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: P1433539

Luminaire Tested: EHBR1-36-UNV-A1-L935-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:	P1433539
	REPORT IS A COMBINATION OF REPORTS P1431764 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-36-UNV-A1-L935-UPL12
Description:	Elevate Round Highbay at, 36000 lumens, 3500K 90CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	33726.4 lumens
Efficiency:	N/A
Efficacy:	169.6 lumens/watt
Spacing Criteria (0/90/45):	0.8 / 1.07 / 0.95
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	198.8
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: P1433539
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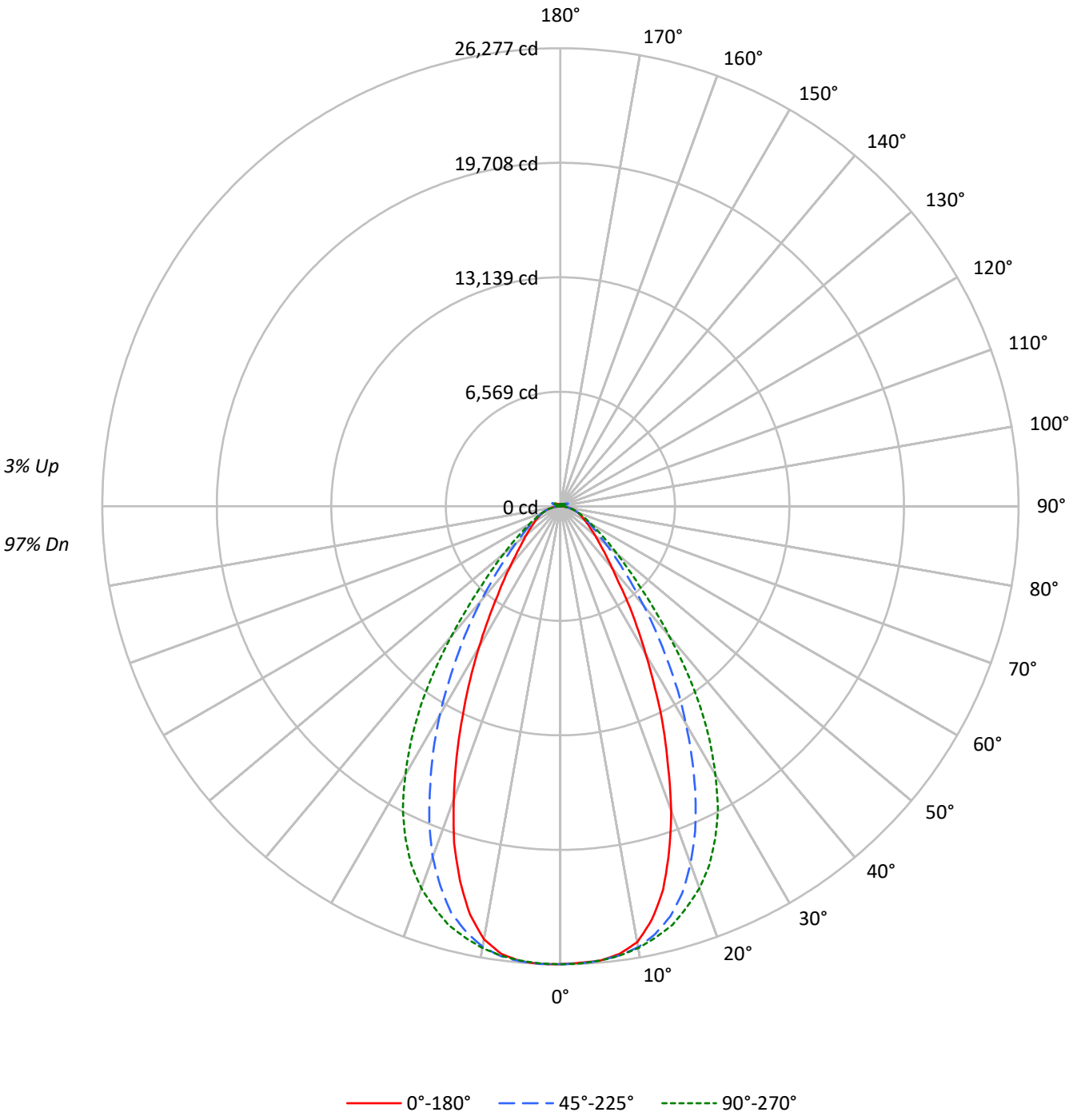
Luminous Intensity Polar Plot



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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	109	109	109	104	104	104	99	99	99	97
1	111	107	104	101	108	105	102	99	100	98	96	96	94	92	92	90	89	87
2	104	97	92	88	101	95	91	87	91	88	84	88	85	82	85	82	80	78
3	97	89	83	78	94	87	81	77	84	79	75	81	77	73	78	75	72	70
4	91	81	74	69	88	80	74	69	77	72	67	75	70	66	72	68	65	63
5	85	75	68	63	83	74	67	62	71	66	61	69	64	60	67	63	59	58
6	80	69	62	57	78	68	61	57	66	60	56	64	59	55	63	58	55	53
7	75	64	57	52	73	63	57	52	62	56	51	60	55	51	59	54	50	49
8	71	60	53	48	69	59	52	48	58	52	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	47	44	52	47	43	42
10	64	52	46	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	123347	123347	123347	123347	123347
5°	122532	122514	122519	122736	122660
10°	119503	120896	121088	120746	118721
15°	108489	116060	118448	115129	105998
20°	90406	106180	113434	104180	86887
25°	69917	91809	105230	88456	66294
30°	50964	74768	92437	71931	48372
35°	36736	57628	75969	55146	34338
40°	26430	42563	55985	40766	25614
45°	20826	31139	39102	29789	20105
50°	17279	23395	28301	22624	17017
55°	15090	18473	21433	18164	14887
60°	13610	15421	17078	15326	13705
65°	12729	13604	14352	13646	12850
70°	12089	12377	12759	12445	12207
75°	11277	11206	11277	11239	11386
80°	10185	9453	9244	9599	10185
85°	7059	5985	5924	6084	7268

