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: P1433903

Luminaire Tested: EHBR1-48-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:	P1433903
	REPORT IS A COMBINATION OF REPORTS P1431840 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-TASM-L940-UPL30
Description:	Elevate Round Highbay at, 48000 lumens, 4000K 90CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	47069.6 lumens
Efficiency:	N/A
Efficacy:	167.7 lumens/watt
Spacing Criteria (0/90/45):	0.99 / 0.84 / 0.9
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	280.6
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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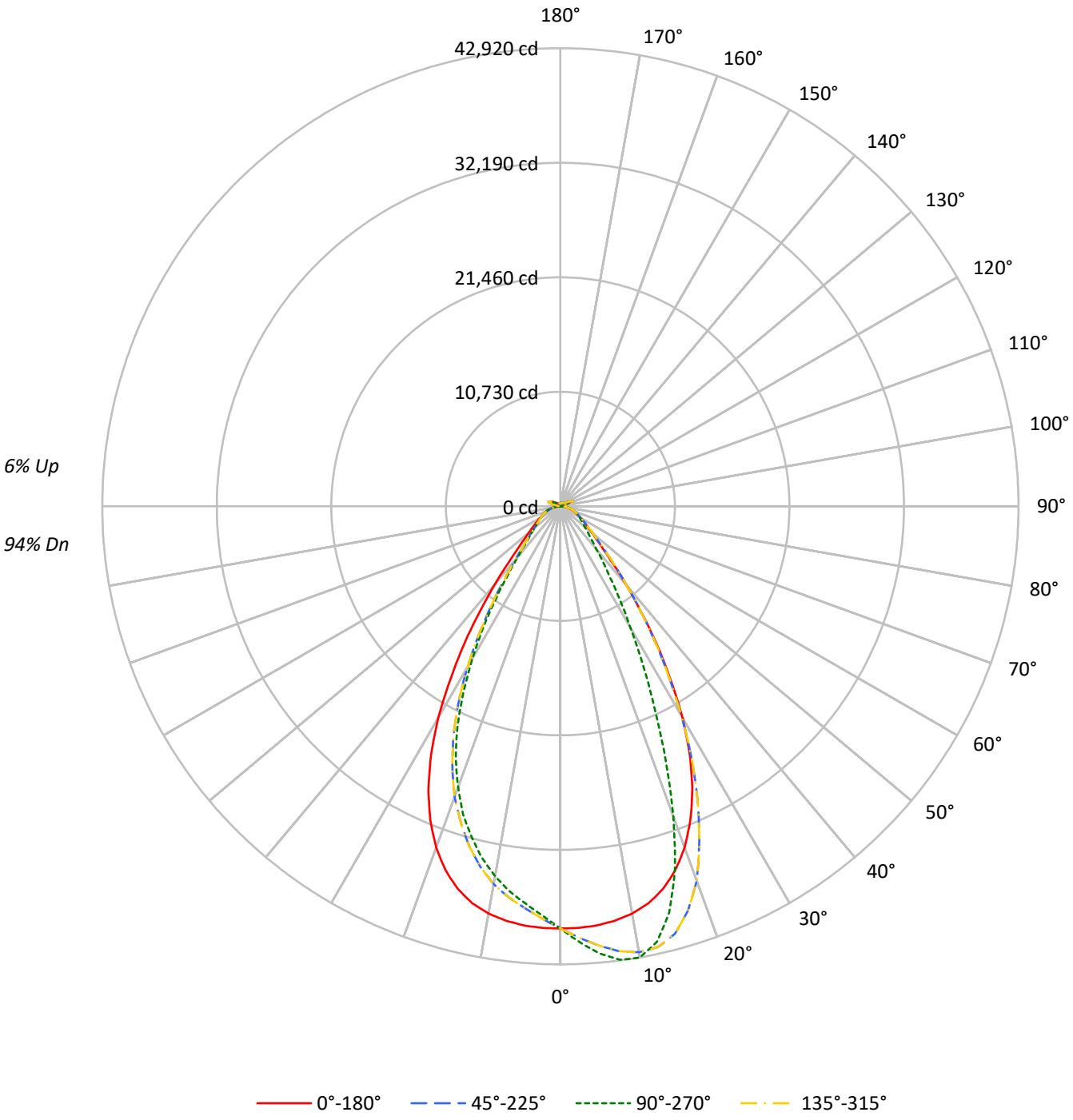
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	110	107	104	101	107	104	101	99	99	97	95	94	92	91	90	88	87	85
2	103	97	92	88	101	95	91	87	91	87	84	87	84	81	83	81	79	77
3	97	89	83	78	94	87	82	77	84	79	75	80	77	73	77	74	71	69
4	91	82	76	71	89	80	74	70	77	72	68	75	70	67	72	68	65	63
5	86	76	69	64	83	75	68	63	72	66	62	70	65	61	67	63	60	58
6	81	70	64	59	79	69	63	58	67	61	57	65	60	56	63	59	55	54
7	76	66	59	54	74	65	58	54	63	57	53	61	56	52	59	55	51	50
8	72	61	55	50	70	60	54	50	59	53	49	57	52	48	56	51	48	46
9	68	58	51	46	67	57	50	46	55	50	46	54	49	45	53	48	45	43
10	65	54	48	43	63	53	47	43	52	47	43	51	46	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	185752	185752	185752	185752
5°	184621	196957	184621	175040
10°	182352	202013	182352	165661
15°	176968	187733	176968	153026
20°	165509	150536	165509	136303
25°	146489	104300	146489	114228
30°	118943	67855	118943	85466
35°	85310	43945	85310	56896
40°	55156	30289	55156	35882
45°	34996	23462	34996	25566
50°	25989	19937	25989	21295
55°	21218	18161	21218	18798
60°	18374	17300	18374	17405
65°	16749	16685	16749	16614
70°	15874	16349	15874	16137
75°	14846	15815	14846	15341
80°	13042	14931	13042	13958
85°	8438	10661	8438	10166

