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:

Luminaire Tested: EHBR1-60-UNV-ASM-L840-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:	
	REPORT IS A COMBINATION OF REPORTS P1431905 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-60-UNV-ASM-L840-UPL36
Description:	Elevate Round Highbay at, 60000 lumens, 4000K 80CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	63076.1 lumens
Efficiency:	N/A
Efficacy:	175.8 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):	358.8
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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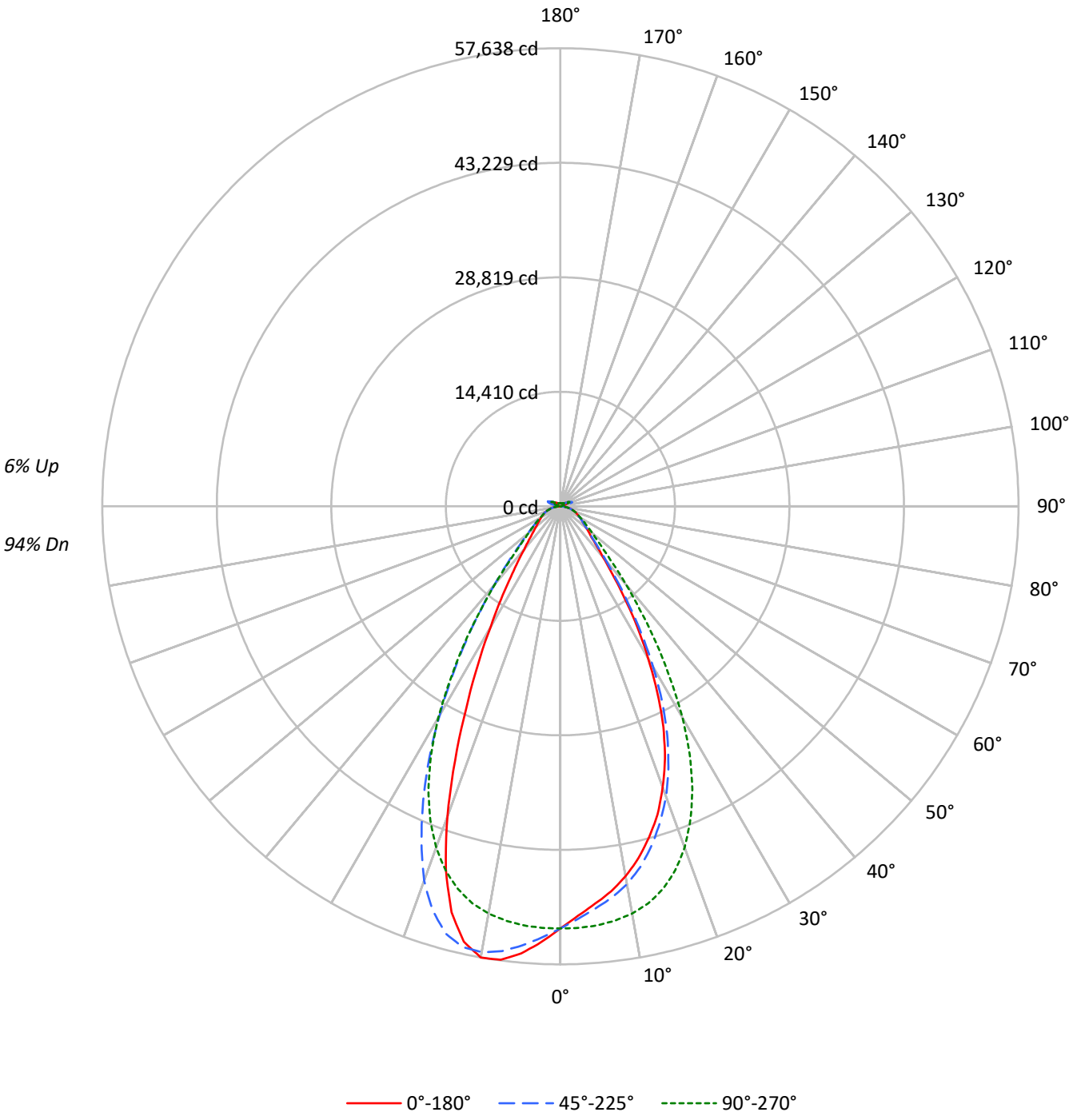
Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-60-UNV-ASM-L840-UPL36

