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: P1433092

Luminaire Tested: EHBR1-12-UNV-TASM-L930-UPL18

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:	P1433092
	REPORT IS A COMBINATION OF REPORTS P1431646 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-12-UNV-TASM-L930-UPL18
Description:	Elevate Round Highbay at, 12000 lumens, 3000K 90CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	12600.6 lumens
Efficiency:	N/A
Efficacy:	164.5 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):	76.6
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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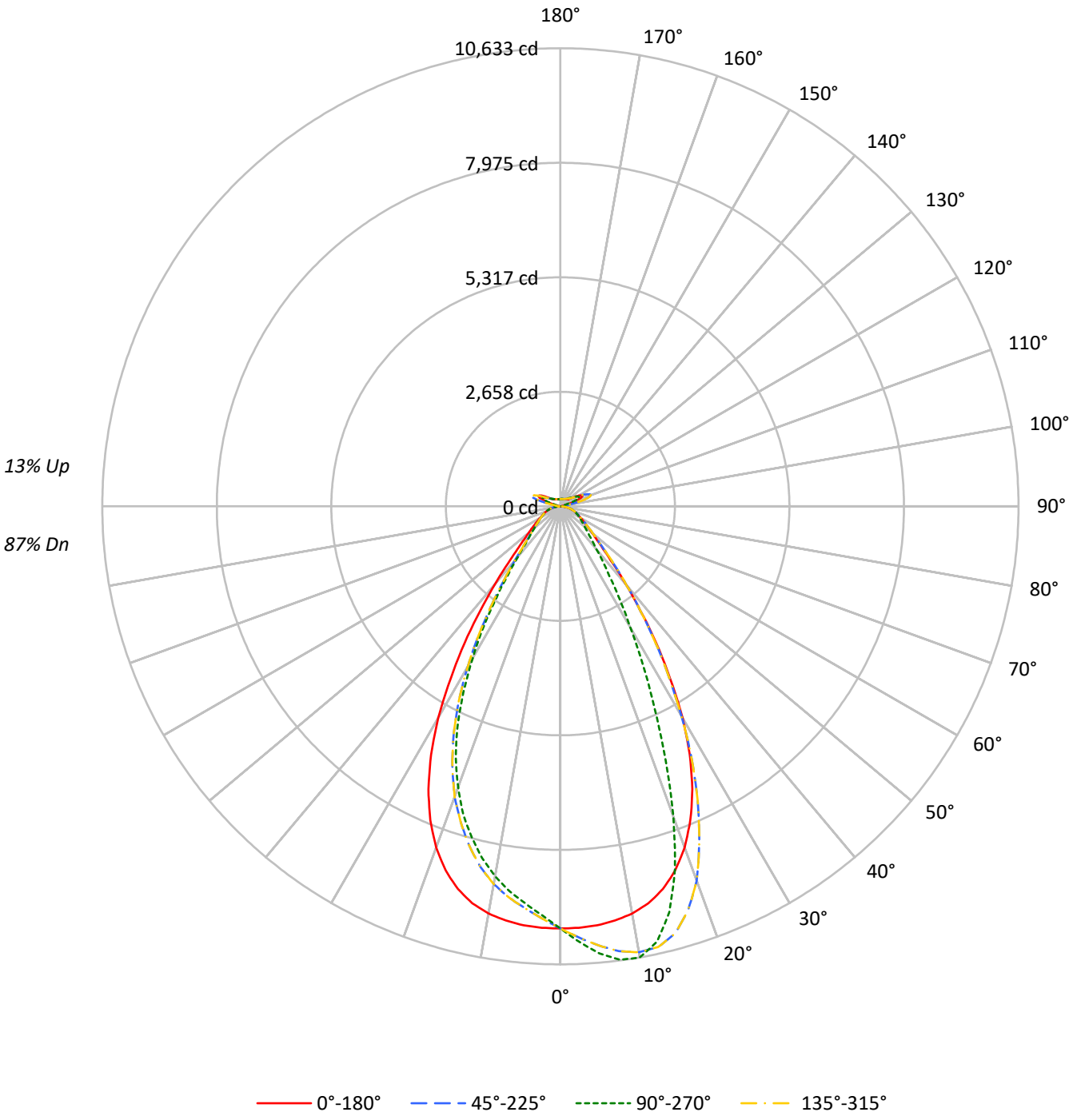
Luminous Intensity Polar Plot



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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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87
1	109	105	102	99	105	102	99	96	95	93	91	89	87	86	84	82	81	78
2	102	96	91	86	98	93	88	84	87	84	80	82	79	77	78	75	73	71
3	95	87	81	76	92	85	79	75	80	76	72	76	72	69	72	69	67	64
4	89	80	74	68	86	78	72	67	74	69	65	70	66	63	67	64	61	59
5	84	74	67	62	81	72	66	61	69	63	59	66	61	58	63	59	56	54
6	79	68	62	57	76	67	60	56	64	58	54	61	57	53	59	55	52	50
7	74	64	57	52	72	62	56	51	60	54	50	57	53	49	55	51	48	46
8	70	59	53	48	68	58	52	47	56	50	46	54	49	46	52	48	45	43
9	66	56	49	45	65	55	48	44	53	47	43	51	46	42	49	45	42	40
10	63	52	46	41	61	51	45	41	50	44	40	48	43	40	46	42	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	46016	46016	46016	46016
5°	45736	48792	45736	43363
10°	45174	50044	45174	41039
15°	43840	46507	43840	37909
20°	41002	37292	41002	33766
25°	36290	25838	36290	28298
30°	29466	16810	29466	21172
35°	21134	10886	21134	14095
40°	13664	7503	13664	8889
45°	8670	5812	8670	6333
50°	6438	4939	6438	5276
55°	5256	4499	5256	4657
60°	4552	4286	4552	4312
65°	4149	4133	4149	4116
70°	3932	4050	3932	3998
75°	3678	3918	3678	3800
80°	3230	3699	3230	3458
85°	2089	2642	2089	2517

