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: P638497

Luminaire Tested: GWS-SA4E-830-U-T3-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:	P638497
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-25)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4E-830-U-T3-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	20749.1 lumens
Efficiency:	N/A
Efficacy:	102.4 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G3

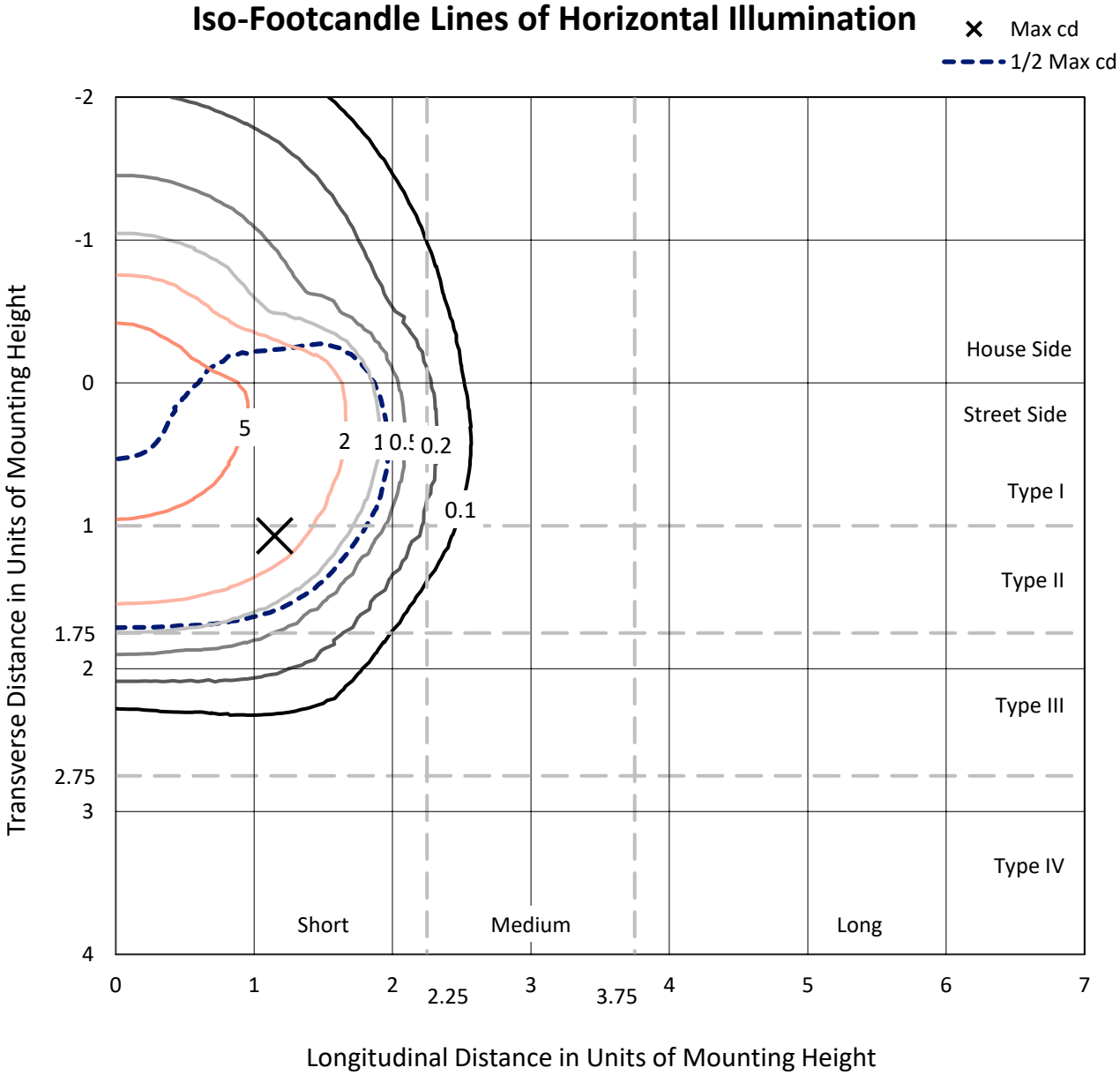
Input Watts (W):	202.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P638497
CATALOG NUMBER: GWS-SA4E-830-U-T3-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



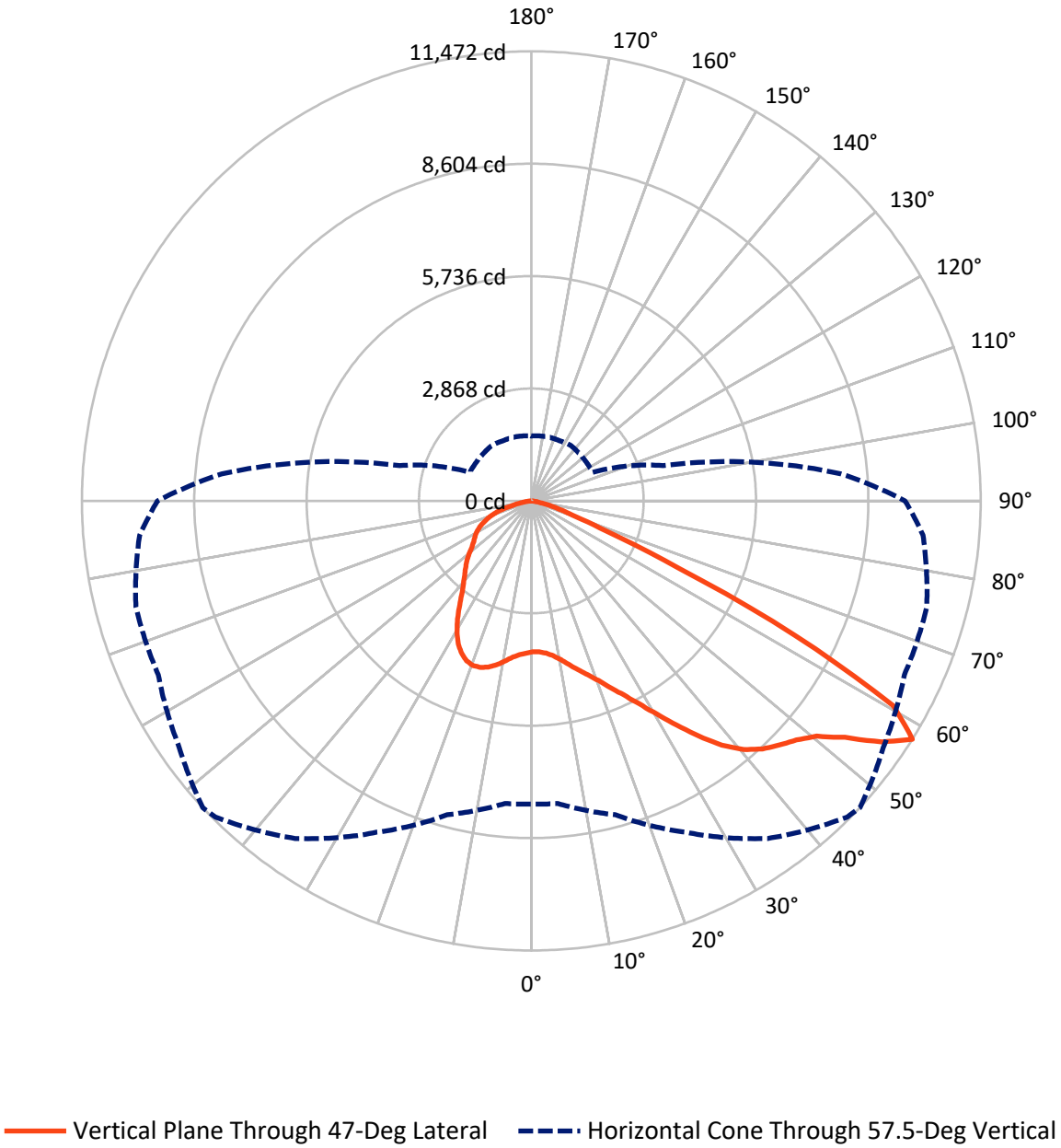
Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P638497
CATALOG NUMBER: GWS-SA4E-830-U-T3-W-GRSWH

