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: P1433739

Luminaire Tested: EHBR1-18-UNV-ASM-L940-UPL12

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:	P1433739
	REPORT IS A COMBINATION OF REPORTS P1431676 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-ASM-L940-UPL12
Description:	Elevate Round Highbay at, 19000 lumens, 4000K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	18223.9 lumens
Efficiency:	N/A
Efficacy:	178.5 lumens/watt
Spacing Criteria (0/90/45):	0.84 / 0.99 / 0.92
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	102.1
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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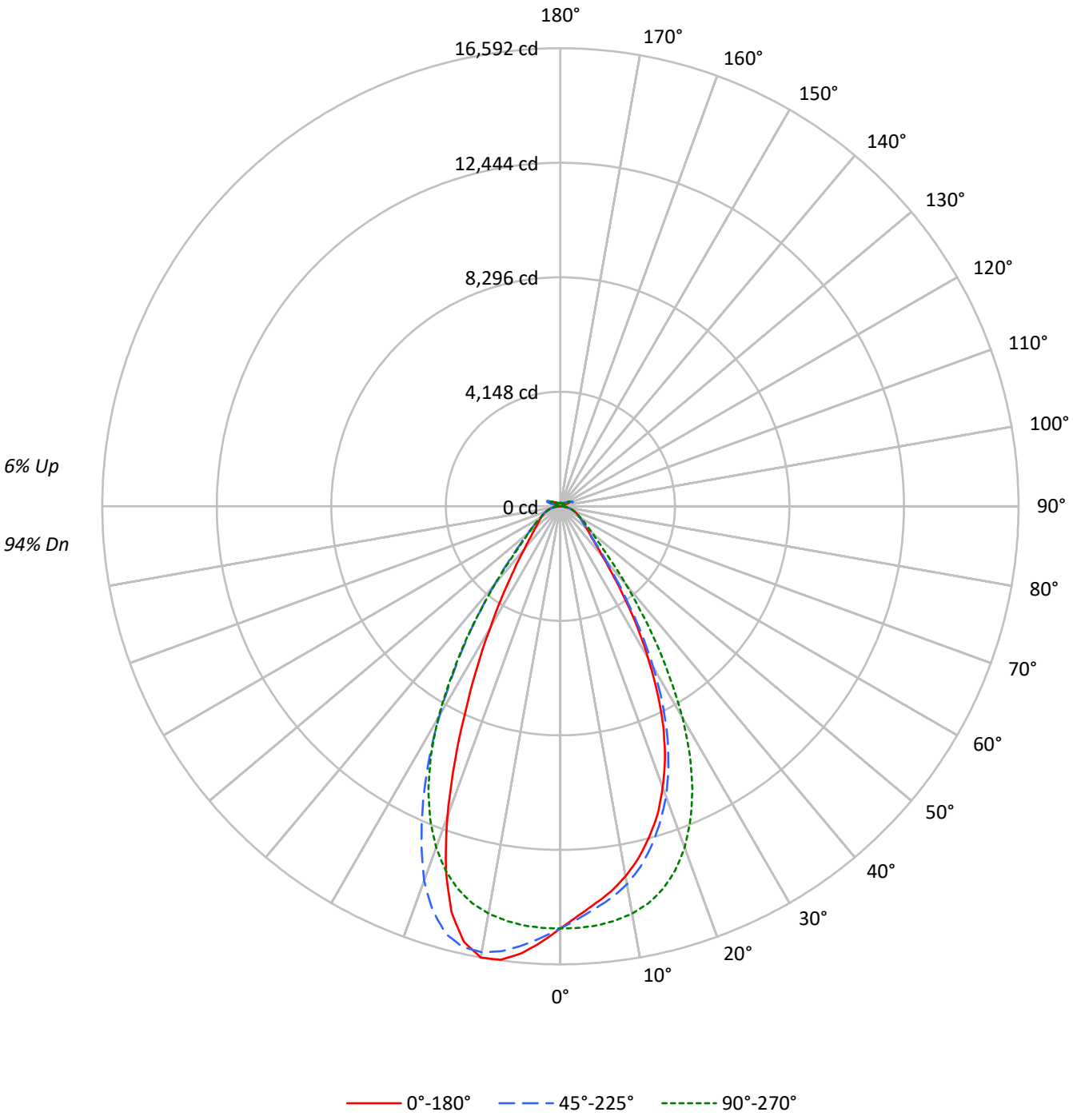
Scaled Data Report

TEST NUMBER: P1433739
CATALOG NUMBER: EHBR1-18-UNV-ASM-L940-UPL12

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	100	95	91	87	91	87	84	87	84	81	83	81	79	76
3	97	89	83	78	94	87	82	77	84	79	75	80	76	73	77	74	71	69
4	91	82	75	70	89	80	74	70	77	72	68	75	70	67	72	68	65	63
5	86	76	69	64	83	74	68	63	72	66	62	69	65	61	67	63	60	58
6	81	70	63	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	57	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°	45°	90°	135°	180°
0°	71808	71808	71808	71808	71808
5°	67667	68458	71370	74794	76139
10°	64041	65398	70493	77195	78094
15°	59156	60737	68412	76403	72573
20°	52692	54467	63982	70229	58194
25°	44158	45829	56630	58907	40320
30°	33039	34955	45981	45522	26231
35°	21995	23322	32979	32447	16987
40°	13871	14824	21322	21459	11709
45°	9883	10294	13529	14110	9069
50°	8232	8298	10046	10308	7707
55°	7267	7284	8203	8419	7021
60°	6729	6671	7103	7253	6688
65°	6423	6365	6475	6601	6450
70°	6237	6130	6137	6255	6319
75°	5931	5752	5738	5942	6114
80°	5397	5020	5041	5397	5771
85°	3931	3262	3262	3730	4120