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 12189 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	931.7	7.4
10°-20°	2534.8	20.1
20°-30°	2972.8	23.6
30°-40°	2067.4	16.4
40°-50°	1027.4	8.2
50°-60°	614.5	4.9
60°-70°	432.5	3.4
70°-80°	278.6	2.2
80°-90°	91.4	0.7
90°-100°	43.8	0.3
100°-110°	287.2	2.3
110°-120°	530.8	4.2
120°-130°	315.3	2.5
130°-140°	190.4	1.5
140°-150°	131.5	1.0
150°-160°	85.5	0.7
160°-170°	48.9	0.4
170°-180°	16.2	0.1
0°-30°	6439.3	51.1
0°-40°	8506.7	67.5
0°-60°	10148.6	80.5
0°-90°	10951.1	86.9
90°-120°	861.8	6.8
90°-150°	1499.0	11.9
90°-180°	1650.0	13.1
0°-180°	12600.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	9799	9799	9799	9799	9799	
5°	9765	10418	9765	9259	9765	927
15°	9198	9757	9198	7953	9198	2570
25°	7247	5160	7247	5651	7247	3281
35°	3879	1998	3879	2587	3879	2421
45°	1403	940	1403	1025	1403	1148
55°	710	608	710	629	710	650
65°	433	431	433	430	433	435
75°	259	276	259	268	259	272
85°	72	91	72	86	72	80
90°	12	13	12	12	12	9
95°	23	22	23	20	23	25
105°	132	67	132	100	132	178
115°	565	482	565	459	565	515
125°	361	378	361	331	361	333
135°	228	263	228	242	228	181
145°	206	215	206	200	206	129
155°	183	190	183	177	183	85
165°	171	176	171	168	171	49
175°	170	172	170	167	170	16
180°	169	169	169	169	169	

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TEST NUMBER: P1433092
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8
2.5°	9793.1	9919.7	10022.2	10089.8	10123.3	10089.8	10022.2	9919.7	9793.1	9667.3	9580.7
5°	9765.4	10018.9	10233.8	10374.3	10417.9	10374.3	10233.8	10018.9	9765.4	9525.8	9366.9
7.5°	9699.1	10094.1	10413.2	10577.3	10617.4	10577.3	10413.2	10094.1	9699.1	9359.8	9159.0
10°	9597.8	10141.5	10510.3	10627.8	10632.6	10627.8	10510.3	10141.5	9597.8	9140.9	8904.0
12.5°	9436.3	10124.6	10477.8	10439.2	10351.5	10439.2	10477.8	10124.6	9436.3	8873.3	8574.5
15°	9197.5	10024.4	10271.7	9957.8	9756.9	9957.8	10271.7	10024.4	9197.5	8512.1	8165.5
17.5°	8860.8	9837.0	9841.8	9220.5	8841.7	9220.5	9841.8	9837.0	8860.8	8070.3	7688.8
20°	8427.0	9536.4	9249.8	8113.6	7664.6	8113.6	9249.8	9536.4	8427.0	7548.1	7173.7
22.5°	7883.1	9131.1	8425.4	6999.9	6387.4	6999.9	8425.4	9131.1	7883.1	6940.9	6551.1
25°	7247.0	8634.4	7538.4	5786.4	5159.9	5786.4	7538.4	8634.4	7247.0	6217.3	5864.9
27.5°	6498.8	8004.9	6594.0	4728.5	4150.4	4728.5	6594.0	8004.9	6498.8	5470.2	5110.2
30°	5667.7	7197.9	5611.2	3765.6	3233.3	3765.6	5611.2	7197.9	5667.7	4630.9	4308.6
32.5°	4737.2	6406.9	4667.3	3017.2	2566.3	3017.2	4667.3	6406.9	4737.2	3829.9	3493.1
35°	3878.8	5417.3	3816.1	2370.8	1998.0	2370.8	3816.1	5417.3	3878.8	3073.8	2743.1
37.5°	3044.0	4482.3	3042.1	1909.1	1620.6	1909.1	3042.1	4482.3	3044.0	2389.8	2121.3
40°	2368.3	3504.7	2383.5	1523.9	1300.5	1523.9	2383.5	3504.7	2368.3	1818.3	1646.6
42.5°	1794.4	2679.9	1873.4	1250.7	1104.7	1250.7	1873.4	2679.9	1794.4	1432.7	1304.0
45°	1402.7	1972.1	1463.0	1055.2	940.4	1055.2	1463.0	1972.1	1402.7	1153.8	1067.3
47.5°	1142.4	1524.1	1185.7	905.1	824.7	905.1	1185.7	1524.1	1142.4	975.9	911.2
50°	959.5	1169.5	984.5	790.1	736.1	790.1	984.5	1169.5	959.5	835.6	792.5
52.5°	824.3	953.8	838.4	704.1	667.7	704.1	838.4	953.8	824.3	731.1	704.3
55°	710.3	801.8	729.1	633.2	608.0	633.2	729.1	801.8	710.3	650.6	630.7
57.5°	623.8	680.2	633.2	572.7	556.0	572.7	633.2	680.2	623.8	579.0	568.3
60°	547.2	589.0	558.7	520.0	515.3	520.0	558.7	589.0	547.2	520.9	513.9
62.5°	488.2	514.6	494.0	472.6	468.4	472.6	494.0	514.6	488.2	468.0	469.3
65°	433.1	457.7	441.6	430.0	431.4	430.0	441.6	457.7	433.1	423.7	425.7
67.5°	390.5	403.3	396.3	389.7	391.4	389.7	396.3	403.3	390.5	381.2	384.3
70°	345.0	358.9	351.6	352.6	355.4	352.6	351.6	358.9	345.0	342.3	344.7
72.5°	301.7	312.3	309.9	312.2	315.1	312.2	309.9	312.3	301.7	301.3	301.6
75°	259.1	267.2	268.2	271.4	276.0	271.4	268.2	267.2	259.1	256.3	259.6
77.5°	212.6	221.8	225.3	229.5	236.3	229.5	225.3	221.8	212.6	214.4	216.1
80°	169.9	174.2	181.9	185.0	194.6	185.0	181.9	174.2	169.9	166.8	169.2
82.5°	124.4	128.2	134.8	140.7	146.2	140.7	134.8	128.2	124.4	122.9	123.1
85°	71.8	77.7	82.2	89.1	90.8	89.1	82.2	77.7	71.8	73.5	71.8
87.5°	25.1	27.0	30.8	33.6	33.8	33.6	30.8	27.0	25.1	25.8	23.3
90°	12.0	20.4	35.2	19.3	13.3	19.3	35.2	20.4	12.0	21.2	33.1
92.5°	15.7	27.7	49.8	25.8	17.8	25.8	49.8	27.7	15.7	27.5	53.1
95°	23.2	34.1	63.5	28.4	21.5	28.4	63.5	34.1	23.2	36.7	74.1
97.5°	36.0	42.3	71.7	30.3	26.1	30.3	71.7	42.3	36.0	44.9	85.1
100°	47.9	47.9	131.2	34.8	29.8	34.8	131.2	47.9	47.9	55.2	132.6
102.5°	72.5	93.7	304.0	69.8	36.1	69.8	304.0	93.7	72.5	103.6	281.5
105°	131.9	214.2	535.0	180.3	66.6	180.3	535.0	214.2	131.9	216.8	501.6
107.5°	249.7	399.7	689.4	355.7	155.1	355.7	689.4	399.7	249.7	384.0	661.6
110°	399.5	558.6	752.4	487.2	314.0	487.2	752.4	558.6	399.5	527.4	693.6

