

Signify Classified - Internal  
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: P634525

Luminaire Tested: GWS-SA3B-830-U-SLR-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P634525  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-44)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA3B-830-U-SLR-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (48) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

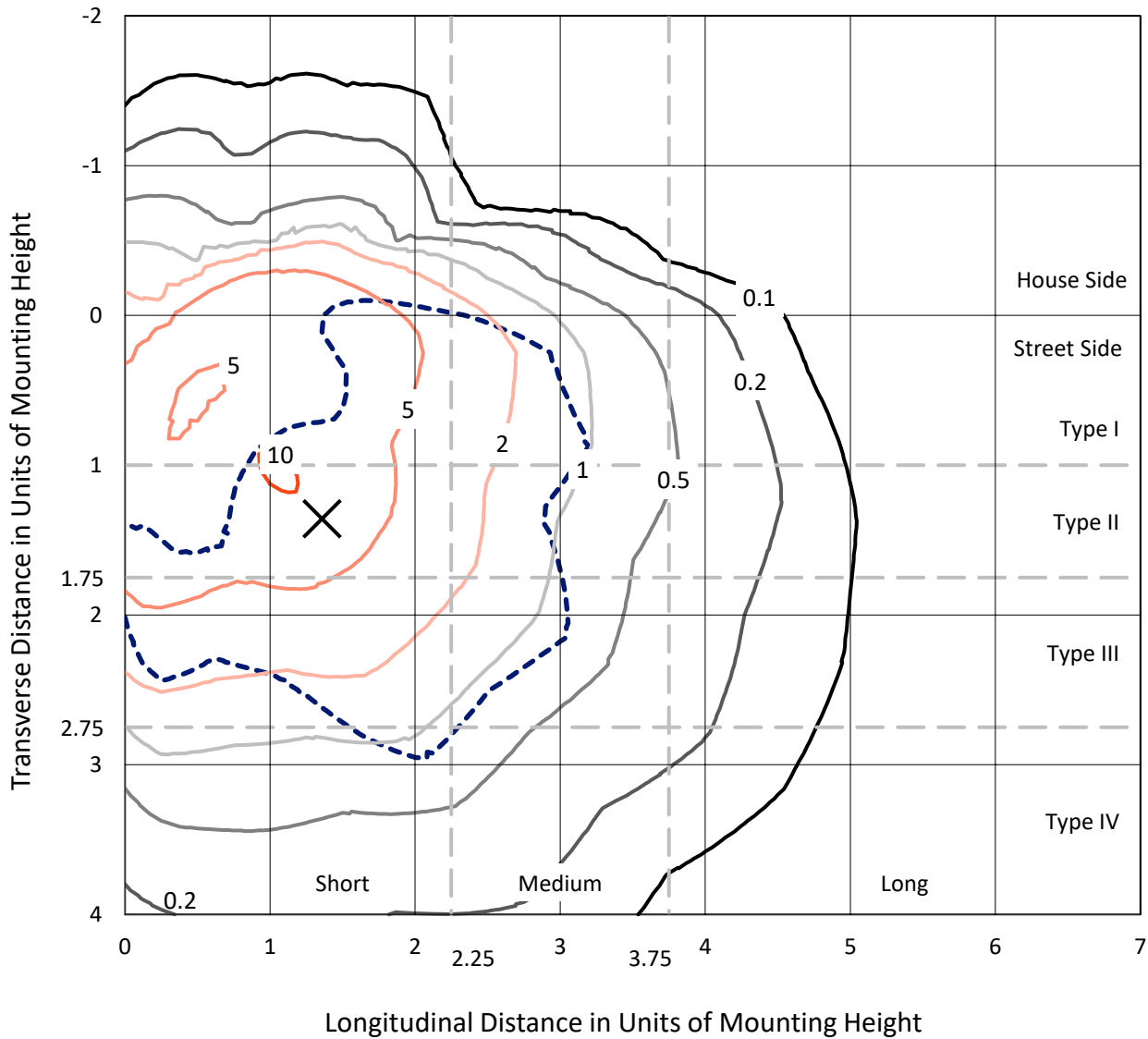
Lumens per Lamp: N/A  
Luminaire Lumens: 5127.9 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 68.3  
Input Voltage (V): 120  
Input Current (Ain): 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



