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: P1433287

Luminaire Tested: EHBR1-48-UNV-TASM-L930-UPL36

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:	P1433287
	REPORT IS A COMBINATION OF REPORTS P1431841 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-TASM-L930-UPL36
Description:	Elevate Round Highbay at, 48000 lumens, 3000K 90CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	45586.3 lumens
Efficiency:	N/A
Efficacy:	158.8 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

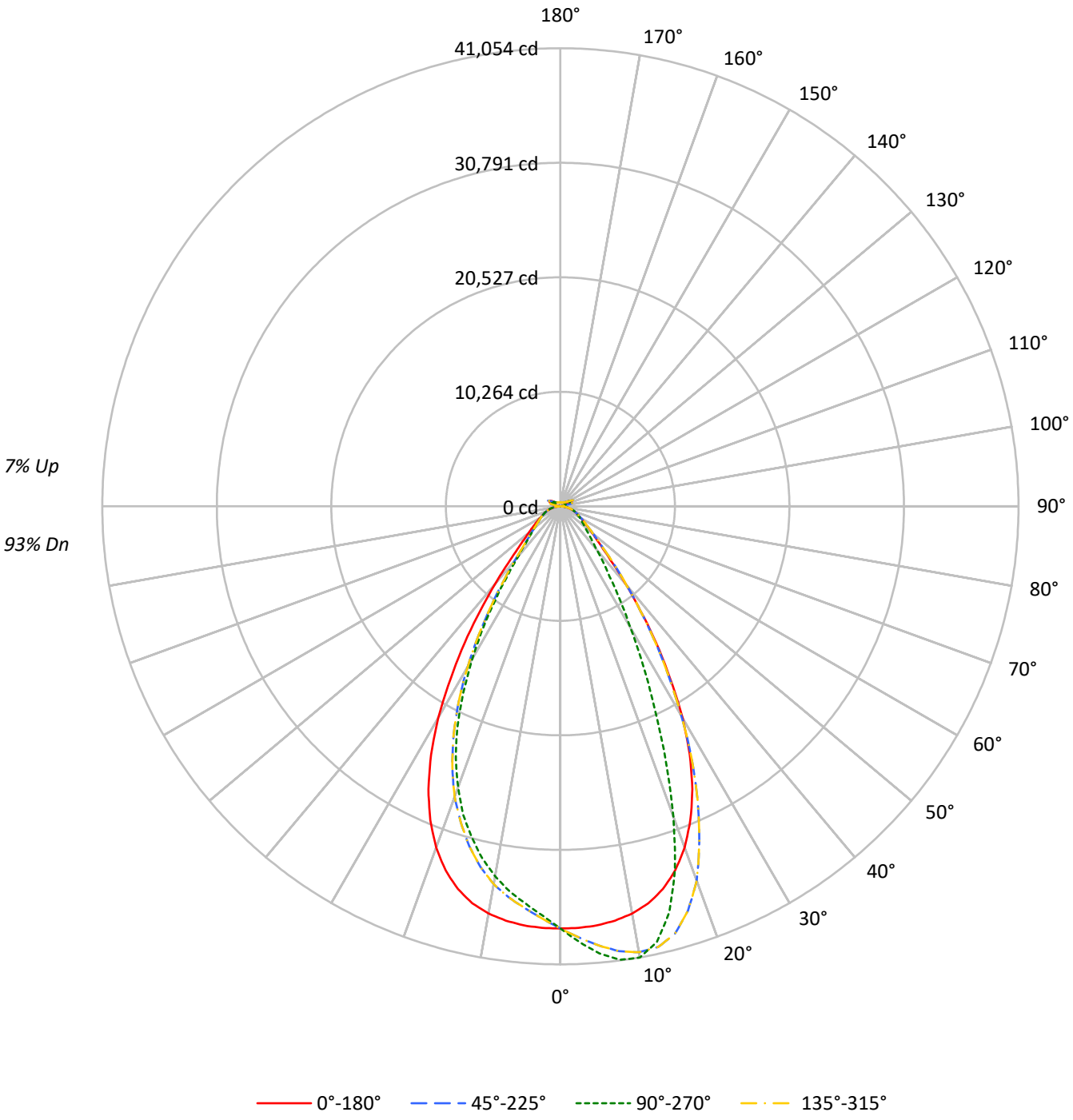
Input Watts (W):	287
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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

Scaled Data Report

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

Luminous Intensity Polar Plot



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

Scaled Data Report

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	110	107	104	101	107	104	101	98	98	96	94	93	92	90	89	87	86	84
2	103	97	92	88	100	95	90	86	90	87	83	86	83	81	82	80	78	76
3	97	89	83	78	94	87	81	77	83	79	75	80	76	73	76	73	71	69
4	91	82	75	70	88	80	74	69	77	72	68	74	70	66	71	68	65	63
5	85	76	69	64	83	74	68	63	71	66	62	69	64	61	67	63	59	58
6	80	70	63	58	78	69	62	58	67	61	57	64	60	56	62	58	55	53
7	76	65	58	54	74	64	58	53	62	57	52	60	55	52	59	54	51	49
8	72	61	54	50	70	60	54	49	58	53	49	57	52	48	55	51	47	46
9	68	57	51	46	66	56	50	46	55	49	45	53	48	45	52	48	44	43
10	65	54	47	43	63	53	47	43	52	46	42	50	45	42	49	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	177676	177676	177676	177676
5°	176594	188394	176594	167430
10°	174424	193230	174424	158459
15°	169274	179571	169274	146373
20°	158313	143991	158313	130377
25°	140120	99765	140120	109262
30°	113772	64904	113772	81750
35°	81601	42034	81601	54423
40°	52758	28972	52758	34322
45°	33474	22442	33474	24455
50°	24859	19070	24859	20370
55°	20296	17372	20296	17981
60°	17575	16548	17575	16648
65°	16021	15959	16021	15891
70°	15184	15637	15184	15436
75°	14200	15127	14200	14674
80°	12474	14281	12474	13352
85°	8071	10198	8071	9724

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 47063 cd/sqm

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

Scaled Data Report

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3597.5	7.9
10°-20°	9787.3	21.5
20°-30°	11478.5	25.2
30°-40°	7982.5	17.5
40°-50°	3967.0	8.7
50°-60°	2372.6	5.2
60°-70°	1670.0	3.7
70°-80°	1075.7	2.4
80°-90°	347.5	0.8
90°-100°	88.4	0.2
100°-110°	574.3	1.3
110°-120°	1060.6	2.3
120°-130°	630.7	1.4
130°-140°	382.0	0.8
140°-150°	264.8	0.6
150°-160°	173.4	0.4
160°-170°	100.1	0.2
170°-180°	33.4	0.1
0°-30°	24863.2	54.5
0°-40°	32845.8	72.1
0°-60°	39185.4	86.0
0°-90°	42278.6	92.7
90°-120°	1723.3	3.8
90°-150°	3000.8	6.6
90°-180°	3308.0	7.3
0°-180°	45586.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	37835	37835	37835	37835	37835	
5°	37706	40225	37706	35749	37706	3578
15°	35513	37673	35513	30708	35513	9925
25°	27982	19923	27982	21820	27982	12668
35°	14977	7715	14977	9988	14977	9349
45°	5416	3631	5416	3957	5416	4432
55°	2743	2348	2743	2430	2743	2508
65°	1672	1666	1672	1659	1672	1679
75°	1000	1066	1000	1034	1000	1050
85°	277	350	277	334	277	308
90°	24	29	24	24	24	24
95°	47	46	47	41	47	50
105°	264	136	264	200	264	356
115°	1129	965	1129	916	1129	1029
125°	723	758	723	662	723	666
135°	458	529	458	484	458	363
145°	415	434	415	403	415	260
155°	370	386	370	360	370	173
165°	351	362	351	344	351	100
175°	351	359	351	345	351	33
180°	351	351	351	351	351	

