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: EHBR1-18-UNV-A1-L840-UPL24

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 P1431671 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-A1-L840-UPL24
Description:	Elevate Round Highbay at, 18000 lumens, 4000K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	20750.0 lumens
Efficiency:	N/A
Efficacy:	186.6 lumens/watt
Spacing Criteria (0/90/45):	0.8 / 1.07 / 0.95
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Semi-Direct

Input Watts (W):	111.2
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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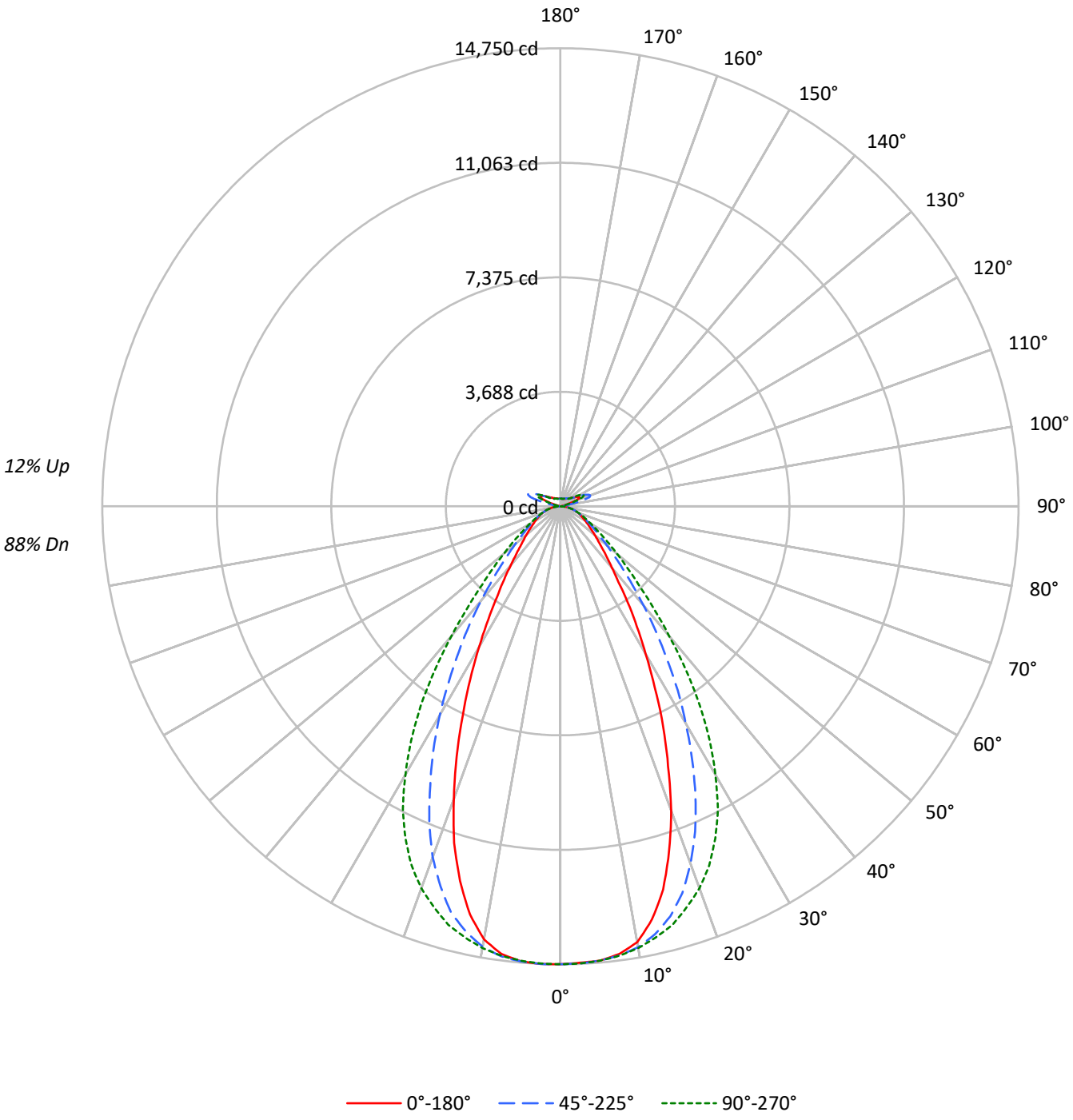
Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-18-UNV-A1-L840-UPL24

Luminous Intensity Polar Plot



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TEST NUMBER:
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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	105	105	105	98	98	98	91	91	91	88
1	109	105	102	99	105	102	99	96	96	93	91	90	88	86	84	83	82	79
2	101	95	90	86	98	92	88	84	87	83	80	82	79	77	78	75	73	71
3	95	87	80	75	91	84	78	74	80	75	71	76	72	69	72	69	66	64
4	88	79	72	67	86	77	71	66	73	68	64	70	65	62	67	63	60	58
5	83	73	65	60	80	71	64	59	68	62	58	65	60	56	62	58	55	53
6	78	67	60	55	75	65	59	54	63	57	53	60	55	51	58	53	50	48
7	73	62	55	50	71	61	54	49	58	52	48	56	51	47	54	49	46	44
8	69	58	51	46	67	57	50	45	54	49	44	52	47	44	50	46	43	41
9	65	54	47	42	63	53	46	42	51	45	41	49	44	40	47	43	40	38
10	61	50	44	39	60	49	43	39	48	42	38	46	41	38	45	40	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	69240	69240	69240	69240	69240
5°	68783	68772	68775	68897	68855
10°	67082	67864	67972	67780	66643
15°	60900	65149	66490	64627	59501
20°	50749	59604	63675	58481	48773
25°	39247	51537	59070	49654	37214
30°	28608	41970	51889	40378	27153
35°	20622	32349	42645	30956	19275
40°	14836	23893	31427	22884	14378
45°	11691	17479	21949	16722	11286
50°	9699	13132	15887	12700	9552
55°	8471	10370	12031	10196	8357
60°	7640	8657	9587	8603	7694
65°	7145	7636	8056	7660	7213
70°	6786	6947	7162	6986	6853
75°	6330	6290	6330	6309	6391
80°	5718	5307	5189	5389	5718
85°	3963	3361	3326	3413	4079