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 40968 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2480.4	7.4
10°-20°	6666.5	19.8
20°-30°	8106.4	24.0
30°-40°	6603.2	19.6
40°-50°	3964.6	11.8
50°-60°	2281.6	6.8
60°-70°	1427.9	4.2
70°-80°	841.0	2.5
80°-90°	247.9	0.7
90°-100°	28.9	0.1
100°-110°	191.2	0.6
110°-120°	353.5	1.0
120°-130°	210.0	0.6
130°-140°	127.8	0.4
140°-150°	89.8	0.3
150°-160°	59.4	0.2
160°-170°	34.6	0.1
170°-180°	11.7	0.0
0°-30°	17253.2	51.2
0°-40°	23856.5	70.7
0°-60°	30102.7	89.3
0°-90°	32619.5	96.7
90°-120°	573.6	1.7
90°-150°	1001.2	3.0
90°-180°	1107.0	3.3
0°-180°	33726.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	26266	26266	26266	26266	26266	
5°	26162	26159	26160	26206	26190	2473
15°	22760	24349	24850	24153	22238	6262
25°	13962	18334	21014	17665	13239	6361
35°	6742	10577	13943	10121	6302	4266
45°	3370	5038	6326	4820	3253	2658
55°	2039	2496	2896	2455	2012	1843
65°	1329	1420	1498	1424	1341	1321
75°	794	789	794	792	802	841
85°	243	206	204	209	250	259
90°	9	22	8	23	8	16
95°	14	49	15	42	14	14
105°	67	334	88	356	44	90
115°	307	395	376	437	321	283
125°	222	211	240	234	252	202
135°	163	164	153	171	177	128
145°	137	143	140	144	147	87
155°	124	126	125	127	134	58
165°	121	122	120	121	126	34
175°	124	123	121	122	126	12
180°	123	123	123	123	123	

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Scaled Data Report

TEST NUMBER: P1433539
CATALOG NUMBER: EHBR1-36-UNV-A1-L935-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	26265.9	26265.9	26265.9	26265.9	26265.9	26265.9	*26265.9*	26265.9	26265.9
2.5°	*26208.2*	*26231.8*	*26241.7*	*26247.2*	*26253.3*	*26269.8*	*26277.0*	*26265.4*	*26275.2*
5°	26162.5	26164.1	26158.6	26183.4	26159.8	26176.3	*26206.0*	26194.4	26189.9
7.5°	25896.2	25951.2	25983.7	25991.9	25996.4	26016.7	*26037.6*	25919.3	25901.7
10°	25390.1	25482.0	25686.0	25744.4	25726.8	25759.8	*25654.1*	25345.0	25224.0
12.5°	24280.5	24603.4	25133.7	25369.7	25326.8	25356.0	*24996.2*	24343.8	23968.5
15°	22760.5	23234.1	24348.7	24814.1	24849.8	24814.1	*24153.4*	22882.0	22237.9
17.5°	20739.8	21614.6	23255.6	24159.0	24107.2	24124.2	*22870.0*	20990.7	20253.6
20°	18581.1	19513.6	21823.1	23329.8	23313.9	23218.2	*21412.1*	18933.8	17857.7
22.5°	16139.7	17342.3	20181.5	22310.5	22304.4	22144.9	*19636.8*	16687.6	15529.1
25°	13962.3	15141.8	18334.1	21061.7	21014.3	20832.8	*17664.6*	14446.9	13238.9
27.5°	11711.1	12937.4	16362.0	19598.4	19565.9	19367.8	*15779.4*	12352.6	11202.8
30°	9802.8	10923.9	14381.5	17988.1	17780.2	17757.6	*13835.8*	10413.4	9304.3
32.5°	8167.8	9128.8	12514.3	16304.2	15936.1	16041.2	*11898.8*	8791.6	7692.5
35°	6742.4	7589.1	10576.8	14356.7	13943.0	14078.9	*10121.3*	7213.8	6302.3
37.5°	5472.1	6286.3	8934.6	12462.6	11830.0	12086.4	*8557.8*	6024.5	5293.9
40°	4581.0	5226.8	7377.3	10384.3	9703.7	10121.3	*7065.8*	5024.9	4439.6
42.5°	3947.2	4368.6	6088.8	8400.0	7877.8	8173.8	*5823.6*	4200.7	3762.9
45°	3369.6	3705.7	5038.1	6628.5	6326.5	6601.0	*4819.7*	3581.9	3252.9
47.5°	2943.2	3202.3	4147.5	5352.8	5165.2	5252.1	*4025.3*	3125.8	2858.5
50°	2575.2	2775.4	3486.7	4320.2	4217.9	4271.2	*3371.7*	2719.8	2536.1
52.5°	2289.1	2435.9	2924.5	3550.5	3499.9	3508.1	*2873.3*	2392.5	2259.4
55°	2039.3	2141.7	2496.5	2908.5	2896.4	2898.6	*2454.7*	2120.2	2011.8
57.5°	1820.9	1905.6	2145.5	2443.1	2425.5	2429.3	*2125.7*	1883.1	1813.2
60°	1636.1	1692.8	1853.9	2064.6	2053.1	2048.1	*1842.4*	1671.8	1647.6
62.5°	1472.2	1508.5	1620.2	1769.8	1747.8	1752.8	*1619.6*	1510.1	1474.3
65°	1328.6	1341.2	1419.9	1512.3	1498.0	1510.1	*1424.3*	1349.4	1341.2
67.5°	1188.3	1200.9	1247.1	1309.3	1292.8	1302.7	*1248.2*	1204.2	1197.1
70°	1060.7	1060.1	1086.0	1119.5	1119.5	1121.1	*1092.0*	1065.6	1071.1
72.5°	928.6	925.3	933.0	955.5	949.6	970.4	*939.6*	931.3	932.4
75°	794.4	785.1	789.4	801.0	794.4	805.4	*791.7*	802.1	802.1
77.5°	667.9	650.3	644.8	646.4	634.3	650.8	*654.1*	661.3	677.8
80°	535.8	511.1	497.3	496.8	486.3	496.8	*505.0*	519.9	535.8
82.5°	397.8	376.3	353.2	348.8	342.1	348.2	*359.3*	376.9	402.7
85°	242.6	220.1	205.7	198.0	203.6	203.6	*209.1*	233.8	249.8
87.5°	87.5	76.5	62.7	63.3	64.9	67.2	*69.9*	88.0	96.3
90°	9.0	12.8	21.9	14.0	7.9	13.4	*23.1*	12.1	8.4
92.5°	12.1	19.5	35.3	18.2	10.3	18.2	*32.9*	16.4	11.5
95°	14.5	22.5	49.3	24.4	15.2	22.5	*42.0*	18.2	14.0
97.5°	18.1	24.9	56.6	29.8	23.7	28.0	*47.5*	19.5	16.9
100°	23.6	29.2	88.3	36.5	31.6	31.6	*87.0*	22.5	19.9
102.5°	39.4	62.1	187.5	68.8	48.1	62.1	*202.1*	45.7	24.2
105°	67.4	130.9	334.2	144.3	87.6	142.5	*356.1*	119.3	44.3
107.5°	116.1	234.4	440.7	255.7	166.2	266.0	*459.0*	236.2	103.3
110°	216.0	311.1	462.0	351.2	266.0	372.0	*500.9*	323.8	209.3

