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: P1433837

Luminaire Tested: EHBR1-36-UNV-ASM-L940-UPL18

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:	P1433837
	REPORT IS A COMBINATION OF REPORTS P1431774 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-36-UNV-ASM-L940-UPL18
Description:	Elevate Round Highbay at, 36000 lumens, 4000K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	35324.2 lumens
Efficiency:	N/A
Efficacy:	173.8 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):	203.3
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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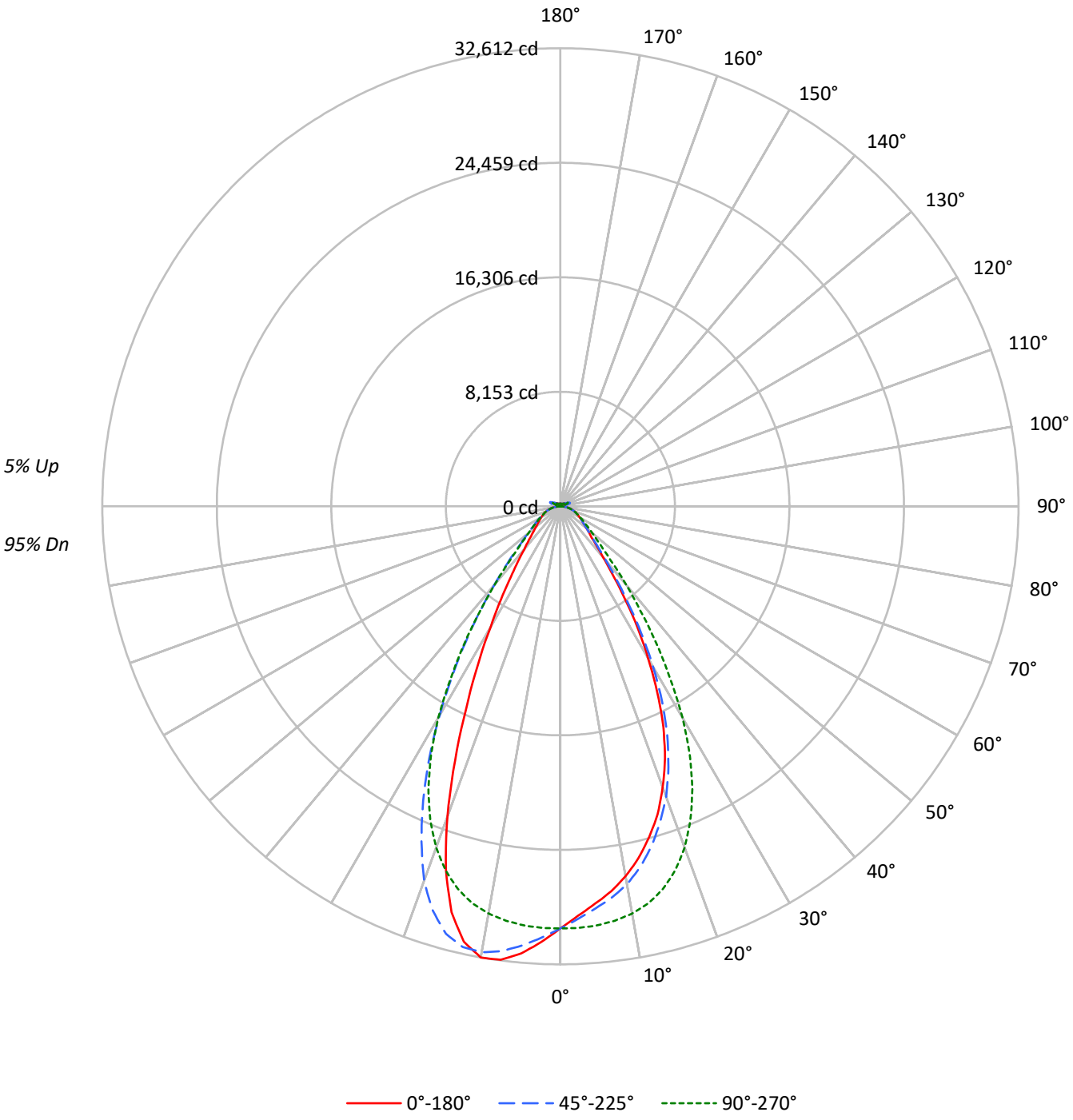
Scaled Data Report

TEST NUMBER: P1433837
CATALOG NUMBER: EHBR1-36-UNV-ASM-L940-UPL18

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	115	115	115	115	108	108	108	103	103	103	98	98	98	95
1	111	107	104	101	108	105	102	99	100	97	95	95	93	92	91	89	88	86
2	104	98	93	89	101	96	91	87	91	88	85	88	85	82	84	82	80	77
3	97	90	84	79	95	88	82	78	84	80	76	81	77	74	78	75	72	70
4	91	82	76	71	89	81	75	70	78	73	69	75	71	67	73	69	66	64
5	86	76	69	64	84	75	69	64	72	67	63	70	65	62	68	64	61	59
6	81	71	64	59	79	70	63	59	68	62	58	66	61	57	64	59	56	54
7	77	66	59	54	75	65	59	54	63	57	53	62	56	53	60	55	52	50
8	72	62	55	50	71	61	54	50	59	54	49	58	53	49	56	52	48	47
9	69	58	51	47	67	57	51	47	56	50	46	54	49	46	53	49	45	44
10	65	54	48	44	64	54	48	44	53	47	43	51	46	43	50	46	42	41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	141138	141138	141138	141138	141138
5°	133000	134554	140280	147007	149652
10°	125873	128539	138555	151727	153494
15°	116273	119378	134464	150171	142644
20°	103566	107054	125757	138036	114381
25°	86793	90078	111305	115781	79250
30°	64939	68703	90376	89474	51558
35°	43231	45841	64820	63773	33390
40°	27264	29137	41908	42178	23014
45°	19426	20234	26590	27733	17827
50°	16181	16310	19747	20261	15149
55°	14283	14316	16122	16547	13800
60°	13225	13112	13961	14256	13145
65°	12623	12510	12726	12974	12677
70°	12262	12049	12061	12294	12421
75°	11658	11304	11280	11680	12017
80°	10607	9866	9909	10607	11345
85°	7722	6410	6410	7329	8100