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	97	97	97	94
1	110	107	104	101	107	104	101	99	99	97	95	94	93	91	90	89	87	85
2	103	97	93	88	101	95	91	87	91	87	84	87	84	81	83	81	79	77
3	97	89	83	78	94	87	82	77	84	79	75	80	77	73	77	74	72	70
4	91	82	76	71	89	81	74	70	78	72	68	75	70	67	72	68	65	64
5	86	76	69	64	84	75	68	64	72	67	62	70	65	61	67	63	60	58
6	81	70	64	59	79	69	63	58	67	62	57	65	60	56	63	59	56	54
7	76	66	59	54	74	65	58	54	63	57	53	61	56	52	59	55	52	50
8	72	61	55	50	70	61	54	50	59	53	49	57	52	49	56	51	48	46
9	68	58	51	47	67	57	51	46	55	50	46	54	49	45	53	48	45	43
10	65	54	48	43	64	53	47	43	52	47	43	51	46	42	50	45	42	41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	249447	249447	249447	249447	249447
5°	235063	237810	247929	259820	264494
10°	222467	227179	244881	268162	271284
15°	205499	210988	237651	265411	252108
20°	183042	189207	222263	243965	202156
25°	153397	159203	196720	204631	140065
30°	114772	121426	159730	158135	91123
35°	76406	81019	114563	112713	59013
40°	48186	51496	74069	74546	40675
45°	34333	35761	46996	49015	31507
50°	28598	28825	34900	35809	26773
55°	25244	25303	28494	29246	24389
60°	23373	23174	24674	25196	23232
65°	22310	22110	22492	22931	22406
70°	21670	21296	21319	21727	21954
75°	20601	19979	19936	20643	21238
80°	18745	17439	17513	18745	20051
85°	13649	11333	11333	12953	14315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 66074 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5050.7	8.0
10°-20°	13740.8	21.8
20°-30°	16115.1	25.5
30°-40°	11207.0	17.8
40°-50°	5569.4	8.8
50°-60°	3331.1	5.3
60°-70°	2344.5	3.7
70°-80°	1510.3	2.4
80°-90°	486.2	0.8
90°-100°	99.7	0.2
100°-110°	645.2	1.0
110°-120°	1190.8	1.9
120°-130°	708.6	1.1
130°-140°	429.8	0.7
140°-150°	298.5	0.5
150°-160°	196.1	0.3
160°-170°	113.9	0.2
170°-180°	38.2	0.1
0°-30°	34906.6	55.3
0°-40°	46113.6	73.1
0°-60°	55014.1	87.2
0°-90°	59355.1	94.1
90°-120°	1935.7	3.1
90°-150°	3372.7	5.3
90°-180°	3721.0	5.9
0°-180°	63076.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	53118	53118	53118	53118	53118	
5°	50190	50776	52937	55476	56474	4708
15°	43113	44264	49858	55682	52891	12023
25°	30633	31793	39285	40865	27971	13822
35°	14023	14870	21026	20687	10831	8933
45°	5555	5786	7604	7930	5098	4490
55°	3411	3419	3851	3952	3296	3095
65°	2329	2308	2348	2394	2339	2312
75°	1451	1407	1404	1454	1496	1532
85°	469	390	390	445	492	483
90°	28	75	28	81	35	36
95°	46	167	53	144	53	45
105°	225	1124	296	1201	154	301
115°	1029	1330	1267	1473	1085	948
125°	743	714	812	791	853	677
135°	544	549	515	575	596	426
145°	455	476	468	478	490	288
155°	408	420	419	419	437	190
165°	392	400	399	399	413	112
175°	394	400	401	400	411	38
180°	401	401	401	401	401	

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TEST NUMBER:
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0
2.5°	51541.2	51575.1	51935.7	52404.8	53087.1	53773.4	54329.2	54695.7	54877.0
5°	50189.6	50376.9	50776.3	51637.9	52936.7	54311.2	55475.6	56237.6	56473.7
7.5°	48872.8	48981.4	49649.8	50738.4	52577.1	54718.6	56448.8	57338.2	57555.4
10°	47266.2	47512.3	48267.3	49551.2	52028.3	54975.6	56974.7	57612.1	57638.0
12.5°	45375.7	45701.4	46481.3	48100.9	51152.8	54884.0	56798.4	56589.2	56114.1
15°	43112.7	43398.6	44264.2	46142.7	49857.9	54341.1	55681.8	53979.6	52890.9
17.5°	40668.4	40927.4	41679.4	43748.2	48033.2	53325.2	53351.1	49983.4	47929.6
20°	37620.5	37823.7	38887.5	40917.5	45681.5	51695.6	50141.8	43982.3	41548.9
22.5°	34377.4	34567.7	35512.9	37625.5	42733.2	49498.4	45672.6	37945.3	34625.4
25°	30633.3	30736.9	31792.7	33703.1	39284.9	46806.1	40864.7	31367.4	27970.9
27.5°	26421.0	26597.3	27702.0	29653.2	35229.0	43393.6	35745.0	25632.2	22498.6
30°	22076.3	22368.1	23356.2	25103.3	30723.9	39019.0	30417.2	20412.9	17527.4
32.5°	18021.4	18231.6	18935.8	20761.5	25680.0	34731.0	25300.5	16356.0	13911.7
35°	14023.3	14233.5	14869.9	16662.8	21026.5	29366.3	20686.8	12851.9	10831.0
37.5°	10719.4	11090.9	11499.3	12954.5	16501.4	24297.5	16490.5	10348.9	8785.1
40°	8351.8	8411.6	8925.5	9856.8	12838.0	18998.5	12920.7	8261.2	7050.0
42.5°	6685.4	6847.8	7068.9	7766.1	9727.4	14527.3	10155.7	6780.1	5988.2
45°	5554.9	5618.7	5786.0	6254.2	7603.8	10690.5	7930.5	5720.3	5097.7
47.5°	4859.7	4831.8	4939.4	5290.0	6192.4	8262.2	6427.5	4906.5	4470.2
50°	4262.1	4245.1	4295.9	4530.0	5201.3	6339.8	5336.8	4283.0	3990.1
52.5°	3797.9	3812.9	3817.8	3963.3	4468.2	5170.5	4544.9	3816.8	3619.6
55°	3411.4	3430.4	3419.4	3527.0	3850.7	4346.7	3952.3	3432.4	3295.9
57.5°	3109.6	3095.7	3080.8	3138.5	3381.6	3687.4	3432.4	3104.7	3014.0
60°	2809.8	2796.9	2785.9	2823.8	2966.2	3193.3	3029.0	2818.8	2792.9
62.5°	2552.9	2544.9	2543.9	2536.9	2646.5	2789.9	2678.4	2561.8	2538.9
65°	2328.7	2319.8	2307.8	2296.9	2347.7	2481.1	2393.5	2330.7	2338.7
67.5°	2104.6	2104.6	2083.7	2066.8	2116.6	2186.3	2148.5	2112.6	2121.6
70°	1901.4	1902.4	1868.6	1855.6	1870.6	1945.3	1906.4	1911.4	1926.3
72.5°	1683.3	1659.4	1634.5	1633.5	1635.5	1693.3	1680.3	1692.3	1708.2
75°	1451.2	1423.3	1407.4	1389.5	1404.4	1448.2	1454.2	1471.2	1496.1
77.5°	1227.1	1184.3	1171.3	1162.4	1152.4	1202.2	1221.1	1244.1	1280.9
80°	986.1	939.3	917.4	904.4	921.3	944.2	986.1	1003.0	1054.8
82.5°	729.1	694.2	667.3	666.4	674.3	695.2	731.1	763.0	792.9
85°	469.1	413.4	389.5	398.4	389.5	421.3	445.2	483.1	492.0
87.5°	169.3	132.5	126.5	139.4	136.5	146.4	167.3	182.3	183.3
90°	27.6	44.0	74.6	48.0	27.6	47.0	80.7	46.9	34.6
92.5°	39.9	66.5	119.6	62.4	35.8	63.4	113.5	61.2	44.8
95°	46.0	76.7	166.7	82.8	53.1	77.7	144.1	67.4	53.0
97.5°	59.3	84.9	191.2	101.2	81.8	96.1	162.5	71.5	63.2
100°	77.7	99.2	297.6	124.7	108.4	108.4	295.5	81.7	71.4
102.5°	130.9	209.6	631.0	233.1	163.6	211.6	683.1	160.4	85.7
105°	224.9	440.8	1123.9	486.8	296.5	481.6	1200.6	407.9	154.2
107.5°	388.6	788.5	1482.9	861.1	560.4	896.8	1546.2	800.6	352.6
110°	724.0	1046.2	1554.5	1182.2	895.8	1252.7	1687.4	1095.2	708.5