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 49202 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3761.0	8.0
10°-20°	10232.1	21.7
20°-30°	12000.2	25.5
30°-40°	8345.4	17.7
40°-50°	4147.3	8.8
50°-60°	2480.5	5.3
60°-70°	1745.9	3.7
70°-80°	1124.6	2.4
80°-90°	362.3	0.8
90°-100°	76.9	0.2
100°-110°	497.8	1.1
110°-120°	918.9	2.0
120°-130°	546.8	1.2
130°-140°	331.6	0.7
140°-150°	230.2	0.5
150°-160°	151.2	0.3
160°-170°	87.7	0.2
170°-180°	29.4	0.1
0°-30°	25993.4	55.2
0°-40°	34338.7	73.0
0°-60°	40966.5	87.0
0°-90°	44199.3	93.9
90°-120°	1493.6	3.2
90°-150°	2602.1	5.5
90°-180°	2870.0	6.1
0°-180°	47069.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	39554	39554	39554	39554	39554	
5°	39420	42053	39420	37374	39420	3741
15°	37127	39385	37127	32104	37127	10376
25°	29254	20829	29254	22811	29254	13244
35°	15657	8065	15657	10442	15657	9774
45°	5662	3796	5662	4136	5662	4633
55°	2867	2454	2867	2540	2867	2622
65°	1748	1742	1748	1734	1748	1756
75°	1046	1114	1046	1081	1046	1098
85°	290	366	290	349	290	322
90°	21	26	21	21	21	24
95°	41	41	41	36	41	43
105°	229	119	229	174	229	308
115°	978	837	978	794	978	891
125°	626	658	626	574	626	577
135°	397	460	397	420	397	315
145°	361	377	361	351	361	226
155°	323	337	323	314	323	151
165°	307	318	307	302	307	87
175°	309	316	309	303	309	29
180°	308	308	308	308	308	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	39554.5	39554.5	39554.5	39554.5	*39554.5*	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5
2.5°	39531.6	40042.6	40456.4	40729.4	*40864.4*	40729.4	40456.4	40042.6	39531.6	39023.5	38674.1
5°	39419.6	40443.1	41310.2	41877.6	*42053.4*	41877.6	41310.2	40443.1	39419.6	38452.4	37810.9
7.5°	39151.8	40746.5	42034.8	42697.1	*42858.9*	42697.1	42034.8	40746.5	39151.8	37782.6	36971.9
10°	*38743.2*	*40937.8*	*42426.4*	*42901.2*	*42920.5*	*42901.2*	*42426.4*	*40937.8*	*38743.2*	*36898.5*	*35942.4*
12.5°	38091.2	40869.6	42295.1	42139.4	*41785.6*	42139.4	42295.1	40869.6	38091.2	35818.6	34612.6
15°	37126.9	40465.4	41463.7	40196.1	*39385.4*	40196.1	41463.7	40465.4	37126.9	34360.4	32961.5
17.5°	35768.1	39708.8	39728.1	37220.4	*35691.0*	37220.4	39728.1	39708.8	35768.1	32577.3	31036.8
20°	34017.0	38495.4	37338.3	32751.6	*30939.6*	32751.6	37338.3	38495.4	34017.0	30469.4	28957.8
22.5°	31821.5	36859.2	34010.3	28256.1	*25784.0*	28256.1	34010.3	36859.2	31821.5	28018.0	26444.9
25°	29253.7	34854.4	30430.1	23357.9	*20828.6*	23357.9	30430.1	34854.4	29253.7	25097.1	23674.6
27.5°	26233.5	32313.3	26617.7	19087.1	*16753.7*	19087.1	26617.7	32313.3	26233.5	22081.4	20628.4
30°	22878.7	29055.7	22650.3	15200.5	*13051.8*	15200.5	22650.3	29055.7	22878.7	18693.3	17392.3
32.5°	19122.7	25862.6	18840.1	12179.6	*10359.4*	12179.6	18840.1	25862.6	19122.7	15460.2	14100.6
35°	15657.4	21867.8	15404.6	9570.2	*8065.4*	9570.2	15404.6	21867.8	15657.4	12408.0	11073.0
37.5°	12287.9	18093.2	12279.7	7706.4	*6541.8*	7706.4	12279.7	18093.2	12287.9	9646.6	8563.0
40°	9559.9	14147.3	9621.5	6151.8	*5249.8*	6151.8	9621.5	14147.3	9559.9	7340.0	6646.5
42.5°	7243.5	10817.8	7562.5	5048.8	*4459.1*	5048.8	7562.5	10817.8	7243.5	5783.1	5263.9
45°	5662.2	7960.7	5905.5	4259.7	*3796.1*	4259.7	5905.5	7960.7	5662.2	4657.2	4308.6
47.5°	4611.2	6152.5	4786.2	3653.6	*3328.8*	3653.6	4786.2	6152.5	4611.2	3939.2	3678.1
50°	3873.2	4720.9	3974.0	3189.3	*2971.3*	3189.3	3974.0	4720.9	3873.2	3373.3	3199.0
52.5°	3327.3	3850.2	3384.4	2842.3	*2695.3*	2842.3	3384.4	3850.2	3327.3	2951.3	2843.0
55°	2867.4	3236.8	2943.1	2556.0	*2454.3*	2556.0	2943.1	3236.8	2867.4	2626.4	2546.3
57.5°	2518.1	2745.8	2556.0	2311.9	*2244.4*	2311.9	2556.0	2745.8	2518.1	2337.1	2294.1
60°	2208.8	2377.9	2255.5	2099.0	*2079.7*	2099.0	2255.5	2377.9	2208.8	2102.7	2074.6
62.5°	1970.7	2077.6	1994.5	1907.6	*1890.6*	1907.6	1994.5	2077.6	1970.7	1889.1	1894.3
65°	1748.2	1847.6	1782.3	1735.6	*1741.5*	1735.6	1782.3	1847.6	1748.2	1710.4	1718.5
67.5°	1576.2	1628.1	1599.8	1573.2	*1579.9*	1573.2	1599.8	1628.1	1576.2	1539.1	1551.7
70°	1392.9	1448.5	1419.6	1423.4	*1434.5*	1423.4	1419.6	1448.5	1392.9	1381.8	1391.4
72.5°	1217.8	1260.9	1251.3	1260.1	*1272.1*	1260.1	1251.3	1260.9	1217.8	1216.4	1217.1
75°	1045.8	1078.5	1082.9	1095.5	*1114.1*	1095.5	1082.9	1078.5	1045.8	1034.7	1048.0
77.5°	858.1	895.2	909.4	926.4	*953.8*	926.4	909.4	895.2	858.1	865.6	872.2
80°	686.1	703.1	734.3	746.9	*785.5*	746.9	734.3	703.1	686.1	673.5	683.1
82.5°	502.2	517.7	544.5	568.1	*590.4*	568.1	544.5	517.7	502.2	496.2	496.9
85°	290.0	313.8	331.6	359.7	*366.4*	359.7	331.6	313.8	290.0	296.7	290.0
87.5°	101.6	109.0	124.6	135.7	*136.5*	135.7	124.6	109.0	101.6	103.9	94.2
90°	21.2	36.2	62.2	36.1	*26.5*	36.1	62.2	36.2	21.2	37.1	57.6
92.5°	27.6	48.8	87.5	47.0	*34.4*	47.0	87.5	48.8	27.6	48.1	92.3
95°	41.0	59.9	111.1	51.8	*40.7*	51.8	111.1	59.9	41.0	63.9	128.6
97.5°	63.1	74.1	125.4	55.0	*48.5*	55.0	125.4	74.1	63.1	78.1	147.6
100°	83.6	83.6	228.0	62.9	*54.9*	62.9	228.0	83.6	83.6	96.2	229.7
102.5°	126.2	163.2	527.0	123.6	*66.0*	123.6	527.0	163.2	126.2	179.9	486.9
105°	228.8	371.6	926.4	314.6	*118.8*	314.6	926.4	371.6	228.8	375.6	867.4
107.5°	432.4	692.0	1193.2	617.7	*271.9*	617.7	1193.2	692.0	432.4	664.4	1144.3
110°	691.3	966.7	1302.1	845.0	*546.6*	845.0	1302.1	966.7	691.3	912.3	1199.6

