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: P1433420

Luminaire Tested: EHBR1-12-UNV-ASM-L935-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:	P1433420
	REPORT IS A COMBINATION OF REPORTS P1431645 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-12-UNV-ASM-L935-UPL15
Description:	Elevate Round Highbay at, 12000 lumens, 3500K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	12491.9 lumens
Efficiency:	N/A
Efficacy:	168.8 lumens/watt
Spacing Criteria (0/90/45):	0.84 / 0.99 / 0.92
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	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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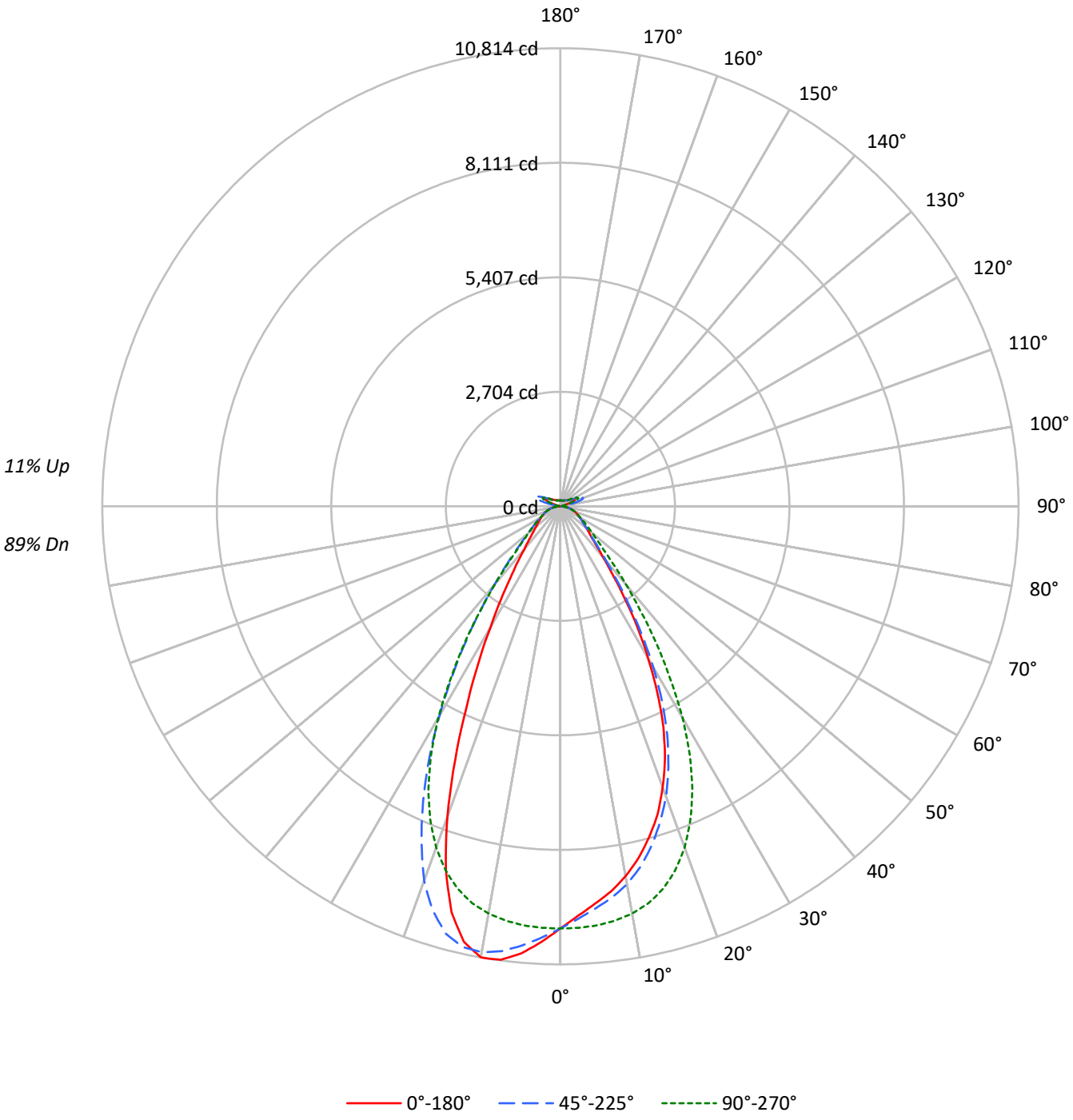
Scaled Data Report

TEST NUMBER: P1433420
CATALOG NUMBER: EHBR1-12-UNV-ASM-L935-UPL15

Luminous Intensity Polar Plot



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TEST NUMBER: P1433420
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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	92	92	92	89
1	109	106	103	100	106	102	100	97	96	94	92	91	89	87	86	84	83	80
2	102	96	91	87	99	93	89	85	88	85	82	84	81	78	79	77	75	73
3	96	88	82	77	93	86	80	76	81	77	73	77	74	71	74	71	68	66
4	90	81	74	69	87	79	73	68	75	70	66	72	68	64	69	65	62	60
5	84	75	68	63	82	73	67	62	70	64	60	67	62	59	64	60	57	55
6	79	69	62	57	77	68	61	57	65	59	55	62	58	54	60	56	53	51
7	75	64	57	53	73	63	57	52	61	55	51	59	54	50	56	52	49	47
8	71	60	53	49	69	59	53	48	57	51	47	55	50	46	53	49	46	44
9	67	56	50	45	65	55	49	45	53	48	44	52	47	43	50	46	43	41
10	64	53	46	42	62	52	46	42	50	45	41	49	44	41	47	43	40	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	46800	46800	46800	46800	46800
5°	44102	44617	46516	48747	49624
10°	41739	42623	45944	50312	50898
15°	38555	39585	44587	49795	47300
20°	34342	35499	41700	45772	37928
25°	28780	29869	36908	38392	26279
30°	21533	22781	29968	29669	17096
35°	14335	15201	21494	21147	11072
40°	9041	9662	13897	13986	7631
45°	6441	6709	8817	9196	5912
50°	5366	5408	6547	6719	5023
55°	4737	4747	5346	5488	4576
60°	4385	4348	4629	4727	4359
65°	4186	4148	4220	4303	4204
70°	4065	3996	3999	4075	4119
75°	3865	3748	3741	3873	3985
80°	3517	3271	3285	3517	3762
85°	2560	2127	2127	2432	2688