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

Scaled Data Report

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	37834.8	37834.8	37834.8	37834.8	*37834.8*	37834.8	37834.8	37834.8	37834.8	37834.8	37834.8
2.5°	37812.9	38301.6	38697.5	38958.6	*39087.7*	38958.6	38697.5	38301.6	37812.9	37326.8	36992.6
5°	37705.7	38684.7	39514.1	40056.8	*40225.0*	40056.8	39514.1	38684.7	37705.7	36780.6	36166.9
7.5°	37449.5	38974.9	40207.3	40840.8	*40995.5*	40840.8	40207.3	38974.9	37449.5	36139.9	35364.4
10°	*37058.7*	*39157.9*	*40581.8*	*41035.9*	*41054.4*	*41035.9*	*40581.8*	*39157.9*	*37058.7*	*35294.2*	*34379.7*
12.5°	36435.1	39092.7	40456.2	40307.2	*39968.9*	40307.2	40456.2	39092.7	36435.1	34261.3	33107.7
15°	35512.7	38706.0	39661.0	38448.5	*37673.0*	38448.5	39661.0	38706.0	35512.7	32866.5	31528.4
17.5°	34213.0	37982.3	38000.8	35602.1	*34139.2*	35602.1	38000.8	37982.3	34213.0	31160.9	29687.3
20°	32538.0	36821.7	35714.9	31327.7	*29594.4*	31327.7	35714.9	36821.7	32538.0	29144.6	27698.8
22.5°	30438.0	35256.6	32531.6	27027.6	*24663.0*	27027.6	32531.6	35256.6	30438.0	26799.9	25295.1
25°	27981.8	33339.0	29107.0	22342.3	*19923.0*	22342.3	29107.0	33339.0	27981.8	24006.0	22645.3
27.5°	25092.9	30908.4	25460.4	18257.2	*16025.3*	18257.2	25460.4	30908.4	25092.9	21121.4	19731.5
30°	21884.0	27792.4	21665.5	14539.7	*12484.3*	14539.7	21665.5	27792.4	21884.0	17880.5	16636.2
32.5°	18291.3	24738.1	18021.0	11650.1	*9909.0*	11650.1	18021.0	24738.1	18291.3	14788.0	13487.6
35°	14976.7	20917.0	14734.8	9154.1	*7714.7*	9154.1	14734.8	20917.0	14976.7	11868.6	10591.6
37.5°	11753.6	17306.6	11745.8	7371.3	*6257.4*	7371.3	11745.8	17306.6	11753.6	9227.2	8190.7
40°	9144.3	13532.2	9203.2	5884.3	*5021.6*	5884.3	9203.2	13532.2	9144.3	7020.8	6357.5
42.5°	6928.6	10347.5	7233.7	4829.3	*4265.3*	4829.3	7233.7	10347.5	6928.6	5531.7	5035.0
45°	5416.0	7614.6	5648.8	4074.5	*3631.0*	4074.5	5648.8	7614.6	5416.0	4454.7	4121.3
47.5°	4410.7	5885.0	4578.1	3494.8	*3184.0*	3494.8	4578.1	5885.0	4410.7	3767.9	3518.2
50°	3704.8	4515.7	3801.2	3050.6	*2842.1*	3050.6	3801.2	4515.7	3704.8	3226.6	3059.9
52.5°	3182.6	3682.8	3237.2	2718.7	*2578.2*	2718.7	3237.2	3682.8	3182.6	2823.0	2719.4
55°	2742.8	3096.1	2815.1	2444.8	*2347.6*	2444.8	2815.1	3096.1	2742.8	2512.2	2435.6
57.5°	2408.7	2626.5	2444.8	2211.4	*2146.8*	2211.4	2444.8	2626.5	2408.7	2235.5	2194.3
60°	2112.8	2274.5	2157.4	2007.7	*1989.3*	2007.7	2157.4	2274.5	2112.8	2011.3	1984.4
62.5°	1885.0	1987.2	1907.8	1824.7	*1808.4*	1824.7	1907.8	1987.2	1885.0	1807.0	1812.0
65°	1672.2	1767.3	1704.8	1660.1	*1665.8*	1660.1	1704.8	1767.3	1672.2	1636.0	1643.8
67.5°	1507.6	1557.3	1530.3	1504.8	*1511.2*	1504.8	1530.3	1557.3	1507.6	1472.2	1484.2
70°	1332.3	1385.5	1357.9	1361.5	*1372.1*	1361.5	1357.9	1385.5	1332.3	1321.7	1330.9
72.5°	1164.9	1206.1	1196.9	1205.4	*1216.8*	1205.4	1196.9	1206.1	1164.9	1163.5	1164.2
75°	1000.3	1031.6	1035.8	1047.9	*1065.6*	1047.9	1035.8	1031.6	1000.3	989.7	1002.4
77.5°	820.8	856.3	869.8	886.1	*912.3*	886.1	869.8	856.3	820.8	828.0	834.3
80°	656.2	672.5	702.4	714.4	*751.3*	714.4	702.4	672.5	656.2	644.2	653.4
82.5°	480.3	495.2	520.8	543.4	*564.7*	543.4	520.8	495.2	480.3	474.6	475.3
85°	277.4	300.1	317.2	344.1	*350.5*	344.1	317.2	300.1	277.4	283.8	277.4
87.5°	97.2	104.3	119.1	129.8	*130.6*	129.8	119.1	104.3	97.2	99.4	90.1
90°	24.4	41.5	71.4	40.7	*29.4*	40.7	71.4	41.5	24.4	42.6	66.3
92.5°	31.7	56.1	100.6	53.5	*38.5*	53.5	100.6	56.1	31.7	55.4	106.4
95°	47.0	68.9	127.9	59.0	*45.8*	59.0	127.9	68.9	47.0	73.6	148.4
97.5°	72.5	85.3	144.3	62.6	*54.9*	62.6	144.3	85.3	72.5	90.0	170.2
100°	96.2	96.2	262.8	71.7	*62.2*	71.7	262.8	96.2	96.2	110.8	265.0
102.5°	145.4	188.0	608.0	141.7	*74.9*	141.7	608.0	188.0	145.4	207.4	562.1
105°	263.9	428.6	1069.2	362.2	*135.8*	362.2	1069.2	428.6	263.9	433.5	1001.4
107.5°	499.0	798.6	1377.2	712.2	*312.6*	712.2	1377.2	798.6	499.0	767.0	1321.1
110°	797.9	1115.8	1503.0	974.7	*629.8*	974.7	1503.0	1115.8	797.9	1053.1	1384.9