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Scaled Data Report

TEST NUMBER: P1433539
CATALOG NUMBER: EHBR1-36-UNV-A1-L935-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	291.5	334.2	442.6	387.7	346.3	414.6	*489.4*	359.2	289.6
115°	306.7	321.4	395.1	378.6	376.2	408.5	*437.0*	357.9	321.3
117.5°	296.8	293.4	335.4	340.2	363.4	373.8	*377.4*	336.0	323.1
120°	274.4	261.1	280.0	297.0	328.1	323.8	*317.8*	304.3	304.8
122.5°	247.5	231.8	239.8	252.6	283.7	274.5	*268.5*	271.4	280.4
125°	222.0	206.3	211.3	214.3	240.4	231.3	*234.3*	243.4	252.4
127.5°	199.5	188.6	191.1	187.5	203.9	199.7	*209.4*	220.2	227.5
130°	184.3	175.2	178.9	169.8	178.3	179.5	*192.2*	200.8	205.6
132.5°	172.0	165.9	170.8	160.0	162.4	167.9	*179.4*	187.2	189.7
135°	163.4	158.0	163.5	153.2	153.2	160.4	*170.8*	175.6	176.8
137.5°	155.5	151.3	156.7	149.5	147.6	154.9	*162.8*	166.5	165.8
140°	149.3	145.1	151.2	145.7	144.5	151.8	*155.4*	160.2	159.1
142.5°	142.0	139.6	146.3	142.6	141.4	148.7	*150.5*	153.5	152.9
145°	137.0	135.2	142.7	140.8	140.2	145.6	*144.4*	149.2	147.4
147.5°	133.9	132.1	138.3	137.7	137.7	141.3	*140.0*	144.3	142.9
150°	130.1	128.3	134.6	134.0	134.6	137.0	*135.1*	140.5	140.4
152.5°	126.4	124.6	130.2	129.1	129.7	132.1	*130.8*	136.2	136.7
155°	123.9	122.2	126.5	125.4	125.4	127.2	*127.1*	133.0	133.6
157.5°	123.1	121.4	124.6	123.5	123.5	124.6	*125.2*	130.5	131.1
160°	122.4	120.6	123.3	122.2	121.5	123.3	*123.8*	128.5	129.1
162.5°	121.7	119.9	122.5	121.4	120.8	121.4	*121.9*	127.2	127.8
165°	121.0	119.8	121.8	120.7	120.1	120.7	*121.2*	124.7	125.9
167.5°	121.5	120.5	121.7	120.6	120.1	119.5	*121.1*	124.1	125.3
170°	121.5	121.0	121.7	120.0	118.8	119.4	*120.5*	123.4	124.5
172.5°	122.6	122.1	122.9	121.1	119.9	120.5	*121.0*	123.3	125.1
175°	123.6	122.5	123.3	121.6	121.1	121.0	*122.1*	123.7	126.1
177.5°	124.8	123.7	123.8	122.2	121.0	121.5	*123.2*	124.9	127.8
180°	123.2	123.2	123.2	123.2	123.2	123.2	*123.2*	123.2	123.2

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Scaled Data Report

TEST NUMBER: P1433539
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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	18.38	19.59	18.80	19.97	20.37	19.36	20.57	19.78	20.95	21.35
	3H	19.86	20.93	20.30	21.33	21.78	20.62	21.70	21.06	22.10	22.55
	4H	20.46	21.46	20.92	21.88	22.35	21.12	22.13	21.58	22.55	23.01
	6H	20.93	21.85	21.40	22.29	22.76	21.48	22.40	21.95	22.84	23.32
	8H	21.08	21.95	21.56	22.41	22.89	21.58	22.45	22.07	22.91	23.39
	12H	21.15	21.99	21.64	22.44	22.95	21.62	22.45	22.11	22.90	23.41
4H	2H	18.90	19.90	19.36	20.32	20.79	19.68	20.68	20.14	21.10	21.57
	3H	20.58	21.41	21.06	21.88	22.36	21.17	22.00	21.64	22.47	22.95
	4H	21.30	22.04	21.79	22.53	23.05	21.79	22.53	22.29	23.02	23.54
	6H	21.88	22.52	22.40	23.03	23.58	22.27	22.91	22.79	23.42	23.96
	8H	22.07	22.67	22.60	23.18	23.72	22.41	23.00	22.93	23.51	24.06
	12H	22.18	22.71	22.72	23.25	23.80	22.47	23.00	23.02	23.54	24.10
8H	4H	21.53	22.13	22.05	22.63	23.18	21.97	22.57	22.50	23.08	23.63
	6H	22.22	22.71	22.78	23.26	23.82	22.56	23.04	23.12	23.60	24.16
	8H	22.47	22.91	23.05	23.48	24.05	22.75	23.19	23.33	23.76	24.33
	12H	22.64	23.02	23.21	23.57	24.22	22.87	23.26	23.44	23.81	24.46
12H	4H	21.53	22.06	22.07	22.60	23.15	21.97	22.50	22.52	23.04	23.59
	6H	22.24	22.68	22.82	23.25	23.82	22.58	23.01	23.16	23.59	24.16
	8H	22.54	22.92	23.11	23.47	24.12	22.82	23.20	23.39	23.75	24.40