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 12396 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	947.6	7.6
10°-20°	2578.0	20.6
20°-30°	3023.5	24.2
30°-40°	2102.6	16.8
40°-50°	1044.9	8.4
50°-60°	625.0	5.0
60°-70°	439.9	3.5
70°-80°	283.4	2.3
80°-90°	92.4	0.7
90°-100°	36.0	0.3
100°-110°	235.7	1.9
110°-120°	435.5	3.5
120°-130°	258.8	2.1
130°-140°	156.4	1.3
140°-150°	108.1	0.9
150°-160°	70.4	0.6
160°-170°	40.4	0.3
170°-180°	13.4	0.1
0°-30°	6549.1	52.4
0°-40°	8651.7	69.3
0°-60°	10321.6	82.6
0°-90°	11137.2	89.2
90°-120°	707.2	5.7
90°-150°	1230.5	9.9
90°-180°	1355.0	10.8
0°-180°	12491.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9966	9966	9966	9966	9966	
5°	9416	9526	9932	10408	10596	883
15°	8089	8305	9354	10447	9923	2256
25°	5747	5965	7370	7667	5248	2593
35°	2631	2790	3945	3881	2032	1676
45°	1042	1086	1427	1488	956	842
55°	640	642	722	742	618	581
65°	437	433	440	449	439	434
75°	272	264	264	273	281	287
85°	88	73	73	84	92	91
90°	10	27	10	29	11	9
95°	17	61	19	52	18	16
105°	82	412	108	439	55	110
115°	376	487	464	539	396	347
125°	272	261	297	289	311	248
135°	198	200	187	209	216	155
145°	165	172	169	174	177	104
155°	146	151	150	150	157	68
165°	139	142	141	141	146	40
175°	138	140	141	140	143	13
180°	140	140	140	140	140	

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Scaled Data Report

TEST NUMBER: P1433420
CATALOG NUMBER: EHBR1-12-UNV-ASM-L935-UPL15

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	9965.8	9965.8	9965.8	9965.8	9965.8	9965.8	9965.8	9965.8	*9965.8*
2.5°	9670.0	9676.3	9744.0	9832.0	9960.0	10088.8	10193.0	10261.8	*10295.8*
5°	9416.4	9451.6	9526.5	9688.1	9931.8	10189.7	10408.2	10551.1	*10595.5*
7.5°	9169.3	9189.7	9315.2	9519.4	9864.4	10266.2	10590.7	10757.6	*10798.4*
10°	*8868.0*	*8914.1*	*9055.8*	*9296.7*	*9761.4*	*10314.4*	*10689.4*	*10809.0*	*10813.9*
12.5°	8513.2	8574.3	8720.7	9024.5	9597.1	10297.2	10656.4	10617.1	*10527.9*
15°	8088.7	8142.3	8304.7	8657.2	9354.2	10195.3	10446.8	10127.5	*9923.2*
17.5°	7630.1	7678.7	7819.8	8207.9	9011.8	10004.7	10009.6	9377.7	*8992.4*
20°	7058.2	7096.4	7296.0	7676.8	8570.6	9699.0	9407.4	8251.9	*7795.3*
22.5°	6449.8	6485.5	6662.8	7059.2	8017.5	9286.7	8569.0	7119.2	*6496.3*
25°	5747.3	5766.8	5964.8	6323.3	7370.5	8781.6	7666.9	5885.1	*5247.8*
27.5°	4957.1	4990.1	5197.3	5563.4	6609.6	8141.4	6706.4	4809.1	*4221.1*
30°	4141.9	4196.7	4382.0	4709.8	5764.3	7320.6	5706.8	3829.8	*3288.4*
32.5°	3381.2	3420.6	3552.6	3895.2	4818.0	6516.2	4746.8	3068.7	*2610.0*
35°	2631.0	2670.4	2789.9	3126.2	3944.9	5509.7	3881.2	2411.2	*2032.1*
37.5°	2011.1	2080.8	2157.4	2430.5	3095.9	4558.7	3093.9	1941.6	*1648.3*
40°	1567.0	1578.2	1674.6	1849.3	2408.7	3564.4	2424.2	1549.9	*1322.7*
42.5°	1254.3	1284.7	1326.2	1457.1	1825.0	2725.6	1905.4	1272.0	*1123.5*
45°	1042.2	1054.2	1085.5	1173.4	1426.6	2005.7	1487.9	1073.2	*956.5*
47.5°	911.8	906.5	926.7	992.5	1161.8	1550.1	1205.9	920.6	*838.7*
50°	799.7	796.5	806.0	849.9	975.8	1189.5	1001.3	803.6	*748.6*
52.5°	712.6	715.4	716.3	743.6	838.4	970.0	852.7	716.1	*679.1*
55°	640.1	643.6	641.5	661.7	722.4	815.5	741.6	643.9	*618.4*
57.5°	583.4	580.8	578.0	588.8	634.4	691.8	643.9	582.5	*565.5*
60°	527.2	524.8	522.7	529.7	556.5	599.1	568.3	528.8	*524.0*
62.5°	479.0	477.5	477.3	476.0	496.5	523.4	502.5	480.6	*476.4*
65°	436.9	435.2	433.0	431.0	440.5	465.5	449.1	437.3	*438.8*
67.5°	394.9	394.9	390.9	387.7	397.2	410.2	403.0	396.3	*398.1*
70°	356.7	356.9	350.6	348.1	350.9	365.0	357.6	358.6	*361.4*
72.5°	315.9	311.3	306.7	306.4	306.9	317.7	315.2	317.5	*320.5*
75°	272.3	267.0	264.0	260.7	263.5	271.7	272.8	276.0	*280.7*
77.5°	230.2	222.2	219.8	218.1	216.3	225.6	229.1	233.4	*240.4*
80°	185.0	176.2	172.1	169.7	172.8	177.2	185.0	188.2	*197.9*
82.5°	136.8	130.2	125.2	125.0	126.5	130.4	137.1	143.1	*148.7*
85°	88.0	77.6	73.1	74.8	73.1	79.0	83.6	90.6	*92.4*
87.5°	31.8	24.8	23.7	26.2	25.6	27.5	31.4	34.2	*34.3*
90°	9.9	16.0	27.2	17.4	9.9	16.9	29.0	16.0	*11.1*
92.5°	14.4	24.2	43.6	22.7	13.0	22.8	41.0	21.3	*15.0*
95°	16.7	27.9	60.9	30.2	19.1	28.1	52.2	23.6	*17.9*
97.5°	21.3	30.9	69.9	36.9	29.5	34.8	59.0	25.1	*21.7*
100°	28.1	36.2	108.9	45.3	39.3	39.3	107.7	28.8	*24.7*
102.5°	47.6	76.6	230.9	85.0	59.5	76.9	249.4	57.5	*29.9*
105°	82.0	161.2	411.5	177.9	108.2	175.8	439.0	148.1	*54.9*
107.5°	141.9	288.6	542.8	315.0	204.9	327.9	565.6	291.9	*127.6*
110°	264.8	383.0	569.0	432.6	327.7	458.3	617.3	399.9	*257.9*