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 CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

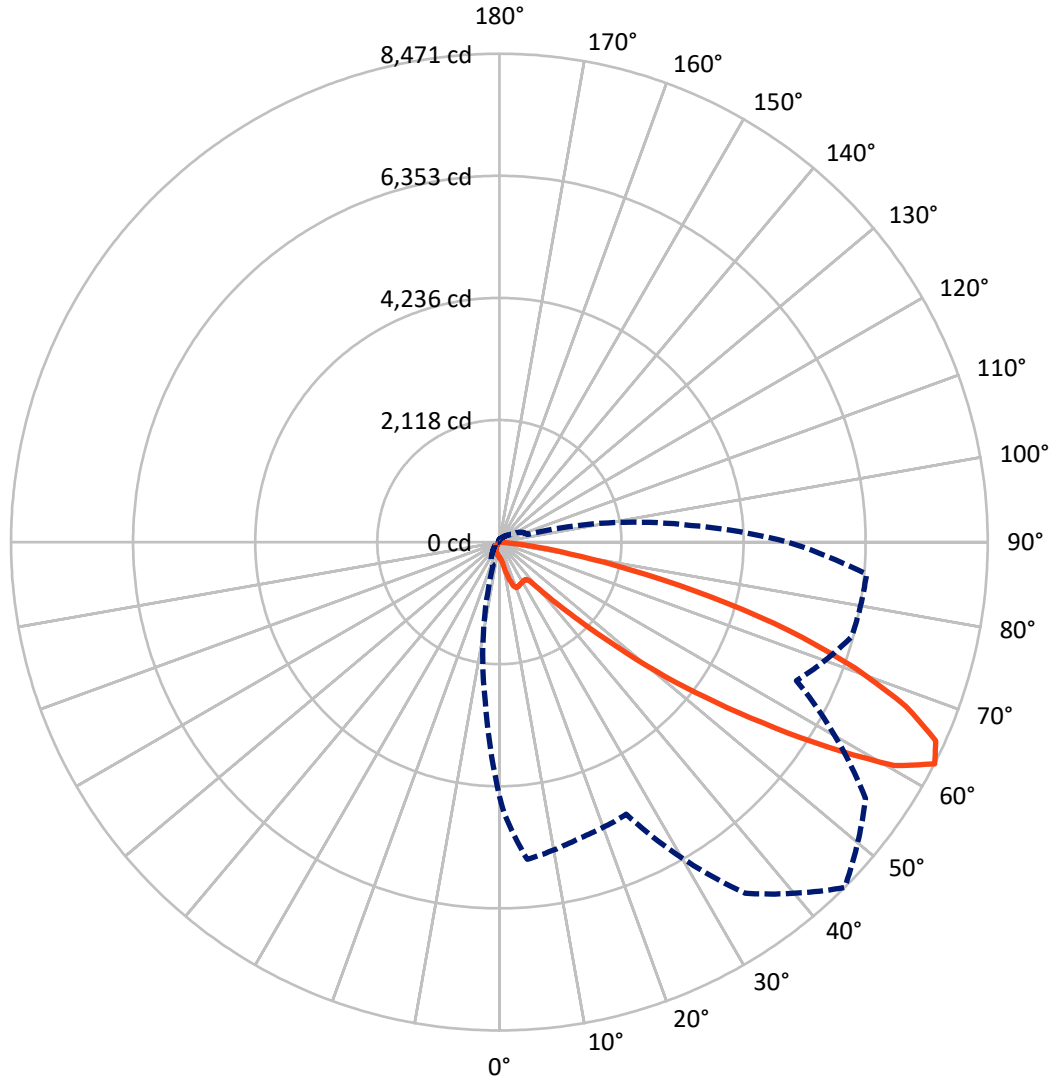
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.4 fc  
 Type IV - Short - N/A

