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: EHBR1-12-UNV-A1-L840-UPL15

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 P1431637 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-12-UNV-A1-L840-UPL15
Description:	Elevate Round Highbay at, 12000 lumens, 4000K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	13760.0 lumens
Efficiency:	N/A
Efficacy:	185.9 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):	74
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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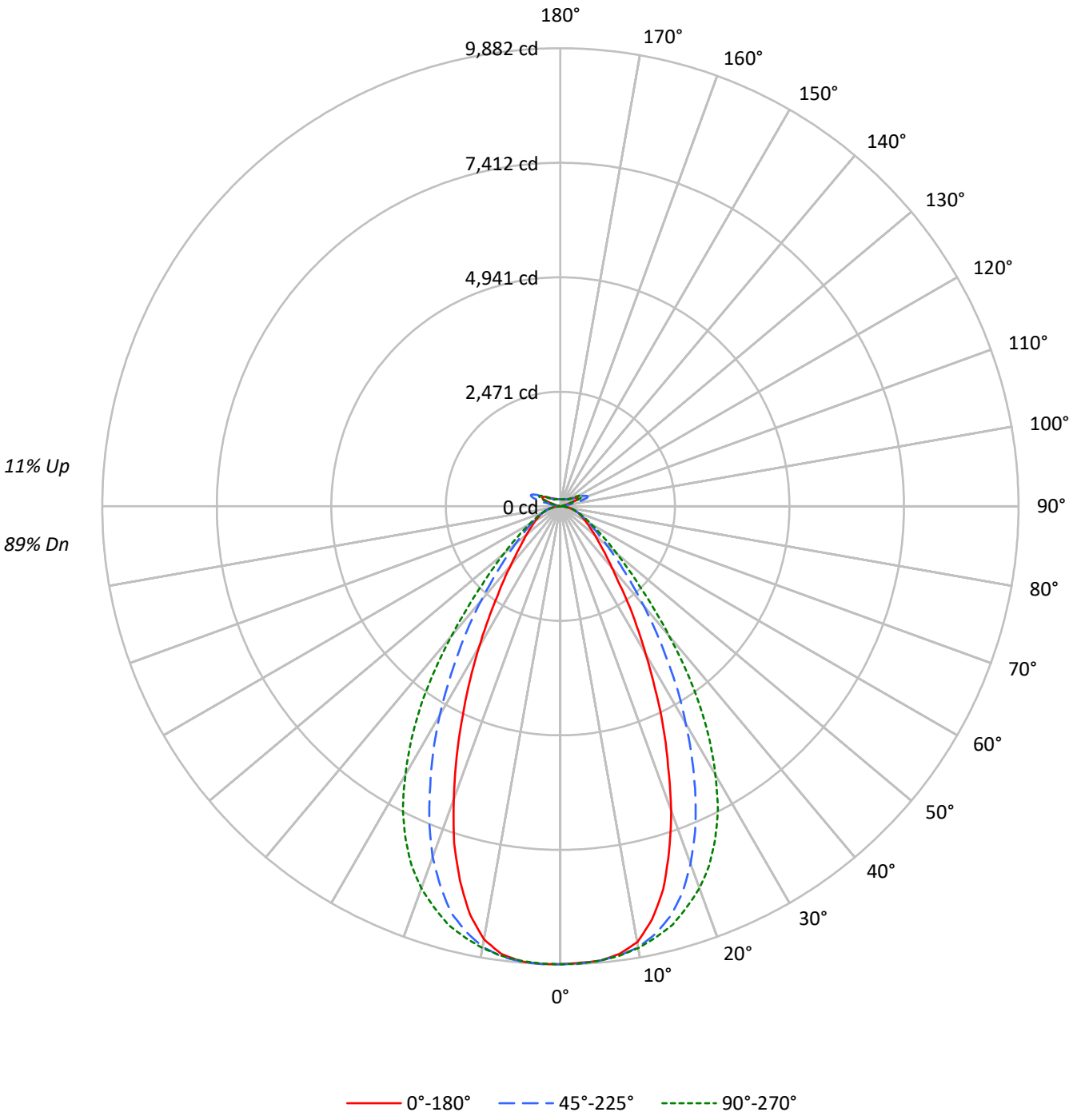
Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-12-UNV-A1-L840-UPL15

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	116	116	116	116	113	113	113	113	105	105	105	98	98	98	92	92	92	89
1	109	105	102	99	105	102	99	97	96	94	92	90	89	87	85	84	83	80
2	102	95	90	86	98	93	88	84	88	84	81	83	80	77	79	76	74	72
3	95	87	80	76	92	84	79	74	80	75	72	76	72	69	72	69	67	64
4	89	79	72	67	86	77	71	66	74	68	64	70	66	62	67	63	60	58
5	83	73	66	60	80	71	65	60	68	62	58	65	60	57	62	58	55	53
6	78	67	60	55	76	66	59	54	63	57	53	61	56	52	58	54	51	49
7	73	62	55	50	71	61	54	50	59	53	49	56	51	48	54	50	47	45
8	69	58	51	46	67	57	50	46	55	49	45	53	48	44	51	46	43	41
9	65	54	47	43	63	53	47	42	51	45	41	49	44	41	48	43	40	38
10	62	51	44	39	60	50	43	39	48	42	39	47	41	38	45	41	37	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	46389	46389	46389	46389	46389
5°	46083	46076	46078	46160	46131
10°	44944	45468	45540	45411	44649
15°	40802	43649	44547	43299	39865
20°	34001	39933	42661	39181	32677
25°	26295	34528	39576	33268	24933
30°	19167	28119	34764	27052	18192
35°	13816	21673	28571	20740	12914
40°	9940	16007	21056	15332	9633
45°	7832	11711	14706	11203	7561
50°	6498	8799	10644	8509	6400
55°	5676	6948	8061	6831	5599
60°	5118	5800	6423	5764	5155
65°	4787	5116	5398	5132	4832
70°	4546	4654	4798	4681	4591
75°	4242	4215	4242	4226	4283
80°	3830	3555	3477	3610	3830
85°	2653	2252	2229	2287	2732