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Scaled Data Report

TEST NUMBER: P1433420
CATALOG NUMBER: EHBR1-12-UNV-ASM-L935-UPL15

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	357.7	411.5	545.0	477.5	426.6	510.7	603.1	443.3	*356.8*
115°	376.5	395.7	486.6	466.3	463.5	503.3	538.6	441.7	*395.8*
117.5°	363.7	361.3	413.2	419.4	447.8	460.5	465.2	414.8	*398.1*
120°	336.7	321.6	344.9	366.2	404.3	399.1	392.0	375.1	*375.6*
122.5°	303.0	285.0	295.7	311.6	349.8	338.6	331.3	334.8	*344.9*
125°	271.7	253.6	260.7	264.6	296.6	285.4	288.8	300.4	*310.6*
127.5°	244.0	231.8	236.0	231.7	251.9	246.6	258.0	271.2	*279.9*
130°	225.3	214.8	220.4	210.1	219.9	221.1	236.4	247.4	*252.9*
132.5°	209.7	203.0	209.5	196.9	199.8	205.6	220.1	229.7	*232.8*
135°	198.5	192.7	199.8	188.2	187.2	195.9	209.0	215.3	*216.3*
137.5°	189.0	183.9	191.2	182.4	180.0	188.6	198.5	203.5	*202.1*
140°	180.4	176.0	184.0	177.2	175.7	184.3	188.8	194.4	*193.3*
142.5°	171.0	168.0	177.4	172.9	171.4	179.3	181.5	185.6	*184.3*
145°	164.7	162.4	172.3	169.9	169.3	175.1	173.5	178.9	*177.0*
147.5°	159.1	157.5	166.5	165.6	165.6	169.9	167.7	172.3	*170.5*
150°	154.2	152.6	161.4	160.5	161.2	164.2	161.1	166.5	*166.1*
152.5°	149.3	147.6	155.6	154.7	155.4	158.4	155.4	161.6	*161.1*
155°	145.9	144.2	150.7	150.4	150.5	152.1	150.5	156.8	*157.0*
157.5°	143.4	142.3	147.4	147.2	147.2	148.1	147.4	152.8	*153.0*
160°	141.6	140.6	144.9	144.7	144.2	145.6	145.1	149.8	*150.1*
162.5°	139.8	138.8	143.7	143.0	143.0	143.0	142.7	147.5	*147.8*
165°	138.6	138.4	142.0	142.0	141.4	142.2	141.0	144.4	*145.5*
167.5°	138.6	137.9	141.6	141.6	141.0	140.3	140.7	143.5	*144.6*
170°	138.2	138.0	141.0	140.5	139.8	139.9	139.5	142.3	*143.4*
172.5°	138.6	138.4	141.6	140.8	140.3	140.3	139.3	141.4	*143.3*
175°	138.2	138.0	140.5	140.5	140.7	140.0	139.7	141.0	*142.9*
177.5°	139.1	138.9	140.5	140.5	139.8	140.2	140.6	142.0	*144.6*
180°	140.2	140.2	140.2	140.2	140.2	140.2	140.2	140.2	*140.2*

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Scaled Data Report

TEST NUMBER: P1433420
CATALOG NUMBER: EHBR1-12-UNV-ASM-L935-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	12.99	14.04	13.54	14.57	15.15	13.76	14.81	14.31	15.33	15.92
	3H	14.80	15.74	15.37	16.28	16.90	15.31	16.25	15.88	16.79	17.41
	4H	15.54	16.41	16.12	16.97	17.61	15.96	16.83	16.54	17.39	18.03
	6H	16.10	16.91	16.70	17.48	18.13	16.45	17.25	17.05	17.83	18.48
	8H	16.29	17.05	16.90	17.64	18.29	16.61	17.37	17.22	17.96	18.61
	12H	16.38	17.11	17.00	17.69	18.37	16.68	17.41	17.30	17.99	18.67
4H	2H	13.50	14.38	14.09	14.93	15.57	14.13	15.00	14.72	15.56	16.20
	3H	15.54	16.26	16.13	16.86	17.52	15.94	16.66	16.53	17.26	17.92
	4H	16.40	17.05	17.01	17.66	18.35	16.72	17.37	17.33	17.98	18.67
	6H	17.09	17.65	17.73	18.29	19.00	17.35	17.91	17.99	18.55	19.26
	8H	17.32	17.84	17.96	18.47	19.19	17.56	18.08	18.20	18.71	19.43
	12H	17.45	17.91	18.11	18.58	19.29	17.67	18.13	18.33	18.80	19.51
8H	4H	16.66	17.18	17.30	17.81	18.53	16.96	17.48	17.60	18.12	18.83
	6H	17.47	17.90	18.15	18.58	19.30	17.72	18.15	18.40	18.83	19.55
	8H	17.78	18.15	18.47	18.84	19.57	18.01	18.39	18.70	19.07	19.81
	12H	17.98	18.31	18.66	18.98	19.78	18.19	18.52	18.87	19.19	19.99
12H	4H	16.66	17.13	17.32	17.79	18.50	16.97	17.43	17.63	18.09	18.81
	6H	17.51	17.89	18.20	18.58	19.31	17.77	18.15	18.46	18.83	19.57
	8H	17.86	18.19	18.54	18.86	19.66	18.10	18.43	18.78	19.10	19.90