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CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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 CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	632.8	0.0	632.8
	% Fixture	12.3	0.0	12.3
<b>Street Side</b>	Lumens	4495.1	0.0	4495.1
	% Fixture	87.7	0.0	87.7
<b>Total</b>	Lumens	5127.9	0.0	5127.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.6	0.5
10°-20°	89.4	1.7
20°-30°	194.3	3.8
30°-40°	319.0	6.2
40°-50°	586.4	11.4
50°-60°	1259.3	24.6
60°-70°	1691.5	33.0
70°-80°	880.8	17.2
80°-90°	83.5	1.6
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°	5127.9	100.0
0°-180°	5127.9	100.0

**Coefficient of Utilization**

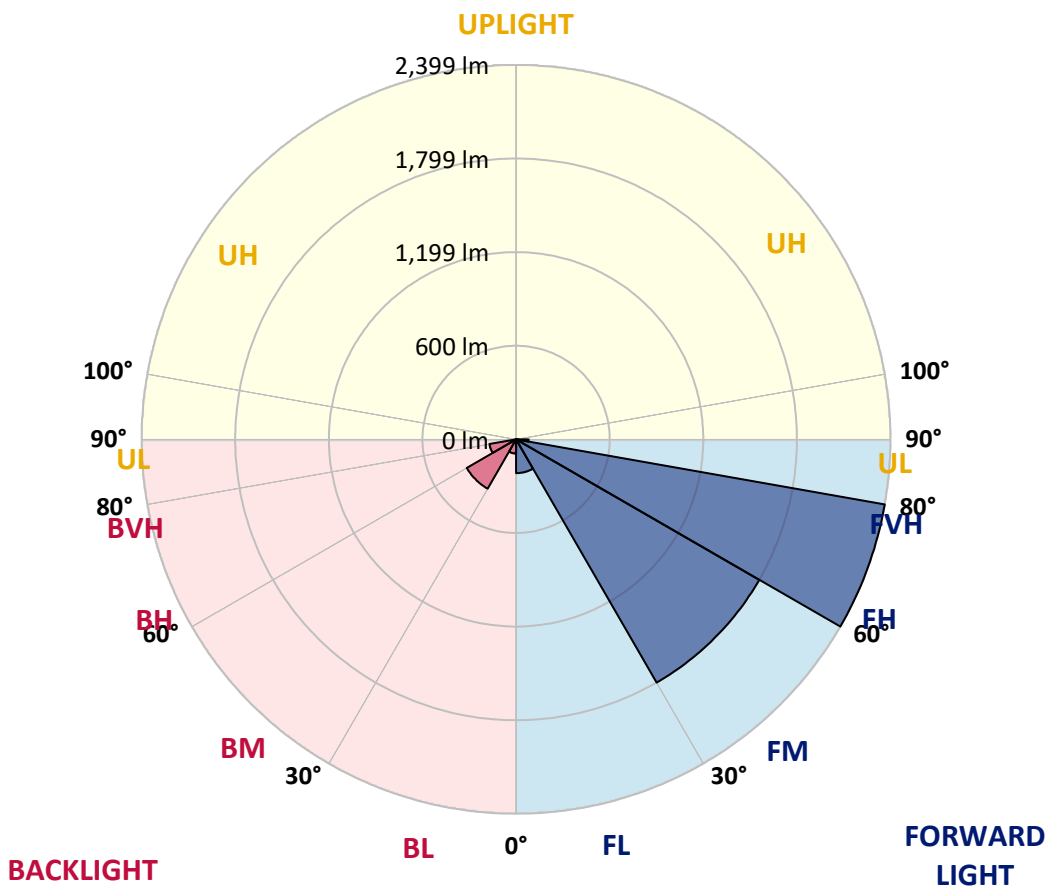


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 CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	216.6	4.2			
FM (30°-60°)	1799.8	35.1			
FH (60°-80°)	2398.9	46.8			G2/5000
FVH (80°-90°)	79.8	1.6			G1/100
BL (0°-30°)	90.8	1.8	B0/110		
BM (30°-60°)	364.9	7.1	B1/1000		
BH (60°-80°)	173.4	3.4	B1/500		G1/500
BVH (80°-90°)	3.7	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type IV Short