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

Scaled Data Report

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1038.5	1243.4	1468.3	1080.4	*870.4*	1080.4	1468.3	1243.4	1038.5	1162.5	1326.6
115°	1128.6	1225.2	1311.6	1076.8	*965.2*	1076.8	1311.6	1225.2	1128.6	1135.1	1184.4
117.5°	1090.3	1121.3	1132.9	1011.2	*970.6*	1011.2	1132.9	1121.3	1090.3	1021.1	1005.7
120°	984.6	971.9	955.0	914.6	*916.0*	914.6	955.0	971.9	984.6	891.7	839.9
122.5°	852.3	824.9	807.4	816.8	*841.2*	816.8	807.4	824.9	852.3	759.3	720.3
125°	722.8	695.5	704.2	733.0	*758.1*	733.0	704.2	695.5	722.8	645.2	635.4
127.5°	614.2	601.4	629.5	661.8	*683.3*	661.8	629.5	601.4	614.2	565.0	575.2
130°	536.6	539.4	576.7	604.3	*617.7*	604.3	576.7	539.4	536.6	512.9	537.6
132.5°	488.0	501.9	537.3	561.2	*569.3*	561.2	537.3	501.9	488.0	481.4	511.7
135°	457.8	478.2	510.6	525.9	*529.2*	525.9	510.6	478.2	457.8	460.3	488.0
137.5°	440.2	460.6	485.0	497.4	*494.5*	497.4	485.0	460.6	440.2	446.4	467.6
140°	430.0	450.5	461.3	475.6	*473.4*	475.6	461.3	450.5	430.0	433.6	450.0
142.5°	419.8	438.4	443.9	454.4	*451.5*	454.4	443.9	438.4	419.8	423.5	434.3
145°	415.0	428.9	424.5	438.0	*433.9*	438.0	424.5	428.9	415.0	416.2	422.3
147.5°	405.9	416.2	410.6	422.3	*418.2*	422.3	410.6	416.2	405.9	405.9	408.3
150°	395.6	402.9	395.0	408.3	*408.0*	408.3	395.0	402.9	395.6	393.8	396.3
152.5°	381.8	389.0	381.8	397.0	*395.9*	397.0	381.8	389.0	381.8	379.9	382.5
155°	370.4	374.0	370.4	385.7	*386.4*	385.7	370.4	374.0	370.4	369.6	371.1
157.5°	362.7	365.3	363.4	376.9	*377.6*	376.9	363.4	365.3	362.7	362.7	363.4
160°	356.5	360.1	359.0	370.6	*371.3*	370.6	359.0	360.1	356.5	357.5	358.2
162.5°	354.2	354.2	353.9	365.5	*366.9*	365.5	353.9	354.2	354.2	354.2	356.0
165°	350.9	352.7	350.5	359.2	*362.4*	359.2	350.5	352.7	350.9	352.0	352.0
167.5°	350.5	348.7	350.1	357.7	*361.0*	357.7	350.1	348.7	350.5	351.6	351.6
170°	347.5	348.3	347.9	355.5	*358.8*	355.5	347.9	348.3	347.5	349.4	350.5
172.5°	349.7	349.7	348.2	353.9	*359.0*	353.9	348.2	349.7	349.7	350.8	352.6
175°	351.1	350.0	349.6	353.5	*358.6*	353.5	349.6	350.0	351.1	350.4	350.4
177.5°	349.3	350.8	352.1	356.0	*363.0*	356.0	352.1	350.8	349.3	350.4	350.4
180°	350.8	350.8	350.8	350.8	*350.8*	350.8	350.8	350.8	350.8	350.8	350.8

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

Scaled Data Report

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	37834.8	37834.8	37834.8	37834.8	37834.8	37834.8
2.5°	36735.8	36711.8	36735.8	36992.6	37326.8	37812.9
5°	35882.4	35749.0	35882.4	36166.9	36780.6	37705.7
7.5°	34888.4	34811.1	34888.4	35364.4	36139.9	37449.5
10°	*33841.9*	*33666.7*	*33841.9*	*34379.7*	*35294.2*	*37058.7*
12.5°	32552.2	32320.2	32552.2	33107.7	34261.3	36435.1
15°	30911.9	30708.3	30911.9	31528.4	32866.5	35512.7
17.5°	29151.8	28967.3	29151.8	29687.3	31160.9	34213.0
20°	26941.0	26796.3	26941.0	27698.8	29144.6	32538.0
22.5°	24621.8	24486.3	24621.8	25295.1	26799.9	30438.0
25°	21893.3	21819.5	21893.3	22645.3	24006.0	27981.8
27.5°	18944.7	18819.2	18944.7	19731.5	21121.4	25092.9
30°	15932.3	15724.5	15932.3	16636.2	17880.5	21884.0
32.5°	12986.0	12836.2	12986.0	13487.6	14788.0	18291.3
35°	10138.2	9988.5	10138.2	10591.6	11868.6	14976.7
37.5°	7899.9	7635.2	7899.9	8190.7	9227.2	11753.6
40°	5991.4	5948.8	5991.4	6357.5	7020.8	9144.3
42.5°	4877.6	4761.9	4877.6	5035.0	5531.7	6928.6
45°	4002.1	3956.7	4002.1	4121.3	4454.7	5416.0
47.5°	3441.6	3461.5	3441.6	3518.2	3767.9	4410.7
50°	3023.7	3035.8	3023.7	3059.9	3226.6	3704.8
52.5°	2715.8	2705.1	2715.8	2719.4	2823.0	3182.6
55°	2443.4	2429.9	2443.4	2435.6	2512.2	2742.8
57.5°	2205.0	2214.9	2205.0	2194.3	2235.5	2408.7
60°	1992.1	2001.4	1992.1	1984.4	2011.3	2112.8
62.5°	1812.7	1818.4	1812.7	1812.0	1807.0	1885.0
65°	1652.4	1658.7	1652.4	1643.8	1636.0	1672.2
67.5°	1499.1	1499.1	1499.1	1484.2	1472.2	1507.6
70°	1355.1	1354.4	1355.1	1330.9	1321.7	1332.3
72.5°	1181.9	1199.0	1181.9	1164.2	1163.5	1164.9
75°	1013.8	1033.7	1013.8	1002.4	989.7	1000.3
77.5°	843.6	874.0	843.6	834.3	828.0	820.8
80°	669.0	702.4	669.0	653.4	644.2	656.2
82.5°	494.5	519.4	494.5	475.3	474.6	480.3
85°	294.4	334.2	294.4	277.4	283.8	277.4
87.5°	94.4	120.6	94.4	90.1	99.4	97.2
90°	39.0	24.4	39.0	66.3	42.6	24.4
92.5°	59.1	35.4	59.1	106.4	55.4	31.7
95°	68.2	40.8	68.2	148.4	73.6	47.0
97.5°	75.5	52.5	75.5	170.2	90.0	72.5
100°	88.2	68.9	88.2	265.0	110.8	96.2
102.5°	186.6	116.3	186.6	562.1	207.4	145.4
105°	392.6	200.1	392.6	1001.4	433.5	263.9
107.5°	702.5	345.9	702.5	1321.1	767.0	499.0
110°	932.1	644.8	932.1	1384.9	1053.1	797.9