Luminous Intensity Polar Plot



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

Scaled Data Report

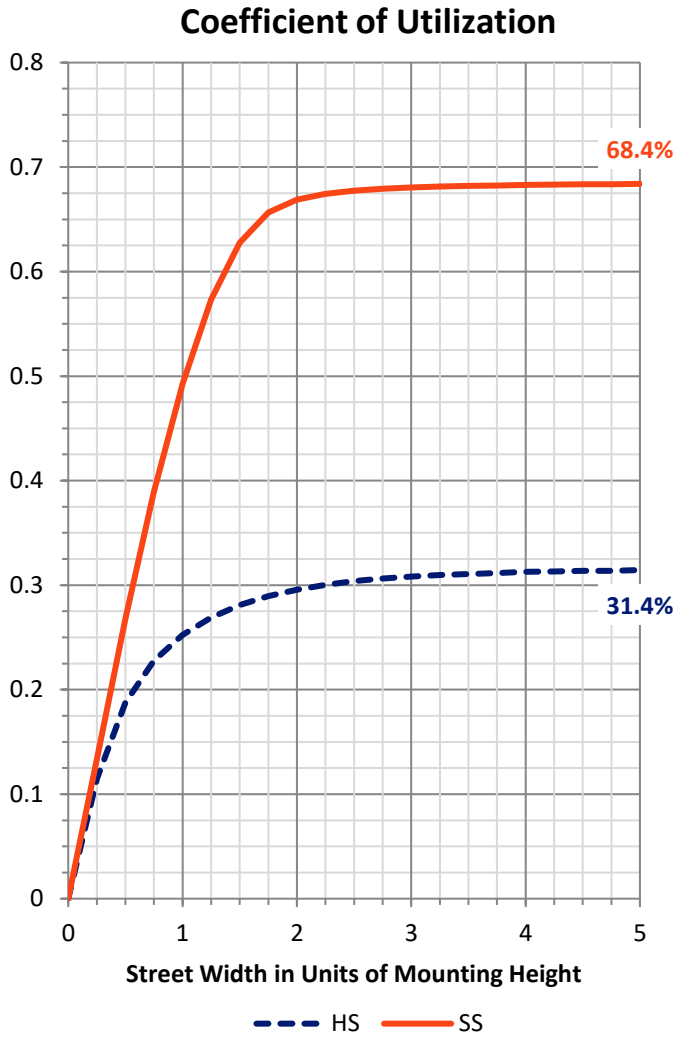
REPORT NUMBER: P638497
CATALOG NUMBER: GWS-SA4E-830-U-T3-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6567.0	0.0	6567.0
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	14182.1	0.0	14182.1
	% Fixture	68.4	0.0	68.4
Total	Lumens	20749.1	0.0	20749.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	379.5	1.8
10°-20°	1248.3	6.0
20°-30°	2247.7	10.8
30°-40°	3394.9	16.4
40°-50°	4571.6	22.0
50°-60°	5493.4	26.5
60°-70°	2675.4	12.9
70°-80°	659.1	3.2
80°-90°	79.2	0.4
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°	20749.1	100.0
0°-180°	20749.1	100.0