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 19020 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1453.9	8.0
10°-20°	3955.5	21.7
20°-30°	4639.0	25.5
30°-40°	3226.1	17.7
40°-50°	1603.2	8.8
50°-60°	958.9	5.3
60°-70°	674.9	3.7
70°-80°	434.8	2.4
80°-90°	140.1	0.8
90°-100°	30.4	0.2
100°-110°	197.3	1.1
110°-120°	364.2	2.0
120°-130°	216.7	1.2
130°-140°	131.4	0.7
140°-150°	91.2	0.5
150°-160°	59.9	0.3
160°-170°	34.7	0.2
170°-180°	11.6	0.1
0°-30°	10048.5	55.1
0°-40°	13274.6	72.8
0°-60°	15836.7	86.9
0°-90°	17086.5	93.8
90°-120°	591.9	3.2
90°-150°	1031.2	5.7
90°-180°	1137.0	6.2
0°-180°	18223.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15291	15291	15291	15291	15291	
5°	14448	14617	15239	15970	16257	1355
15°	12411	12742	14352	16029	15226	3461
25°	8818	9152	11309	11764	8052	3979
35°	4037	4280	6053	5955	3118	2572
45°	1599	1666	2189	2283	1467	1293
55°	982	984	1108	1138	949	891
65°	670	664	676	689	673	666
75°	418	405	404	419	431	441
85°	135	112	112	128	142	139
90°	8	23	8	25	10	11
95°	14	51	16	44	16	14
105°	69	344	91	367	47	92
115°	315	407	388	450	332	290
125°	227	218	248	242	261	207
135°	166	168	158	176	182	130
145°	139	146	143	146	150	88
155°	124	128	128	128	133	58
165°	119	122	122	122	126	34
175°	120	122	122	122	125	11
180°	122	122	122	122	122	

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Scaled Data Report

TEST NUMBER: P1433739
CATALOG NUMBER: EHBR1-18-UNV-ASM-L940-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9	15290.9
2.5°	14837.0	14846.8	14950.6	15085.6	15282.0	15479.6	15639.5	15745.1	15797.3
5°	14448.0	14501.8	14616.8	14864.9	15238.7	15634.4	15969.6	16188.9	16256.9
7.5°	14068.9	14100.1	14292.6	14605.9	15135.2	15751.7	16249.8	16505.8	16568.3
10°	13606.4	13677.2	13894.6	14264.2	14977.2	15825.7	16401.2	16584.6	16592.1
12.5°	13062.1	13156.0	13380.5	13846.7	14725.2	15799.3	16350.4	16290.2	16153.3
15°	12410.7	12493.0	12742.2	13282.9	14352.5	15643.0	16029.0	15538.9	15225.5
17.5°	11707.1	11781.7	11998.1	12593.6	13827.2	15350.5	15358.0	14388.6	13797.3
20°	10829.7	10888.2	11194.5	11778.8	13150.2	14881.5	14434.2	12661.1	11960.6
22.5°	9896.1	9950.9	10223.0	10831.1	12301.5	14249.0	13147.6	10923.2	9967.5
25°	8818.3	8848.1	9152.0	9702.0	11308.9	13473.9	11763.6	9029.6	8051.9
27.5°	7605.8	7656.5	7974.5	8536.2	10141.2	12491.6	10289.8	7378.6	6476.6
30°	6355.0	6439.1	6723.5	7226.4	8844.4	11232.3	8756.1	5876.2	5045.5
32.5°	5187.8	5248.2	5451.0	5976.5	7392.4	9998.0	7283.1	4708.4	4004.8
35°	4036.8	4097.4	4280.5	4796.7	6052.8	8453.6	5955.1	3699.7	3117.8
37.5°	3085.8	3192.8	3310.2	3729.2	4750.2	6994.4	4747.1	2979.1	2529.0
40°	2404.2	2421.4	2569.4	2837.4	3695.7	5469.0	3719.4	2378.1	2029.5
42.5°	1924.5	1971.3	2034.9	2235.6	2800.2	4181.9	2923.5	1951.8	1723.8
45°	1599.1	1617.4	1665.6	1800.4	2188.9	3077.4	2282.9	1646.7	1467.4
47.5°	1399.0	1390.9	1421.9	1522.8	1782.6	2378.4	1850.2	1412.4	1286.8
50°	1226.9	1222.0	1236.7	1304.0	1497.2	1825.0	1536.3	1232.9	1148.6
52.5°	1093.3	1097.6	1099.1	1140.9	1286.2	1488.4	1308.3	1098.8	1042.0
55°	982.0	987.5	984.4	1015.3	1108.5	1251.3	1137.7	988.1	948.8
57.5°	895.1	891.1	886.8	903.5	973.5	1061.4	988.1	893.7	867.6
60°	808.9	805.1	802.0	812.9	853.9	919.3	871.9	811.5	804.0
62.5°	734.9	732.6	732.3	730.3	761.8	803.1	771.0	737.5	730.9
65°	670.4	667.8	664.4	661.2	675.8	714.2	689.0	671.0	673.2
67.5°	605.8	605.8	599.8	594.9	609.3	629.3	618.4	608.2	610.7
70°	547.3	547.6	537.9	534.2	538.5	560.0	548.8	550.2	554.5
72.5°	484.5	477.7	470.5	470.2	470.8	487.4	483.7	487.2	491.7
75°	417.8	409.7	405.2	400.0	404.2	416.9	418.6	423.5	430.7
77.5°	353.3	340.9	337.2	334.6	331.8	346.1	351.5	358.1	368.7
80°	283.9	270.4	264.1	260.4	265.2	271.9	283.9	288.7	303.6
82.5°	209.9	199.8	192.1	191.8	194.2	200.1	210.5	219.6	228.3
85°	135.1	119.0	112.1	114.7	112.1	121.3	128.2	139.1	141.6
87.5°	48.7	38.1	36.4	40.2	39.3	42.1	48.2	52.5	52.7
90°	8.4	13.4	22.8	14.6	8.4	14.3	24.6	14.2	10.4
92.5°	12.2	20.3	36.6	19.0	10.9	19.3	34.7	18.5	13.6
95°	14.1	23.4	51.0	25.3	16.2	23.7	44.0	20.4	16.1
97.5°	18.1	25.9	58.5	30.9	25.0	29.3	49.7	21.7	19.2
100°	23.7	30.3	91.0	38.1	33.1	33.1	90.3	24.8	21.7
102.5°	40.0	64.1	193.0	71.3	50.0	64.7	208.9	49.0	26.1
105°	68.8	134.8	343.8	148.9	90.6	147.3	367.2	124.7	47.0
107.5°	118.8	241.2	453.5	263.4	171.4	274.3	472.9	244.8	107.7
110°	221.5	320.0	475.5	361.6	274.0	383.2	516.0	334.9	216.6