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1001.4	870.9	1001.4	1326.6	1162.5	1038.5
115°	963.1	916.4	963.1	1184.4	1135.1	1128.6
117.5°	879.3	885.4	879.3	1005.7	1021.1	1090.3
120°	782.7	819.8	782.7	839.9	891.7	984.6
122.5°	694.1	737.8	694.1	720.3	759.3	852.3
125°	617.5	661.9	617.5	635.4	645.2	722.8
127.5°	564.6	594.6	564.6	575.2	565.0	614.2
130°	523.5	548.9	523.5	537.6	512.9	536.6
132.5°	495.0	511.4	495.0	511.7	481.4	488.0
135°	470.2	484.1	470.2	488.0	460.3	457.8
137.5°	449.0	461.1	449.0	467.6	446.4	440.2
140°	430.4	440.7	430.4	450.0	433.6	430.0
142.5°	411.1	418.4	411.1	434.3	423.5	419.8
145°	397.9	403.4	397.9	422.3	416.2	415.0
147.5°	386.5	390.1	386.5	408.3	405.9	405.9
150°	375.2	378.8	375.2	396.3	393.8	395.6
152.5°	363.1	367.5	363.1	382.5	379.9	381.8
155°	355.4	359.8	355.4	371.1	369.6	370.4
157.5°	351.4	354.6	351.4	363.4	362.7	362.7
160°	348.1	350.6	348.1	358.2	357.5	356.5
162.5°	344.0	346.6	344.0	356.0	354.2	354.2
165°	343.6	344.3	343.6	352.0	352.0	350.9
167.5°	342.5	344.3	342.5	351.6	351.6	350.5
170°	343.2	343.9	343.2	350.5	349.4	347.5
172.5°	344.6	345.3	344.6	352.6	350.8	349.7
175°	344.2	345.0	344.2	350.4	350.4	351.1
177.5°	346.7	347.5	346.7	350.4	350.4	349.3
180°	350.8	350.8	350.8	350.8	350.8	350.8

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

Scaled Data Report

TEST NUMBER: P1433287
CATALOG NUMBER: EHBR1-48-UNV-TASM-L930-UPL36

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	18.59	19.69	19.08	20.15	20.65	17.91	19.01	18.40	19.47	19.97
	3H	20.14	21.11	20.64	21.59	22.14	19.76	20.73	20.26	21.21	21.75
	4H	20.77	21.68	21.30	22.18	22.74	20.54	21.45	21.07	21.94	22.50
	6H	21.25	22.09	21.79	22.60	23.17	21.18	22.02	21.72	22.53	23.10
	8H	21.40	22.20	21.96	22.73	23.31	21.40	22.19	21.96	22.72	23.30
	12H	21.48	22.23	22.03	22.76	23.36	21.53	22.28	22.09	22.81	23.41
4H	2H	19.00	19.92	19.53	20.41	20.97	18.48	19.39	19.01	19.89	20.45
	3H	20.80	21.55	21.34	22.10	22.67	20.54	21.29	21.08	21.84	22.41
	4H	21.57	22.25	22.13	22.80	23.42	21.45	22.12	22.01	22.68	23.29
	6H	22.19	22.77	22.77	23.35	23.98	22.22	22.80	22.80	23.38	24.01
	8H	22.38	22.93	22.98	23.51	24.14	22.49	23.03	23.08	23.61	24.25
	12H	22.49	22.97	23.10	23.58	24.22	22.66	23.14	23.26	23.74	24.39
8H	4H	21.82	22.37	22.41	22.94	23.58	21.73	22.27	22.32	22.85	23.49
	6H	22.56	23.01	23.19	23.63	24.28	22.63	23.07	23.25	23.70	24.34
	8H	22.84	23.23	23.47	23.87	24.52	22.98	23.38	23.62	24.01	24.67
	12H	23.01	23.35	23.64	23.97	24.70	23.23	23.58	23.87	24.19	24.93
12H	4H	21.83	22.31	22.44	22.92	23.56	21.74	22.22	22.34	22.82	23.47
	6H	22.61	23.00	23.25	23.64	24.30	22.68	23.07	23.31	23.71	24.36
	8H	22.93	23.27	23.56	23.89	24.62	23.08	23.42	23.71	24.04	24.77

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: SP1-2506-472-5

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L930-N

Data in this report applies to families of products including EHBR-60-L930-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

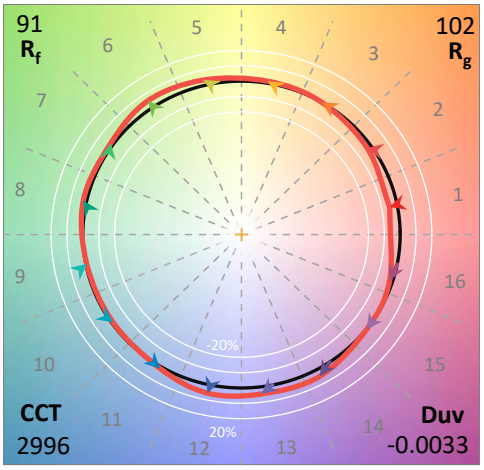
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-5
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-L930-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	2996
CIE u':	0.2519
CIE v':	0.5169
Duv:	-0.0033
CIE x:	0.4325
CIE y:	0.3945
CIE z:	0.1730
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	584
Purity:	48.21818
Rf:	91.3
Rg:	102

CRI (Ra):	94.4
R1:	96.8
R2:	98.1
R3:	97.8
R4:	95.6
R5:	96.9
R6:	95.7
R7:	90.9
R8:	83.0
R9:	61.4
R10:	94.4
R11:	95.7
R12:	88.5
R13:	97.3
R14:	97.8
R15:	92.3