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 37385 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2857.7	8.1
10°-20°	7774.6	22.0
20°-30°	9118.0	25.8
30°-40°	6341.0	18.0
40°-50°	3151.2	8.9
50°-60°	1884.7	5.3
60°-70°	1326.6	3.8
70°-80°	854.5	2.4
80°-90°	274.4	0.8
90°-100°	46.8	0.1
100°-110°	301.5	0.9
110°-120°	556.2	1.6
120°-130°	331.2	0.9
130°-140°	201.2	0.6
140°-150°	140.1	0.4
150°-160°	92.4	0.3
160°-170°	53.9	0.2
170°-180°	18.1	0.1
0°-30°	19750.3	55.9
0°-40°	26091.3	73.9
0°-60°	31127.2	88.1
0°-90°	33582.7	95.1
90°-120°	904.5	2.6
90°-150°	1577.0	4.5
90°-180°	1741.0	4.9
0°-180°	35324.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	30054	30054	30054	30054	30054	
5°	28398	28729	29952	31388	31953	2664
15°	24393	25045	28210	31505	29926	6803
25°	17332	17988	22228	23121	15826	7820
35°	7934	8414	11897	11705	6128	5054
45°	3143	3274	4302	4487	2884	2541
55°	1930	1935	2179	2236	1865	1751
65°	1318	1306	1328	1354	1323	1308
75°	821	796	795	823	846	867
85°	265	220	220	252	278	273
90°	13	35	13	38	17	19
95°	22	78	25	68	25	21
105°	105	525	139	561	73	141
115°	480	621	592	688	507	443
125°	347	334	379	370	399	316
135°	254	257	241	269	279	199
145°	213	224	220	224	230	135
155°	192	198	197	197	206	90
165°	186	189	189	189	196	53
175°	187	190	191	190	196	18
180°	191	191	191	191	191	

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Scaled Data Report

TEST NUMBER: P1433837
CATALOG NUMBER: EHBR1-36-UNV-ASM-L940-UPL18

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	30054.4	30054.4	30054.4	30054.4	30054.4	30054.4	30054.4	30054.4	30054.4
2.5°	29162.3	29181.5	29385.4	29650.8	30036.9	30425.2	30739.7	30947.1	31049.6
5°	28397.5	28503.4	28729.4	29217.0	29951.9	30729.6	31388.4	31819.5	31953.0
7.5°	27652.5	27714.0	28092.1	28708.0	29748.4	30960.1	31939.0	32442.2	32565.1
10°	26743.5	26882.6	27309.8	28036.3	29437.9	31105.4	32236.5	32597.2	32611.9
12.5°	25673.8	25858.1	26299.3	27215.7	28942.5	31053.6	32136.8	32018.4	31749.6
15°	24393.4	24555.1	25044.9	26107.8	28209.9	30746.5	31505.0	30541.9	29925.9
17.5°	23010.4	23156.9	23582.4	24752.9	27177.4	30171.6	30186.3	28280.9	27118.8
20°	21285.9	21400.8	22002.8	23151.3	25846.8	29249.7	28370.5	24885.4	23508.6
22.5°	19450.9	19558.5	20093.4	21288.7	24178.6	28006.4	25841.7	21469.6	19591.2
25°	17332.4	17391.0	17988.5	19069.4	22227.6	26483.1	23121.4	17747.9	15826.1
27.5°	14949.2	15048.9	15673.9	16777.9	19932.8	24552.3	20224.7	14502.8	12729.8
30°	12490.9	12656.0	13215.0	14203.6	17383.8	22077.1	17210.2	11549.7	9917.1
32.5°	10196.6	10315.5	10713.9	11746.9	14529.9	19651.0	14315.1	9254.3	7871.3
35°	7934.5	8053.3	8413.5	9427.9	11896.8	16615.6	11704.7	7271.7	6128.2
37.5°	6065.1	6275.3	6506.3	7329.7	9336.6	13747.6	9330.4	5855.5	4970.6
40°	4725.5	4759.3	5050.1	5577.0	7263.8	10749.4	7310.5	4674.3	3988.9
42.5°	3782.7	3874.5	3999.6	4394.1	5503.8	8219.6	5746.1	3836.2	3388.1
45°	3143.0	3179.1	3273.7	3538.7	4302.2	6048.7	4487.1	3236.5	2884.4
47.5°	2749.7	2733.8	2794.8	2993.1	3503.7	4674.8	3636.7	2776.1	2529.3
50°	2411.5	2401.9	2430.7	2563.1	2943.0	3587.1	3019.6	2423.3	2257.7
52.5°	2148.8	2157.3	2160.1	2242.5	2528.1	2925.5	2571.5	2159.6	2048.0
55°	1930.2	1940.9	1934.7	1995.6	2178.7	2459.4	2236.2	1942.0	1864.9
57.5°	1759.4	1751.6	1743.1	1775.8	1913.3	2086.3	1942.0	1756.6	1705.4
60°	1589.9	1582.5	1576.3	1597.7	1678.3	1806.8	1713.8	1594.9	1580.3
62.5°	1444.4	1440.0	1439.4	1435.4	1497.4	1578.6	1515.4	1449.5	1436.5
65°	1317.6	1312.5	1305.8	1299.6	1328.3	1403.8	1354.2	1318.7	1323.2
67.5°	1190.8	1190.8	1179.0	1169.4	1197.5	1237.0	1215.6	1195.3	1200.4
70°	1075.9	1076.4	1057.2	1050.0	1058.3	1100.6	1078.7	1081.5	1089.9
72.5°	952.4	938.9	924.8	924.3	925.4	958.1	950.7	957.5	966.5
75°	821.2	805.3	796.3	786.2	794.6	819.4	822.8	832.4	846.5
77.5°	694.4	670.0	662.8	657.6	652.1	680.2	690.9	703.9	724.7
80°	558.0	531.4	519.0	511.8	521.3	534.3	558.0	567.5	596.8
82.5°	412.5	392.8	377.6	377.0	381.5	393.3	413.7	431.7	448.6
85°	265.4	233.8	220.3	225.5	220.3	238.4	251.9	273.3	278.4
87.5°	95.8	75.0	71.6	78.9	77.2	82.8	94.7	103.1	103.7
90°	12.9	20.6	34.9	22.5	12.9	22.1	37.9	22.5	16.9
92.5°	18.7	31.1	55.9	29.2	16.8	29.7	53.2	29.2	21.6
95°	21.5	35.9	77.9	38.8	25.0	36.4	67.5	32.0	25.4
97.5°	27.9	39.7	89.3	47.3	38.4	45.0	76.1	33.9	30.3
100°	36.4	46.4	139.0	58.4	50.8	50.8	138.3	38.7	34.1
102.5°	61.3	97.9	294.7	109.0	76.6	99.0	319.3	75.6	40.7
105°	105.2	205.9	524.8	227.4	138.6	225.1	560.9	191.1	72.9
107.5°	181.6	368.2	692.4	402.2	261.8	419.0	722.2	374.4	165.5
110°	338.2	488.5	725.8	552.1	418.4	585.1	788.1	511.9	331.6

