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: P1432739

Luminaire Tested: EHBR1-48-UNV-A1-L835-UPL12

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:	P1432739
	REPORT IS A COMBINATION OF REPORTS P1431828 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-A1-L835-UPL12
Description:	Elevate Round Highbay at, 48000 lumens, 3500K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	47121.1 lumens
Efficiency:	N/A
Efficacy:	177.1 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):	266
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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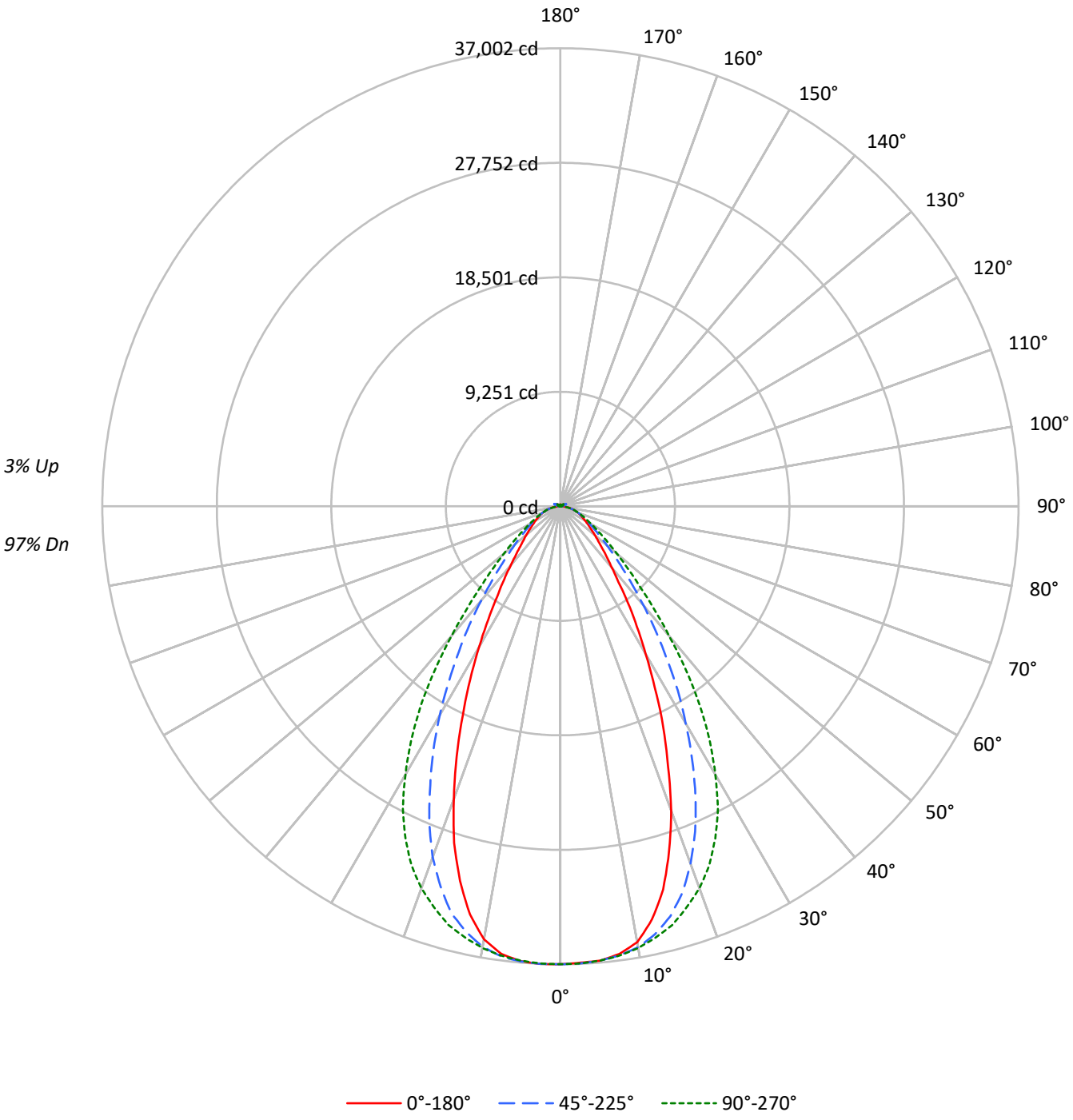
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	97
1	111	107	104	101	108	105	102	100	100	98	96	96	94	93	92	91	90	87
2	104	98	92	88	101	96	91	87	92	88	85	88	85	82	85	83	80	78
3	97	89	83	78	95	87	82	77	84	79	75	81	77	74	79	75	72	70
4	91	82	75	69	89	80	74	69	78	72	68	75	70	67	73	69	66	64
5	85	75	68	63	83	74	67	62	72	66	61	70	65	61	68	63	60	58
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	63	59	55	53
7	75	64	57	52	74	64	57	52	62	56	52	60	55	51	59	54	51	49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	55	50	47	45
9	67	56	49	45	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	53	46	41	62	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	173691	173691	173691	173691	173691
5°	172543	172517	172525	172829	172724
10°	168278	170240	170510	170029	167177
15°	152769	163429	166793	162118	149262
20°	127306	149517	159731	146702	122349
25°	98453	129280	148180	124559	93352
30°	71764	105283	130165	101289	68115
35°	51729	81149	106975	77654	48354
40°	37217	59935	78836	57405	36068
45°	29326	43848	55061	41947	28311
50°	24331	32944	39852	31858	23962
55°	21250	26013	30181	25577	20963
60°	19164	21717	24048	21581	19299
65°	17923	19155	20209	19216	18094
70°	17021	17428	17967	17525	17190
75°	15881	15781	15881	15825	16033
80°	14342	13312	13017	13519	14342
85°	9939	8429	8339	8566	10233