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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°	899.7	1077.2	1272.1	936.5	*754.9*	936.5	1272.1	1077.2	899.7	1007.0	1149.1
115°	977.8	1061.4	1136.3	933.4	*837.0*	933.4	1136.3	1061.4	977.8	983.4	1025.9
117.5°	944.6	971.4	981.7	876.6	*841.7*	876.6	981.7	971.4	944.6	884.6	871.3
120°	853.0	842.0	827.7	792.9	*794.4*	792.9	827.7	842.0	853.0	772.5	727.6
122.5°	738.6	714.9	699.9	708.4	*729.7*	708.4	699.9	714.9	738.6	658.0	624.2
125°	626.5	602.8	610.6	635.8	*657.8*	635.8	610.6	602.8	626.5	559.4	550.7
127.5°	532.5	521.4	545.9	574.3	*593.1*	574.3	545.9	521.4	532.5	489.9	498.6
130°	465.4	467.8	500.1	524.4	*536.3*	524.4	500.1	467.8	465.4	444.9	466.2
132.5°	423.5	435.4	466.1	487.3	*494.3*	487.3	466.1	435.4	423.5	417.9	444.0
135°	397.4	414.9	443.2	456.6	*459.7*	456.6	443.2	414.9	397.4	399.8	423.5
137.5°	382.3	399.9	421.1	432.1	*429.7*	432.1	421.1	399.9	382.3	387.8	406.1
140°	373.7	391.1	400.6	413.1	*411.5*	413.1	400.6	391.1	373.7	376.9	391.0
142.5°	364.9	380.9	385.5	394.9	*392.5*	394.9	385.5	380.9	364.9	368.1	377.6
145°	360.9	372.8	368.9	380.8	*377.4*	380.8	368.9	372.8	360.9	361.8	367.3
147.5°	353.1	361.8	357.0	367.3	*363.9*	367.3	357.0	361.8	353.1	353.1	355.3
150°	344.2	350.6	343.6	355.3	*355.2*	355.3	343.6	350.6	344.2	342.7	345.0
152.5°	332.3	338.7	332.3	345.7	*344.9*	345.7	332.3	338.7	332.3	330.7	333.1
155°	322.8	326.0	322.8	336.1	*336.9*	336.1	322.8	326.0	322.8	322.1	323.6
157.5°	316.4	318.7	317.1	329.0	*329.7*	329.0	317.1	318.7	316.4	316.4	317.1
160°	311.4	314.6	313.8	324.0	*324.8*	324.0	313.8	314.6	311.4	312.3	313.0
162.5°	309.8	309.8	309.8	319.9	*321.4*	319.9	309.8	309.8	309.8	309.8	311.4
165°	307.4	308.9	307.3	315.0	*318.1*	315.0	307.3	308.9	307.4	308.2	308.2
167.5°	307.3	305.7	307.2	314.2	*317.2*	314.2	307.2	305.7	307.3	308.1	308.1
170°	304.8	305.6	305.5	312.5	*315.5*	312.5	305.5	305.6	304.8	306.4	307.3
172.5°	307.1	307.1	306.1	311.4	*316.1*	311.4	306.1	307.1	307.1	307.9	309.5
175°	308.6	307.7	307.6	311.4	*316.0*	311.4	307.6	307.7	308.6	307.8	307.8
177.5°	307.0	308.5	309.9	313.7	*319.9*	313.7	309.9	308.5	307.0	307.8	307.8
180°	308.5	308.5	308.5	308.5	*308.5*	308.5	308.5	308.5	308.5	308.5	308.5

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5
2.5°	38405.6	38380.5	38405.6	38674.1	39023.5	39531.6
5°	37513.4	37373.9	37513.4	37810.9	38452.4	39419.6
7.5°	36474.2	36393.4	36474.2	36971.9	37782.6	39151.8
10°	*35380.2*	*35197.0*	*35380.2*	*35942.4*	*36898.5*	*38743.2*
12.5°	34031.8	33789.3	34031.8	34612.6	35818.6	38091.2
15°	32316.9	32104.1	32316.9	32961.5	34360.4	37126.9
17.5°	30476.8	30284.0	30476.8	31036.8	32577.3	35768.1
20°	28165.6	28014.3	28165.6	28957.8	30469.4	34017.0
22.5°	25741.0	25599.3	25741.0	26444.9	28018.0	31821.5
25°	22888.4	22811.3	22888.4	23674.6	25097.1	29253.7
27.5°	19805.9	19674.6	19805.9	20628.4	22081.4	26233.5
30°	16656.5	16439.3	16656.5	17392.3	18693.3	22878.7
32.5°	13576.2	13419.7	13576.2	14100.6	15460.2	19122.7
35°	10599.1	10442.5	10599.1	11073.0	12408.0	15657.4
37.5°	8258.9	7982.2	8258.9	8563.0	9646.6	12287.9
40°	6263.7	6219.2	6263.7	6646.5	7340.0	9559.9
42.5°	5099.3	4978.3	5099.3	5263.9	5783.1	7243.5
45°	4184.0	4136.5	4184.0	4308.6	4657.2	5662.2
47.5°	3598.0	3618.8	3598.0	3678.1	3939.2	4611.2
50°	3161.2	3173.7	3161.2	3199.0	3373.3	3873.2
52.5°	2839.3	2828.1	2839.3	2843.0	2951.3	3327.3
55°	2554.5	2540.3	2554.5	2546.3	2626.4	2867.4
57.5°	2305.3	2315.6	2305.3	2294.1	2337.1	2518.1
60°	2082.7	2092.4	2082.7	2074.6	2102.7	2208.8
62.5°	1895.1	1901.0	1895.1	1894.3	1889.1	1970.7
65°	1727.5	1734.1	1727.5	1718.5	1710.4	1748.2
67.5°	1567.2	1567.2	1567.2	1551.7	1539.1	1576.2
70°	1416.7	1415.9	1416.7	1391.4	1381.8	1392.9
72.5°	1235.6	1253.5	1235.6	1217.1	1216.4	1217.8
75°	1059.9	1080.7	1059.9	1048.0	1034.7	1045.8
77.5°	881.9	913.8	881.9	872.2	865.6	858.1
80°	699.4	734.3	699.4	683.1	673.5	686.1
82.5°	517.0	543.0	517.0	496.9	496.2	502.2
85°	307.8	349.4	307.8	290.0	296.7	290.0
87.5°	98.7	126.1	98.7	94.2	103.9	101.6
90°	33.9	21.2	33.9	57.6	37.1	21.2
92.5°	51.2	30.7	51.2	92.3	48.1	27.6
95°	59.2	35.5	59.2	128.6	63.9	41.0
97.5°	65.5	45.7	65.5	147.6	78.1	63.1
100°	76.5	59.9	76.5	229.7	96.2	83.6
102.5°	161.7	100.9	161.7	486.9	179.9	126.2
105°	340.1	173.6	340.1	867.4	375.6	228.8
107.5°	608.5	299.8	608.5	1144.3	664.4	432.4
110°	807.4	558.7	807.4	1199.6	912.3	691.3