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Scaled Data Report

TEST NUMBER: P1433739
CATALOG NUMBER: EHBR1-18-UNV-ASM-L940-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	299.1	343.8	455.5	399.1	356.5	427.0	504.2	371.3	*299.2*
115°	314.7	330.6	406.7	389.7	387.6	420.7	450.4	370.0	*331.8*
117.5°	304.0	301.9	345.4	350.6	374.4	385.0	389.1	347.4	*333.6*
120°	281.5	268.7	288.3	306.1	338.1	333.7	328.0	314.2	*314.8*
122.5°	253.3	238.3	247.4	260.8	292.7	283.3	277.4	280.8	*289.2*
125°	227.3	212.0	218.3	221.6	248.3	238.9	241.9	252.0	*260.7*
127.5°	204.2	193.9	197.6	194.2	211.0	206.6	216.3	227.6	*235.1*
130°	188.6	179.8	184.7	176.3	184.4	185.4	198.2	207.9	*212.5*
132.5°	175.7	170.0	176.0	165.6	167.9	172.5	184.7	193.1	*195.9*
135°	166.3	161.5	167.9	158.4	157.5	164.3	175.6	180.9	*182.1*
137.5°	158.5	154.4	160.9	153.7	151.5	158.5	166.9	171.2	*170.2*
140°	151.6	148.1	154.9	149.3	148.0	155.0	158.8	163.7	*163.0*
142.5°	144.0	141.5	149.6	145.8	144.6	150.9	152.8	156.4	*155.5*
145°	138.9	137.0	145.5	143.3	143.0	147.7	146.2	150.8	*149.5*
147.5°	134.5	133.2	140.8	139.8	139.8	143.3	141.4	145.5	*144.1*
150°	130.7	129.4	136.7	135.7	136.4	138.9	136.1	140.8	*140.7*
152.5°	126.9	125.3	131.9	131.0	131.6	134.2	131.6	137.0	*136.6*
155°	124.3	122.8	128.1	127.5	127.8	129.1	127.8	133.1	*133.4*
157.5°	122.7	121.5	125.6	125.3	125.3	126.1	125.6	130.3	*130.6*
160°	121.4	120.5	124.0	123.7	123.3	124.6	124.3	128.3	*128.6*
162.5°	120.1	119.2	123.3	122.6	122.6	122.6	122.6	126.6	*127.2*
165°	119.3	119.1	122.0	122.0	121.6	122.2	121.6	124.6	*125.9*
167.5°	119.3	118.8	121.9	121.9	121.6	120.9	121.5	124.3	*125.5*
170°	119.3	119.1	121.6	121.2	120.6	120.8	120.8	123.6	*124.7*
172.5°	119.9	119.6	122.4	121.8	121.5	121.5	121.1	123.2	*125.0*
175°	119.9	119.6	121.8	121.8	122.0	121.7	121.7	123.1	*124.9*
177.5°	120.8	120.6	121.8	121.8	121.4	122.0	122.5	124.0	*126.4*
180°	122.0	122.0	122.0	122.0	122.0	122.0	122.0	122.0	*122.0*

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Scaled Data Report

TEST NUMBER: P1433739
CATALOG NUMBER: EHBR1-18-UNV-ASM-L940-UPL12

CIE UGR TABLE:

Reflectances:											
	Ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
	Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
	Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.84	15.95	15.32	16.40	16.87	15.61	16.72	16.09	17.16	17.64
	3H	16.66	17.65	17.15	18.11	18.63	17.17	18.16	17.66	18.62	19.14
	4H	17.40	18.32	17.91	18.80	19.33	17.82	18.74	18.33	19.22	19.75
	6H	17.96	18.81	18.49	19.31	19.85	18.31	19.16	18.84	19.65	20.20
	8H	18.15	18.95	18.69	19.46	20.02	18.47	19.27	19.01	19.78	20.34
	12H	18.25	19.01	18.79	19.52	20.10	18.55	19.31	19.09	19.82	20.40
4H	2H	15.36	16.28	15.87	16.76	17.30	15.99	16.91	16.50	17.39	17.93
	3H	17.40	18.16	17.92	18.69	19.24	17.80	18.56	18.32	19.08	19.64
	4H	18.26	18.95	18.81	19.48	20.07	18.58	19.27	19.13	19.80	20.39
	6H	18.96	19.55	19.53	20.11	20.72	19.22	19.81	19.79	20.37	20.98
	8H	19.18	19.73	19.76	20.29	20.91	19.42	19.97	20.00	20.53	21.15
	12H	19.32	19.80	19.91	20.40	21.02	19.54	20.02	20.13	20.62	21.24
8H	4H	18.52	19.07	19.10	19.63	20.25	18.83	19.38	19.40	19.94	20.55
	6H	19.34	19.79	19.95	20.39	21.02	19.59	20.04	20.20	20.65	21.27
	8H	19.64	20.04	20.26	20.66	21.30	19.87	20.27	20.50	20.89	21.53
	12H	19.84	20.19	20.46	20.79	21.50	20.06	20.41	20.67	21.01	21.72
12H	4H	18.53	19.02	19.12	19.61	20.23	18.84	19.32	19.43	19.91	20.53
	6H	19.38	19.78	20.00	20.40	21.03	19.63	20.03	20.26	20.65	21.29
	8H	19.72	20.07	20.34	20.67	21.38	19.96	20.31	20.58	20.91	21.62