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 57689 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3492.8	7.4
10°-20°	9387.4	19.9
20°-30°	11415.0	24.2
30°-40°	9298.3	19.7
40°-50°	5582.7	11.8
50°-60°	3212.9	6.8
60°-70°	2010.7	4.3
70°-80°	1184.2	2.5
80°-90°	348.4	0.7
90°-100°	31.0	0.1
100°-110°	204.6	0.4
110°-120°	378.3	0.8
120°-130°	224.8	0.5
130°-140°	137.4	0.3
140°-150°	97.1	0.2
150°-160°	64.7	0.1
160°-170°	38.0	0.1
170°-180°	12.9	0.0
0°-30°	24295.1	51.6
0°-40°	33593.4	71.3
0°-60°	42389.1	90.0
0°-90°	45932.4	97.5
90°-120°	613.9	1.3
90°-150°	1073.1	2.3
90°-180°	1189.0	2.5
0°-180°	47121.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	36986	36986	36986	36986	36986	
5°	36841	36835	36837	36902	36879	3482
15°	32050	34287	34992	34012	31314	8817
25°	19661	25817	29591	24874	18642	8958
35°	9494	14894	19634	14252	8875	6007
45°	4745	7094	8909	6787	4581	3743
55°	2872	3515	4079	3456	2833	2596
65°	1871	1999	2109	2006	1889	1860
75°	1119	1112	1119	1115	1129	1185
85°	342	290	287	294	352	365
90°	10	24	8	25	9	21
95°	16	53	16	45	15	15
105°	72	358	94	381	48	97
115°	328	423	402	468	344	303
125°	238	226	257	251	271	217
135°	176	176	165	184	190	137
145°	148	154	152	156	160	94
155°	135	138	136	138	146	63
165°	134	134	132	133	139	38
175°	138	137	134	136	140	13
180°	137	137	137	137	137	

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TEST NUMBER: P1432739
CATALOG NUMBER: EHBR1-48-UNV-A1-L835-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	36986.3	36986.3	36986.3	36986.3	36986.3	36986.3	*36986.3*	36986.3	36986.3
2.5°	*36904.9*	*36938.3*	*36952.3*	*36960.0*	*36968.4*	*36991.7*	*37001.8*	*36985.5*	*36999.5*
5°	36840.6	36843.0	36835.2	36870.1	36836.8	36860.0	*36901.8*	36885.6	36879.4
7.5°	36465.8	36543.2	36588.9	36600.5	36606.7	36635.4	*36664.8*	36498.2	36473.5
10°	35753.0	35882.4	36169.8	36251.9	36227.1	36273.7	*36124.9*	35689.5	35519.1
12.5°	34190.5	34645.3	35392.1	35724.4	35664.0	35705.0	*35198.3*	34279.6	33751.3
15°	32050.2	32717.1	34286.6	34941.9	34992.3	34941.9	*34011.6*	32221.3	31314.3
17.5°	29204.9	30436.5	32747.3	34019.4	33946.5	33970.5	*32204.3*	29558.0	28520.0
20°	26165.0	27478.1	30730.1	32851.9	32829.4	32694.6	*30151.5*	26661.6	25146.3
22.5°	22727.1	24420.5	28418.5	31416.5	31407.9	31183.3	*27651.6*	23498.6	21867.2
25°	19661.0	21321.8	25817.2	29658.0	29591.4	29335.8	*24874.4*	20343.4	18642.3
27.5°	16491.1	18217.7	23040.0	27597.4	27551.7	27272.8	*22219.6*	17394.3	15775.2
30°	13803.7	15382.5	20251.2	25330.0	25037.1	25005.3	*19482.8*	14663.6	13101.8
32.5°	11501.4	12854.8	17622.1	22958.7	22440.4	22588.4	*16755.2*	12379.9	10832.1
35°	9494.2	10686.5	14893.7	20216.4	19633.8	19825.1	*14252.2*	10158.2	8874.6
37.5°	7705.6	8852.1	12581.3	17549.2	16658.4	17019.4	*12050.7*	8483.3	7454.5
40°	6450.6	7360.1	10388.2	14622.5	13664.3	14252.2	*9949.8*	7075.8	6251.5
42.5°	5558.2	6151.6	8574.0	11828.3	11093.2	11510.0	*8200.5*	5915.3	5298.7
45°	4744.8	5218.1	7094.4	9333.9	8908.6	9295.2	*6786.8*	5043.8	4580.6
47.5°	4144.4	4509.3	5840.2	7537.5	7273.3	7395.7	*5668.2*	4401.6	4025.2
50°	3626.2	3908.2	4909.8	6083.5	5939.4	6014.5	*4747.9*	3830.0	3571.2
52.5°	3223.4	3430.3	4118.1	4999.6	4928.5	4940.0	*4046.1*	3369.0	3181.5
55°	2871.7	3015.8	3515.4	4095.7	4078.6	4081.7	*3456.5*	2985.5	2832.9
57.5°	2564.1	2683.5	3021.2	3440.2	3415.5	3420.9	*2993.3*	2651.7	2553.2
60°	2303.8	2383.6	2610.7	2907.3	2891.0	2884.1	*2594.4*	2354.2	2320.1
62.5°	2073.0	2124.1	2281.3	2492.1	2461.1	2468.1	*2280.6*	2126.5	2076.1
65°	1870.8	1888.6	1999.4	2129.6	2109.4	2126.5	*2005.7*	1900.2	1888.6
67.5°	1673.2	1691.1	1756.1	1843.7	1820.4	1834.4	*1757.7*	1695.7	1685.6
70°	1493.5	1492.8	1529.2	1576.5	1576.5	1578.8	*1537.7*	1500.5	1508.3
72.5°	1307.7	1303.0	1313.9	1345.6	1337.0	1366.5	*1323.2*	1311.5	1313.1
75°	1118.7	1105.5	1111.7	1127.9	1118.7	1134.1	*1114.8*	1129.4	1129.4
77.5°	940.4	915.7	907.9	910.3	893.2	916.5	*921.0*	931.1	954.4
80°	754.5	719.6	700.3	699.5	684.8	699.5	*711.2*	732.0	754.5
82.5°	560.1	529.8	497.4	491.2	481.8	490.4	*505.9*	530.6	567.1
85°	341.6	309.8	289.7	278.9	286.6	286.6	*294.4*	329.2	351.7
87.5°	123.2	107.6	88.3	89.1	91.4	94.5	*98.4*	123.9	135.6
90°	10.0	13.7	23.5	14.9	8.4	14.4	*24.7*	13.0	9.2
92.5°	13.2	20.8	37.8	19.5	11.1	19.5	*35.2*	17.6	12.5
95°	15.9	24.0	52.8	26.1	16.3	24.0	*44.9*	19.5	15.1
97.5°	19.8	26.7	60.6	31.9	25.4	30.0	*50.8*	20.8	18.3
100°	25.6	31.2	94.4	39.1	33.8	33.8	*93.1*	24.0	21.7
102.5°	42.6	66.4	200.6	73.6	51.5	66.4	*216.2*	48.9	26.3
105°	72.5	140.0	357.5	154.4	93.8	152.4	*381.0*	127.6	47.8
107.5°	124.6	250.8	471.5	273.6	177.8	284.6	*491.1*	252.7	110.9
110°	231.5	332.8	494.4	375.8	284.6	398.0	*536.0*	346.5	224.3