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Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-60-UNV-ASM-L840-UPL36

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	977.7	1123.9	1489.0	1304.9	1165.8	1395.9	1648.5	1213.8	*978.5*
115°	1028.8	1081.0	1329.5	1274.2	1267.1	1375.5	1472.6	1209.7	*1084.9*
117.5°	994.0	986.9	1129.0	1146.4	1224.1	1258.9	1272.1	1136.1	*1091.0*
120°	920.4	878.5	942.9	1001.2	1105.5	1091.2	1072.7	1027.7	*1029.7*
122.5°	828.3	779.3	808.9	852.8	957.2	926.5	907.0	918.2	*945.8*
125°	743.4	693.3	713.8	725.0	811.9	781.3	791.4	824.1	*852.7*
127.5°	667.8	634.0	646.3	635.0	690.2	675.9	707.6	744.3	*768.8*
130°	616.6	588.0	604.3	576.7	603.3	606.3	648.3	679.9	*695.2*
132.5°	574.7	556.3	575.6	541.8	549.0	564.4	604.3	631.8	*641.0*
135°	544.0	528.6	549.0	518.3	515.3	537.8	574.6	591.9	*596.0*
137.5°	518.4	505.1	526.5	502.9	495.8	518.3	545.9	560.2	*557.1*
140°	495.9	484.6	507.0	488.6	484.5	507.1	519.3	535.7	*533.6*
142.5°	471.3	463.1	489.6	477.4	473.3	493.8	499.9	512.1	*509.0*
145°	454.9	448.7	476.3	469.2	468.1	483.5	478.4	493.7	*489.5*
147.5°	440.4	436.3	460.8	457.9	457.9	469.2	463.0	476.3	*472.1*
150°	428.1	424.0	447.5	444.5	446.5	454.7	445.6	460.8	*460.8*
152.5°	415.8	410.7	432.2	429.1	431.2	439.3	431.2	448.5	*447.5*
155°	407.5	402.4	419.8	417.8	418.8	422.9	418.8	436.2	*437.2*
157.5°	402.3	398.3	411.6	410.6	410.6	413.7	411.6	426.9	*427.9*
160°	398.2	395.2	406.4	405.4	404.4	408.5	407.4	420.7	*421.7*
162.5°	394.1	391.0	404.3	402.3	402.3	402.3	402.3	415.5	*417.5*
165°	392.0	391.0	400.2	400.2	399.2	401.2	399.1	409.3	*413.3*
167.5°	392.0	389.9	400.2	400.2	399.1	397.1	399.1	408.2	*412.3*
170°	391.9	390.9	399.1	398.1	396.0	397.0	397.0	406.1	*410.1*
172.5°	393.9	392.9	402.1	400.1	399.0	399.0	397.9	404.9	*411.0*
175°	393.9	392.9	400.0	400.0	401.0	400.0	399.8	404.9	*411.0*
177.5°	396.9	395.9	400.0	400.0	399.0	401.0	402.9	407.9	*416.1*
180°	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0	*401.0*

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Scaled Data Report

TEST NUMBER: CATALOG
CATALOG NUMBER: EHBR1-60-UNV-ASM-L840-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	19.20	20.31	19.67	20.75	21.22	19.96	21.08	20.43	21.52	21.98
	3H	21.01	22.01	21.50	22.46	22.97	21.52	22.52	22.01	22.97	23.48
	4H	21.75	22.68	22.26	23.15	23.68	22.17	23.10	22.68	23.57	24.10
	6H	22.32	23.17	22.84	23.66	24.20	22.67	23.52	23.19	24.01	24.54
	8H	22.50	23.31	23.04	23.81	24.36	22.82	23.63	23.36	24.13	24.68
	12H	22.60	23.37	23.14	23.87	24.44	22.90	23.67	23.44	24.17	24.74
4H	2H	19.71	20.64	20.22	21.11	21.64	20.34	21.27	20.85	21.74	22.27
	3H	21.75	22.52	22.27	23.04	23.58	22.15	22.92	22.67	23.44	23.98
	4H	22.62	23.30	23.15	23.83	24.42	22.94	23.62	23.47	24.15	24.74
	6H	23.31	23.90	23.88	24.46	25.06	23.57	24.16	24.14	24.72	25.32
	8H	23.54	24.09	24.11	24.65	25.25	23.78	24.33	24.35	24.88	25.49
	12H	23.67	24.16	24.26	24.75	25.36	23.89	24.38	24.48	24.97	25.58
8H	4H	22.88	23.43	23.45	23.98	24.59	23.18	23.73	23.75	24.29	24.90
	6H	23.69	24.14	24.29	24.75	25.36	23.94	24.39	24.55	25.00	25.61
	8H	23.99	24.40	24.61	25.01	25.64	24.23	24.63	24.84	25.24	25.87
	12H	24.20	24.55	24.81	25.14	25.85	24.41	24.76	25.02	25.36	26.06
12H	4H	22.88	23.37	23.47	23.96	24.57	23.19	23.68	23.78	24.26	24.88
	6H	23.73	24.13	24.35	24.75	25.38	23.99	24.39	24.61	25.00	25.63
	8H	24.08	24.43	24.69	25.03	25.73	24.32	24.67	24.93	25.26	25.97

