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: EHBR1-24-UNV-TASM-L840-UPL40

Issue Date: 3/20/2026

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	
	REPORT IS A COMBINATION OF REPORTS P1431714 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-24-UNV-TASM-L840-UPL40
Description:	Elevate Round Highbay at, 24000 lumens, 4000K 80CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	28653.9 lumens
Efficiency:	N/A
Efficacy:	180.3 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):	158.9
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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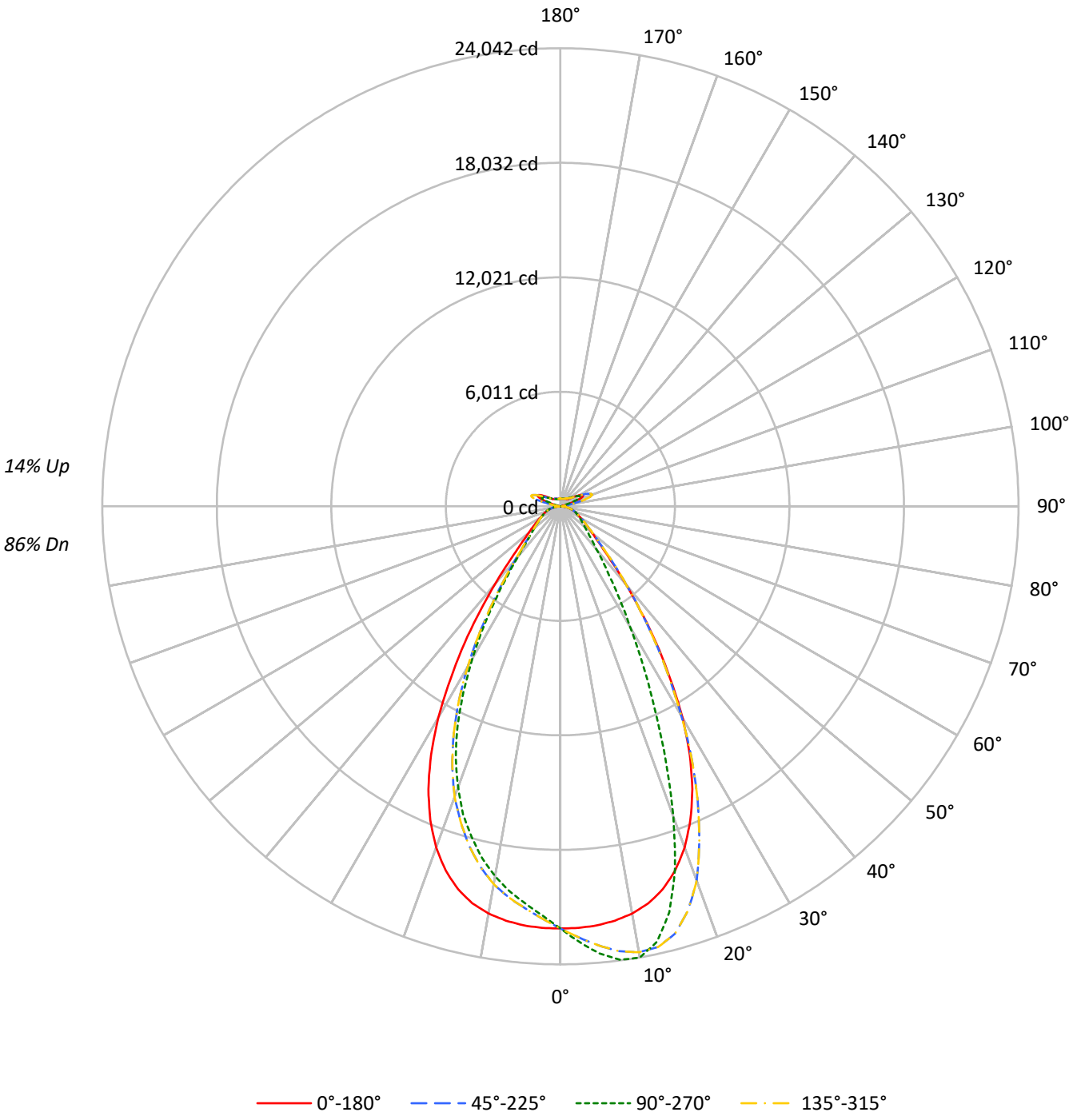
Luminous Intensity Polar Plot



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CATALOG NUMBER: EHBR1-24-UNV-TASM-L840-UPL40

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	112	112	112	112	104	104	104	96	96	96	90	90	90	86
1	108	105	102	99	105	101	99	96	95	93	91	89	87	86	83	82	81	78
2	101	95	90	86	98	92	88	84	87	83	80	82	79	76	77	75	73	70
3	95	87	81	76	92	85	79	75	80	75	72	76	72	69	72	69	66	64
4	89	80	73	68	86	78	72	67	74	69	65	70	66	63	67	63	61	58
5	84	74	67	62	81	72	66	61	69	63	59	65	61	57	62	59	56	54
6	79	68	61	56	76	67	60	56	64	58	54	61	56	53	58	54	51	49
7	74	64	57	52	72	62	56	51	60	54	50	57	52	49	55	51	48	46
8	70	59	52	48	68	58	52	47	56	50	46	54	49	45	52	47	44	43
9	66	55	49	44	64	54	48	44	52	47	43	51	46	42	49	44	41	40
10	63	52	46	41	61	51	45	41	49	44	40	48	43	40	46	42	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	104052	104052	104052	104052
5°	103419	110328	103419	98052
10°	102147	113160	102147	92797
15°	99131	105162	99131	85720
20°	92712	84325	92712	76352
25°	82058	58425	82058	63987
30°	66628	38010	66628	47875
35°	47788	24616	47788	31871
40°	30896	16967	30896	20100
45°	19604	13142	19604	14321
50°	14558	11168	14558	11929
55°	11885	10173	11885	10530
60°	10292	9691	10292	9750
65°	9382	9346	9382	9307
70°	8893	9157	8893	9039
75°	8316	8858	8316	8594
80°	7305	8364	7305	7818
85°	4728	5970	4728	5694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 27561 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2106.8	7.4
10°-20°	5731.7	20.0
20°-30°	6722.1	23.5
30°-40°	4674.8	16.3
40°-50°	2323.2	8.1
50°-60°	1389.5	4.8
60°-70°	978.0	3.4
70°-80°	630.0	2.2
80°-90°	207.0	0.7
90°-100°	103.2	0.4
100°-110°	677.5	2.4
110°-120°	1252.3	4.4
120°-130°	743.8	2.6
130°-140°	449.1	1.6
140°-150°	310.1	1.1
150°-160°	201.7	0.7
160°-170°	115.1	0.4
170°-180°	38.1	0.1
0°-30°	14560.6	50.8
0°-40°	19235.4	67.1
0°-60°	22948.0	80.1
0°-90°	24762.9	86.4
90°-120°	2033.1	7.1
90°-150°	3536.1	12.3
90°-180°	3891.0	13.6
0°-180°	28653.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	22157	22157	22157	22157	22157	
5°	22082	23557	22082	20936	22082	2096
15°	20797	22062	20797	17984	20797	5812
25°	16387	11668	16387	12778	16387	7419
35°	8771	4518	8771	5850	8771	5475
45°	3172	2126	3172	2317	3172	2595
55°	1606	1375	1606	1423	1606	1469
65°	979	976	979	971	979	984
75°	586	624	586	605	586	615
85°	162	205	162	196	162	181
90°	28	31	28	28	28	21
95°	55	51	55	48	55	58
105°	311	157	311	236	311	420
115°	1333	1137	1333	1082	1333	1215
125°	853	892	853	781	853	785
135°	538	621	538	571	538	426
145°	486	508	486	472	486	304
155°	431	449	431	417	431	201
165°	403	414	403	395	403	115
175°	400	406	400	393	400	38
180°	399	399	399	399	399	