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Scaled Data Report

TEST NUMBER: P1433837
CATALOG NUMBER: EHBR1-36-UNV-ASM-L940-UPL18

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	456.6	524.8	695.3	609.4	544.5	652.0	769.9	567.3	*457.6*
115°	480.4	504.8	620.8	595.0	591.8	642.4	687.8	565.4	*507.3*
117.5°	464.2	460.8	527.2	535.4	571.8	588.0	594.3	531.0	*510.2*
120°	429.9	410.2	440.4	467.7	516.3	509.7	501.2	480.4	*481.5*
122.5°	386.9	364.0	377.9	398.5	447.2	432.8	423.9	429.4	*442.3*
125°	347.3	323.8	333.5	338.9	379.4	365.1	370.0	385.4	*399.0*
127.5°	312.0	296.2	302.0	296.9	322.6	316.0	330.8	348.2	*359.8*
130°	288.2	274.7	282.6	269.8	282.2	283.5	303.2	318.3	*325.4*
132.5°	268.7	260.0	269.3	253.7	256.9	264.0	282.8	295.9	*300.4*
135°	254.3	247.3	256.9	242.8	241.3	251.6	269.0	277.2	*279.3*
137.5°	242.5	236.4	246.6	235.7	232.3	242.6	255.6	262.4	*261.2*
140°	232.2	226.9	237.7	229.0	227.1	237.5	243.2	251.0	*250.3*
142.5°	220.8	217.0	229.7	224.0	222.0	231.3	234.2	240.2	*238.9*
145°	213.4	210.6	223.6	220.1	219.8	226.9	224.2	231.6	*229.8*
147.5°	206.9	205.1	216.5	214.9	214.9	220.1	217.3	223.6	*221.8*
150°	201.3	199.5	210.4	208.9	209.8	213.6	209.2	216.5	*216.6*
152.5°	195.8	193.3	203.3	201.8	202.7	206.5	202.7	210.9	*210.6*
155°	192.1	189.7	197.7	196.6	197.1	199.1	197.1	205.3	*205.9*
157.5°	190.0	187.9	194.1	193.5	193.5	195.0	194.1	201.3	*201.9*
160°	188.3	186.7	191.9	191.4	191.0	192.9	192.5	198.7	*199.3*
162.5°	186.5	185.0	191.1	190.1	190.1	190.1	190.3	196.6	*197.7*
165°	185.7	185.1	189.4	189.4	188.9	190.0	189.1	194.2	*196.2*
167.5°	185.7	184.7	189.5	189.5	189.1	188.2	189.4	194.0	*196.0*
170°	185.9	185.3	189.1	188.8	187.8	188.5	188.6	193.1	*195.2*
172.5°	187.1	186.5	190.9	190.0	189.6	189.6	189.3	192.9	*195.9*
175°	187.3	186.7	190.1	190.1	190.7	190.2	190.4	193.0	*196.1*
177.5°	188.8	188.2	190.1	190.1	189.7	190.8	191.9	194.6	*198.5*
180°	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8	*190.8*