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 22998 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1392.4	6.7
10°-20°	3742.2	18.0
20°-30°	4550.5	21.9
30°-40°	3706.7	17.9
40°-50°	2225.5	10.7
50°-60°	1280.8	6.2
60°-70°	801.6	3.9
70°-80°	472.1	2.3
80°-90°	142.4	0.7
90°-100°	64.1	0.3
100°-110°	424.2	2.0
110°-120°	784.7	3.8
120°-130°	465.6	2.2
130°-140°	281.1	1.4
140°-150°	194.4	0.9
150°-160°	126.3	0.6
160°-170°	71.9	0.3
170°-180°	23.8	0.1
0°-30°	9685.0	46.7
0°-40°	13391.7	64.5
0°-60°	16898.0	81.4
0°-90°	18314.0	88.3
90°-120°	1273.0	6.1
90°-150°	2214.0	10.7
90°-180°	2436.0	11.7
0°-180°	20750.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14744	14744	14744	14744	14744	
5°	14686	14684	14685	14711	14702	1388
15°	12776	13668	13949	13558	12483	3515
25°	7838	10292	11796	9916	7432	3571
35°	3785	5937	7827	5682	3538	2395
45°	1892	2828	3551	2706	1826	1492
55°	1145	1401	1626	1378	1129	1035
65°	746	797	841	800	753	741
75°	446	443	446	444	450	472
85°	136	116	114	117	140	145
90°	18	49	18	51	18	15
95°	30	110	34	93	30	29
105°	148	742	195	791	97	198
115°	679	877	835	970	712	626
125°	490	469	534	519	558	447
135°	358	359	336	376	388	280
145°	296	309	304	312	318	188
155°	261	270	269	270	282	122
165°	248	253	251	251	258	71
175°	247	250	249	247	253	24
180°	249	249	249	249	249	

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Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-18-UNV-A1-L840-UPL24

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	14744.2	14744.2	14744.2	14744.2	14744.2	14744.2	*14744.2*	14744.2	14744.2
2.5°	*14711.8*	*14725.1*	*14730.6*	*14733.7*	*14737.1*	*14746.4*	*14750.4*	*14743.9*	*14749.5*
5°	14686.2	14687.1	14684.0	14697.9	14684.6	14693.9	*14710.6*	14704.1	14701.6
7.5°	14536.7	14567.6	14585.8	14590.4	14592.9	14604.3	*14616.1*	14549.7	14539.8
10°	14252.6	14304.2	14418.7	14451.5	14441.6	14460.1	*14400.8*	14227.3	14159.3
12.5°	13629.7	13811.0	14108.7	14241.2	14217.1	14233.4	*14031.5*	13665.2	13454.6
15°	12776.5	13042.4	13668.0	13929.3	13949.3	13929.3	*13558.4*	12844.7	12483.1
17.5°	11642.2	12133.2	13054.4	13561.5	13532.4	13542.0	*12837.9*	11783.0	11369.2
20°	10430.4	10953.9	12250.3	13096.1	13087.1	13033.4	*12019.6*	10628.4	10024.3
22.5°	9059.9	9735.0	11328.8	12523.9	12520.5	12430.9	*11023.0*	9367.5	8717.1
25°	7837.6	8499.7	10291.8	11822.9	11796.3	11694.4	*9915.9*	8109.7	7431.6
27.5°	6574.0	7262.3	9184.7	11001.4	10983.2	10872.0	*8857.6*	6934.1	6288.6
30°	5502.7	6132.1	8073.0	10097.5	9980.8	9968.1	*7766.6*	5845.5	5222.9
32.5°	4584.9	5124.4	7024.8	9152.3	8945.7	9004.6	*6679.3*	4935.1	4318.1
35°	3784.8	4260.1	5937.2	8059.1	7826.8	7903.1	*5681.5*	4049.4	3537.7
37.5°	3071.8	3528.8	5015.4	6995.8	6640.7	6784.6	*4803.9*	3381.8	2971.7
40°	2571.5	2934.0	4141.2	5829.1	5447.1	5681.5	*3966.4*	2820.7	2492.1
42.5°	2215.7	2452.3	3417.9	4715.2	4422.2	4588.3	*3269.1*	2358.1	2112.3
45°	1891.5	2080.2	2828.1	3720.9	3551.3	3705.4	*2705.5*	2010.7	1826.0
47.5°	1652.1	1797.6	2328.1	3004.7	2899.4	2948.2	*2259.6*	1754.7	1604.6
50°	1445.5	1558.0	1957.2	2425.1	2367.7	2397.6	*1892.7*	1526.8	1423.6
52.5°	1285.0	1367.4	1641.6	1993.1	1964.7	1969.3	*1612.9*	1343.0	1268.3
55°	1144.8	1202.2	1401.4	1632.7	1625.9	1627.1	*1377.9*	1190.2	1129.3
57.5°	1022.2	1069.7	1204.4	1371.4	1361.6	1363.7	*1193.2*	1057.1	1017.8
60°	918.4	950.2	1040.7	1159.0	1152.5	1149.7	*1034.2*	938.5	924.9
62.5°	826.4	846.8	909.5	993.4	981.1	983.9	*909.1*	847.7	827.6
65°	745.8	752.9	797.0	848.9	840.9	847.7	*799.5*	757.5	752.9
67.5°	667.0	674.1	700.1	735.0	725.7	731.3	*700.7*	676.0	672.0
70°	595.4	595.1	609.6	628.4	628.4	629.4	*613.0*	598.2	601.3
72.5°	521.3	519.4	523.7	536.4	533.0	544.7	*527.5*	522.8	523.4
75°	445.9	440.7	443.1	449.6	445.9	452.1	*444.4*	450.2	450.2
77.5°	374.9	365.0	361.9	362.9	356.1	365.3	*367.2*	371.2	380.5
80°	300.8	286.9	279.2	278.9	273.0	278.9	*283.5*	291.8	300.8
82.5°	223.3	211.2	198.3	195.8	192.1	195.5	*201.7*	211.5	226.1
85°	136.2	123.5	115.5	111.2	114.3	114.3	*117.3*	131.2	140.2
87.5°	49.1	42.9	35.2	35.5	36.4	37.7	*39.2*	49.4	54.0
90°	18.2	28.4	48.7	31.1	17.6	29.7	*51.4*	27.0	17.9
92.5°	26.0	43.3	78.4	40.5	23.0	40.5	*73.0*	36.5	24.6
95°	30.3	50.0	109.5	54.1	33.8	50.0	*93.3*	40.5	30.0
97.5°	38.4	55.4	125.7	66.2	52.7	62.2	*105.4*	43.3	36.8
100°	50.6	64.9	196.0	81.1	70.3	70.3	*193.3*	50.0	42.5
102.5°	85.7	137.9	416.3	152.7	106.8	137.9	*448.7*	101.4	52.0
105°	147.9	290.6	742.0	320.3	194.6	316.3	*790.7*	264.9	96.6
107.5°	256.0	520.4	978.5	567.7	369.0	590.6	*1019.1*	524.4	227.7
110°	477.7	690.6	1025.8	779.9	590.6	825.8	*1112.3*	719.0	462.8

