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: McGRAW-EDISON

Report Number: P635523

Luminaire Tested: GWS-SA3D-830-U-T2R-W-GRSWH

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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:	P635523
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-13)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA3D-830-U-T2R-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(48) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	12303.6 lumens
Efficiency:	N/A
Efficacy:	101.9 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G2

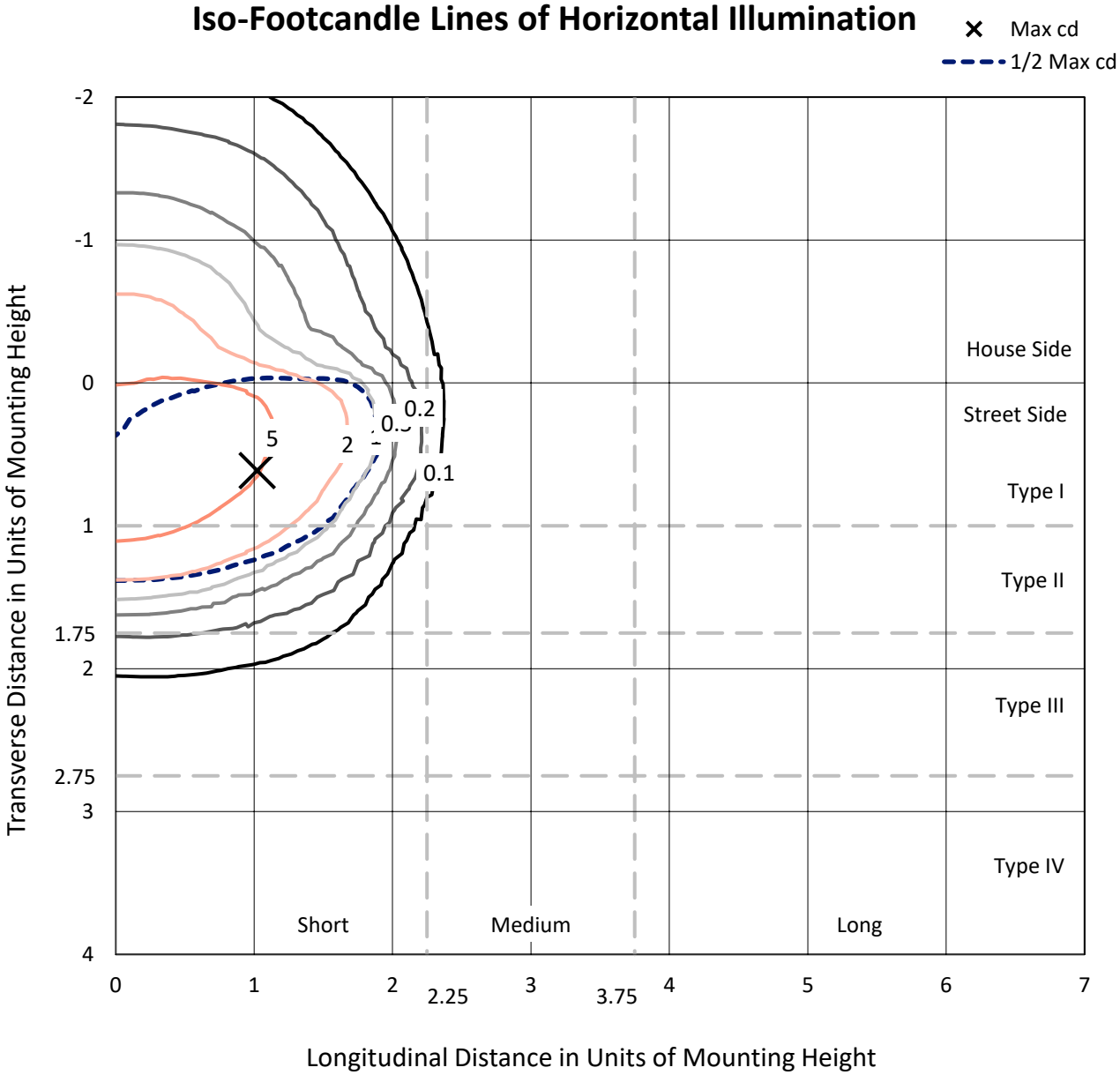
Input Watts (W):	120.8
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P635523
CATALOG NUMBER: GWS-SA3D-830-U-T2R-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



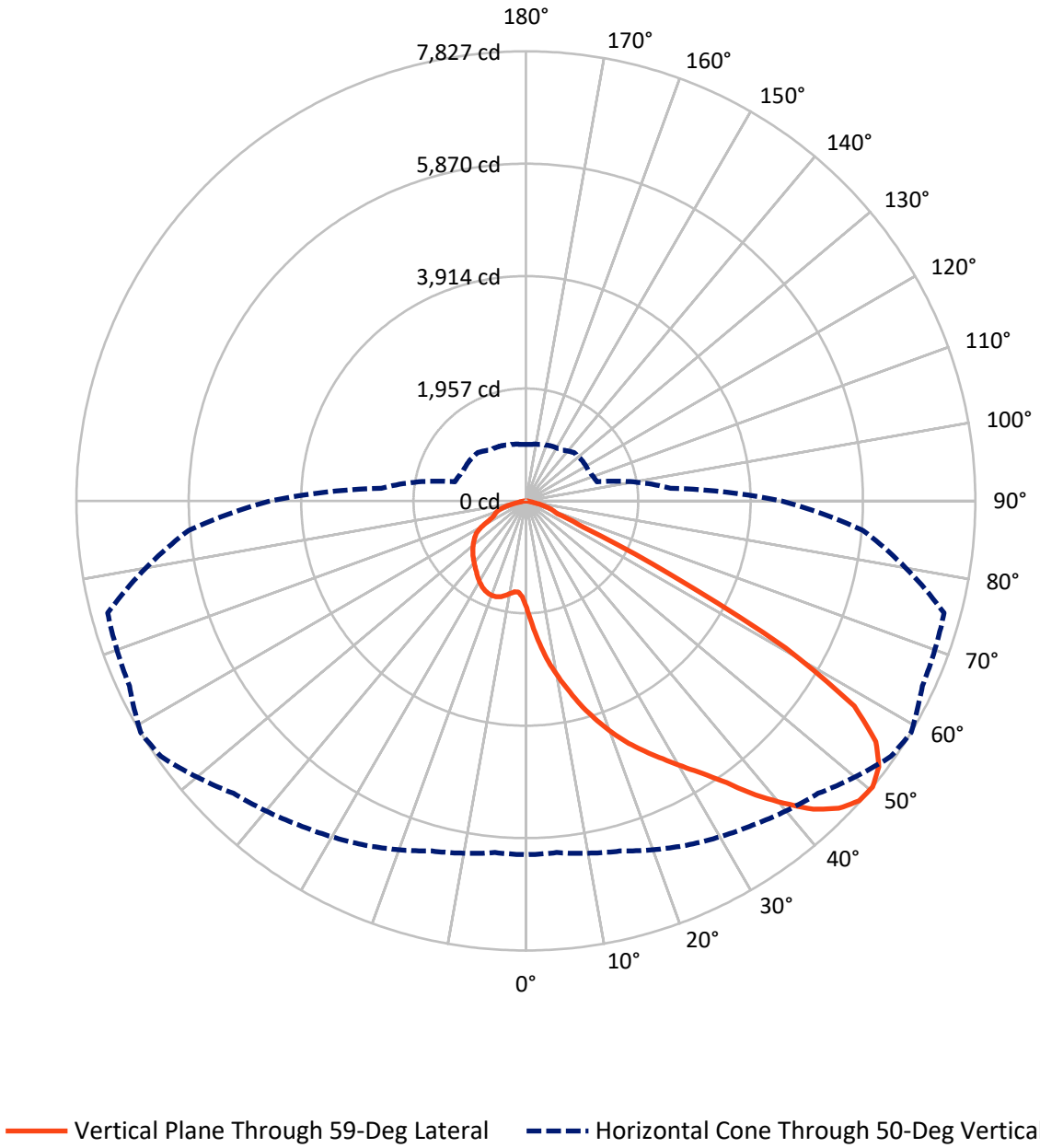
Based on 20 foot mounting height. Maximum calculated value = 9.2 fc
Type II - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P635523
CATALOG NUMBER: GWS-SA3D-830-U-T2R-W-GRSWH