TEST NUMBER: P1433903
CATALOG NUMBER: EHBR1-48-UNV-TASM-L940-UPL30

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	867.4	754.4	867.4	1149.1	1007.0	899.7
115°	834.2	793.9	834.2	1025.9	983.4	977.8
117.5°	761.6	767.0	761.6	871.3	884.6	944.6
120°	678.0	710.2	678.0	727.6	772.5	853.0
122.5°	601.3	639.2	601.3	624.2	658.0	738.6
125°	535.0	573.6	535.0	550.7	559.4	626.5
127.5°	489.2	515.3	489.2	498.6	489.9	532.5
130°	453.7	475.8	453.7	466.2	444.9	465.4
132.5°	429.2	443.4	429.2	444.0	417.9	423.5
135°	407.8	419.7	407.8	423.5	399.8	397.4
137.5°	389.6	400.0	389.6	406.1	387.8	382.3
140°	373.8	382.4	373.8	391.0	376.9	373.7
142.5°	357.1	363.4	357.1	377.6	368.1	364.9
145°	346.0	350.8	346.0	367.3	361.8	360.9
147.5°	336.3	339.5	336.3	355.3	353.1	353.1
150°	326.8	330.0	326.8	345.0	342.7	344.2
152.5°	316.5	320.4	316.5	333.1	330.7	332.3
155°	310.1	314.0	310.1	323.6	322.1	322.8
157.5°	306.8	309.9	306.8	317.1	316.4	316.4
160°	304.4	306.7	304.4	313.0	312.3	311.4
162.5°	301.1	303.4	301.1	311.4	309.8	309.8
165°	301.0	301.8	301.0	308.2	308.2	307.4
167.5°	300.2	301.8	300.2	308.1	308.1	307.3
170°	300.9	301.7	300.9	307.3	306.4	304.8
172.5°	302.4	303.2	302.4	309.5	307.9	307.1
175°	302.3	303.1	302.3	307.8	307.8	308.6
177.5°	304.6	305.4	304.6	307.8	307.8	307.0
180°	308.5	308.5	308.5	308.5	308.5	308.5

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

Scaled Data Report

TEST NUMBER: P1433903
CATALOG NUMBER: EHBR1-48-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	18.84	19.95	19.31	20.39	20.86	18.16	19.27	18.63	19.71	20.18
	3H	20.38	21.37	20.87	21.83	22.35	20.00	20.99	20.49	21.45	21.97
	4H	21.02	21.95	21.53	22.42	22.95	20.78	21.71	21.30	22.18	22.72
	6H	21.50	22.35	22.02	22.84	23.39	21.43	22.28	21.95	22.77	23.31
	8H	21.65	22.46	22.19	22.97	23.52	21.65	22.45	22.19	22.96	23.52
	12H	21.73	22.49	22.26	23.00	23.57	21.78	22.54	22.32	23.05	23.62
4H	2H	19.25	20.18	19.76	20.65	21.18	18.73	19.65	19.24	20.13	20.66
	3H	21.05	21.81	21.57	22.34	22.89	20.79	21.55	21.31	22.07	22.62
	4H	21.82	22.51	22.36	23.04	23.63	21.70	22.38	22.24	22.92	23.50
	6H	22.44	23.03	23.01	23.59	24.20	22.47	23.06	23.03	23.62	24.23
	8H	22.63	23.19	23.21	23.74	24.36	22.74	23.29	23.31	23.85	24.46
	12H	22.74	23.23	23.33	23.82	24.43	22.91	23.39	23.49	23.98	24.60
8H	4H	22.07	22.63	22.65	23.18	23.80	21.98	22.53	22.55	23.09	23.70
	6H	22.81	23.26	23.42	23.87	24.49	22.88	23.33	23.48	23.93	24.55
	8H	23.08	23.48	23.71	24.10	24.74	23.23	23.63	23.86	24.25	24.88
	12H	23.26	23.61	23.87	24.21	24.91	23.48	23.83	24.10	24.43	25.14
12H	4H	22.08	22.57	22.67	23.16	23.78	21.99	22.47	22.58	23.06	23.68
	6H	22.86	23.26	23.48	23.88	24.51	22.92	23.33	23.55	23.94	24.58
	8H	23.18	23.53	23.79	24.12	24.83	23.33	23.68	23.95	24.28	24.99

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

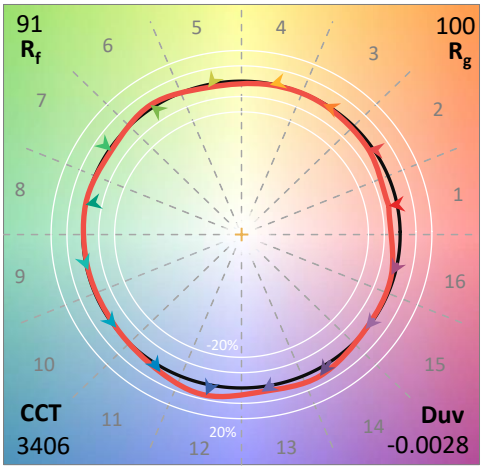
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