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Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-18-UNV-A1-L840-UPL24

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	645.3	742.0	982.6	860.9	769.0	920.4	*1086.7*	797.4	641.2
115°	679.1	713.6	877.2	840.7	835.3	906.9	*970.4*	794.7	711.5
117.5°	656.4	651.5	744.7	755.5	806.9	829.9	*838.0*	746.1	715.6
120°	607.5	579.8	621.7	659.6	728.5	719.0	*705.5*	674.7	675.0
122.5°	546.9	513.9	532.5	560.9	629.8	609.6	*596.0*	601.7	619.9
125°	490.2	457.1	469.0	475.8	533.9	513.6	*519.3*	539.6	557.7
127.5°	440.2	417.9	424.4	416.3	452.8	443.3	*463.9*	487.2	502.3
130°	406.4	387.1	396.3	377.1	395.0	397.7	*425.0*	443.9	453.7
132.5°	378.3	365.8	376.6	353.4	358.8	369.9	*395.6*	412.1	417.5
135°	358.3	347.2	359.4	337.4	336.4	352.6	*375.6*	386.4	388.0
137.5°	340.7	331.3	343.4	327.2	323.2	339.4	*357.0*	365.1	362.8
140°	325.2	316.8	330.3	318.2	315.5	331.7	*339.8*	349.6	346.8
142.5°	308.0	302.5	318.5	310.4	307.7	322.8	*326.9*	333.6	331.2
145°	296.1	292.0	309.3	305.3	303.9	315.0	*312.3*	322.1	318.0
147.5°	286.2	283.2	298.8	297.4	297.4	305.6	*301.8*	310.2	306.5
150°	277.0	274.0	289.6	288.3	289.6	295.0	*289.9*	300.0	298.9
152.5°	267.9	264.9	279.1	277.5	278.8	284.2	*279.4*	290.5	289.8
155°	261.4	258.4	270.0	269.4	269.4	272.4	*270.3*	281.7	282.0
157.5°	257.0	254.9	263.8	263.2	263.2	264.9	*264.1*	274.2	274.6
160°	253.5	251.6	259.0	258.4	257.0	260.0	*259.3*	268.1	268.4
162.5°	250.1	248.1	256.6	254.9	254.6	254.9	*254.3*	263.3	263.6
165°	247.7	247.1	253.2	252.5	251.2	252.5	*250.8*	256.8	258.5
167.5°	248.0	246.3	252.2	251.6	250.2	248.9	*249.8*	254.4	256.1
170°	246.9	246.6	251.1	249.2	247.5	247.8	*247.4*	252.0	253.7
172.5°	247.5	247.2	251.7	249.8	248.1	248.4	*246.6*	249.9	252.9
175°	247.2	246.5	249.9	249.0	248.7	247.7	*247.2*	249.2	252.6
177.5°	248.8	248.2	250.2	249.3	247.7	248.0	*248.9*	250.9	255.6
180°	248.9	248.9	248.9	248.9	248.9	248.9	*248.9*	248.9	248.9