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Scaled Data Report

TEST NUMBER: P1433837
CATALOG NUMBER: EHBR1-36-UNV-ASM-L940-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	17.30	18.43	17.75	18.84	19.29	18.06	19.19	18.52	19.61	20.05
	3H	19.11	20.12	19.58	20.55	21.04	19.62	20.63	20.09	21.06	21.55
	4H	19.85	20.79	20.34	21.24	21.75	20.27	21.21	20.76	21.66	22.17
	6H	20.42	21.28	20.92	21.75	22.27	20.77	21.63	21.27	22.10	22.61
	8H	20.60	21.42	21.12	21.91	22.43	20.92	21.74	21.44	22.23	22.75
	12H	20.70	21.48	21.22	21.96	22.51	21.00	21.78	21.52	22.26	22.81
4H	2H	17.81	18.75	18.31	19.20	19.71	18.44	19.38	18.93	19.83	20.34
	3H	19.85	20.63	20.36	21.13	21.65	20.25	21.03	20.75	21.53	22.05
	4H	20.72	21.41	21.24	21.93	22.49	21.04	21.73	21.56	22.25	22.81
	6H	21.41	22.01	21.96	22.55	23.13	21.67	22.27	22.22	22.81	23.39
	8H	21.64	22.20	22.19	22.74	23.32	21.88	22.44	22.43	22.98	23.56
	12H	21.77	22.27	22.35	22.84	23.43	21.99	22.49	22.56	23.06	23.65
8H	4H	20.98	21.54	21.53	22.08	22.66	21.28	21.84	21.84	22.38	22.97
	6H	21.79	22.25	22.38	22.84	23.43	22.05	22.50	22.63	23.09	23.68
	8H	22.09	22.50	22.70	23.10	23.71	22.33	22.73	22.93	23.33	23.94
	12H	22.30	22.65	22.90	23.23	23.92	22.51	22.87	23.11	23.45	24.13
12H	4H	20.99	21.48	21.56	22.05	22.64	21.29	21.79	21.86	22.36	22.95
	6H	21.83	22.24	22.44	22.84	23.45	22.09	22.49	22.69	23.09	23.70
	8H	22.18	22.53	22.78	23.12	23.80	22.42	22.77	23.02	23.35	24.04

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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

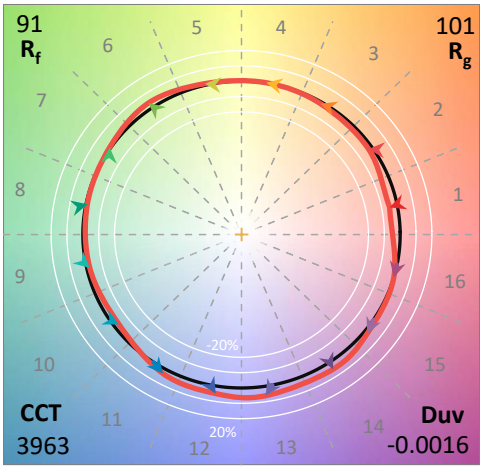
Test Information

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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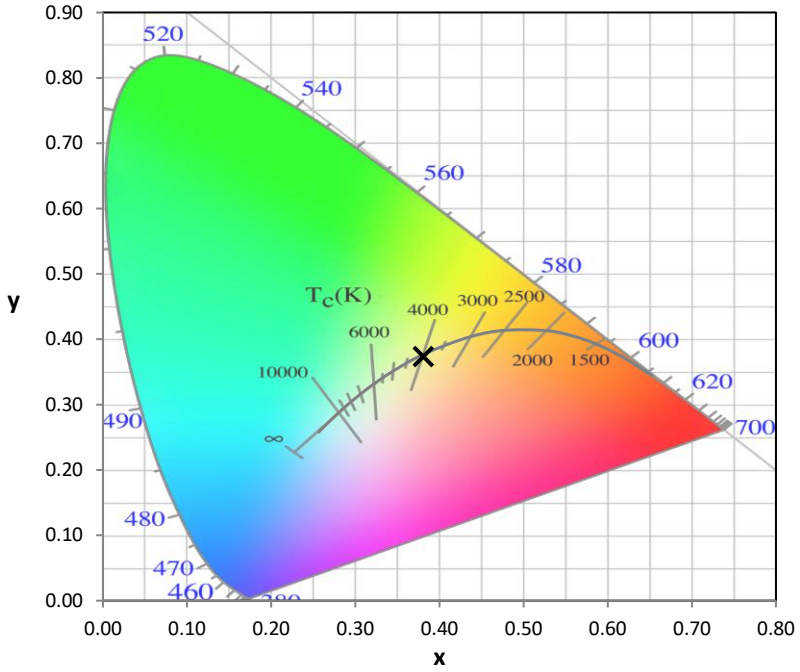
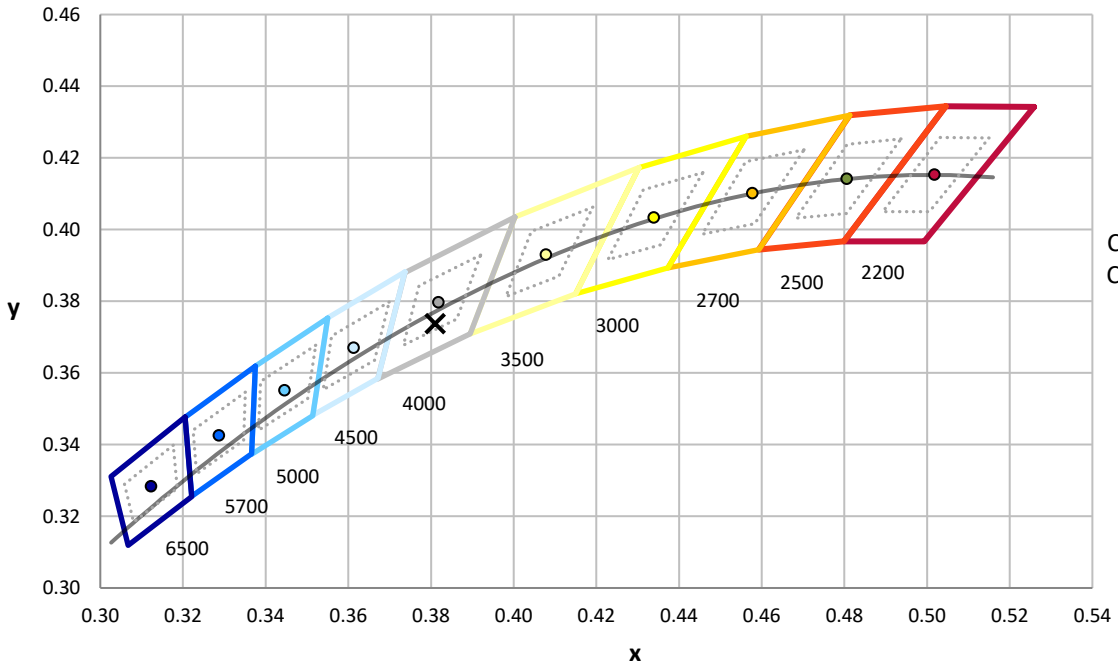
CIE 1931 Chromaticity Diagram



