

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: P642939

Luminaire Tested: GWS-SA6D-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA6D-830-U-SLR-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22264 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 245.7  
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

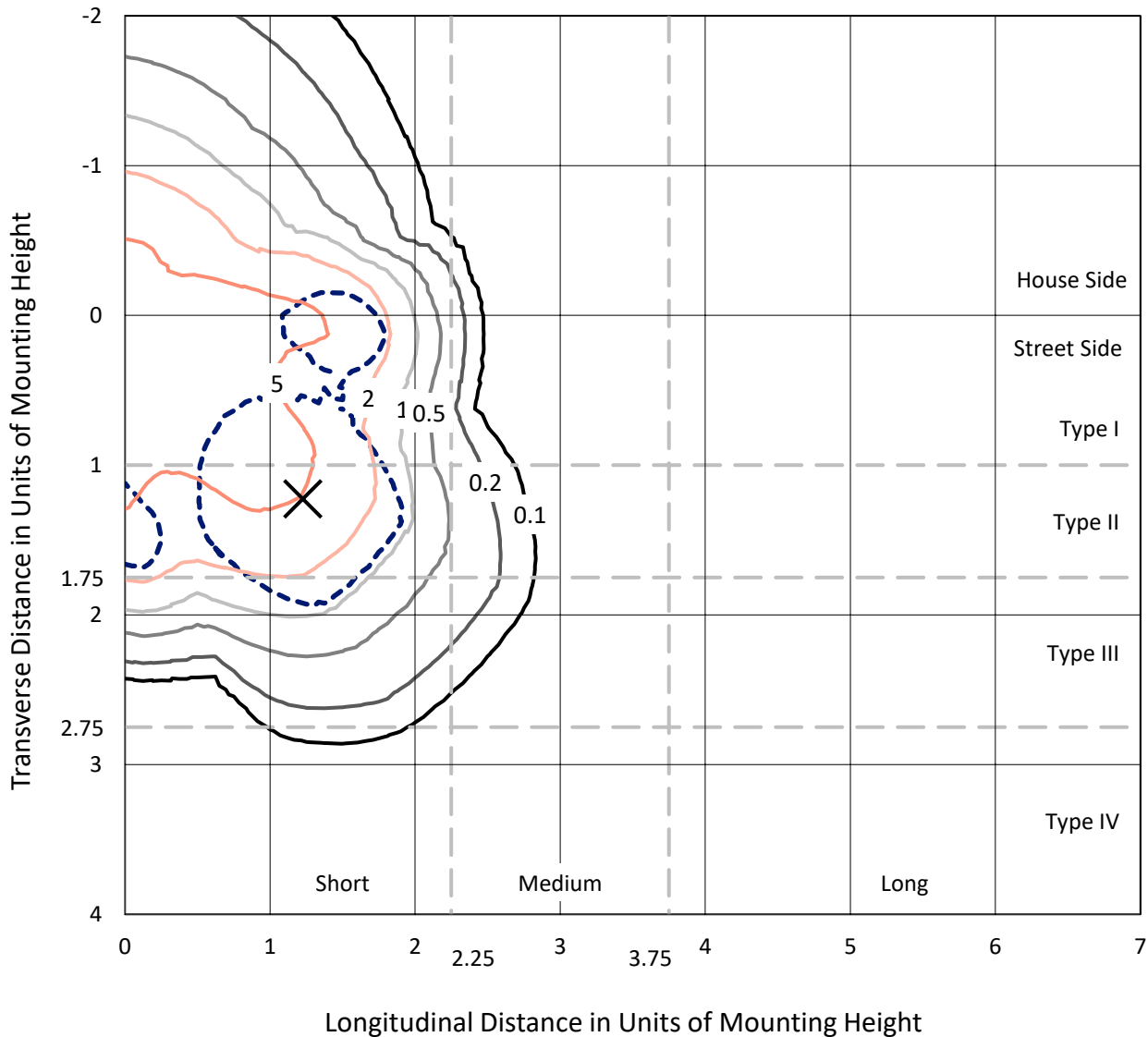


REPORT NUMBER: P642939

CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

### Iso-Footcandle Lines of Horizontal Illumination

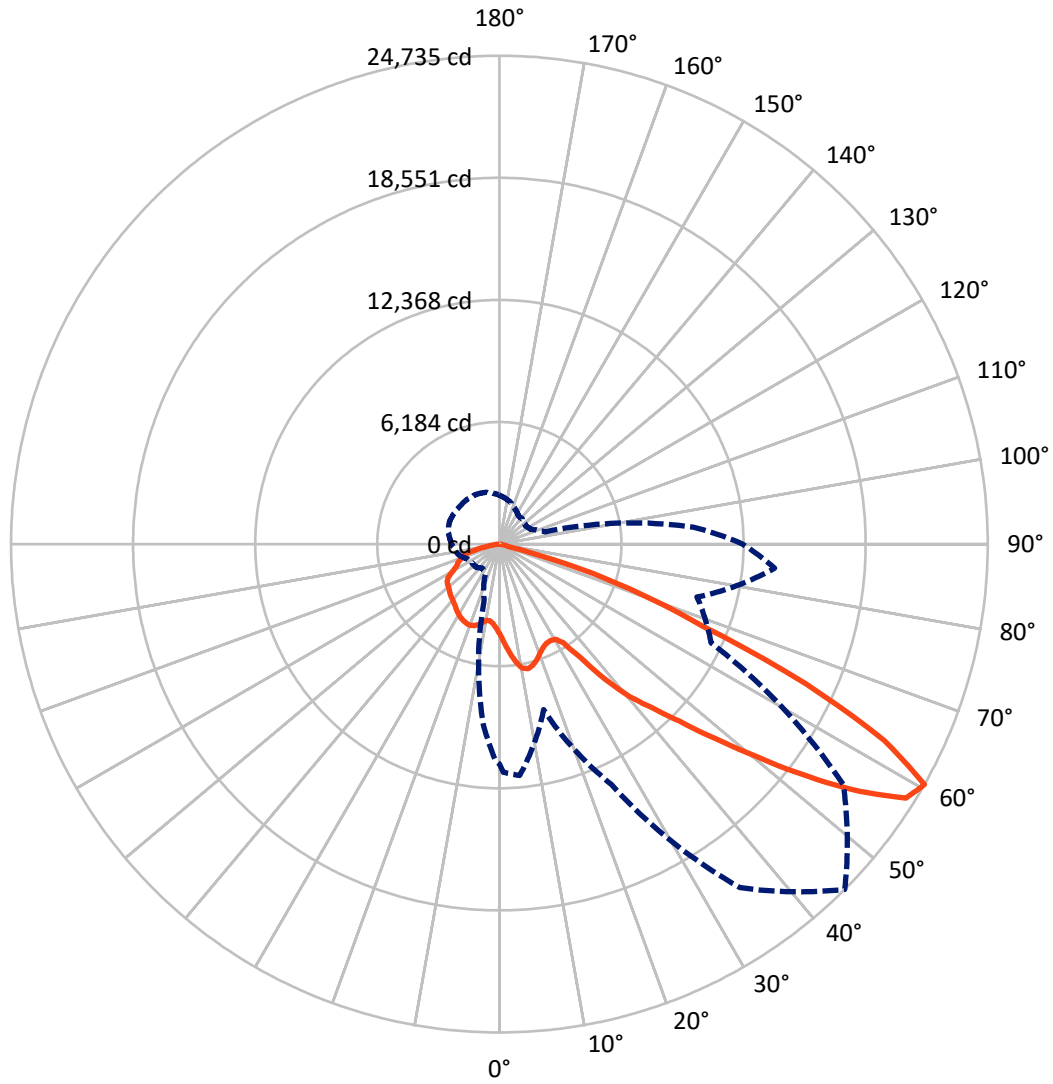
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc  
 Type III - Short - N/A