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Scaled Data Report

TEST NUMBER: CATALOG
CATALOG NUMBER: EHBR1-18-UNV-A1-L840-UPL24

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	15.71	16.79	16.27	17.34	17.94	16.69	17.77	17.25	18.32	18.92
	3H	17.18	18.15	17.76	18.70	19.35	17.95	18.91	18.52	19.47	20.11
	4H	17.78	18.68	18.38	19.25	19.91	18.44	19.35	19.04	19.92	20.58
	6H	18.24	19.07	18.85	19.66	20.33	18.80	19.63	19.40	20.21	20.88
	8H	18.39	19.17	19.01	19.78	20.45	18.89	19.68	19.51	20.28	20.96
	12H	18.46	19.21	19.09	19.81	20.51	18.93	19.68	19.55	20.27	20.97
4H	2H	16.22	17.12	16.82	17.69	18.35	17.00	17.90	17.60	18.47	19.13
	3H	17.90	18.64	18.51	19.26	19.93	18.48	19.23	19.09	19.84	20.52
	4H	18.61	19.28	19.24	19.90	20.61	19.10	19.77	19.73	20.40	21.11
	6H	19.19	19.77	19.84	20.41	21.14	19.58	20.16	20.23	20.80	21.53
	8H	19.38	19.92	20.03	20.56	21.29	19.71	20.25	20.37	20.90	21.63
	12H	19.48	19.96	20.15	20.63	21.37	19.78	20.25	20.45	20.93	21.66
8H	4H	18.83	19.37	19.49	20.02	20.75	19.28	19.82	19.93	20.46	21.20
	6H	19.52	19.96	20.21	20.65	21.39	19.86	20.30	20.54	20.99	21.73
	8H	19.78	20.17	20.47	20.87	21.62	20.06	20.45	20.76	21.15	21.90
	12H	19.94	20.28	20.63	20.96	21.78	20.17	20.52	20.87	21.20	22.02
12H	4H	18.83	19.31	19.50	19.98	20.72	19.27	19.75	19.94	20.42	21.16
	6H	19.55	19.94	20.25	20.64	21.39	19.88	20.28	20.58	20.97	21.72
	8H	19.84	20.18	20.53	20.86	21.68	20.12	20.46	20.81	21.14	21.96

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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

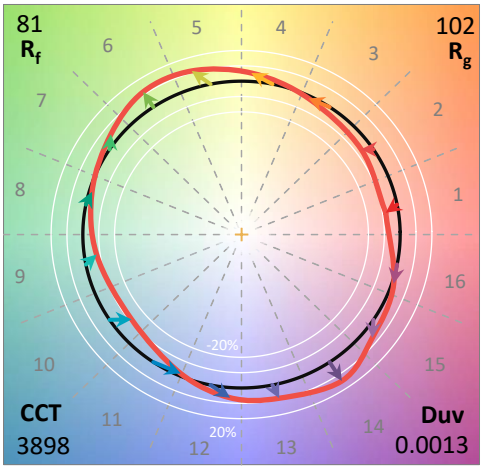
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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	CRI (Ra):	82.1		
CIE u':	0.2263	R1:	84.4	R9:	38.5
CIE v':	0.5052	R2:	83.5	R10:	58.9
Duv:	0.0013	R3:	80.8	R11:	83.6
CIE x:	0.3861	R4:	83.9	R12:	54.2
CIE y:	0.3831	R5:	82.1	R13:	82.8
CIE z:	0.2308	R6:	77.3	R14:	88.2
Peak Wavelength (nm):	630	R7:	86.4	R15:	81.2
Dominant Wavelength (nm):	578	R8:	78.3		
Purity:	30.85729				
Rf:	80.7				
Rg:	102.1				



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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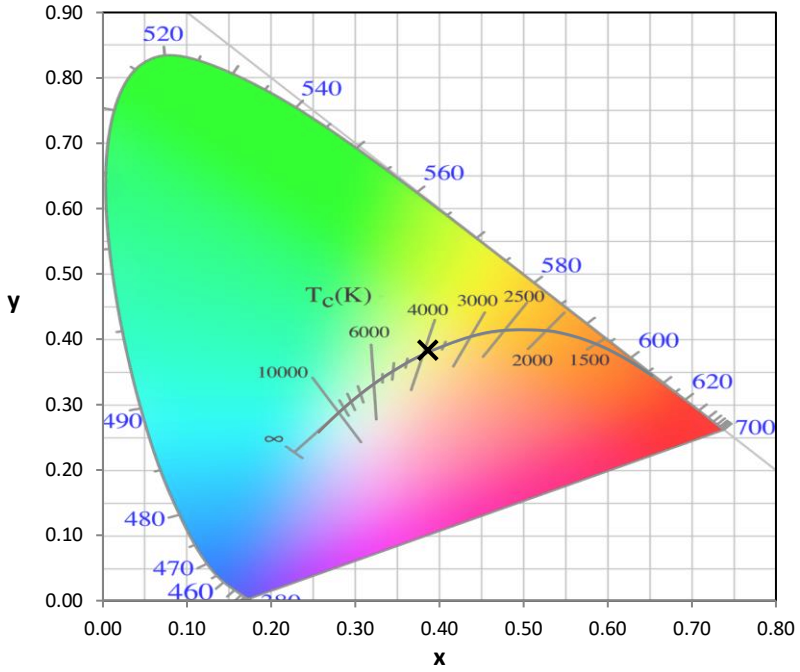
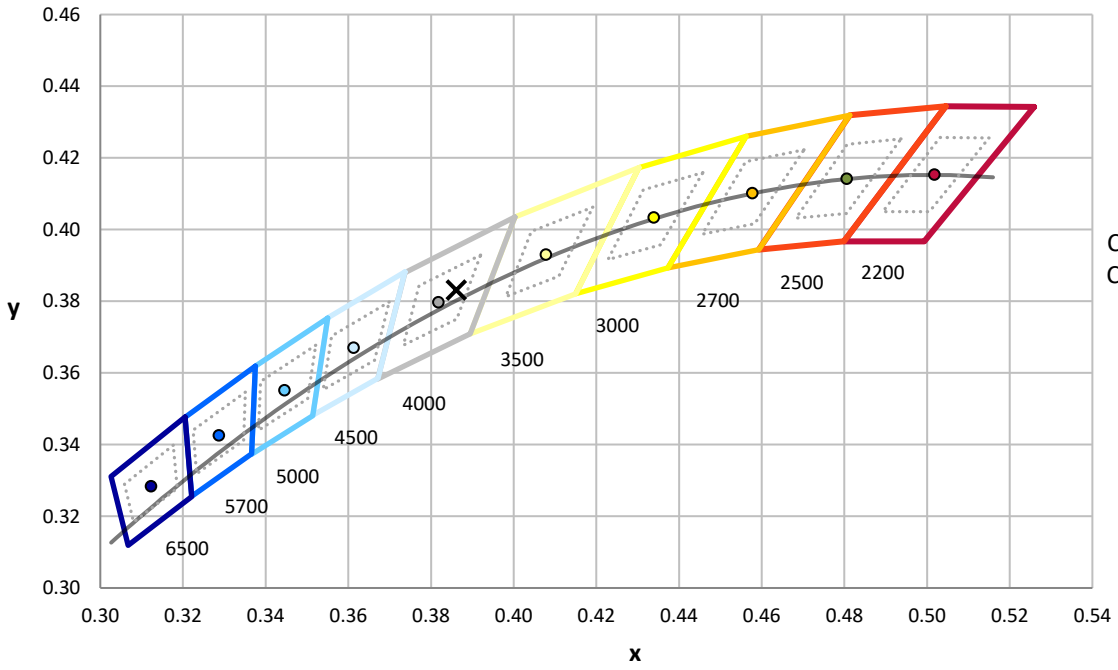
CIE 1931 Chromaticity Diagram