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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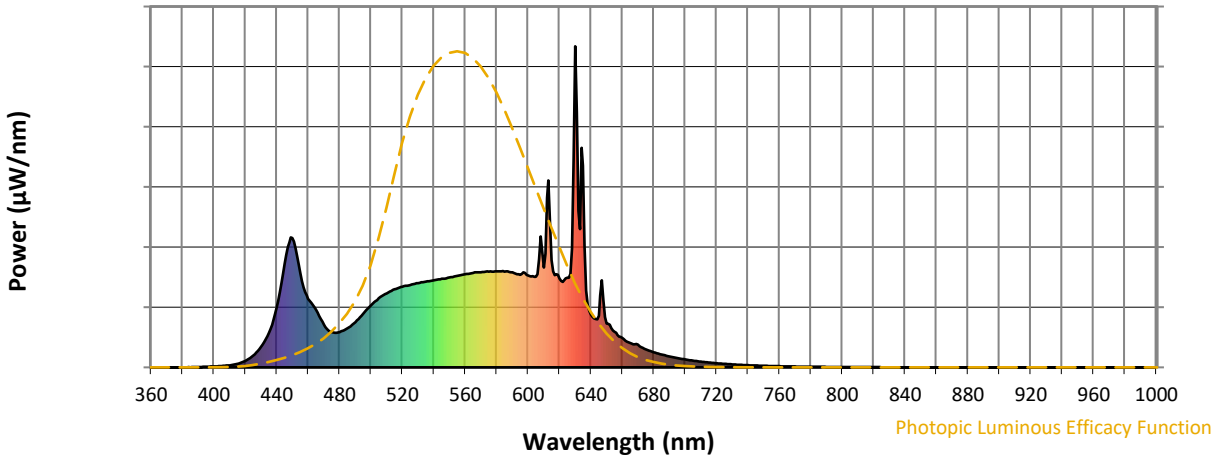
Photopic Flux vs. Wavelength



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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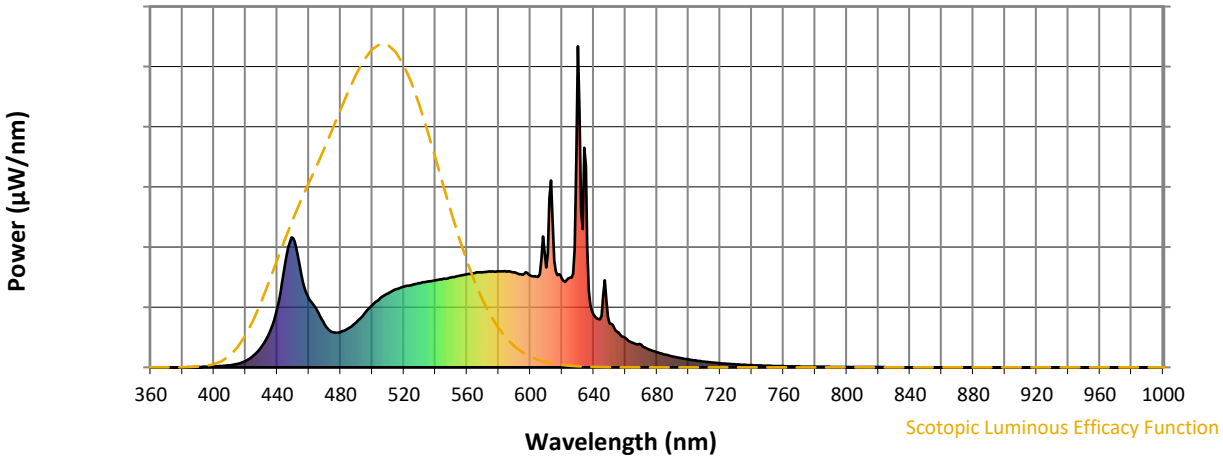
Scotopic Flux vs. Wavelength



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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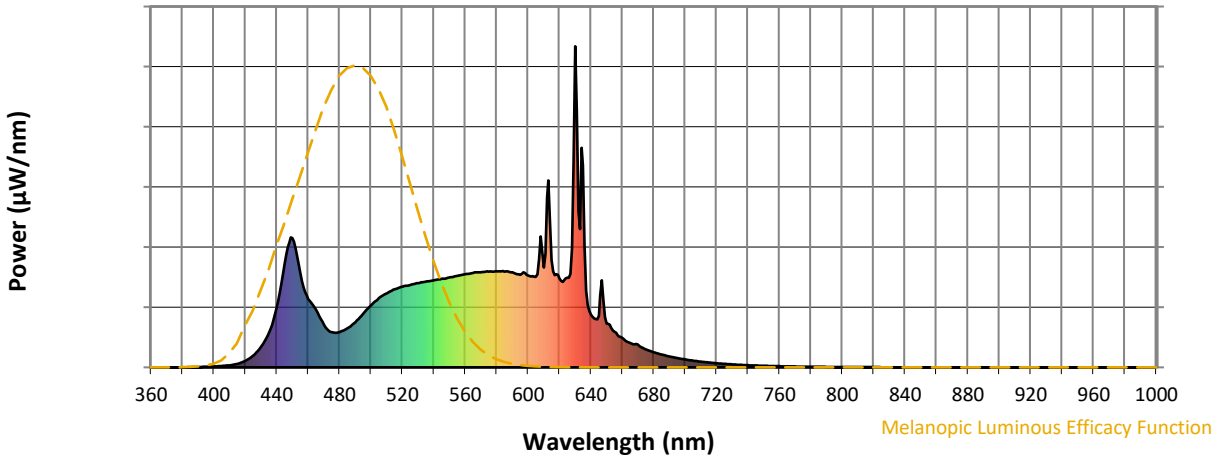
Melanopic Flux vs. Wavelength