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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: SP1-2506-472-6

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L935-N

Data in this report applies to families of products including EHBR-60-L935-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

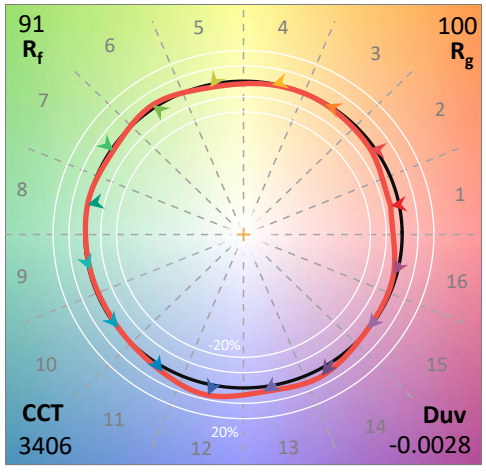
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-6
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-L935-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	3406
CIE u':	0.2394
CIE v':	0.5094
Duv:	-0.0028
CIE x:	0.4076
CIE y:	0.3856
CIE z:	0.2068
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	582
Purity:	38.0517
Rf:	91.3
Rg:	100

CRI (Ra):	94.6				
R1:	96.6	R9:	63.8		
R2:	98.4	R10:	94.7		
R3:	98.1	R11:	96.6		
R4:	95.8	R12:	80.9		
R5:	96.2	R13:	97.4		
R6:	95.4	R14:	98.3		
R7:	91.8	R15:	93.1		
R8:	84.4				



Test Conditions

Stabilization Time:	35M
Operation Time:	1H 35M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-6

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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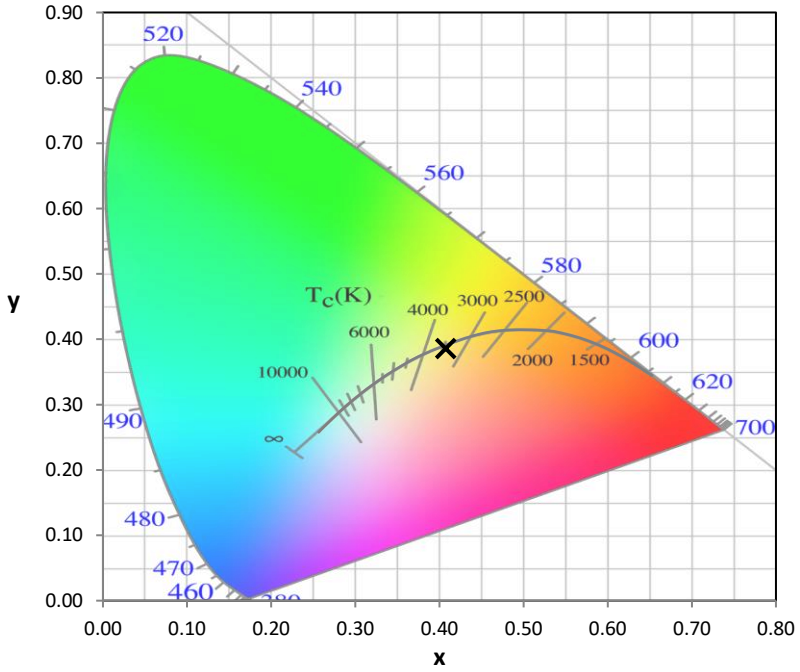
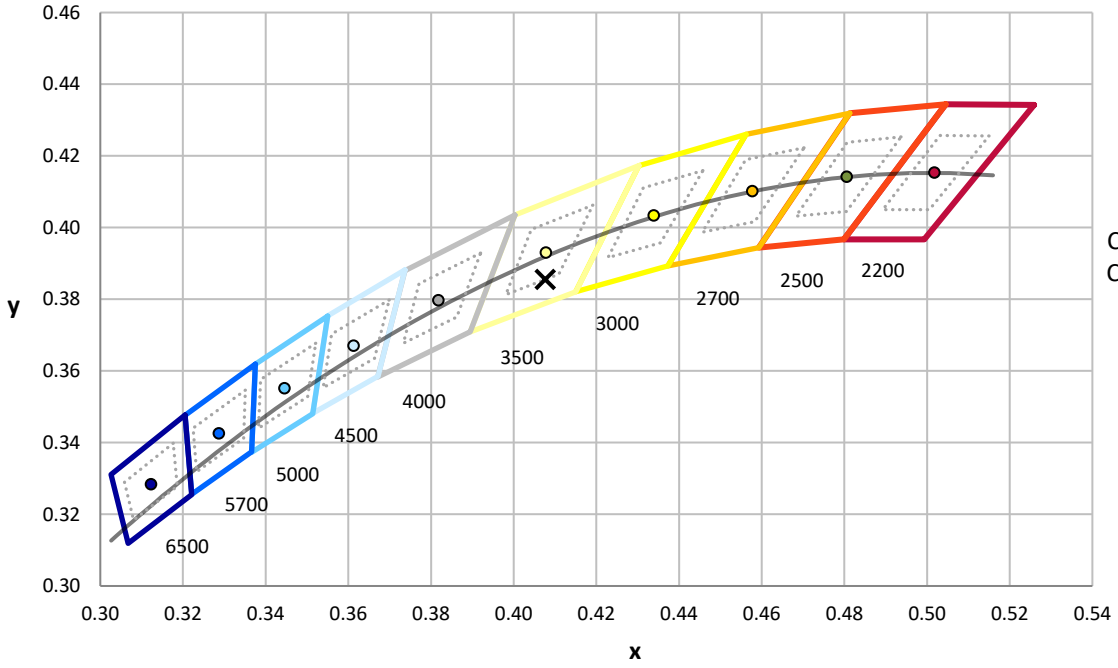
CIE 1931 Chromaticity Diagram