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Scaled Data Report

TEST NUMBER: P1432739
CATALOG NUMBER: EHBR1-48-UNV-A1-L835-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	312.2	357.5	473.5	414.8	370.5	443.5	*523.6*	384.3	310.2
115°	328.5	343.9	422.7	405.0	402.5	437.0	*467.6*	382.9	344.2
117.5°	318.2	313.9	358.9	364.0	388.9	399.9	*403.8*	359.5	346.1
120°	294.0	279.4	299.5	317.8	351.0	346.5	*340.0*	325.7	326.5
122.5°	265.4	248.2	256.6	270.3	303.5	293.7	*287.2*	290.6	300.6
125°	238.1	220.9	226.0	229.2	257.3	247.5	*250.9*	260.7	270.6
127.5°	214.0	202.0	204.5	200.6	218.2	213.6	*224.2*	236.0	244.0
130°	197.7	187.8	191.6	181.7	190.9	192.3	*206.1*	215.2	220.5
132.5°	184.8	178.1	183.4	171.5	174.2	180.2	*192.5*	201.1	203.7
135°	175.8	169.8	175.7	164.5	164.7	172.4	*183.5*	188.7	190.2
137.5°	167.4	162.8	168.6	160.9	158.8	166.7	*175.1*	179.1	178.5
140°	161.1	156.4	162.9	157.1	155.7	163.6	*167.5*	172.8	171.5
142.5°	153.4	150.8	157.9	153.9	152.6	160.6	*162.5*	165.7	165.2
145°	148.3	146.3	154.1	152.1	151.5	157.4	*156.1*	161.5	159.5
147.5°	145.5	143.3	149.6	148.9	148.9	152.8	*151.7*	156.4	155.2
150°	141.7	139.5	145.8	145.2	145.8	148.5	*146.6*	152.7	152.8
152.5°	137.9	135.8	141.4	139.9	140.6	143.2	*142.2*	148.2	149.0
155°	135.4	133.3	137.6	136.1	136.1	138.2	*138.4*	145.2	145.9
157.5°	135.1	132.9	136.0	134.4	134.4	135.8	*136.7*	142.8	143.6
160°	134.7	132.5	134.9	133.3	132.7	134.7	*135.7*	141.1	141.9
162.5°	134.3	132.1	134.3	132.9	132.1	132.9	*133.8*	140.0	140.8
165°	133.7	132.2	133.9	132.4	131.7	132.4	*133.4*	137.5	139.0
167.5°	134.5	133.1	134.0	132.5	131.9	131.2	*133.5*	137.0	138.5
170°	134.7	133.9	134.2	132.0	130.5	131.3	*132.9*	136.5	137.9
172.5°	136.2	135.5	135.8	133.5	132.1	132.9	*133.9*	136.7	138.9
175°	137.9	136.3	136.7	134.4	133.6	133.7	*135.5*	137.6	140.5
177.5°	139.3	137.8	137.5	135.2	133.7	134.5	*136.8*	139.1	142.5
180°	136.8	136.8	136.8	136.8	136.8	136.8	*136.8*	136.8	136.8

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Scaled Data Report

TEST NUMBER: P1432739
CATALOG NUMBER: EHBR1-48-UNV-A1-L835-UPL12

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	19.62	20.85	20.04	21.22	21.60	20.61	21.83	21.02	22.20	22.58
	3H	21.11	22.19	21.53	22.58	23.01	21.87	22.96	22.30	23.34	23.77
	4H	21.71	22.72	22.16	23.13	23.57	22.37	23.39	22.82	23.79	24.24
	6H	22.18	23.11	22.64	23.53	23.99	22.73	23.66	23.19	24.08	24.54
	8H	22.33	23.21	22.80	23.65	24.12	22.83	23.71	23.30	24.15	24.62
	12H	22.40	23.25	22.88	23.68	24.17	22.87	23.71	23.35	24.15	24.64
4H	2H	20.15	21.16	20.60	21.57	22.01	20.93	21.94	21.38	22.35	22.79
	3H	21.84	22.67	22.29	23.13	23.59	22.42	23.26	22.88	23.71	24.18
	4H	22.55	23.30	23.03	23.77	24.27	23.04	23.79	23.52	24.26	24.77
	6H	23.13	23.78	23.64	24.28	24.80	23.52	24.17	24.03	24.66	25.19
	8H	23.32	23.92	23.83	24.42	24.95	23.66	24.26	24.17	24.76	25.29
	12H	23.43	23.96	23.96	24.49	25.03	23.73	24.26	24.26	24.79	25.32
8H	4H	22.78	23.38	23.29	23.88	24.41	23.23	23.83	23.74	24.32	24.86
	6H	23.47	23.96	24.02	24.51	25.05	23.81	24.30	24.36	24.84	25.38
	8H	23.72	24.16	24.29	24.72	25.27	24.00	24.44	24.57	25.00	25.55
	12H	23.89	24.28	24.45	24.82	25.45	24.13	24.51	24.68	25.05	25.68
12H	4H	22.78	23.31	23.31	23.84	24.38	23.23	23.76	23.76	24.29	24.82
	6H	23.49	23.93	24.06	24.49	25.04	23.83	24.27	24.39	24.83	25.38
	8H	23.79	24.18	24.35	24.72	25.34	24.07	24.45	24.63	24.99	25.62

