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: EHBR1-24-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 P1431701 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-24-UNV-A1-L840-UPL15
Description:	Elevate Round Highbay at, 24000 lumens, 4000K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	26216.0 lumens
Efficiency:	N/A
Efficacy:	190.5 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:	Direct

Input Watts (W):	137.6
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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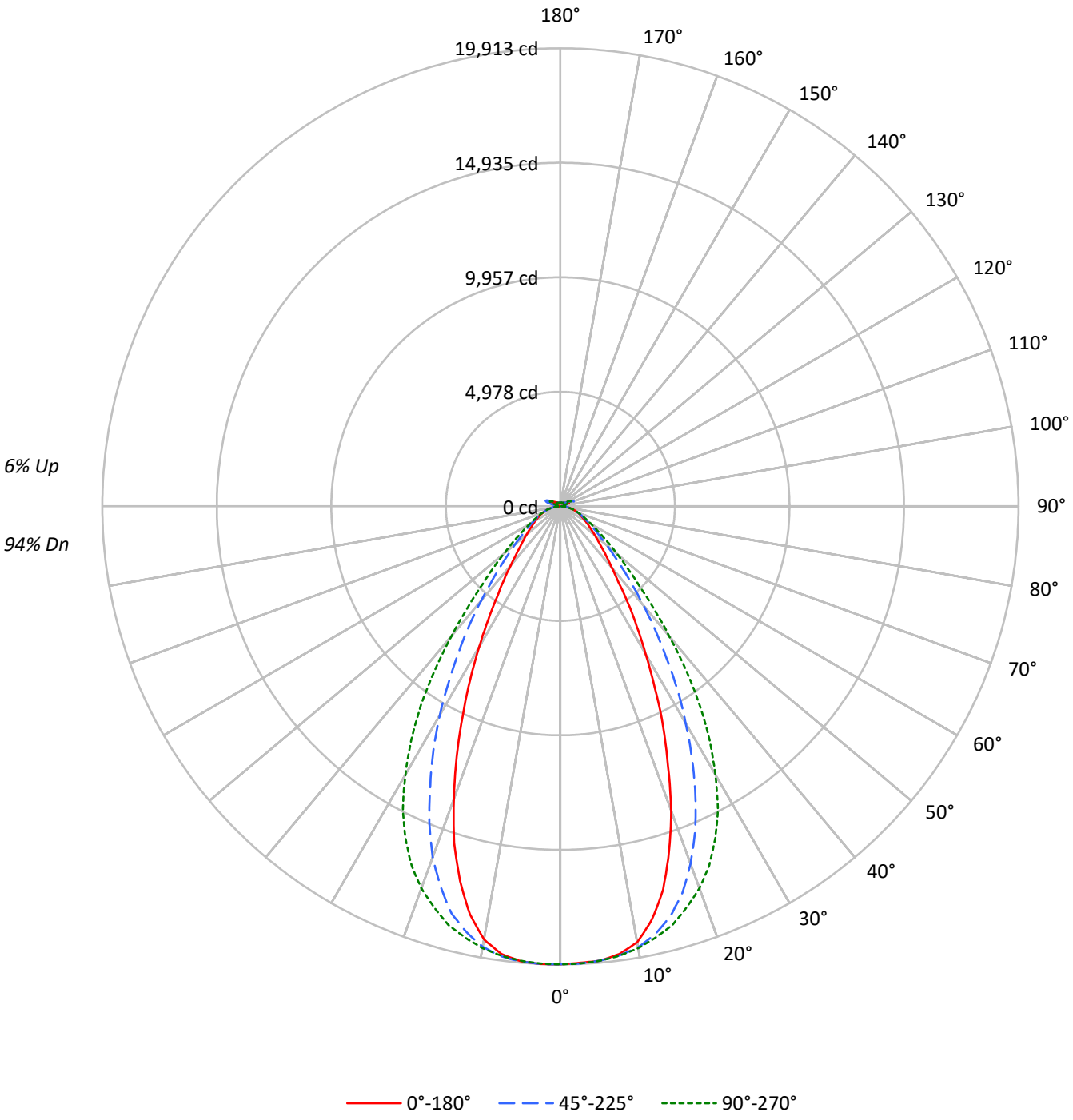
Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-24-UNV-A1-L840-UPL15

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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94
1	110	107	103	101	107	104	101	98	99	96	94	94	92	91	90	88	87	85
2	103	97	92	87	100	94	90	86	90	86	83	86	83	80	83	80	78	76
3	96	88	82	77	94	86	81	76	83	78	74	79	75	72	76	73	70	68
4	90	81	74	69	88	79	73	68	76	71	66	73	69	65	71	67	64	62
5	84	74	67	62	82	73	66	61	70	65	60	68	63	59	66	61	58	56
6	79	69	61	56	77	67	61	56	65	59	55	63	58	54	61	57	53	51
7	75	64	56	51	73	63	56	51	61	55	50	59	54	50	57	53	49	47
8	70	59	52	47	69	58	52	47	57	51	47	55	50	46	54	49	45	44
9	66	55	48	44	65	55	48	44	53	47	43	52	46	43	50	46	42	41
10	63	52	45	41	62	51	45	41	50	44	40	49	43	40	48	43	39	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	93474	93474	93474	93474	93474
5°	92857	92843	92847	93011	92954
10°	90561	91617	91762	91503	89969
15°	82215	87952	89762	87246	80327
20°	68511	80465	85962	78950	65844
25°	52984	69574	79745	67034	50239
30°	38621	56660	70050	54510	36657
35°	27839	43672	57570	41791	26022
40°	20029	32255	42427	30893	19411
45°	15782	23597	29632	22574	15236
50°	13094	17729	21447	17145	12896
55°	11436	14000	16242	13765	11282
60°	10314	11686	12943	11614	10386
65°	9646	10309	10876	10340	9738
70°	9161	9380	9669	9431	9251
75°	8546	8492	8546	8516	8628
80°	7720	7164	7005	7275	7720
85°	5351	4536	4489	4609	5508