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



CCT = 3406K
CIE x = 0.4076
CIE y = 0.3856
Duv = -0.0028

Point lies inside the ANSI 3500K 4-step quadrangle

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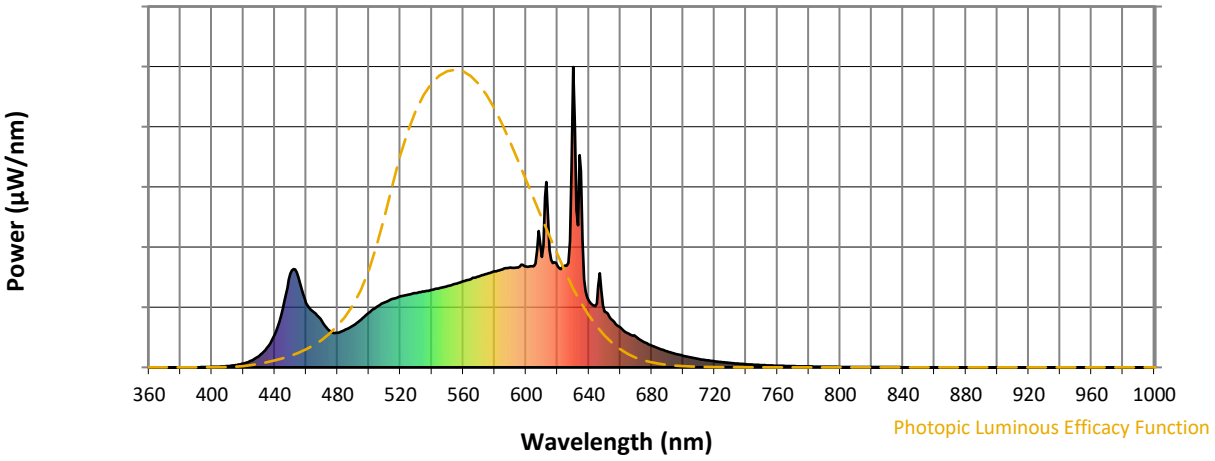
Photopic Flux vs. Wavelength



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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

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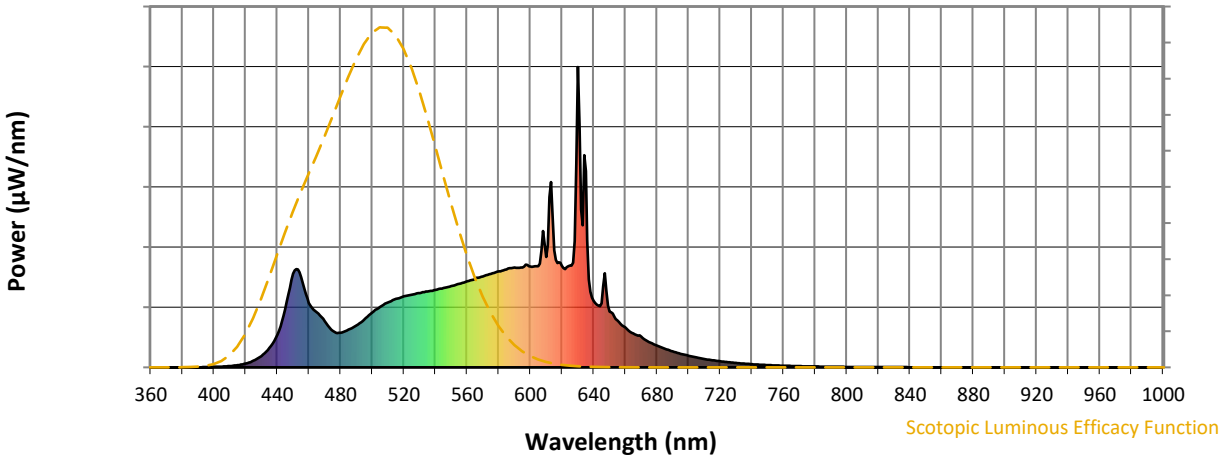
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.62**

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

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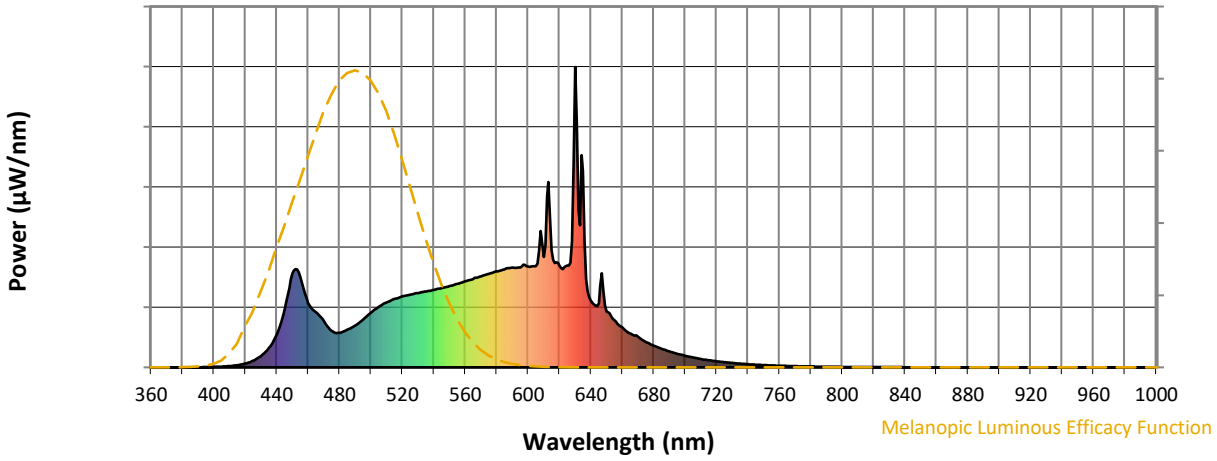
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.3**