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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°	520.1	622.6	735.0	540.1	*434.6*	540.1	735.0	622.6	520.1	582.2	664.3
115°	565.0	613.4	656.5	538.3	*482.1*	538.3	656.5	613.4	565.0	568.5	593.1
117.5°	545.8	561.3	567.0	505.5	*484.9*	505.5	567.0	561.3	545.8	511.1	503.6
120°	492.8	486.5	477.7	457.0	*457.4*	457.0	477.7	486.5	492.8	446.3	420.5
122.5°	426.3	412.6	403.7	407.9	*420.0*	407.9	403.7	412.6	426.3	379.7	360.4
125°	361.4	347.8	351.8	365.8	*378.2*	365.8	351.8	347.8	361.4	322.4	317.6
127.5°	306.8	300.5	314.3	330.3	*340.7*	330.3	314.3	300.5	306.8	282.2	287.5
130°	267.8	269.4	287.8	301.3	*307.8*	301.3	287.8	269.4	267.8	255.9	268.5
132.5°	243.3	250.4	268.0	279.6	*283.4*	279.6	268.0	250.4	243.3	239.8	255.1
135°	228.0	238.6	254.4	262.0	*263.2*	262.0	254.4	238.6	228.0	229.1	243.3
137.5°	219.0	229.6	241.7	247.6	*246.0*	247.6	241.7	229.6	219.0	222.0	232.8
140°	213.8	224.3	229.7	236.6	*235.2*	236.6	229.7	224.3	213.8	215.6	223.9
142.5°	208.4	218.2	220.9	225.8	*224.2*	225.8	220.9	218.2	208.4	210.3	215.7
145°	205.9	213.1	211.0	217.6	*215.2*	217.6	211.0	213.1	205.9	206.7	209.6
147.5°	201.3	206.7	203.9	209.6	*207.2*	209.6	203.9	206.7	201.3	201.3	202.5
150°	196.1	199.7	195.9	202.5	*201.8*	202.5	195.9	199.7	196.1	195.2	196.2
152.5°	188.9	192.6	188.9	196.4	*195.7*	196.4	188.9	192.6	188.9	188.0	189.1
155°	182.9	184.7	182.9	190.3	*190.5*	190.3	182.9	184.7	182.9	182.7	183.0
157.5°	178.7	179.7	178.9	185.4	*185.6*	185.4	178.9	179.7	178.7	178.7	178.9
160°	174.8	176.6	175.9	181.5	*181.8*	181.5	175.9	176.6	174.8	175.6	175.7
162.5°	173.3	173.3	172.9	178.5	*178.9*	178.5	172.9	173.3	173.3	173.3	174.2
165°	171.2	172.2	170.7	174.7	*175.9*	174.7	170.7	172.2	171.2	172.0	172.0
167.5°	170.7	169.8	170.1	173.4	*174.7*	173.4	170.1	169.8	170.7	171.4	171.4
170°	169.0	169.2	168.6	171.9	*173.1*	171.9	168.6	169.2	169.0	169.9	170.7
172.5°	169.6	169.6	168.2	170.7	*172.9*	170.7	168.2	169.6	169.6	170.3	171.2
175°	169.9	169.1	168.6	170.1	*172.3*	170.1	168.6	169.1	169.9	169.8	169.8
177.5°	169.0	169.3	169.7	171.3	*174.3*	171.3	169.7	169.3	169.0	169.8	169.8
180°	169.3	169.3	169.3	169.3	*169.3*	169.3	169.3	169.3	169.3	169.3	169.3

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8
2.5°	9514.2	9507.9	9514.2	9580.7	9667.3	9793.1
5°	9293.2	9258.6	9293.2	9366.9	9525.8	9765.4
7.5°	9035.7	9015.7	9035.7	9159.0	9359.8	9699.1
10°	*8764.7*	*8719.4*	*8764.7*	*8904.0*	*9140.9*	*9597.8*
12.5°	8430.6	8370.6	8430.6	8574.5	8873.3	9436.3
15°	8005.8	7953.2	8005.8	8165.5	8512.1	9197.5
17.5°	7550.0	7502.2	7550.0	7688.8	8070.3	8860.8
20°	6977.4	6939.9	6977.4	7173.7	7548.1	8427.0
22.5°	6376.8	6341.7	6376.8	6551.1	6940.9	7883.1
25°	5670.1	5651.0	5670.1	5864.9	6217.3	7247.0
27.5°	4906.4	4874.0	4906.4	5110.2	5470.2	6498.8
30°	4126.3	4072.5	4126.3	4308.6	4630.9	5667.7
32.5°	3363.3	3324.5	3363.3	3493.1	3829.9	4737.2
35°	2625.7	2586.9	2625.7	2743.1	3073.8	3878.8
37.5°	2046.0	1977.4	2046.0	2121.3	2389.8	3044.0
40°	1551.7	1540.7	1551.7	1646.6	1818.3	2368.3
42.5°	1263.2	1233.2	1263.2	1304.0	1432.7	1794.4
45°	1036.5	1024.7	1036.5	1067.3	1153.8	1402.7
47.5°	891.3	896.5	891.3	911.2	975.9	1142.4
50°	783.1	786.3	783.1	792.5	835.6	959.5
52.5°	703.4	700.6	703.4	704.3	731.1	824.3
55°	632.8	629.3	632.8	630.7	650.6	710.3
57.5°	571.0	573.6	571.0	568.3	579.0	623.8
60°	516.0	518.4	516.0	513.9	520.9	547.2
62.5°	469.5	471.0	469.5	469.3	468.0	488.2
65°	427.9	429.6	427.9	425.7	423.7	433.1
67.5°	388.3	388.3	388.3	384.3	381.2	390.5
70°	350.9	350.8	350.9	344.7	342.3	345.0
72.5°	306.1	310.6	306.1	301.6	301.3	301.7
75°	262.5	267.7	262.5	259.6	256.3	259.1
77.5°	218.5	226.3	218.5	216.1	214.4	212.6
80°	173.2	181.9	173.2	169.2	166.8	169.9
82.5°	128.1	134.5	128.1	123.1	122.9	124.4
85°	76.3	86.5	76.3	71.8	73.5	71.8
87.5°	24.4	31.3	24.4	23.3	25.8	25.1
90°	19.3	12.0	19.3	33.1	21.2	12.0
92.5°	29.4	17.6	29.4	53.1	27.5	15.7
95°	34.0	20.2	34.0	74.1	36.7	23.2
97.5°	37.6	25.9	37.6	85.1	44.9	36.0
100°	44.0	34.1	44.0	132.6	55.2	47.9
102.5°	93.3	57.9	93.3	281.5	103.6	72.5
105°	196.6	99.9	196.6	501.6	216.8	131.9
107.5°	351.8	173.0	351.8	661.6	384.0	249.7
110°	466.9	322.8	466.9	693.6	527.4	399.5