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

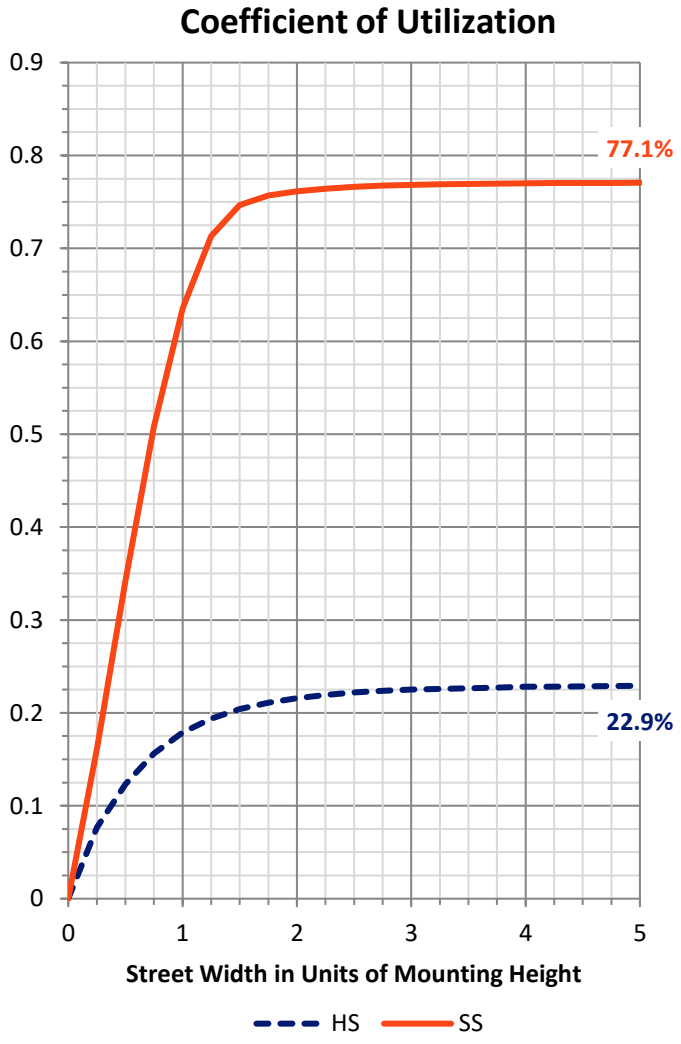
REPORT NUMBER: P635523
CATALOG NUMBER: GWS-SA3D-830-U-T2R-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2830.1	0.0	2830.1
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	9473.5	0.0	9473.5
	% Fixture	77.0	0.0	77.0
Total	Lumens	12303.6	0.0	12303.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.1	1.7
10°-20°	759.1	6.2
20°-30°	1437.5	11.7
30°-40°	2383.8	19.4
40°-50°	3256.4	26.5
50°-60°	2956.0	24.0
60°-70°	984.4	8.0
70°-80°	287.1	2.3
80°-90°	30.2	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	12303.6	100.0
0°-180°	12303.6	100.0