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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: SP1-2506-472-3

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L835-N

Data in this report applies to families of products including EHBR-60-L835-N

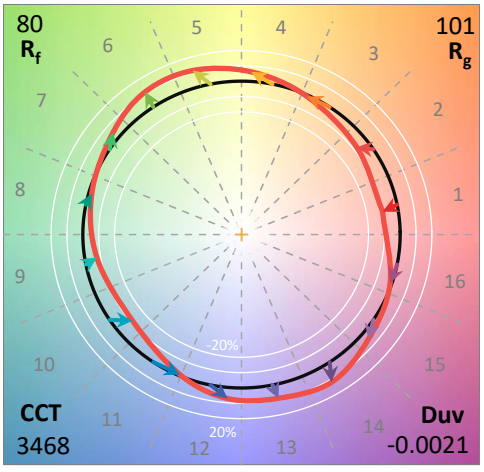
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-3
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-L835-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3500K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	3468	CRI (Ra):	82.1		
CIE u':	0.2375	R1:	82.9	R9:	27.6
CIE v':	0.5091	R2:	85.6	R10:	63.8
Duv:	-0.0021	R3:	85.9	R11:	81.2
CIE x:	0.4049	R4:	82.8	R12:	57.2
CIE y:	0.3856	R5:	81.0	R13:	82.6
CIE z:	0.2095	R6:	79.7	R14:	91.0
Peak Wavelength (nm):	630	R7:	86.5	R15:	79.4
Dominant Wavelength (nm):	581	R8:	72.1		
Purity:	37.24544				
Rf:	80.1				
Rg:	101				



Test Conditions

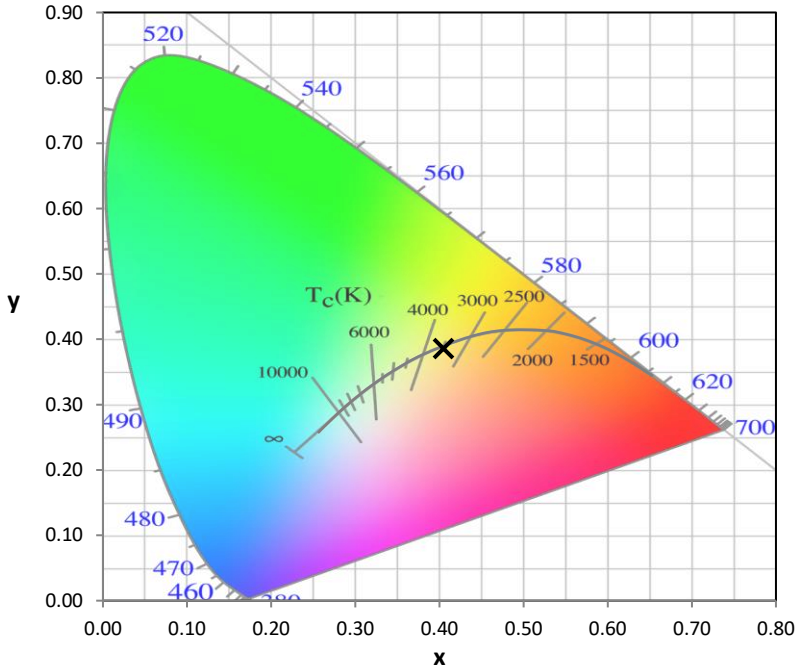
Stabilization Time:	39M
Operation Time:	1H 39M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-3

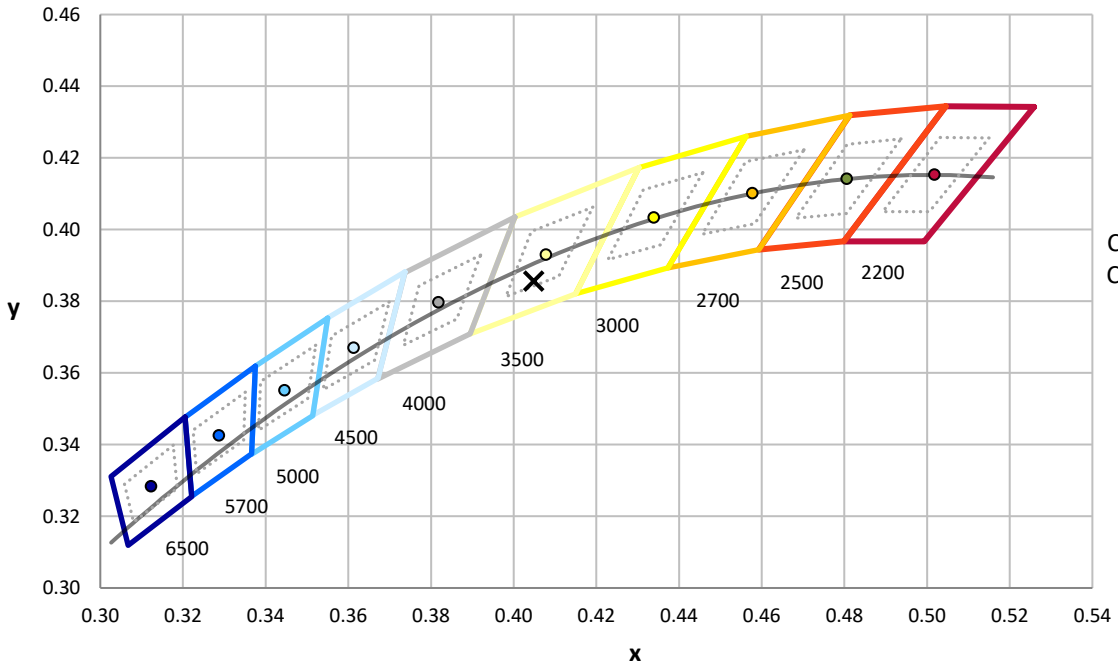
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	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