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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: SP1-2506-472-1

Test Date: 07/30/2025

Luminaire Tested: EHBR-60-L840-N

Data in this report applies to families of products including EHBR-60-L840-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

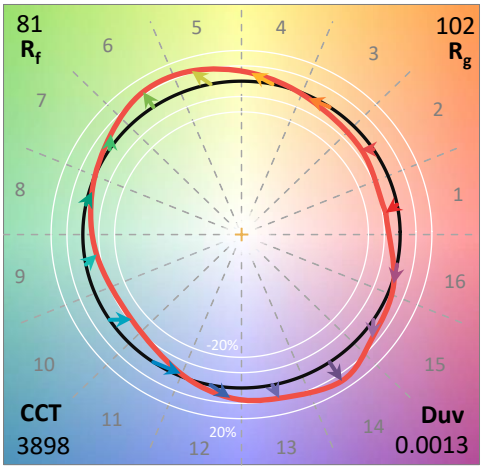
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-1
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-L840-N**
Description:	Elevate Round Highbay at, 60000 lumens, 4000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	3898
CIE u':	0.2263
CIE v':	0.5052
Duv:	0.0013
CIE x:	0.3861
CIE y:	0.3831
CIE z:	0.2308
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	578
Purity:	30.85729
Rf:	80.7
Rg:	102.1

CRI (Ra):	82.1				
R1:	84.4	R9:	38.5		
R2:	83.5	R10:	58.9		
R3:	80.8	R11:	83.6		
R4:	83.9	R12:	54.2		
R5:	82.1	R13:	82.8		
R6:	77.3	R14:	88.2		
R7:	86.4	R15:	81.2		
R8:	78.3				



Test Conditions

Stabilization Time:	42M
Operation Time:	1H 42M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-1

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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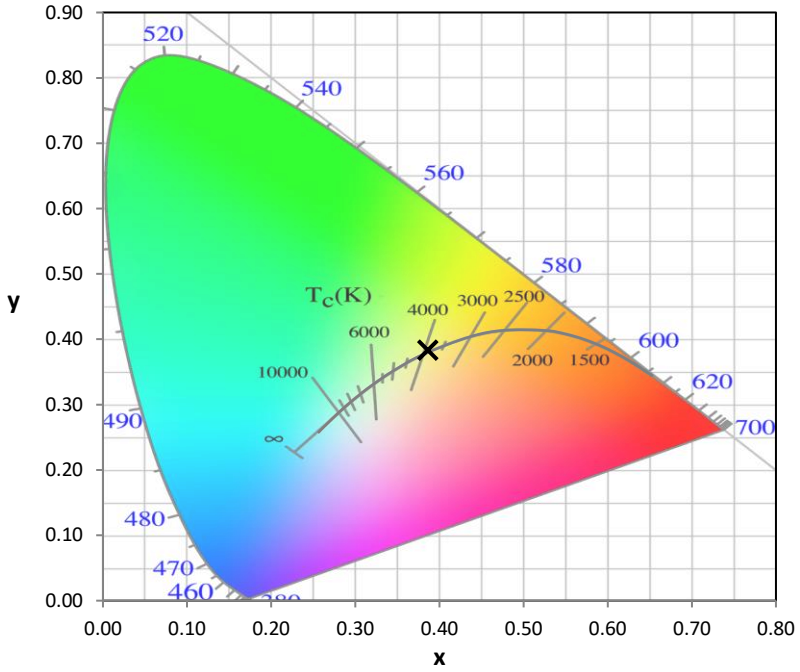
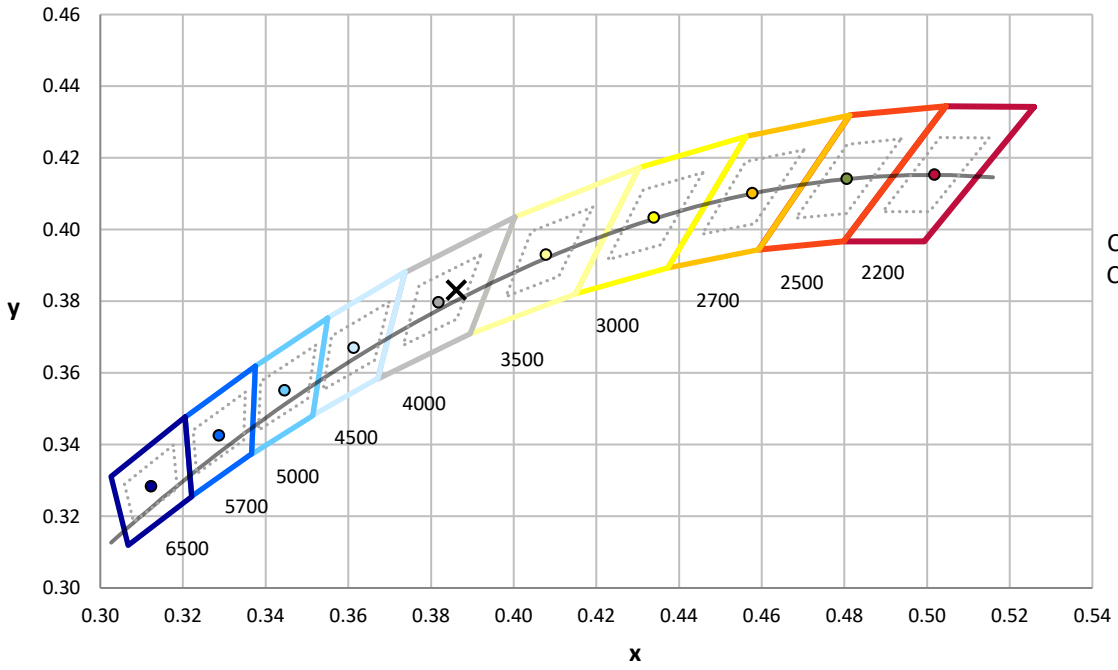
CIE 1931 Chromaticity Diagram