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

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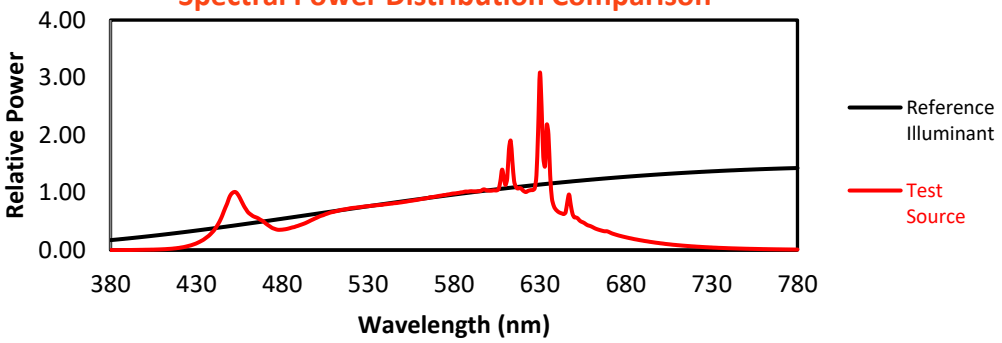
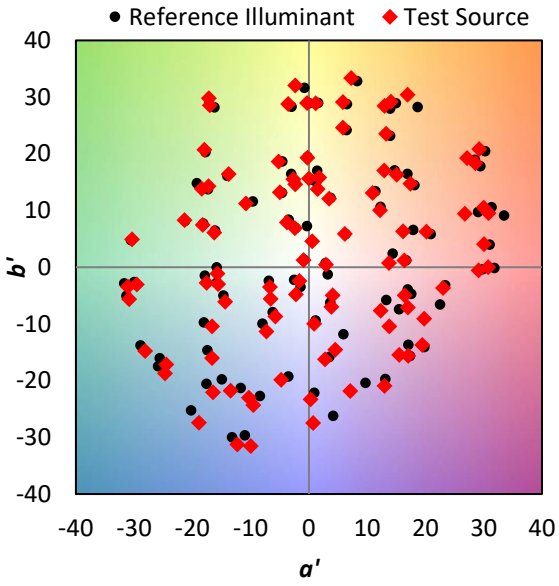
Summary

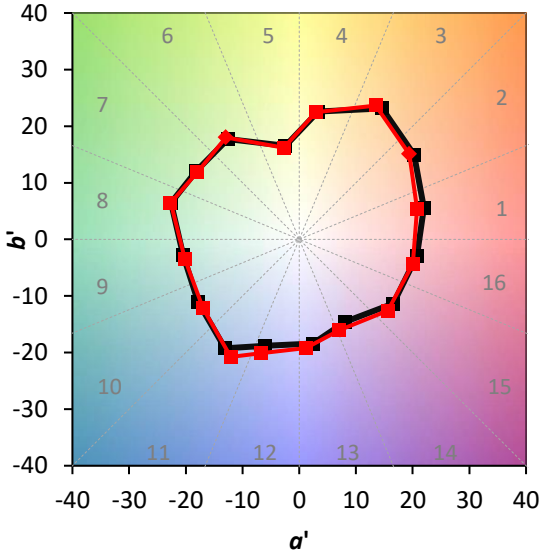
R_f = 91.3
R_g = 100
CIE R_a = 94.6
R_9 = 63.8

