

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: P642935

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

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P642935
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-39)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA6D-830-U-SLL-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT 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: 22149.8 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

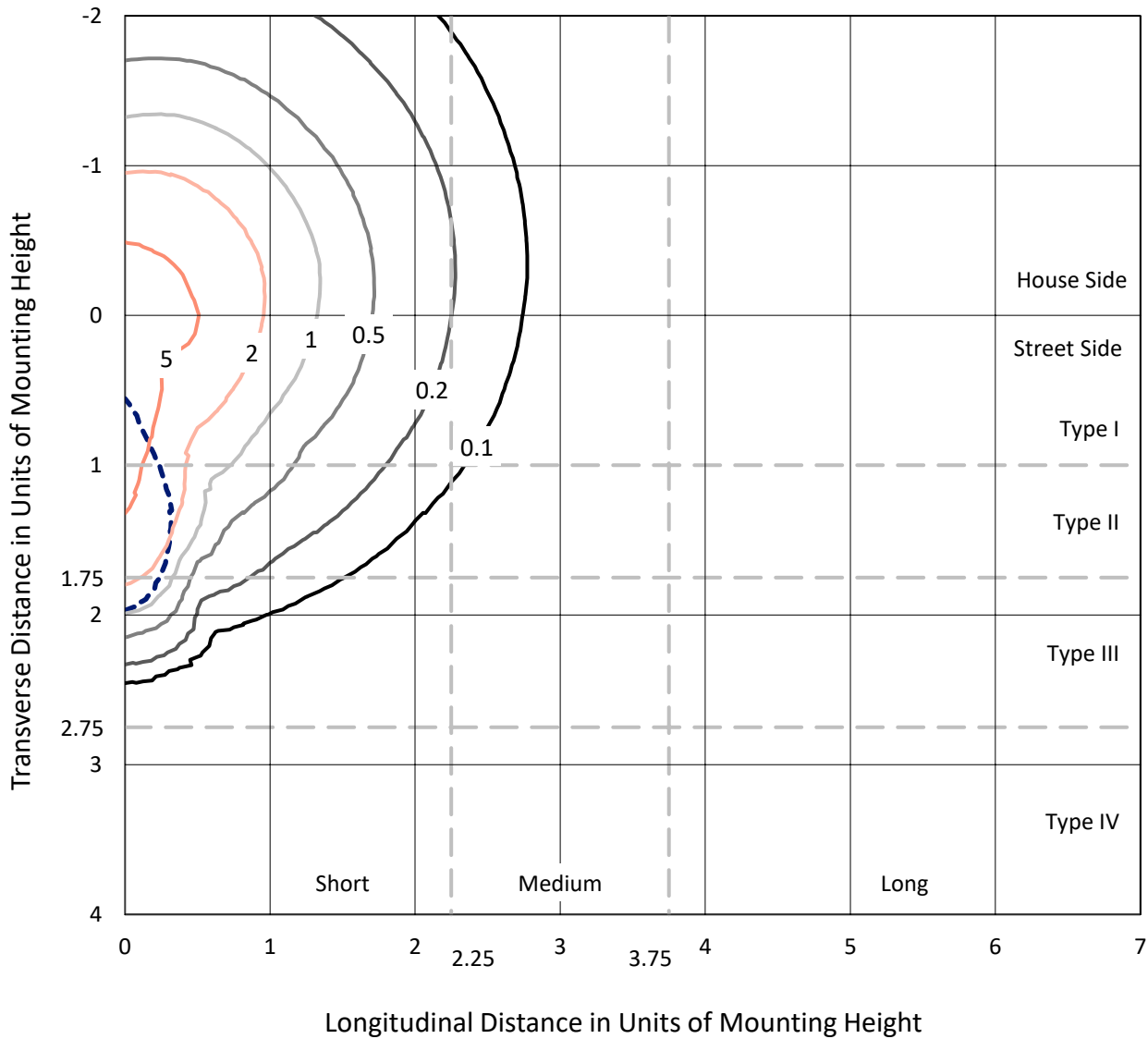
Input Watts (W): 245.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

