52978
25°	56937	40539	56937	44398
30°	46231	26373	46231	33219
35°	33158	17080	33158	22114
40°	21438	11773	21438	13947
45°	13602	9119	13602	9937
50°	10101	7749	10101	8277
55°	8247	7059	8247	7307
60°	7141	6725	7141	6765
65°	6510	6485	6510	6458
70°	6170	6354	6170	6272
75°	5769	6147	5769	5962
80°	5070	5803	5070	5425
85°	3279	4143	3279	3951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 19123 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1461.8	7.0
10°-20°	3977.0	19.1
20°-30°	4664.2	22.4
30°-40°	3243.7	15.6
40°-50°	1611.9	7.7
50°-60°	964.1	4.6
60°-70°	678.6	3.3
70°-80°	437.1	2.1
80°-90°	145.3	0.7
90°-100°	96.4	0.5
100°-110°	634.3	3.0
110°-120°	1172.7	5.6
120°-130°	696.3	3.3
130°-140°	420.1	2.0
140°-150°	289.7	1.4
150°-160°	188.1	0.9
160°-170°	107.1	0.5
170°-180°	35.4	0.2
0°-30°	10103.1	48.5
0°-40°	13346.7	64.1
0°-60°	15922.8	76.5
0°-90°	17183.8	82.5
90°-120°	1903.5	9.1
90°-150°	3309.6	15.9
90°-180°	3640.0	17.5
0°-180°	20823.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	15374	15374	15374	15374	15374	
5°	15322	16345	15322	14526	15322	1454
15°	14430	15308	14430	12478	14430	4033
25°	11370	8096	11370	8866	11370	5148
35°	6086	3135	6086	4059	6086	3799
45°	2201	1475	2201	1608	2201	1801
55°	1114	954	1114	987	1114	1019
65°	680	677	680	674	680	682
75°	406	433	406	420	406	427
85°	113	142	113	136	113	125
90°	26	29	26	26	26	17
95°	51	47	51	45	51	55
105°	291	146	291	221	291	393
115°	1248	1064	1248	1014	1248	1138
125°	798	834	798	732	798	735
135°	503	580	503	534	503	399
145°	454	474	454	441	454	284
155°	402	419	402	389	402	188
165°	375	385	375	367	375	107
175°	371	376	371	365	371	35
180°	370	370	370	370	370	

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TEST NUMBER: P1432305
CATALOG NUMBER: EHBR1-18-UNV-TASM-L830-UPL40

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0
2.5°	15365.0	15563.7	15724.5	15830.7	15883.1	15830.7	15724.5	15563.7	15365.0	15167.6	15031.8
5°	15321.6	15719.4	16056.4	16276.9	16345.2	16276.9	16056.4	15719.4	15321.6	14945.7	14696.2
7.5°	15217.5	15837.3	16338.1	16595.5	16658.3	16595.5	16338.1	15837.3	15217.5	14685.3	14370.2
10°	15058.6	15911.7	16490.3	16674.7	16682.2	16674.7	16490.3	15911.7	15058.6	14341.7	13970.1
12.5°	14805.2	15885.2	16439.2	16378.7	16241.1	16378.7	16439.2	15885.2	14805.2	13921.9	13453.2
15°	14430.5	15728.0	16116.1	15623.4	15308.3	15623.4	16116.1	15728.0	14430.5	13355.1	12811.5
17.5°	13902.4	15434.0	15441.5	14466.8	13872.3	14466.8	15441.5	15434.0	13902.4	12662.1	12063.3
20°	13221.6	14962.3	14512.6	12729.9	12025.6	12729.9	14512.6	14962.3	13221.6	11842.8	11255.3
22.5°	12368.3	14326.4	13219.0	10982.5	10021.7	10982.5	13219.0	14326.4	12368.3	10890.0	10278.5
25°	11370.3	13547.2	11827.5	9078.7	8095.7	9078.7	11827.5	13547.2	11370.3	9754.7	9201.8
27.5°	10196.4	12559.5	10345.8	7418.7	6511.8	7418.7	10345.8	12559.5	10196.4	8582.6	8017.9
30°	8892.5	11293.3	8803.7	5908.1	5072.9	5908.1	8803.7	11293.3	8892.5	7265.7	6760.0
32.5°	7432.6	10052.3	7322.7	4733.9	4026.5	4733.9	7322.7	10052.3	7432.6	6009.0	5480.6
35°	6085.7	8499.5	5987.4	3719.8	3134.8	3719.8	5987.4	8499.5	6085.7	4822.7	4303.8
37.5°	4776.0	7032.4	4772.9	2995.3	2542.7	2995.3	4772.9	7032.4	4776.0	3749.5	3328.2
40°	3715.7	5498.8	3739.6	2391.0	2040.5	2391.0	3739.6	5498.8	3715.7	2852.8	2583.3
42.5°	2815.4	4204.6	2939.4	1962.4	1733.2	1962.4	2939.4	4204.6	2815.4	2247.7	2046.0
45°	2200.8	3094.1	2295.3	1655.6	1475.4	1655.6	2295.3	3094.1	2200.8	1810.2	1674.6
47.5°	1792.3	2391.3	1860.3	1420.1	1293.8	1420.1	1860.3	2391.3	1792.3	1531.1	1429.6
50°	1505.4	1834.9	1544.6	1239.6	1154.9	1239.6	1544.6	1834.9	1505.4	1311.1	1243.4
52.5°	1293.2	1496.5	1315.4	1104.8	1047.6	1104.8	1315.4	1496.5	1293.2	1147.1	1105.0
55°	1114.5	1258.1	1143.9	993.5	953.9	993.5	1143.9	1258.1	1114.5	1020.8	989.7
57.5°	978.8	1067.2	993.5	898.6	872.4	898.6	993.5	1067.2	978.8	908.4	891.7
60°	858.5	924.3	876.7	815.9	808.4	815.9	876.7	924.3	858.5	817.3	806.3
62.5°	765.9	807.4	775.2	741.5	734.8	741.5	775.2	807.4	765.9	734.3	736.3
65°	679.5	718.1	692.8	674.6	676.9	674.6	692.8	718.1	679.5	664.8	668.0
67.5°	612.6	632.7	621.8	611.5	614.0	611.5	621.8	632.7	612.6	598.2	603.1
70°	541.4	563.1	551.8	553.2	557.5	553.2	551.8	563.1	541.4	537.1	540.9
72.5°	473.3	490.1	486.3	489.8	494.4	489.8	486.3	490.1	473.3	472.8	473.0
75°	406.4	419.2	420.9	425.8	433.0	425.8	420.9	419.2	406.4	402.1	407.4
77.5°	333.6	348.0	353.4	360.1	370.7	360.1	353.4	348.0	333.6	336.5	339.0
80°	266.7	273.3	285.4	290.3	305.3	290.3	285.4	273.3	266.7	261.8	265.6
82.5°	195.2	201.2	211.6	220.8	229.5	220.8	211.6	201.2	195.2	192.9	193.1
85°	112.7	122.0	128.9	139.9	142.4	139.9	128.9	122.0	112.7	115.3	112.7
87.5°	39.5	42.3	48.4	52.7	53.0	52.7	48.4	42.3	39.5	40.4	36.6
90°	26.5	45.0	77.6	42.1	28.6	42.1	77.6	45.0	26.5	46.7	73.0
92.5°	34.6	61.1	109.9	56.2	38.7	56.2	109.9	61.1	34.6	60.8	117.4
95°	51.1	75.2	140.1	62.2	46.7	62.2	140.1	75.2	51.1	81.0	163.7
97.5°	79.2	93.4	158.3	66.3	56.9	66.3	158.3	93.4	79.2	99.2	188.0
100°	105.6	105.6	289.4	76.3	64.9	76.3	289.4	105.6	105.6	121.7	293.0
102.5°	160.0	206.7	671.2	153.4	79.1	153.4	671.2	206.7	160.0	228.7	622.0
105°	291.2	473.1	1181.9	397.6	145.9	397.6	1181.9	473.1	291.2	478.9	1108.4
107.5°	551.6	882.9	1523.0	785.2	341.7	785.2	1523.0	882.9	551.6	848.3	1461.9
110°	882.7	1234.1	1662.3	1075.9	693.0	1075.9	1662.3	1234.1	882.7	1165.2	1532.5