TEST NUMBER: P1433092
CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL18

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	501.6	436.0	501.6	664.3	582.2	520.1
115°	482.5	458.8	482.5	593.1	568.5	565.0
117.5°	440.4	443.3	440.4	503.6	511.1	545.8
120°	392.0	410.5	392.0	420.5	446.3	492.8
122.5°	347.5	369.4	347.5	360.4	379.7	426.3
125°	309.0	331.1	309.0	317.6	322.4	361.4
127.5°	282.6	297.4	282.6	287.5	282.2	306.8
130°	261.7	274.6	261.7	268.5	255.9	267.8
132.5°	247.3	255.6	247.3	255.1	239.8	243.3
135°	234.7	241.9	234.7	243.3	229.1	228.0
137.5°	223.9	230.2	223.9	232.8	222.0	219.0
140°	214.2	219.6	214.2	223.9	215.6	213.8
142.5°	204.4	208.1	204.4	215.7	210.3	208.4
145°	197.5	200.2	197.5	209.6	206.7	205.9
147.5°	191.5	193.3	191.5	202.5	201.3	201.3
150°	185.4	187.2	185.4	196.2	195.2	196.1
152.5°	179.2	181.3	179.2	189.1	188.0	188.9
155°	175.0	177.0	175.0	183.0	182.7	182.9
157.5°	172.6	173.9	172.6	178.9	178.7	178.7
160°	170.4	171.5	170.4	175.7	175.6	174.8
162.5°	168.2	169.2	168.2	174.2	173.3	173.3
165°	167.5	167.7	167.5	172.0	172.0	171.2
167.5°	166.8	167.7	166.8	171.4	171.4	170.7
170°	167.0	167.2	167.0	170.7	169.9	169.0
172.5°	167.4	167.5	167.4	171.2	170.3	169.6
175°	166.8	167.0	166.8	169.8	169.8	169.9
177.5°	167.9	168.1	167.9	169.8	169.8	169.0
180°	169.3	169.3	169.3	169.3	169.3	169.3

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

Scaled Data Report

TEST NUMBER: P1433092
CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL18

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	13.43	14.46	14.02	15.02	15.65	12.75	13.77	13.34	14.34	14.97
	3H	14.98	15.89	15.57	16.47	17.14	14.60	15.51	15.19	16.09	16.76
	4H	15.61	16.46	16.23	17.06	17.74	15.37	16.23	15.99	16.82	17.51
	6H	16.09	16.87	16.72	17.48	18.18	16.01	16.80	16.64	17.40	18.10
	8H	16.24	16.98	16.88	17.60	18.31	16.23	16.97	16.88	17.60	18.31
	12H	16.31	17.01	16.95	17.63	18.36	16.36	17.07	17.00	17.68	18.41
4H	2H	13.84	14.69	14.46	15.29	15.98	13.32	14.17	13.94	14.76	15.45
	3H	15.63	16.34	16.26	16.97	17.68	15.37	16.08	16.00	16.71	17.42
	4H	16.41	17.04	17.05	17.68	18.42	16.28	16.91	16.93	17.56	18.30
	6H	17.02	17.57	17.69	18.23	18.99	17.05	17.59	17.72	18.26	19.02
	8H	17.21	17.73	17.89	18.39	19.15	17.32	17.83	17.99	18.49	19.25
	12H	17.32	17.77	18.01	18.46	19.22	17.48	17.93	18.17	18.63	19.39
8H	4H	16.65	17.16	17.33	17.83	18.59	16.56	17.07	17.23	17.73	18.49
	6H	17.39	17.81	18.10	18.52	19.28	17.46	17.87	18.16	18.58	19.35
	8H	17.67	18.03	18.38	18.75	19.53	17.81	18.18	18.53	18.90	19.68
	12H	17.83	18.16	18.55	18.86	19.71	18.06	18.38	18.77	19.08	19.93
12H	4H	16.66	17.11	17.35	17.80	18.57	16.56	17.02	17.25	17.71	18.47
	6H	17.44	17.81	18.16	18.52	19.30	17.51	17.88	18.22	18.59	19.37
	8H	17.75	18.08	18.47	18.78	19.62	17.91	18.23	18.62	18.93	19.78