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

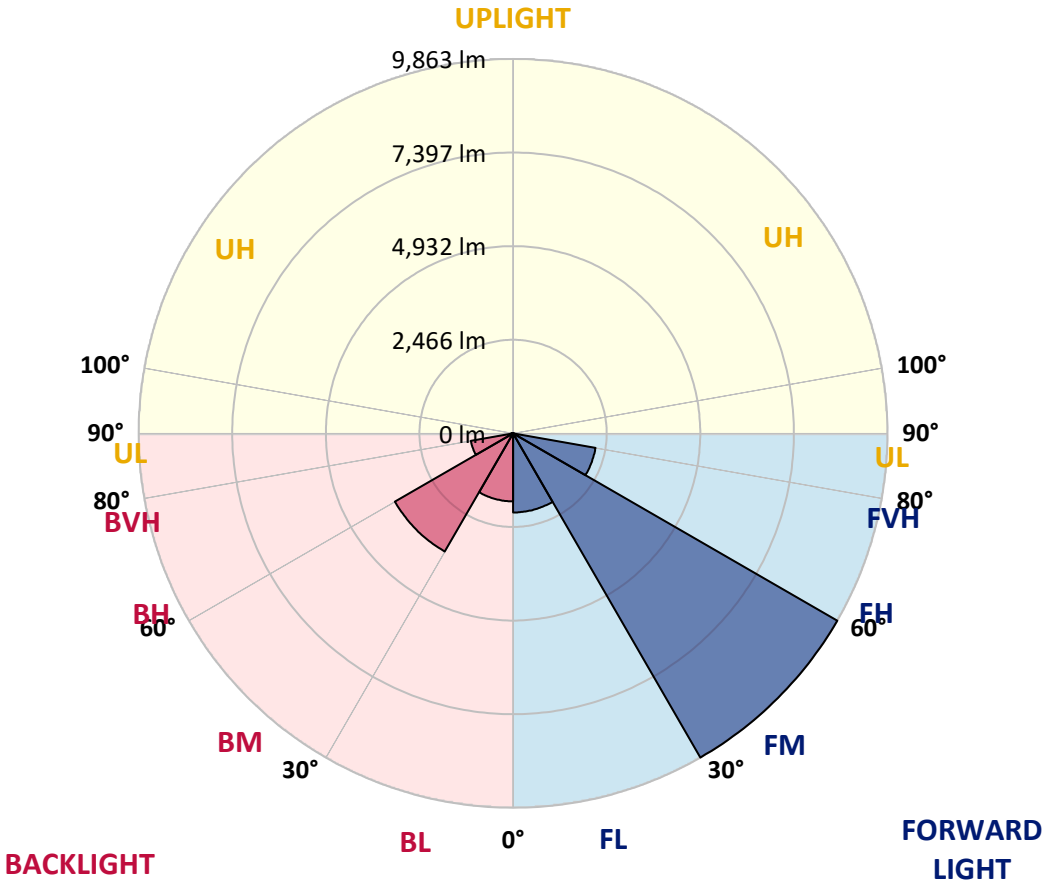
Scaled Data Report

REPORT NUMBER: P638497
CATALOG NUMBER: GWS-SA4E-830-U-T3-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2084.1	10.0			
FM	(30°-60°)	9863.1	47.5			
FH	(60°-80°)	2205.0	10.6			G2/5000
FVH	(80°-90°)	29.8	0.1			G1/100
BL	(0°-30°)	1791.4	8.6	B3/2500		
BM	(30°-60°)	3596.7	17.3	B3/5000		
BH	(60°-80°)	1129.5	5.4	B3/2500		G3/2500
BVH	(80°-90°)	49.4	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
Type II Short