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 15408 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	932.9	6.8
10°-20°	2507.2	18.2
20°-30°	3048.7	22.2
30°-40°	2483.4	18.0
40°-50°	1491.0	10.8
50°-60°	858.1	6.2
60°-70°	537.0	3.9
70°-80°	316.3	2.3
80°-90°	95.1	0.7
90°-100°	39.2	0.3
100°-110°	259.4	1.9
110°-120°	479.9	3.5
120°-130°	284.8	2.1
130°-140°	171.9	1.2
140°-150°	119.0	0.9
150°-160°	77.4	0.6
160°-170°	44.1	0.3
170°-180°	14.6	0.1
0°-30°	6488.7	47.2
0°-40°	8972.1	65.2
0°-60°	11321.3	82.3
0°-90°	12269.7	89.2
90°-120°	778.6	5.7
90°-150°	1354.2	9.8
90°-180°	1490.0	10.8
0°-180°	13760.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9878	9878	9878	9878	9878	
5°	9839	9838	9838	9856	9850	930
15°	8560	9157	9346	9084	8363	2355
25°	5251	6895	7903	6644	4979	2392
35°	2536	3978	5244	3806	2370	1604
45°	1267	1895	2379	1813	1223	1000
55°	767	939	1089	923	757	693
65°	500	534	563	536	504	497
75°	299	297	299	298	302	316
85°	91	77	77	79	94	97
90°	11	30	11	31	11	10
95°	19	67	21	57	18	18
105°	90	454	119	484	59	121
115°	415	536	511	594	435	383
125°	300	287	326	318	341	273
135°	219	220	206	230	237	171
145°	181	189	186	191	195	115
155°	160	165	165	166	173	75
165°	152	155	154	154	158	43
175°	152	153	153	152	155	14
180°	153	153	153	153	153	

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Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-12-UNV-A1-L840-UPL15

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	9878.3	9878.3	9878.3	9878.3	9878.3	9878.3	*9878.3*	9878.3	9878.3
2.5°	*9856.6*	*9865.5*	*9869.2*	*9871.3*	*9873.6*	*9879.8*	*9882.4*	*9878.1*	*9881.8*
5°	9839.4	9840.0	9838.0	9847.3	9838.4	9844.6	*9855.8*	9851.4	9849.8
7.5°	9739.3	9760.0	9772.2	9775.3	9776.9	9784.6	*9792.4*	9748.0	9741.3
10°	9548.9	9583.5	9660.2	9682.2	9675.6	9688.0	*9648.2*	9532.0	9486.4
12.5°	9131.6	9253.1	9452.5	9541.3	9525.1	9536.1	*9400.8*	9155.4	9014.3
15°	8560.0	8738.1	9157.3	9332.3	9345.8	9332.3	*9083.8*	8605.7	8363.4
17.5°	7800.0	8129.0	8746.2	9085.9	9066.4	9072.9	*8601.1*	7894.4	7617.1
20°	6988.2	7338.9	8207.4	8774.1	8768.1	8732.1	*8052.9*	7120.8	6716.1
22.5°	6070.0	6522.2	7590.0	8390.7	8388.4	8328.4	*7385.2*	6276.0	5840.3
25°	5251.1	5694.6	6895.3	7921.1	7903.3	7835.0	*6643.5*	5433.3	4979.0
27.5°	4404.4	4865.6	6153.5	7370.7	7358.5	7284.0	*5934.4*	4645.7	4213.3
30°	3686.7	4108.4	5408.7	6765.1	6686.9	6678.4	*5203.5*	3916.4	3499.3
32.5°	3071.8	3433.3	4706.5	6131.8	5993.4	6032.9	*4475.0*	3306.4	2893.0
35°	2535.7	2854.1	3977.8	5399.4	5243.8	5294.9	*3806.5*	2713.0	2370.2
37.5°	2058.0	2364.2	3360.2	4687.1	4449.1	4545.5	*3218.5*	2265.7	1991.0
40°	1722.8	1965.7	2774.5	3905.4	3649.5	3806.5	*2657.4*	1889.8	1669.7
42.5°	1484.5	1643.0	2289.9	3159.1	2962.8	3074.1	*2190.2*	1579.9	1415.2
45°	1267.2	1393.7	1894.8	2492.9	2379.3	2482.6	*1812.6*	1347.1	1223.4
47.5°	1106.9	1204.3	1559.8	2013.1	1942.6	1975.2	*1513.9*	1175.6	1075.0
50°	968.5	1043.8	1311.3	1624.8	1586.3	1606.4	*1268.1*	1022.9	953.8
52.5°	860.9	916.1	1099.9	1335.3	1316.3	1319.4	*1080.6*	899.8	849.7
55°	767.0	805.5	938.9	1093.9	1089.3	1090.1	*923.2*	797.4	756.6
57.5°	684.8	716.7	806.9	918.8	912.2	913.7	*799.5*	708.2	681.9
60°	615.3	636.6	697.2	776.5	772.1	770.3	*692.9*	628.8	619.7
62.5°	553.7	567.3	609.3	665.6	657.3	659.2	*609.1*	567.9	554.5
65°	499.7	504.4	534.0	568.8	563.4	567.9	*535.7*	507.5	504.4
67.5°	446.9	451.7	469.0	492.4	486.2	489.9	*469.4*	452.9	450.2
70°	398.9	398.7	408.4	421.0	421.0	421.7	*410.7*	400.8	402.8
72.5°	349.2	348.0	350.9	359.4	357.1	365.0	*353.4*	350.3	350.7
75°	298.8	295.2	296.9	301.2	298.8	302.9	*297.7*	301.7	301.7
77.5°	251.2	244.6	242.5	243.1	238.6	244.8	*246.0*	248.7	254.9
80°	201.5	192.2	187.0	186.8	182.9	186.8	*189.9*	195.5	201.5
82.5°	149.6	141.5	132.8	131.2	128.7	131.0	*135.1*	141.7	151.4
85°	91.2	82.8	77.4	74.5	76.6	76.6	*78.6*	87.9	93.9
87.5°	32.9	28.8	23.6	23.8	24.4	25.2	*26.3*	33.1	36.2
90°	11.1	17.4	29.8	19.0	10.7	18.2	*31.4*	16.5	10.9
92.5°	15.9	26.5	47.9	24.8	14.1	24.8	*44.6*	22.3	15.1
95°	18.6	30.6	67.0	33.1	20.7	30.6	*57.0*	24.8	18.4
97.5°	23.5	33.9	76.9	40.5	32.2	38.0	*64.5*	26.5	22.5
100°	31.0	39.7	119.9	49.6	43.0	43.0	*118.2*	30.6	26.0
102.5°	52.5	84.3	254.6	93.4	65.3	84.3	*274.4*	62.0	31.8
105°	90.5	177.7	453.8	195.9	119.0	193.4	*483.6*	162.0	59.1
107.5°	156.6	318.2	598.5	347.2	225.7	361.2	*623.3*	320.7	139.3
110°	292.2	422.4	627.4	476.9	361.2	505.1	*680.3*	439.8	283.1