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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°	1149.1	1375.4	1624.0	1193.0	*959.4*	1193.0	1624.0	1375.4	1149.1	1286.3	1468.0
115°	1248.3	1355.2	1450.4	1188.9	*1064.3*	1188.9	1450.4	1355.2	1248.3	1256.0	1310.5
117.5°	1205.8	1240.2	1252.6	1116.3	*1070.4*	1116.3	1252.6	1240.2	1205.8	1129.2	1112.7
120°	1088.8	1074.7	1055.0	1009.3	*1009.9*	1009.3	1055.0	1074.7	1088.8	985.9	929.0
122.5°	941.8	911.4	891.6	900.6	*927.1*	900.6	891.6	911.4	941.8	838.8	796.1
125°	798.5	768.1	776.8	807.7	*834.5*	807.7	776.8	768.1	798.5	711.9	701.5
127.5°	677.6	663.5	694.0	728.9	*751.7*	728.9	694.0	663.5	677.6	623.1	634.9
130°	591.1	594.8	635.5	664.7	*679.1*	664.7	635.5	594.8	591.1	564.8	592.8
132.5°	536.9	552.8	591.4	616.5	*624.9*	616.5	591.4	552.8	536.9	529.1	563.1
135°	502.9	526.5	561.5	577.9	*580.5*	577.9	561.5	526.5	502.9	505.3	536.9
137.5°	483.1	506.7	533.2	545.9	*542.1*	545.9	533.2	506.7	483.1	489.3	513.3
140°	471.2	494.9	506.9	521.7	*518.2*	521.7	506.9	494.9	471.2	475.2	493.4
142.5°	459.4	481.0	487.1	497.7	*493.9*	497.7	487.1	481.0	459.4	463.4	475.5
145°	453.6	469.5	465.2	479.5	*474.1*	479.5	465.2	469.5	453.6	455.3	461.6
147.5°	443.5	455.3	449.2	461.6	*456.2*	461.6	449.2	455.3	443.5	443.5	445.8
150°	431.6	439.7	431.4	445.8	*444.4*	445.8	431.4	439.7	431.6	429.7	431.9
152.5°	415.8	423.9	415.8	432.2	*430.5*	432.2	415.8	423.9	415.8	413.7	416.1
155°	402.2	406.3	402.2	418.6	*418.9*	418.6	402.2	406.3	402.2	401.9	402.5
157.5°	392.7	395.0	392.9	407.5	*407.7*	407.5	392.9	395.0	392.7	392.7	392.9
160°	383.9	387.9	386.1	398.5	*398.8*	398.5	386.1	387.9	383.9	385.5	385.8
162.5°	380.3	380.3	378.9	391.3	*391.8*	391.3	378.9	380.3	380.3	380.3	382.4
165°	375.2	377.1	373.7	382.3	*385.0*	382.3	373.7	377.1	375.2	376.8	376.8
167.5°	373.7	371.7	372.2	379.2	*381.8*	379.2	372.2	371.7	373.7	375.4	375.4
170°	369.9	370.2	368.9	375.7	*378.3*	375.7	368.9	370.2	369.9	372.0	373.7
172.5°	370.8	370.8	367.7	372.5	*377.1*	372.5	367.7	370.8	370.8	372.5	374.5
175°	371.4	369.7	368.2	371.1	*375.7*	371.1	368.2	369.7	371.4	371.1	371.1
177.5°	369.4	370.0	370.6	373.4	*380.0*	373.4	370.6	370.0	369.4	371.1	371.1
180°	370.0	370.0	370.0	370.0	*370.0*	370.0	370.0	370.0	370.0	370.0	370.0