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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

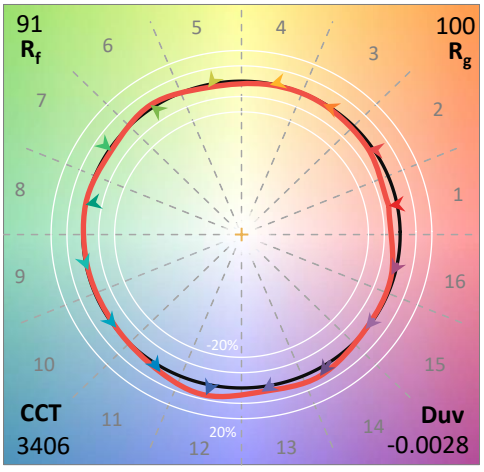
Test Information

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	CRI (Ra):	94.6		
CIE u':	0.2394	R1:	96.6	R9:	63.8
CIE v':	0.5094	R2:	98.4	R10:	94.7
Duv:	-0.0028	R3:	98.1	R11:	96.6
CIE x:	0.4076	R4:	95.8	R12:	80.9
CIE y:	0.3856	R5:	96.2	R13:	97.4
CIE z:	0.2068	R6:	95.4	R14:	98.3
Peak Wavelength (nm):	630	R7:	91.8	R15:	93.1
Dominant Wavelength (nm):	582	R8:	84.4		
Purity:	38.0517				

Rf:	91.3
Rg:	100



Test Conditions

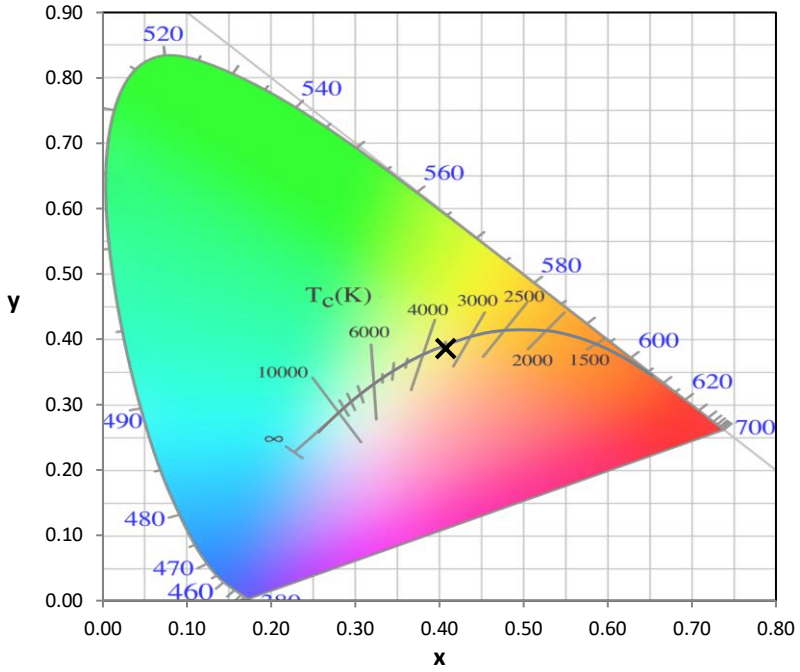
Stabilization Time:	35M
Operation Time:	1H 35M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-6

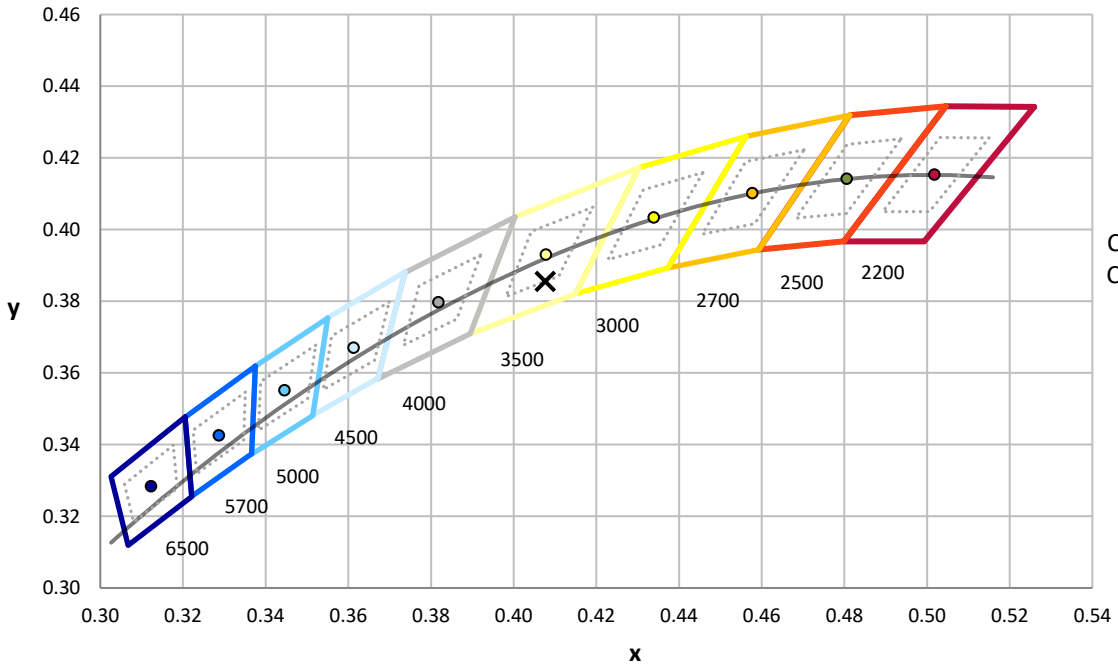
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