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Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-12-UNV-A1-L840-UPL15

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	394.7	453.8	600.9	526.5	470.3	562.9	*664.6*	487.7	392.2
115°	415.4	436.4	536.5	514.1	510.8	554.7	*593.5*	486.0	435.2
117.5°	401.5	398.4	455.5	462.1	493.5	507.5	*512.5*	456.3	437.7
120°	371.5	354.6	380.2	403.4	445.5	439.8	*431.5*	412.7	412.9
122.5°	334.5	314.3	325.7	343.0	385.2	372.8	*364.5*	368.0	379.2
125°	299.8	279.6	286.8	291.0	326.5	314.1	*317.6*	330.0	341.2
127.5°	269.2	255.6	259.6	254.6	276.9	271.1	*283.7*	298.0	307.3
130°	248.6	236.8	242.4	230.6	241.6	243.2	*260.0*	271.5	277.5
132.5°	231.4	223.8	230.4	216.1	219.4	226.3	*242.0*	252.1	255.4
135°	219.2	212.4	219.8	206.4	205.8	215.7	*229.8*	236.4	237.4
137.5°	208.5	202.7	210.1	200.2	197.7	207.7	*218.4*	223.4	221.9
140°	199.0	193.8	202.1	194.6	193.0	202.9	*207.9*	213.8	212.2
142.5°	188.5	185.2	194.8	189.9	188.2	197.6	*200.1*	204.2	202.8
145°	181.3	178.8	189.3	186.9	186.0	192.8	*191.2*	197.2	194.7
147.5°	175.3	173.4	182.9	182.1	182.1	187.1	*184.8*	189.9	187.7
150°	169.7	167.8	177.3	176.5	177.3	180.6	*177.5*	183.7	183.1
152.5°	164.1	162.2	170.9	169.9	170.7	174.0	*171.1*	177.9	177.5
155°	160.2	158.3	165.3	164.9	164.9	166.8	*165.5*	172.6	172.8
157.5°	157.4	156.2	161.6	161.2	161.2	162.2	*161.8*	168.0	168.2
160°	155.4	154.1	158.7	158.3	157.5	159.3	*158.9*	164.3	164.5
162.5°	153.4	152.1	157.2	156.2	156.0	156.2	*155.8*	161.4	161.7
165°	151.9	151.4	155.2	154.8	153.9	154.8	*153.7*	157.5	158.5
167.5°	152.1	151.1	154.5	154.1	153.3	152.5	*153.1*	156.1	157.1
170°	151.5	151.3	153.9	152.7	151.7	151.9	*151.7*	154.6	155.6
172.5°	151.9	151.7	154.4	153.1	152.1	152.3	*151.3*	153.4	155.2
175°	151.7	151.3	153.4	152.8	152.6	151.9	*151.7*	152.9	155.0
177.5°	152.7	152.3	153.6	153.0	151.9	152.1	*152.7*	154.0	156.8
180°	152.7	152.7	152.7	152.7	152.7	152.7	*152.7*	152.7	152.7