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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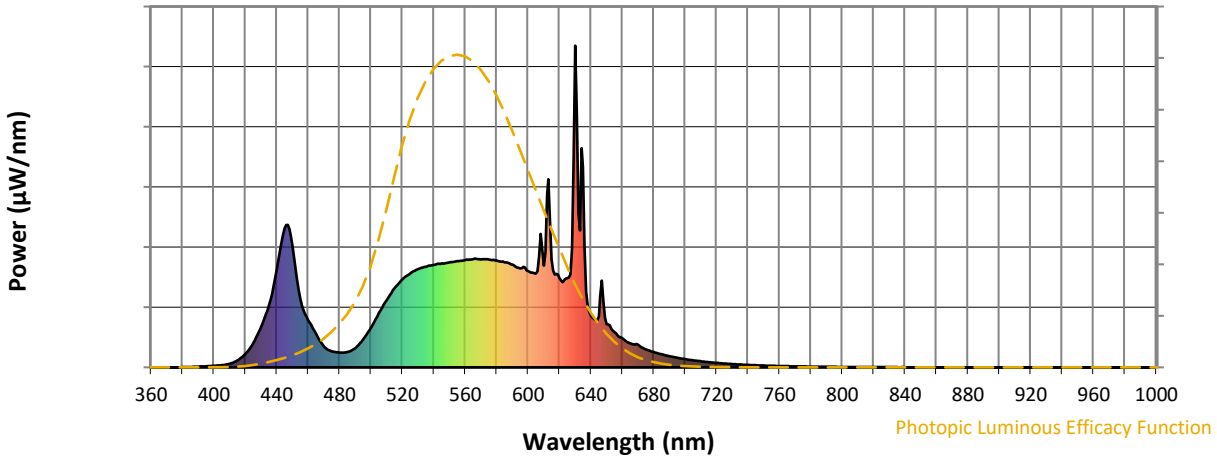
Photopic Flux vs. Wavelength



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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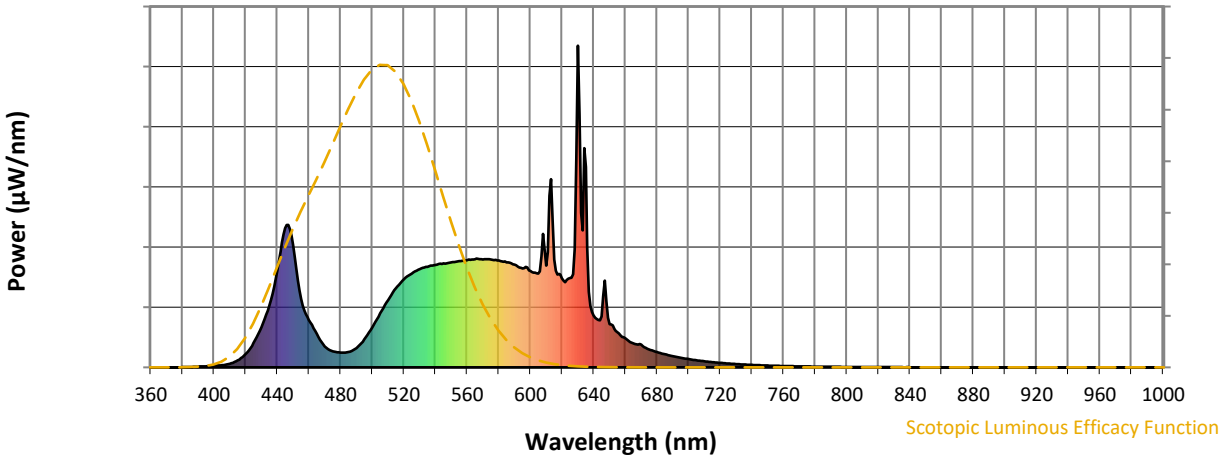
Scotopic Flux vs. Wavelength