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



CCT = 3898K
CIE x = 0.3861
CIE y = 0.3831
Duv = 0.0013

Point lies inside the ANSI 4000K 4-step quadrangle

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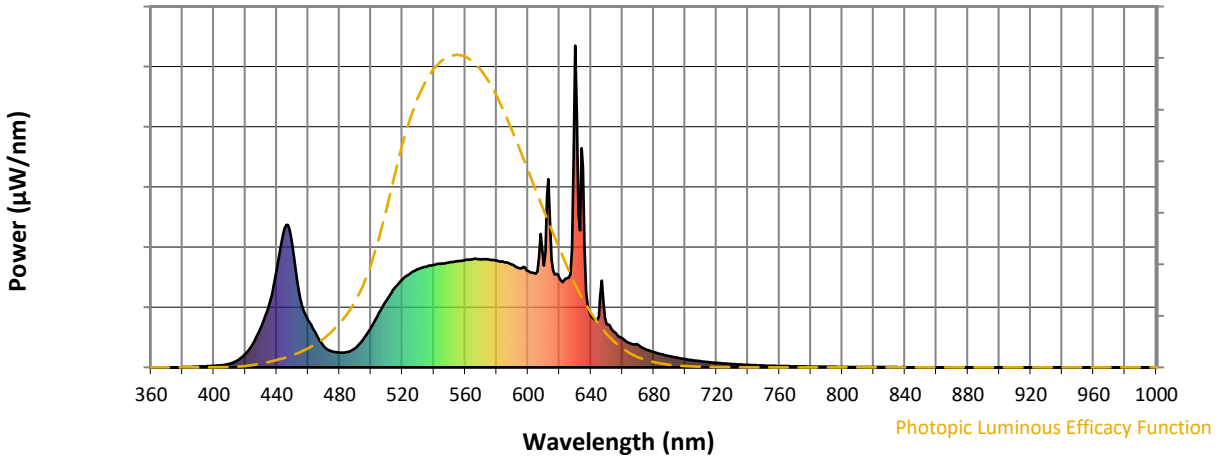
Photopic Flux vs. Wavelength



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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

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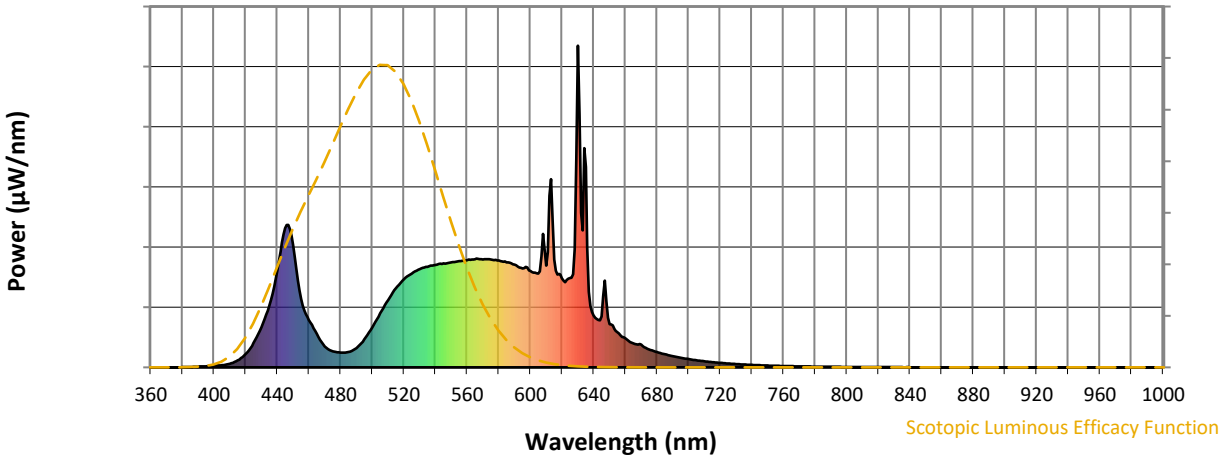
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.55**

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

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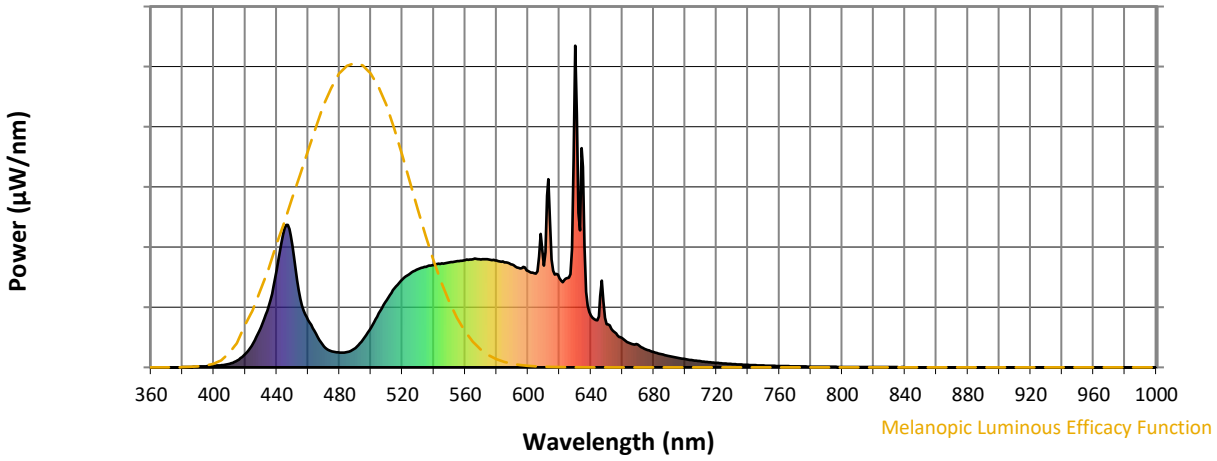
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.99**