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Scaled Data Report

TEST NUMBER: CATALOG
CATALOG NUMBER: EHBR1-12-UNV-A1-L840-UPL15

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	14.39	15.48	14.93	16.01	16.59	15.37	16.47	15.92	16.99	17.57
	3H	15.86	16.84	16.42	17.38	18.00	16.63	17.60	17.19	18.14	18.77
	4H	16.46	17.37	17.04	17.93	18.57	17.12	18.04	17.71	18.59	19.23
	6H	16.92	17.76	17.52	18.33	18.98	17.48	18.32	18.07	18.89	19.54
	8H	17.07	17.86	17.68	18.45	19.11	17.57	18.37	18.18	18.96	19.61
	12H	17.14	17.90	17.75	18.48	19.16	17.61	18.37	18.22	18.95	19.63
4H	2H	14.90	15.81	15.48	16.37	17.01	15.68	16.59	16.26	17.15	17.79
	3H	16.58	17.33	17.17	17.93	18.59	17.17	17.92	17.76	18.52	19.17
	4H	17.29	17.97	17.91	18.58	19.27	17.79	18.46	18.40	19.07	19.76
	6H	17.87	18.45	18.51	19.09	19.79	18.26	18.84	18.90	19.48	20.18
	8H	18.06	18.60	18.70	19.23	19.95	18.39	18.94	19.03	19.57	20.28
	12H	18.16	18.64	18.82	19.30	20.02	18.46	18.94	19.12	19.60	20.32
8H	4H	17.52	18.06	18.16	18.69	19.40	17.96	18.51	18.60	19.14	19.85
	6H	18.20	18.65	18.87	19.33	20.04	18.54	18.99	19.21	19.67	20.38
	8H	18.46	18.85	19.14	19.54	20.27	18.74	19.14	19.43	19.82	20.55
	12H	18.62	18.97	19.30	19.64	20.44	18.86	19.21	19.54	19.87	20.68
12H	4H	17.51	18.00	18.17	18.66	19.37	17.96	18.44	18.61	19.10	19.82
	6H	18.23	18.63	18.92	19.31	20.04	18.57	18.96	19.25	19.65	20.38
	8H	18.52	18.87	19.20	19.54	20.34	18.80	19.15	19.48	19.82	20.62

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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: SP1-2506-472-1

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

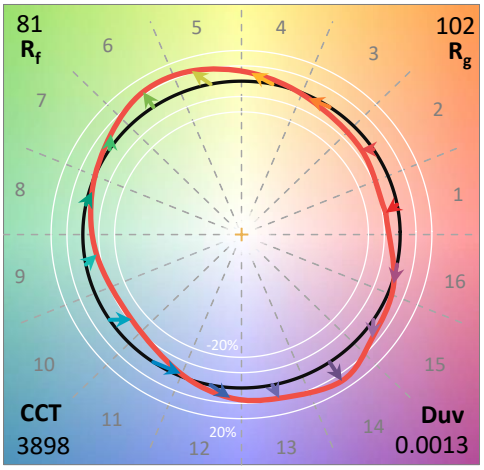
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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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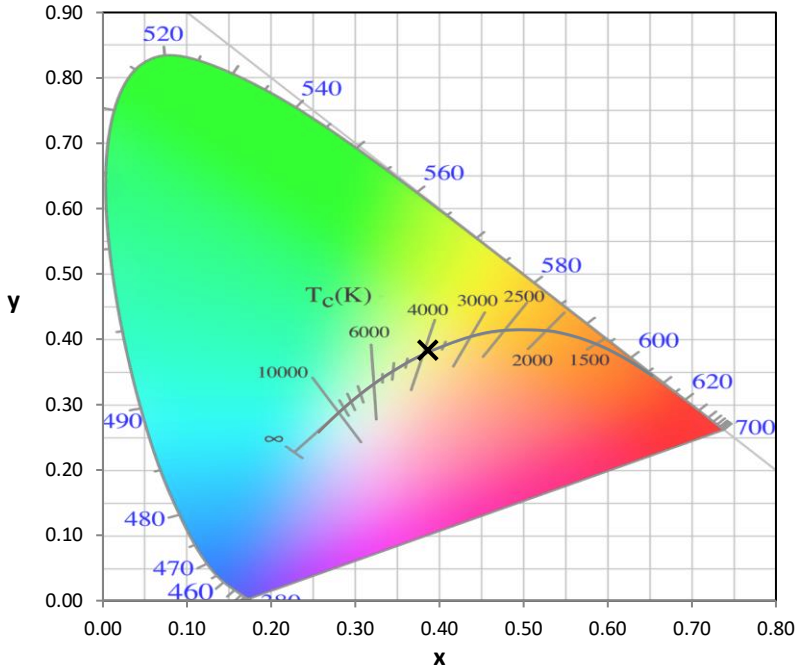
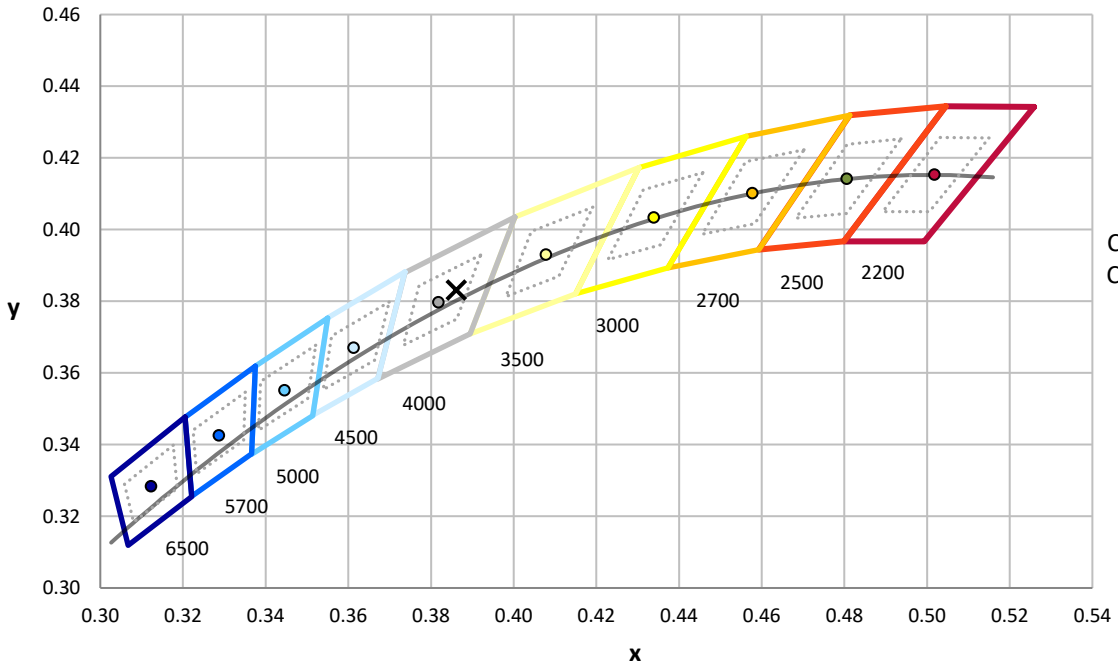
CIE 1931 Chromaticity Diagram