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TEST NUMBER:
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	22157.1	22157.1	22157.1	22157.1	*22157.1*	22157.1	22157.1	22157.1	22157.1	22157.1	22157.1
2.5°	22144.2	22430.5	22662.3	22815.2	*22890.8*	22815.2	22662.3	22430.5	22144.2	21859.6	21663.9
5°	22081.5	22654.8	23140.5	23458.4	*23556.8*	23458.4	23140.5	22654.8	22081.5	21539.7	21180.3
7.5°	21931.5	22824.8	23546.4	23917.5	*24008.0*	23917.5	23546.4	22824.8	21931.5	21164.5	20710.4
10°	*21702.6*	*22932.0*	*23765.8*	*24031.7*	*24042.5*	*24031.7*	*23765.8*	*22932.0*	*21702.6*	*20669.3*	*20133.7*
12.5°	21337.3	22893.7	23692.3	23605.0	*23406.8*	23605.0	23692.3	22893.7	21337.3	20064.3	19388.8
15°	20797.2	22667.3	23226.5	22516.5	*22062.4*	22516.5	23226.5	22667.3	20797.2	19247.5	18463.9
17.5°	20036.1	22243.5	22254.3	20849.6	*19992.9*	20849.6	22254.3	22243.5	20036.1	18248.7	17385.7
20°	19055.1	21563.8	20915.6	18346.3	*17331.3*	18346.3	20915.6	21563.8	19055.1	17067.9	16221.1
22.5°	17825.3	20647.2	19051.4	15828.1	*14443.3*	15828.1	19051.4	20647.2	17825.3	15694.7	14813.5
25°	16386.9	19524.2	17045.9	13084.3	*11667.5*	13084.3	17045.9	19524.2	16386.9	14058.6	13261.7
27.5°	14695.1	18100.8	14910.3	10691.9	*9384.8*	10691.9	14910.3	18100.8	14695.1	12369.2	11555.3
30°	12815.9	16276.0	12687.9	8514.8	*7311.2*	8514.8	12687.9	16276.0	12815.9	10471.3	9742.6
32.5°	10711.9	14487.3	10553.6	6822.6	*5803.0*	6822.6	10553.6	14487.3	10711.9	8660.2	7898.7
35°	8770.8	12249.6	8629.1	5360.9	*4517.9*	5360.9	8629.1	12249.6	8770.8	6950.6	6202.7
37.5°	6883.2	10135.2	6878.7	4316.8	*3664.5*	4316.8	6878.7	10135.2	6883.2	5403.7	4796.7
40°	5355.1	7924.8	5389.6	3446.0	*2940.8*	3446.0	5389.6	7924.8	5355.1	4111.6	3723.1
42.5°	4057.6	6059.8	4236.2	2828.2	*2497.9*	2828.2	4236.2	6059.8	4057.6	3239.5	2948.7
45°	3171.8	4459.3	3308.0	2386.1	*2126.4*	2386.1	3308.0	4459.3	3171.8	2608.8	2413.5
47.5°	2583.0	3446.4	2681.1	2046.7	*1864.7*	2046.7	2681.1	3446.4	2583.0	2206.6	2060.4
50°	2169.6	2644.5	2226.1	1786.6	*1664.4*	1786.6	2226.1	2644.5	2169.6	1889.6	1792.0
52.5°	1863.8	2156.8	1895.8	1592.1	*1509.9*	1592.1	1895.8	2156.8	1863.8	1653.2	1592.5
55°	1606.2	1813.2	1648.6	1431.7	*1374.8*	1431.7	1648.6	1813.2	1606.2	1471.2	1426.3
57.5°	1410.6	1538.1	1431.7	1295.0	*1257.2*	1295.0	1431.7	1538.1	1410.6	1309.2	1285.1
60°	1237.3	1332.0	1263.5	1175.8	*1165.0*	1175.8	1263.5	1332.0	1237.3	1177.9	1162.1
62.5°	1103.9	1163.8	1117.2	1068.6	*1059.1*	1068.6	1117.2	1163.8	1103.9	1058.2	1061.1
65°	979.3	1035.0	998.4	972.2	*975.5*	972.2	998.4	1035.0	979.3	958.1	962.7
67.5°	882.9	912.0	896.2	881.2	*885.0*	881.2	896.2	912.0	882.9	862.1	869.2
70°	780.3	811.4	795.2	797.3	*803.5*	797.3	795.2	811.4	780.3	774.0	779.4
72.5°	682.2	706.3	700.9	705.9	*712.5*	705.9	700.9	706.3	682.2	681.4	681.8
75°	585.8	604.1	606.6	613.7	*624.0*	613.7	606.6	604.1	585.8	579.6	587.1
77.5°	480.7	501.5	509.4	518.9	*534.3*	518.9	509.4	501.5	480.7	484.9	488.6
80°	384.3	393.9	411.3	418.4	*440.0*	418.4	411.3	393.9	384.3	377.3	382.7
82.5°	281.3	290.0	305.0	318.3	*330.7*	318.3	305.0	290.0	281.3	278.0	278.4
85°	162.5	175.7	185.7	201.5	*205.2*	201.5	185.7	175.7	162.5	166.2	162.5
87.5°	56.9	61.1	69.8	76.0	*76.4*	76.0	69.8	61.1	56.9	58.2	52.8
90°	28.4	48.2	83.1	45.6	*31.3*	45.6	83.1	48.2	28.4	50.0	78.0
92.5°	37.0	65.4	117.6	60.7	*42.1*	60.7	117.6	65.4	37.0	65.0	125.4
95°	54.7	80.5	149.9	67.1	*50.7*	67.1	149.9	80.5	54.7	86.6	174.9
97.5°	84.8	99.9	169.3	71.5	*61.5*	71.5	169.3	99.9	84.8	106.0	200.8
100°	112.9	112.9	309.3	82.2	*70.1*	82.2	309.3	112.9	112.9	130.1	312.9
102.5°	171.0	221.0	717.1	164.5	*85.2*	164.5	717.1	221.0	171.0	244.3	664.1
105°	311.1	505.4	1262.3	425.2	*156.7*	425.2	1262.3	505.4	311.1	511.5	1183.4
107.5°	589.1	942.9	1626.4	839.0	*365.7*	839.0	1626.4	942.9	589.1	905.8	1560.9
110°	942.5	1317.8	1775.1	1149.3	*740.7*	1149.3	1775.1	1317.8	942.5	1244.1	1636.3