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LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-7

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L940-N

Data in this report applies to families of products including EHBR-60-L940-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

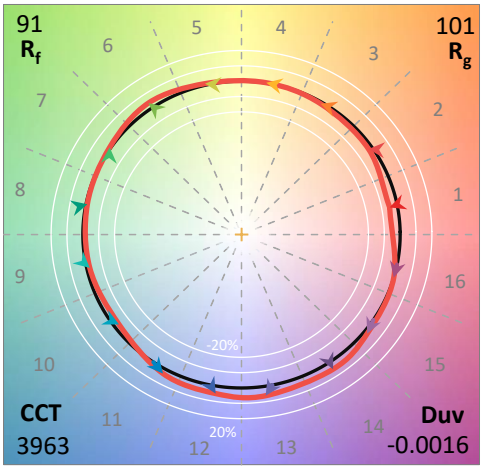
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-7
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-L940-N**
Description:	Elevate Round Highbay at, 60000 lumens, 4000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	3963
CIE u':	0.2267
CIE v':	0.5003
Duv:	-0.0016
CIE x:	0.3810
CIE y:	0.3738
CIE z:	0.2453
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	580
Purity:	26.49712
Rf:	90.7
Rg:	101

CRI (Ra):	93.4
R1:	95.2
R2:	95.1
R3:	93.3
R4:	94.5
R5:	94.2
R6:	92.9
R7:	94.0
R8:	87.7
R9:	66.4
R10:	86.6
R11:	94.4
R12:	75.4
R13:	95.0
R14:	95.4
R15:	92.8



Test Conditions

Stabilization Time:	44M
Operation Time:	1H 44M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-7

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

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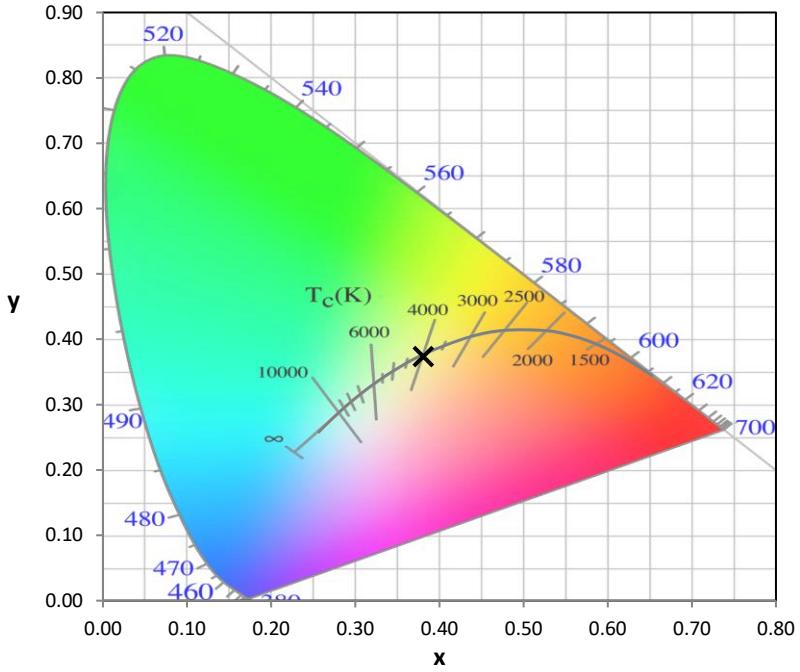
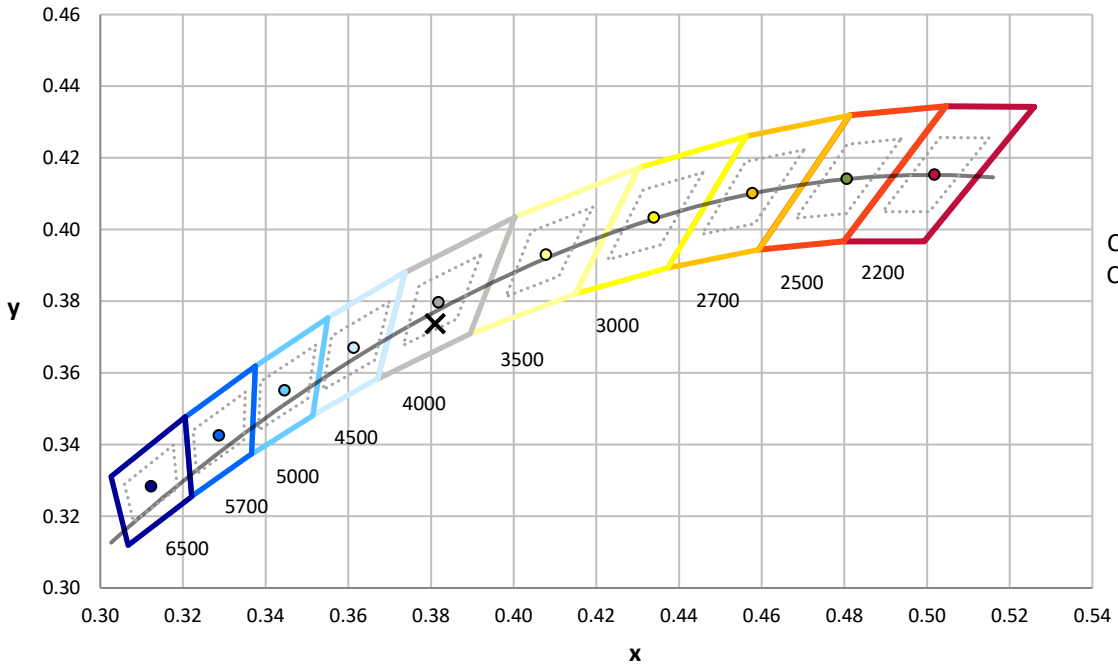
CIE 1931 Chromaticity Diagram