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

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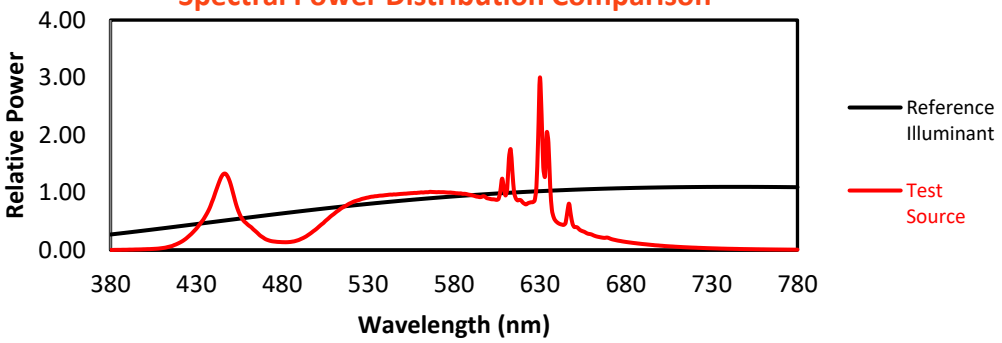
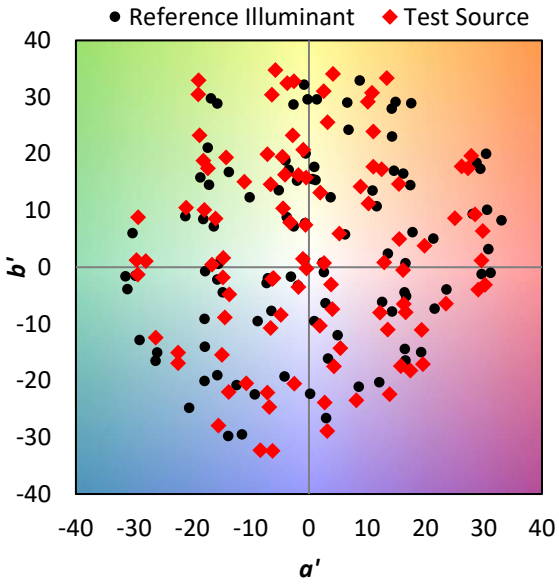
Summary

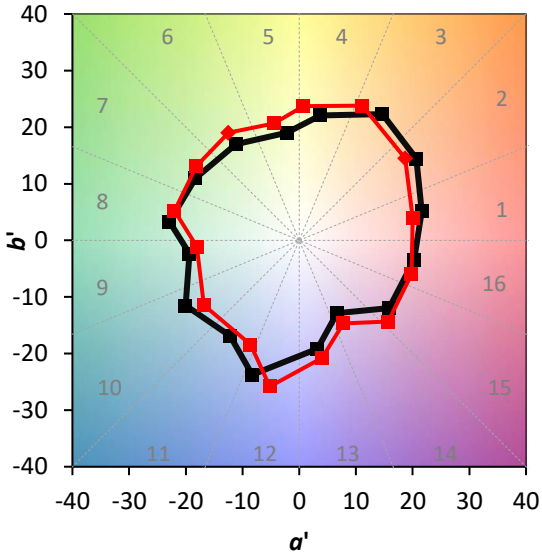
R_f = 80.7
R_g = 102.1
CIE R_a = 82.1
R_9 = 38.5