REPORT NUMBER: P642939  
CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P642939

CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7804.3	0.0	7804.3
	% Fixture	35.1	0.0	35.1
<b>Street Side</b>	Lumens	14459.7	0.0	14459.7
	% Fixture	64.9	0.0	64.9
<b>Total</b>	Lumens	22264.0	0.0	22264.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	446.2	2.0
10°-20°	1410.1	6.3
20°-30°	2290.6	10.3
30°-40°	3230.4	14.5
40°-50°	4464.3	20.1
50°-60°	5746.9	25.8
60°-70°	3641.3	16.4
70°-80°	934.4	4.2
80°-90°	99.9	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°	22264.0	100.0
0°-180°	22264.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P642939

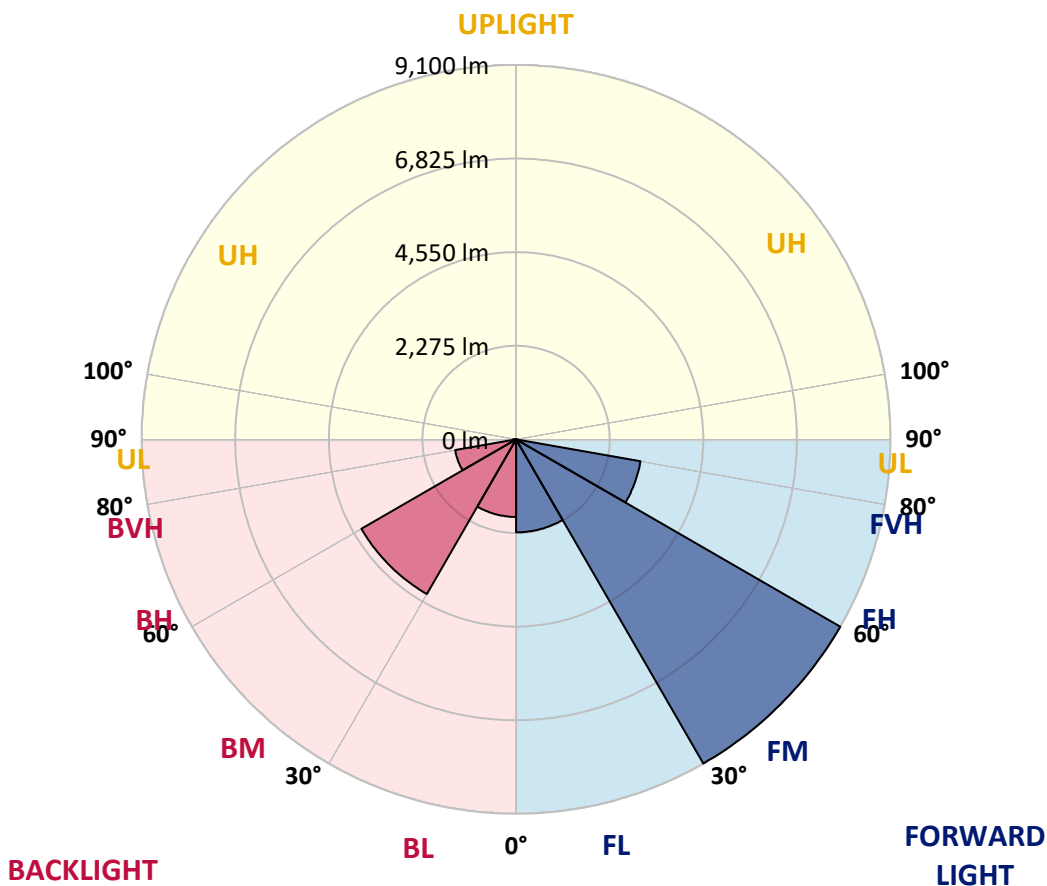
CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2260.6	10.2			
FM (30°-60°)	9100.2	40.9			
FH (60°-80°)	3071.7	13.8			G2/5000
FVH (80°-90°)	27.1	0.1			G1/100
BL (0°-30°)	1886.3	8.5	B3/2500		
BM (30°-60°)	4341.3	19.5	B3/5000		
BH (60°-80°)	1504.0	6.8	B3/2500		G3/2500
BVH (80°-90°)	72.8	0.3			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 III Short