REPORT NUMBER: P634525

CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5
2.5°	271.9	273.1	274.2	278.4	281.4	283.7	284.3	282.5	278.4	274.2	268.3
5°	263.6	264.8	268.9	280.2	291.4	300.3	303.3	301.5	291.4	278.4	264.8
7.5°	263.0	265.4	275.4	299.1	323.4	341.8	346.5	342.4	323.4	297.3	269.5
10°	284.3	288.5	303.3	345.9	390.3	422.9	435.9	418.2	388.0	340.6	295.0
12.5°	340.0	347.1	375.5	437.7	506.4	549.7	567.4	545.5	498.1	429.4	357.2
15°	427.7	438.3	481.0	574.0	655.1	693.6	699.5	687.1	632.0	556.2	459.0
17.5°	551.4	566.8	633.2	728.0	786.6	800.2	798.4	785.4	745.1	693.0	601.2
20°	699.5	717.9	783.0	861.2	867.2	851.2	842.3	834.6	821.0	812.1	740.4
22.5°	848.8	871.3	939.4	959.0	905.7	859.5	837.5	843.5	863.6	907.4	878.4
25°	997.5	1018.8	1082.8	1030.0	923.4	846.4	818.6	832.8	880.8	975.5	1012.9
27.5°	1171.0	1187.0	1224.9	1078.6	926.4	835.8	808.5	830.4	889.1	1018.2	1160.4
30°	1351.7	1361.1	1342.8	1091.6	916.3	819.8	798.4	830.4	903.3	1046.6	1271.1
32.5°	1484.4	1486.1	1426.3	1092.8	911.0	806.7	789.0	826.9	916.9	1070.3	1378.3
35°	1621.2	1612.3	1506.3	1110.6	925.2	811.5	796.1	836.9	938.2	1098.2	1472.5
37.5°	1759.8	1743.8	1595.7	1139.6	961.9	863.0	853.5	888.5	972.6	1136.7	1576.2
40°	1901.9	1880.0	1688.7	1183.5	1043.7	1038.3	1070.9	1066.8	1066.8	1185.8	1682.8
42.5°	2075.5	2050.0	1826.1	1307.2	1234.4	1353.4	1442.3	1387.2	1285.3	1299.0	1821.4
45°	2304.7	2282.8	2064.2	1544.2	1533.5	1807.2	1926.8	1817.8	1564.3	1560.2	2053.0
47.5°	2671.4	2667.2	2443.9	1819.0	1899.6	2384.7	2615.7	2406.0	1882.4	1836.8	2491.3
50°	3186.7	3174.2	2917.2	2141.2	2334.9	3100.2	3512.5	3163.0	2266.8	2159.6	3078.3
52.5°	3767.1	3780.2	3580.0	2493.1	2797.5	3896.3	4470.2	4030.1	2684.4	2570.1	3816.9
55°	4313.9	4388.5	4335.8	2904.7	3249.5	4775.3	5522.2	4981.4	3201.5	3107.3	4645.0
57.5°	4741.5	4951.8	5321.4	3503.0	3780.8	5803.5	6696.8	6012.6	3805.1	3979.8	5772.1
60°	4765.2	5043.6	5901.9	4754.5	4464.3	6685.5	7869.5	7020.2	4754.0	5461.2	6655.3
62.5°	4408.0	4706.6	5524.0	5323.2	5208.9	7436.0	8471.3	7754.6	5687.4	6328.9	6393.5
65°	3999.3	4300.8	5102.2	4678.1	5122.4	7404.0	8318.5	7771.8	5772.1	5739.0	5925.0
67.5°	3381.5	3652.2	4377.8	4140.9	4721.4	7046.8	7612.5	7282.0	5317.8	5367.6	5450.5
70°	2468.2	2728.8	3402.3	3414.1	4123.1	6403.0	6541.0	6495.4	4897.3	4950.0	4713.1
72.5°	1782.9	2002.6	2583.7	2799.9	3291.5	5369.4	5274.0	5449.9	4201.9	4408.6	3785.5
75°	1281.8	1446.4	1895.4	2435.6	2609.2	3987.5	3775.4	4220.9	3371.5	3796.2	2846.1
77.5°	520.1	578.1	745.7	1640.7	1714.8	2682.6	2311.2	3065.8	2403.6	2494.3	1379.5
80°	21.3	23.7	30.8	847.0	1175.8	1509.2	1236.8	1638.9	1587.4	1004.6	325.8
82.5°	2.4	2.4	5.3	244.0	514.7	832.8	582.8	944.2	803.8	425.9	148.1
85°	0.6	0.6	1.2	27.8	120.8	133.3	78.8	289.6	373.8	174.1	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	5.3	5.9	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