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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°	1226.9	1468.6	1734.2	1274.3	*1025.1*	1274.3	1734.2	1468.6	1226.9	1373.4	1567.4
115°	1332.9	1447.1	1548.9	1269.9	*1137.1*	1269.9	1548.9	1447.1	1332.9	1341.1	1399.3
117.5°	1287.6	1324.3	1337.7	1192.4	*1143.6*	1192.4	1337.7	1324.3	1287.6	1205.8	1188.1
120°	1162.7	1147.6	1126.9	1078.2	*1079.0*	1078.2	1126.9	1147.6	1162.7	1052.8	992.0
122.5°	1005.9	973.5	952.4	962.2	*990.6*	962.2	952.4	973.5	1005.9	896.0	850.2
125°	852.9	820.5	830.0	863.1	*892.0*	863.1	830.0	820.5	852.9	760.6	749.4
127.5°	724.0	708.9	741.6	779.0	*803.6*	779.0	741.6	708.9	724.0	665.8	678.3
130°	631.7	635.6	679.1	710.5	*726.1*	710.5	679.1	635.6	631.7	603.7	633.5
132.5°	573.9	590.8	632.1	659.3	*668.3*	659.3	632.1	590.8	573.9	565.7	601.9
135°	537.7	562.8	600.2	617.8	*620.9*	617.8	600.2	562.8	537.7	540.3	573.9
137.5°	516.6	541.6	570.0	583.9	*579.9*	583.9	570.0	541.6	516.6	523.5	548.9
140°	504.1	529.1	542.0	558.0	*554.5*	558.0	542.0	529.1	504.1	508.4	527.8
142.5°	491.6	514.4	520.9	532.5	*528.6*	532.5	520.9	514.4	491.6	495.9	508.8
145°	485.5	502.4	497.7	513.1	*507.5*	513.1	497.7	502.4	485.5	487.3	494.1
147.5°	474.8	487.3	480.8	494.1	*488.5*	494.1	480.8	487.3	474.8	474.8	477.3
150°	462.2	470.8	461.8	477.3	*476.0*	477.3	461.8	470.8	462.2	460.1	462.6
152.5°	445.4	454.0	445.4	463.0	*461.3*	463.0	445.4	454.0	445.4	443.2	445.8
155°	431.1	435.4	431.1	448.8	*449.2*	448.8	431.1	435.4	431.1	430.7	431.6
157.5°	421.2	423.8	421.6	437.1	*437.5*	437.1	421.6	423.8	421.2	421.2	421.6
160°	412.1	416.4	414.7	428.0	*428.4*	428.0	414.7	416.4	412.1	413.8	414.2
162.5°	408.6	408.6	407.3	420.6	*421.4*	420.6	407.3	408.6	408.6	408.6	410.8
165°	403.4	405.5	402.0	411.5	*414.5*	411.5	402.0	405.5	403.4	405.1	405.1
167.5°	402.0	399.9	400.8	408.4	*411.5*	408.4	400.8	399.9	402.0	403.8	403.8
170°	398.2	398.6	397.3	405.0	*408.0*	405.0	397.3	398.6	398.2	400.4	402.0
172.5°	399.4	399.4	396.4	401.9	*407.0*	401.9	396.4	399.4	399.4	401.2	403.3
175°	400.2	398.6	397.2	400.6	*405.8*	400.6	397.2	398.6	400.2	399.8	399.8
177.5°	398.1	399.0	399.8	403.2	*410.5*	403.2	399.8	399.0	398.1	399.8	399.8
180°	399.0	399.0	399.0	399.0	*399.0*	399.0	399.0	399.0	399.0	399.0	399.0

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	22157.1	22157.1	22157.1	22157.1	22157.1	22157.1
2.5°	21513.5	21499.4	21513.5	21663.9	21859.6	22144.2
5°	21013.7	20935.6	21013.7	21180.3	21539.7	22081.5
7.5°	20431.6	20386.3	20431.6	20710.4	21164.5	21931.5
10°	*19818.8*	*19716.1*	*19818.8*	*20133.7*	*20669.3*	*21702.6*
12.5°	19063.4	18927.6	19063.4	19388.8	20064.3	21337.3
15°	18102.8	17983.6	18102.8	18463.9	19247.5	20797.2
17.5°	17072.0	16964.0	17072.0	17385.7	18248.7	20036.1
20°	15777.4	15692.6	15777.4	16221.1	17067.9	19055.1
22.5°	14419.2	14339.8	14419.2	14813.5	15694.7	17825.3
25°	12821.3	12778.1	12821.3	13261.7	14058.6	16386.9
27.5°	11094.5	11021.0	11094.5	11555.3	12369.2	14695.1
30°	9330.4	9208.7	9330.4	9742.6	10471.3	12815.9
32.5°	7604.9	7517.3	7604.9	7898.7	8660.2	10711.9
35°	5937.2	5849.5	5937.2	6202.7	6950.6	8770.8
37.5°	4626.4	4471.4	4626.4	4796.7	5403.7	6883.2
40°	3508.7	3483.8	3508.7	3723.1	4111.6	5355.1
42.5°	2856.4	2788.7	2856.4	2948.7	3239.5	4057.6
45°	2343.7	2317.1	2343.7	2413.5	2608.8	3171.8
47.5°	2015.5	2027.1	2015.5	2060.4	2206.6	2583.0
50°	1770.8	1777.8	1770.8	1792.0	1889.6	2169.6
52.5°	1590.5	1584.2	1590.5	1592.5	1653.2	1863.8
55°	1430.9	1423.0	1430.9	1426.3	1471.2	1606.2
57.5°	1291.3	1297.1	1291.3	1285.1	1309.2	1410.6
60°	1166.7	1172.1	1166.7	1162.1	1177.9	1237.3
62.5°	1061.5	1064.9	1061.5	1061.1	1058.2	1103.9
65°	967.7	971.4	967.7	962.7	958.1	979.3
67.5°	877.9	877.9	877.9	869.2	862.1	882.9
70°	793.6	793.1	793.6	779.4	774.0	780.3
72.5°	692.2	702.2	692.2	681.8	681.4	682.2
75°	593.7	605.4	593.7	587.1	579.6	585.8
77.5°	494.0	511.9	494.0	488.6	484.9	480.7
80°	391.8	411.3	391.8	382.7	377.3	384.3
82.5°	289.6	304.1	289.6	278.4	278.0	281.3
85°	172.4	195.7	172.4	162.5	166.2	162.5
87.5°	55.3	70.6	55.3	52.8	58.2	56.9
90°	45.7	28.4	45.7	78.0	50.0	28.4
92.5°	69.4	41.3	69.4	125.4	65.0	37.0
95°	80.1	47.8	80.1	174.9	86.6	54.7
97.5°	88.7	61.1	88.7	200.8	106.0	84.8
100°	103.8	80.5	103.8	312.9	130.1	112.9
102.5°	220.2	136.6	220.2	664.1	244.3	171.0
105°	463.7	235.7	463.7	1183.4	511.5	311.1
107.5°	830.0	408.1	830.0	1560.9	905.8	589.1
110°	1101.5	761.5	1101.5	1636.3	1244.1	942.5