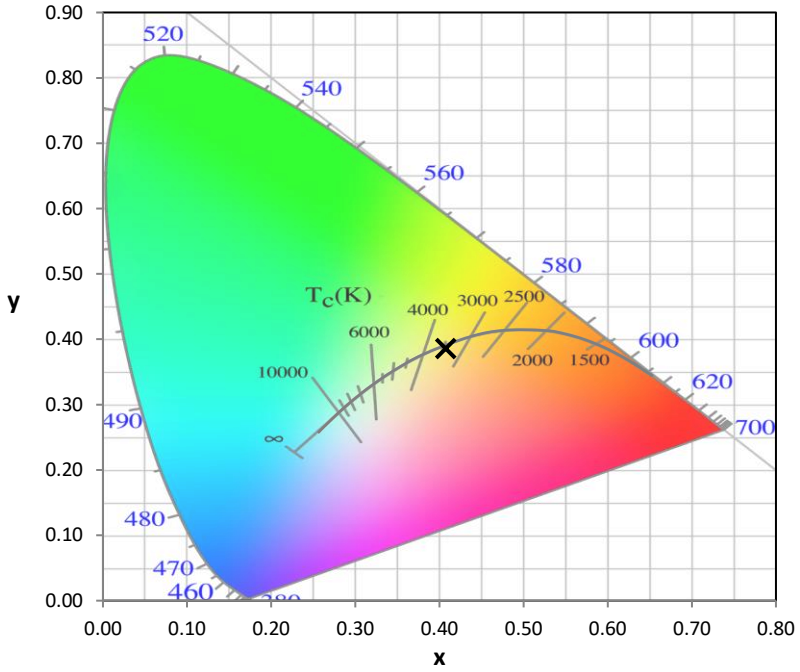
Stabilization Time:	35M
Operation Time:	1H 35M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-6

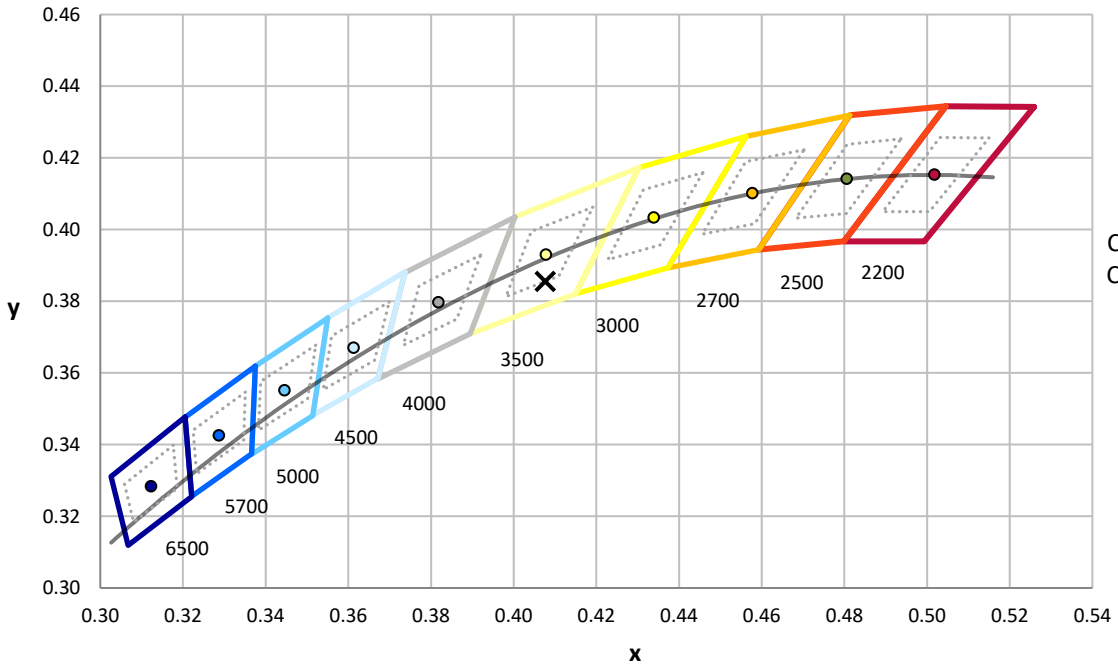
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