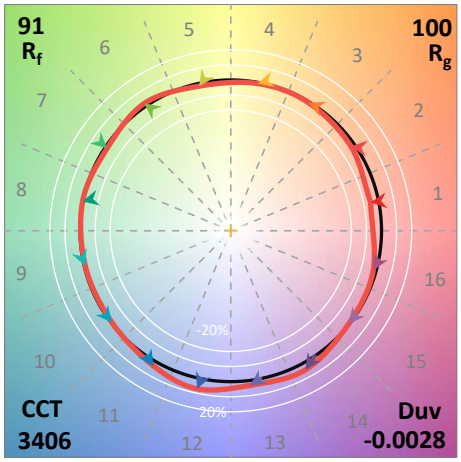
Spectral Power Distribution Comparison

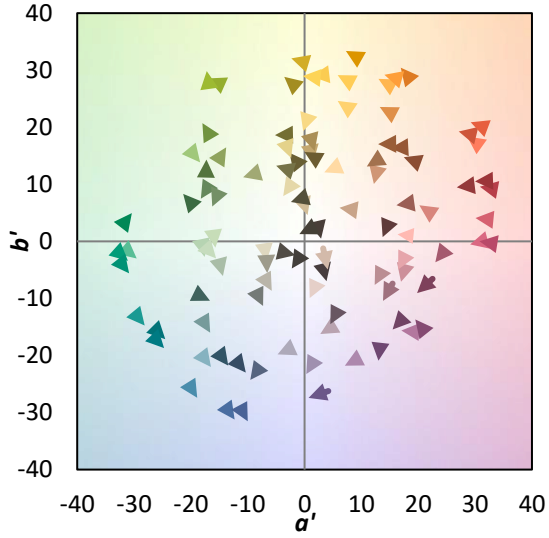


Color Vector Graphics









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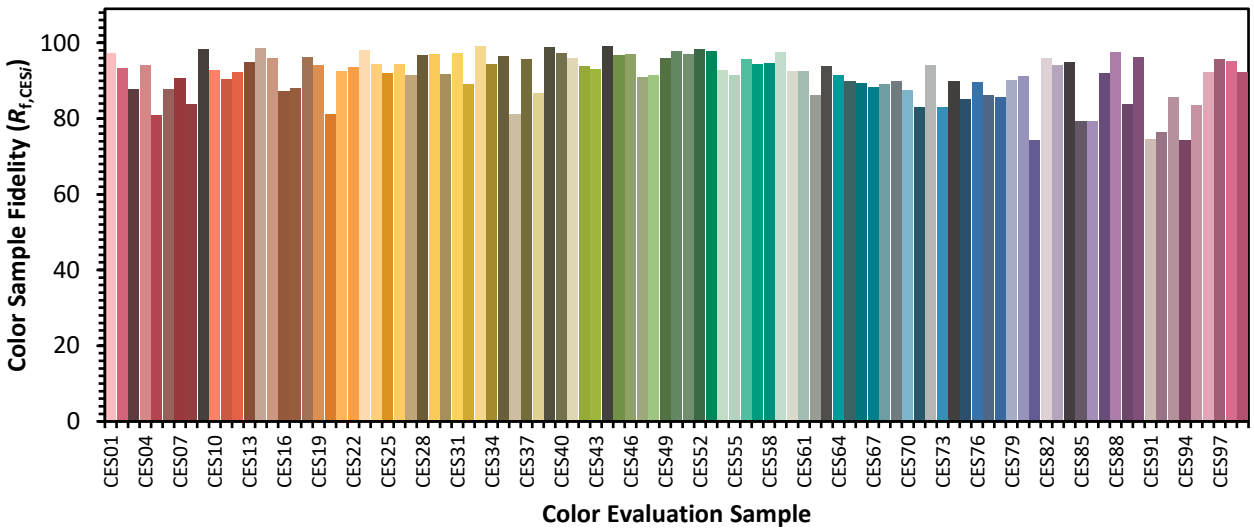
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 90
CES02 = 63	CES27 = 92	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 98	CES78 = 86
CES04 = 70	CES29 = 97	CES54 = 93	CES79 = 90
CES05 = 50	CES30 = 92	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 97	CES56 = 96	CES81 = 74
CES07 = 43	CES32 = 89	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 95	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 98	CES84 = 95
CES10 = 75	CES35 = 97	CES60 = 92	CES85 = 79
CES11 = 58	CES36 = 81	CES61 = 93	CES86 = 79
CES12 = 64	CES37 = 96	CES62 = 86	CES87 = 92
CES13 = 44	CES38 = 87	CES63 = 94	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 91	CES89 = 84
CES15 = 72	CES40 = 97	CES65 = 90	CES90 = 96
CES16 = 48	CES41 = 96	CES66 = 89	CES91 = 75
CES17 = 49	CES42 = 94	CES67 = 88	CES92 = 76
CES18 = 56	CES43 = 93	CES68 = 89	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 90	CES94 = 74
CES20 = 67	CES45 = 97	CES70 = 88	CES95 = 83
CES21 = 86	CES46 = 97	CES71 = 83	CES96 = 92
CES22 = 78	CES47 = 91	CES72 = 94	CES97 = 96
CES23 = 91	CES48 = 91	CES73 = 83	CES98 = 95
CES24 = 90	CES49 = 96	CES74 = 90	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 85	