Test Conditions

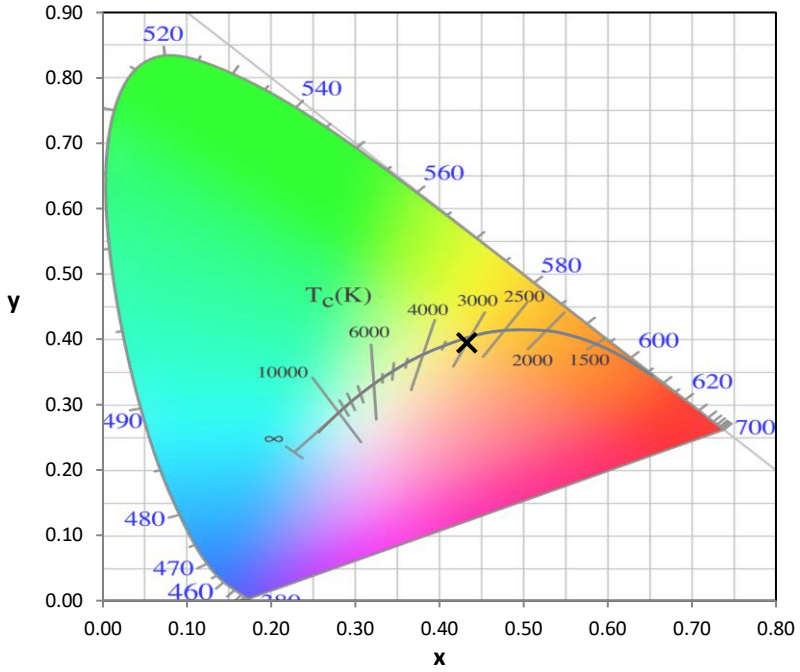
Stabilization Time:	40M
Operation Time:	1H 40M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-5

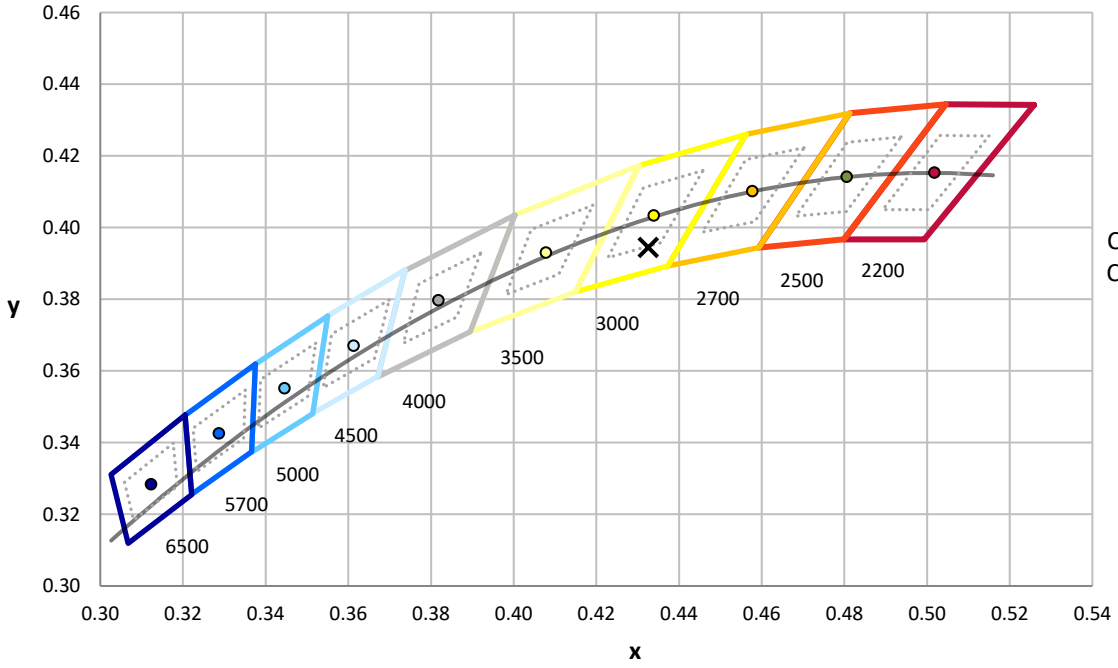
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	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: SP1-2506-472-5