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0
2.5°	14927.5	14917.7	14927.5	15031.8	15167.6	15365.0
5°	14580.6	14526.5	14580.6	14696.2	14945.7	15321.6
7.5°	14176.7	14145.3	14176.7	14370.2	14685.3	15217.5
10°	*13751.5*	*13680.4*	*13751.5*	*13970.1*	*14341.7*	*15058.6*
12.5°	13227.5	13133.1	13227.5	13453.2	13921.9	14805.2
15°	12560.9	12478.2	12560.9	12811.5	13355.1	14430.5
17.5°	11845.7	11770.7	11845.7	12063.3	12662.1	13902.4
20°	10947.4	10888.6	10947.4	11255.3	11842.8	13221.6
22.5°	10005.0	9949.9	10005.0	10278.5	10890.0	12368.3
25°	8896.2	8866.2	8896.2	9201.8	9754.7	11370.3
27.5°	7698.1	7647.1	7698.1	8017.9	8582.6	10196.4
30°	6474.1	6389.6	6474.1	6760.0	7265.7	8892.5
32.5°	5276.8	5216.0	5276.8	5480.6	6009.0	7432.6
35°	4119.6	4058.8	4119.6	4303.8	4822.7	6085.7
37.5°	3210.1	3102.6	3210.1	3328.2	3749.5	4776.0
40°	2434.6	2417.3	2434.6	2583.3	2852.8	3715.7
42.5°	1982.0	1935.0	1982.0	2046.0	2247.7	2815.4
45°	1626.2	1607.8	1626.2	1674.6	1810.2	2200.8
47.5°	1398.5	1406.6	1398.5	1429.6	1531.1	1792.3
50°	1228.7	1233.6	1228.7	1243.4	1311.1	1505.4
52.5°	1103.5	1099.2	1103.5	1105.0	1147.1	1293.2
55°	992.8	987.4	992.8	989.7	1020.8	1114.5
57.5°	896.0	900.0	896.0	891.7	908.4	978.8
60°	809.5	813.3	809.5	806.3	817.3	858.5
62.5°	736.5	738.9	736.5	736.3	734.3	765.9
65°	671.4	674.1	671.4	668.0	664.8	679.5
67.5°	609.1	609.1	609.1	603.1	598.2	612.6
70°	550.6	550.3	550.6	540.9	537.1	541.4
72.5°	480.3	487.2	480.3	473.0	472.8	473.3
75°	412.0	420.0	412.0	407.4	402.1	406.4
77.5°	342.7	355.2	342.7	339.0	336.5	333.6
80°	271.8	285.4	271.8	265.6	261.8	266.7
82.5°	200.9	211.0	200.9	193.1	192.9	195.2
85°	119.6	135.8	119.6	112.7	115.3	112.7
87.5°	38.3	49.0	38.3	36.6	40.4	39.5
90°	42.7	26.5	42.7	73.0	46.7	26.5
92.5°	64.9	38.6	64.9	117.4	60.8	34.6
95°	74.9	44.7	74.9	163.7	81.0	51.1
97.5°	83.0	57.0	83.0	188.0	99.2	79.2
100°	97.1	75.2	97.1	293.0	121.7	105.6
102.5°	206.2	127.8	206.2	622.0	228.7	160.0
105°	434.3	220.6	434.3	1108.4	478.9	291.2
107.5°	777.4	382.1	777.4	1461.9	848.3	551.6
110°	1031.7	713.1	1031.7	1532.5	1165.2	882.7

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

Scaled Data Report

TEST NUMBER: P1432305
CATALOG NUMBER: EHBR1-18-UNV-TASM-L830-UPL40

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1108.4	963.4	1108.4	1468.0	1286.3	1149.1
115°	1066.1	1013.8	1066.1	1310.5	1256.0	1248.3
117.5°	973.1	979.5	973.1	1112.7	1129.2	1205.8
120°	866.2	906.8	866.2	929.0	985.9	1088.8
122.5°	767.5	816.1	767.5	796.1	838.8	941.8
125°	682.8	731.5	682.8	701.5	711.9	798.5
127.5°	624.2	656.8	624.2	634.9	623.1	677.6
130°	578.1	606.4	578.1	592.8	564.8	591.1
132.5°	546.1	564.3	546.1	563.1	529.1	536.9
135°	518.1	534.0	518.1	536.9	505.3	502.9
137.5°	494.2	508.1	494.2	513.3	489.3	483.1
140°	472.7	484.5	472.7	493.4	475.2	471.2
142.5°	450.7	458.8	450.7	475.5	463.4	459.4
145°	435.1	441.2	435.1	461.6	455.3	453.6
147.5°	421.6	425.6	421.6	445.8	443.5	443.5
150°	408.0	412.1	408.0	431.9	429.7	431.6
152.5°	394.2	398.5	394.2	416.1	413.7	415.8
155°	384.6	388.9	384.6	402.5	401.9	402.2
157.5°	379.2	381.8	379.2	392.9	392.7	392.7
160°	374.0	376.3	374.0	385.8	385.5	383.9
162.5°	368.5	370.8	368.5	382.4	380.3	380.3
165°	367.1	367.4	367.1	376.8	376.8	375.2
167.5°	365.3	367.4	365.3	375.4	375.4	373.7
170°	365.6	365.9	365.6	373.7	372.0	369.9
172.5°	366.2	366.4	366.2	374.5	372.5	370.8
175°	364.8	365.1	364.8	371.1	371.1	371.4
177.5°	367.1	367.4	367.1	371.1	371.1	369.4
180°	370.0	370.0	370.0	370.0	370.0	370.0