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



CCT = 3963K
CIE x = 0.3810
CIE y = 0.3738
Duv = -0.0016

Point lies inside the ANSI 4000K 4-step quadrangle

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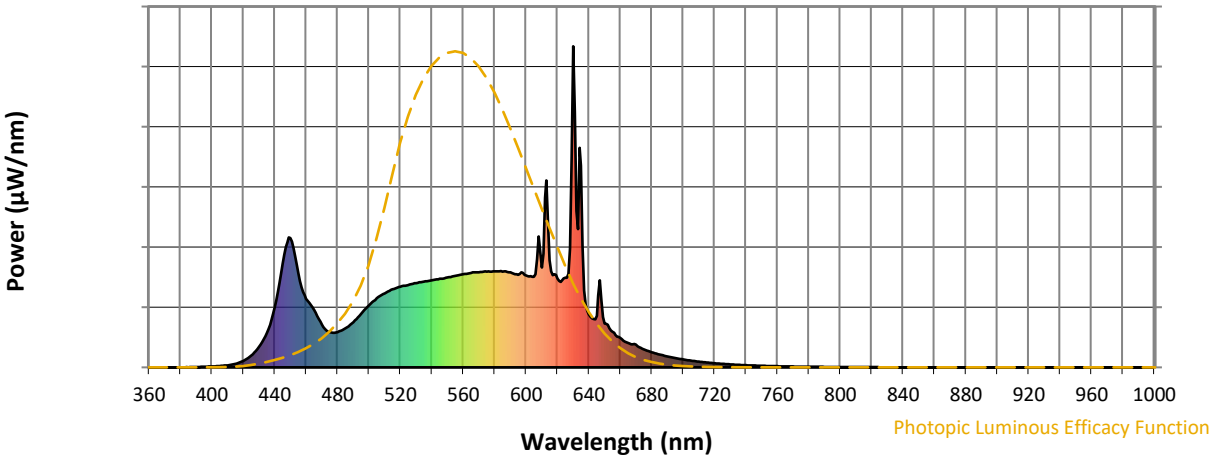
Photopic Flux vs. Wavelength



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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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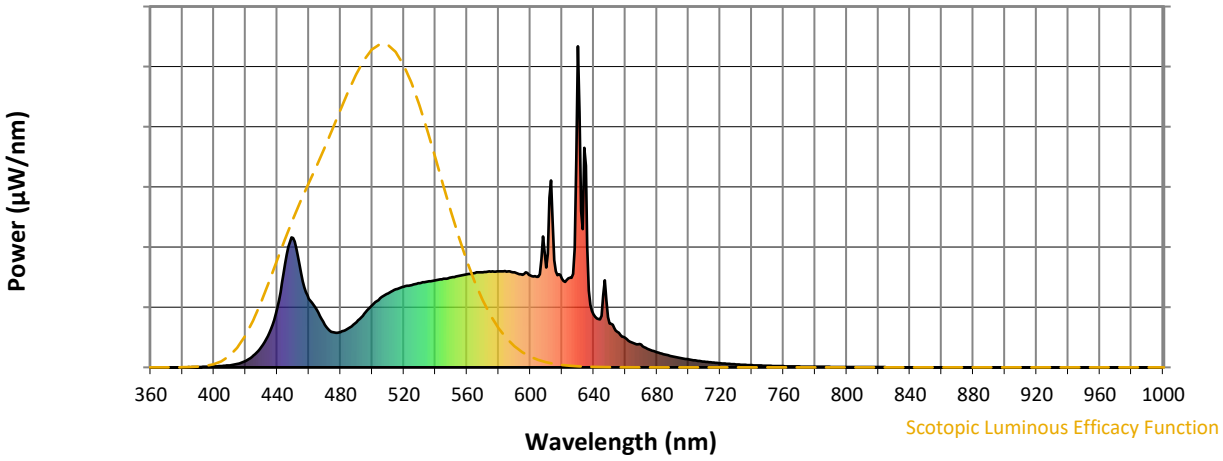
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.76**

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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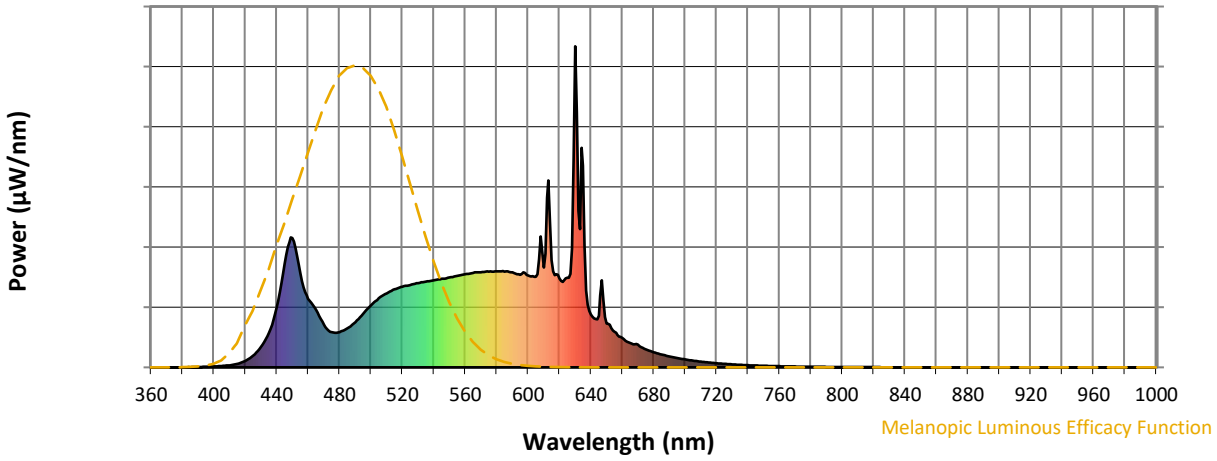
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.64**