TEST NUMBER:
CATALOG NUMBER: EHBR1-24-UNV-TASM-L840-UPL40

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1183.4	1028.7	1183.4	1567.4	1373.4	1226.9
115°	1138.2	1082.5	1138.2	1399.3	1341.1	1332.9
117.5°	1039.0	1045.9	1039.0	1188.1	1205.8	1287.6
120°	924.8	968.3	924.8	992.0	1052.8	1162.7
122.5°	819.6	871.4	819.6	850.2	896.0	1005.9
125°	729.1	781.2	729.1	749.4	760.6	852.9
127.5°	666.6	701.5	666.6	678.3	665.8	724.0
130°	617.5	647.7	617.5	633.5	603.7	631.7
132.5°	583.5	602.9	583.5	601.9	565.7	573.9
135°	553.7	570.6	553.7	573.9	540.3	537.7
137.5°	528.3	543.0	528.3	548.9	523.5	516.6
140°	505.4	517.9	505.4	527.8	508.4	504.1
142.5°	482.1	490.7	482.1	508.8	495.9	491.6
145°	465.7	472.2	465.7	494.1	487.3	485.5
147.5°	451.5	455.8	451.5	477.3	474.8	474.8
150°	437.2	441.5	437.2	462.6	460.1	462.2
152.5°	422.5	427.3	422.5	445.8	443.2	445.4
155°	412.6	417.3	412.6	431.6	430.7	431.1
157.5°	406.9	409.9	406.9	421.6	421.2	421.2
160°	401.8	404.3	401.8	414.2	413.8	412.1
162.5°	396.1	398.7	396.1	410.8	408.6	408.6
165°	394.8	395.2	394.8	405.1	405.1	403.4
167.5°	393.0	395.2	393.0	403.8	403.8	402.0
170°	393.4	393.9	393.4	402.0	400.4	398.2
172.5°	394.3	394.7	394.3	403.3	401.2	399.4
175°	393.0	393.4	393.0	399.8	399.8	400.2
177.5°	395.5	395.9	395.5	399.8	399.8	398.1
180°	399.0	399.0	399.0	399.0	399.0	399.0

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

Scaled Data Report

TEST NUMBER: CATALOG
CATALOG NUMBER: EHBR1-24-UNV-TASM-L840-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	16.23	17.25	16.82	17.82	18.46	15.55	16.56	16.14	17.14	17.78
	3H	17.77	18.68	18.38	19.27	19.95	17.39	18.30	18.00	18.88	19.57
	4H	18.41	19.25	19.03	19.85	20.55	18.17	19.02	18.79	19.62	20.32
	6H	18.88	19.66	19.52	20.28	20.99	18.81	19.59	19.45	20.20	20.91
	8H	19.03	19.77	19.68	20.40	21.12	19.03	19.77	19.68	20.40	21.11
	12H	19.10	19.81	19.75	20.43	21.17	19.15	19.86	19.81	20.48	21.22
4H	2H	16.64	17.48	17.26	18.08	18.78	16.12	16.96	16.74	17.56	18.26
	3H	18.43	19.13	19.07	19.77	20.49	18.17	18.87	18.80	19.51	20.23
	4H	19.20	19.83	19.86	20.48	21.23	19.07	19.71	19.73	20.36	21.10
	6H	19.81	20.36	20.49	21.03	21.80	19.84	20.39	20.52	21.06	21.82
	8H	20.01	20.52	20.69	21.19	21.96	20.11	20.62	20.79	21.29	22.06
	12H	20.11	20.56	20.81	21.26	22.03	20.28	20.73	20.97	21.43	22.20
8H	4H	19.45	19.96	20.13	20.63	21.40	19.35	19.86	20.03	20.53	21.30
	6H	20.19	20.60	20.90	21.32	22.09	20.25	20.67	20.96	21.38	22.16
	8H	20.46	20.83	21.19	21.55	22.34	20.61	20.98	21.33	21.70	22.49
	12H	20.63	20.95	21.35	21.66	22.51	20.85	21.17	21.58	21.88	22.74
12H	4H	19.45	19.90	20.15	20.60	21.38	19.36	19.81	20.06	20.51	21.28
	6H	20.23	20.60	20.96	21.32	22.11	20.30	20.67	21.03	21.39	22.18
	8H	20.55	20.87	21.27	21.58	22.43	20.70	21.02	21.42	21.73	22.59

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: SP1-2506-472-1

Test Date: 07/30/2025

Luminaire Tested: EHBR-60-L840-N

Data in this report applies to families of products including EHBR-60-L840-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

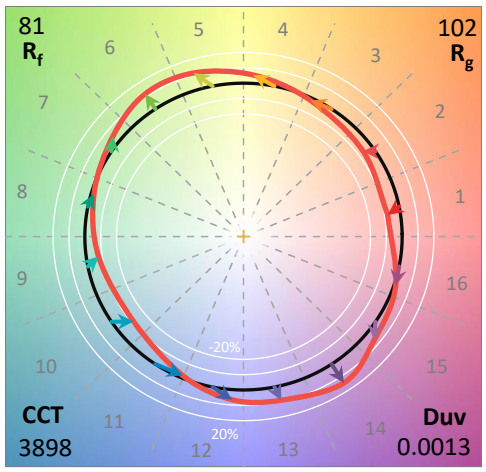
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-1
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-L840-N**
Description:	Elevate Round Highbay at, 60000 lumens, 4000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	3898
CIE u':	0.2263
CIE v':	0.5052
Duv:	0.0013
CIE x:	0.3861
CIE y:	0.3831
CIE z:	0.2308
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	578
Purity:	30.85729
Rf:	80.7
Rg:	102.1

CRI (Ra):	82.1				
R1:	84.4	R9:	38.5		
R2:	83.5	R10:	58.9		
R3:	80.8	R11:	83.6		
R4:	83.9	R12:	54.2		
R5:	82.1	R13:	82.8		
R6:	77.3	R14:	88.2		
R7:	86.4	R15:	81.2		
R8:	78.3				