REPORT NUMBER: SP1-2506-472-6

CIE 1931 Chromaticity Diagram



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

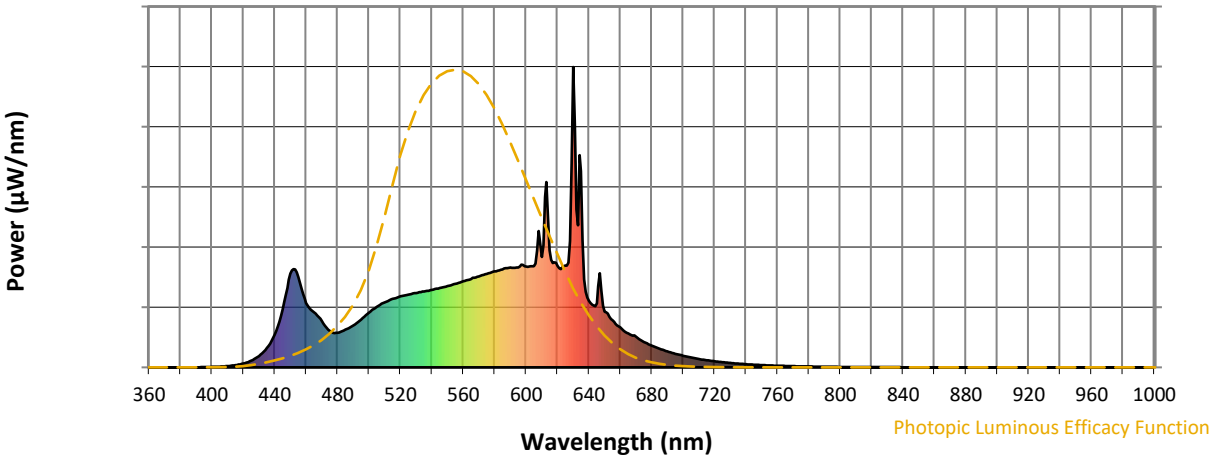


CCT = 3406K
CIE x = 0.4076
CIE y = 0.3856
Duv = -0.0028

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

Photopic Flux vs. Wavelength

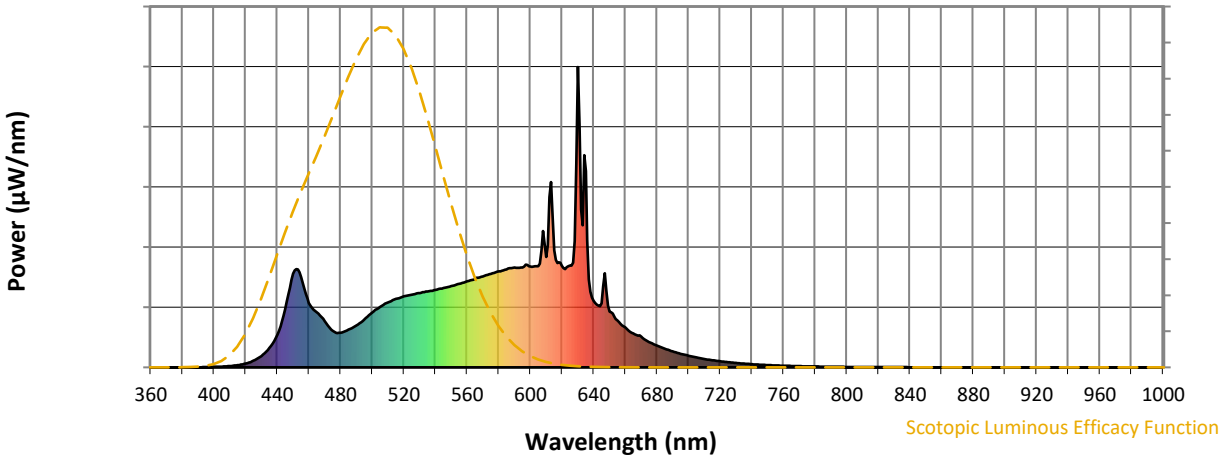


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2506-472-6

Scotopic Flux vs. Wavelength