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

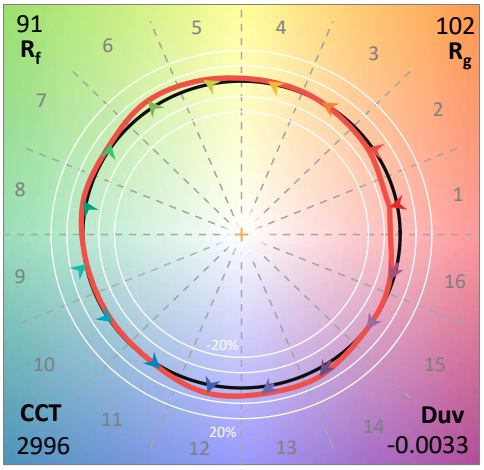
Test Information

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

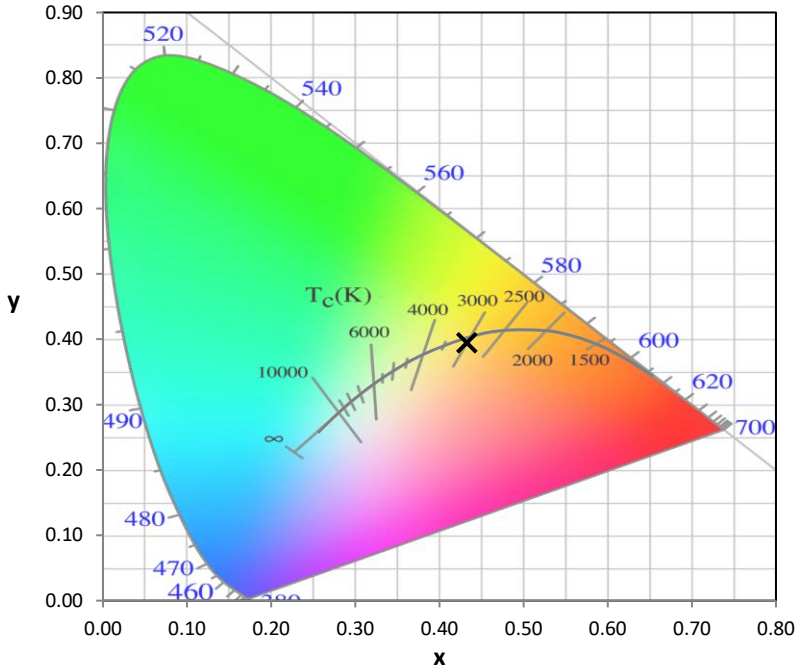
Stabilization Time:	40M
Operation Time:	1H 40M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-5

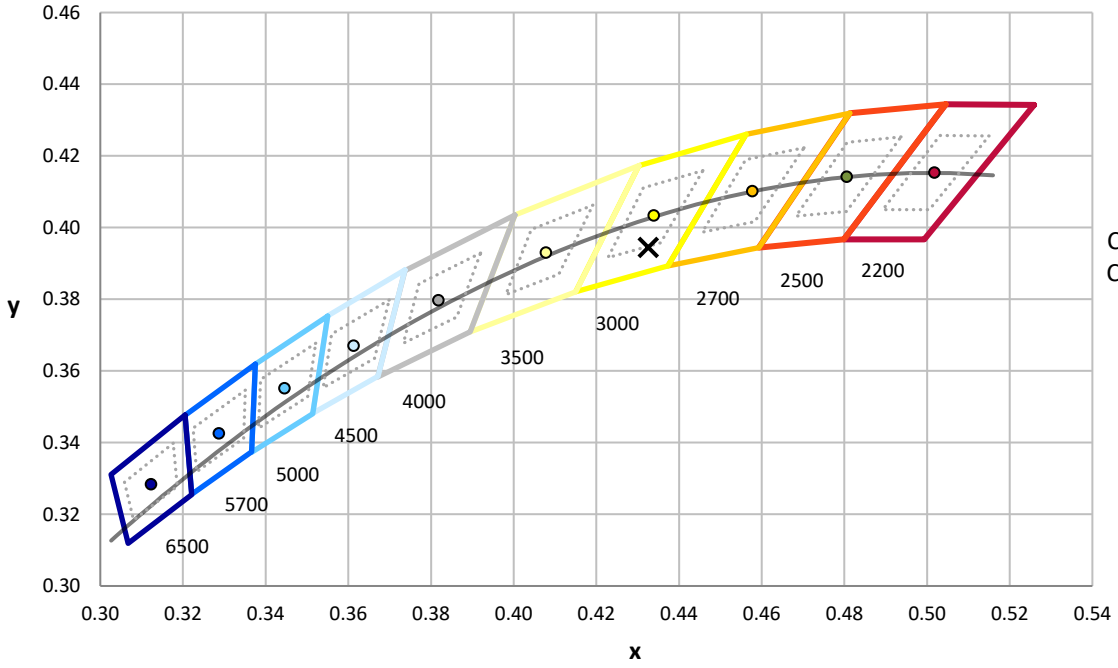
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