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

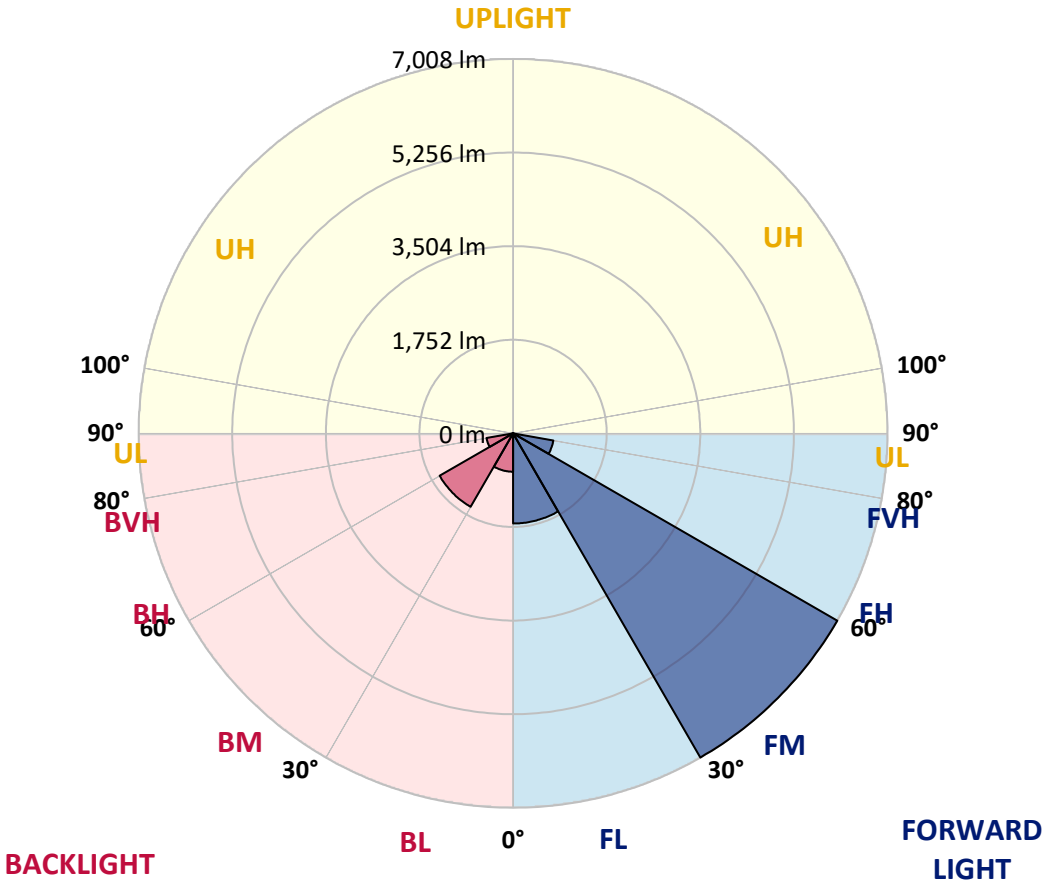
Scaled Data Report

REPORT NUMBER: P635523
CATALOG NUMBER: GWS-SA3D-830-U-T2R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1687.1	13.7			
FM	(30°-60°)	7008.3	57.0			
FH	(60°-80°)	766.3	6.2			G1/1800
FVH	(80°-90°)	11.8	0.1			G1/100
BL	(0°-30°)	718.6	5.8	B2/1000		
BM	(30°-60°)	1587.9	12.9	B2/2500		
BH	(60°-80°)	505.1	4.1	B2/1000		G2/1000
BVH	(80°-90°)	18.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
Type II Short