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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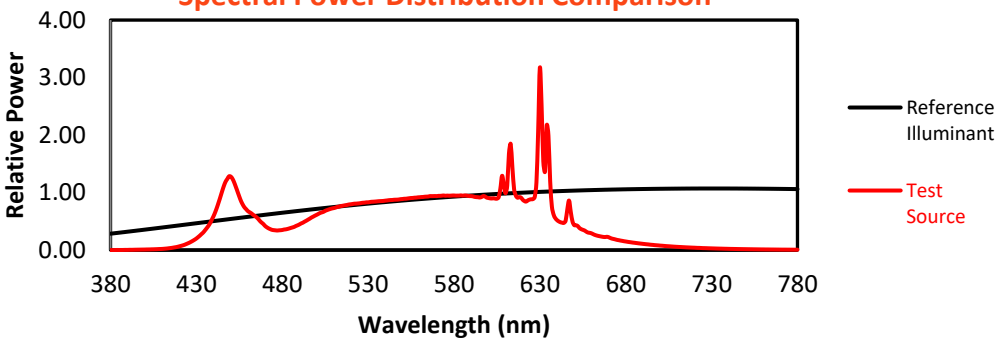
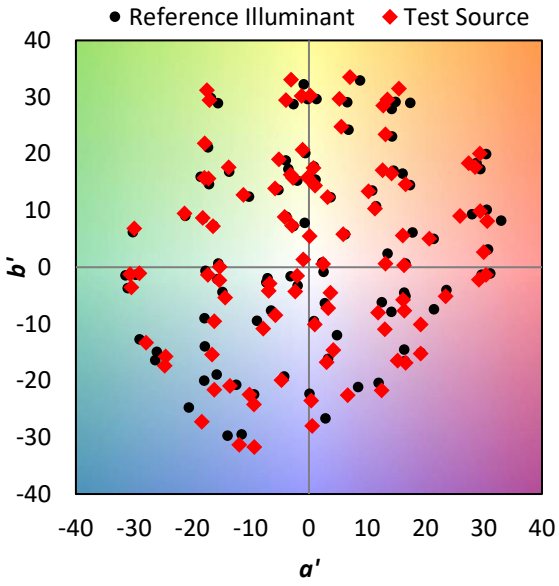
Summary

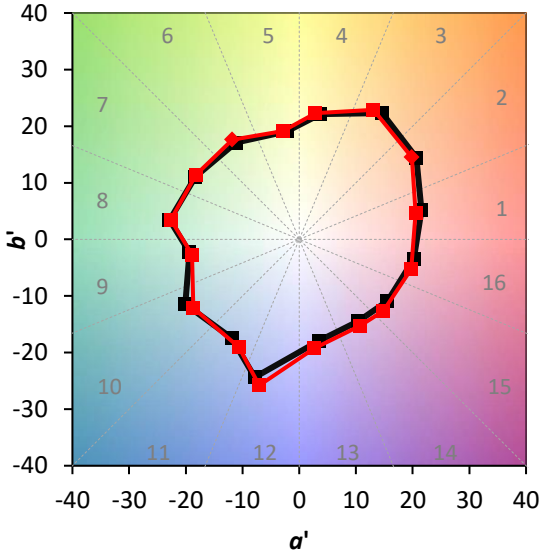
R_f = 90.7
R_g = 101
CIE R_a = 93.4
R_9 = 66.4