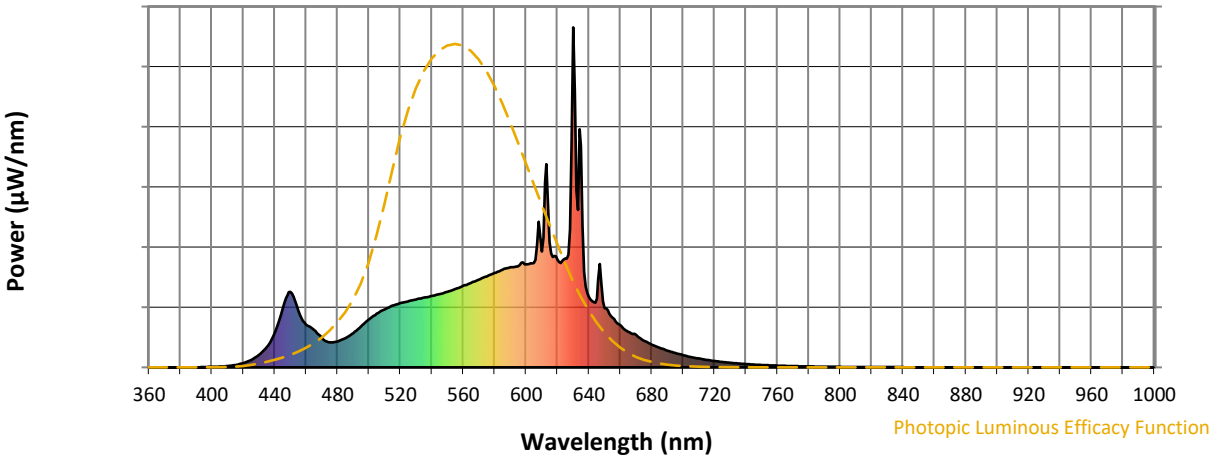


CCT = 2996K
CIE x = 0.4325
CIE y = 0.3945
Duv = -0.0033

Point lies inside the ANSI 3000K 7-step quadrangle

REPORT NUMBER: SP1-2506-472-5

Photopic Flux vs. Wavelength

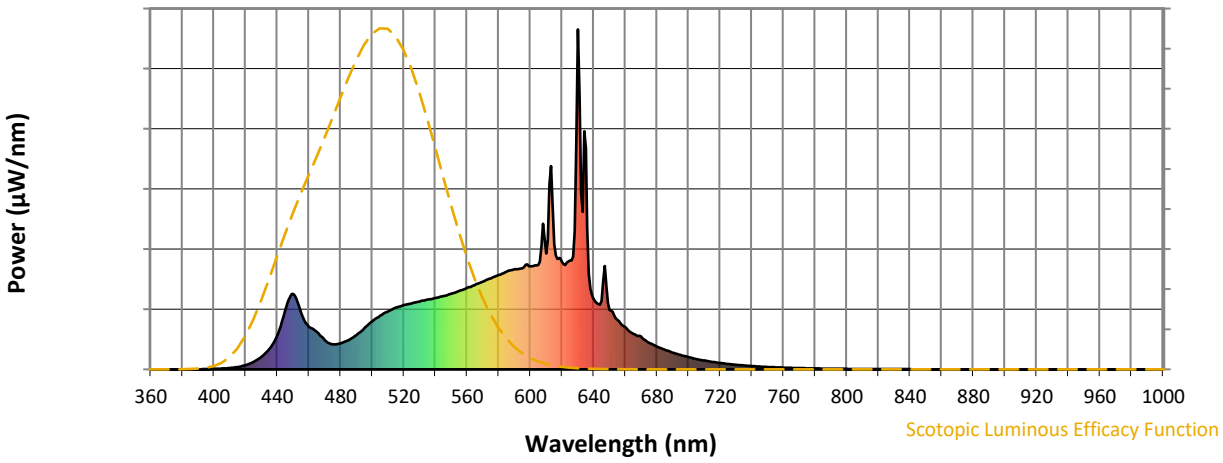


Photopic Lumens: NR

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

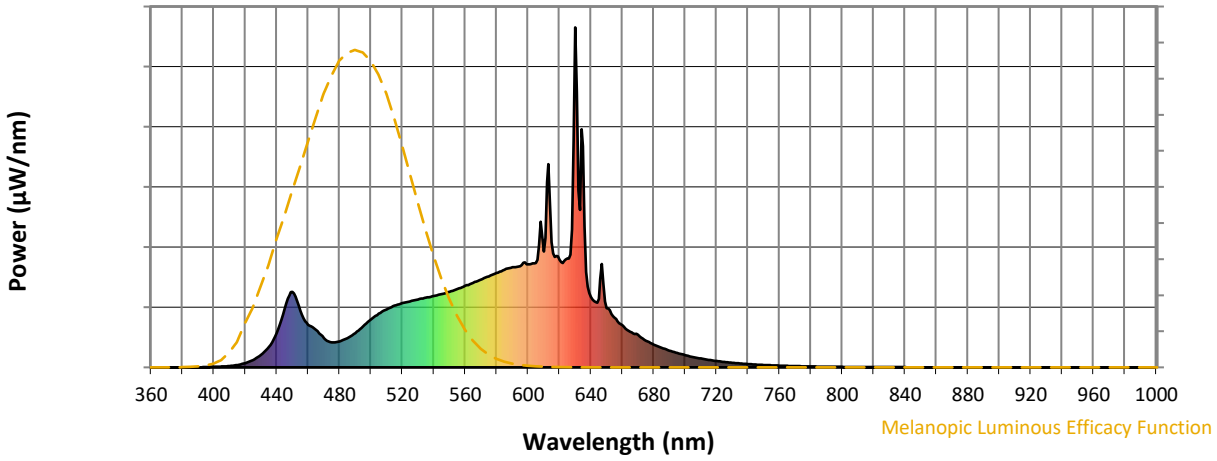


Scotopic Lumens: NR **S/P: 1.44**

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			

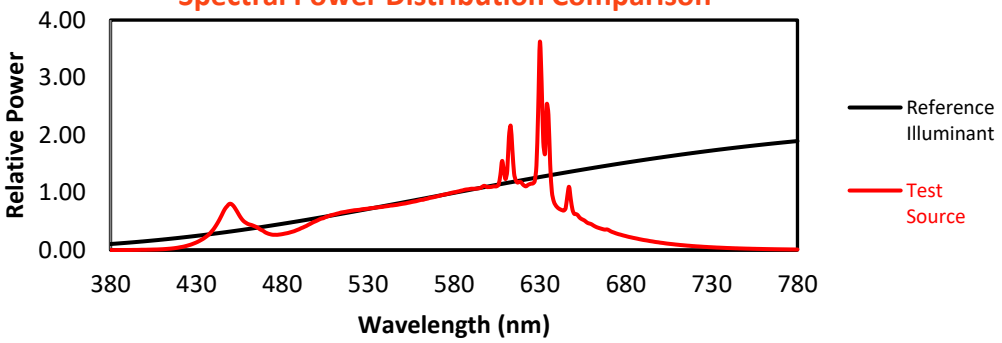
REPORT NUMBER: SP1-2506-472-5

TM-30-18

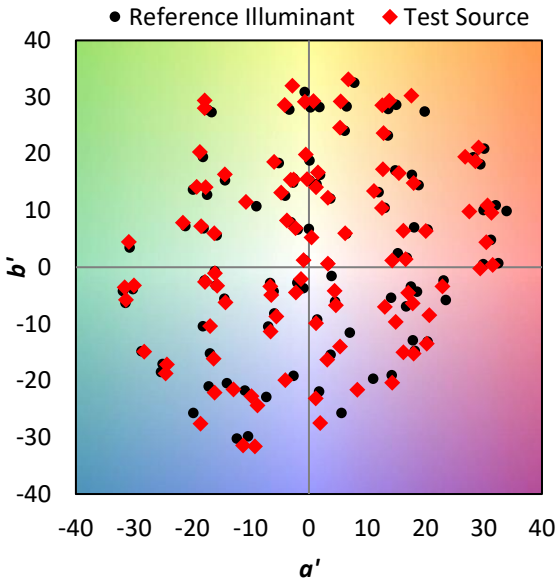
Summary

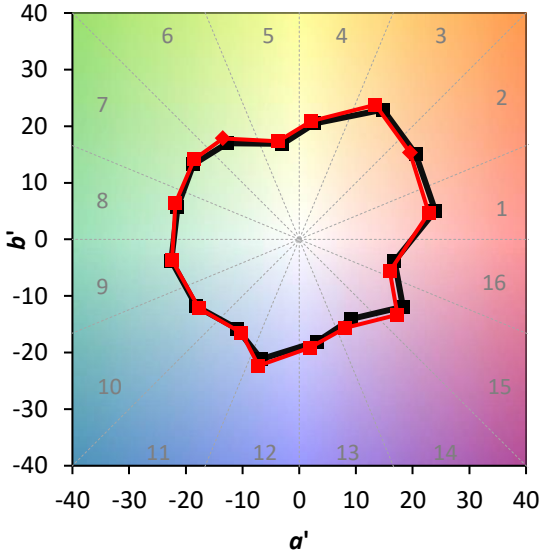
R_f = 91.3
R_g = 102
CIE R_a = 94.4
R_9 = 61.4