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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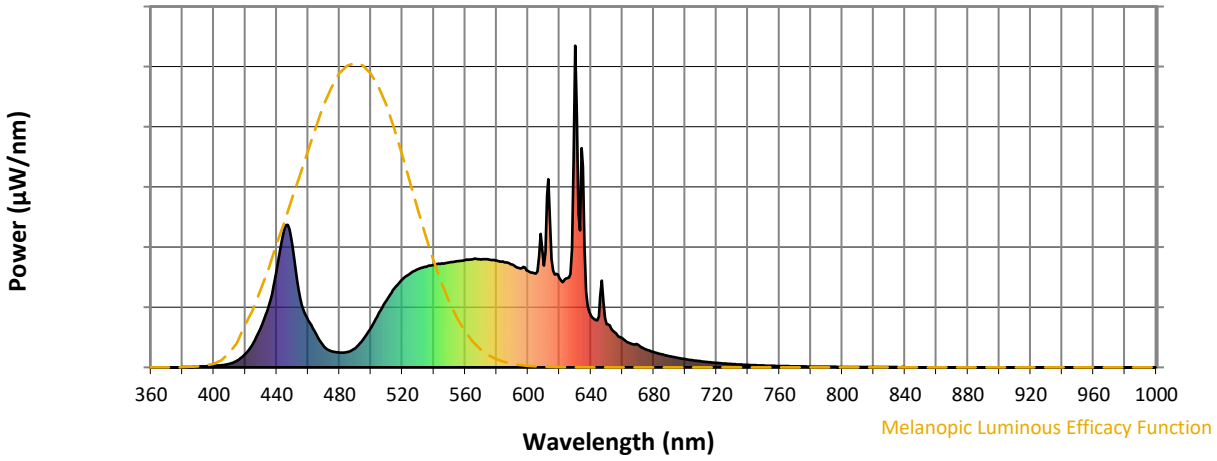
Melanopic Flux vs. Wavelength



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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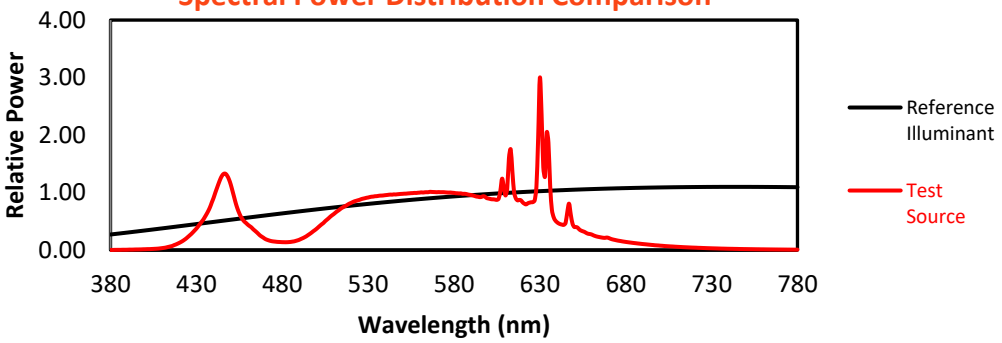
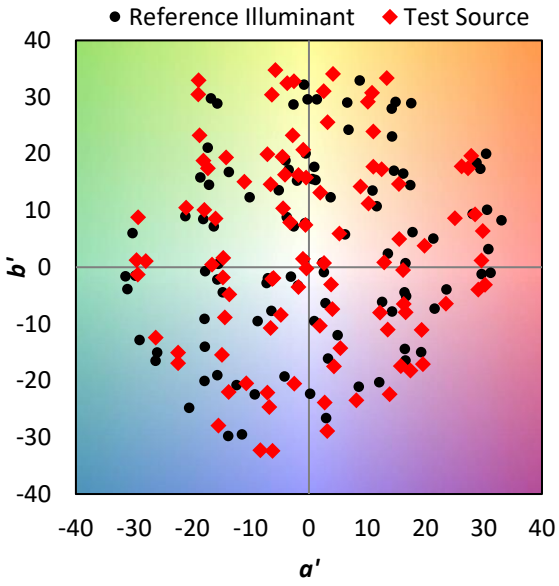
Summary

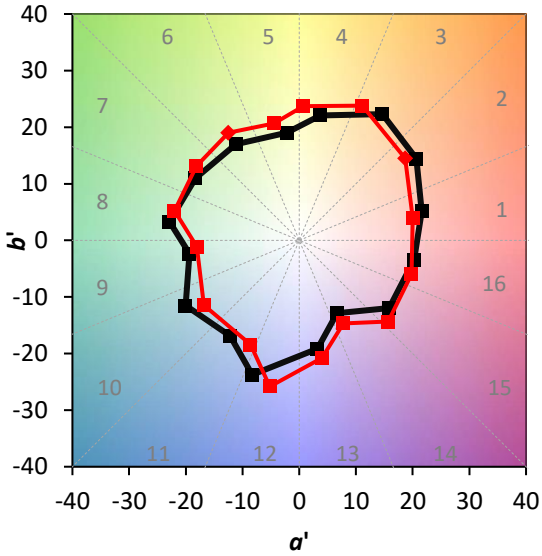
R_f = 80.7
R_g = 102.1
CIE R_a = 82.1
R_9 = 38.5