REPORT NUMBER: P634525

CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5
2.5°	268.3	265.4	261.8	258.3	256.5	251.7	250.0	248.8	247.6	248.2	248.2
5°	259.4	252.9	245.2	237.5	233.4	228.6	226.3	225.1	225.7	228.0	228.0
7.5°	258.3	245.8	229.2	219.2	214.4	210.9	208.5	207.3	207.9	210.9	212.1
10°	277.8	255.9	226.3	209.1	203.8	200.2	197.8	196.1	194.9	197.2	197.8
12.5°	319.9	289.6	240.5	207.9	198.4	193.7	191.9	188.4	186.6	187.8	188.4
15°	406.9	354.8	268.9	212.6	193.7	188.4	185.4	182.4	179.5	178.9	179.5
17.5°	520.6	446.0	312.2	223.9	190.1	183.6	179.5	175.3	171.2	170.6	170.0
20°	661.6	558.0	372.6	241.7	187.2	179.5	173.5	167.6	162.3	160.5	160.5
22.5°	790.2	693.0	450.2	263.6	183.0	173.5	166.4	159.3	153.4	150.4	149.9
25°	947.1	836.4	543.2	289.1	177.1	165.8	158.1	151.0	145.1	141.6	140.4
27.5°	1105.3	987.4	648.6	322.2	170.0	158.1	151.0	144.5	138.0	133.9	132.7
30°	1258.7	1150.3	767.1	363.7	164.7	150.4	144.5	138.0	132.1	125.6	123.8
32.5°	1423.3	1316.7	899.7	409.9	160.5	145.1	138.6	132.7	125.0	119.1	116.1
35°	1582.1	1488.5	1046.0	454.9	156.4	140.4	133.3	127.3	119.1	112.5	108.4
37.5°	1742.0	1663.2	1198.9	482.1	150.4	133.9	127.3	122.6	113.1	105.4	100.7
40°	1911.4	1843.9	1364.1	470.9	145.1	126.8	123.2	117.9	107.2	98.3	92.4
42.5°	2097.4	2016.3	1532.3	427.7	140.4	120.8	117.3	111.9	101.9	91.2	83.5
45°	2331.4	2205.2	1670.3	362.5	142.7	114.9	107.8	106.6	97.1	83.5	74.0
47.5°	2733.6	2495.4	1777.5	320.4	158.7	108.4	100.1	103.1	93.0	75.8	65.2
50°	3349.0	2976.4	1877.7	317.5	183.0	105.4	93.0	100.7	88.8	68.1	57.5
52.5°	3935.4	3465.1	1941.6	343.5	204.3	113.1	85.9	97.7	85.9	62.8	52.1
55°	4496.3	3747.0	1827.3	362.5	224.5	136.2	80.6	93.0	82.3	59.8	50.3
57.5°	5101.0	3872.6	1438.7	401.0	238.7	155.8	81.7	85.9	77.6	58.0	49.8
60°	5281.7	3712.1	868.3	451.3	231.0	161.7	90.6	76.4	71.1	54.5	48.0
62.5°	5000.9	3331.2	512.4	411.1	224.5	152.8	103.7	70.5	64.6	49.8	44.4
65°	4581.0	2814.1	334.1	347.1	238.1	136.2	110.2	67.5	58.6	45.0	39.1
67.5°	4101.2	2266.8	234.0	204.9	219.8	122.6	93.0	66.9	52.7	37.9	32.0
70°	3454.4	1697.6	164.7	135.6	183.0	109.0	72.3	65.2	46.2	30.8	24.9
72.5°	2669.0	1062.6	122.6	87.7	130.3	88.8	57.5	55.1	37.3	25.5	19.0
75°	1968.3	605.9	86.5	63.4	85.9	67.5	42.6	39.1	32.0	24.3	17.2
77.5°	1027.7	303.3	53.9	48.6	49.2	42.1	30.8	28.4	29.6	24.3	16.0
80°	197.2	60.4	32.6	35.5	26.7	26.7	22.5	23.7	26.1	19.5	13.6
82.5°	82.3	13.0	17.8	20.1	16.6	18.4	18.4	19.0	18.4	14.2	10.1
85°	0.0	0.0	7.7	8.3	11.3	11.3	9.5	9.5	9.5	8.3	5.9