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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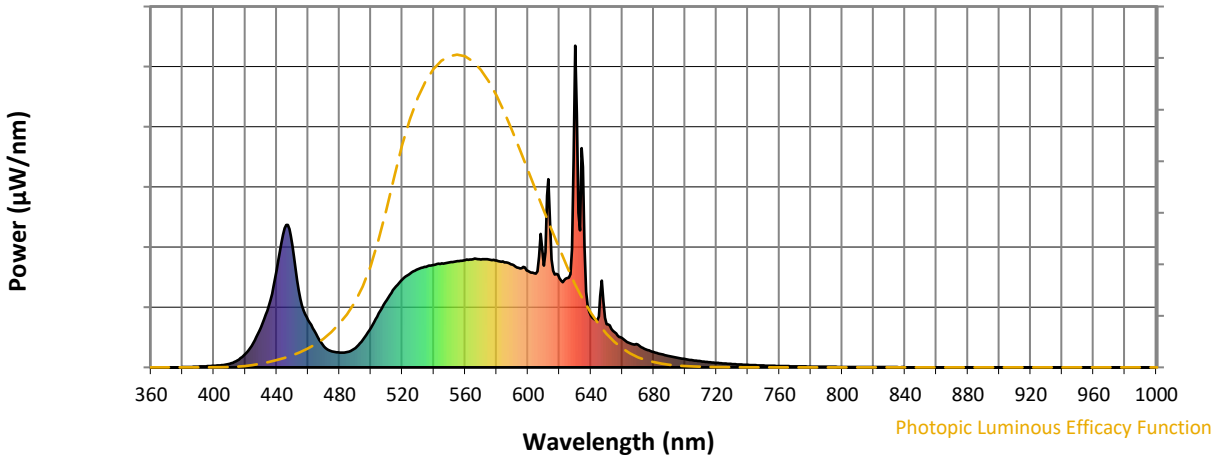
Photopic Flux vs. Wavelength



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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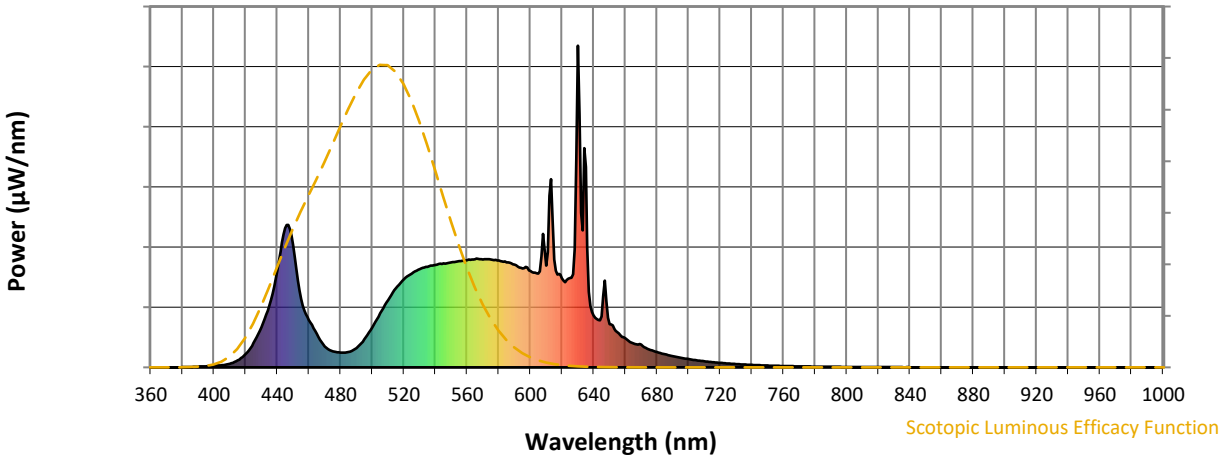
Scotopic Flux vs. Wavelength



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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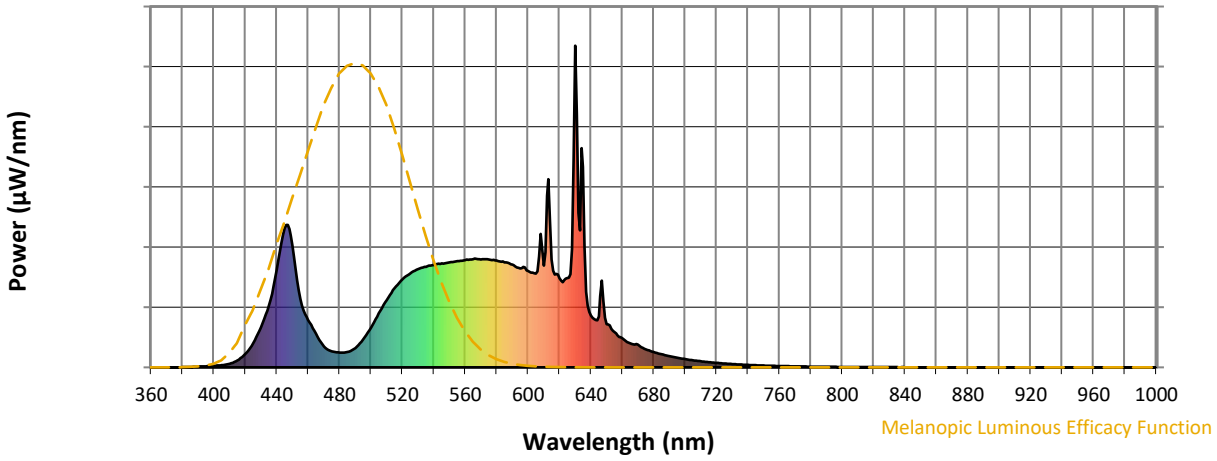
Melanopic Flux vs. Wavelength