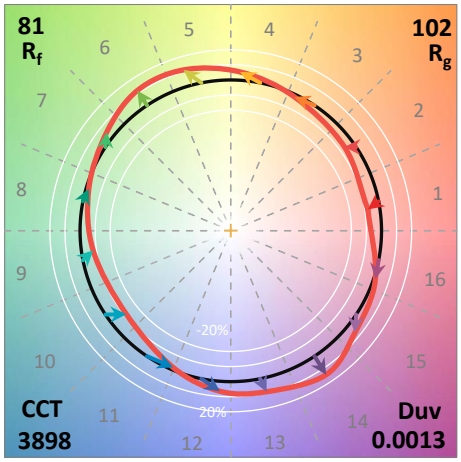
Spectral Power Distribution Comparison

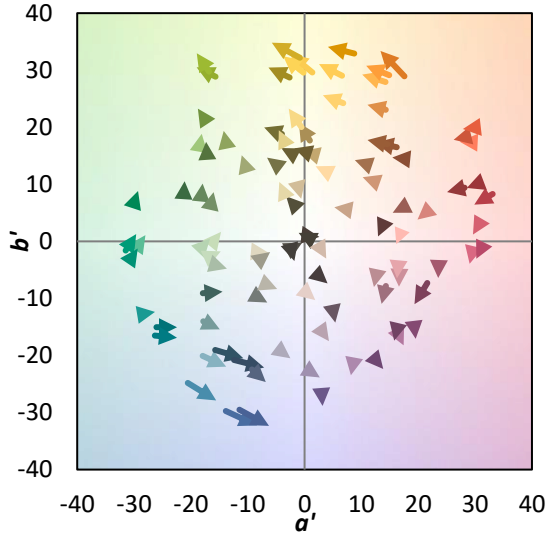


Color Vector Graphics









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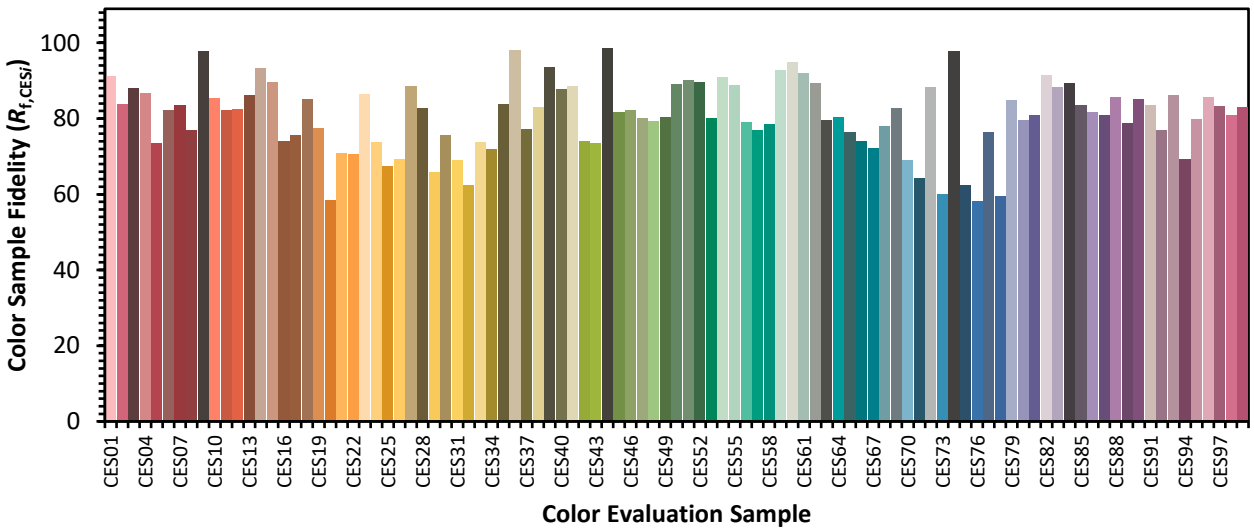
Individual Sample Fidelity Index ($R_{f,i}$)

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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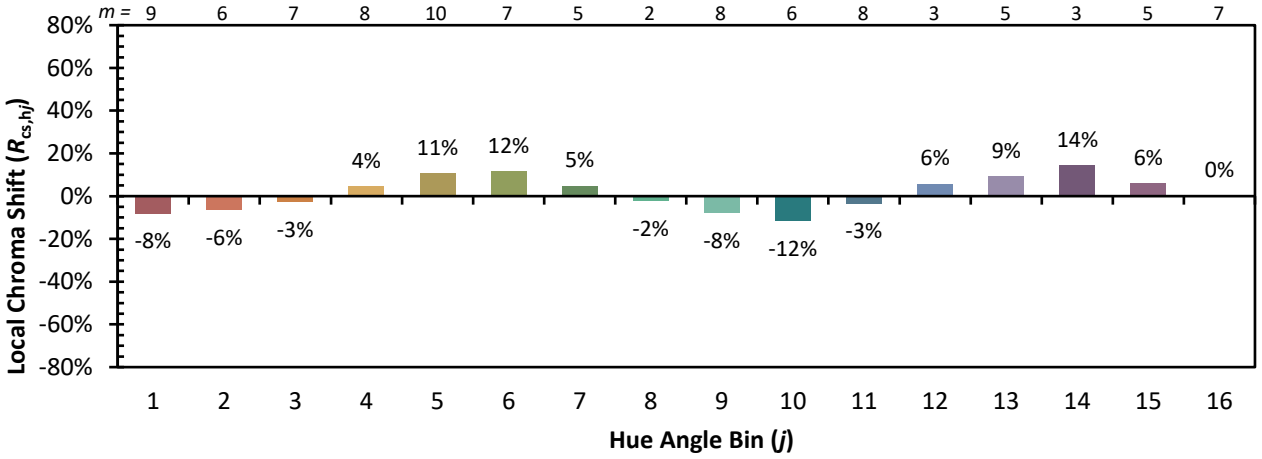
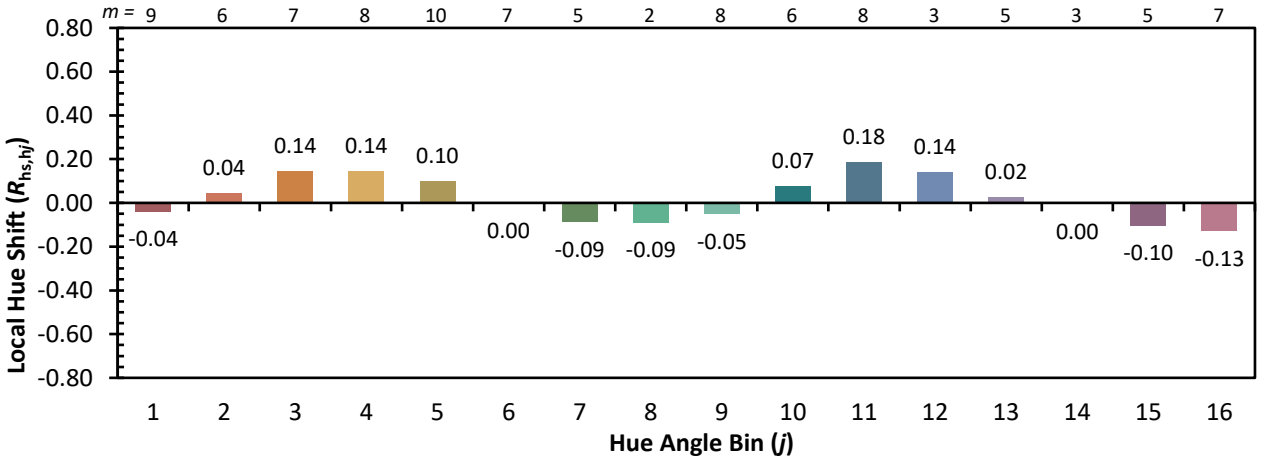
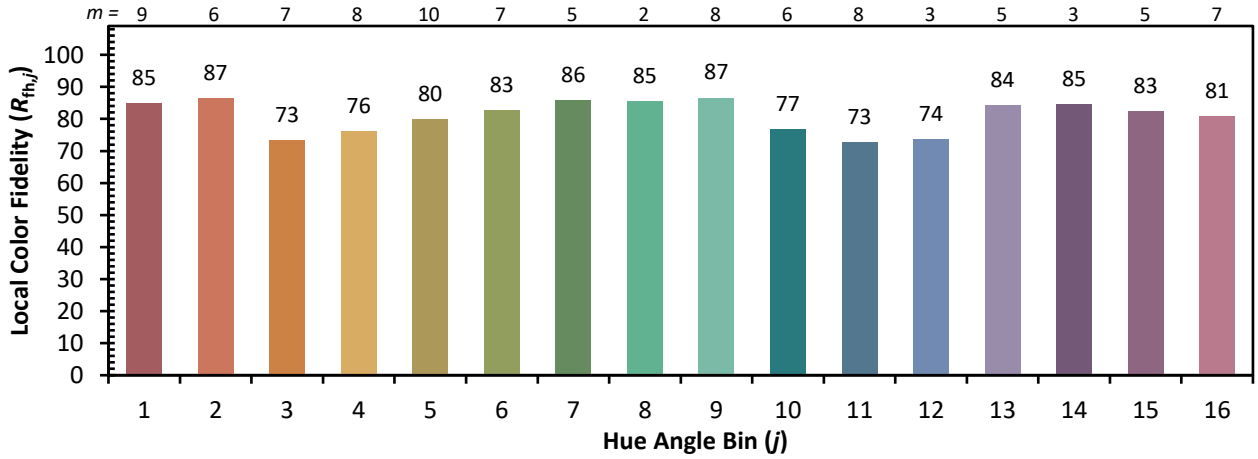
Color Rendition by Hue-Angle Bin