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 31047 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1879.7	7.2
10°-20°	5052.0	19.3
20°-30°	6143.1	23.4
30°-40°	5004.0	19.1
40°-50°	3004.4	11.5
50°-60°	1729.1	6.6
60°-70°	1082.1	4.1
70°-80°	637.3	2.4
80°-90°	189.0	0.7
90°-100°	39.3	0.1
100°-110°	259.5	1.0
110°-120°	480.0	1.8
120°-130°	284.9	1.1
130°-140°	172.6	0.7
140°-150°	120.1	0.5
150°-160°	78.6	0.3
160°-170°	45.2	0.2
170°-180°	15.1	0.1
0°-30°	13074.8	49.9
0°-40°	18078.8	69.0
0°-60°	22812.3	87.0
0°-90°	24720.7	94.3
90°-120°	778.7	3.0
90°-150°	1356.4	5.2
90°-180°	1495.0	5.7
0°-180°	26216.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19905	19905	19905	19905	19905	
5°	19826	19823	19824	19859	19847	1874
15°	17248	18452	18832	18304	16852	4745
25°	10581	13894	15925	13387	10033	4821
35°	5110	8015	10566	7670	4776	3233
45°	2554	3818	4794	3652	2465	2014
55°	1545	1892	2195	1860	1525	1397
65°	1007	1076	1135	1079	1016	1001
75°	602	598	602	600	608	638
85°	184	156	154	158	189	196
90°	12	30	11	31	11	14
95°	19	67	21	57	19	18
105°	91	454	119	484	60	121
115°	416	536	511	594	436	383
125°	300	287	326	318	342	274
135°	220	221	207	231	238	172
145°	183	191	188	193	197	116
155°	163	168	167	168	176	76
165°	157	159	158	158	163	45
175°	158	159	157	157	161	15
180°	158	158	158	158	158	

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TEST NUMBER:
CATALOG NUMBER: EHBR1-24-UNV-A1-L840-UPL15

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	19904.7	19904.7	19904.7	19904.7	19904.7	19904.7	*19904.7*	19904.7	19904.7
2.5°	*19861.0*	*19878.9*	*19886.4*	*19890.6*	*19895.1*	*19907.7*	*19913.1*	*19904.3*	*19911.8*
5°	19826.4	19827.6	19823.4	19842.2	19824.3	19836.8	*19859.3*	19850.5	19847.2
7.5°	19624.6	19666.3	19690.9	19697.1	19700.5	19715.9	*19731.7*	19642.1	19628.7
10°	19241.0	19310.7	19465.3	19509.5	19496.2	19521.2	*19441.1*	19206.8	19115.1
12.5°	18400.2	18644.9	19046.8	19225.6	19193.1	19215.2	*18942.5*	18448.1	18163.8
15°	17248.3	17607.2	18451.8	18804.5	18831.6	18804.5	*18303.8*	17340.4	16852.2
17.5°	15717.0	16379.9	17623.5	18308.0	18268.8	18281.8	*17331.2*	15907.1	15348.5
20°	14081.1	14787.7	16537.9	17679.8	17667.7	17595.1	*16226.5*	14348.3	13532.9
22.5°	12230.9	13142.3	15293.9	16907.2	16902.7	16781.8	*14881.1*	12646.1	11768.2
25°	10580.8	11474.7	13893.9	15960.9	15925.0	15787.5	*13386.6*	10948.1	10032.6
27.5°	8874.9	9804.2	12399.3	14851.9	14827.3	14677.3	*11957.8*	9361.0	8489.7
30°	7428.7	8278.3	10898.5	13631.7	13474.1	13457.0	*10485.0*	7891.4	7051.0
32.5°	6189.7	6918.0	9483.6	12355.6	12076.7	12156.3	*9017.1*	6662.4	5829.5
35°	5109.5	5751.1	8015.3	10879.8	10566.2	10669.2	*7670.1*	5466.8	4776.0
37.5°	4146.9	4763.9	6770.8	9444.4	8964.9	9159.2	*6485.2*	4565.4	4011.8
40°	3471.5	3960.9	5590.6	7869.3	7353.6	7670.1	*5354.6*	3807.9	3364.4
42.5°	2991.2	3310.6	4614.2	6365.6	5970.0	6194.3	*4413.3*	3183.4	2851.6
45°	2553.5	2808.2	3817.9	5023.2	4794.3	5002.3	*3652.4*	2714.4	2465.1
47.5°	2230.4	2426.8	3143.0	4056.4	3914.2	3980.1	*3050.4*	2368.8	2166.2
50°	1951.5	2103.2	2642.3	3273.9	3196.3	3236.8	*2555.2*	2061.1	1921.9
52.5°	1734.7	1846.0	2216.2	2690.7	2652.3	2658.6	*2177.5*	1813.1	1712.2
55°	1545.4	1623.0	1891.9	2204.1	2195.0	2196.6	*1860.2*	1606.7	1524.6
57.5°	1379.9	1444.1	1625.9	1851.4	1838.1	1841.0	*1610.9*	1427.0	1374.1
60°	1239.9	1282.8	1404.9	1564.6	1555.9	1552.1	*1396.2*	1266.9	1248.6
62.5°	1115.6	1143.1	1227.8	1341.2	1324.5	1328.2	*1227.3*	1144.4	1117.3
65°	1006.8	1016.4	1076.0	1146.0	1135.2	1144.4	*1079.3*	1022.6	1016.4
67.5°	900.5	910.1	945.1	992.2	979.7	987.2	*945.9*	912.6	907.2
70°	803.8	803.4	823.0	848.4	848.4	849.6	*827.5*	807.5	811.7
72.5°	703.7	701.2	707.1	724.1	719.6	735.4	*712.1*	705.8	706.6
75°	602.0	594.9	598.2	607.0	602.0	610.3	*599.9*	607.8	607.8
77.5°	506.1	492.8	488.6	489.9	480.7	493.2	*495.7*	501.1	513.6
80°	406.1	387.3	376.9	376.5	368.5	376.5	*382.7*	394.0	406.1
82.5°	301.4	285.2	267.6	264.3	259.3	263.9	*272.2*	285.6	305.2
85°	183.9	166.8	155.9	150.1	154.3	154.3	*158.4*	177.2	189.3
87.5°	66.3	57.9	47.5	47.9	49.2	50.9	*52.9*	66.7	73.0
90°	11.5	17.4	29.8	19.0	10.7	18.2	*31.4*	16.5	11.1
92.5°	16.1	26.5	47.9	24.8	14.1	24.8	*44.6*	22.3	15.3
95°	19.0	30.6	67.0	33.1	20.7	30.6	*57.0*	24.8	18.6
97.5°	23.9	33.9	76.9	40.5	32.2	38.0	*64.5*	26.5	22.7
100°	31.4	39.7	119.9	49.6	43.0	43.0	*118.2*	30.6	26.4
102.5°	52.9	84.3	254.6	93.4	65.3	84.3	*274.4*	62.0	32.2
105°	90.9	177.7	453.8	195.9	119.0	193.4	*483.6*	162.0	59.5
107.5°	157.0	318.2	598.5	347.2	225.7	361.2	*623.3*	320.7	139.7
110°	292.6	422.4	627.4	476.9	361.2	505.1	*680.3*	439.8	283.5