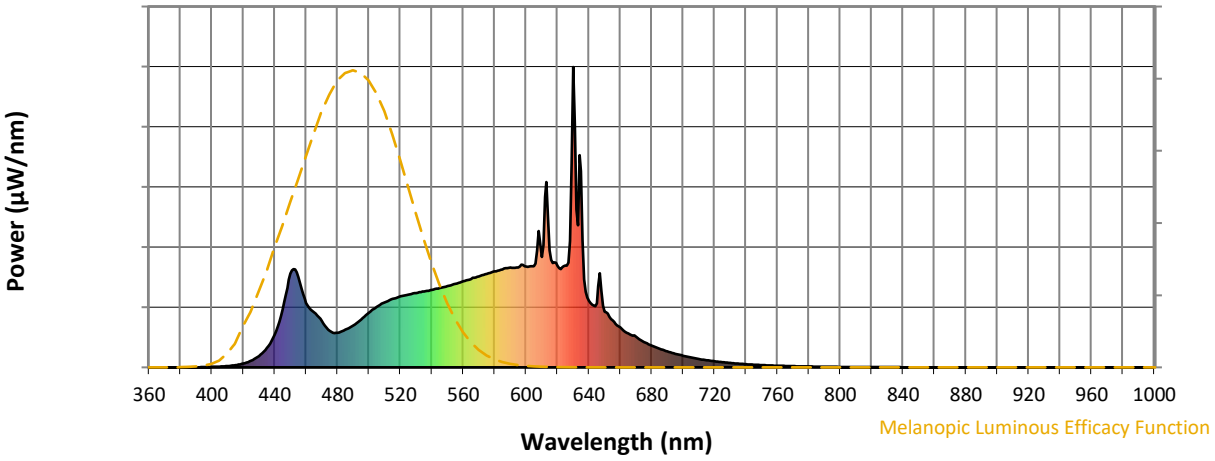


Scotopic Lumens: NR **S/P: 1.62**

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			

REPORT NUMBER: SP1-2506-472-6

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			

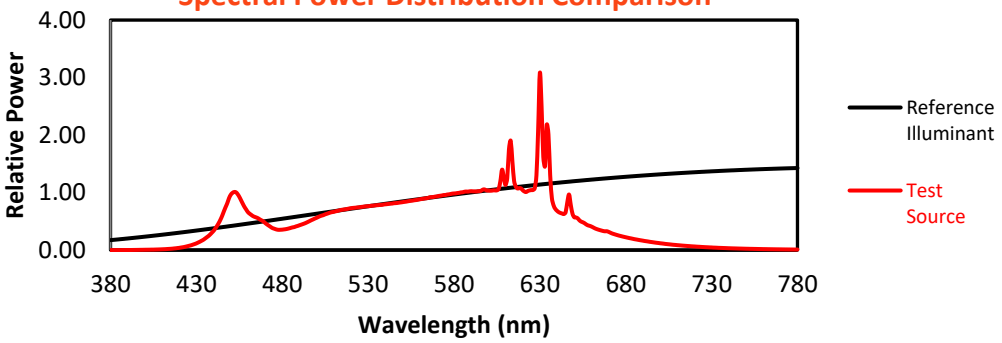
REPORT NUMBER: SP1-2506-472-6

TM-30-18

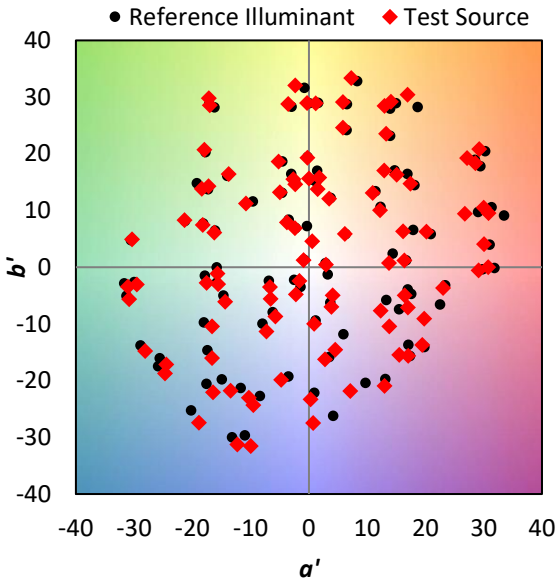
Summary

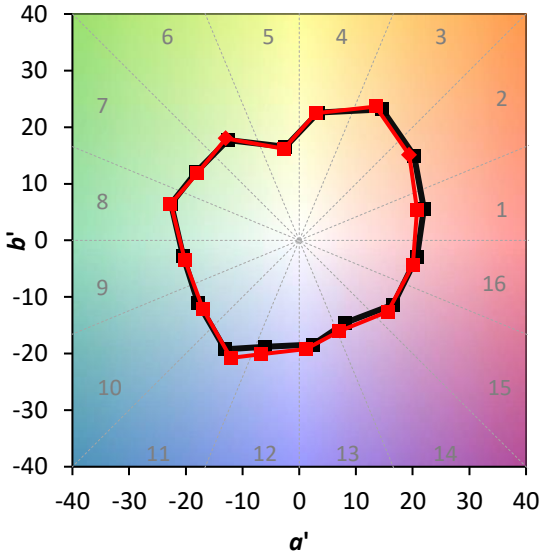
R_f = 91.3
R_g = 100
CIE R_a = 94.6
R_9 = 63.8