CIE 1931 Chromaticity Diagram



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

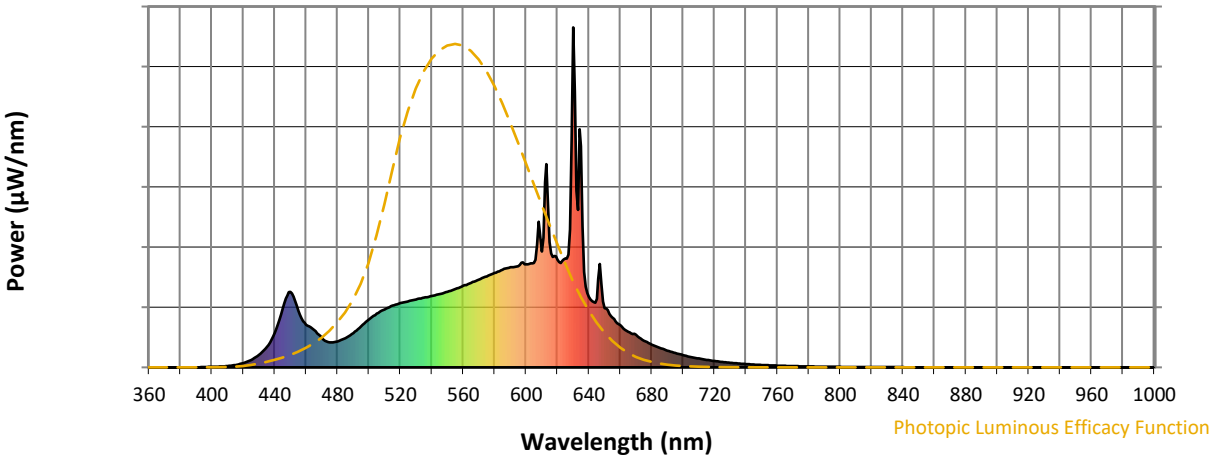


CCT = 2996K
CIE x = 0.4325
CIE y = 0.3945
Duv = -0.0033

Point lies inside the ANSI 3000K 7-step quadrangle

REPORT NUMBER: SP1-2506-472-5

Photopic Flux vs. Wavelength

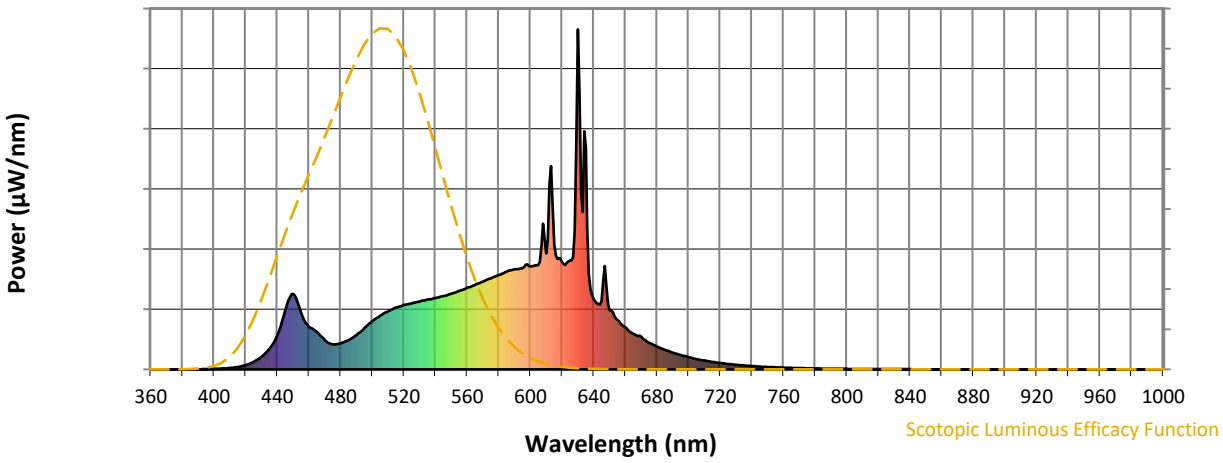


Photopic Lumens: NR

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-5

Scotopic Flux vs. Wavelength

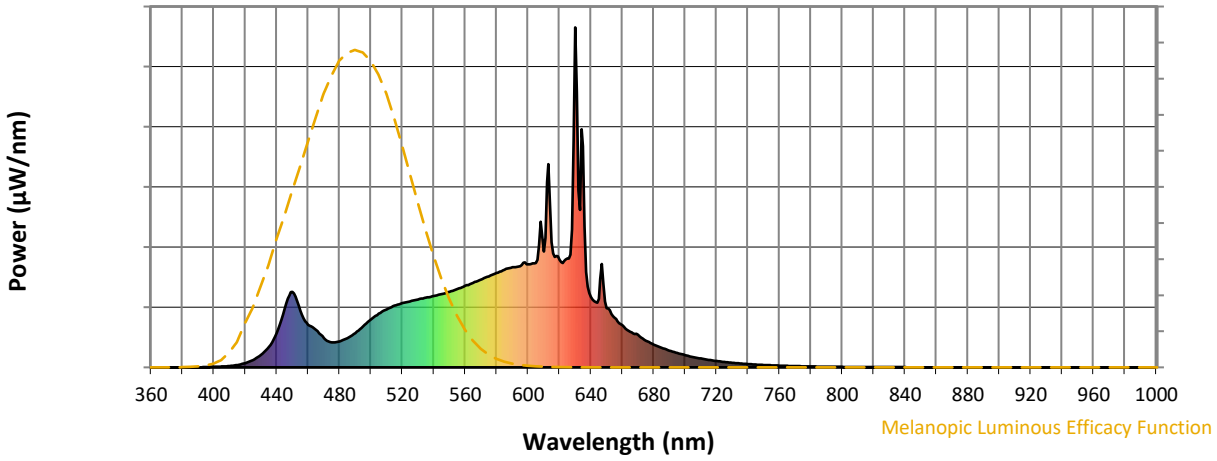


Scotopic Lumens: NR **S/P: 1.44**

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.85**

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

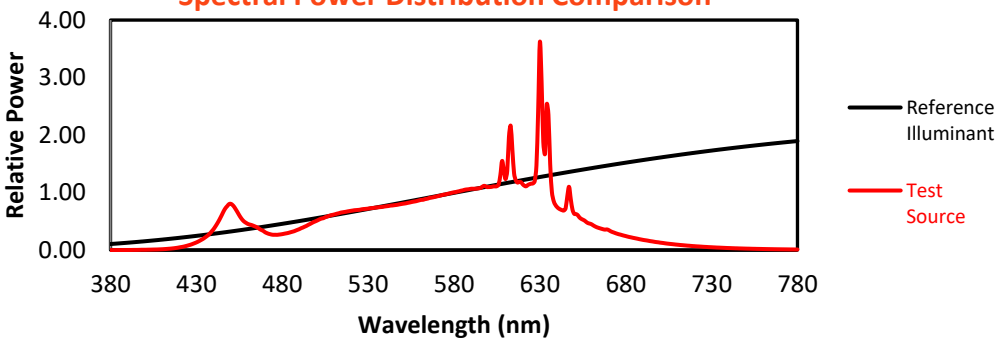
REPORT NUMBER: SP1-2506-472-5

TM-30-18

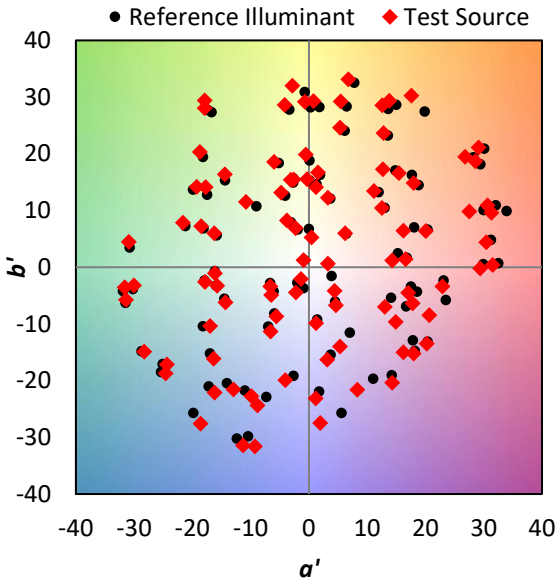
Summary

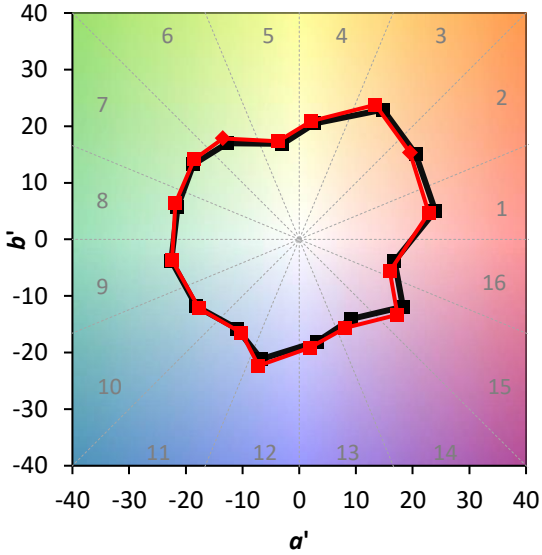
R_f = 91.3
R_g = 102
CIE R_a = 94.4
R_9 = 61.4