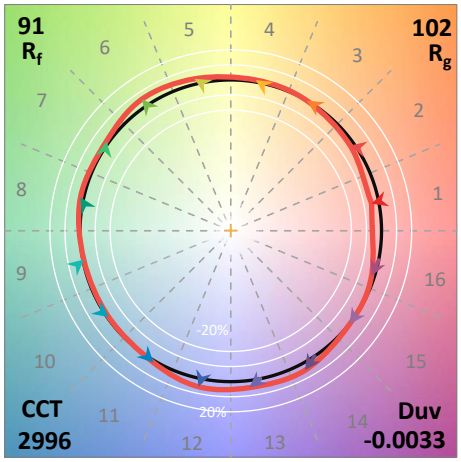
Spectral Power Distribution Comparison

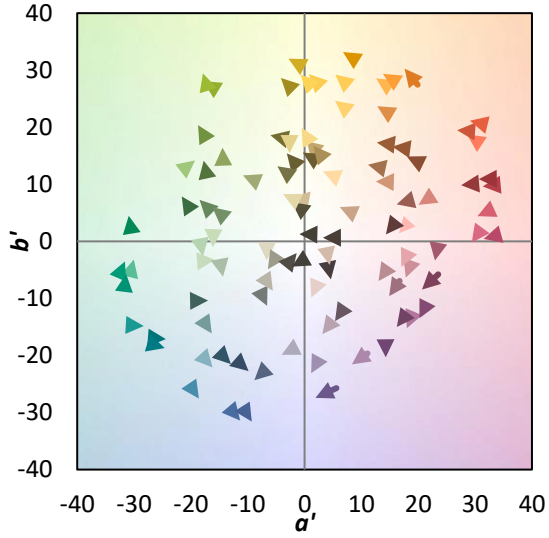


Color Vector Graphics







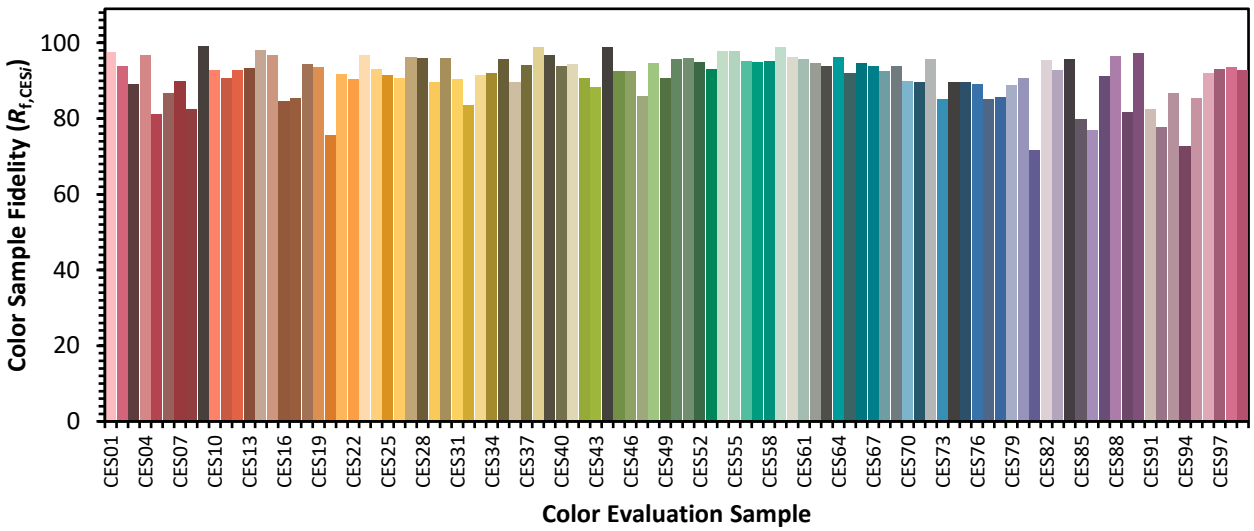


REPORT NUMBER: SP1-2506-472-5

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

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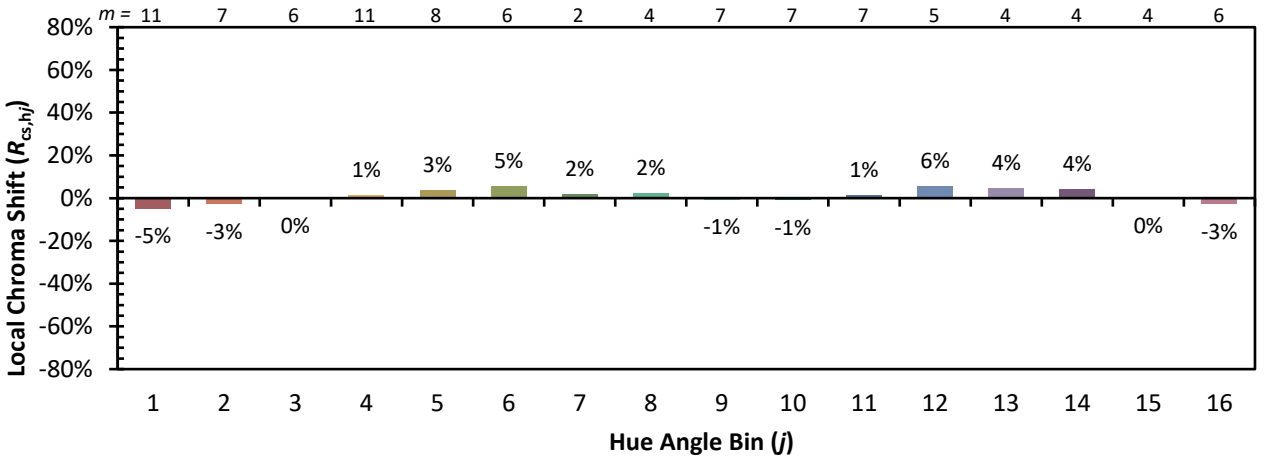