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

Scaled Data Report

REPORT NUMBER: P638497
CATALOG NUMBER: GWS-SA4E-830-U-T3-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3848.0	3848.0	3848.0	3848.0	3848.0	3848.0	*3848.0*	3848.0	3848.0	3848.0	3848.0
2.5°	3841.0	3839.2	3839.2	3849.7	3849.7	3853.2	*3858.4*	3863.6	3865.4	3856.7	3837.5
5°	3882.8	3882.8	3882.8	3891.5	3891.5	3895.0	*3902.0*	3903.7	3902.0	3888.0	3868.9
7.5°	3949.0	3949.0	3950.8	3961.2	3969.9	3975.2	*3987.4*	3985.6	3980.4	3957.7	3933.3
10°	4057.1	4062.3	4067.5	4079.7	4097.2	4109.4	*4118.1*	4118.1	4111.1	4076.2	4044.9
12.5°	4210.4	4217.4	4222.6	4233.1	4247.0	4267.9	*4287.1*	4287.1	4278.4	4234.8	4187.8
15°	4389.9	4396.9	4395.2	4398.7	4424.8	4454.4	*4470.1*	4480.6	4484.0	4423.1	4349.9
17.5°	4595.6	4602.6	4595.6	4585.1	4588.6	4635.7	*4663.5*	4701.9	4724.5	4642.6	4525.9
20°	4782.1	4775.1	4775.1	4782.1	4792.5	4850.0	*4891.8*	4954.6	4982.5	4883.1	4701.9
22.5°	4979.0	4994.7	4987.7	4987.7	5029.5	5125.4	*5175.9*	5257.8	5287.4	5158.5	4914.5
25°	5233.4	5247.4	5243.9	5247.4	5296.2	5432.1	*5482.6*	5634.3	5663.9	5479.1	5149.8
27.5°	5512.3	5534.9	5545.4	5541.9	5620.3	5798.1	*5860.8*	6071.7	6125.7	5838.1	5400.7
30°	5874.7	5899.1	5907.9	5904.4	5996.7	6239.0	*6310.4*	6550.9	6627.6	6263.4	5719.6
32.5°	6294.7	6319.1	6345.3	6355.7	6474.2	6721.7	*6824.5*	7073.7	7183.5	6754.8	6104.8
35°	6711.3	6732.2	6782.7	6864.6	7026.7	7279.4	*7370.0*	7615.7	7722.0	7265.4	6570.1
37.5°	7171.3	7185.3	7228.8	7342.1	7575.7	7816.1	*7906.8*	8142.0	8154.2	7758.6	7096.4
40°	7675.0	7675.0	7666.3	7777.8	8021.8	8264.0	*8342.5*	8478.4	8406.9	8138.6	7608.8
42.5°	8102.0	8095.0	8102.0	8206.5	8387.8	8584.7	*8652.7*	8626.5	8535.9	8429.6	8072.3
45°	8487.1	8492.3	8555.1	8635.2	8729.3	8846.1	*8886.2*	8738.1	8656.1	8663.1	8443.5
47.5°	8748.5	8753.7	8900.1	9034.3	9091.8	9128.4	*9111.0*	8905.4	8863.5	8942.0	8729.3
50°	8783.4	8811.2	9063.9	9339.3	9482.2	9487.4	*9438.6*	9187.7	9175.5	9264.4	8882.7
52.5°	8790.3	8818.2	9133.7	9630.3	10001.5	10080.0	*10024.2*	9762.8	9635.6	9546.7	9070.9
55°	8764.2	8795.6	9144.1	9825.5	10536.6	10850.2	*10855.5*	10486.0	10080.0	10020.7	9607.7
57.5°	*7737.7*	*7749.9*	*8290.2*	*9328.8*	*10515.6*	*11404.4*	*11472.4*	*10970.5*	*10506.9*	*10451.2*	*10038.1*
60°	5390.3	5439.1	6026.4	7397.9	8833.9	10400.6	*10620.2*	10473.8	10163.6	9757.6	8612.6
62.5°	2699.5	2741.3	3330.4	4627.0	6092.6	7329.9	*7565.2*	7720.3	7793.5	7357.8	5864.3
65°	1162.4	1193.8	1559.7	2417.2	3448.9	4046.6	*4128.5*	4315.0	4771.6	4257.5	3159.6
67.5°	777.3	798.2	984.6	1474.4	2032.0	2070.4	*2058.2*	2098.2	2197.6	1814.2	1427.3
70°	596.0	613.4	738.9	1080.5	1460.4	1249.5	*1183.3*	1073.5	1165.9	1188.5	1157.2
72.5°	432.2	446.1	540.2	737.2	914.9	798.2	*787.7*	843.5	969.0	1003.8	984.6
75°	278.8	285.8	343.3	404.3	472.3	512.4	*533.3*	634.4	761.6	787.7	765.1
77.5°	186.5	191.7	224.8	259.7	268.4	270.1	*277.1*	322.4	409.5	458.3	453.1
80°	97.6	97.6	109.8	109.8	125.5	149.9	*156.8*	186.5	226.6	251.0	252.7
82.5°	38.3	40.1	47.1	52.3	62.7	76.7	*81.9*	97.6	118.5	135.9	151.6
85°	15.7	17.4	19.2	22.7	27.9	34.9	*36.6*	41.8	55.8	69.7	78.4
87.5°	0.0	0.0	1.7	1.7	3.5	5.2	*5.2*	7.0	8.7	15.7	20.9
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: P638497
CATALOG NUMBER: GWS-SA4E-830-U-T3-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3848.0	3848.0	3848.0	3848.0	3848.0	3848.0	3848.0	3848.0	3848.0	3848.0	3848.0
2.5°	3860.1	3837.5	3860.1	3867.1	3886.3	3893.3	3881.1	3879.3	3879.3	3861.9	3856.7
5°	3886.3	3865.4	3888.0	3898.5	3926.4	3943.8	3947.3	3961.2	3969.9	3963.0	3961.2
7.5°	3950.8	3924.6	3949.0	3964.7	4001.3	4029.2	4041.4	4072.8	4095.4	4091.9	4090.2
10°	4064.0	4029.2	4057.1	4083.2	4123.3	4156.4	4158.2	4175.6	4198.2	4191.3	4187.8
12.5°	4194.8	4161.6	4193.0	4219.2	4266.2	4280.1	4257.5	4250.5	4254.0	4245.3	4238.3
15°	4355.1	4308.0	4335.9	4365.5	4391.7	4376.0	4327.2	4308.0	4306.3	4294.1	4287.1
17.5°	4515.4	4456.2	4477.1	4492.8	4480.6	4431.8	4370.8	4337.7	4322.0	4297.6	4290.6
20°	4674.0	4599.1	4595.6	4583.4	4527.6	4438.7	4356.8	4290.6	4250.5	4217.4	4205.2
22.5°	4855.2	4750.7	4698.4	4642.6	4520.6	4376.0	4252.3	4158.2	4093.7	4051.9	4037.9
25°	5050.4	4902.3	4794.3	4682.7	4450.9	4241.8	4069.3	3940.3	3863.6	3818.3	3802.6
27.5°	5243.9	5040.0	4877.9	4687.9	4311.5	4048.4	3816.6	3642.3	3565.6	3529.0	3516.8
30°	5505.3	5223.0	4977.2	4620.0	4128.5	3780.0	3490.7	3314.7	3264.1	3238.0	3227.5
32.5°	5806.8	5454.7	5109.7	4477.1	3895.0	3466.3	3161.3	3039.3	3004.5	2953.9	2952.2
35°	6204.1	5785.9	5235.2	4266.2	3600.5	3129.9	2908.6	2821.5	2758.7	2678.6	2671.6
37.5°	6667.7	6198.9	5303.1	3997.8	3257.2	2852.9	2720.4	2622.8	2521.7	2415.4	2401.5
40°	7146.9	6681.6	5308.4	3680.6	2920.8	2669.9	2558.3	2431.1	2305.6	2187.1	2171.4
42.5°	7650.6	7131.3	5216.0	3314.7	2645.5	2511.3	2398.0	2237.7	2096.5	2016.3	2007.6
45°	8100.2	7493.7	5006.9	2929.5	2441.6	2378.8	2234.2	2061.7	1986.7	1929.2	1917.0
47.5°	8454.0	7734.2	4724.5	2584.5	2276.0	2242.9	2054.7	1965.8	1908.3	1856.0	1843.8
50°	8628.3	7788.3	4356.8	2303.9	2122.6	2082.6	1953.6	1885.6	1847.3	1805.5	1795.0
52.5°	8844.4	7849.3	4039.7	2068.6	1972.8	1918.7	1870.0	1815.9	1788.0	1761.9	1753.2
55°	9341.0	8079.3	3872.3	1880.4	1829.9	1805.5	1798.5	1753.2	1744.5	1727.0	1711.4
57.5°	*9543.2*	*7931.2*	*3476.7*	*1727.0*	*1716.6*	*1720.1*	*1737.5*	*1695.7*	*1687.0*	*1666.1*	*1655.6*
60°	7675.0	5995.0	2354.4	1594.6	1622.5	1645.1	1662.6	1620.7	1608.5	1605.1	1591.1
62.5°	4918.0	3687.6	1643.4	1470.9	1512.7	1540.6	1551.0	1510.9	1502.2	1530.1	1531.9
65°	2560.1	2009.4	1333.2	1338.4	1373.3	1415.1	1436.0	1422.1	1418.6	1448.2	1450.0
67.5°	1307.0	1228.6	1162.4	1181.6	1209.5	1263.5	1312.3	1373.3	1394.2	1397.7	1399.4
70°	1113.6	1078.8	1045.6	1057.8	1087.5	1117.1	1164.1	1193.8	1158.9	1150.2	1146.7
72.5°	948.0	921.9	906.2	920.2	935.8	930.6	916.7	930.6	935.8	937.6	939.3
75°	737.2	718.0	705.8	707.5	707.5	688.4	662.2	646.6	629.1	615.2	615.2
77.5°	451.4	454.9	467.1	465.3	463.6	456.6	430.5	416.5	374.7	362.5	362.5
80°	257.9	263.2	275.4	278.8	278.8	270.1	244.0	228.3	209.1	200.4	198.7
82.5°	156.8	163.8	170.8	174.3	176.0	165.6	142.9	130.7	120.2	111.5	111.5
85°	81.9	85.4	92.4	94.1	88.9	78.4	66.2	61.0	50.5	48.8	48.8
87.5°	22.7	24.4	27.9	22.7	20.9	15.7	8.7	7.0	3.5	1.7	1.7
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