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Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-24-UNV-A1-L840-UPL15

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	395.1	453.8	600.9	526.5	470.3	562.9	*664.6*	487.7	392.6
115°	415.8	436.4	536.5	514.1	510.8	554.7	*593.5*	486.0	435.6
117.5°	402.2	398.4	455.5	462.1	493.5	507.5	*512.5*	456.3	438.1
120°	371.9	354.6	380.2	403.4	445.5	439.8	*431.5*	412.9	413.3
122.5°	335.2	314.5	325.7	343.0	385.2	372.8	*364.5*	368.2	379.9
125°	300.5	279.8	286.8	291.0	326.5	314.1	*317.8*	330.2	341.9
127.5°	269.9	255.8	259.6	254.6	276.9	271.1	*283.9*	298.4	308.0
130°	249.3	237.2	242.6	230.6	241.8	243.4	*260.4*	271.9	278.2
132.5°	232.3	224.5	231.1	216.5	219.8	227.0	*242.7*	253.0	256.3
135°	220.3	213.3	220.7	207.1	206.7	216.6	*230.7*	237.3	238.5
137.5°	209.6	203.8	211.2	201.3	198.8	208.8	*219.5*	224.5	223.2
140°	200.5	195.1	203.4	195.9	194.3	204.2	*209.2*	215.3	213.7
142.5°	190.1	186.8	196.3	191.4	189.7	199.2	*201.7*	205.8	204.7
145°	183.2	180.7	190.9	188.5	187.6	194.7	*193.1*	199.3	196.8
147.5°	177.8	175.7	184.8	184.0	184.0	189.0	*186.9*	192.2	190.2
150°	172.4	170.3	179.4	178.6	179.4	182.7	*179.8*	186.4	186.0
152.5°	167.0	164.9	173.2	172.0	172.8	176.1	*173.6*	180.6	180.7
155°	163.4	161.2	167.8	167.0	167.0	169.1	*168.2*	175.8	176.2
157.5°	161.2	159.6	164.5	163.7	163.7	164.9	*165.0*	171.6	172.0
160°	159.6	157.9	162.1	161.2	160.4	162.5	*162.5*	168.3	168.7
162.5°	158.0	156.3	160.8	159.6	159.2	159.6	*159.6*	165.9	166.3
165°	156.7	155.9	159.2	158.4	157.5	158.4	*157.9*	162.1	163.3
167.5°	157.1	155.9	158.7	157.9	157.1	156.3	*157.6*	160.9	162.1
170°	156.7	156.3	158.4	156.7	155.5	155.9	*156.3*	159.6	160.8
172.5°	157.6	157.1	159.2	157.6	156.3	156.8	*156.3*	158.8	160.9
175°	158.0	157.2	158.8	157.6	157.2	156.7	*157.1*	158.8	161.3
177.5°	159.2	158.4	159.3	158.0	156.7	157.1	*158.4*	160.1	163.3
180°	158.4	158.4	158.4	158.4	158.4	158.4	*158.4*	158.4	158.4