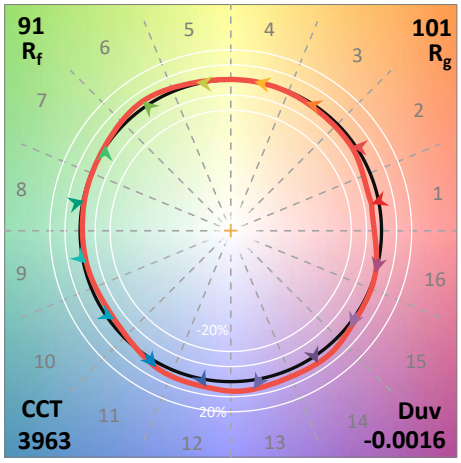
Spectral Power Distribution Comparison

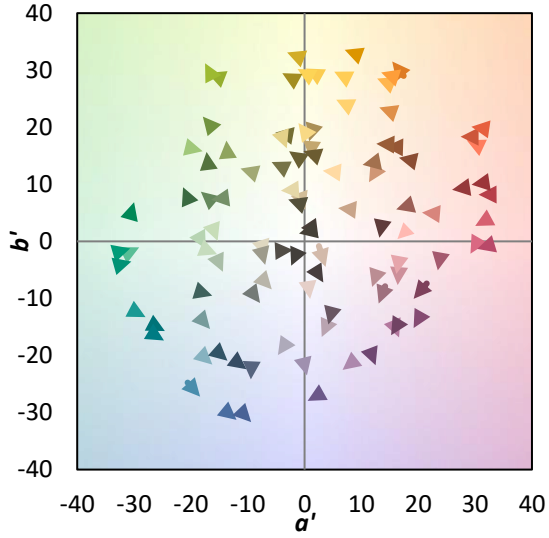


Color Vector Graphics









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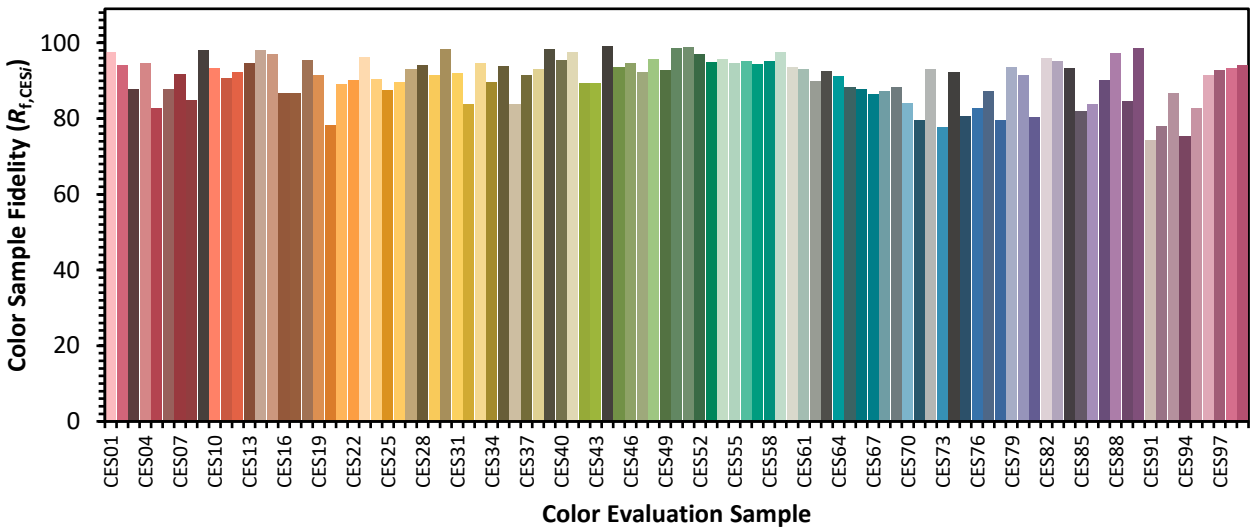
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 90	CES51 = 99	CES76 = 83
CES02 = 62	CES27 = 93	CES52 = 97	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 95	CES78 = 79
CES04 = 69	CES29 = 91	CES54 = 96	CES79 = 94
CES05 = 49	CES30 = 98	CES55 = 95	CES80 = 91
CES06 = 50	CES31 = 92	CES56 = 95	CES81 = 80
CES07 = 42	CES32 = 84	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 95	CES58 = 95	CES83 = 95
CES09 = 29	CES34 = 90	CES59 = 98	CES84 = 93
CES10 = 74	CES35 = 94	CES60 = 93	CES85 = 82
CES11 = 57	CES36 = 84	CES61 = 93	CES86 = 84
CES12 = 63	CES37 = 92	CES62 = 90	CES87 = 90
CES13 = 43	CES38 = 93	CES63 = 92	CES88 = 97
CES14 = 74	CES39 = 98	CES64 = 91	CES89 = 84
CES15 = 71	CES40 = 96	CES65 = 88	CES90 = 99
CES16 = 47	CES41 = 98	CES66 = 88	CES91 = 74
CES17 = 49	CES42 = 89	CES67 = 87	CES92 = 78
CES18 = 56	CES43 = 89	CES68 = 87	CES93 = 87
CES19 = 71	CES44 = 99	CES69 = 88	CES94 = 75
CES20 = 66	CES45 = 93	CES70 = 84	CES95 = 83
CES21 = 85	CES46 = 95	CES71 = 80	CES96 = 91
CES22 = 78	CES47 = 92	CES72 = 93	CES97 = 93
CES23 = 91	CES48 = 96	CES73 = 78	CES98 = 93
CES24 = 90	CES49 = 93	CES74 = 92	CES99 = 94
CES25 = 71	CES50 = 99	CES75 = 81	