Test Conditions

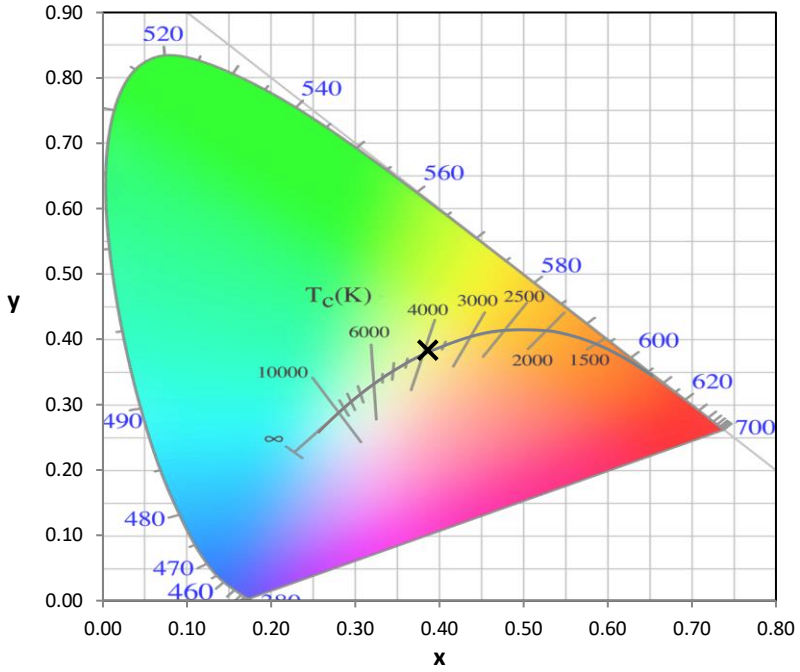
Stabilization Time:	42M
Operation Time:	1H 42M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-1

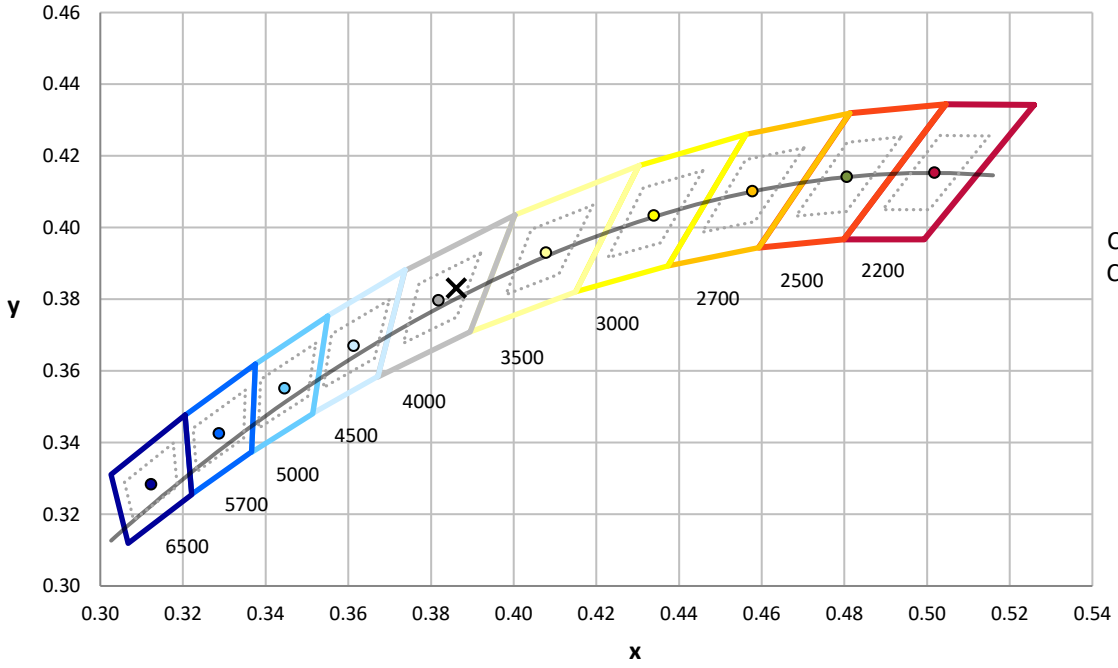
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