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Scaled Data Report

TEST NUMBER: CATALOG
CATALOG NUMBER: EHBR1-24-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	17.22	18.39	17.69	18.83	19.29	18.20	19.37	18.67	19.81	20.27
	3H	18.70	19.74	19.18	20.19	20.70	19.47	20.51	19.95	20.96	21.46
	4H	19.30	20.27	19.80	20.74	21.26	19.97	20.94	20.47	21.40	21.93
	6H	19.77	20.66	20.28	21.14	21.68	20.32	21.21	20.84	21.70	22.23
	8H	19.92	20.76	20.44	21.26	21.81	20.42	21.26	20.95	21.77	22.31
	12H	19.99	20.80	20.52	21.29	21.86	20.46	21.27	20.99	21.76	22.33
4H	2H	17.74	18.71	18.24	19.18	19.70	18.52	19.49	19.02	19.96	20.48
	3H	19.43	20.23	19.94	20.74	21.28	20.01	20.81	20.52	21.33	21.87
	4H	20.14	20.86	20.67	21.39	21.96	20.63	21.35	21.17	21.88	22.46
	6H	20.72	21.34	21.28	21.89	22.49	21.11	21.73	21.67	22.28	22.88
	8H	20.91	21.49	21.47	22.04	22.64	21.24	21.82	21.81	22.37	22.98
	12H	21.02	21.53	21.60	22.11	22.72	21.31	21.82	21.89	22.41	23.01
8H	4H	20.37	20.95	20.93	21.50	22.10	20.81	21.39	21.38	21.94	22.55
	6H	21.06	21.53	21.65	22.13	22.74	21.40	21.87	21.99	22.47	23.08
	8H	21.31	21.73	21.92	22.34	22.96	21.59	22.01	22.20	22.62	23.25
	12H	21.47	21.85	22.08	22.44	23.14	21.71	22.08	22.32	22.67	23.37
12H	4H	20.37	20.88	20.95	21.46	22.07	20.81	21.32	21.39	21.90	22.51
	6H	21.08	21.50	21.69	22.11	22.74	21.42	21.84	22.03	22.45	23.07
	8H	21.37	21.74	21.98	22.34	23.03	21.65	22.02	22.26	22.61	23.31

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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

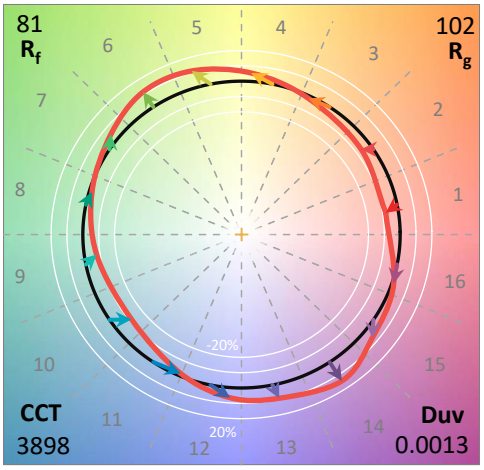
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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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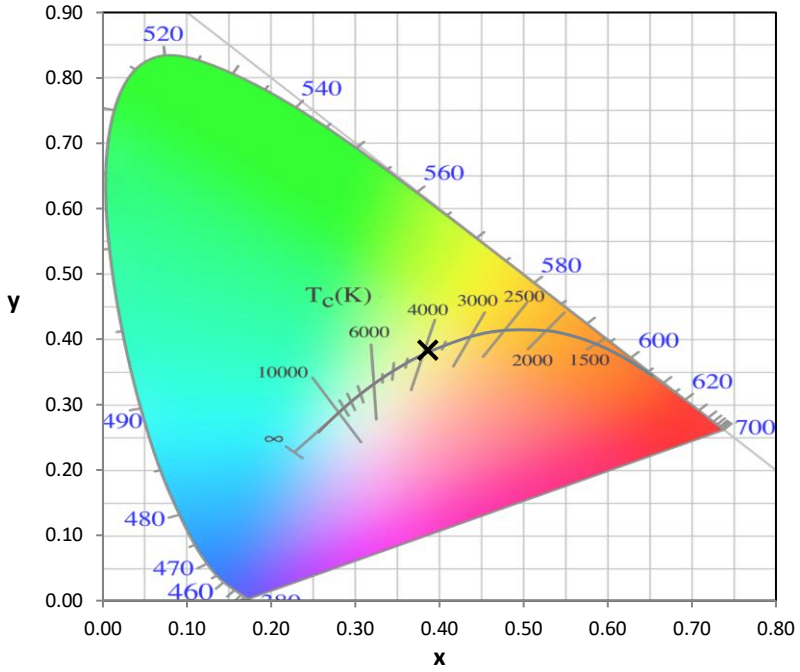
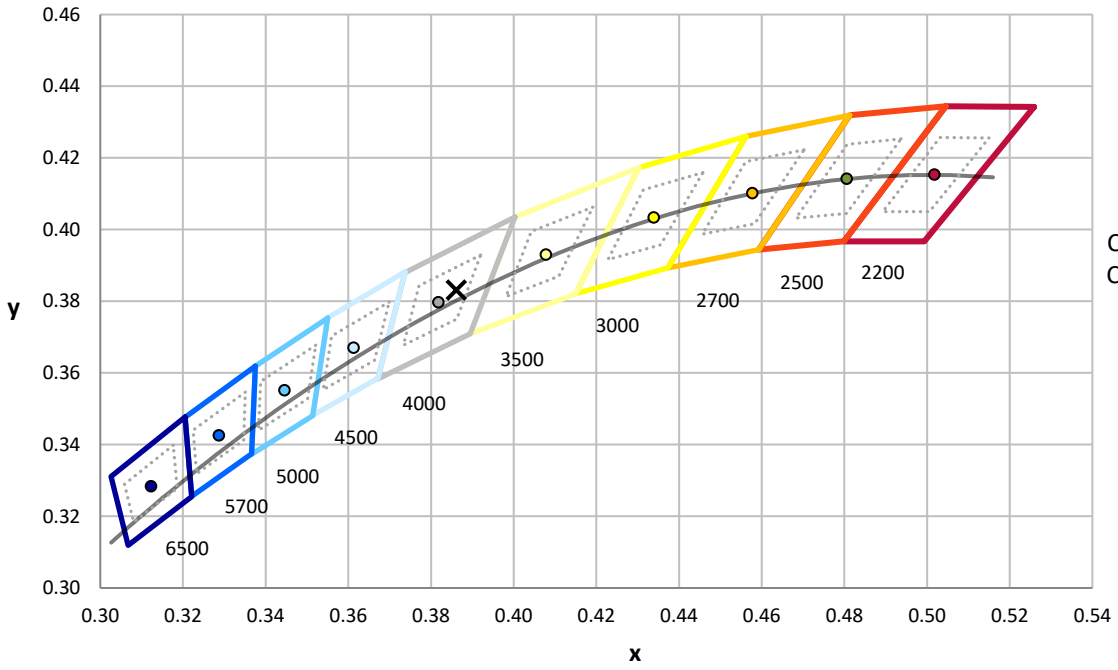
CIE 1931 Chromaticity Diagram