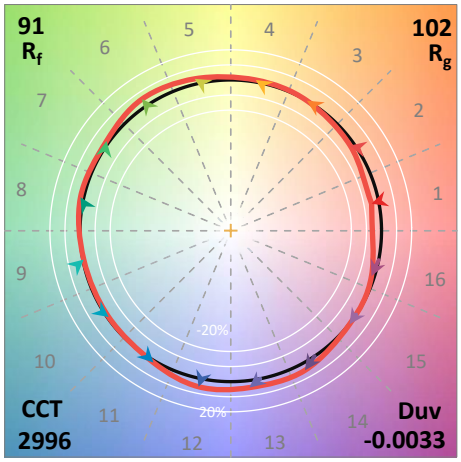
Spectral Power Distribution Comparison

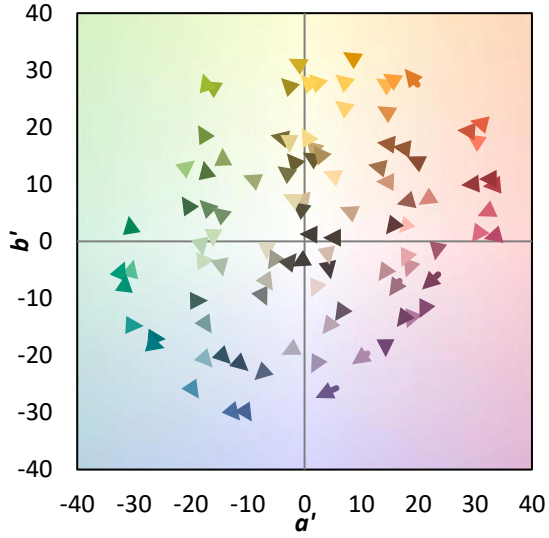


Color Vector Graphics







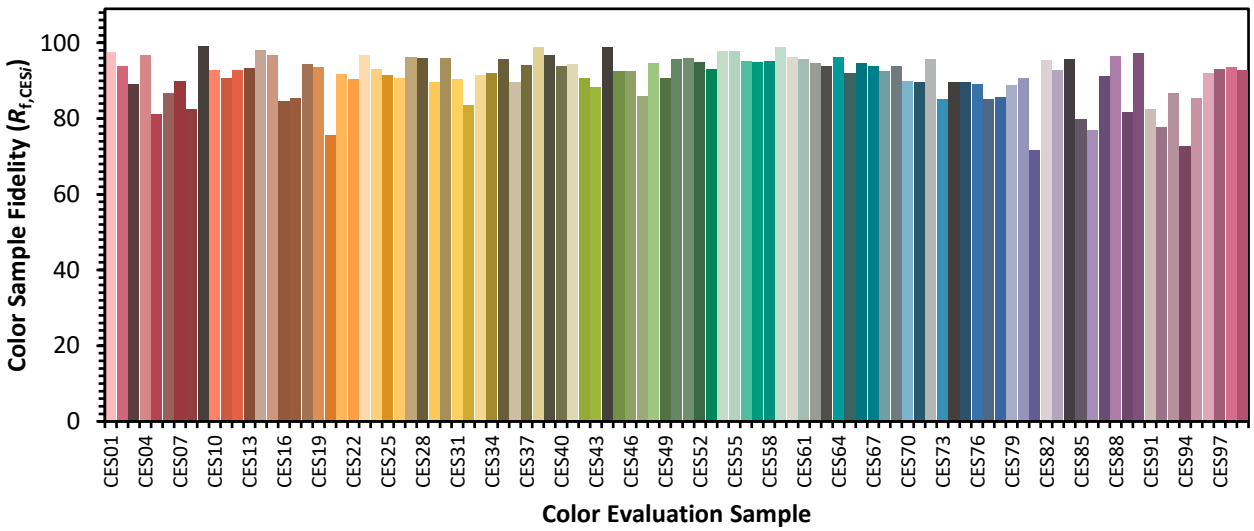


REPORT NUMBER: SP1-2506-472-5

TM-30-18

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

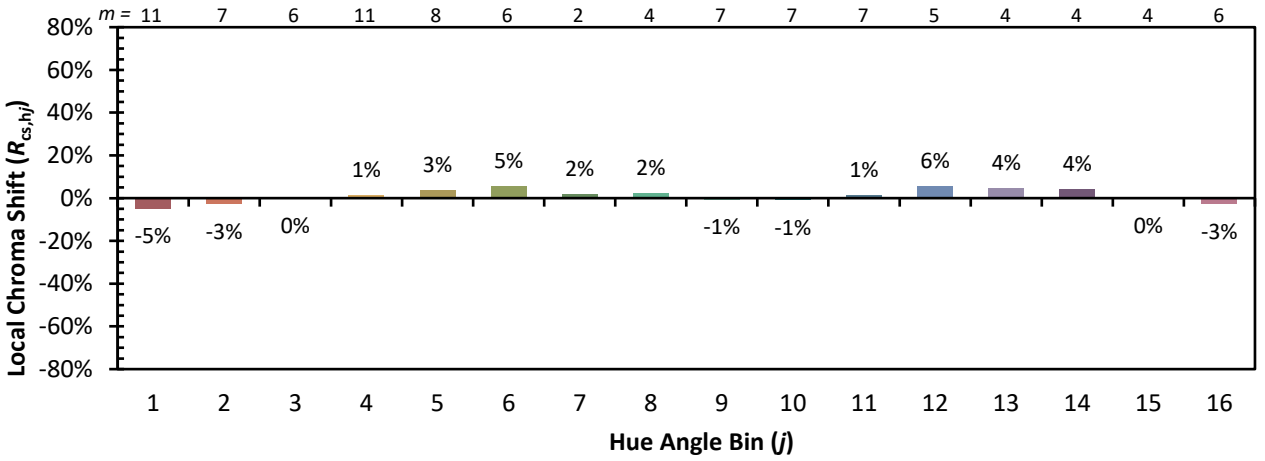
CES01 = 86	CES26 = 91	CES51 = 96	CES76 = 89
CES02 = 63	CES27 = 96	CES52 = 95	CES77 = 85
CES03 = 32	CES28 = 96	CES53 = 93	CES78 = 86
CES04 = 70	CES29 = 90	CES54 = 98	CES79 = 89
CES05 = 51	CES30 = 96	CES55 = 98	CES80 = 91
CES06 = 51	CES31 = 90	CES56 = 95	CES81 = 72
CES07 = 44	CES32 = 84	CES57 = 95	CES82 = 95
CES08 = 42	CES33 = 91	CES58 = 95	CES83 = 93
CES09 = 29	CES34 = 92	CES59 = 99	CES84 = 96
CES10 = 76	CES35 = 96	CES60 = 96	CES85 = 80
CES11 = 59	CES36 = 90	CES61 = 96	CES86 = 77
CES12 = 65	CES37 = 94	CES62 = 95	CES87 = 91
CES13 = 44	CES38 = 99	CES63 = 94	CES88 = 96
CES14 = 74	CES39 = 97	CES64 = 96	CES89 = 82
CES15 = 72	CES40 = 94	CES65 = 92	CES90 = 97
CES16 = 48	CES41 = 94	CES66 = 95	CES91 = 82
CES17 = 50	CES42 = 91	CES67 = 94	CES92 = 78
CES18 = 57	CES43 = 88	CES68 = 93	CES93 = 87
CES19 = 72	CES44 = 99	CES69 = 94	CES94 = 73
CES20 = 67	CES45 = 93	CES70 = 90	CES95 = 85
CES21 = 86	CES46 = 93	CES71 = 90	CES96 = 92
CES22 = 79	CES47 = 86	CES72 = 96	CES97 = 93
CES23 = 92	CES48 = 95	CES73 = 85	CES98 = 94
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 93
CES25 = 72	CES50 = 96	CES75 = 90	