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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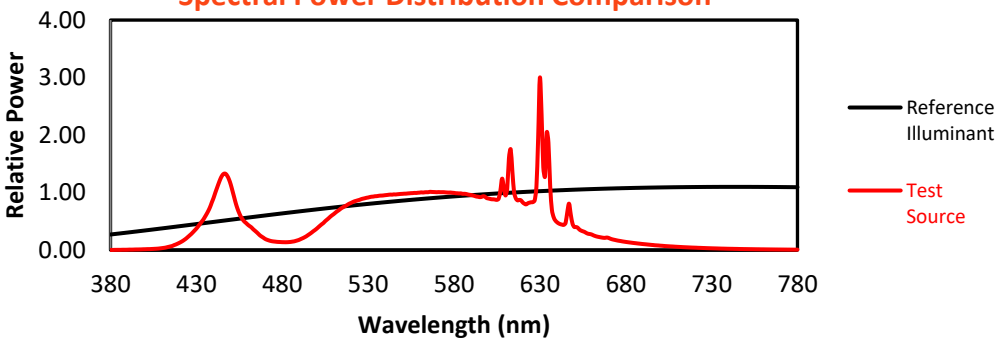
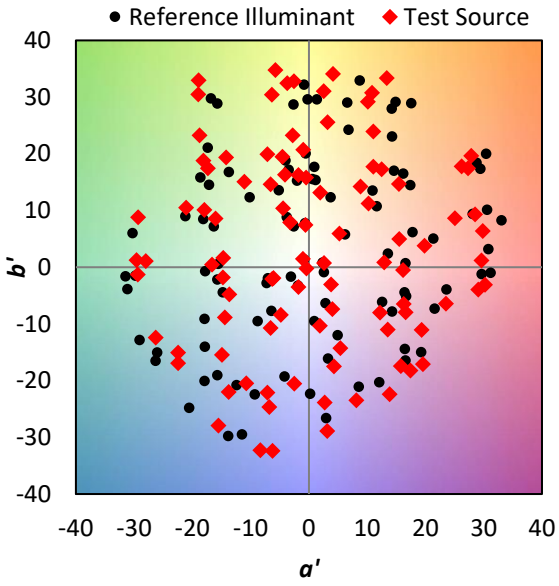
Summary

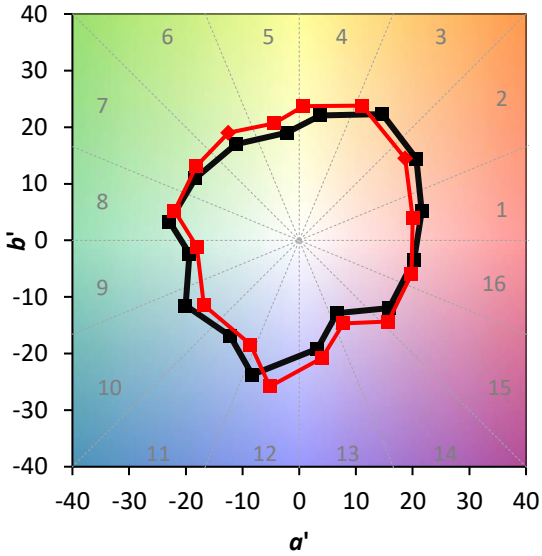
R_f = 80.7
R_g = 102.1
CIE R_a = 82.1
R_9 = 38.5