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P635523
CATALOG NUMBER: GWS-SA3D-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1
2.5°	2415.3	2433.3	2405.3	2407.3	2337.1	2305.0	2214.9	2161.7	2126.7	2028.4	1939.2
5°	2902.4	2881.3	2859.3	2846.2	2785.1	2698.9	2586.7	2497.5	2415.3	2222.9	2037.5
7.5°	3201.0	3190.0	3175.0	3166.9	3106.8	3016.6	2904.4	2828.2	2708.9	2448.4	2156.7
10°	3454.6	3441.5	3432.5	3438.5	3389.4	3331.3	3209.0	3121.8	2987.5	2686.9	2301.0
12.5°	3651.0	3658.0	3661.0	3693.1	3672.0	3637.0	3510.7	3418.5	3269.2	2938.4	2470.4
15°	3806.3	3804.3	3839.4	3900.5	3934.6	3912.6	3811.3	3734.2	3551.8	3186.0	2652.8
17.5°	3842.4	3844.4	3899.5	4006.8	4118.0	4172.1	4115.0	4022.8	3842.4	3430.5	2842.2
20°	3871.5	3875.5	3932.6	4054.9	4217.2	4368.6	4377.6	4311.4	4156.1	3695.1	3034.6
22.5°	4054.9	4063.9	4078.9	4156.1	4302.4	4493.8	4599.1	4585.0	4454.8	3972.7	3242.1
25°	4536.9	4509.9	4436.7	4414.7	4470.8	4626.1	4805.5	4832.6	4768.4	4278.4	3465.6
27.5°	5132.2	5103.2	4994.9	4880.7	4759.4	4813.5	5005.0	5086.1	5087.1	4615.1	3690.1
30°	5672.4	5649.4	5561.2	5397.8	5188.4	5110.2	5251.5	5360.7	5425.9	5004.0	3945.6
32.5°	6134.4	6113.4	5994.1	5860.8	5656.4	5499.0	5550.2	5655.4	5807.7	5507.1	4263.3
35°	6523.3	6502.2	6388.0	6253.7	6064.3	5970.1	5952.0	6024.2	6221.6	6032.2	4628.1
37.5°	6839.0	6817.9	6698.7	6572.4	6428.1	6434.1	6461.2	6496.2	6609.5	6594.4	5018.0
40°	7043.4	7021.4	6936.2	6846.0	6754.8	6827.0	6961.2	6919.2	6979.3	7048.4	5376.8
42.5°	7134.6	7106.6	7057.5	7037.4	7009.4	7121.6	7380.2	7338.1	7265.9	7351.1	5643.4
45°	7043.4	7019.4	7018.4	7079.5	7144.6	7289.0	7669.8	7635.7	7453.3	7497.4	5802.7
47.5°	6763.8	6742.8	6799.9	6960.2	7120.6	7331.1	7799.1	7805.1	7586.6	7558.6	5905.9
50°	6159.5	6145.5	6310.8	6614.5	6891.1	7199.8	7758.0	7827.1	7618.7	7539.5	5892.9
52.5°	4930.8	4995.9	5355.7	5862.8	6400.0	6969.3	7605.7	7695.9	7464.3	7414.2	5822.8
55°	3375.4	3405.5	3765.2	4505.9	5357.7	6470.2	7255.9	7395.2	7281.9	7393.2	5895.9
57.5°	1747.8	1771.9	2055.5	2712.9	3634.0	5113.2	6284.8	6741.8	6914.1	7499.4	6123.4
60°	717.6	737.6	854.9	1172.6	1833.0	2977.5	4522.9	5200.4	5605.3	6849.0	5437.9
62.5°	521.1	531.2	587.3	699.5	960.1	1459.2	2559.6	2809.2	3093.8	4292.4	3452.6
65°	439.0	450.0	495.1	563.2	700.5	895.0	1093.4	1099.4	1211.7	1748.8	1279.8
67.5°	367.8	377.8	417.9	476.0	566.2	635.4	587.3	588.3	586.3	634.4	613.3
70°	286.6	294.6	334.7	396.9	444.0	407.9	459.0	508.1	487.1	506.1	535.2
72.5°	209.5	218.5	253.6	300.7	288.6	290.6	371.8	421.9	409.9	430.9	458.0
75°	151.3	157.3	175.4	150.3	158.3	191.4	261.6	288.6	300.7	318.7	342.8
77.5°	49.1	49.1	55.1	69.2	86.2	106.2	133.3	144.3	162.4	182.4	199.4
80°	25.1	26.1	31.1	38.1	48.1	61.1	78.2	83.2	92.2	103.2	110.2
82.5°	12.0	13.0	15.0	19.0	25.1	32.1	43.1	48.1	54.1	61.1	66.1
85°	3.0	3.0	4.0	6.0	8.0	12.0	16.0	19.0	24.1	29.1	32.1
87.5°	0.0	0.0	0.0	0.0	0.0	1.0	3.0	4.0	5.0	6.0	8.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P635523
CATALOG NUMBER: GWS-SA3D-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1
2.5°	1899.2	1843.0	1770.9	1709.7	1653.6	1610.5	1573.4	1555.4	1538.4	1526.3	1530.4
5°	1951.3	1855.1	1720.8	1627.6	1570.4	1541.4	1521.3	1511.3	1509.3	1501.3	1498.3
7.5°	2027.4	1890.1	1710.7	1616.5	1578.5	1563.4	1552.4	1546.4	1549.4	1541.4	1538.4
10°	2121.6	1948.3	1735.8	1652.6	1619.5	1608.5	1596.5	1588.5	1584.5	1572.4	1570.4
12.5°	2238.9	2020.4	1780.9	1698.7	1665.6	1646.6	1630.6	1616.5	1607.5	1592.5	1588.5
15°	2365.2	2100.6	1834.0	1743.8	1704.7	1676.7	1650.6	1629.6	1613.5	1593.5	1590.5
17.5°	2502.5	2184.8	1878.1	1774.9	1724.8	1687.7	1649.6	1618.5	1596.5	1570.4	1567.4
20°	2645.8	2270.0	1911.2	1789.9	1725.8	1675.7	1624.6	1583.5	1555.4	1529.3	1527.3
22.5°	2794.1	2348.1	1931.2	1785.9	1709.7	1647.6	1586.5	1540.4	1507.3	1476.2	1474.2
25°	2943.4	2423.3	1936.2	1769.9	1677.7	1605.5	1544.4	1490.3	1453.2	1418.1	1414.1
27.5°	3094.8	2486.4	1924.2	1737.8	1634.6	1556.4	1495.3	1442.2	1404.1	1369.0	1363.0
30°	3256.1	2540.6	1898.2	1695.7	1584.5	1504.3	1444.2	1404.1	1368.0	1332.9	1326.9
32.5°	3428.5	2587.7	1861.1	1644.6	1526.3	1452.2	1408.1	1372.0	1335.9	1304.9	1298.8
35°	3634.0	2618.7	1806.0	1578.5	1472.2	1414.1	1384.0	1341.9	1297.8	1263.8	1260.8
37.5°	3846.4	2642.8	1739.8	1515.3	1425.1	1392.0	1367.0	1309.9	1254.7	1213.7	1208.6
40°	4051.9	2662.8	1657.6	1456.2	1382.0	1376.0	1341.9	1270.8	1175.6	1129.5	1125.5
42.5°	4243.3	2668.8	1571.4	1393.1	1342.9	1339.9	1301.9	1191.6	1118.4	1089.4	1085.4
45°	4374.6	2663.8	1482.2	1333.9	1303.9	1287.8	1247.7	1134.5	1089.4	1063.3	1058.3
47.5°	4471.8	2637.8	1382.0	1271.8	1259.8	1237.7	1151.5	1098.4	1056.3	1030.3	1025.2
50°	*4454.8*	*2529.5*	*1280.8*	*1211.7*	*1206.6*	*1187.6*	*1081.4*	*1053.3*	*1016.2*	*988.2*	*984.2*
52.5°	4366.6	2324.1	1177.6	1145.5	1155.5	1118.4	1031.3	999.2	967.1	935.0	928.0
55°	4388.6	2175.8	1099.4	1081.4	1099.4	1015.2	975.1	941.1	911.0	879.9	873.9
57.5°	4484.8	2029.4	1016.2	1012.2	1031.3	936.0	903.0	859.9	816.8	791.7	791.7
60°	3766.2	1479.2	869.9	879.9	923.0	871.9	842.8	798.7	751.6	729.6	729.6
62.5°	2226.9	928.0	721.6	710.6	737.6	769.7	785.7	749.6	693.5	664.5	665.5
65°	981.1	675.5	636.4	627.4	619.4	641.4	685.5	688.5	629.4	595.3	596.3
67.5°	604.3	611.3	595.3	588.3	581.3	577.3	573.3	575.3	559.2	528.2	527.2
70°	545.2	564.2	553.2	547.2	538.2	531.2	507.1	468.0	441.0	432.9	442.0
72.5°	469.0	495.1	489.1	486.1	475.0	458.0	425.9	387.8	355.8	335.7	339.7
75°	353.8	374.8	377.8	378.8	366.8	350.8	317.7	285.6	257.6	236.5	241.5
77.5°	203.4	215.5	218.5	221.5	212.5	206.5	184.4	161.4	146.3	124.3	130.3
80°	113.2	118.3	118.3	119.3	114.3	107.2	92.2	79.2	72.2	62.1	63.1
82.5°	68.1	70.2	71.2	72.2	69.2	62.1	51.1	42.1	38.1	33.1	32.1
85°	33.1	35.1	35.1	36.1	31.1	27.1	21.0	16.0	14.0	10.0	11.0
87.5°	8.0	9.0	9.0	8.0	7.0	5.0	3.0	1.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

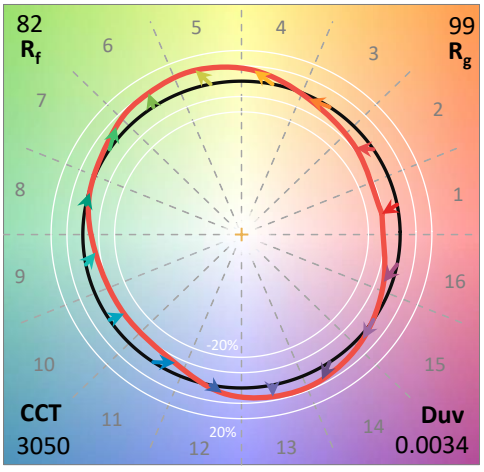
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