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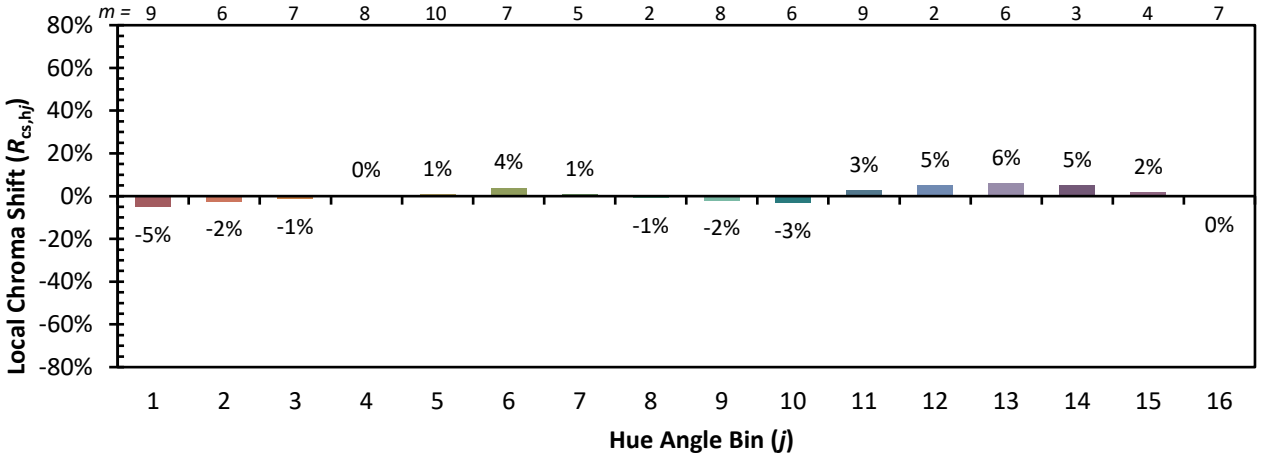
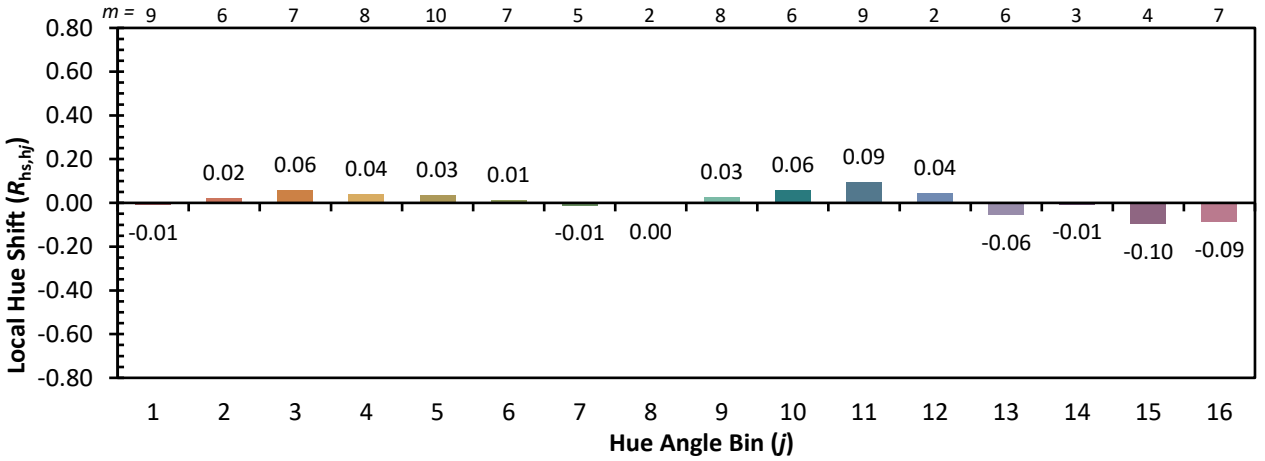
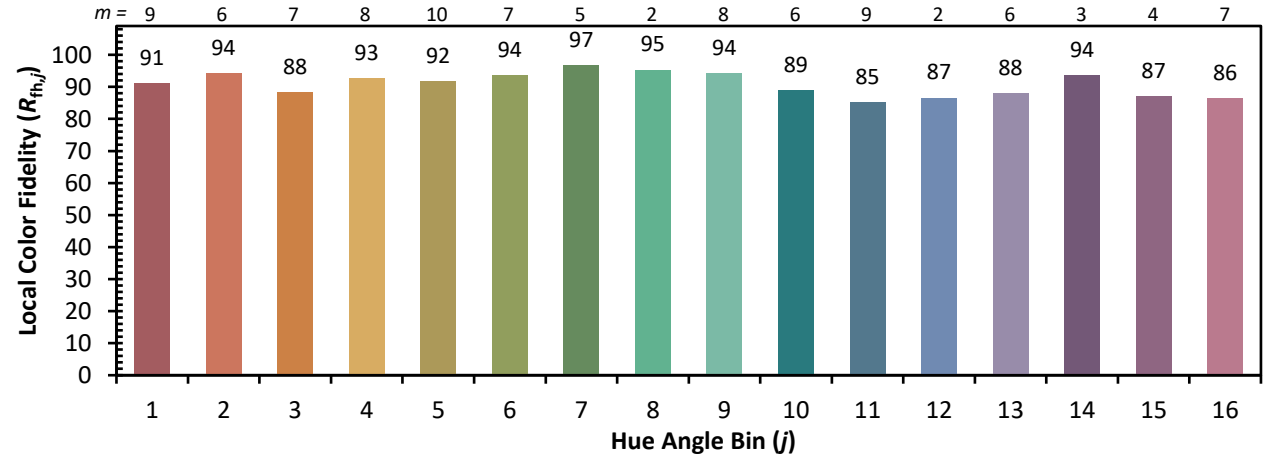
Color Rendition by Hue-Angle Bin







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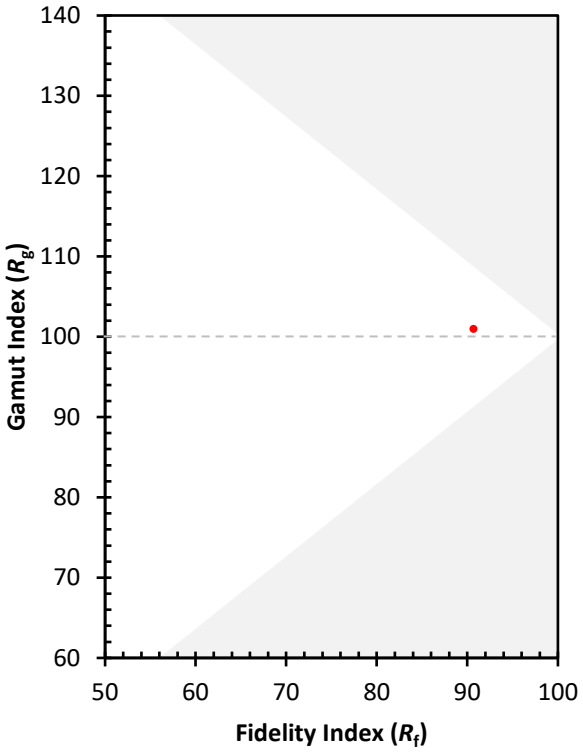
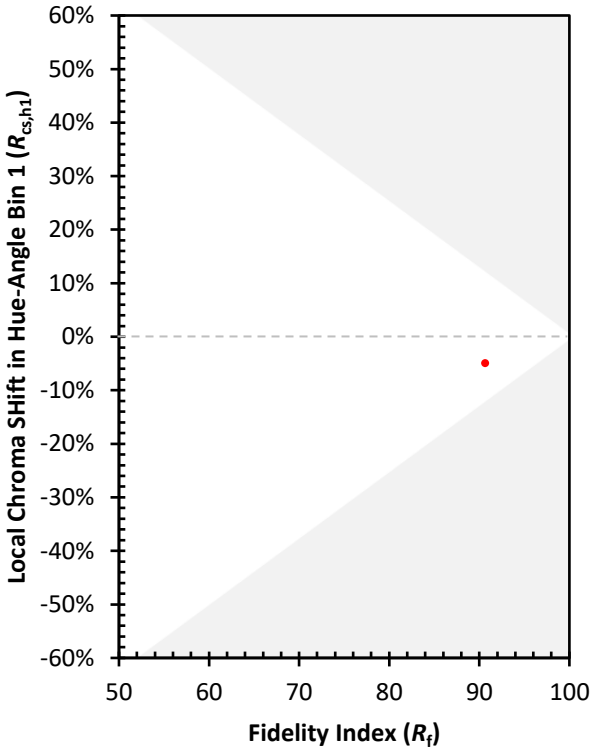
Measure Comparisons





(END OF REPORT)