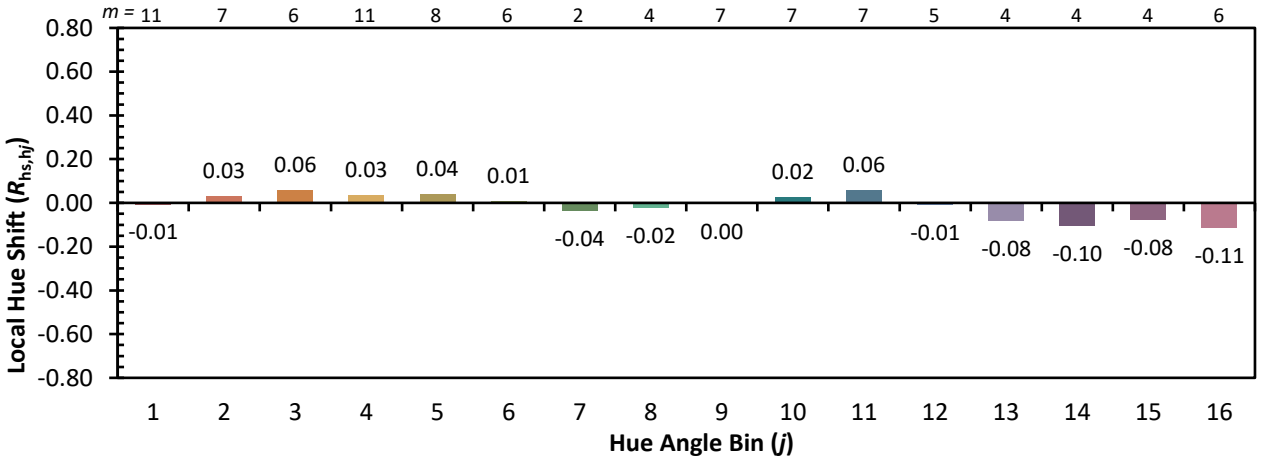
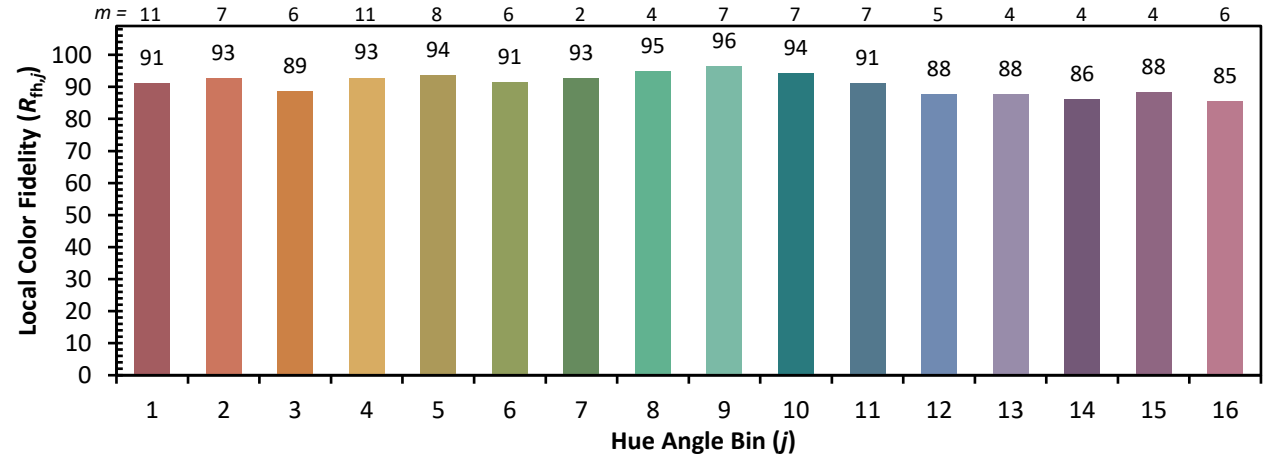
Color Rendition by Hue-Angle Bin







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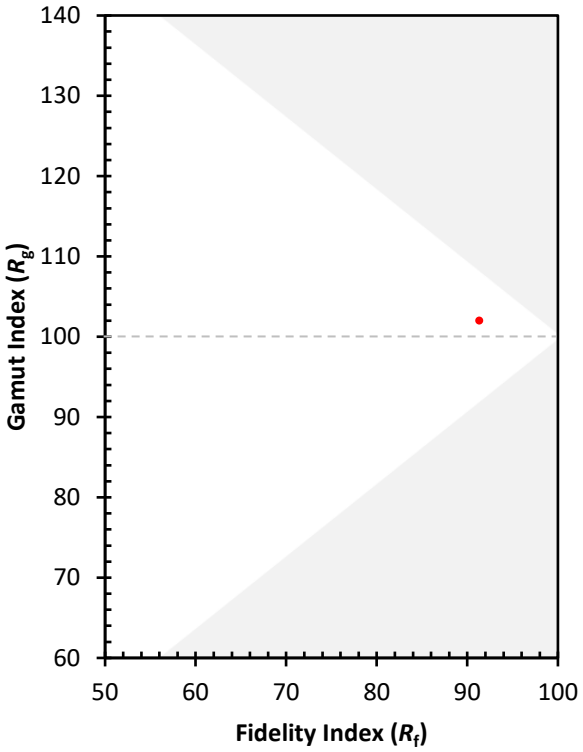
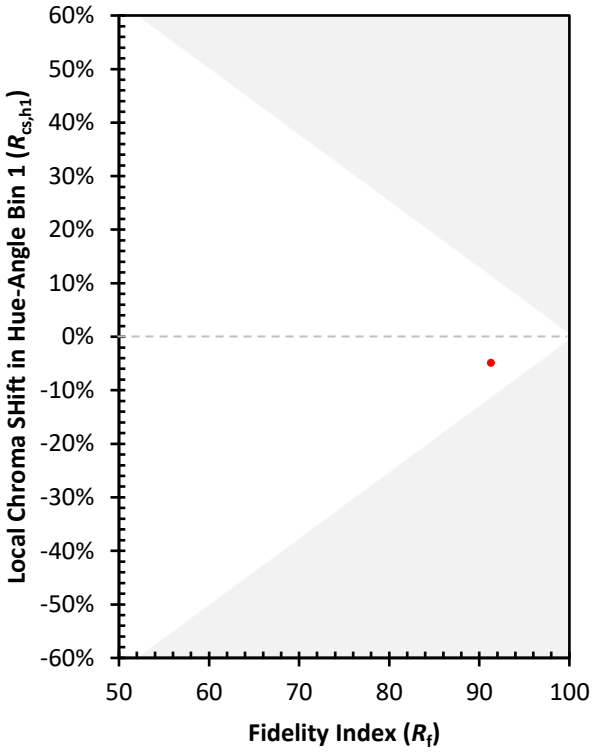
Measure Comparisons





(END OF REPORT)