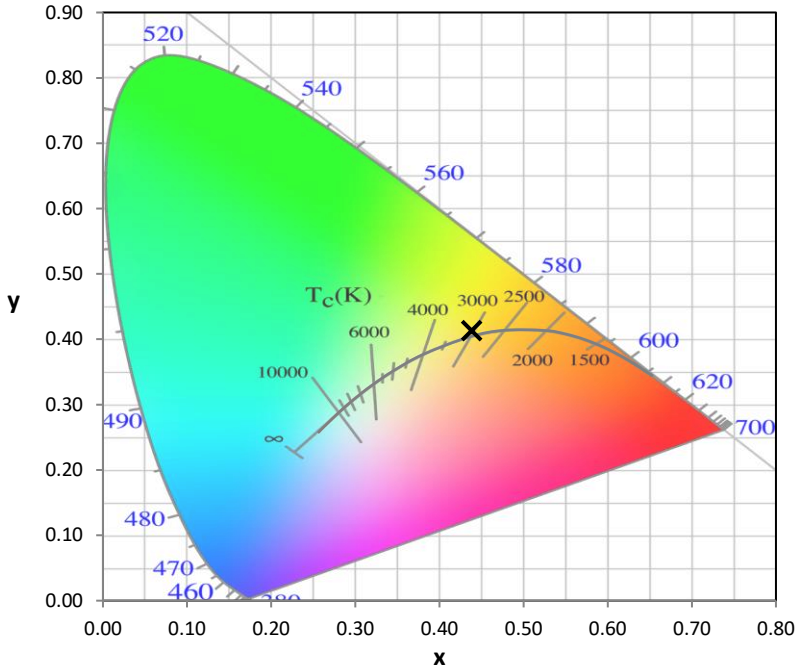
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

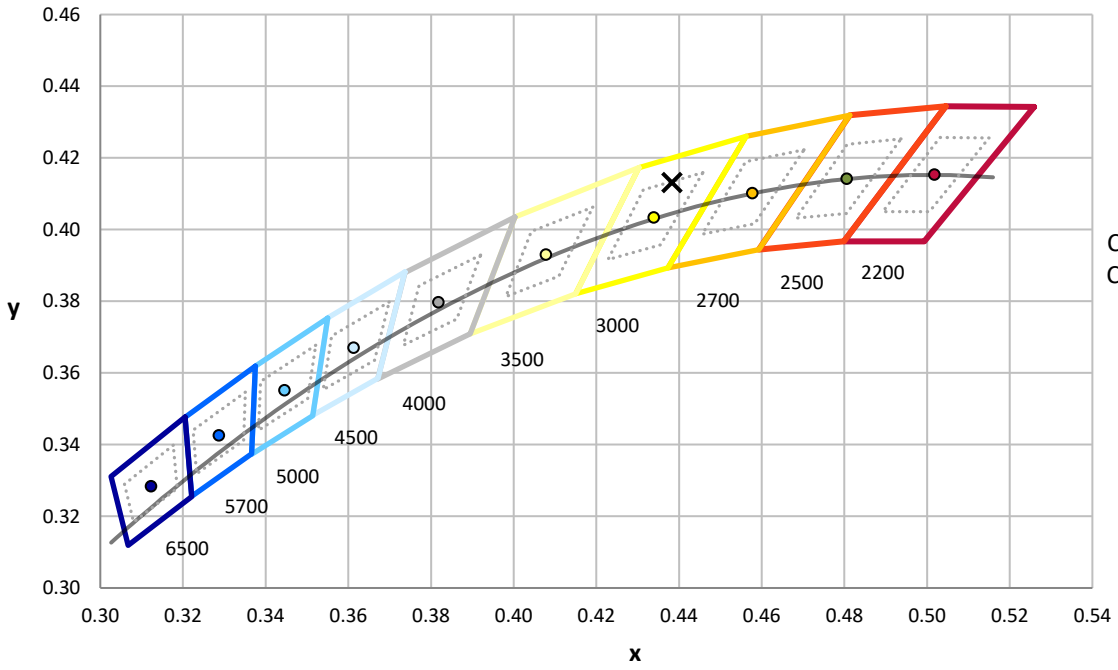
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