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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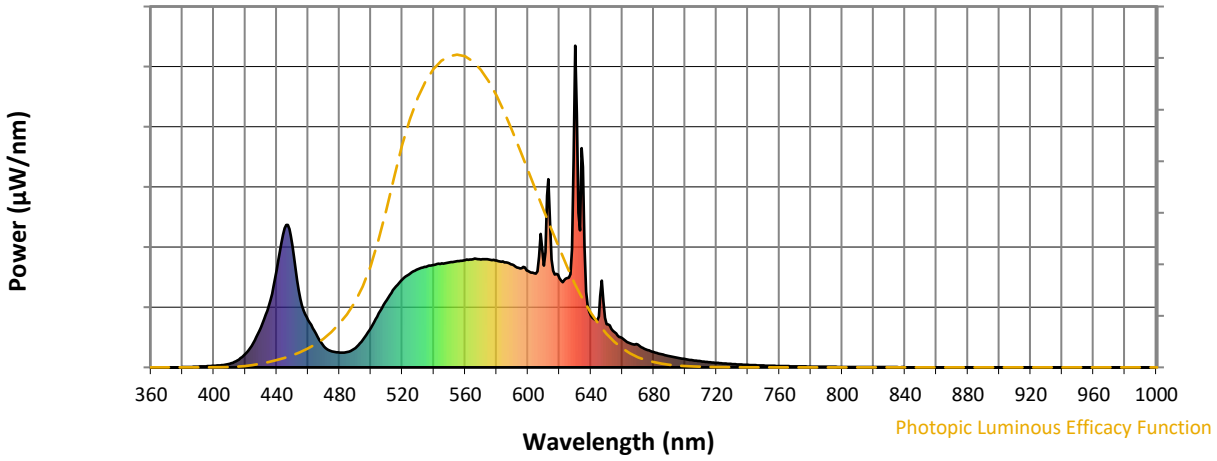
Photopic Flux vs. Wavelength



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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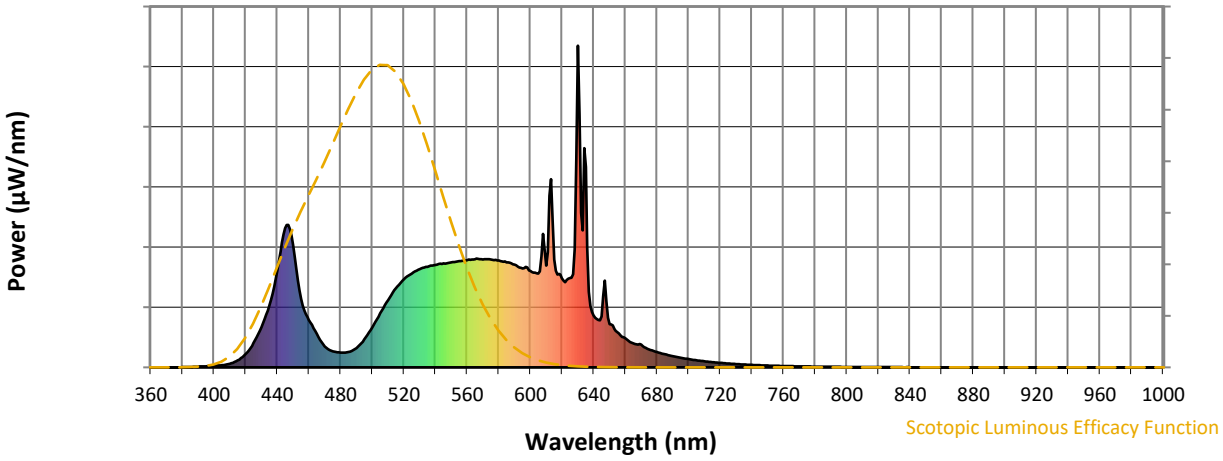
Scotopic Flux vs. Wavelength



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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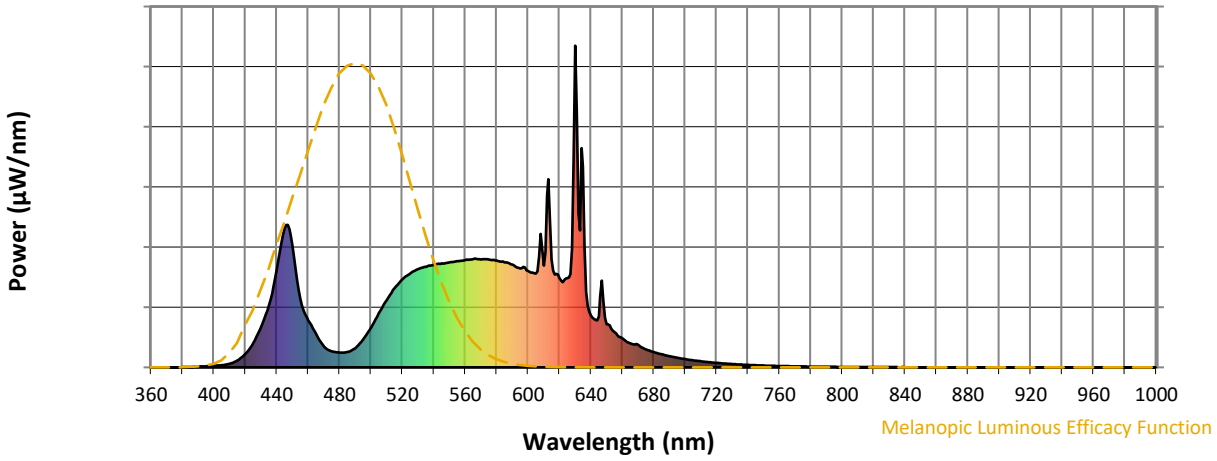
Melanopic Flux vs. Wavelength