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

Scaled Data Report

TEST NUMBER: P1432305
CATALOG NUMBER: EHBR1-18-UNV-TASM-L830-UPL40

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	14.65	15.62	15.30	16.26	16.98	13.97	14.94	14.61	15.58	16.30
	3H	16.19	17.06	16.85	17.70	18.47	15.81	16.68	16.47	17.32	18.09
	4H	16.82	17.64	17.50	18.29	19.07	16.59	17.40	17.27	18.06	18.84
	6H	17.30	18.05	17.99	18.72	19.50	17.23	17.97	17.91	18.64	19.43
	8H	17.45	18.15	18.15	18.84	19.64	17.44	18.15	18.15	18.84	19.63
	12H	17.52	18.19	18.22	18.87	19.69	17.57	18.24	18.27	18.92	19.74
4H	2H	15.05	15.87	15.73	16.52	17.30	14.53	15.34	15.21	16.00	16.78
	3H	16.84	17.52	17.53	18.22	19.01	16.58	17.26	17.27	17.95	18.75
	4H	17.62	18.22	18.32	18.93	19.75	17.49	18.10	18.19	18.80	19.62
	6H	18.23	18.75	18.95	19.48	20.32	18.26	18.78	18.98	19.50	20.34
	8H	18.42	18.91	19.15	19.63	20.48	18.53	19.01	19.26	19.74	20.58
	12H	18.52	18.96	19.27	19.71	20.55	18.69	19.12	19.44	19.87	20.72
8H	4H	17.86	18.35	18.59	19.07	19.92	17.76	18.25	18.49	18.97	19.82
	6H	18.60	19.00	19.36	19.77	20.62	18.67	19.06	19.42	19.83	20.68
	8H	18.87	19.23	19.65	20.00	20.86	19.02	19.37	19.80	20.14	21.01
	12H	19.04	19.35	19.81	20.11	21.03	19.26	19.57	20.03	20.33	21.26
12H	4H	17.87	18.30	18.61	19.05	19.90	17.77	18.20	18.52	18.95	19.80
	6H	18.65	19.00	19.42	19.77	20.63	18.71	19.07	19.49	19.84	20.70
	8H	18.96	19.27	19.73	20.02	20.95	19.11	19.42	19.88	20.18	21.11

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: SP1-2506-472-2

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L830-N

Data in this report applies to families of products including EHBR-60-L830-N

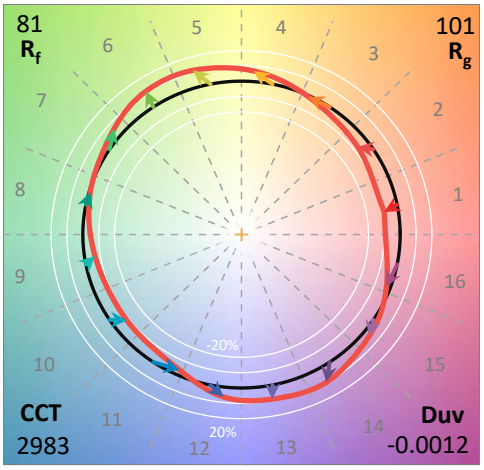
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-2
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-L830-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	2983	CRI (Ra):	83.4		
CIE u':	0.2516	R1:	84.0	R9:	29.4
CIE v':	0.5201	R2:	87.5	R10:	68.6
Duv:	-0.0012	R3:	88.9	R11:	82.2
CIE x:	0.4364	R4:	83.8	R12:	61.6
CIE y:	0.4010	R5:	81.9	R13:	83.9
CIE z:	0.1626	R6:	83.1	R14:	92.5
Peak Wavelength (nm):	630	R7:	87.1	R15:	79.8
Dominant Wavelength (nm):	583	R8:	70.9		
Purity:	51.34918				
Rf:	81.2				
Rg:	101.5				



Test Conditions

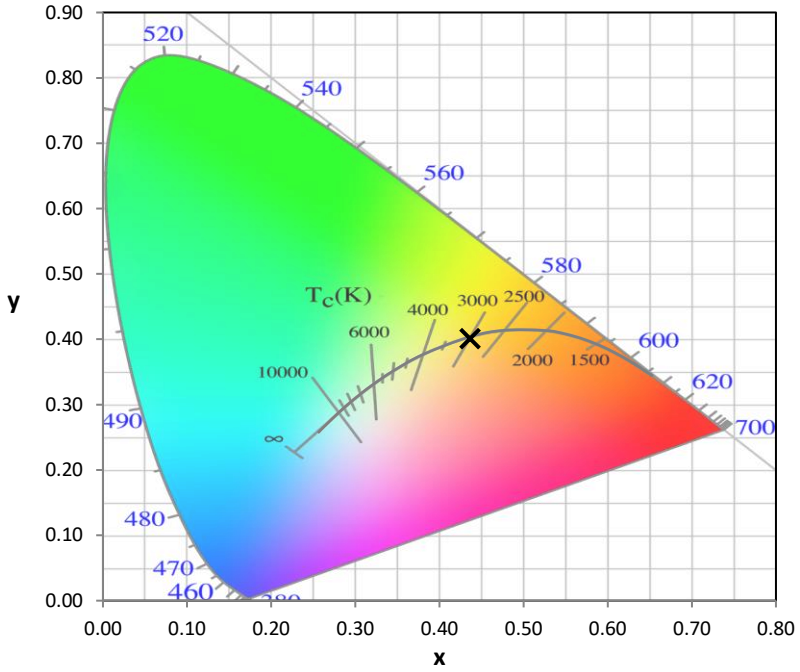
Stabilization Time:	38M
Operation Time:	1H 38M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-2

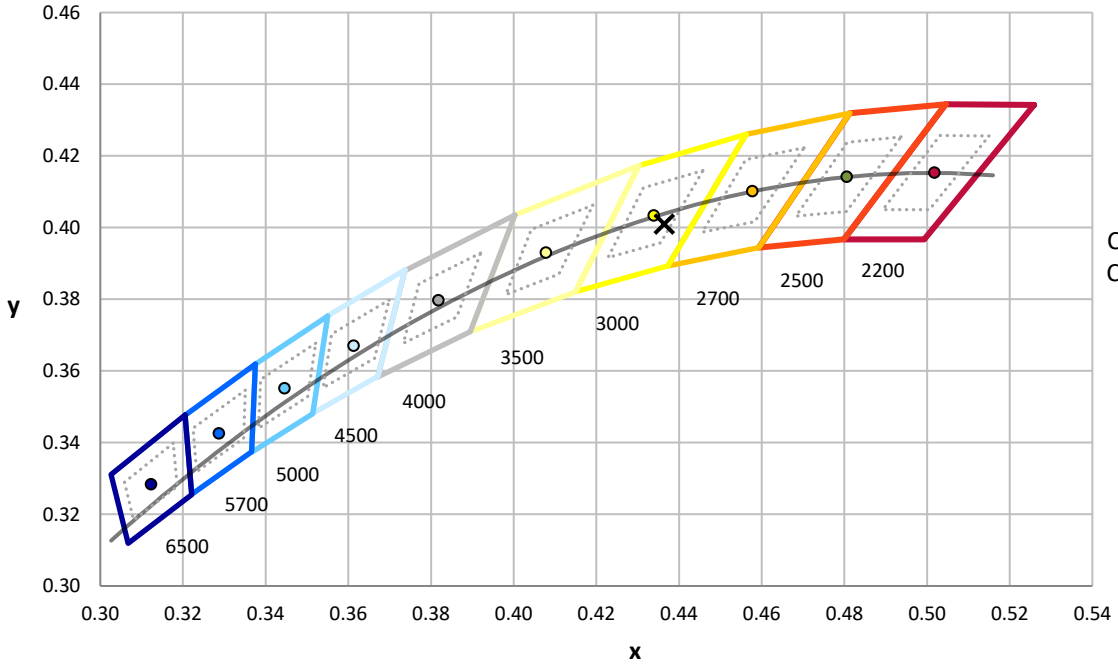
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	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: SP1-2506-472-2