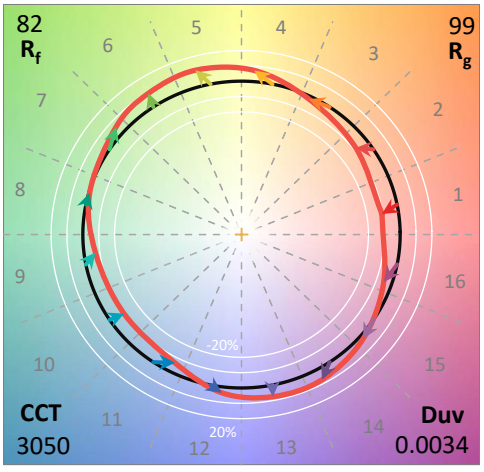
Test Information

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

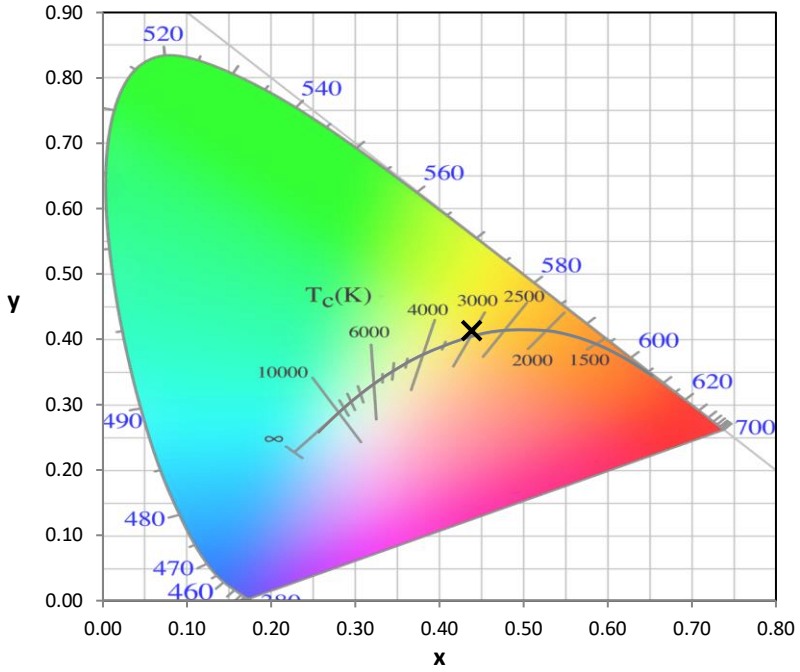
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

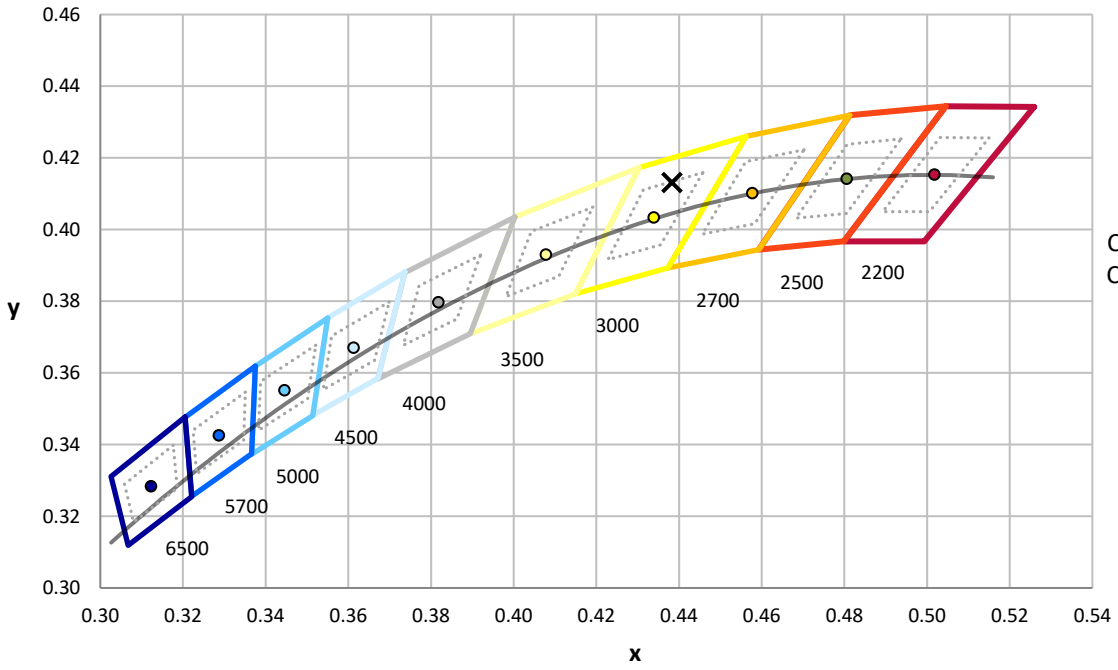
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