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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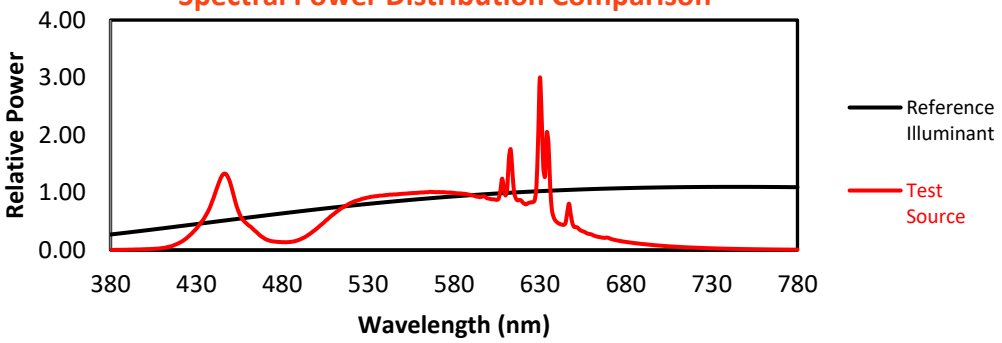
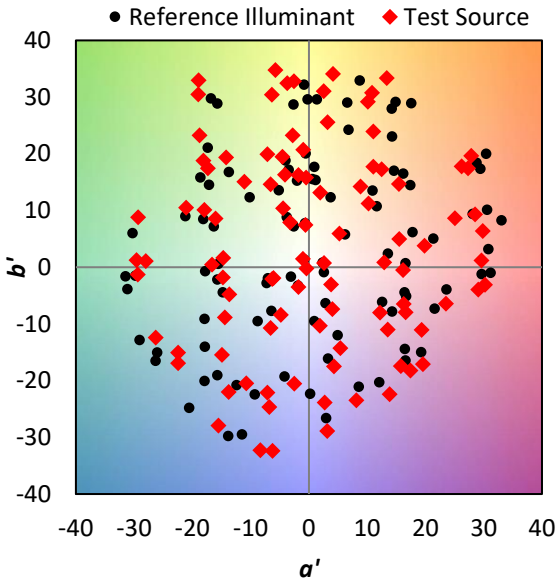
Summary

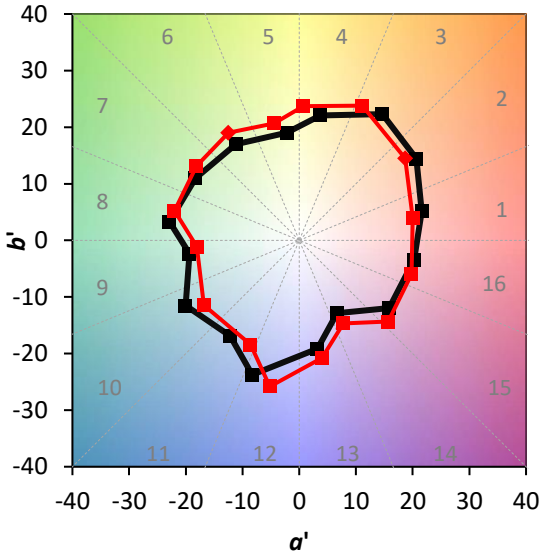
R_f = 80.7
R_g = 102.1
CIE R_a = 82.1
R_9 = 38.5