REPORT NUMBER: SP1-2506-472-3

CIE 1931 Chromaticity Diagram



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

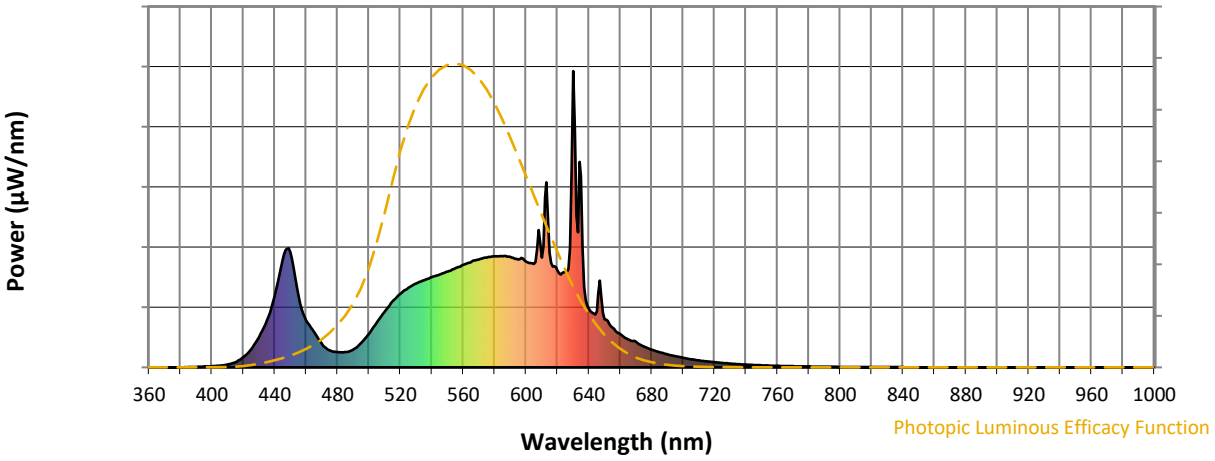


CCT = 3468K
CIE x = 0.4049
CIE y = 0.3856
Duv = -0.0021

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-3

Photopic Flux vs. Wavelength

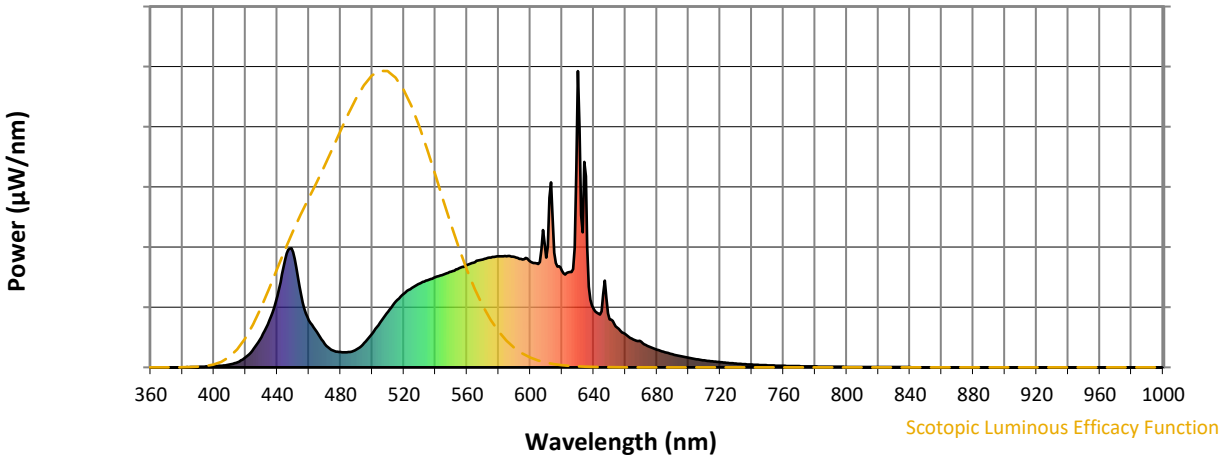


Photopic Lumens: NR

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	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-3

Scotopic Flux vs. Wavelength

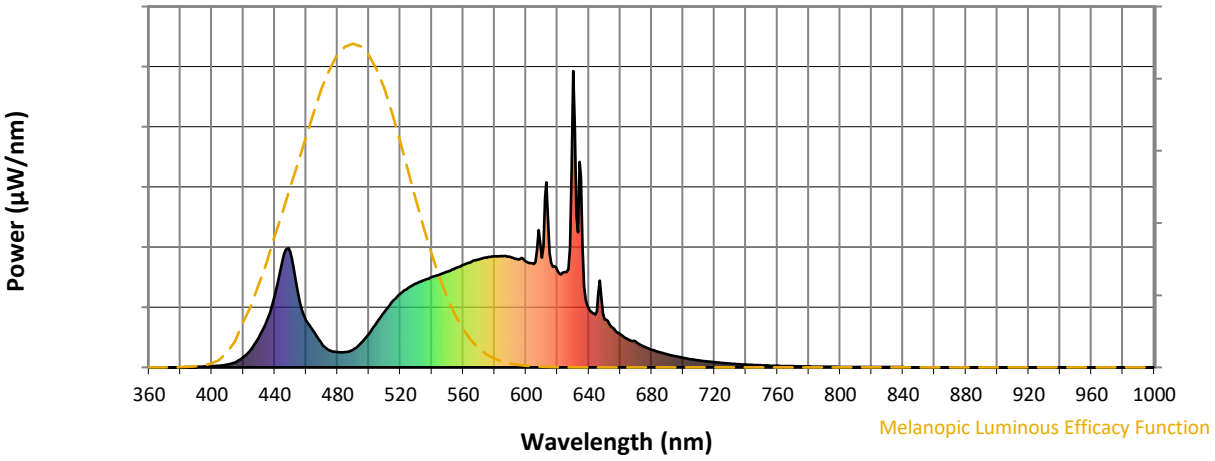


Scotopic Lumens: NR **S/P: 1.43**

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	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-3