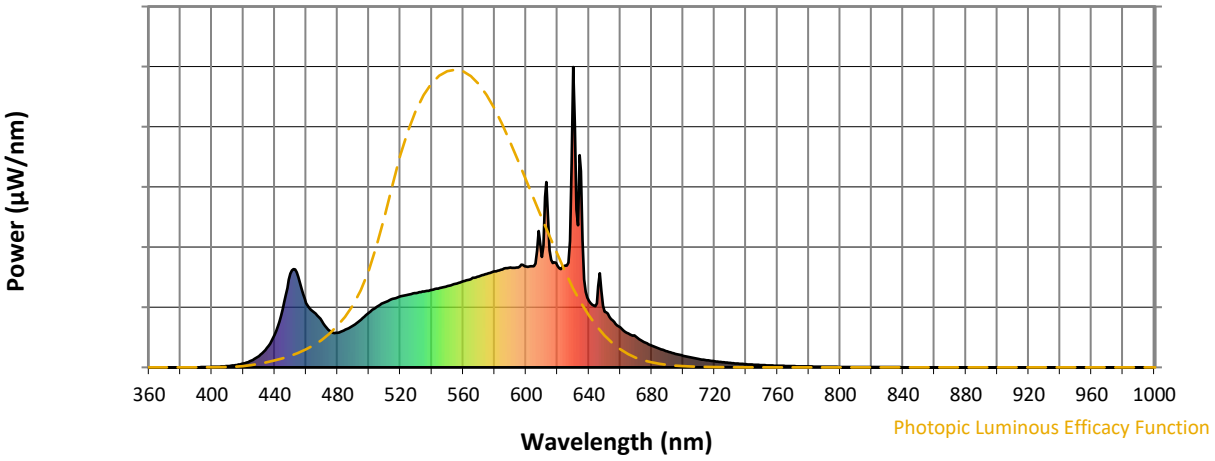


CCT = 3406K
CIE x = 0.4076
CIE y = 0.3856
Duv = -0.0028

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

Photopic Flux vs. Wavelength

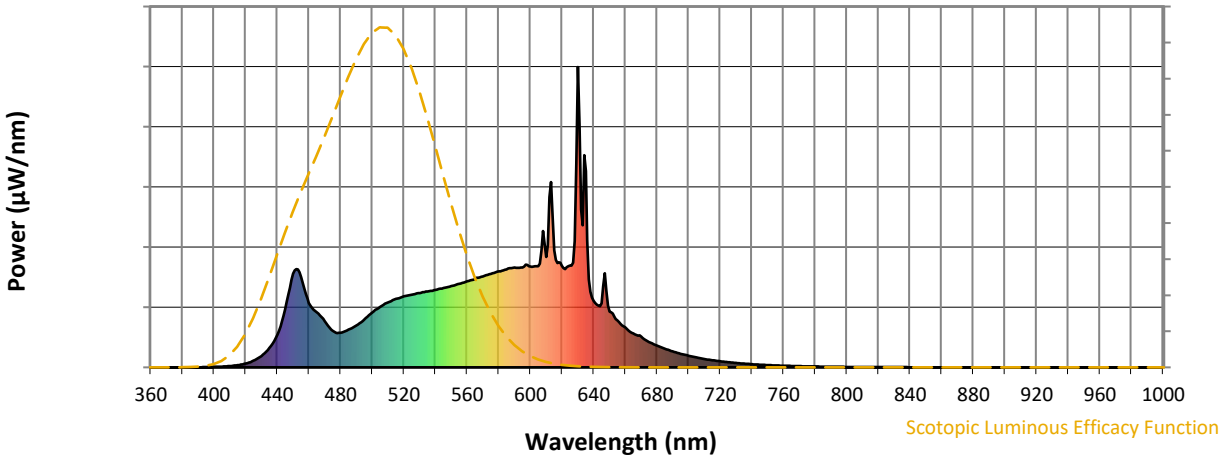


Photopic Lumens: NR

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

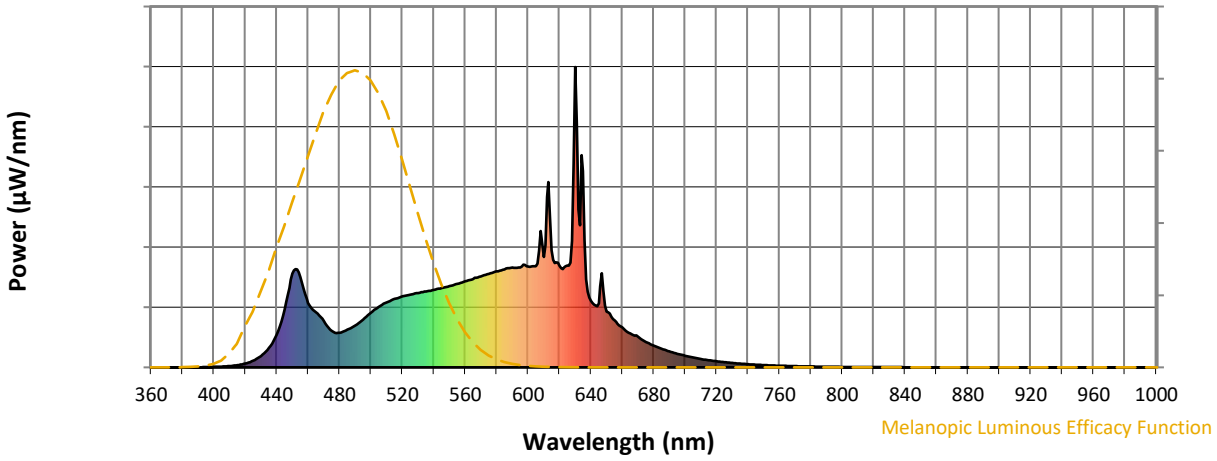


Scotopic Lumens: NR **S/P: 1.62**

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			

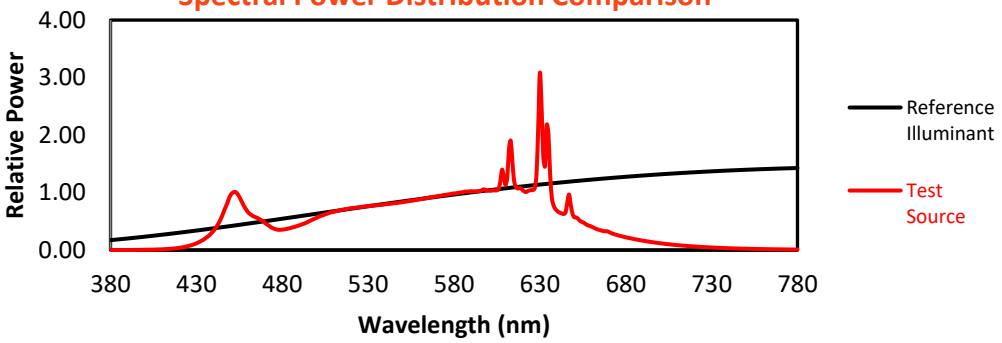
REPORT NUMBER: SP1-2506-472-6

TM-30-18

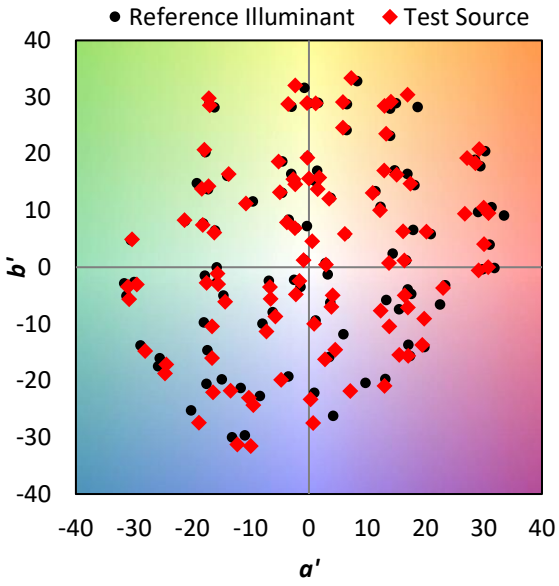
Summary

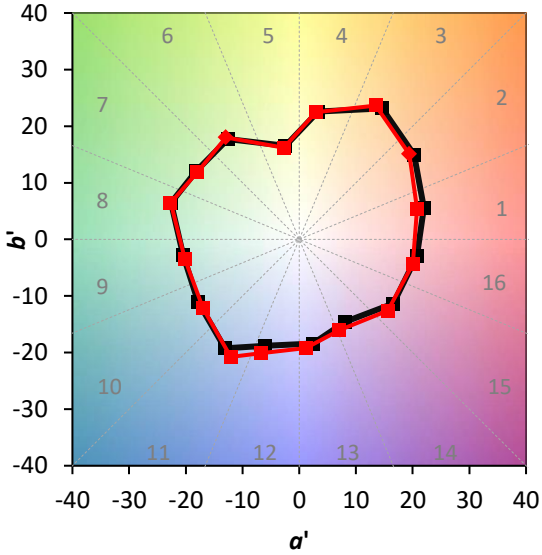
R_f = 91.3
R_g = 100
CIE R_a = 94.6
R_9 = 63.8