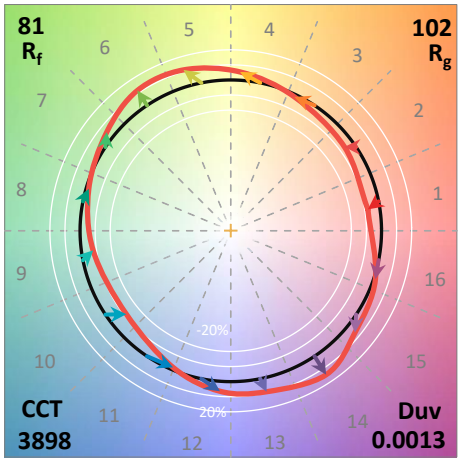
Spectral Power Distribution Comparison

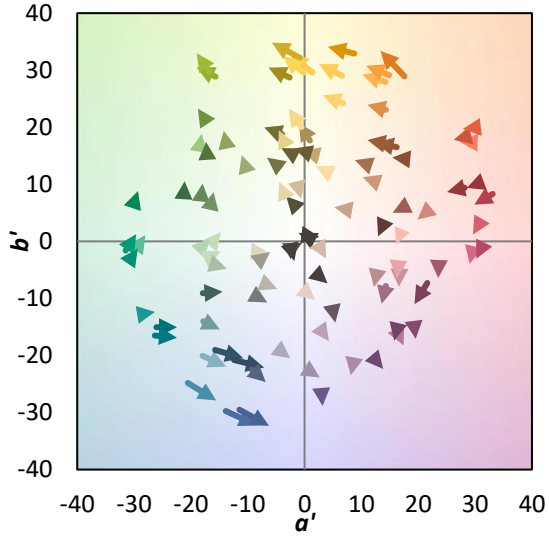


Color Vector Graphics









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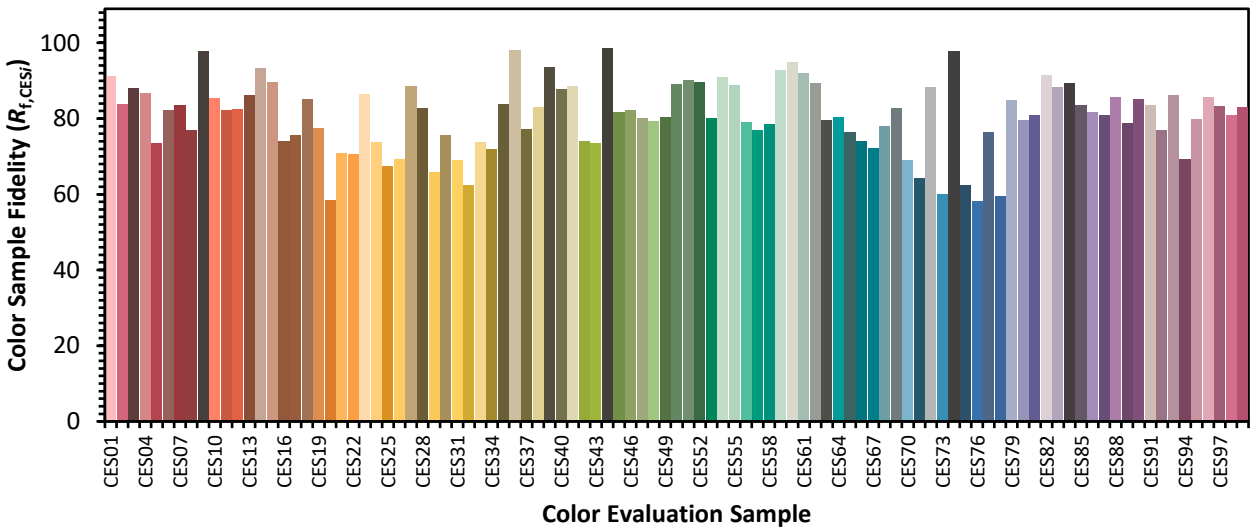
Individual Sample Fidelity Index ($R_{f,i}$)

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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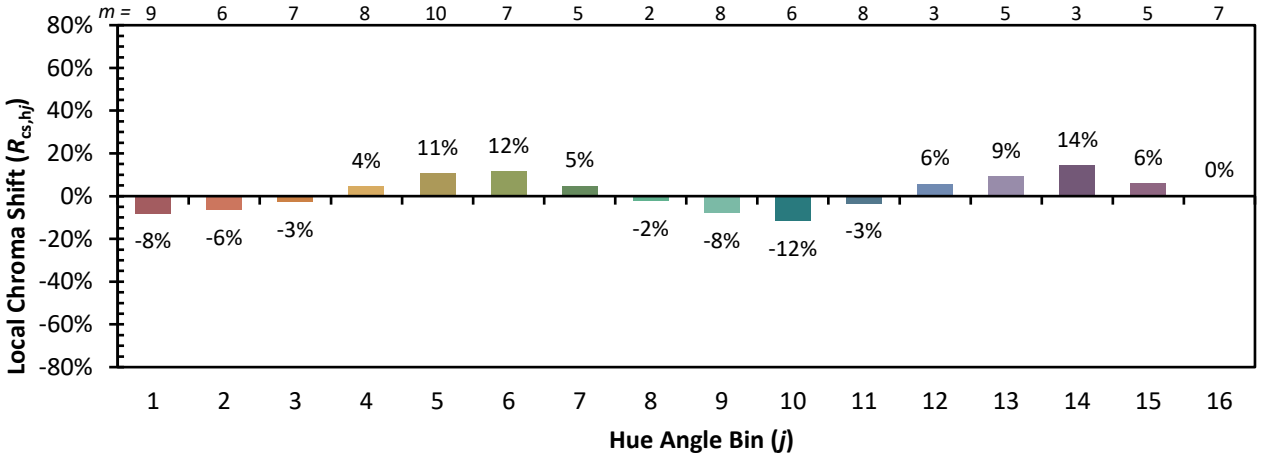
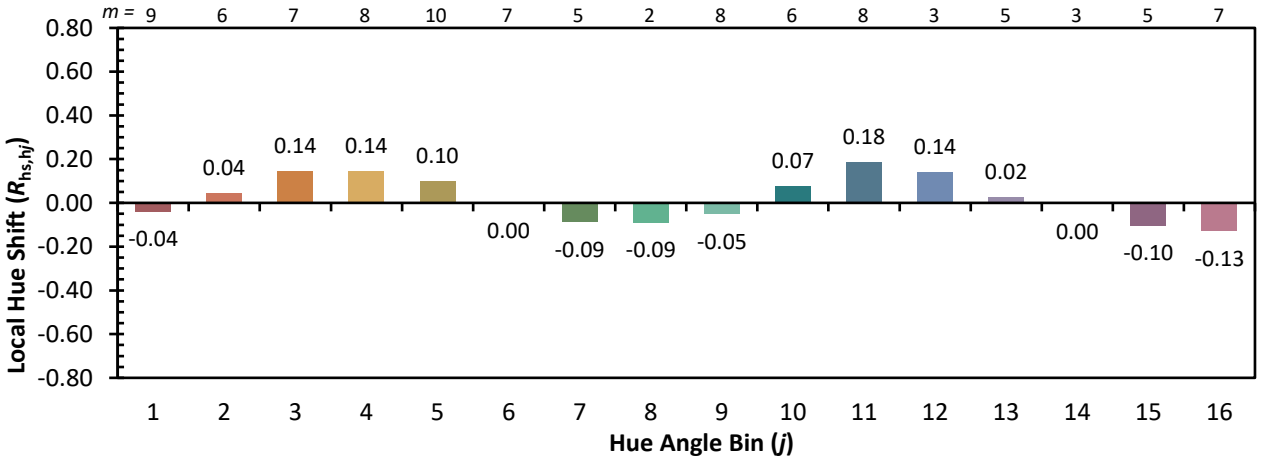
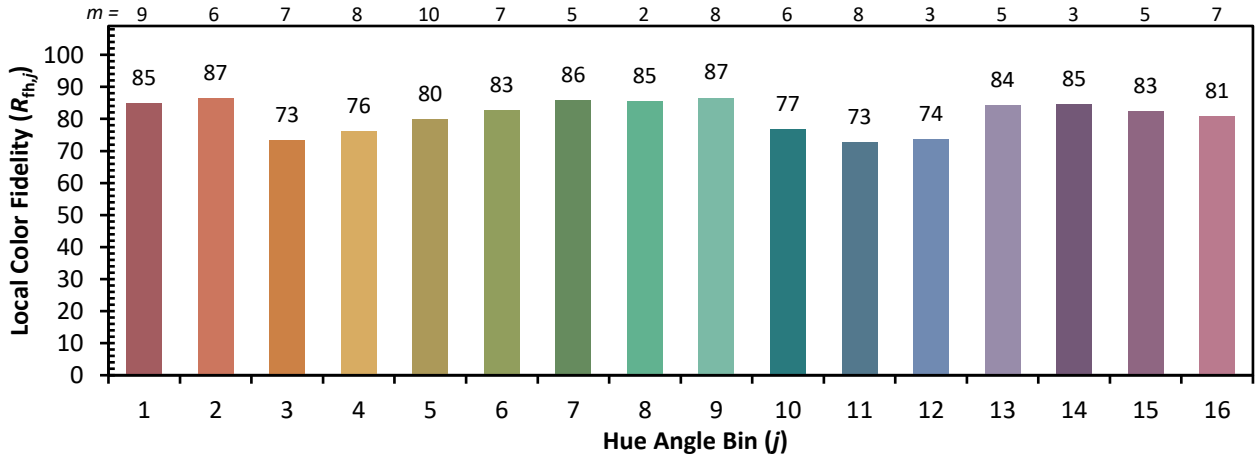
Color Rendition by Hue-Angle Bin