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.75**

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	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

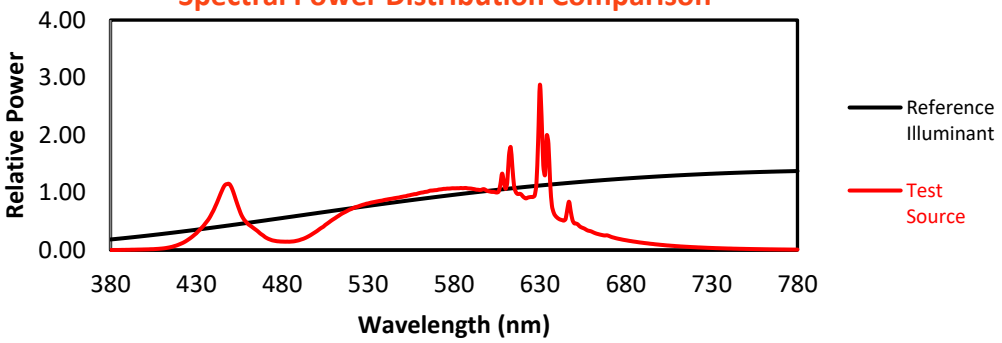
REPORT NUMBER: SP1-2506-472-3

TM-30-18

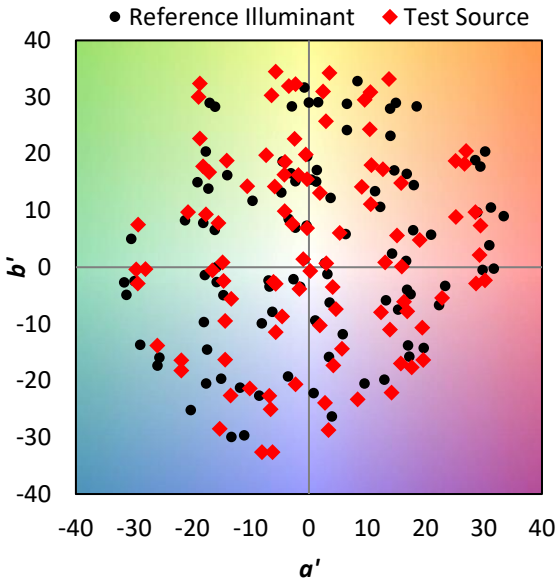
Summary

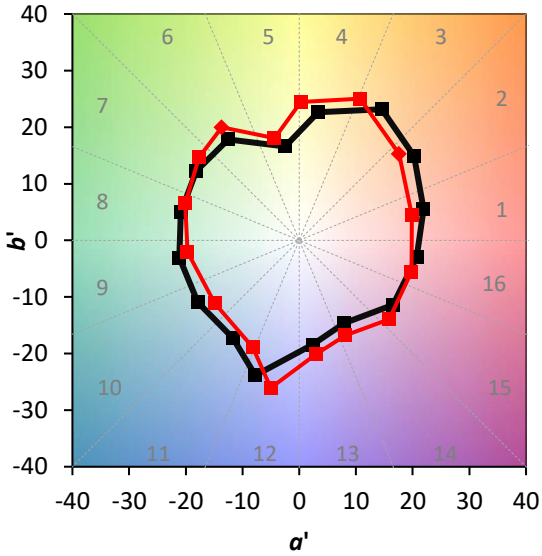
R_f = 80.1
R_g = 101
CIE R_a = 82.1
R_9 = 27.6