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

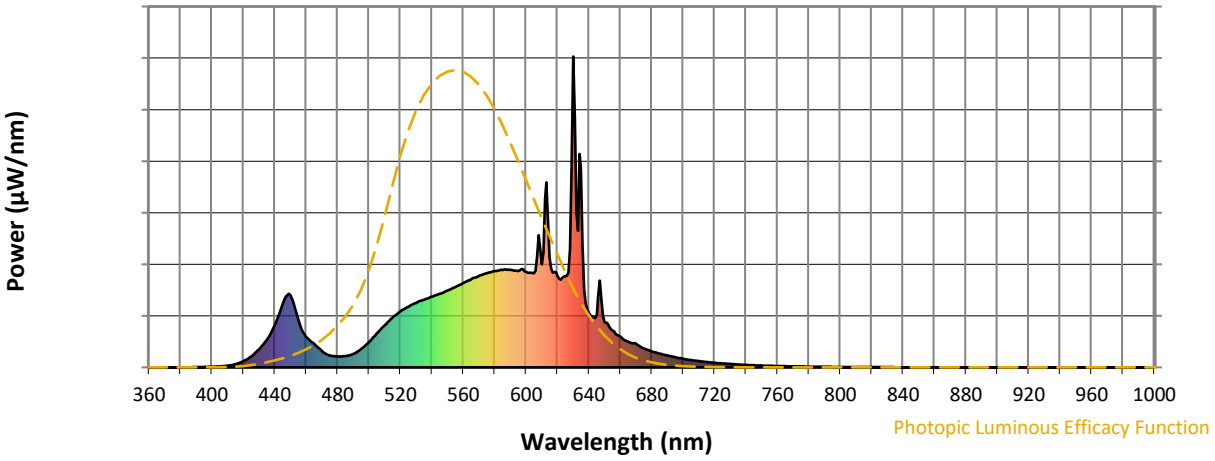


CCT = 2983K
CIE x = 0.4364
CIE y = 0.4010
Duv = -0.0012

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-2

Photopic Flux vs. Wavelength

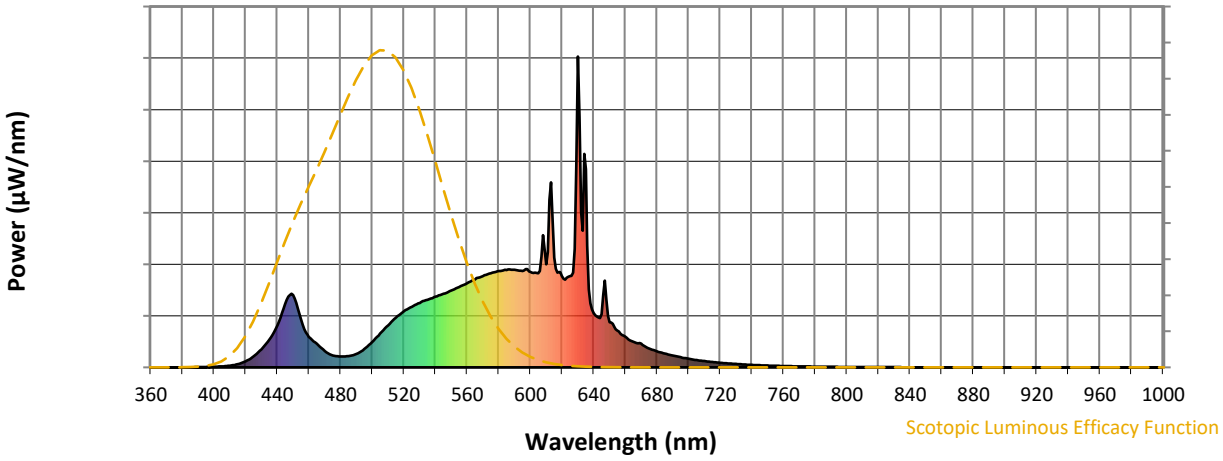


Photopic Lumens: NR

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-2

Scotopic Flux vs. Wavelength