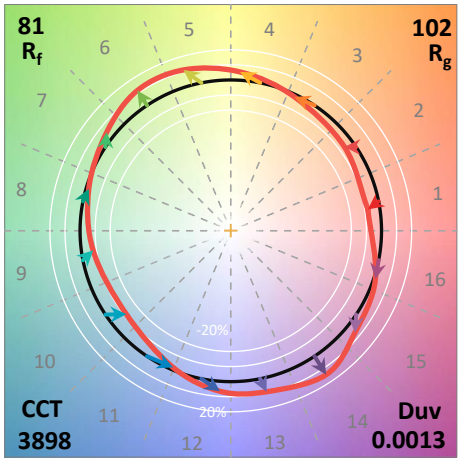
Spectral Power Distribution Comparison

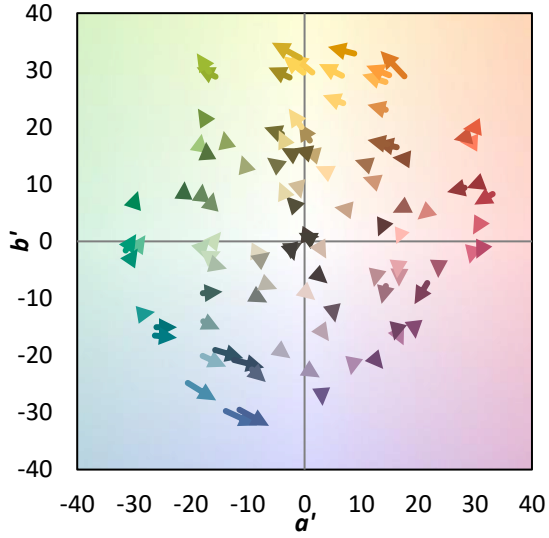


Color Vector Graphics









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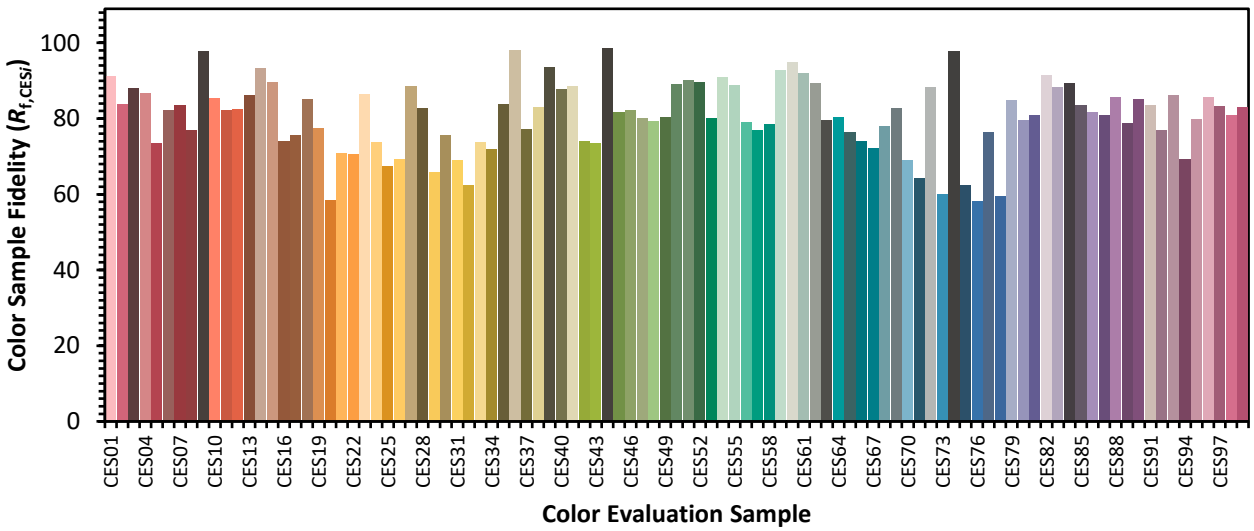
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 69	CES51 = 90	CES76 = 58
CES02 = 61	CES27 = 89	CES52 = 90	CES77 = 76
CES03 = 31	CES28 = 83	CES53 = 80	CES78 = 60
CES04 = 69	CES29 = 66	CES54 = 91	CES79 = 85
CES05 = 48	CES30 = 76	CES55 = 89	CES80 = 79
CES06 = 50	CES31 = 69	CES56 = 79	CES81 = 81
CES07 = 41	CES32 = 62	CES57 = 77	CES82 = 91
CES08 = 40	CES33 = 74	CES58 = 79	CES83 = 88
CES09 = 29	CES34 = 72	CES59 = 93	CES84 = 89
CES10 = 74	CES35 = 84	CES60 = 95	CES85 = 84
CES11 = 57	CES36 = 98	CES61 = 92	CES86 = 82
CES12 = 63	CES37 = 77	CES62 = 89	CES87 = 81
CES13 = 43	CES38 = 83	CES63 = 80	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 80	CES89 = 79
CES15 = 71	CES40 = 88	CES65 = 77	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 74	CES91 = 83
CES17 = 49	CES42 = 74	CES67 = 72	CES92 = 77
CES18 = 56	CES43 = 73	CES68 = 78	CES93 = 86
CES19 = 71	CES44 = 98	CES69 = 83	CES94 = 69
CES20 = 65	CES45 = 82	CES70 = 69	CES95 = 80
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 86
CES22 = 78	CES47 = 80	CES72 = 88	CES97 = 83
CES23 = 91	CES48 = 79	CES73 = 60	CES98 = 81
CES24 = 90	CES49 = 80	CES74 = 98	CES99 = 83
CES25 = 71	CES50 = 89	CES75 = 62	