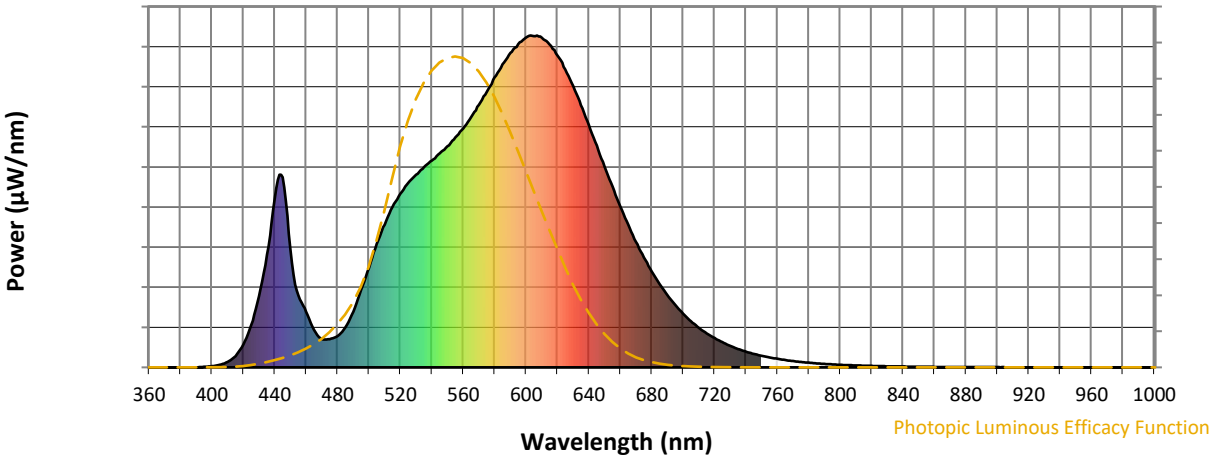


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

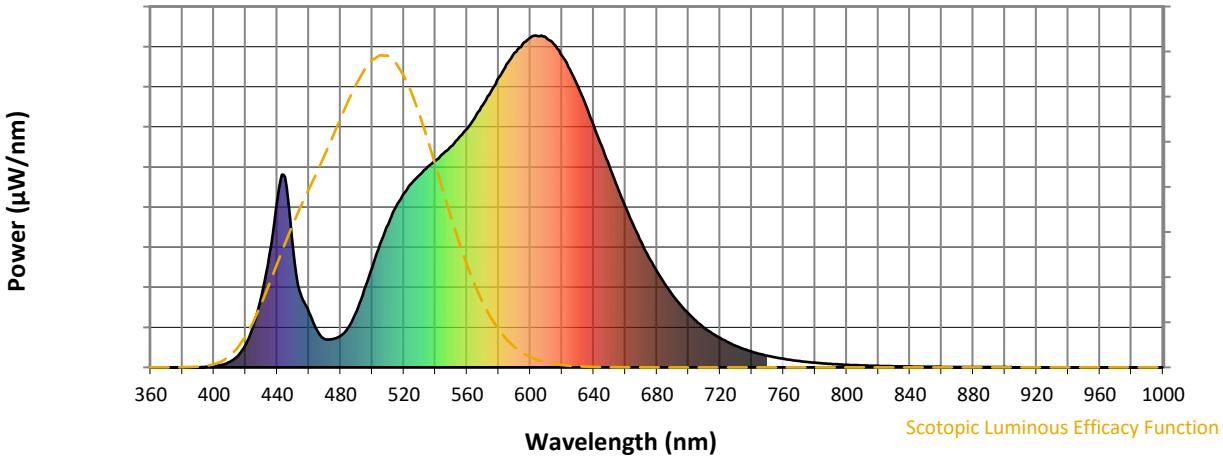


Photopic Lumens: NR

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

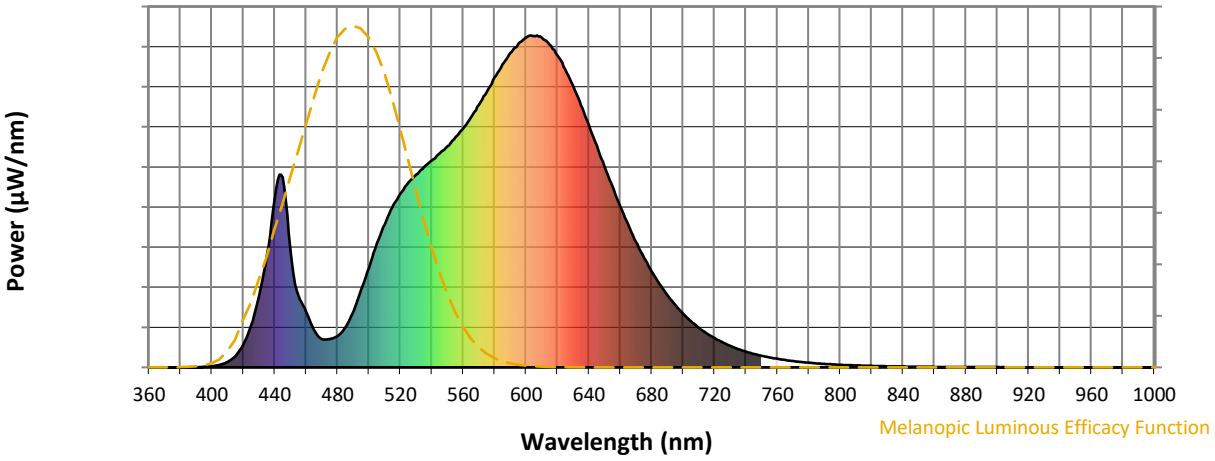


Scotopic Lumens: NR **S/P: 1.27**

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			

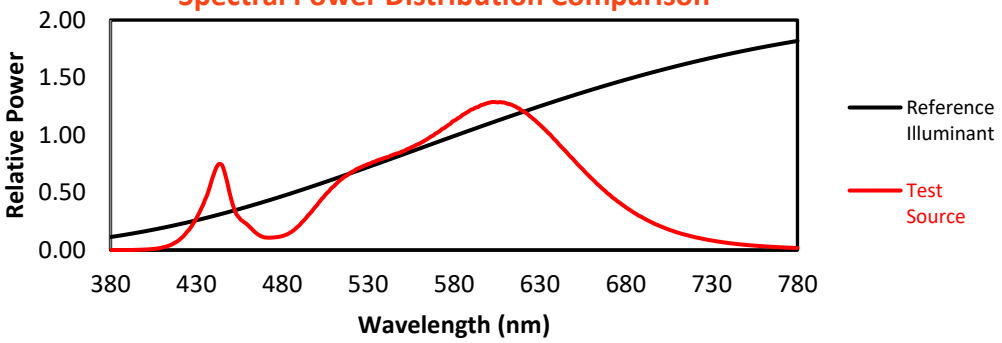
REPORT NUMBER: SP1-2408-195-9

TM-30-18

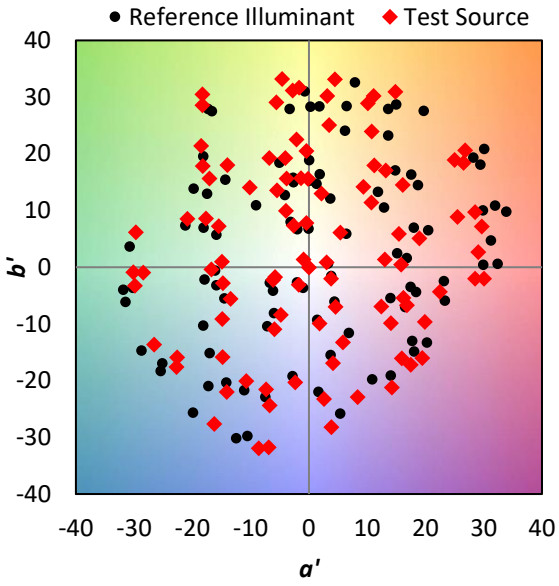
Summary

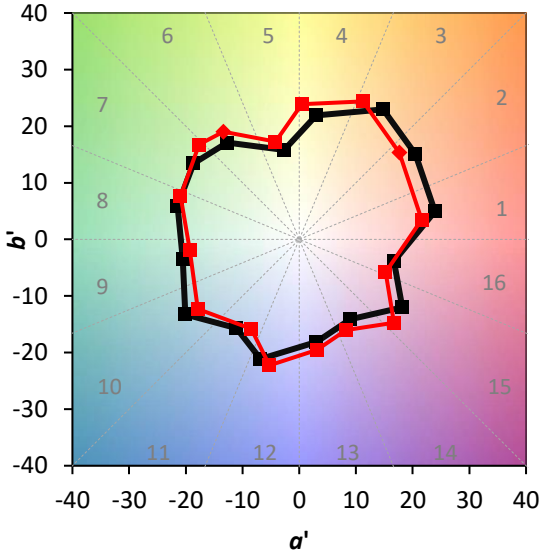
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