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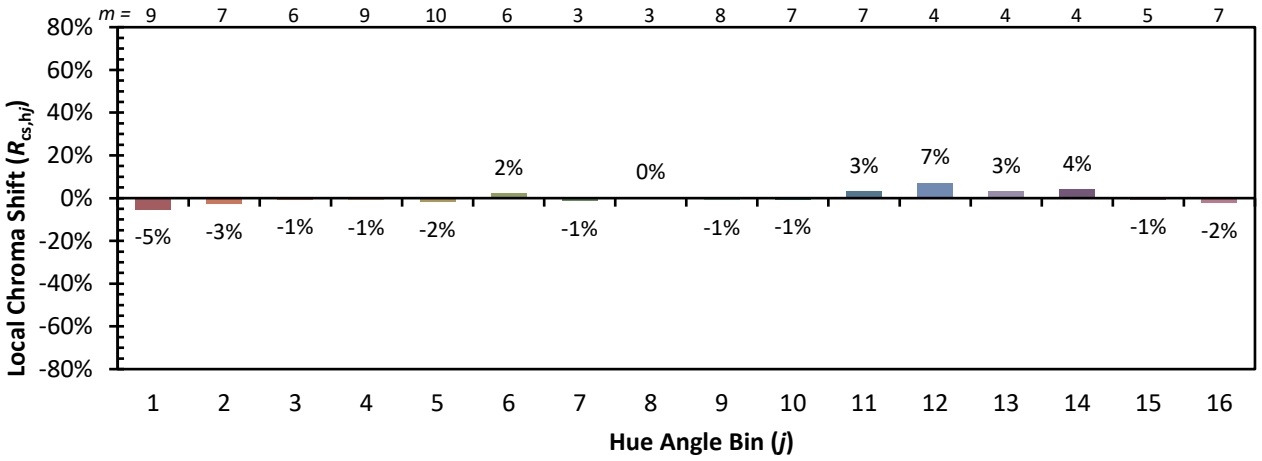
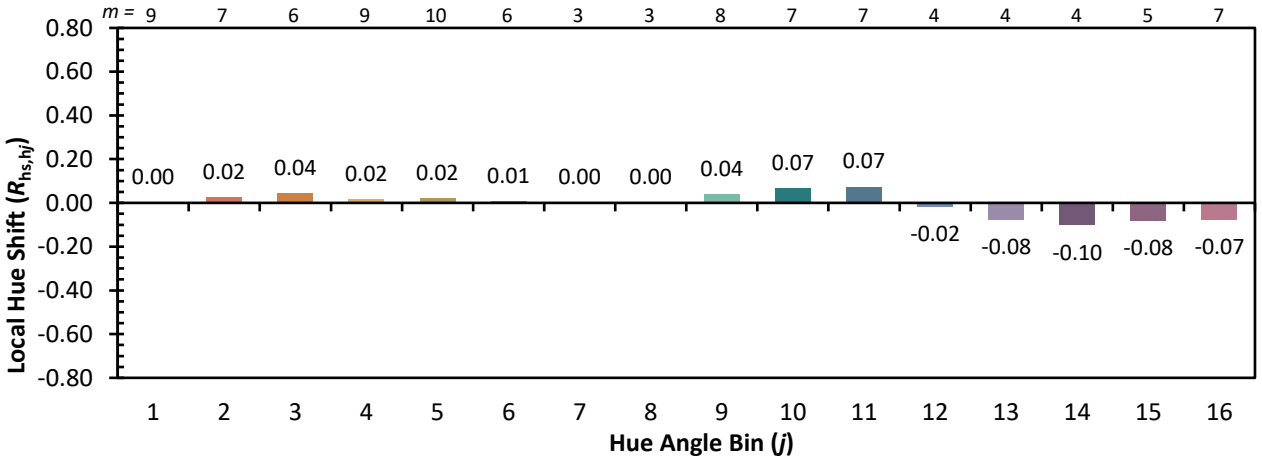
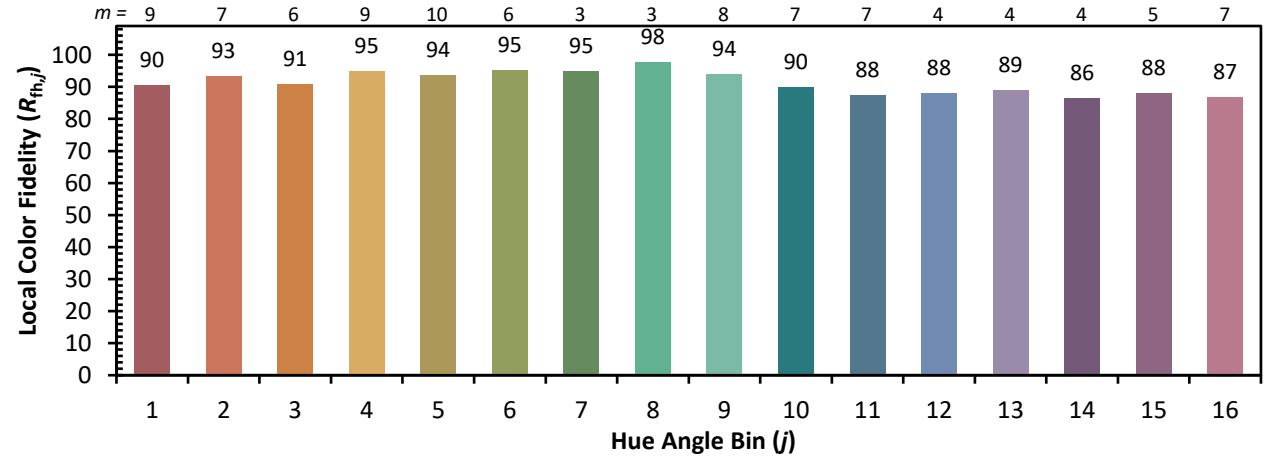
Color Rendition by Hue-Angle Bin







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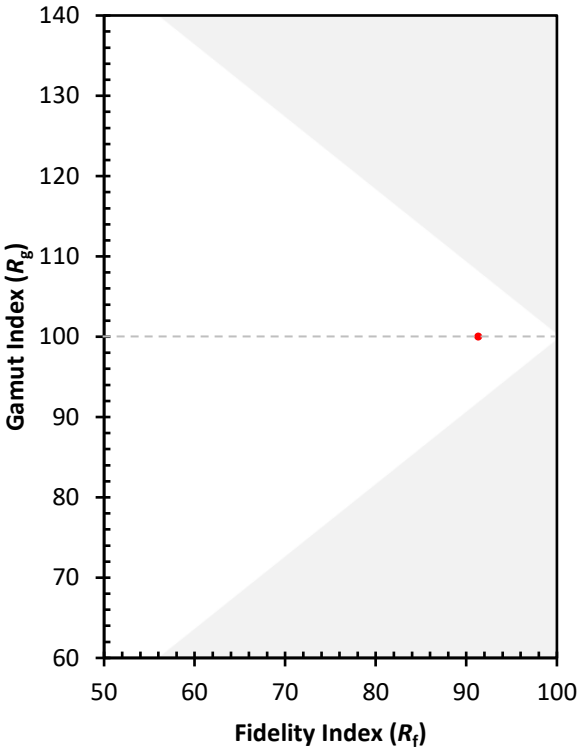
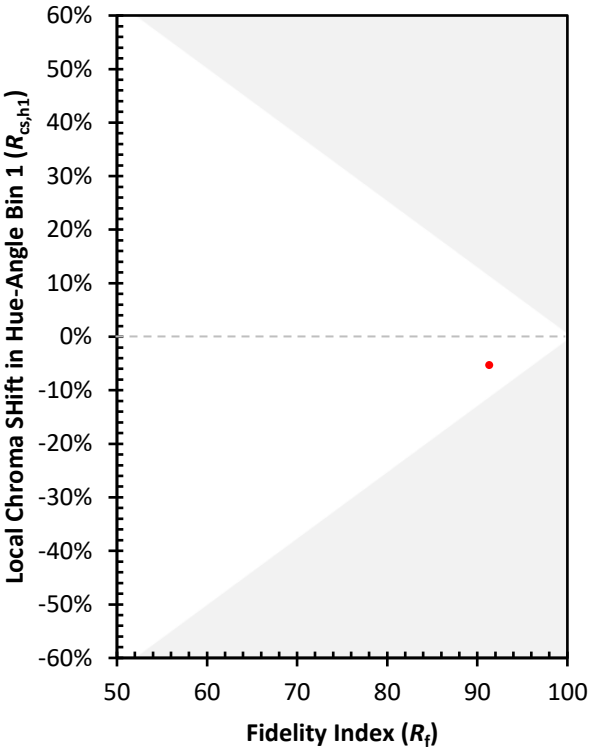
Measure Comparisons





(END OF REPORT)