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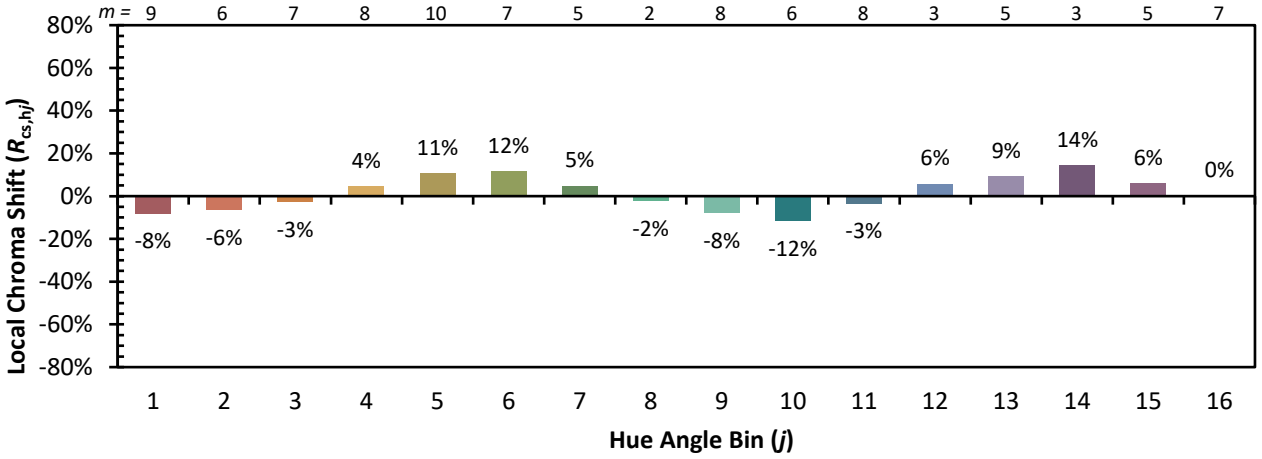
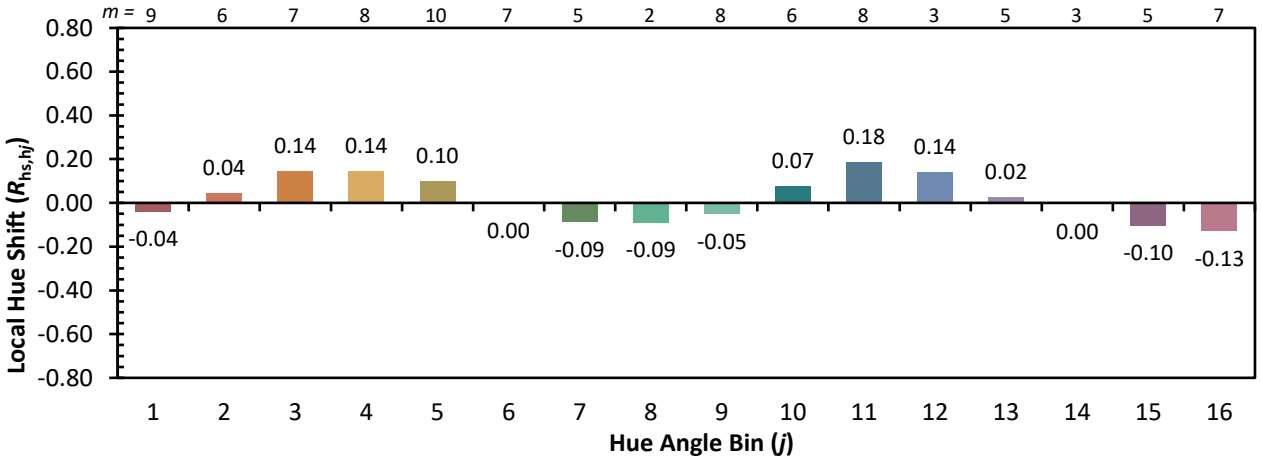
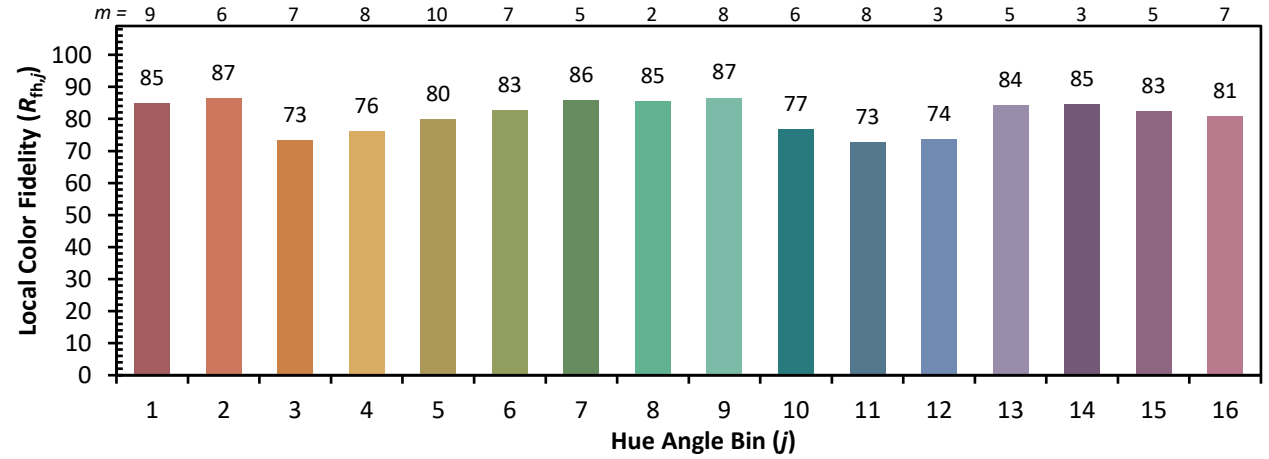
Color Rendition by Hue-Angle Bin







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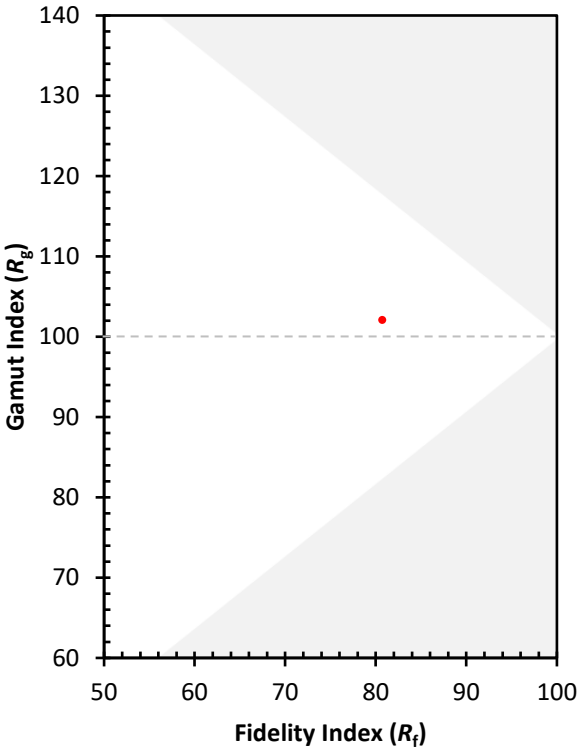
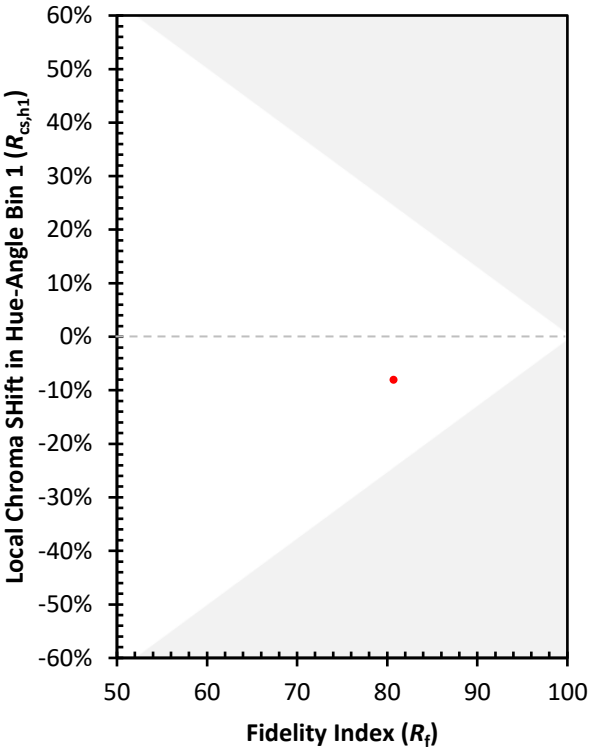
Measure Comparisons





(END OF REPORT)