87.5°	0.0	0.0	0.0	0.0	0.6	1.8	3.6	4.1	4.7	3.6	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P634525  
 CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5
2.5°	247.6	246.4	248.2	249.4	250.6	250.6	249.4	248.2	246.4	248.2	246.4
5°	228.6	230.4	233.4	234.6	235.7	233.4	232.2	228.6	225.7	226.3	225.1
7.5°	213.8	215.6	219.2	221.5	221.5	220.3	216.8	213.2	208.5	208.5	207.9
10°	200.2	202.6	206.7	209.7	210.9	209.7	206.1	201.4	197.2	197.2	195.5
12.5°	188.9	191.9	196.6	200.8	202.0	200.8	197.2	192.5	187.8	187.8	186.6
15°	179.5	183.0	188.4	193.1	194.9	193.1	188.9	183.0	178.3	178.9	177.1
17.5°	170.6	173.5	180.7	186.0	187.8	186.0	180.7	173.0	168.2	169.4	168.2
20°	160.5	164.1	171.2	177.1	178.9	177.1	171.2	162.9	158.1	158.1	158.7
22.5°	149.9	153.4	160.5	164.7	167.0	165.3	159.3	151.6	146.9	146.9	147.5
25°	140.4	142.2	147.5	151.6	152.2	150.4	145.7	139.8	136.2	138.0	138.6
27.5°	131.5	131.5	133.9	136.2	135.6	133.9	132.1	127.3	126.8	128.5	130.3
30°	122.0	119.1	117.9	116.1	115.5	114.9	116.7	116.7	117.9	120.2	122.0
32.5°	113.7	107.8	102.5	97.1	94.2	96.5	101.3	105.4	109.6	113.1	114.9
35°	104.2	94.8	85.9	78.8	74.0	77.6	85.3	93.0	100.1	104.8	107.8
37.5°	94.8	81.1	70.5	61.6	58.0	61.0	69.3	80.0	90.6	96.5	100.7
40°	84.7	67.5	55.1	48.0	44.4	47.4	55.7	66.3	80.6	88.3	93.6
42.5°	74.6	55.7	44.4	37.3	35.5	37.3	43.8	54.5	69.9	79.4	86.5
45°	64.6	46.2	35.5	30.2	28.4	30.2	35.5	44.4	59.8	70.5	78.8
47.5°	55.7	39.1	29.6	24.9	23.7	25.5	29.6	37.3	50.3	61.0	70.5
50°	48.6	34.4	25.5	21.3	20.1	21.9	25.5	31.4	42.6	52.1	62.2
52.5°	43.8	32.0	22.5	18.4	17.8	19.0	21.9	26.7	36.1	44.4	53.9
55°	42.6	32.0	20.7	16.6	16.0	17.2	19.5	23.1	31.4	38.5	46.8
57.5°	43.8	34.4	19.5	14.2	13.6	14.8	17.2	20.1	27.2	33.2	40.9
60°	43.8	34.9	17.2	11.3	10.7	11.8	14.2	17.8	24.3	29.0	35.5
62.5°	39.7	32.0	14.2	8.9	7.7	8.9	11.8	14.8	21.3	26.1	31.4
65°	34.4	27.2	11.8	6.5	5.3	6.5	9.5	12.4	18.4	22.5	28.4
67.5°	27.8	20.7	8.9	4.7	3.6	4.7	7.1	10.1	15.4	19.5	25.5
70°	20.7	14.8	7.1	4.1	3.6	4.1	6.5	9.5	13.6	17.8	23.7
72.5°	15.4	10.1	5.9	4.1	3.0	4.1	5.9	8.9	13.0	17.2	22.5
75°	13.0	8.3	5.3	3.6	3.0	3.6	5.3	8.3	11.8	16.0	21.3
77.5°	12.4	7.7	4.7	3.0	2.4	3.0	4.7	7.1	10.7	14.8	20.7
80°	10.7	6.5	4.1	2.4	1.8	2.4	4.1	5.9	8.3	11.3	16.0
82.5°	8.3	5.3	3.0	1.2	0.6	1.2	3.0	3.6	5.3	6.5	9.5
85°	5.3	3.0	1.2	0.0	0.0	0.0	1.2	2.4	2.4	3.0	4.7
87.5°	2.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P634525  
 CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-HSS