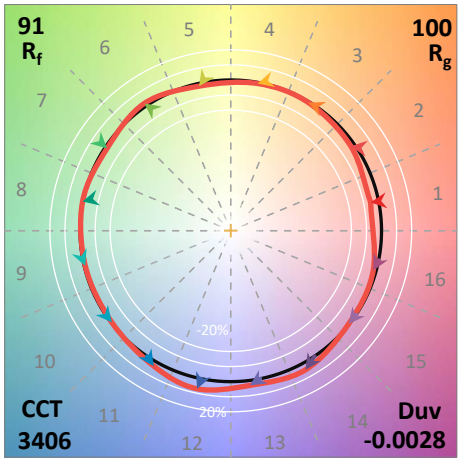
Spectral Power Distribution Comparison

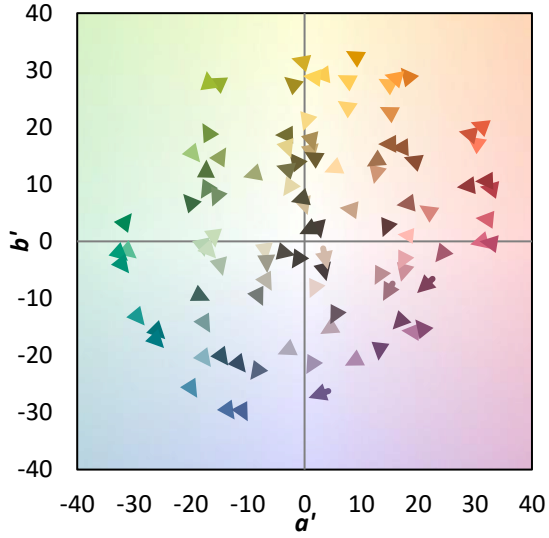


Color Vector Graphics







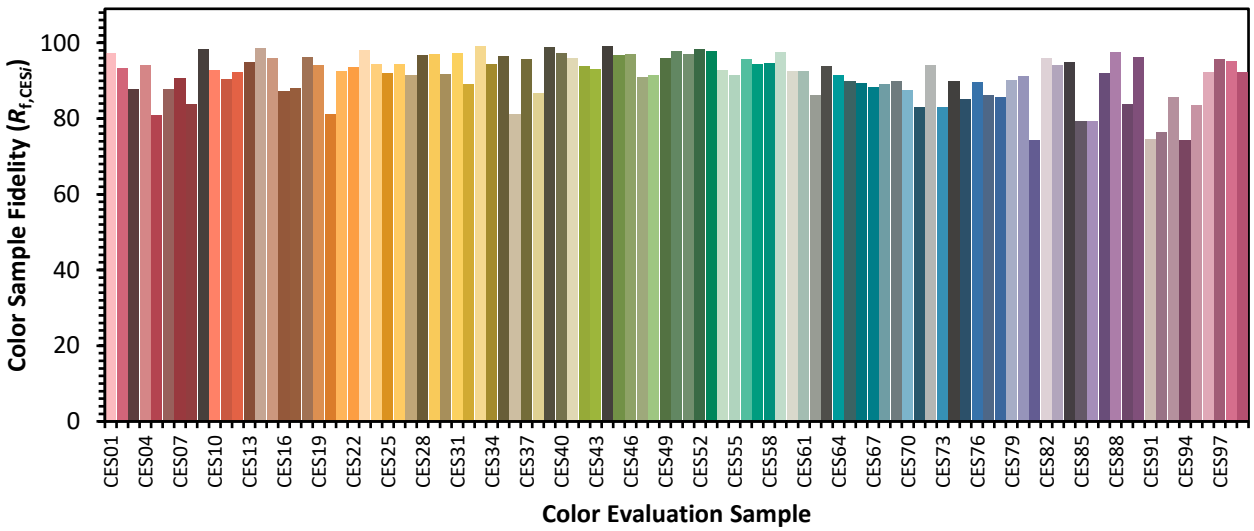


REPORT NUMBER: SP1-2506-472-6

TM-30-18

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

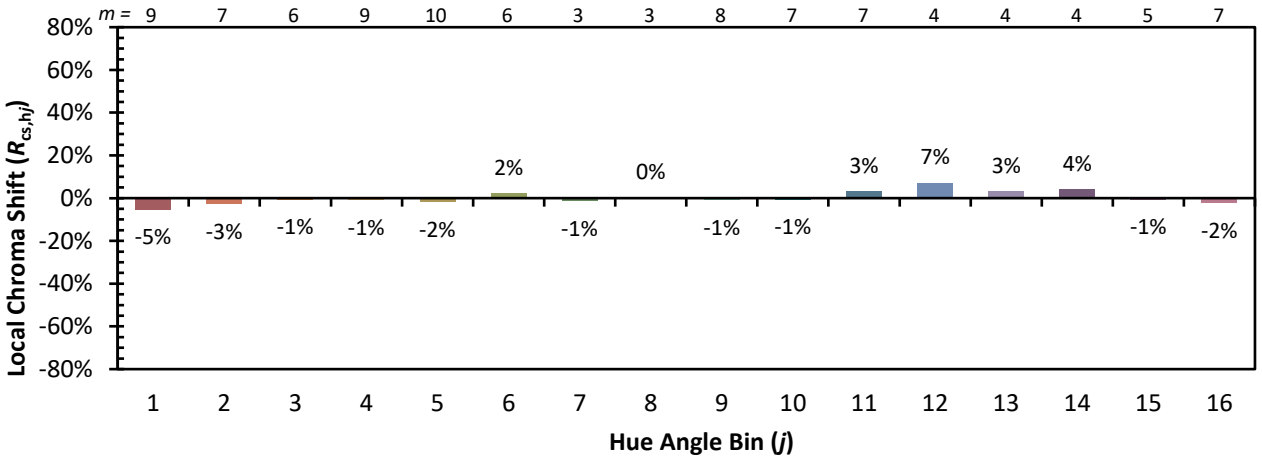
CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 90
CES02 = 63	CES27 = 92	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 98	CES78 = 86
CES04 = 70	CES29 = 97	CES54 = 93	CES79 = 90
CES05 = 50	CES30 = 92	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 97	CES56 = 96	CES81 = 74
CES07 = 43	CES32 = 89	CES57 = 94	CES82 = 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	