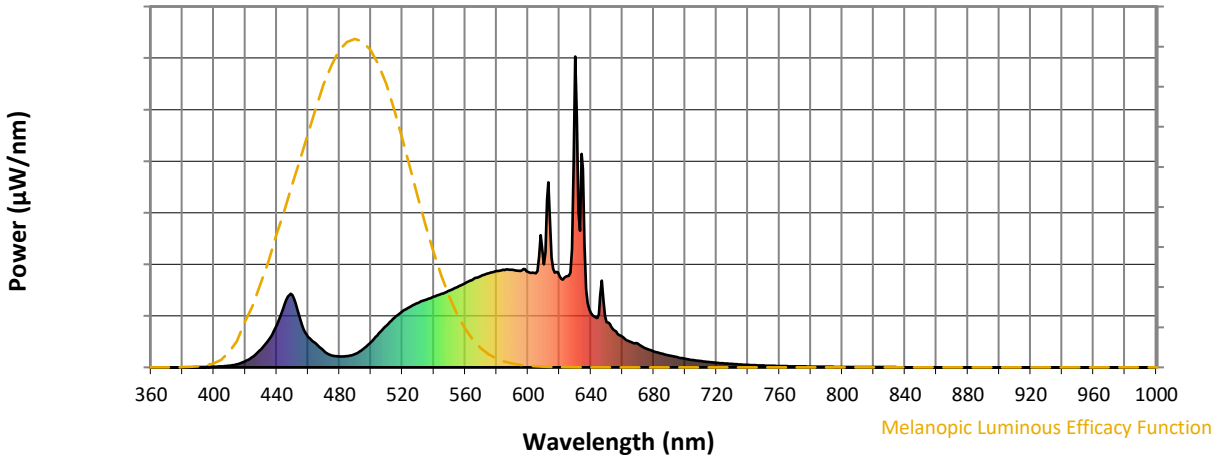


Scotopic Lumens: NR **S/P: 1.27**

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.34**

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

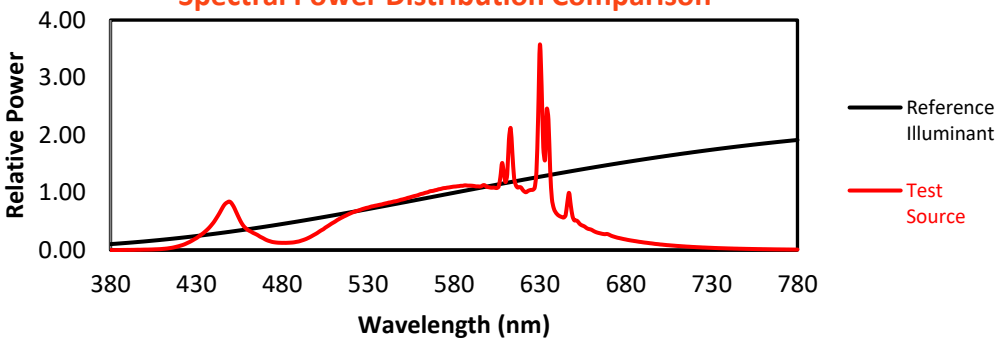
REPORT NUMBER: SP1-2506-472-2

TM-30-18

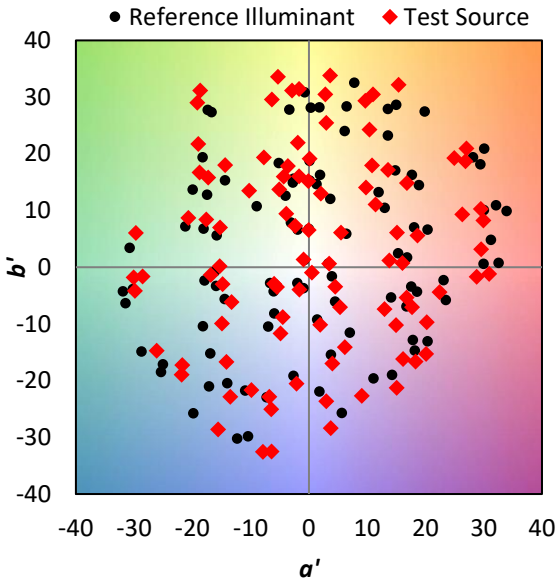
Summary

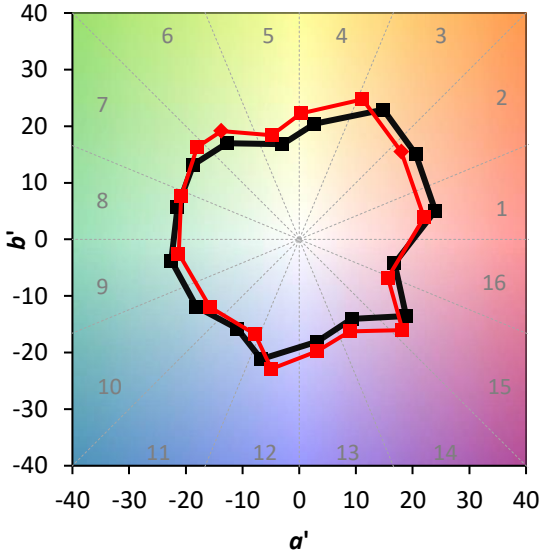
R_f = 81.2
R_g = 101.5
CIE R_a = 83.4
R_9 = 29.4