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5	266.5
2.5°	250.0	250.6	251.7	253.5	257.7	261.2	264.8	269.5	271.9	271.9
5°	226.3	226.9	227.5	229.8	235.7	240.5	248.2	257.7	262.4	263.6
7.5°	207.9	209.1	210.3	212.1	218.0	224.5	234.6	252.3	261.2	263.0
10°	197.2	199.0	201.4	204.9	210.3	217.4	234.6	266.5	281.4	284.3
12.5°	188.9	191.9	194.3	198.4	204.9	216.2	250.6	306.8	332.9	340.0
15°	180.7	184.2	187.8	191.9	199.0	220.3	281.4	379.1	422.3	427.7
17.5°	172.4	176.5	181.2	186.0	194.9	230.4	329.9	479.2	539.6	551.4
20°	162.9	168.2	174.7	180.7	190.7	246.4	397.4	598.2	674.1	699.5
22.5°	152.8	159.3	167.0	174.7	186.0	266.0	479.2	726.2	832.2	848.8
25°	144.5	151.0	158.1	165.8	178.3	289.6	578.1	884.9	981.5	997.5
27.5°	136.8	143.3	149.9	157.0	170.6	320.4	697.2	1053.7	1154.4	1171.0
30°	128.5	136.2	142.7	149.9	163.5	358.4	834.6	1240.9	1336.3	1351.7
32.5°	121.4	129.1	135.6	142.7	158.1	399.8	979.1	1406.8	1484.4	1484.4
35°	115.5	123.8	128.5	138.0	154.0	426.5	1115.9	1564.9	1623.5	1621.2
37.5°	109.0	119.1	122.6	129.1	148.7	429.4	1244.5	1731.9	1775.2	1759.8
40°	102.5	113.1	118.5	122.0	142.7	405.1	1385.4	1885.4	1922.1	1901.9
42.5°	96.5	104.8	112.5	116.7	139.2	362.5	1498.6	2049.4	2093.3	2075.5
45°	90.6	97.7	102.5	110.2	141.6	332.9	1595.7	2240.7	2317.7	2304.7
47.5°	84.7	90.6	93.6	105.4	157.6	319.3	1654.9	2536.9	2682.0	2671.4
50°	78.2	85.3	85.3	104.2	181.2	324.0	1706.5	2965.7	3190.2	3186.7
52.5°	71.7	79.4	78.2	113.1	199.6	345.9	1765.1	3344.2	3734.6	3767.1
55°	65.2	72.3	73.4	130.9	210.3	364.9	1538.3	3503.6	4199.5	4313.9
57.5°	58.0	62.2	76.4	144.5	206.7	420.0	1053.7	3532.6	4496.3	4741.5
60°	50.3	53.9	86.5	141.6	195.5	388.0	663.4	3272.0	4454.2	4765.2
62.5°	43.8	49.8	91.2	125.0	199.0	336.4	422.9	2788.6	4053.2	4408.0
65°	38.5	48.0	82.9	113.1	201.4	228.0	285.5	2268.6	3661.7	3999.3
67.5°	34.4	53.3	68.1	100.7	173.0	160.5	196.1	1762.7	3078.9	3381.5
70°	31.4	54.5	55.7	86.5	133.9	103.1	129.1	1186.4	2122.3	2468.2
72.5°	28.4	40.3	42.1	69.3	86.5	62.8	83.5	678.8	1547.1	1782.9
75°	27.2	27.2	29.0	45.0	48.0	45.6	53.9	405.1	1109.4	1281.8
77.5°	25.5	20.7	18.4	29.0	26.1	32.6	32.0	180.1	481.0	520.1
80°	20.1	14.8	12.4	18.4	17.8	21.9	19.0	14.8	21.9	21.3
82.5°	12.4	9.5	8.9	11.3	10.1	11.3	8.9	2.4	2.4	2.4
85°	5.9	5.3	4.7	4.7	5.3	4.7	3.6	1.2	0.6	0.6
87.5°	3.0	3.0	2.4	1.8	2.4	2.4	1.8	0.6	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