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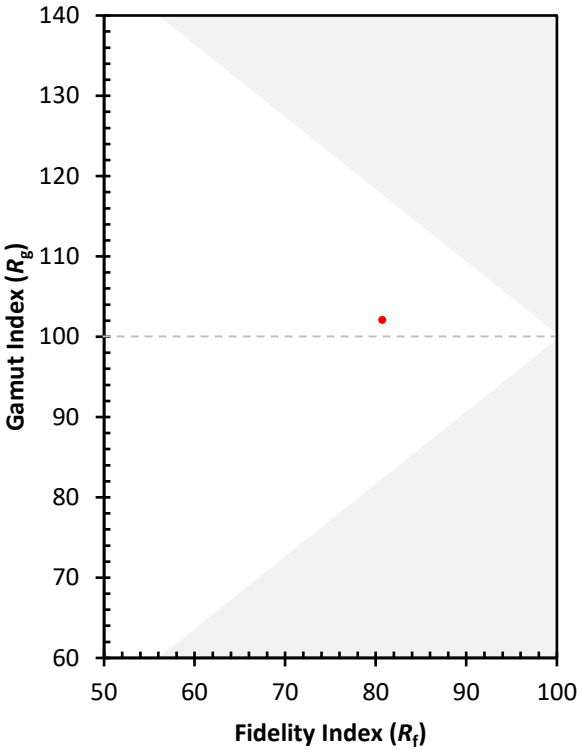
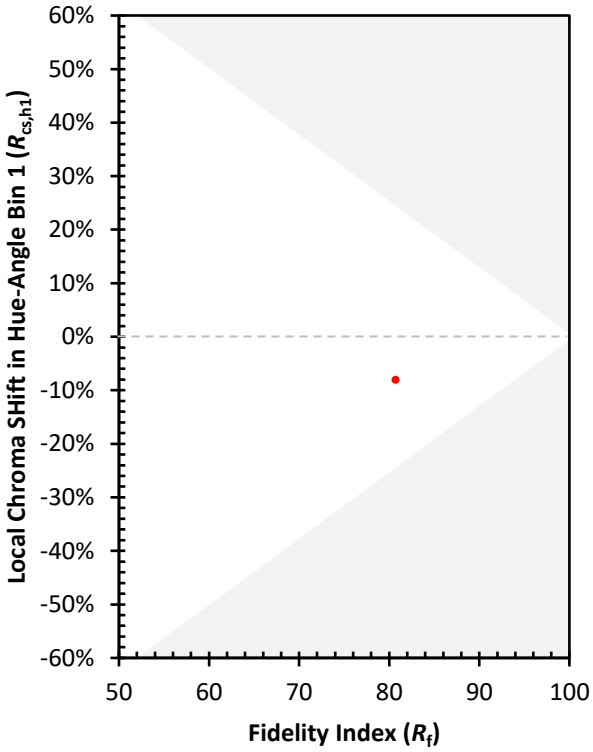
Measure Comparisons





(END OF REPORT)