REPORT NUMBER: P642939

CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7
2.5°	4783.8	4816.4	4836.8	4875.6	4945.0	4983.7	5026.6	4979.6	4991.9	4985.8	4910.3
5°	5067.4	5106.1	5159.2	5273.4	5401.9	5473.3	5540.6	5530.4	5467.2	5361.1	5285.6
7.5°	5332.6	5377.4	5469.2	5654.9	5844.6	5954.8	6036.4	5983.3	5930.3	5763.0	5573.3
10°	5540.6	5567.2	5691.6	5940.5	6160.8	6285.2	6385.2	6373.0	6299.5	6111.8	5856.8
12.5°	5736.5	5754.8	5889.5	6138.4	6336.2	6391.3	6472.9	6499.4	6475.0	6334.2	6083.3
15°	5946.6	5981.3	6105.7	6295.4	6385.2	6328.1	6356.6	6430.1	6499.4	6499.4	6268.9
17.5°	6142.4	6173.0	6299.5	6381.1	6295.4	6144.5	6152.6	6246.5	6411.7	6585.1	6438.2
20°	6315.8	6344.4	6468.8	6391.3	6120.0	5899.7	5893.6	6007.8	6275.0	6640.2	6619.8
22.5°	6505.6	6546.4	6650.4	6399.5	5956.8	5677.3	5675.3	5793.6	6154.7	6695.3	6827.9
25°	6774.8	6838.1	6891.1	6470.9	5869.1	5532.5	5559.0	5671.2	6115.9	6785.0	7135.9
27.5°	7174.7	7225.7	7221.6	6619.8	5865.0	5473.3	5528.4	5659.0	6185.3	6944.2	7460.3
30°	7607.2	7633.7	7590.8	6827.9	5958.8	5510.0	5591.6	5746.7	6360.7	7207.3	7937.6
32.5°	8086.6	8119.2	8037.6	7140.0	6177.1	5781.4	5960.9	6036.4	6607.6	7586.8	8443.6
35°	8637.4	8700.6	8531.3	7552.1	6819.7	6770.8	7031.9	6934.0	7131.8	8035.6	8984.2
37.5°	9216.7	9218.8	8976.0	8162.0	8080.4	8164.1	8686.3	8380.3	8243.6	8535.4	9535.0
40°	9708.4	9696.1	9322.8	8984.2	9178.0	9510.5	10140.8	9671.6	9312.6	9206.5	9991.9
42.5°	10200.0	10155.1	9777.7	9506.4	9934.8	10618.2	11330.2	10754.9	9998.0	9816.5	10442.8
45°	10828.3	10814.0	10359.1	9714.5	10618.2	11858.5	12803.0	11870.8	10404.0	10171.4	11193.5
47.5°	11842.2	11772.8	10926.2	9698.2	11258.8	13510.9	14704.3	13276.3	10687.6	10179.6	12405.2
50°	12833.6	12748.0	11603.5	9696.1	11919.7	15224.5	16948.3	14983.8	10977.2	10228.6	13637.4
52.5°	13835.3	13835.3	12715.3	9926.6	12613.3	17138.0	19541.2	17111.5	11470.9	10869.1	15153.1
55°	14431.0	14590.1	13965.8	10316.3	13425.2	19390.2	22105.4	19408.6	12233.9	12025.8	16552.6
57.5°	13674.1	13972.0	13882.2	10045.0	13904.6	21044.6	24280.1	21150.7	12611.3	12162.5	16342.4
60°	11142.5	11556.6	11762.6	8674.1	13431.4	21236.4	24735.0	21265.0	11832.0	10357.1	13998.5
62.5°	7407.2	7747.9	8062.1	6197.5	11628.0	19104.6	21877.0	19110.7	9881.8	7729.6	9698.2
65°	3633.2	3886.2	4224.8	3663.8	9084.1	15963.0	17056.4	15442.8	7148.2	4326.8	4947.0
67.5°	950.6	1022.0	1069.0	1421.9	6507.6	11468.9	11124.1	11295.5	4592.0	1413.7	1293.4
70°	493.7	497.8	495.7	587.5	4398.2	7288.9	7666.3	7093.1	3204.8	591.6	510.0
72.5°	352.9	355.0	348.8	395.8	2123.6	4175.9	4326.8	4279.9	1678.9	350.9	348.8
75°	230.5	232.6	228.5	232.6	320.3	475.3	438.6	461.0	279.5	222.4	222.4
77.5°	136.7	138.7	136.7	140.8	136.7	136.7	126.5	126.5	120.4	120.4	122.4
80°	91.8	91.8	89.8	93.8	85.7	85.7	81.6	79.6	73.4	71.4	71.4
82.5°	55.1	57.1	55.1	55.1	51.0	51.0	46.9	44.9	38.8	38.8	36.7
85°	28.6	28.6	26.5	26.5	22.4	20.4	16.3	16.3	12.2	10.2	10.2
87.5°	4.1	4.1	2.0	2.0	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P642939

CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7
2.5°	4889.9	4849.1	4787.9	4728.7	4673.6	4616.5	4551.2	4483.9	4426.8	4367.6	4337.0
5°	5185.7	5102.0	4942.9	4802.2	4675.7	4571.6	4459.4	4363.6	4273.8	4200.4	4163.6
7.5°	5452.9	5322.4	5081.6	4859.3	4687.9	4545.1	4390.1	4247.3	4126.9	4037.2	4002.5
10°	5699.8	5544.7	5228.5	4947.0	4747.1	4588.0	4398.2	4204.4	4045.3	3927.0	3898.4
12.5°	5899.7	5722.2	5344.8	5018.4	4781.8	4610.4	4443.1	4275.8	4118.8	3965.8	3941.3
15°	6077.2	5867.0	5432.5	5063.3	4769.5	4551.2	4410.5	4390.1	4390.1	4216.7	4167.7
17.5°	6230.2	5999.6	5503.9	5083.7	4692.0	4375.8	4290.1	4467.6	4667.5	4543.1	4432.9
20°	6405.6	6126.1	5563.1	5083.7	4549.2	4153.4	4145.3	4447.2	4743.0	4745.0	4628.8
22.5°	6583.1	6273.0	5632.4	5065.3	4353.4	3896.4	4047.4	4365.6	4628.8	4741.0	4661.4
25°	6870.7	6477.0	5742.6	5051.0	4124.9	3721.0	3959.6	4257.5	4479.8	4598.2	4547.2
27.5°	7235.9	6746.3	5909.9	5073.5	3898.4	3616.9	3865.8	4116.7	4318.7	4422.7	4386.0
30°	7643.9	7056.4	6089.4	5112.2	3735.2	3563.9	3753.6	3955.6	4135.1	4239.1	4222.8
32.5°	8164.1	7393.0	6244.4	5059.2	3643.4	3537.4	3635.3	3780.1	3953.5	4018.8	4033.1
35°	8786.3	7764.2	6362.8	4851.1	3559.8	3508.8	3506.8	3596.5	3718.9	3823.0	3833.2
37.5°	9359.5	8198.8	6493.3	4494.1	3408.8	3437.4	3355.8	3408.8	3529.2	3633.2	3674.0
40°	9926.6	8639.4	6674.9	4039.2	3211.0	3278.3	3182.4	3219.1	3315.0	3451.7	3517.0
42.5°	10477.4	9037.2	6866.6	3574.1	3013.1	3055.9	2984.5	3021.2	3121.2	3292.6	3366.0
45°	11077.2	9575.8	7015.6	3135.5	2841.7	2823.4	2766.2	2819.3	2970.2	3157.9	3245.6
47.5°	12211.4	10424.4	7113.5	2843.8	2749.9	2617.3	2552.0	2666.3	2837.6	3027.4	3133.4
50°	13596.6	11652.5	7084.9	2658.1	2670.4	2405.2	2382.7	2533.7	2717.3	2915.2	3031.4
52.5°	14694.1	12858.1	6760.6	2480.6	2515.3	2270.5	2205.2	2425.6	2601.0	2803.0	2923.3
55°	15532.6	13264.1	5765.0	2270.5	2262.4	2172.6	2035.9	2313.4	2484.7	2672.4	2803.0
57.5°	14849.2	12360.4	4273.8	1980.8	1931.9	1978.8	1846.2	2123.6	2341.9	2527.6	2643.8
60°	12323.6	9855.2	2380.7	1754.4	1615.7	1729.9	1709.5	1923.7	2186.9	2382.7	2482.7
62.5°	8366.0	6562.7	1411.7	1387.2	1309.7	1472.9	1581.0	1721.8	1980.8	2140.0	2233.8
65°	4169.8	3188.5	938.4	1038.4	1048.6	1211.8	1415.8	1570.8	1787.0	1950.2	2044.1
67.5°	1209.7	991.4	714.0	793.6	903.7	1034.3	1197.5	1381.1	1591.2	1785.0	1895.2
70°	522.2	528.4	567.1	661.0	769.1	903.7	1066.9	1246.4	1423.9	1572.8	1656.5
72.5°	369.2	383.5	426.4	522.2	624.2	752.8	916.0	1089.4	1217.9	1368.8	1456.6
75°	236.6	246.8	281.5	355.0	430.4	554.9	709.9	869.0	1001.6	1109.8	1193.4
77.5°	130.6	132.6	161.2	204.0	255.0	334.6	448.8	573.2	671.2	732.4	807.8
80°	75.5	75.5	89.8	116.3	146.9	195.8	259.1	320.3	379.4	418.2	454.9
82.5°	40.8	40.8	46.9	63.2	79.6	108.1	144.8	175.4	212.2	232.6	257.0
85°	12.2	12.2	16.3	22.4	28.6	40.8	57.1	73.4	89.8	104.0	118.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
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: P642939

CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7
2.5°	4330.9	4302.4	4286.0	4265.6	4271.8	4253.4	4243.2	4249.3	4212.6	4249.3	4286.0
5°	4149.4	4108.6	4075.9	4049.4	4037.2	4012.7	3998.4	3998.4	3976.0	4012.7	4057.6
7.5°	3990.2	3957.6	3941.3	3925.0	3906.6	3884.2	3859.7	3851.5	3837.2	3876.0	3914.8
10°	3884.2	3888.2	3898.4	3920.9	3916.8	3902.5	3865.8	3845.4	3845.4	3890.3	3949.4
12.5°	3933.1	3976.0	4000.4	4041.2	4049.4	4037.2	4000.4	3984.1	4024.9	4092.2	4190.2
15°	4122.8	4151.4	4171.8	4204.4	4202.4	4192.2	4163.6	4175.9	4310.5	4441.1	4528.8
17.5°	4328.9	4296.2	4292.2	4312.6	4318.7	4306.4	4290.1	4345.2	4567.6	4690.0	4734.8
20°	4477.8	4365.6	4341.1	4349.3	4365.6	4359.5	4359.5	4449.2	4679.8	4736.9	4679.8
22.5°	4522.7	4363.6	4326.8	4328.9	4351.3	4353.4	4363.6	4457.4	4592.0	4594.1	4506.4
25°	4451.3	4298.3	4271.8	4275.8	4302.4	4300.3	4304.4	4357.4	4416.6	4392.1	4326.8
27.5°	4316.6	4184.0	4175.9	4198.3	4233.0	4214.6	4202.4	4216.7	4245.2	4214.6	4157.5
30°	4163.6	4051.4	4055.5	4098.4	4135.1	4104.5	4073.9	4082.0	4084.1	4051.4	3986.2
32.5°	4002.5	3918.8	3933.1	3978.0	4020.8	3988.2	3955.6	3951.5	3912.7	3874.0	3810.7
35°	3841.3	3808.7	3827.0	3863.8	3900.5	3874.0	3853.6	3841.3	3757.7	3700.6	3647.5
37.5°	3694.4	3718.9	3751.6	3774.0	3786.2	3784.2	3772.0	3743.4	3633.2	3565.9	3496.6
40°	3563.9	3639.4	3674.0	3684.2	3702.6	3698.5	3696.5	3655.7	3510.8	3439.4	3359.9
42.5°	3445.6	3551.6	3610.8	3621.0	3631.2	3633.2	3627.1	3568.0	3402.7	3319.1	3243.6