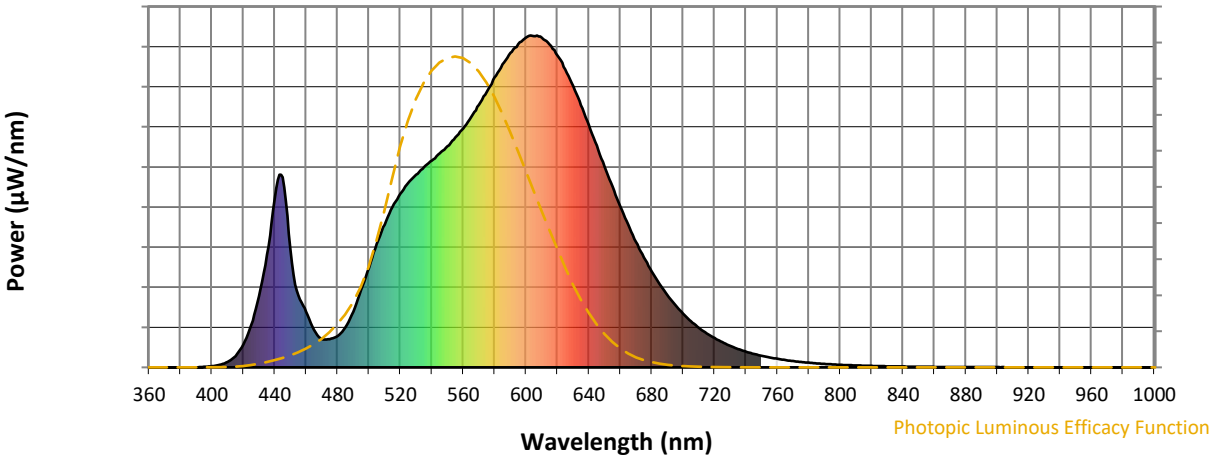


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

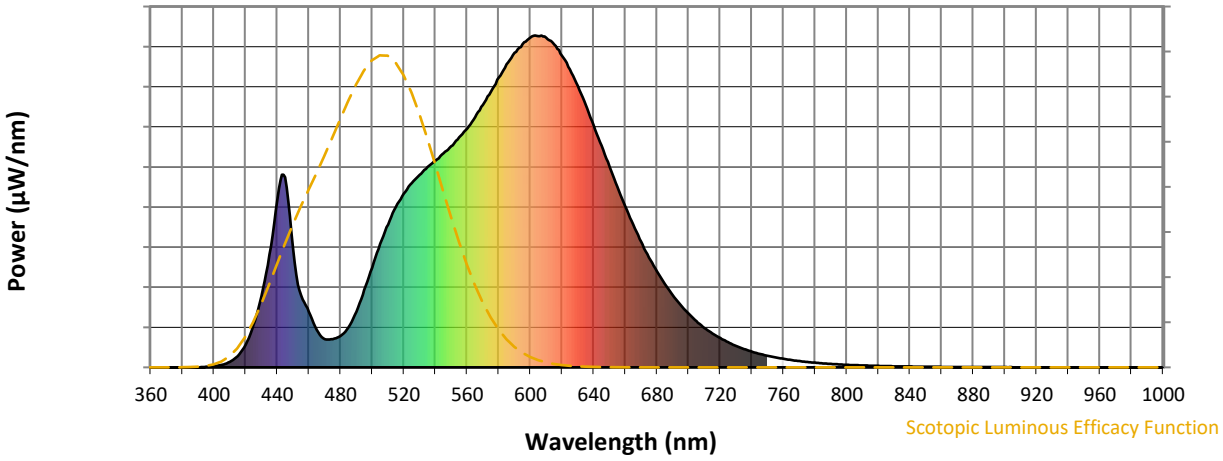


Photopic Lumens: NR

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

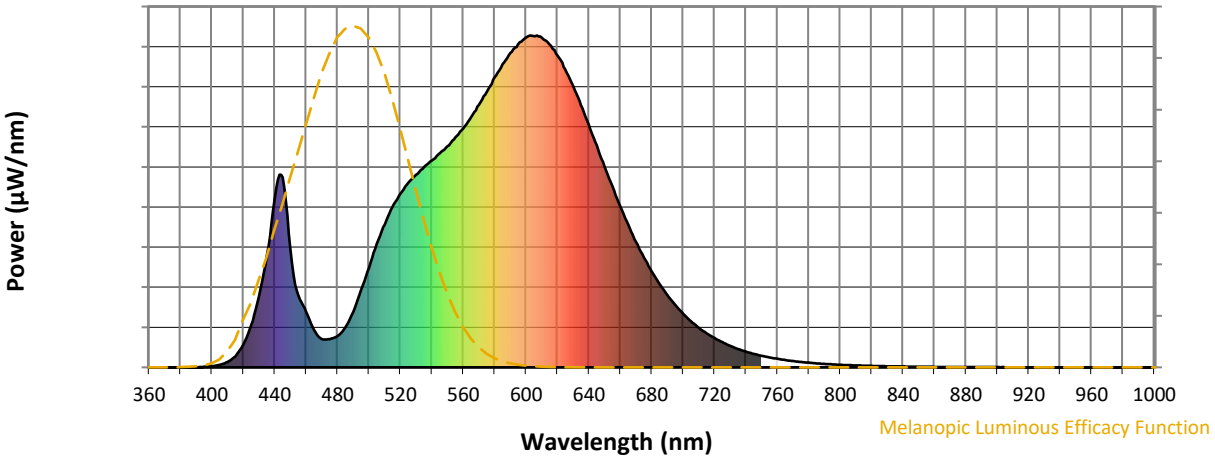


Scotopic Lumens: NR **S/P: 1.27**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

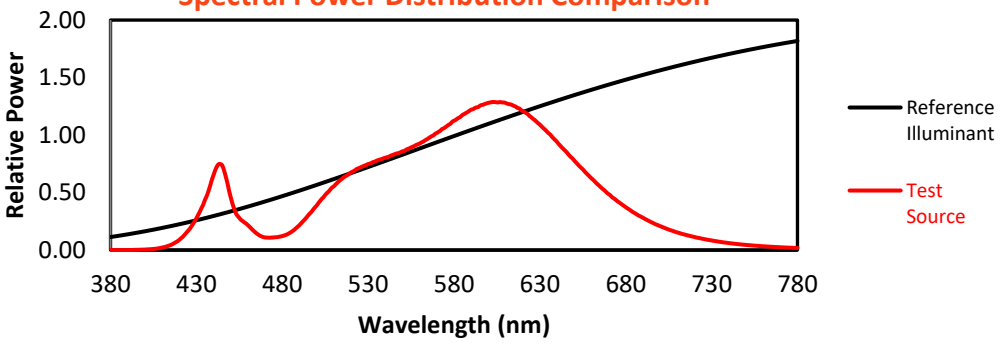
REPORT NUMBER: SP1-2408-195-9

TM-30-18

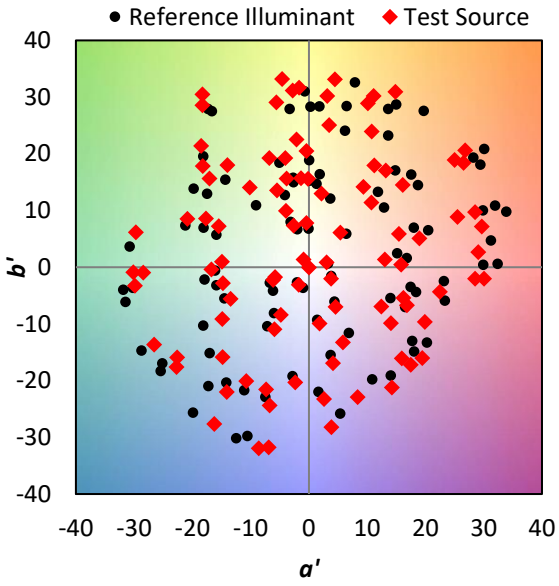
Summary

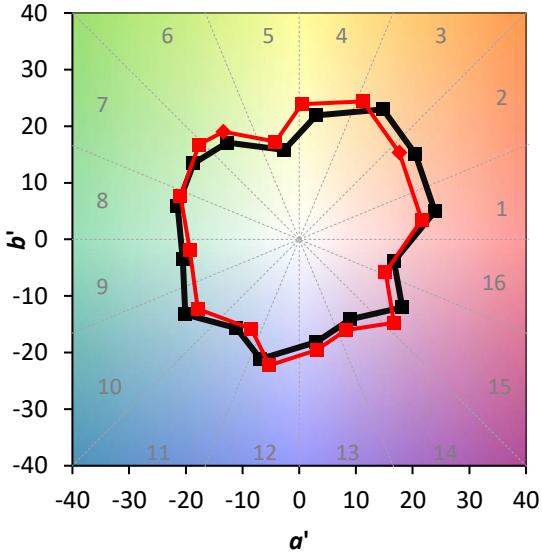
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