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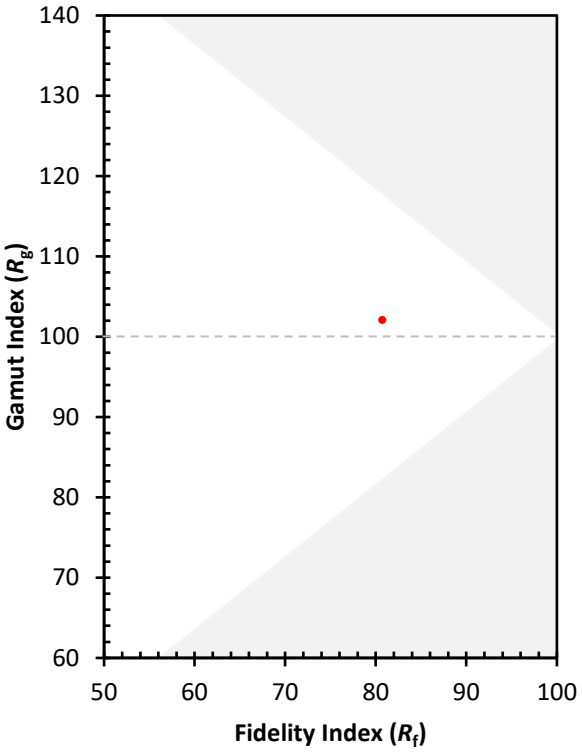
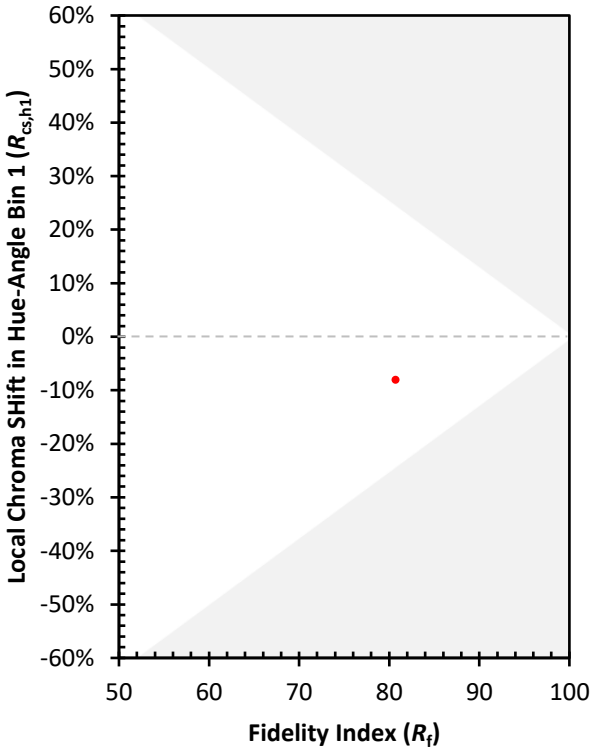
Measure Comparisons





(END OF REPORT)