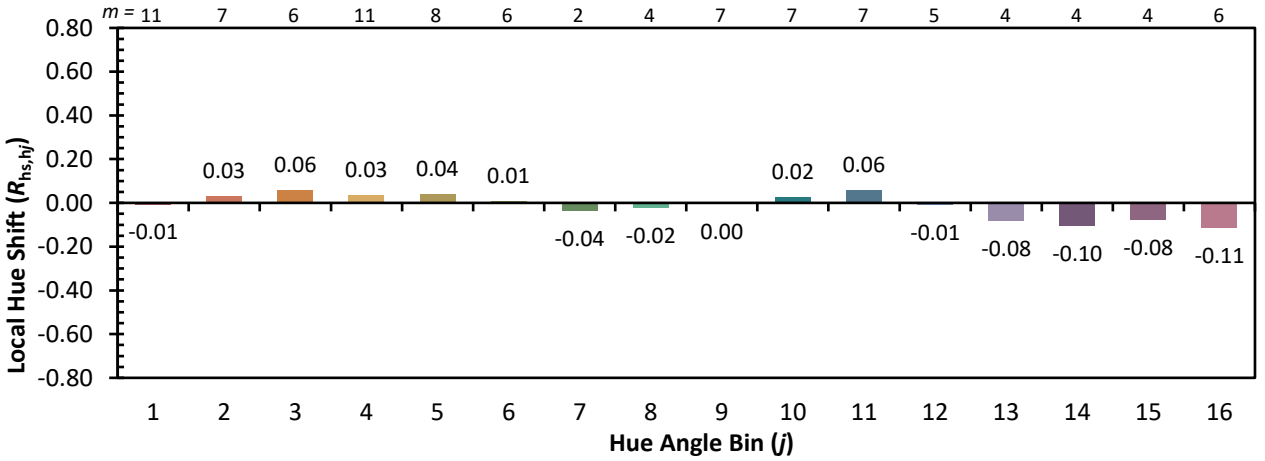


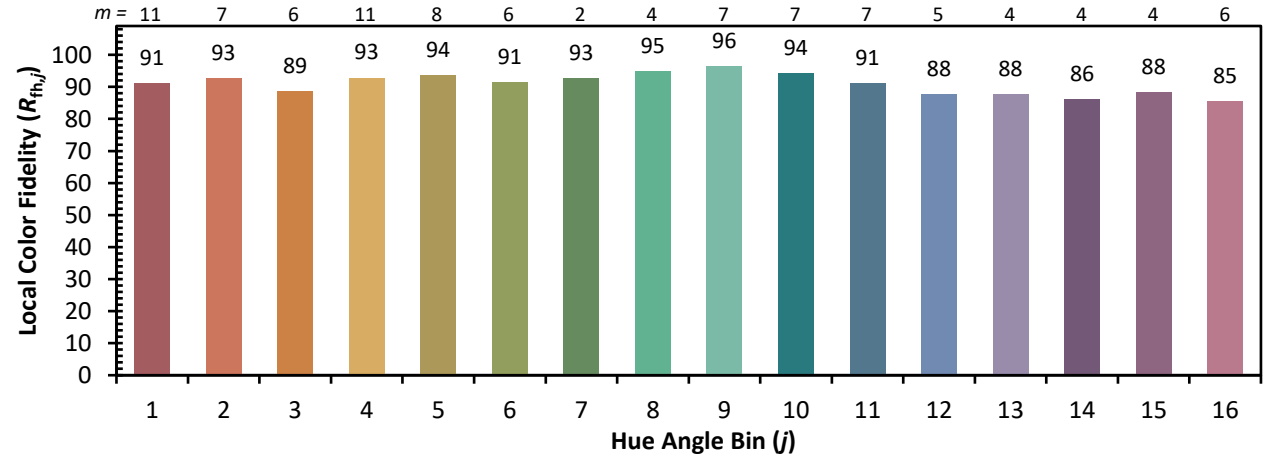
REPORT NUMBER: SP1-2506-472-5

TM-30-18

Color Rendition by Hue-Angle Bin



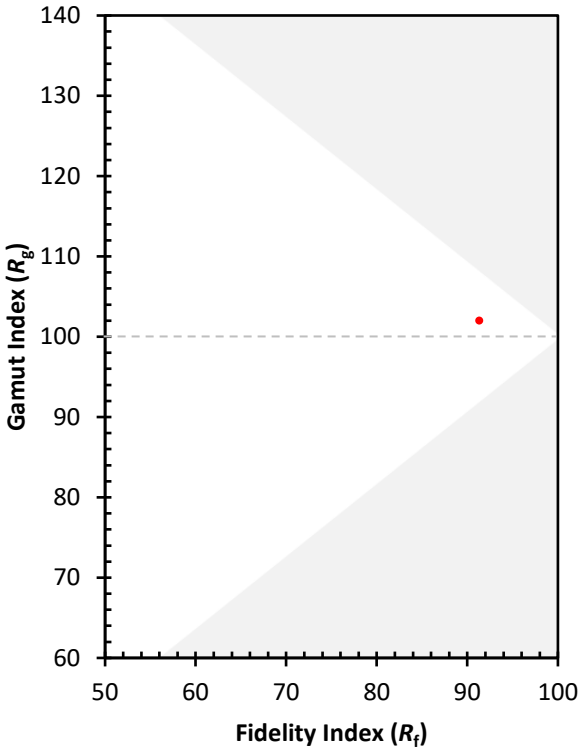


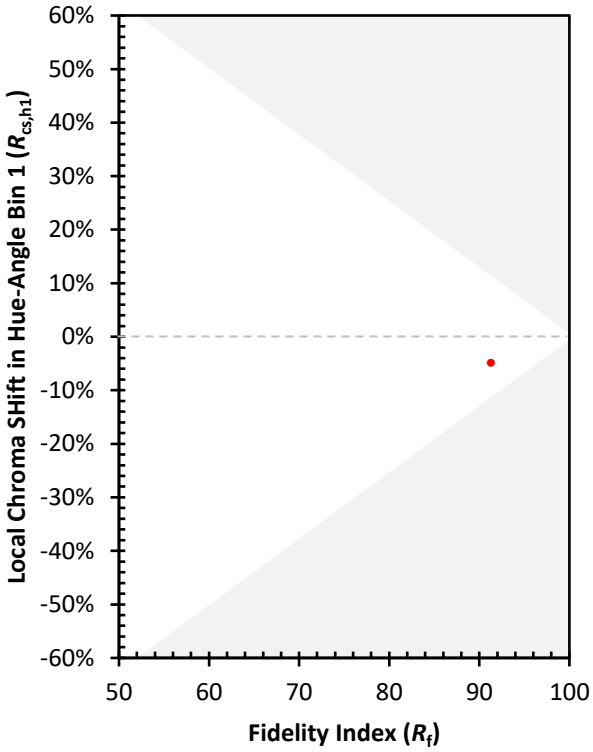


REPORT NUMBER: SP1-2506-472-5

TM-30-18

Measure Comparisons





(END OF REPORT)