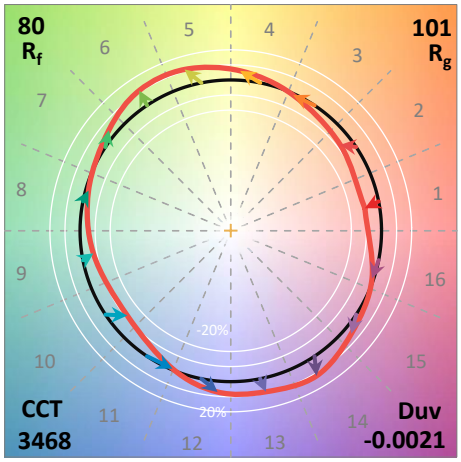
Spectral Power Distribution Comparison

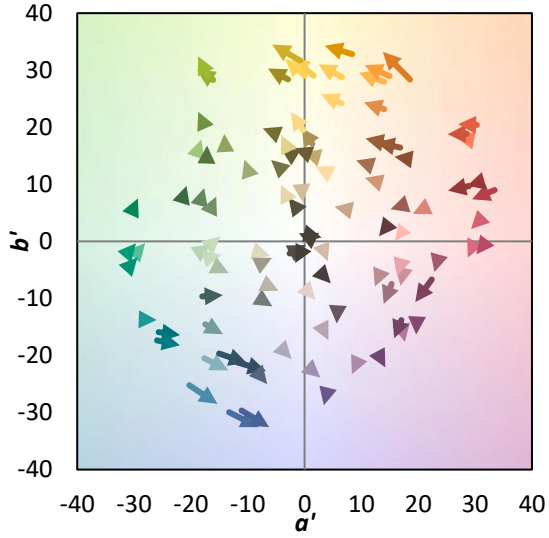


Color Vector Graphics







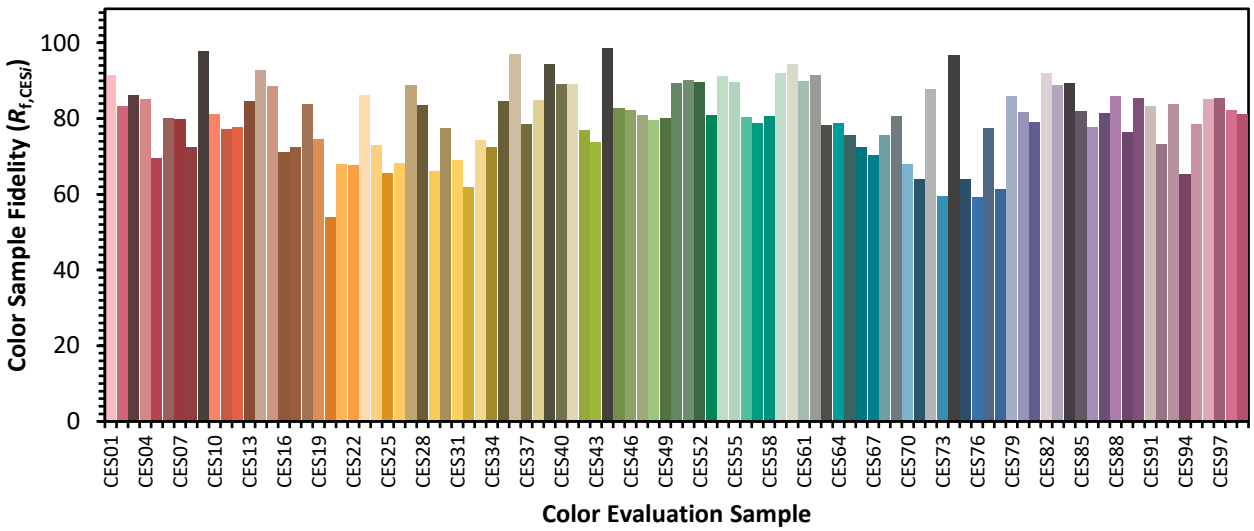


REPORT NUMBER: SP1-2506-472-3

TM-30-18

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

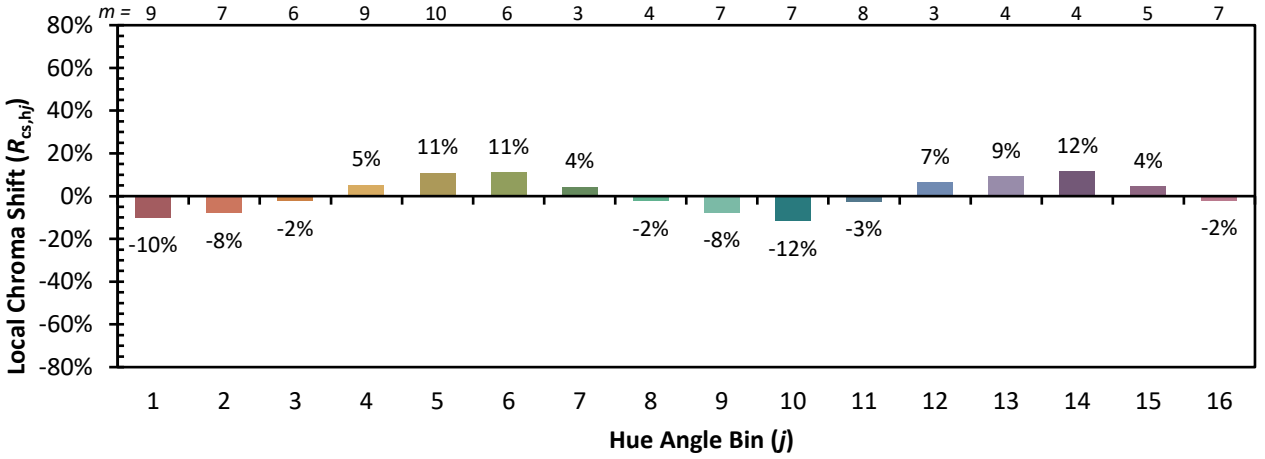
CES01 = 86	CES26 = 68	CES51 = 90	CES76 = 59
CES02 = 62	CES27 = 89	CES52 = 90	CES77 = 78
CES03 = 31	CES28 = 84	CES53 = 81	CES78 = 61
CES04 = 70	CES29 = 66	CES54 = 91	CES79 = 86
CES05 = 49	CES30 = 77	CES55 = 90	CES80 = 82
CES06 = 51	CES31 = 69	CES56 = 80	CES81 = 79
CES07 = 42	CES32 = 62	CES57 = 79	CES82 = 92
CES08 = 41	CES33 = 74	CES58 = 81	CES83 = 89
CES09 = 29	CES34 = 72	CES59 = 92	CES84 = 89
CES10 = 75	CES35 = 85	CES60 = 94	CES85 = 82
CES11 = 58	CES36 = 97	CES61 = 90	CES86 = 78
CES12 = 64	CES37 = 79	CES62 = 92	CES87 = 82
CES13 = 43	CES38 = 85	CES63 = 78	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 79	CES89 = 76
CES15 = 71	CES40 = 89	CES65 = 76	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 73	CES91 = 83
CES17 = 49	CES42 = 77	CES67 = 70	CES92 = 73
CES18 = 56	CES43 = 74	CES68 = 76	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 81	CES94 = 65
CES20 = 66	CES45 = 83	CES70 = 68	CES95 = 79
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 85
CES22 = 78	CES47 = 81	CES72 = 88	CES97 = 85
CES23 = 92	CES48 = 80	CES73 = 60	CES98 = 82
CES24 = 91	CES49 = 80	CES74 = 97	CES99 = 81
CES25 = 72	CES50 = 89	CES75 = 64	