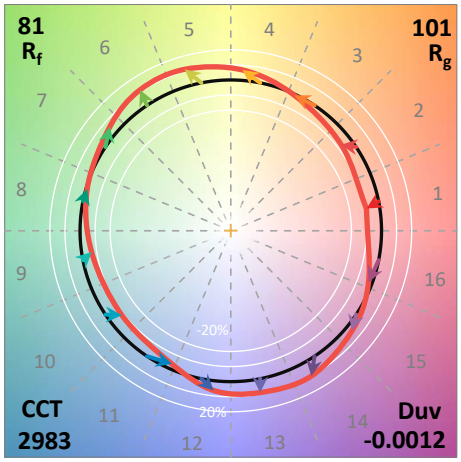
Spectral Power Distribution Comparison

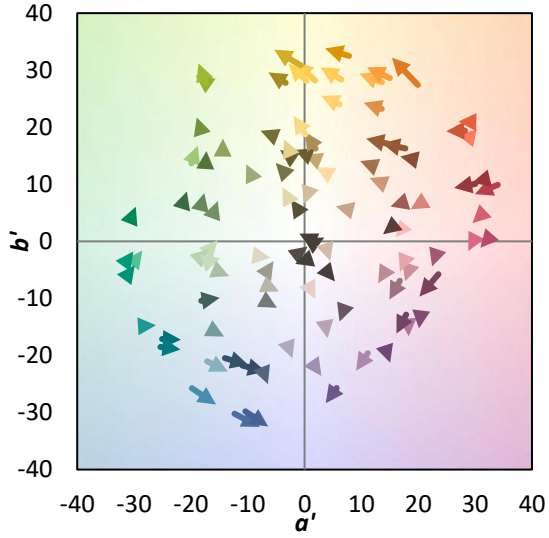


Color Vector Graphics







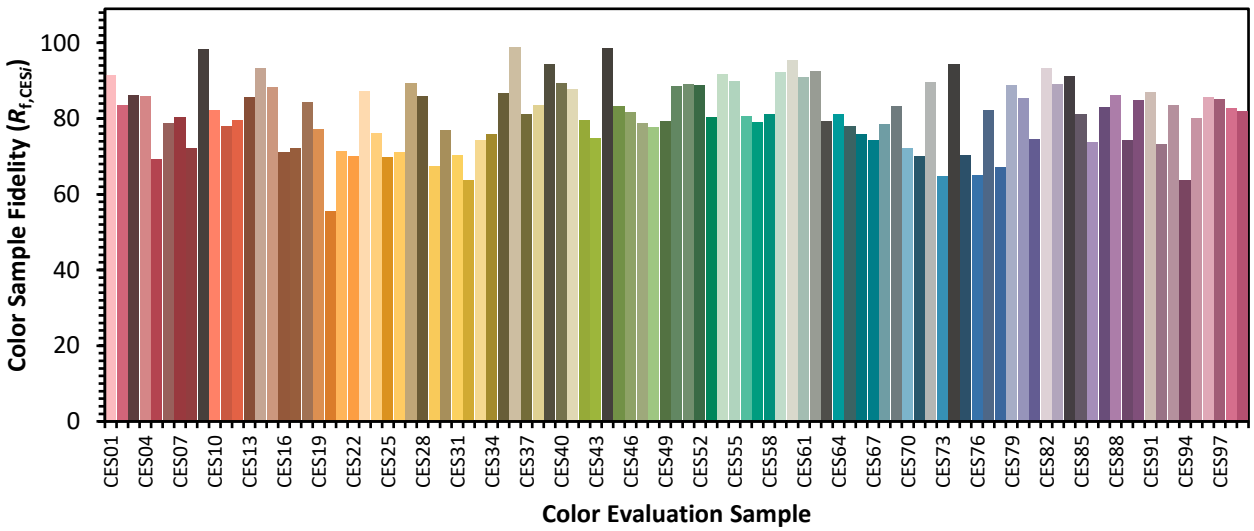


REPORT NUMBER: SP1-2506-472-2

TM-30-18

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

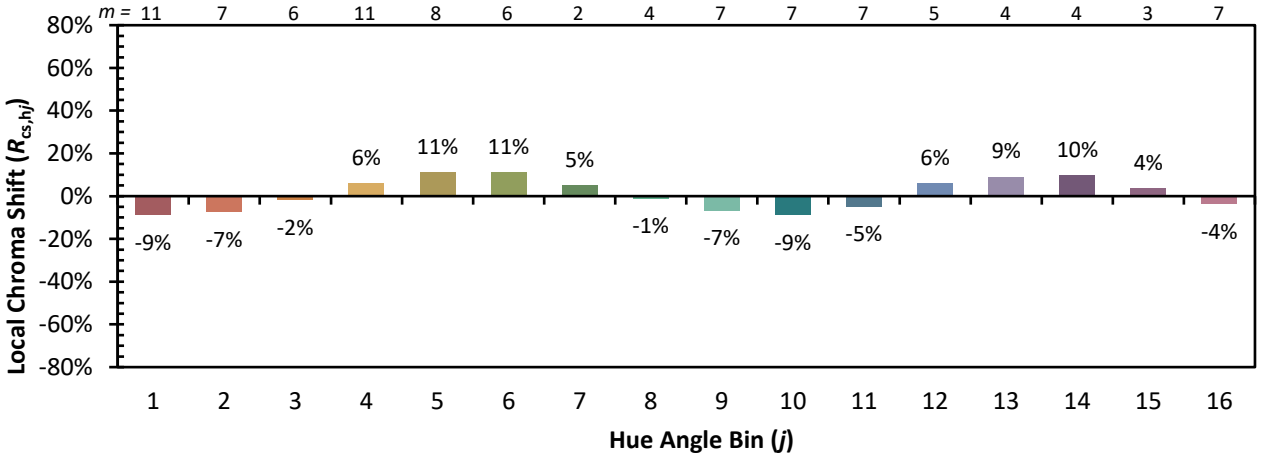
CES01 = 86	CES26 = 71	CES51 = 89	CES76 = 65
CES02 = 63	CES27 = 89	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 86	CES53 = 80	CES78 = 67
CES04 = 70	CES29 = 68	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 77	CES55 = 90	CES80 = 85
CES06 = 51	CES31 = 70	CES56 = 81	CES81 = 75
CES07 = 43	CES32 = 64	CES57 = 79	CES82 = 93
CES08 = 41	CES33 = 74	CES58 = 81	CES83 = 89
CES09 = 29	CES34 = 76	CES59 = 92	CES84 = 91
CES10 = 76	CES35 = 87	CES60 = 96	CES85 = 81
CES11 = 59	CES36 = 99	CES61 = 91	CES86 = 74
CES12 = 65	CES37 = 81	CES62 = 93	CES87 = 83
CES13 = 44	CES38 = 83	CES63 = 79	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 81	CES89 = 74
CES15 = 72	CES40 = 89	CES65 = 78	CES90 = 85
CES16 = 48	CES41 = 88	CES66 = 76	CES91 = 87
CES17 = 50	CES42 = 80	CES67 = 74	CES92 = 73
CES18 = 57	CES43 = 75	CES68 = 79	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 83	CES94 = 64
CES20 = 67	CES45 = 83	CES70 = 72	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 70	CES96 = 86
CES22 = 79	CES47 = 79	CES72 = 90	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 65	CES98 = 83
CES24 = 91	CES49 = 79	CES74 = 94	CES99 = 82
CES25 = 72	CES50 = 88	CES75 = 70	