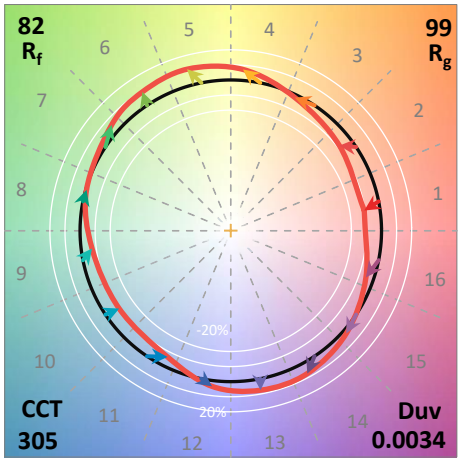
Spectral Power Distribution Comparison

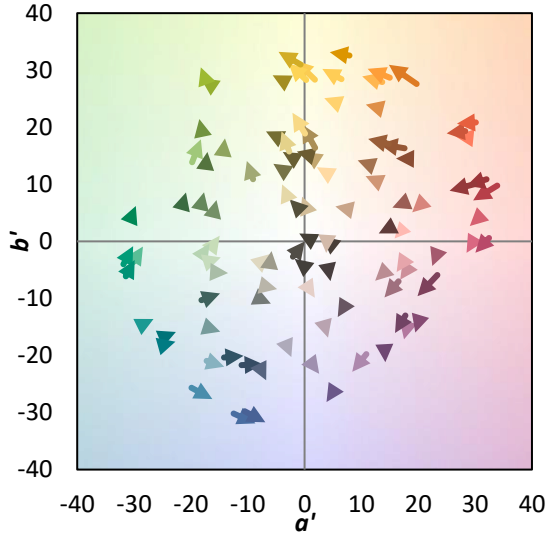


Color Vector Graphics







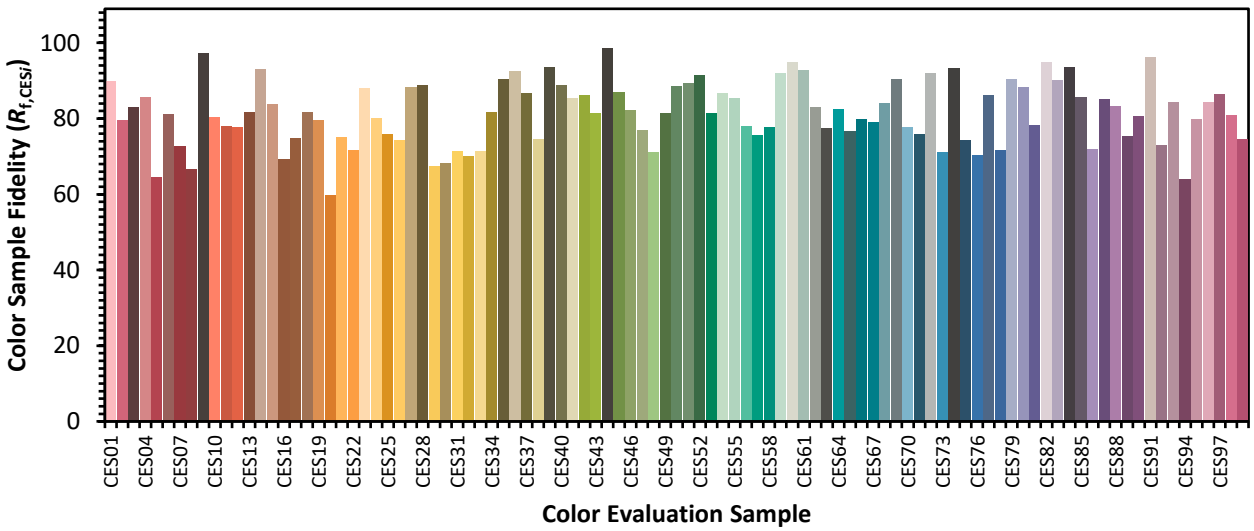


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

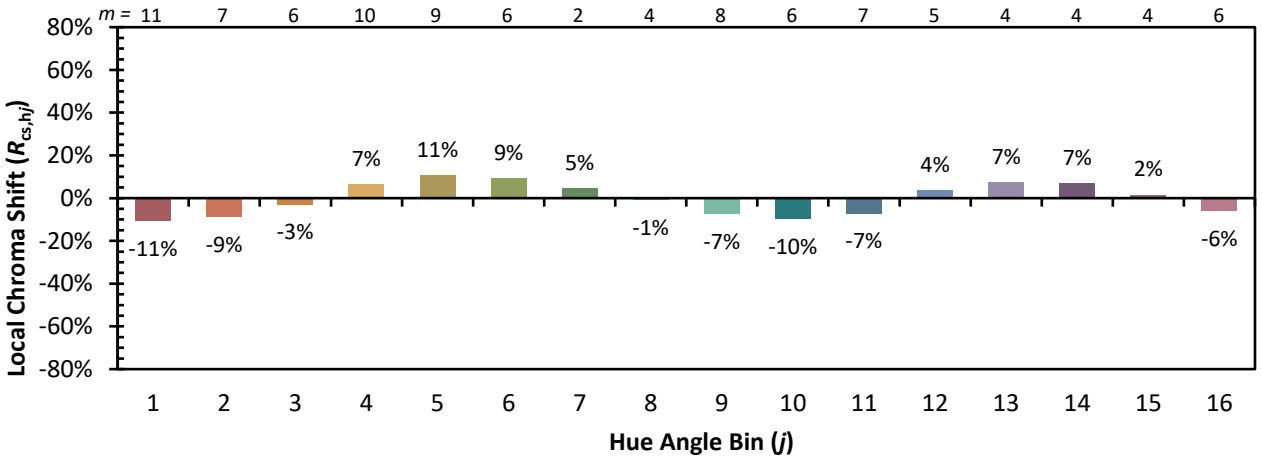
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	