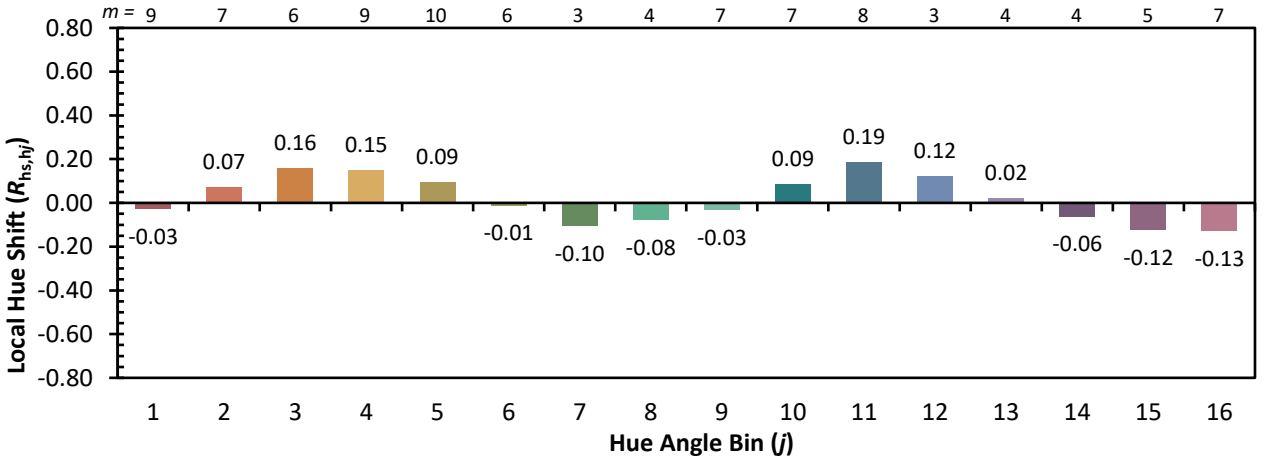


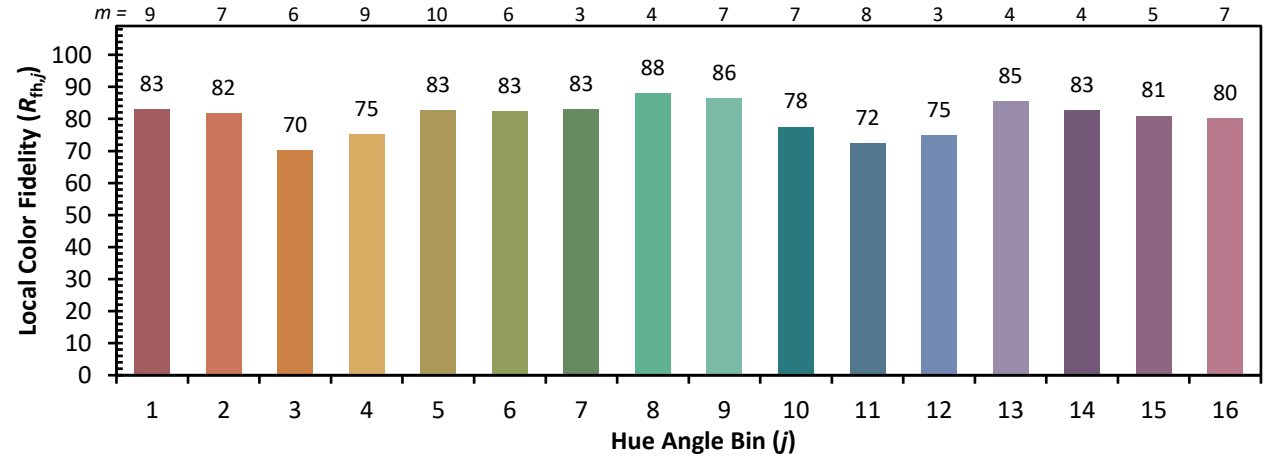
REPORT NUMBER: SP1-2506-472-3

TM-30-18

Color Rendition by Hue-Angle Bin



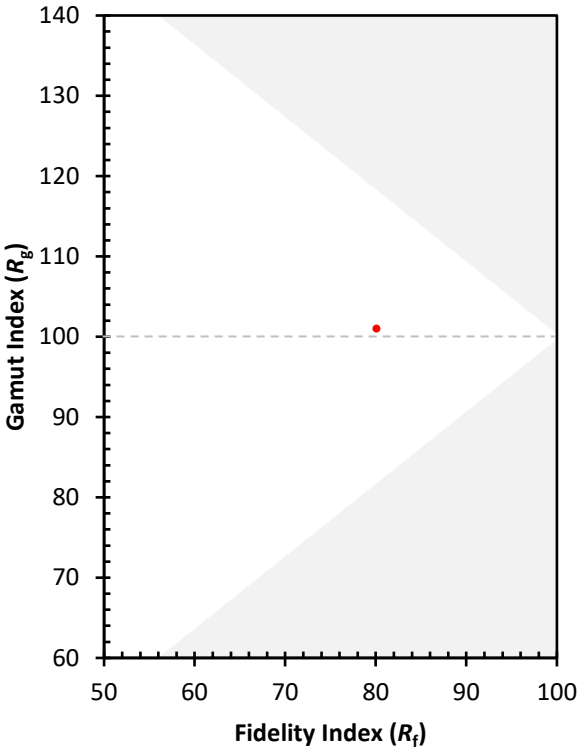


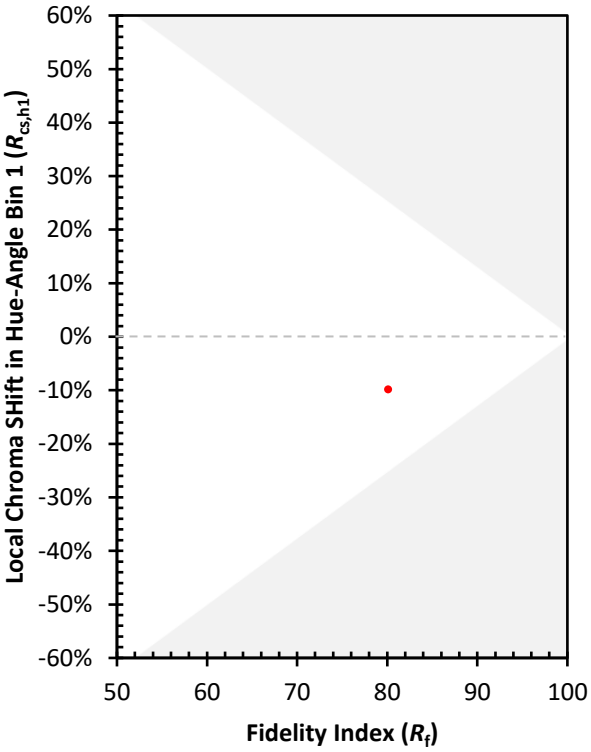


REPORT NUMBER: SP1-2506-472-3

TM-30-18

Measure Comparisons





(END OF REPORT)