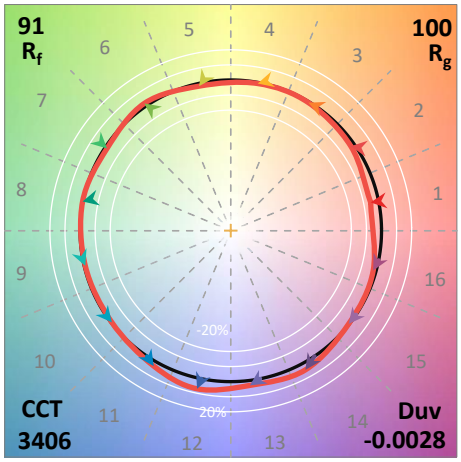
Spectral Power Distribution Comparison

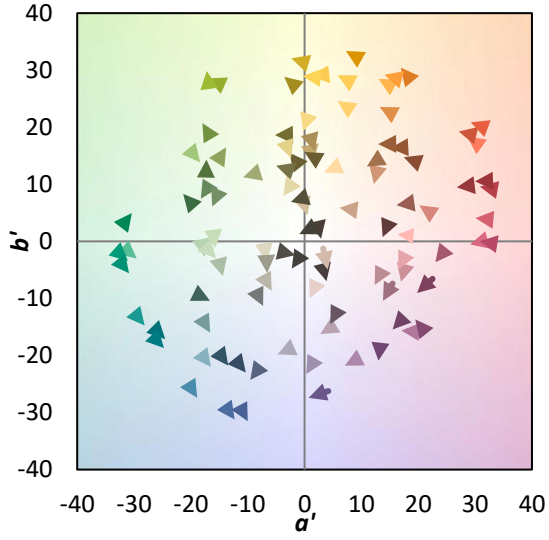


Color Vector Graphics









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
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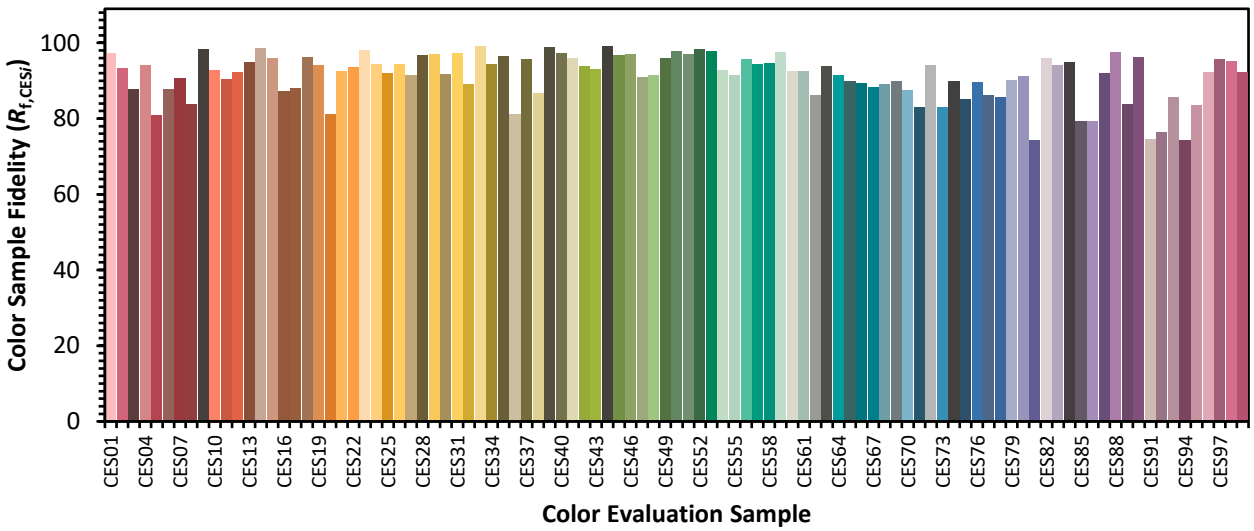