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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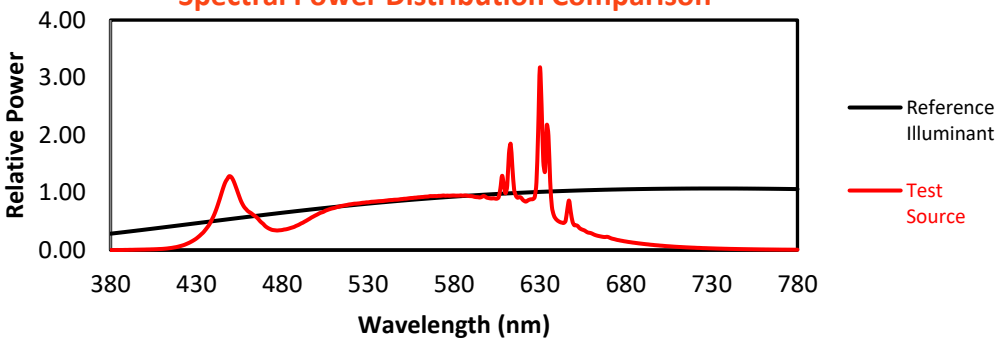
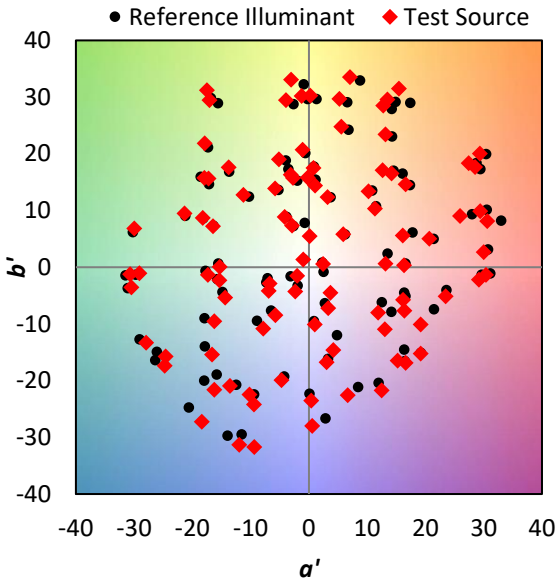
Summary

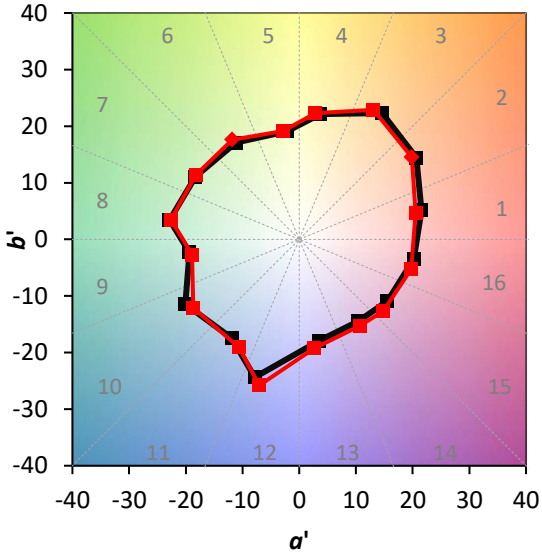
R_f = 90.7
R_g = 101
CIE R_a = 93.4
R_9 = 66.4