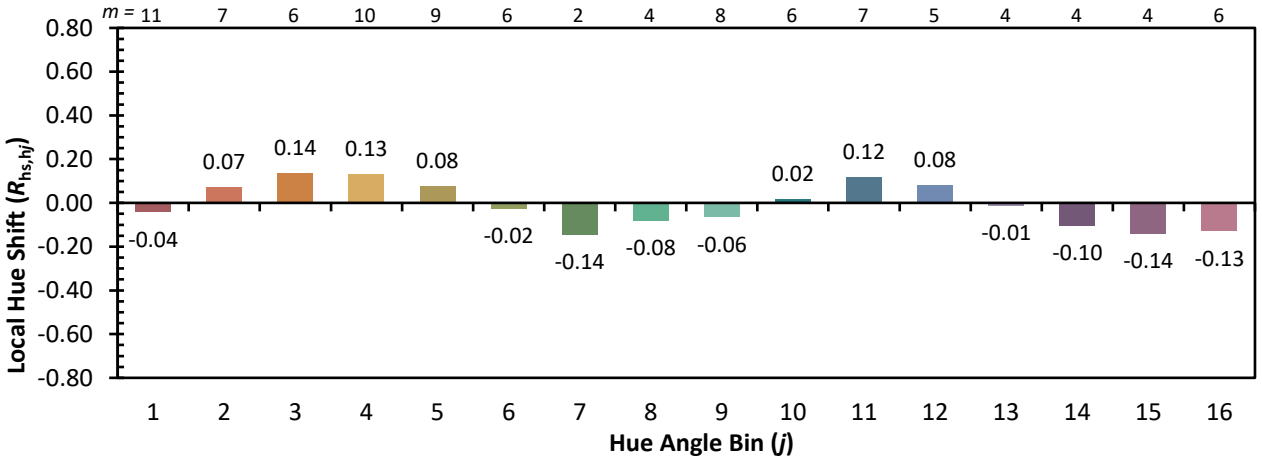


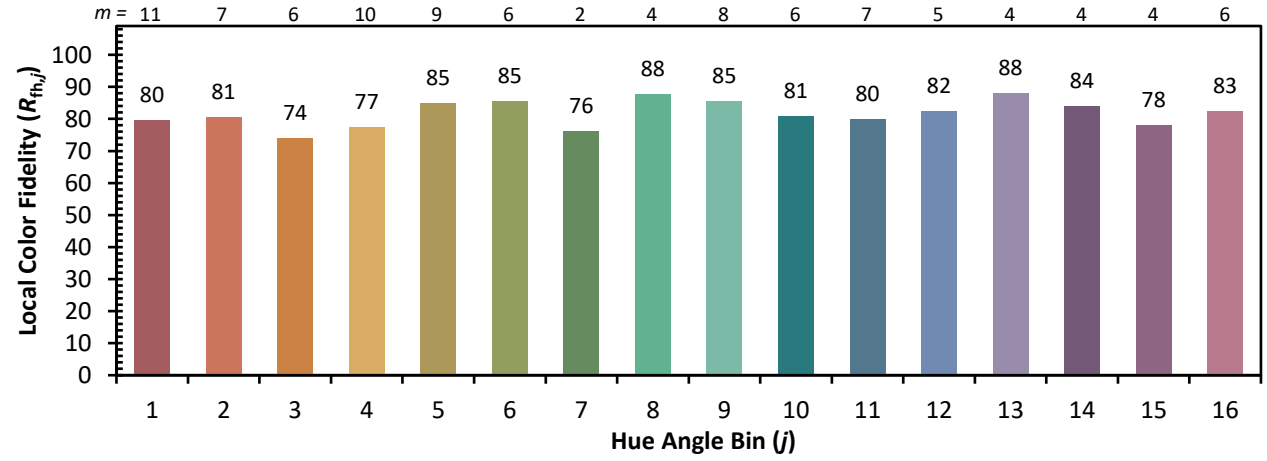
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



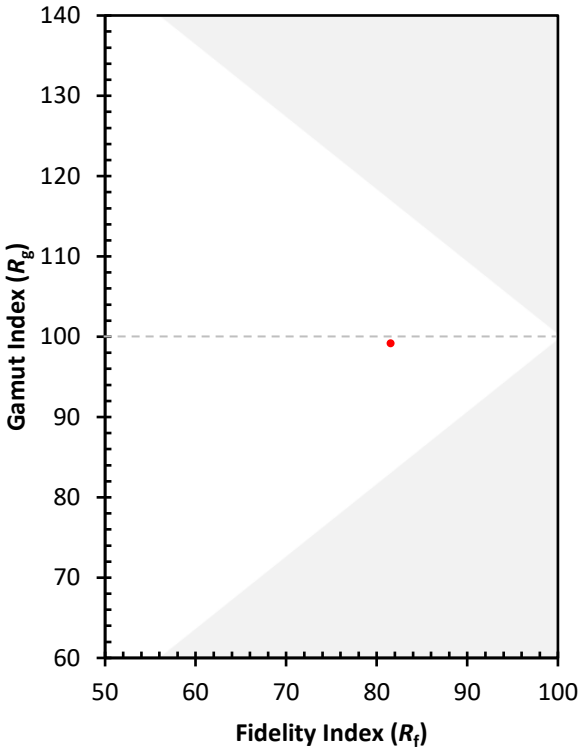


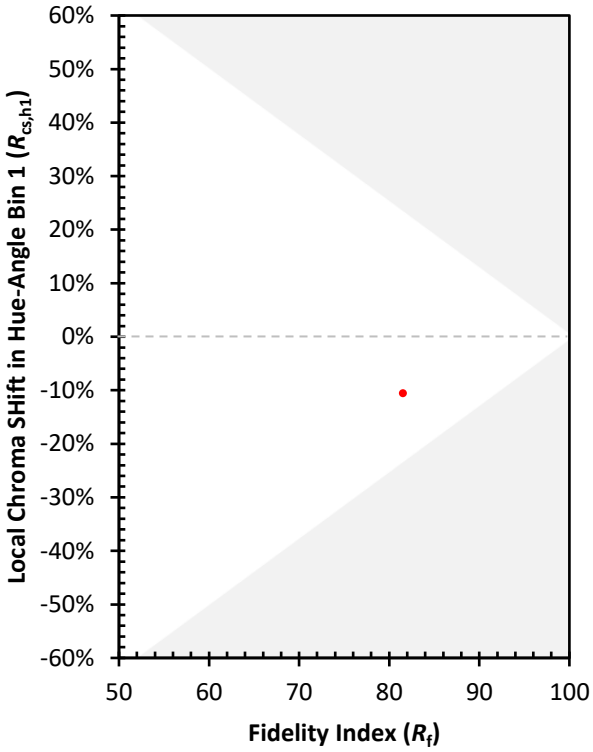


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)