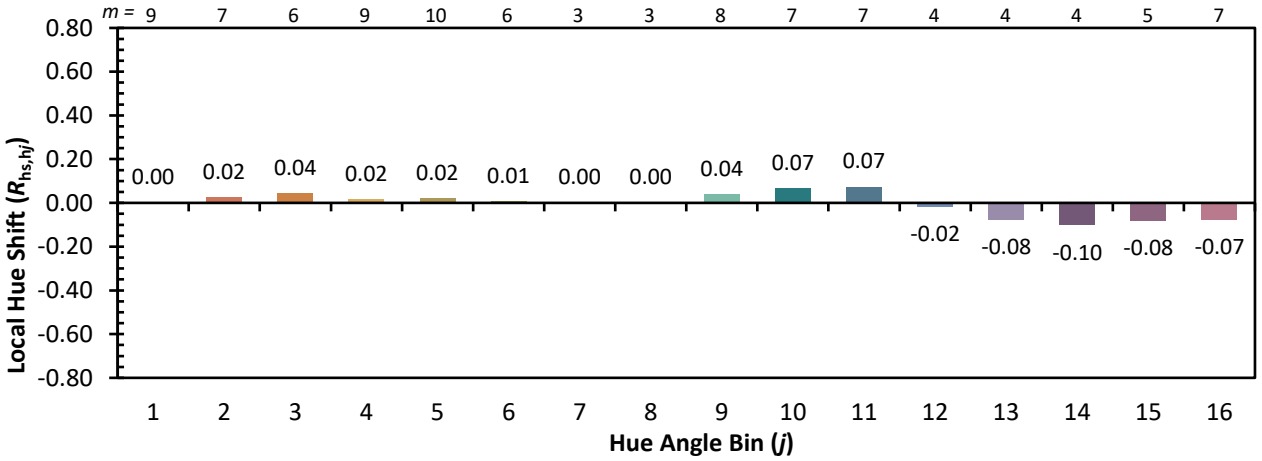


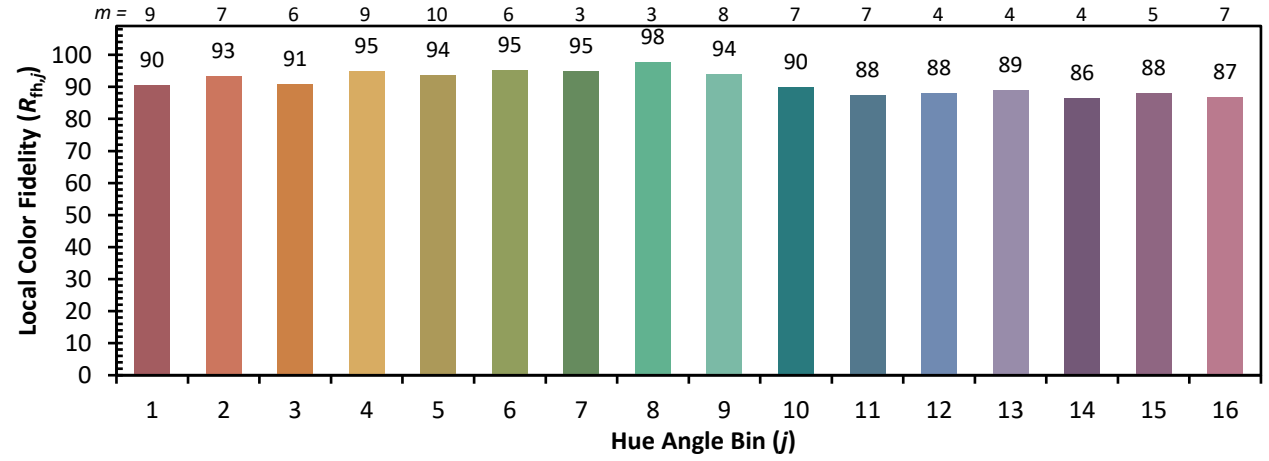
REPORT NUMBER: SP1-2506-472-6

TM-30-18

Color Rendition by Hue-Angle Bin



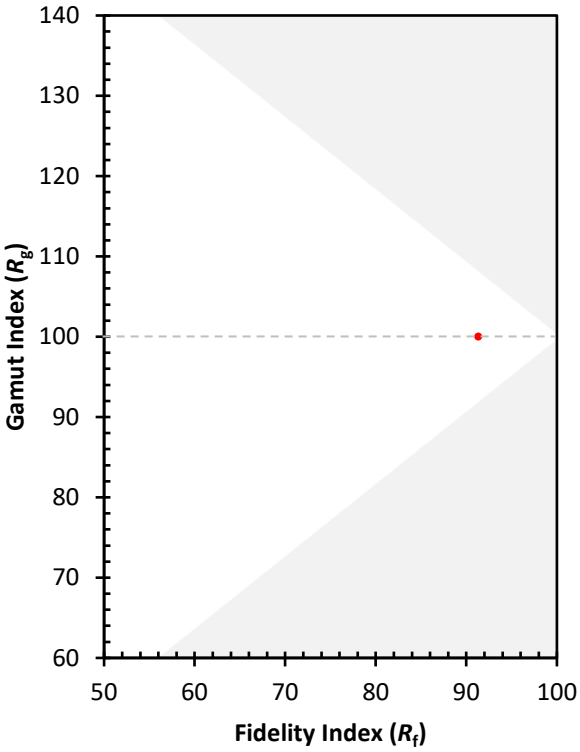


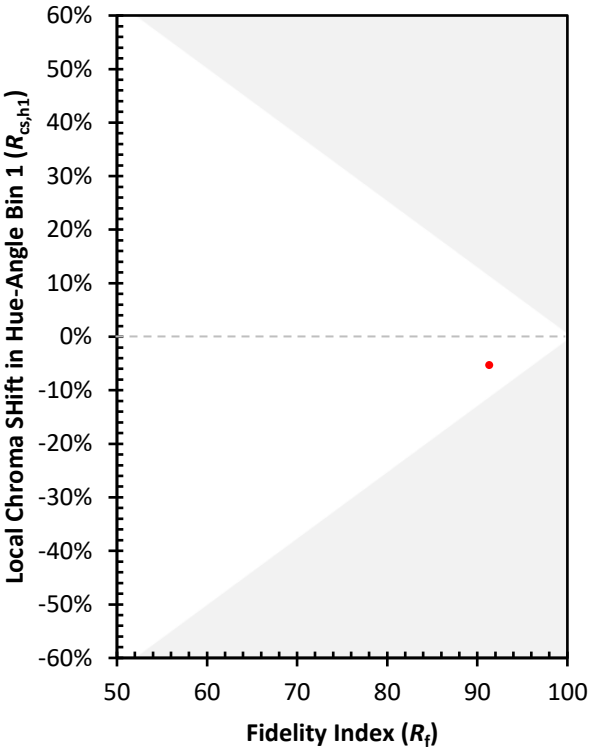


REPORT NUMBER: SP1-2506-472-6

TM-30-18

Measure Comparisons





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