45°	3331.3	3470.0	3545.5	3535.3	3549.6	3549.6	3555.7	3478.2	3296.6	3211.0	3131.4
47.5°	3231.4	3394.6	3463.9	3451.7	3459.8	3466.0	3472.1	3382.3	3180.4	3098.8	3017.2
50°	3139.6	3313.0	3372.1	3376.2	3376.2	3390.5	3388.4	3300.7	3082.4	2994.7	2913.1
52.5°	3041.6	3229.3	3292.6	3319.1	3327.2	3333.4	3304.8	3202.8	2982.5	2876.4	2800.9
55°	2927.4	3143.6	3200.8	3235.4	3251.8	3247.7	3208.9	3104.9	2880.5	2774.4	2688.7
57.5°	2754.0	2960.0	3041.6	3058.0	3084.5	3068.2	3023.3	2935.6	2717.3	2611.2	2523.5
60°	2564.3	2713.2	2778.5	2792.8	2772.4	2778.5	2772.4	2688.7	2499.0	2415.4	2325.6
62.5°	2315.4	2448.0	2517.4	2535.7	2501.0	2523.5	2515.3	2411.3	2221.6	2133.8	2054.3
65°	2127.7	2272.6	2354.2	2364.4	2354.2	2364.4	2335.8	2209.3	2029.8	1940.0	1858.4
67.5°	1980.8	2129.8	2215.4	2244.0	2233.8	2231.8	2186.9	2040.0	1854.4	1756.4	1652.4
70°	1727.9	1858.4	1968.6	2038.0	2038.0	1999.2	1913.5	1776.8	1627.9	1544.3	1462.7
72.5°	1530.0	1695.2	1803.4	1874.8	1889.0	1866.6	1746.2	1601.4	1430.0	1346.4	1260.7
75°	1260.7	1421.9	1538.2	1632.0	1650.4	1625.9	1487.2	1344.4	1185.2	1103.6	1018.0
77.5°	842.5	938.4	1032.2	1117.9	1099.6	1115.9	1022.0	913.9	816.0	754.8	716.0
80°	475.3	538.6	567.1	614.0	614.0	614.0	552.8	501.8	446.8	412.1	373.3
82.5°	269.3	310.1	322.3	361.1	371.3	373.3	332.5	299.9	265.2	246.8	220.3
85°	124.4	146.9	148.9	171.4	179.5	195.8	177.5	155.0	134.6	126.5	110.2
87.5°	4.1	12.2	16.3	30.6	40.8	46.9	51.0	51.0	42.8	38.8	32.6
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: P642939

CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7	4573.7
2.5°	4330.9	4379.9	4437.0	4477.8	4551.2	4612.4	4675.7	4745.0	4796.0	4783.8
5°	4112.6	4194.2	4298.3	4394.2	4530.8	4669.6	4822.6	4979.6	5071.4	5067.4
7.5°	3990.2	4106.5	4233.0	4361.5	4522.7	4722.6	4957.2	5202.0	5326.4	5332.6
10°	4055.5	4180.0	4265.6	4373.8	4543.1	4794.0	5075.5	5369.3	5512.1	5540.6
12.5°	4261.6	4251.4	4245.2	4322.8	4526.8	4845.0	5189.8	5540.6	5701.8	5736.5
15°	4457.4	4247.3	4120.8	4173.8	4453.3	4877.6	5302.0	5728.3	5909.9	5946.6
17.5°	4494.1	4175.9	3941.3	3978.0	4337.0	4887.8	5410.1	5911.9	6107.8	6142.4
20°	4392.1	4084.1	3810.7	3759.7	4190.2	4861.3	5477.4	6064.9	6279.1	6315.8
22.5°	4263.6	4002.5	3712.8	3580.2	4010.6	4834.8	5552.9	6226.1	6472.9	6505.6
25°	4129.0	3898.4	3621.0	3419.0	3806.6	4818.5	5679.4	6438.2	6736.1	6774.8
27.5°	3986.2	3772.0	3541.4	3341.5	3619.0	4838.9	5858.9	6781.0	7119.6	7174.7
30°	3833.2	3645.5	3490.4	3315.0	3490.4	4857.2	6056.8	7131.8	7529.6	7607.2
32.5°	3674.0	3529.2	3437.4	3327.2	3410.9	4814.4	6230.2	7525.6	8019.2	8086.6
35°	3514.9	3410.9	3370.1	3349.7	3304.8	4657.3	6370.9	7923.4	8578.2	8637.4
37.5°	3366.0	3288.5	3276.2	3298.7	3141.6	4400.3	6534.1	8429.3	9127.0	9216.7
40°	3227.3	3155.9	3153.8	3149.8	2962.1	4049.4	6754.4	8943.4	9667.6	9708.4
42.5°	3098.8	3009.0	3025.3	2976.4	2815.2	3670.0	6962.5	9382.0	10171.4	10200.0
45°	2984.5	2866.2	2884.6	2823.4	2745.8	3272.2	7146.1	9900.1	10810.0	10828.3
47.5°	2874.4	2747.9	2696.9	2692.8	2733.6	2905.0	7325.6	10897.7	11809.6	11842.2
50°	2772.4	2635.7	2490.8	2580.6	2658.1	2629.6	7550.0	11966.6	12841.8	12833.6
52.5°	2674.4	2494.9	2288.9	2462.3	2462.3	2425.6	7486.8	12615.4	13694.5	13835.3
55°	2562.2	2268.5	2078.8	2264.4	2174.6	2242.0	6366.8	12827.5	14231.0	14431.0
57.5°	2339.9	1989.0	1823.8	1923.7	1789.1	2078.8	4573.7	11774.9	13319.2	13674.1
60°	2125.7	1783.0	1674.8	1656.5	1481.0	1695.2	2964.1	9218.8	10963.0	11142.5
62.5°	1874.8	1605.5	1513.7	1372.9	1191.4	1234.2	1795.2	6067.0	7366.4	7407.2
65°	1685.0	1454.5	1279.1	1111.8	975.1	895.6	1060.8	2925.4	3682.2	3633.2
67.5°	1446.4	1246.4	1079.2	958.8	846.6	746.6	705.8	869.0	983.3	950.6
70°	1287.2	1095.5	934.3	820.1	716.0	616.1	544.7	512.0	501.8	493.7
72.5°	1109.8	942.5	775.2	665.0	567.1	475.3	410.0	371.3	361.1	352.9
75°	885.4	728.3	575.3	471.2	385.6	320.3	277.4	244.8	238.7	230.5
77.5°	585.5	467.2	342.7	279.5	228.5	193.8	165.2	144.8	140.8	136.7
80°	322.3	269.3	210.1	169.3	136.7	118.3	108.1	95.9	93.8	91.8
82.5°	191.8	161.2	120.4	95.9	79.6	71.4	65.3	59.2	57.1	55.1
85°	95.9	75.5	53.0	44.9	40.8	36.7	36.7	30.6	28.6	28.6
87.5°	24.5	20.4	12.2	10.2	10.2	10.2	8.2	6.1	6.1	4.1
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)