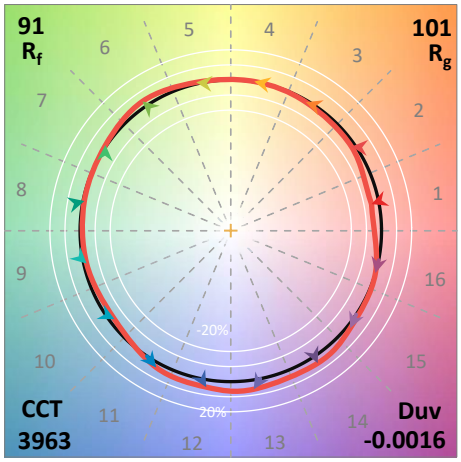
Spectral Power Distribution Comparison

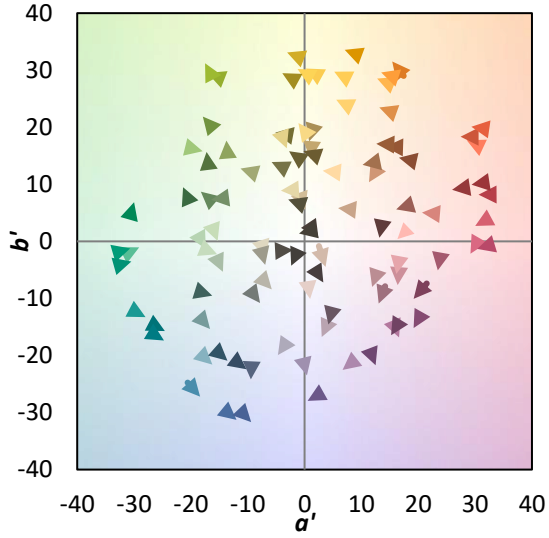


Color Vector Graphics









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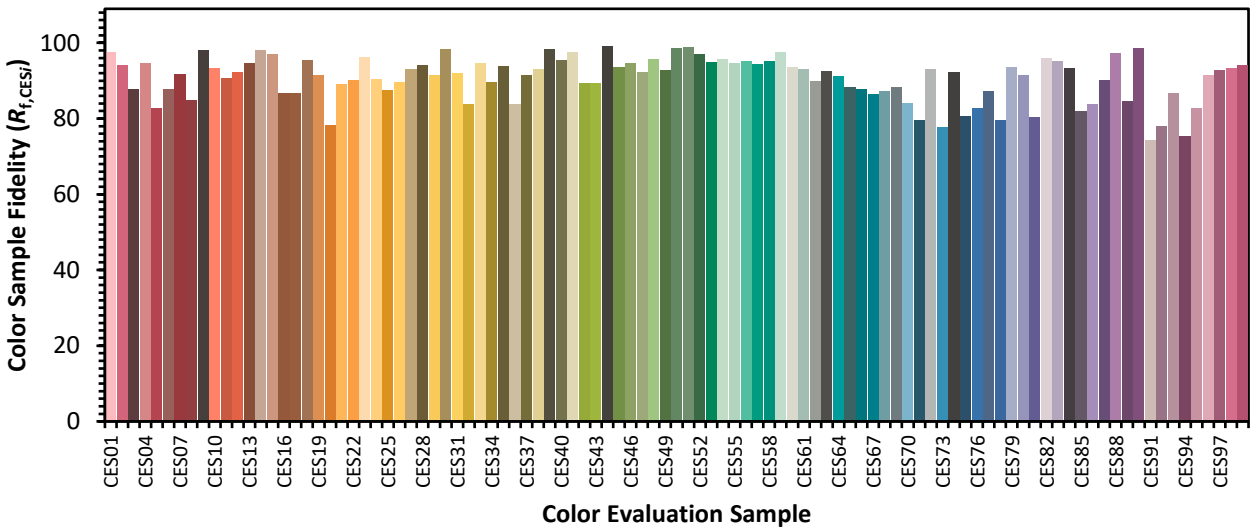
Individual Sample Fidelity Index ($R_{f,i}$)

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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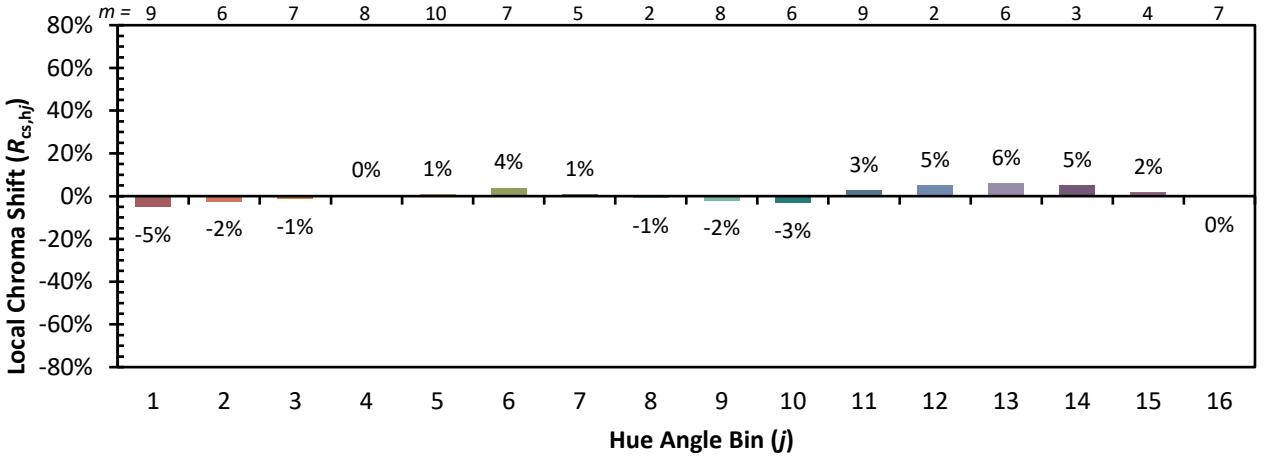
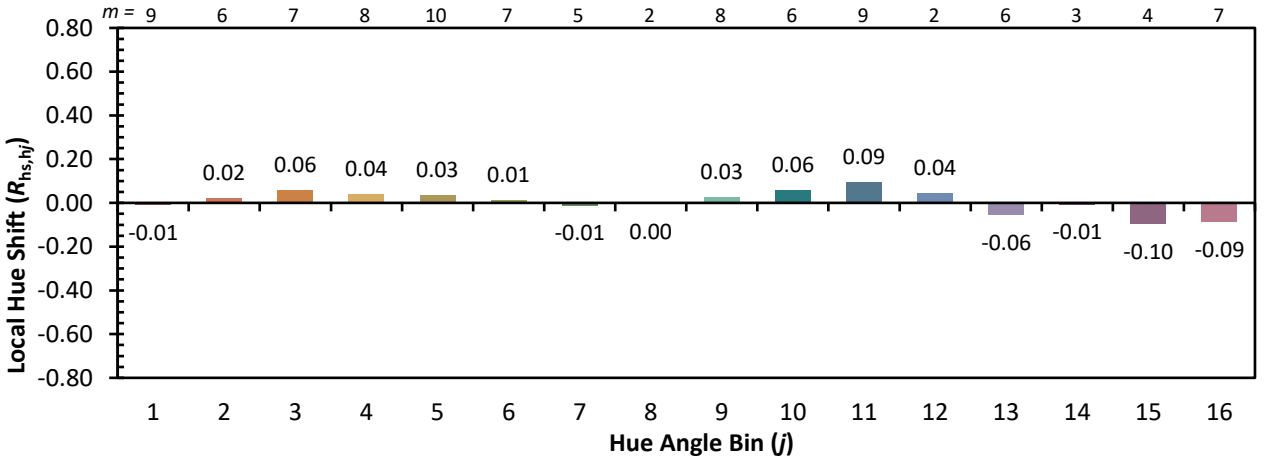
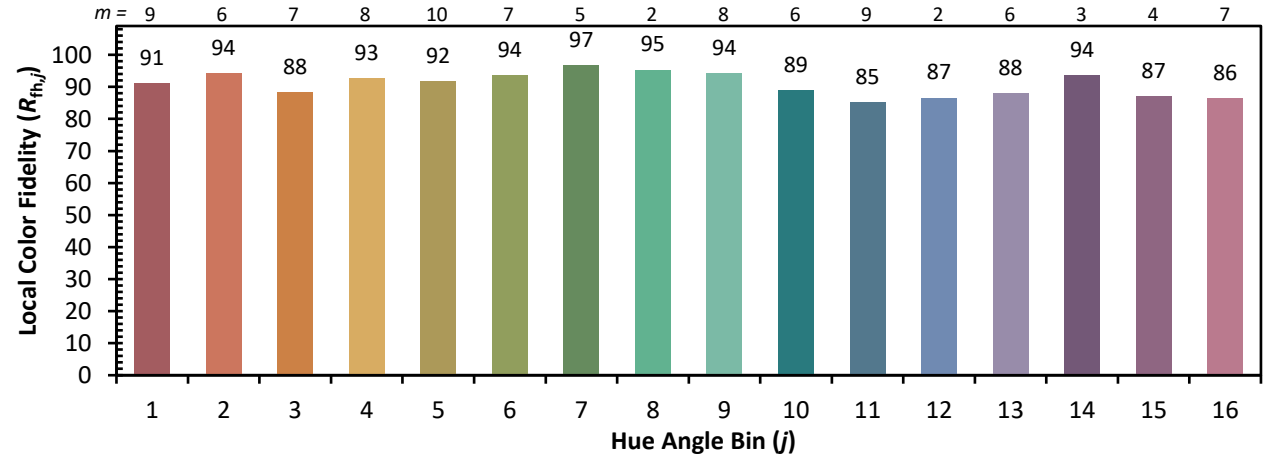
Color Rendition by Hue-Angle Bin