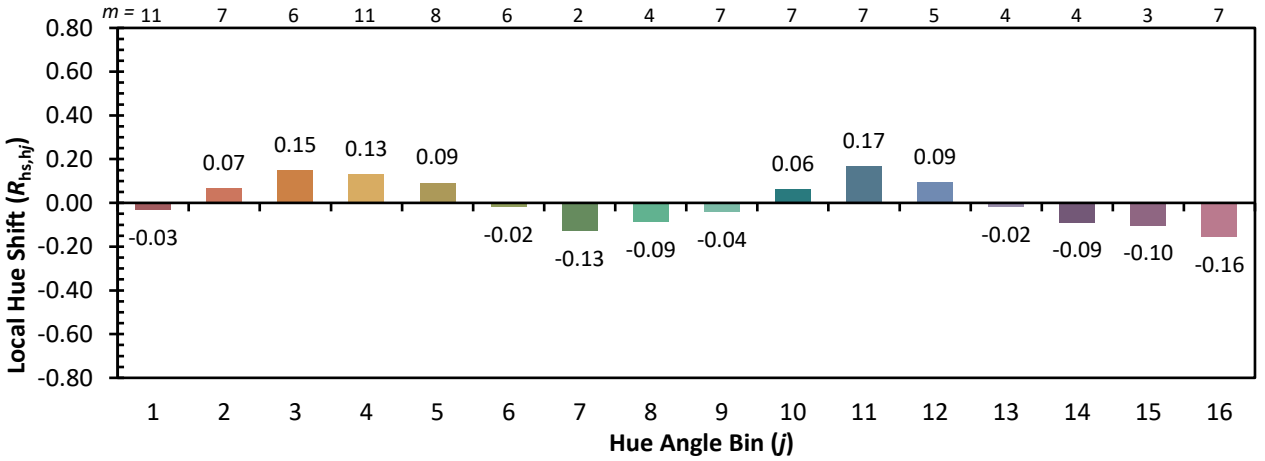


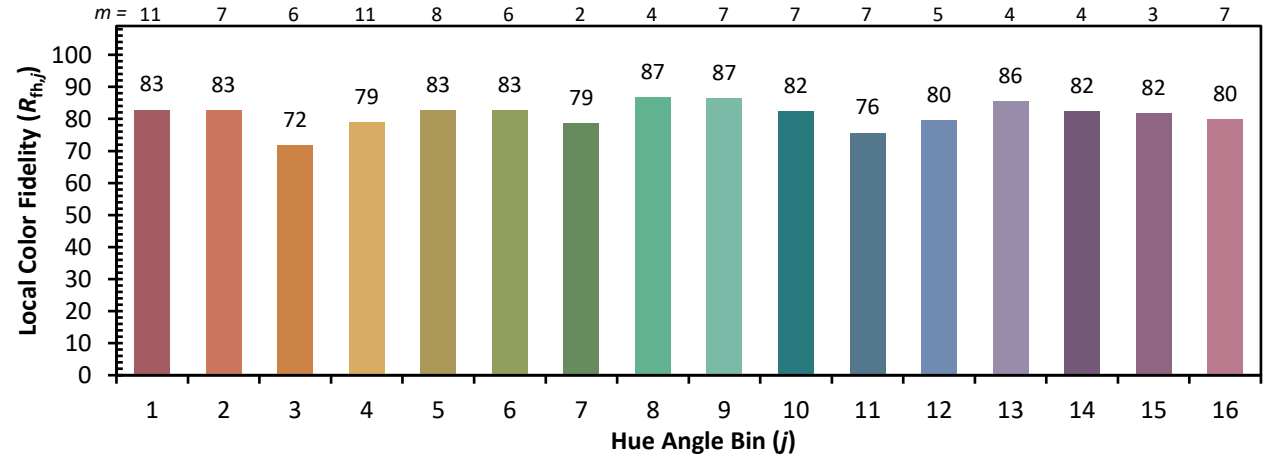
REPORT NUMBER: SP1-2506-472-2

TM-30-18

Color Rendition by Hue-Angle Bin



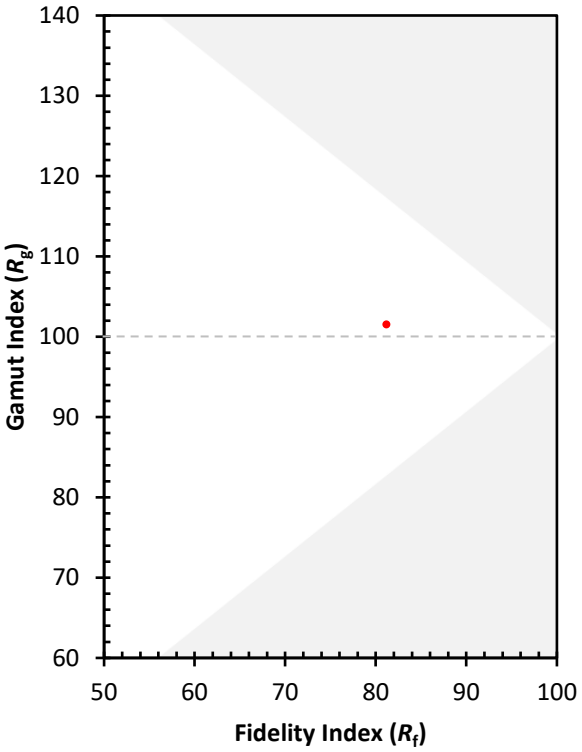


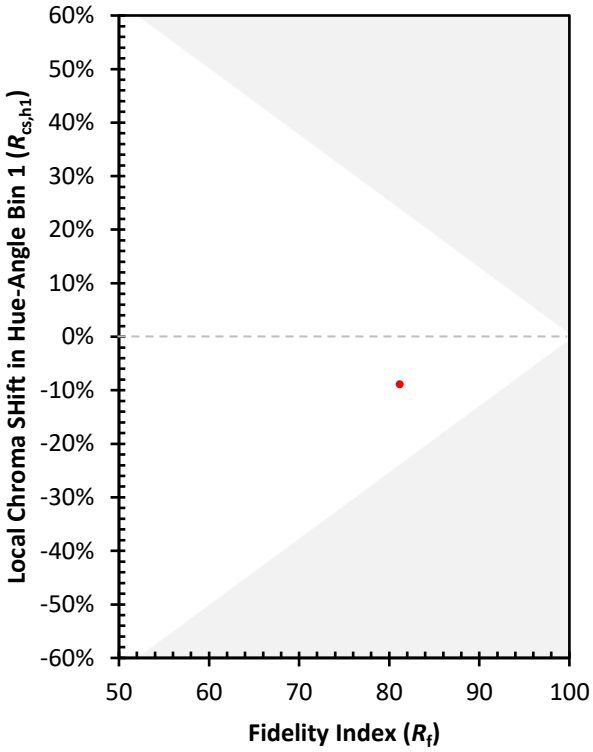


REPORT NUMBER: SP1-2506-472-2

TM-30-18

Measure Comparisons





(END OF REPORT)