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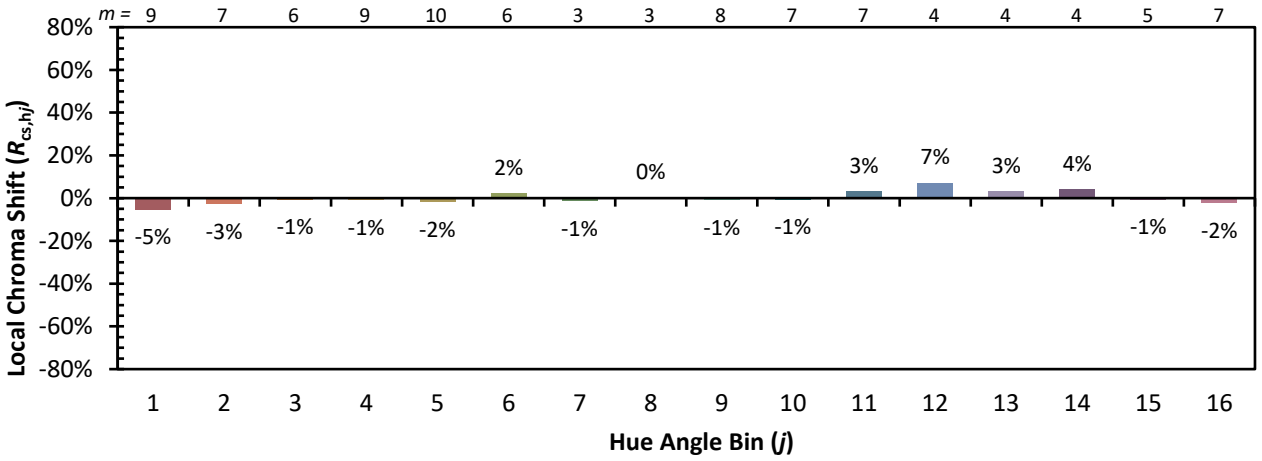
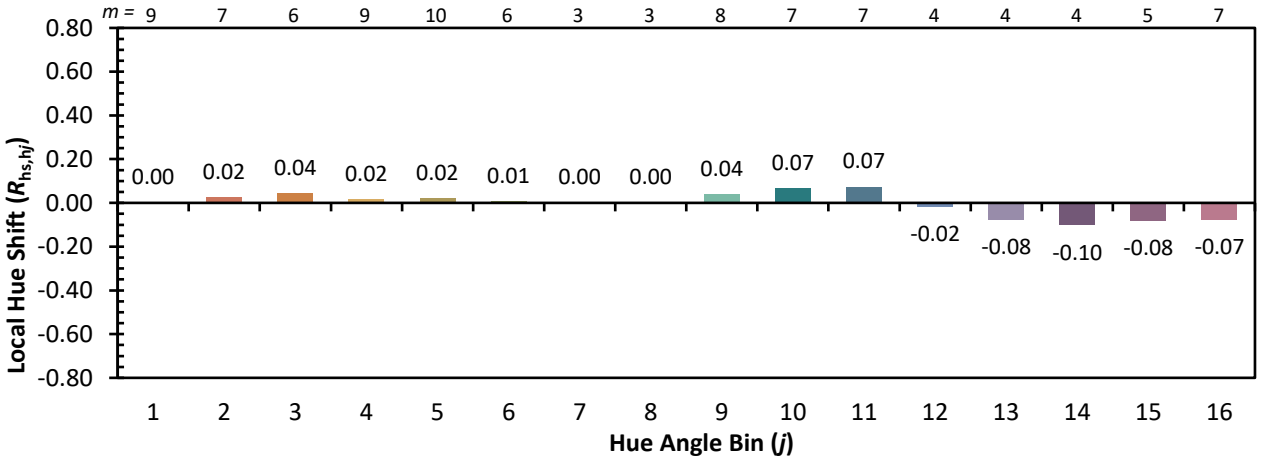
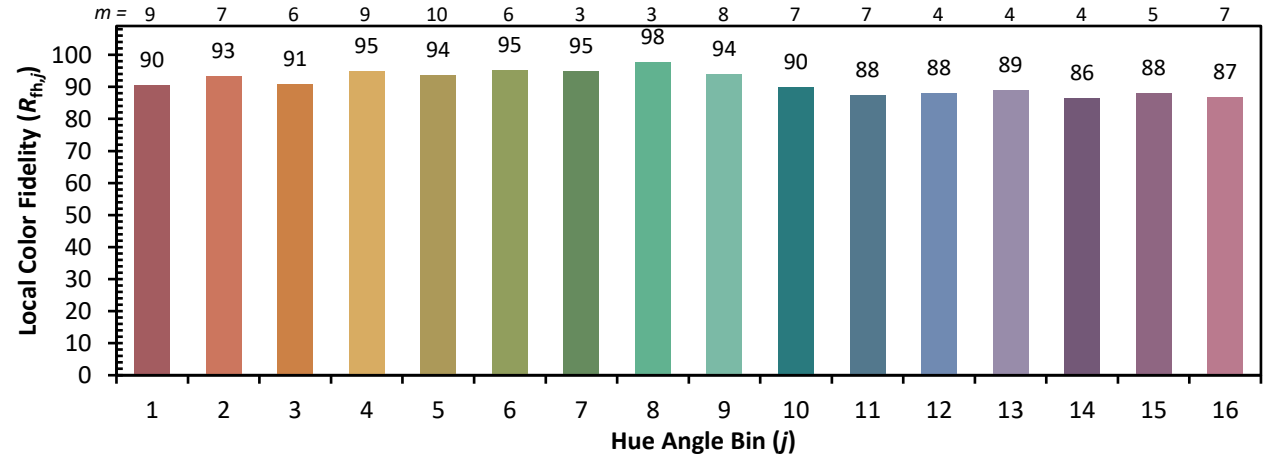
Color Rendition by Hue-Angle Bin







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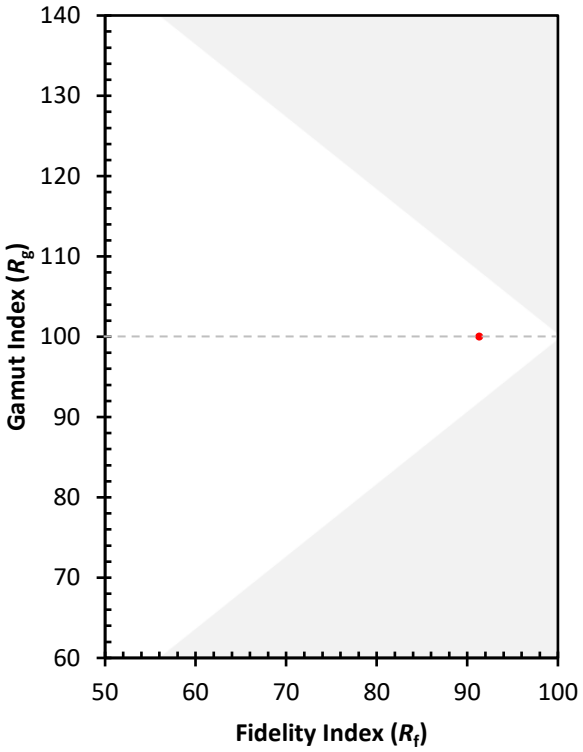
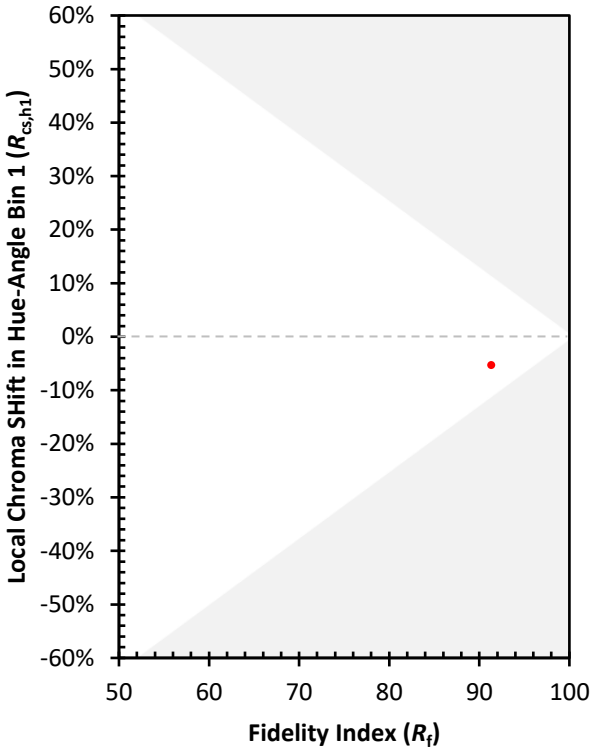
Measure Comparisons





(END OF REPORT)