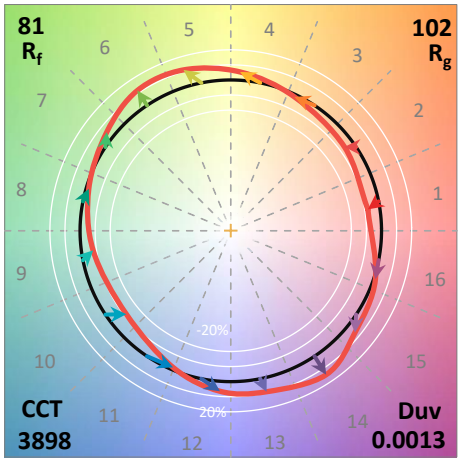
Spectral Power Distribution Comparison

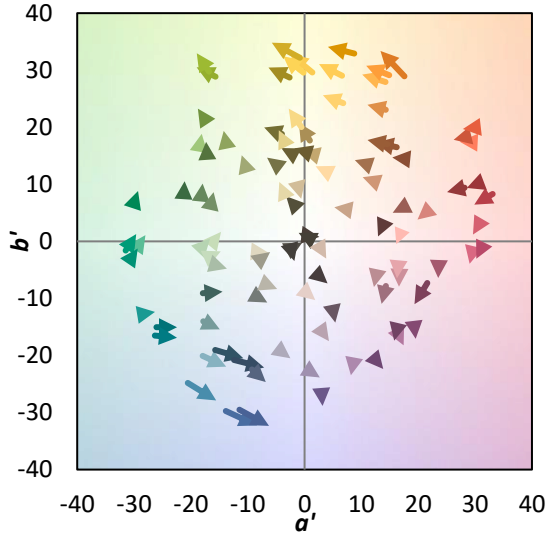


Color Vector Graphics









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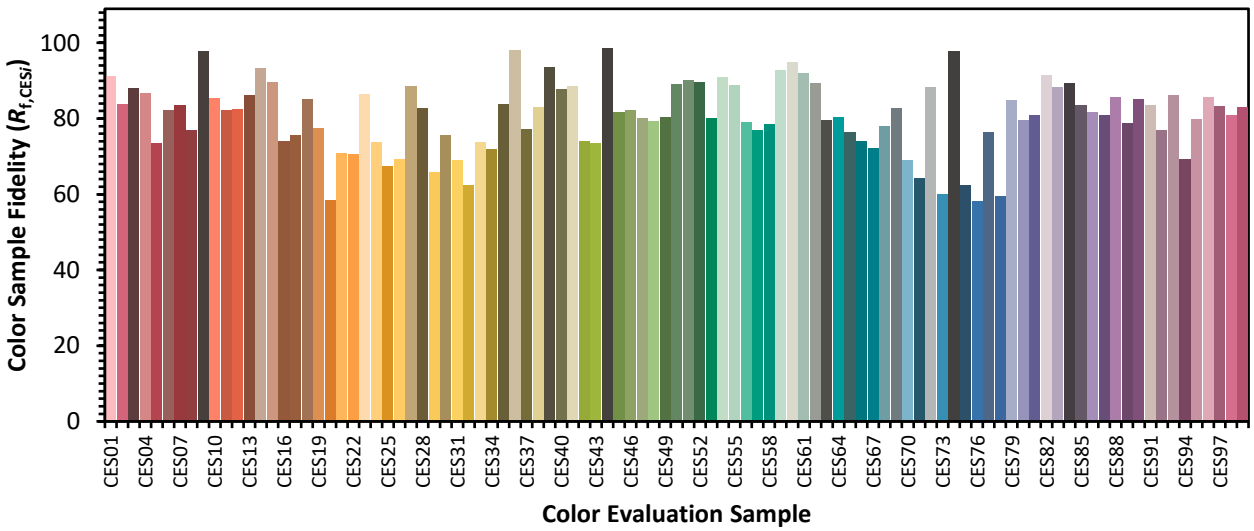
Individual Sample Fidelity Index ($R_{f,i}$)

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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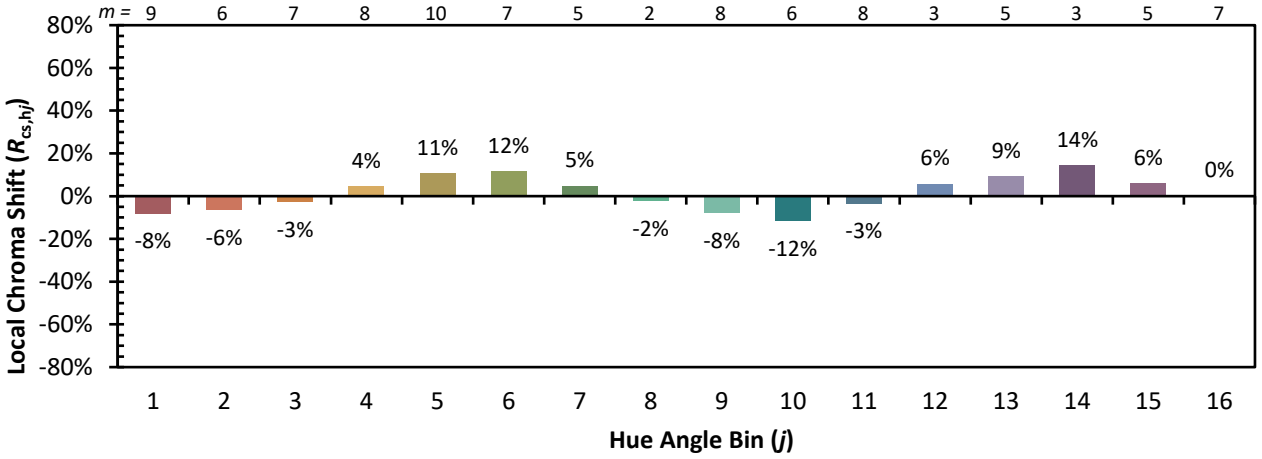
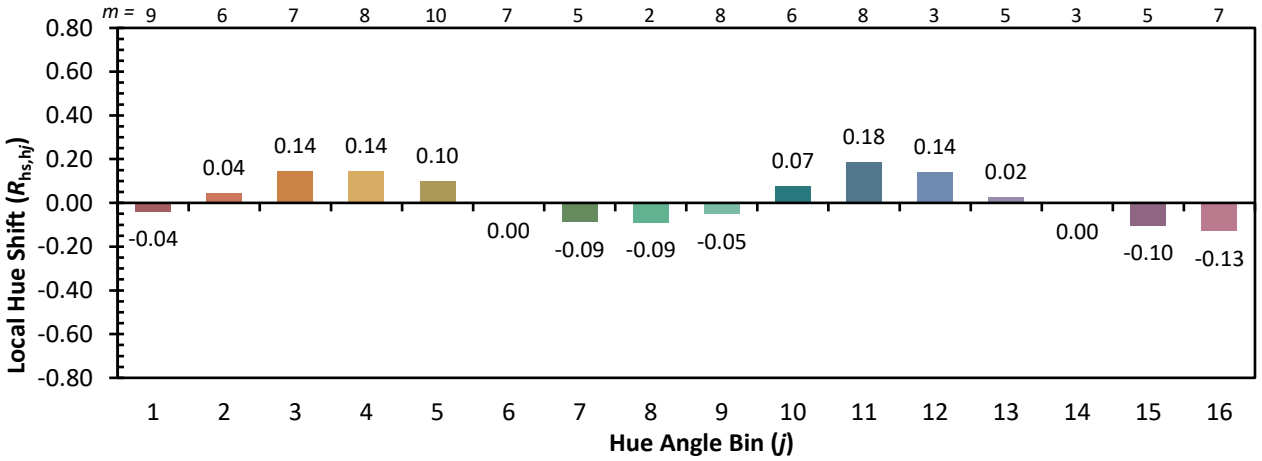
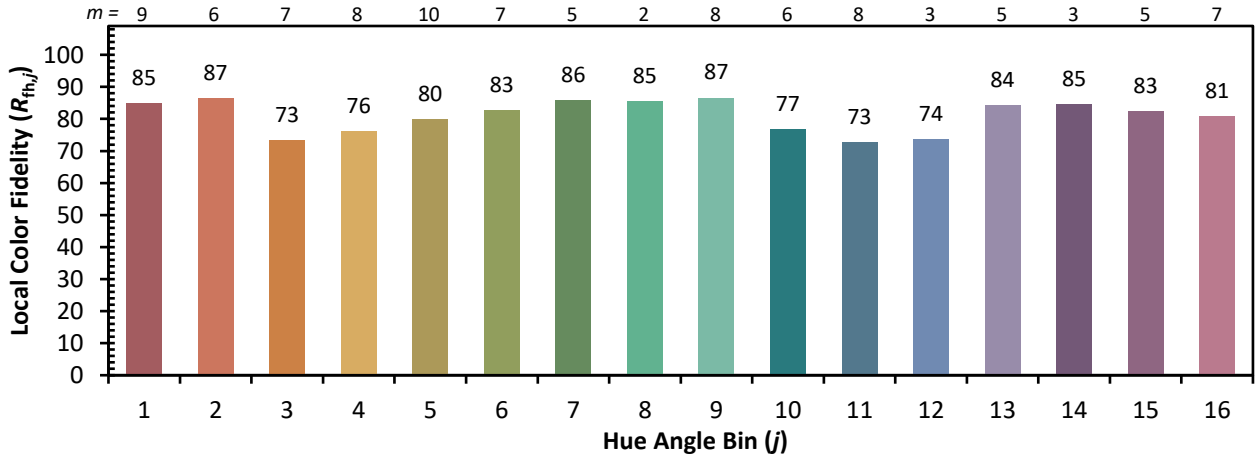
Color Rendition by Hue-Angle Bin