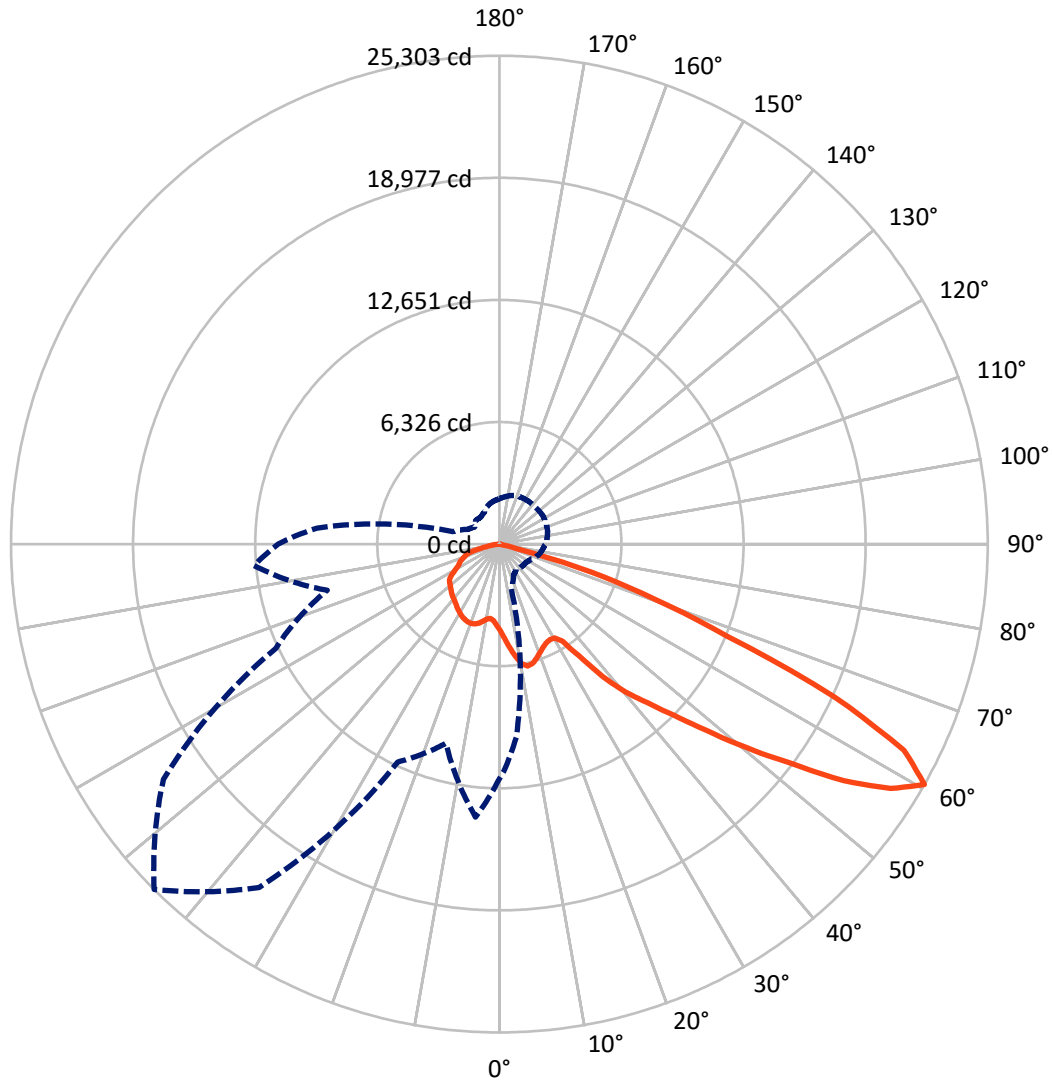
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7577.2	0.0	7577.2
	% Fixture	34.2	0.0	34.2
Street Side	Lumens	14572.6	0.0	14572.6
	% Fixture	65.8	0.0	65.8
Total	Lumens	22149.8	0.0	22149.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	436.5	2.0
10°-20°	1399.9	6.3
20°-30°	2279.9	10.3
30°-40°	3202.8	14.5
40°-50°	4382.7	19.8
50°-60°	5622.8	25.4
60°-70°	3786.2	17.1
70°-80°	946.5	4.3
80°-90°	92.3	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°	22149.8	100.0
0°-180°	22149.8	100.0