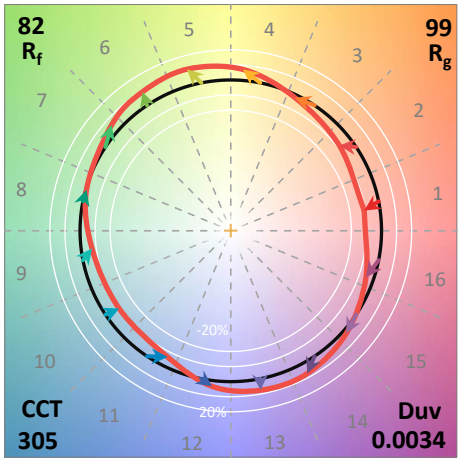
Spectral Power Distribution Comparison

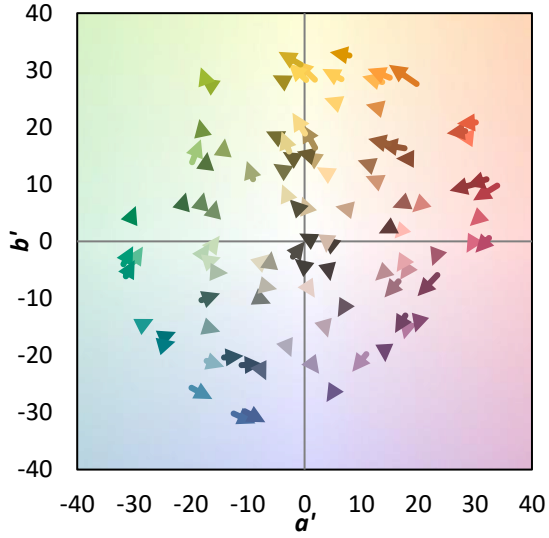


Color Vector Graphics







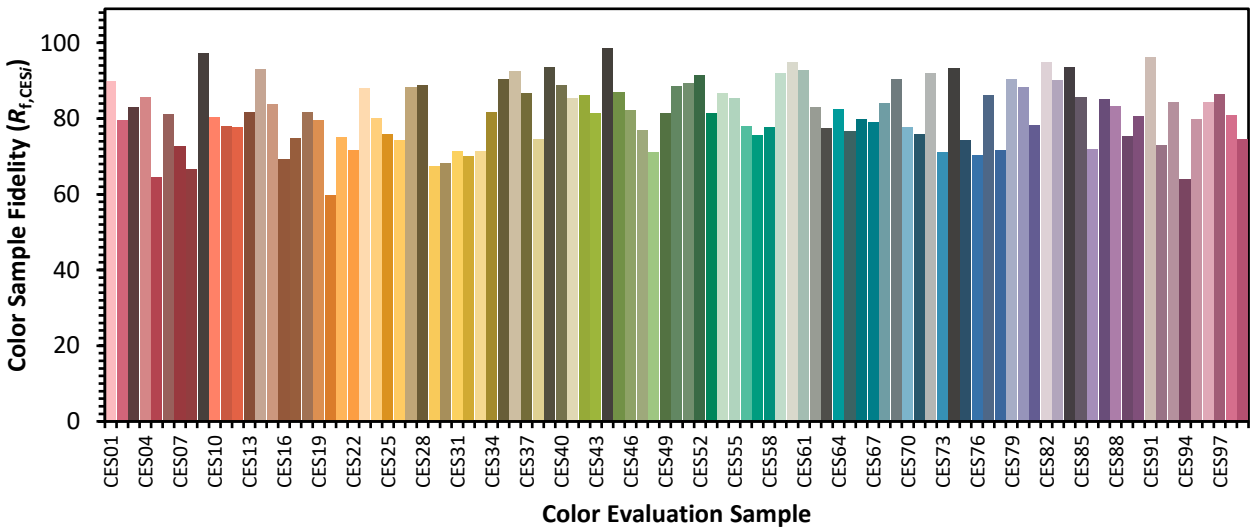


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

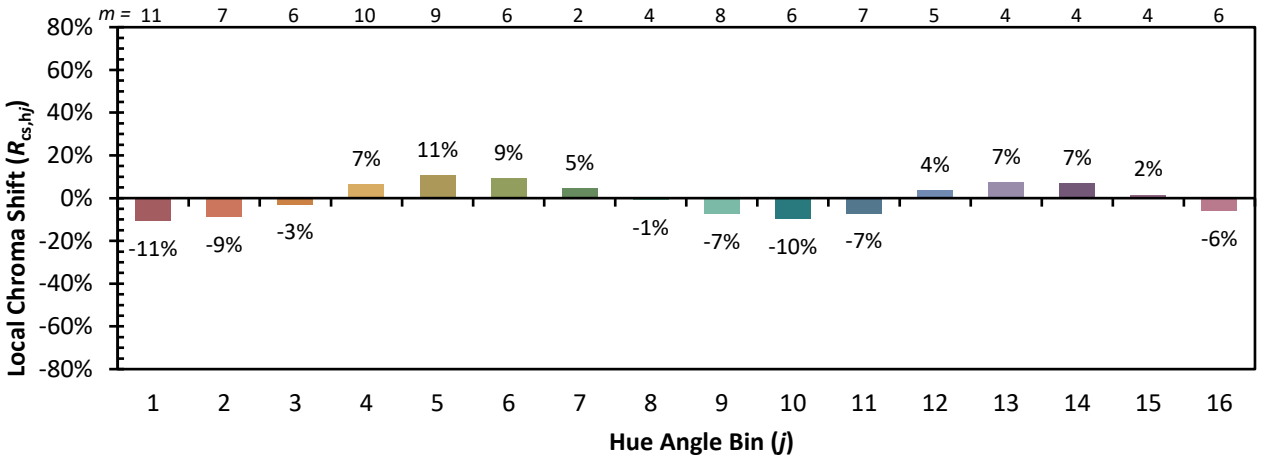
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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	