CIE 1931 Chromaticity Diagram



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

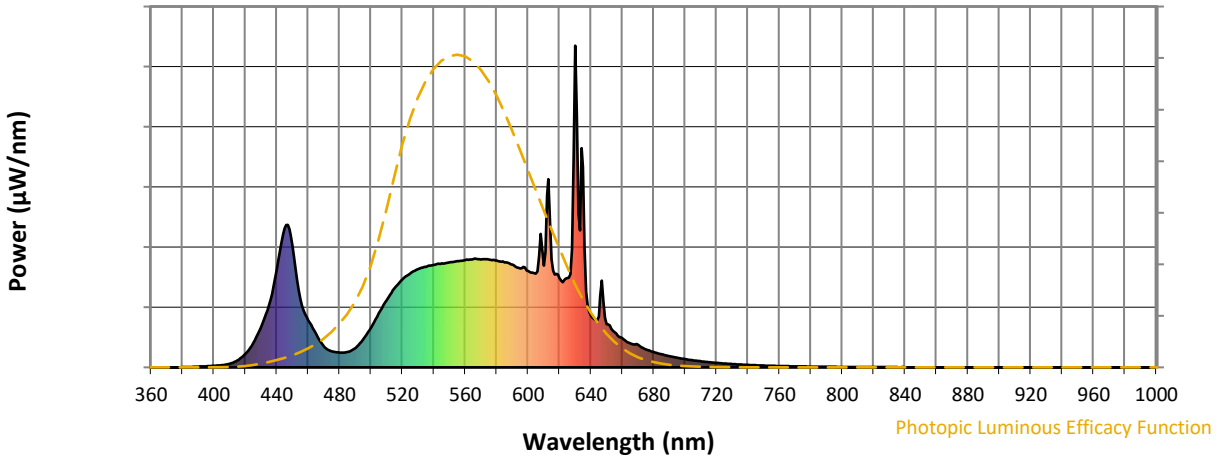


CCT = 3898K
CIE x = 0.3861
CIE y = 0.3831
Duv = 0.0013

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-1

Photopic Flux vs. Wavelength

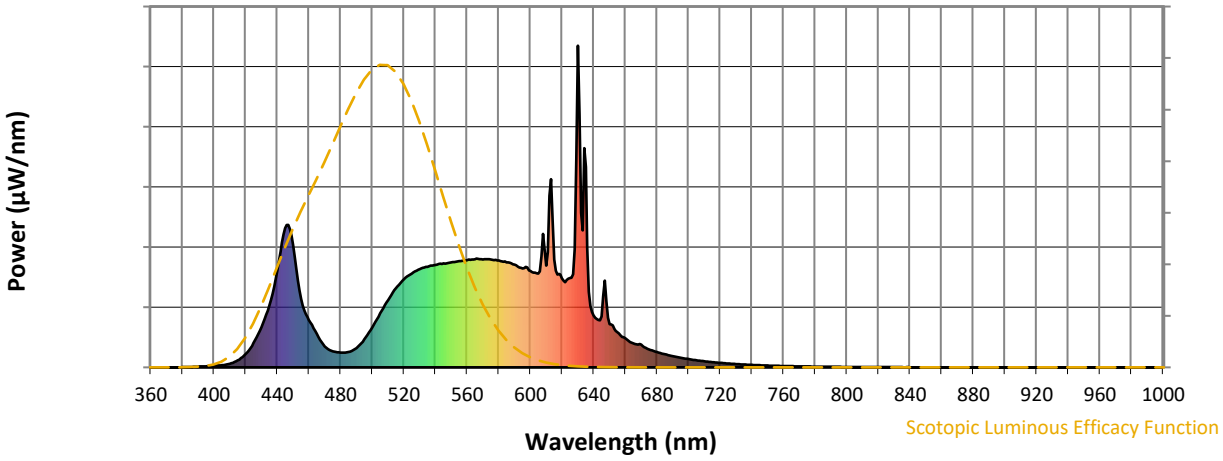


Photopic Lumens: NR

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-1

Scotopic Flux vs. Wavelength

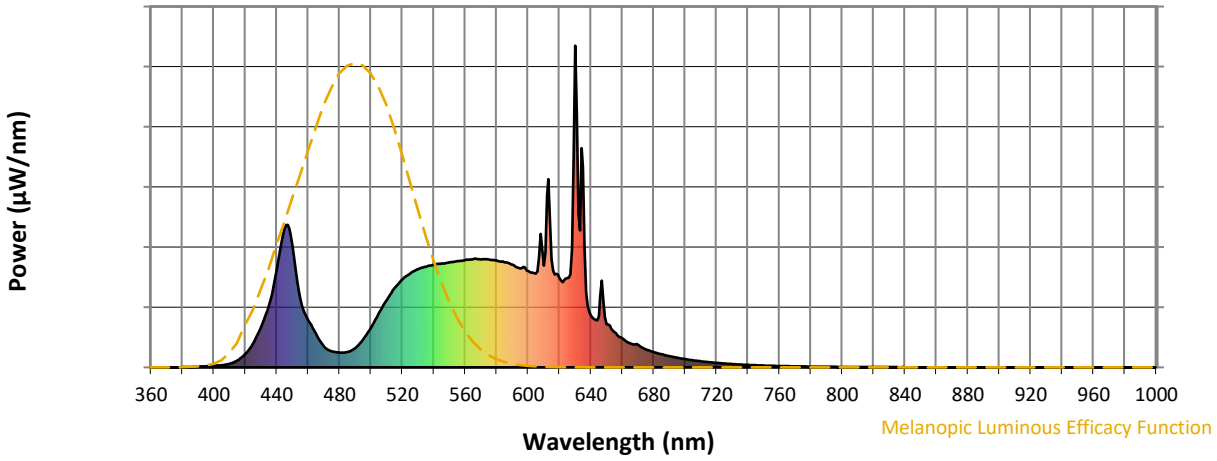


Scotopic Lumens: NR **S/P: 1.55**

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.99**

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

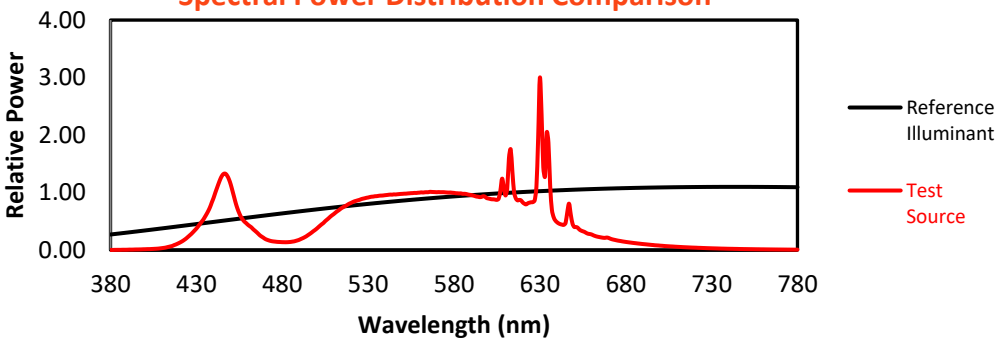
REPORT NUMBER: SP1-2506-472-1

TM-30-18

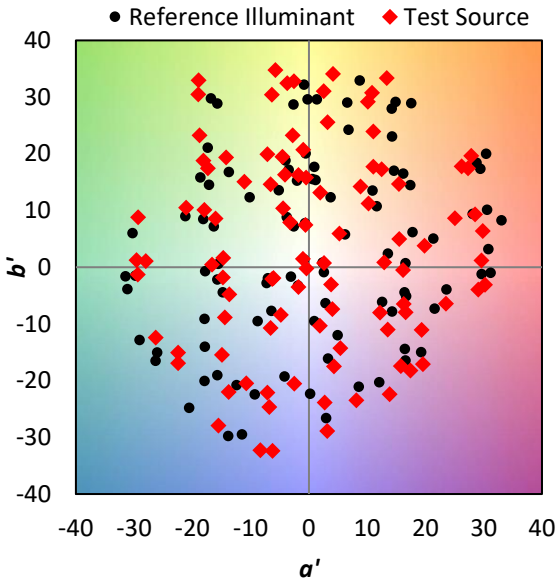
Summary

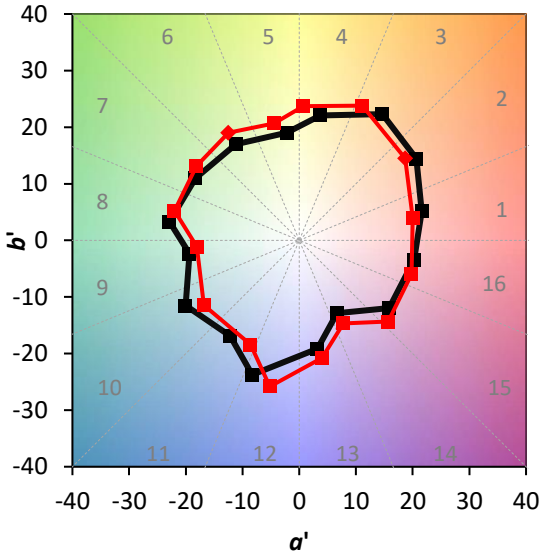
R_f = 80.7
R_g = 102.1
CIE R_a = 82.1
R_9 = 38.5