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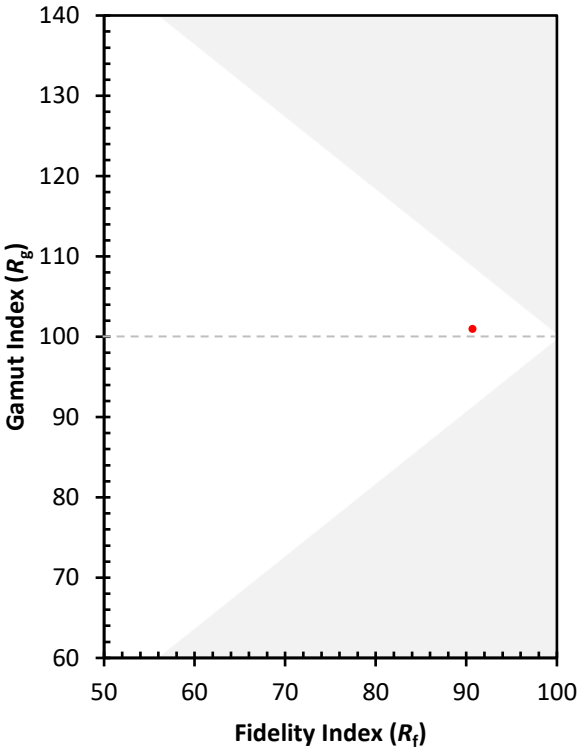
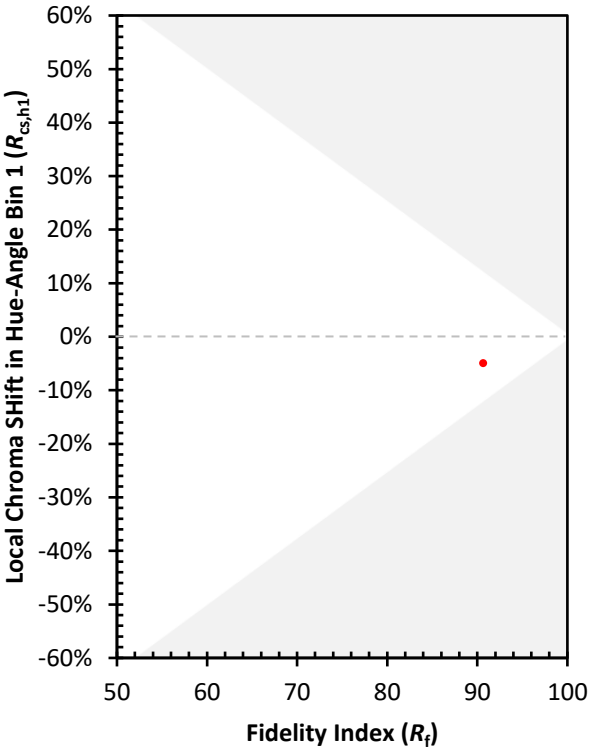
Measure Comparisons





(END OF REPORT)