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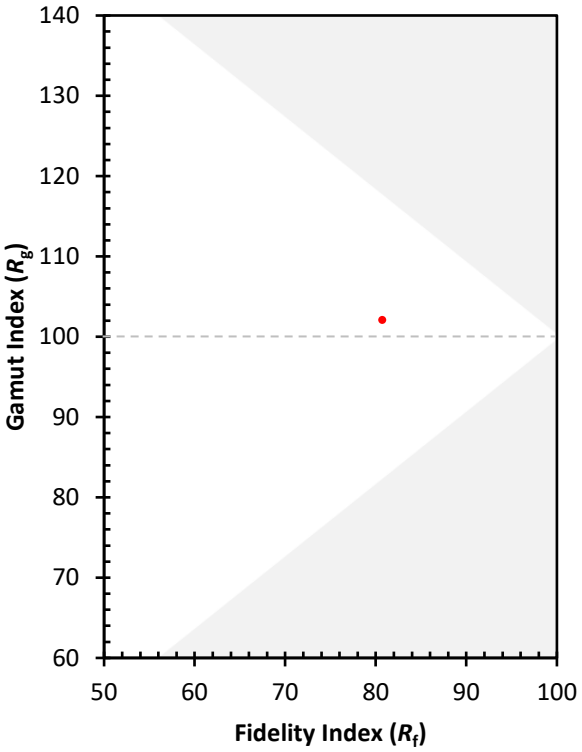
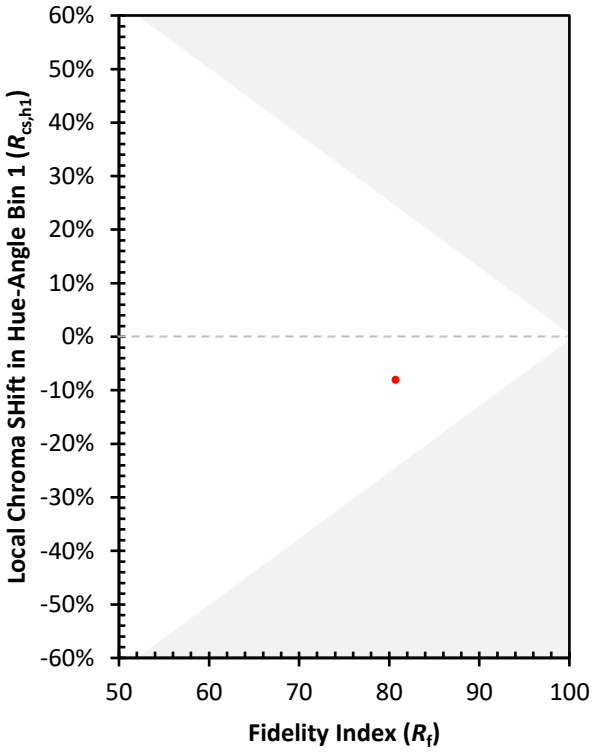
Measure Comparisons





(END OF REPORT)