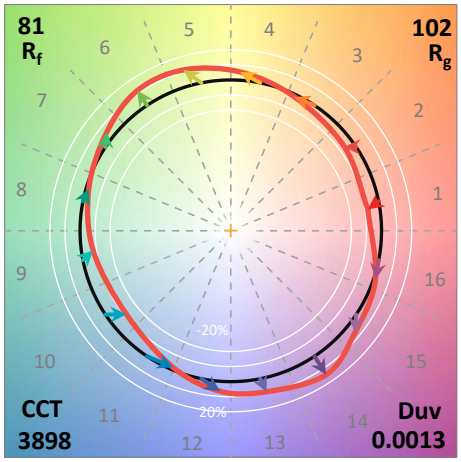
Spectral Power Distribution Comparison

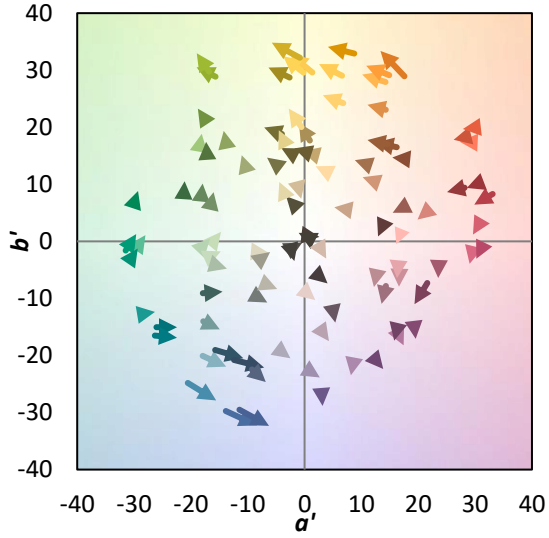


Color Vector Graphics







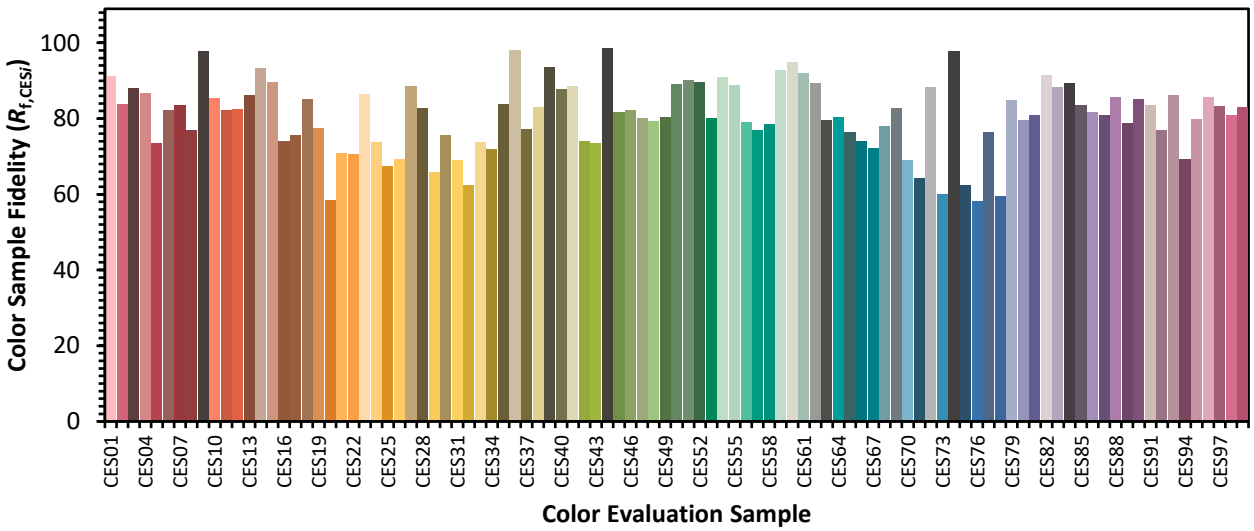


REPORT NUMBER: SP1-2506-472-1

TM-30-18

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

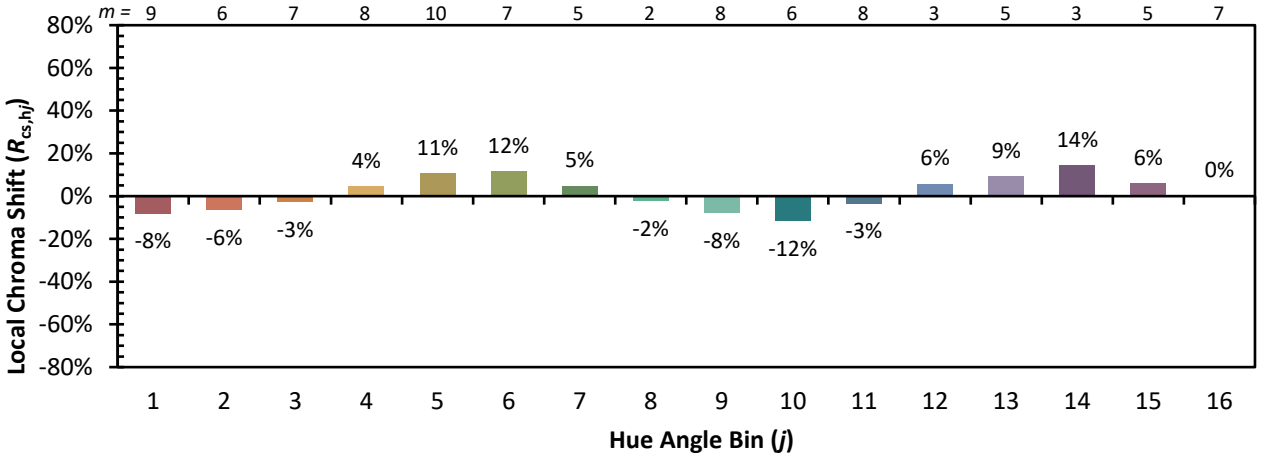
CES01 = 85	CES26 = 69	CES51 = 90	CES76 = 58
CES02 = 61	CES27 = 89	CES52 = 90	CES77 = 76
CES03 = 31	CES28 = 83	CES53 = 80	CES78 = 60
CES04 = 69	CES29 = 66	CES54 = 91	CES79 = 85
CES05 = 48	CES30 = 76	CES55 = 89	CES80 = 79
CES06 = 50	CES31 = 69	CES56 = 79	CES81 = 81
CES07 = 41	CES32 = 62	CES57 = 77	CES82 = 91
CES08 = 40	CES33 = 74	CES58 = 79	CES83 = 88
CES09 = 29	CES34 = 72	CES59 = 93	CES84 = 89
CES10 = 74	CES35 = 84	CES60 = 95	CES85 = 84
CES11 = 57	CES36 = 98	CES61 = 92	CES86 = 82
CES12 = 63	CES37 = 77	CES62 = 89	CES87 = 81
CES13 = 43	CES38 = 83	CES63 = 80	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 80	CES89 = 79
CES15 = 71	CES40 = 88	CES65 = 77	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 74	CES91 = 83
CES17 = 49	CES42 = 74	CES67 = 72	CES92 = 77
CES18 = 56	CES43 = 73	CES68 = 78	CES93 = 86
CES19 = 71	CES44 = 98	CES69 = 83	CES94 = 69
CES20 = 65	CES45 = 82	CES70 = 69	CES95 = 80
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 86
CES22 = 78	CES47 = 80	CES72 = 88	CES97 = 83
CES23 = 91	CES48 = 79	CES73 = 60	CES98 = 81
CES24 = 90	CES49 = 80	CES74 = 98	CES99 = 83
CES25 = 71	CES50 = 89	CES75 = 62	