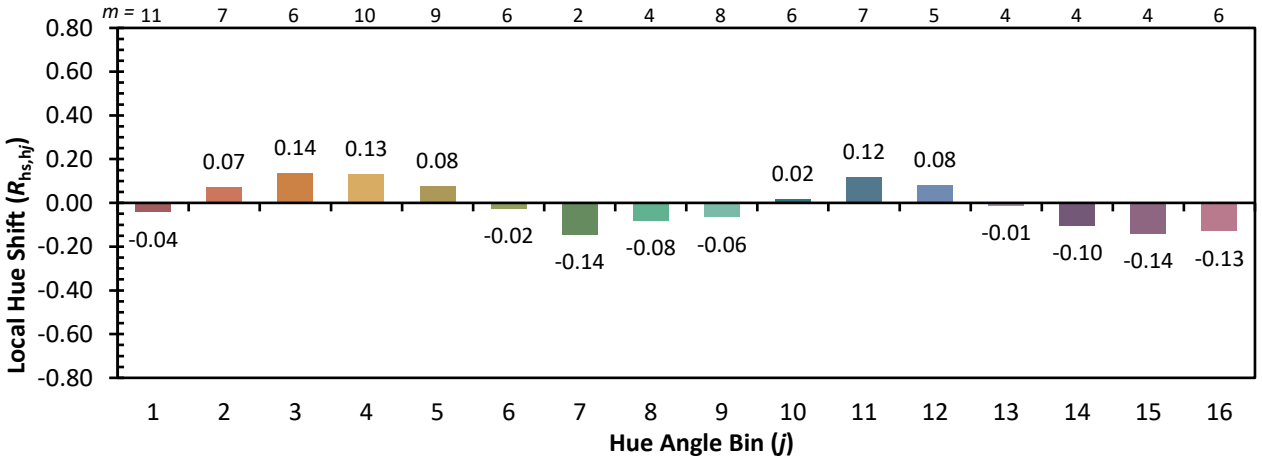


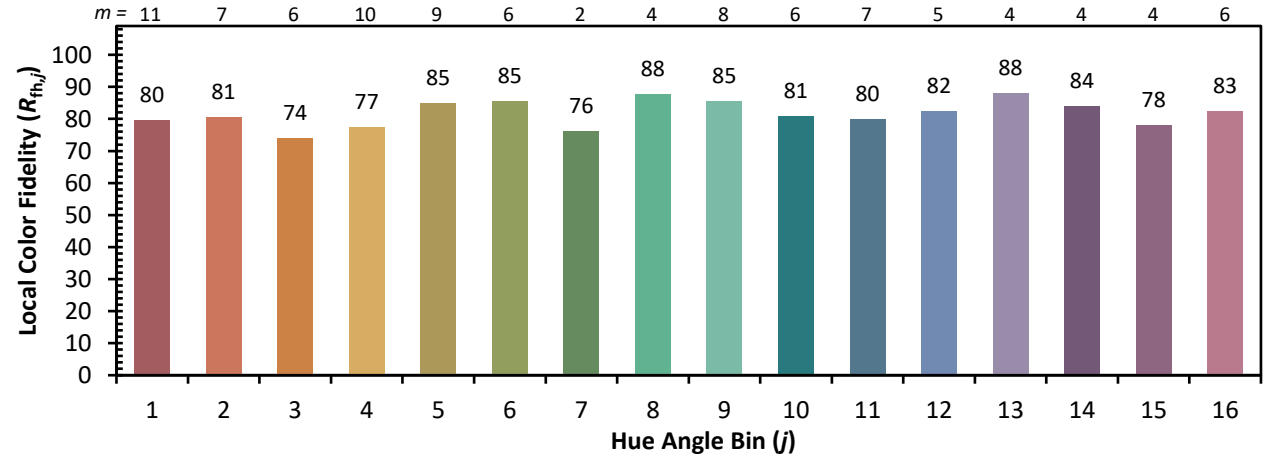
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



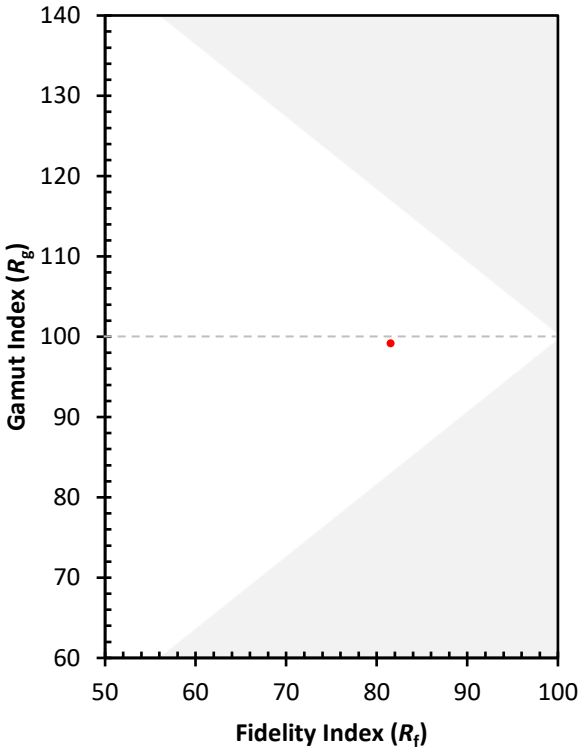


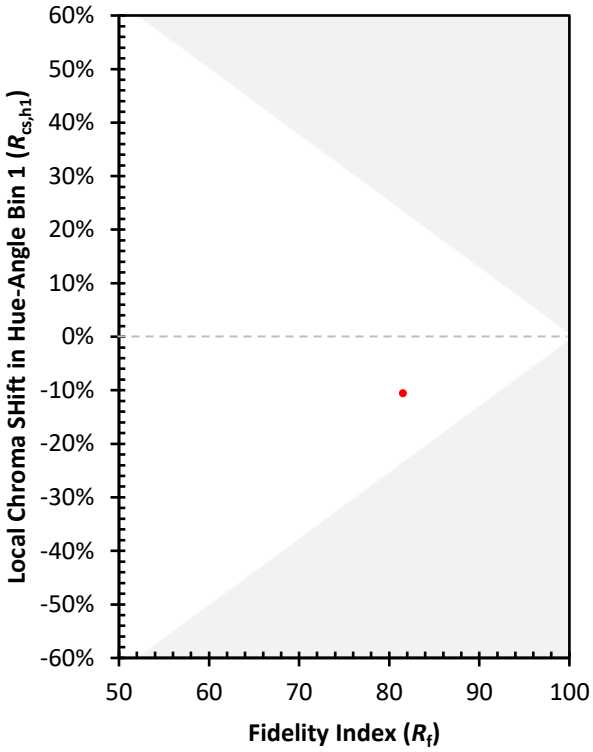


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)