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.

**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  
 CIE u': 0.2476  
 CIE v': 0.5251  
 Duv: 0.0034  
 CIE x: 0.4383  
 CIE y: 0.4131  
 CIE z: 0.1487  
 Peak Wavelength (nm): 603  
 Dominant Wavelength (nm): 581  
 Purity: 55.55201  
 Rf: 81.5  
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



**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**



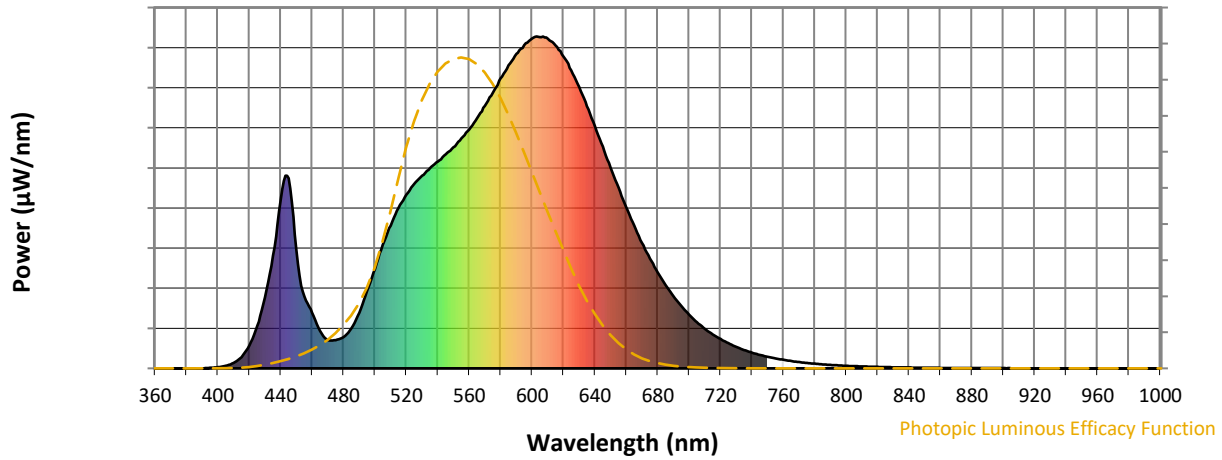
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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			

**Summary**

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



**Color Vector Graphics**



**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	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)