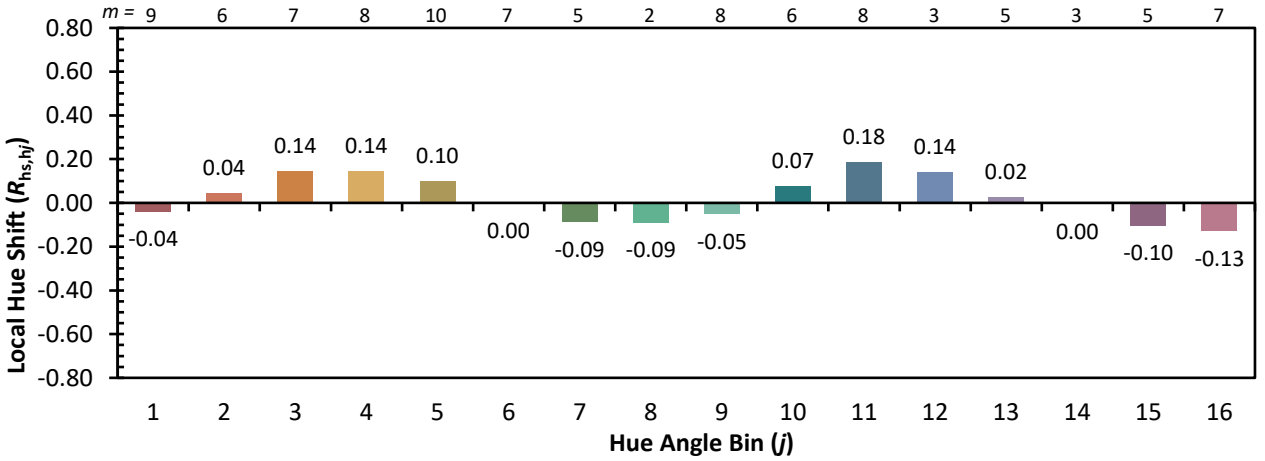


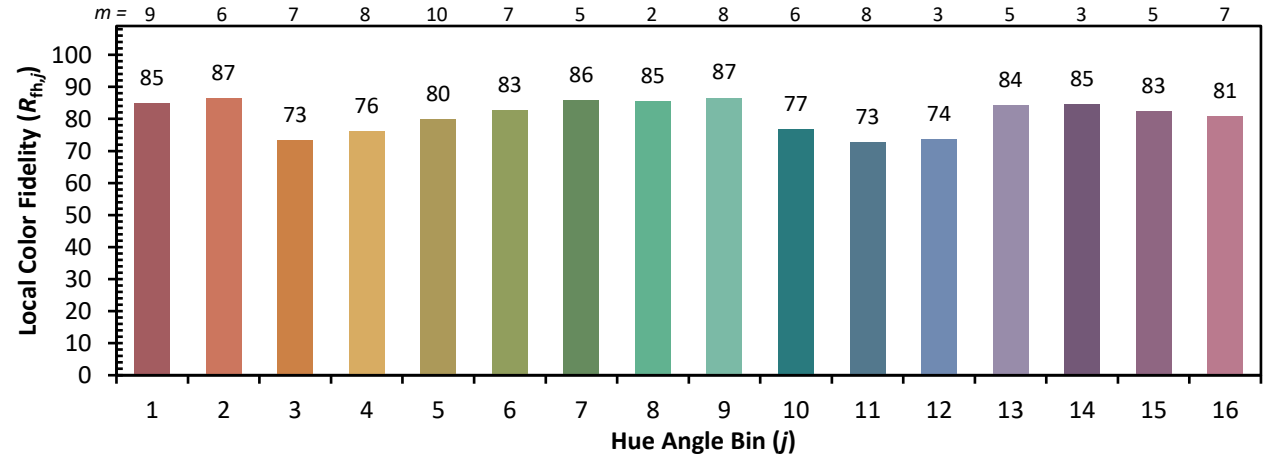
REPORT NUMBER: SP1-2506-472-1

TM-30-18

Color Rendition by Hue-Angle Bin



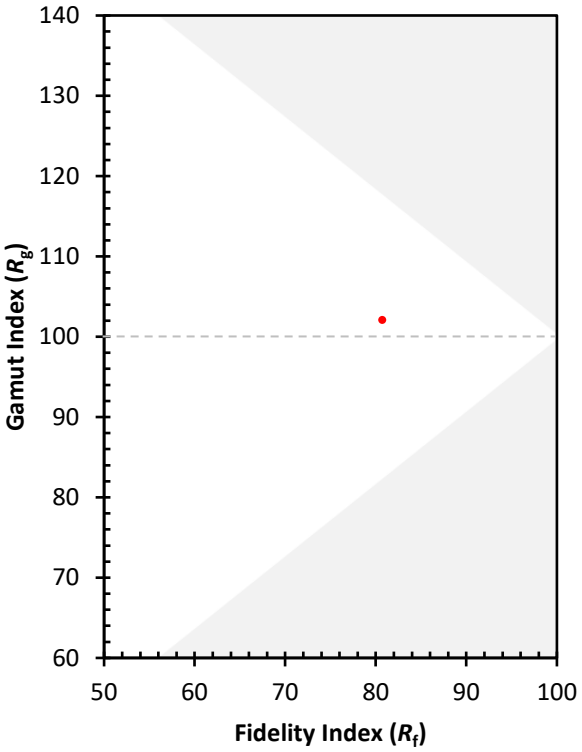


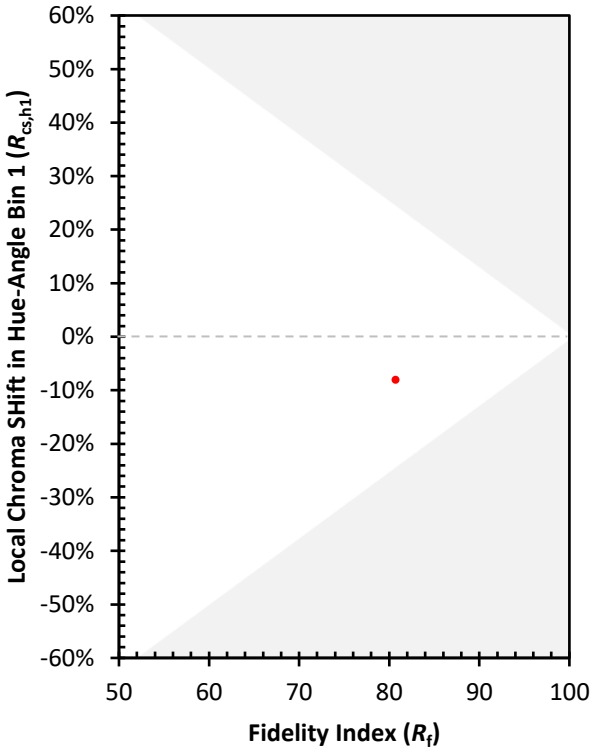


REPORT NUMBER: SP1-2506-472-1

TM-30-18

Measure Comparisons





(END OF REPORT)