Coefficient of Utilization



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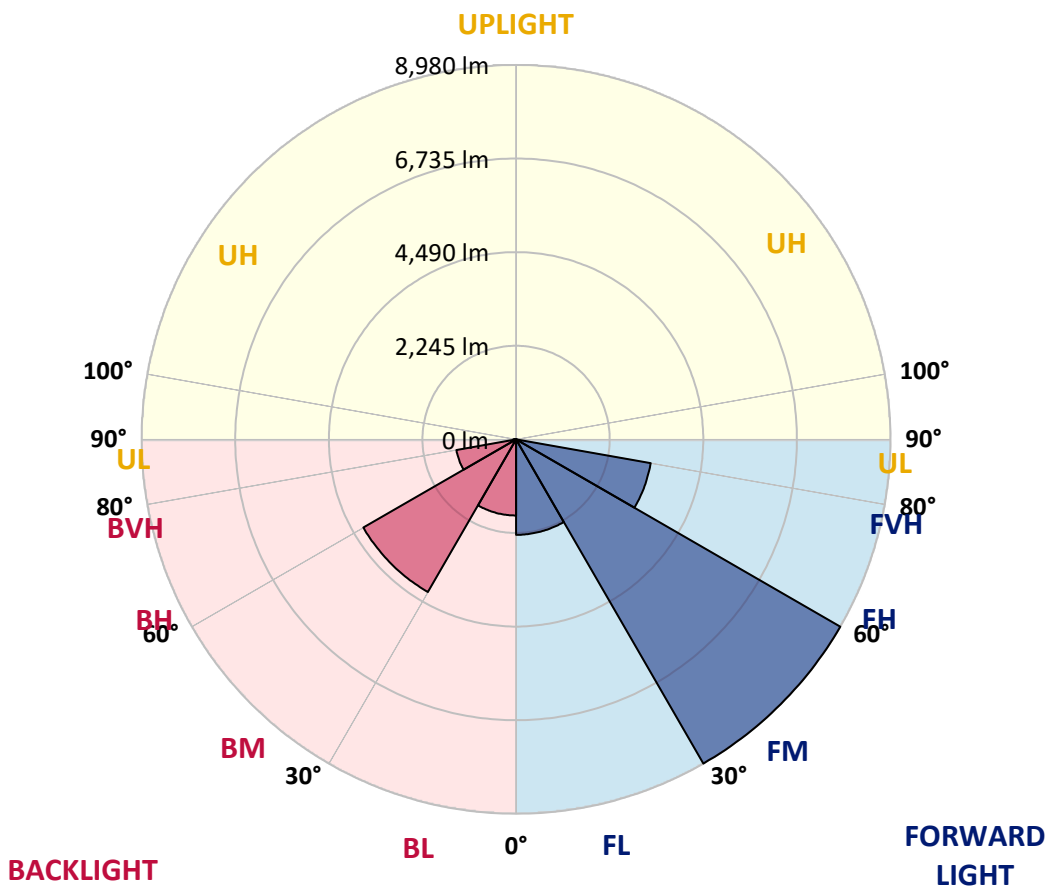
CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2289.8	10.3			
FM (30°-60°)	8979.7	40.5			
FH (60°-80°)	3279.1	14.8			G2/5000
FVH (80°-90°)	24.0	0.1			G1/100
BL (0°-30°)	1826.6	8.2	B3/2500		
BM (30°-60°)	4228.7	19.1	B3/5000		
BH (60°-80°)	1453.7	6.6	B3/2500		G3/2500
BVH (80°-90°)	68.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4
2.5°	4726.4	4716.2	4706.0	4626.5	4606.1	4549.0	4508.2	4457.2	4383.7	4342.9	4308.3
5°	5022.2	5005.9	4950.8	4787.6	4681.6	4565.3	4469.4	4363.3	4251.1	4177.7	4120.6
7.5°	5301.7	5297.6	5203.8	4934.5	4763.2	4595.9	4465.3	4310.3	4149.2	4039.0	3965.6
10°	5560.8	5530.2	5418.0	5067.1	4842.7	4651.0	4510.2	4338.9	4151.2	4002.3	3904.4
12.5°	5789.2	5750.5	5595.4	5189.5	4912.1	4675.4	4522.5	4381.7	4257.3	4132.8	4020.6
15°	5976.9	5930.0	5772.9	5303.7	4973.3	4661.2	4447.0	4336.8	4379.7	4434.7	4310.3
17.5°	6152.3	6103.4	5911.6	5387.4	4991.6	4573.5	4261.3	4214.4	4430.7	4681.6	4624.5
20°	6299.2	6244.1	6021.8	5428.2	4959.0	4406.2	4020.6	4102.2	4387.8	4687.7	4779.5
22.5°	6458.3	6413.4	6146.2	5487.3	4918.2	4175.7	3818.7	4018.6	4314.4	4577.5	4716.2
25°	6713.3	6658.2	6340.0	5591.4	4897.8	3959.4	3673.9	3937.0	4212.4	4451.1	4559.2
27.5°	7082.5	6980.5	6605.2	5772.9	4920.2	3755.5	3582.1	3837.1	4094.1	4298.1	4385.8
30°	7484.4	7362.0	6898.9	5960.6	4952.9	3631.0	3533.1	3722.8	3912.5	4116.5	4212.4
32.5°	7959.7	7851.6	7213.1	6101.3	4883.5	3573.9	3496.4	3598.4	3749.3	3912.5	3992.1
35°	8526.8	8333.0	7555.8	6215.6	4659.1	3490.3	3463.7	3461.7	3541.3	3700.4	3790.1
37.5°	9136.7	8928.6	7978.0	6338.0	4310.3	3357.7	3386.2	3300.6	3374.0	3500.5	3602.5
40°	9636.5	9418.2	8404.4	6505.2	3873.8	3149.6	3214.9	3123.1	3168.0	3298.5	3412.8
42.5°	10126.1	9893.5	8802.2	6694.9	3451.5	2945.6	2978.3	2943.6	2957.9	3094.5	3253.6
45°	10768.6	10507.5	9291.7	6829.6	3072.1	2784.5	2753.9	2694.7	2770.2	2947.7	3117.0
47.5°	11841.6	11529.5	10093.4	6917.3	2796.7	2692.7	2551.9	2517.2	2611.1	2808.9	2984.4
50°	13096.2	12826.9	11374.5	6913.2	2590.7	2615.2	2356.1	2325.5	2480.5	2680.4	2866.1
52.5°	14124.3	13850.9	12469.9	6709.2	2421.4	2449.9	2241.8	2156.2	2368.3	2554.0	2739.6
55°	14954.5	14646.5	12973.8	5856.6	2207.2	2186.8	2117.4	1960.3	2227.6	2427.5	2600.9
57.5°	14507.8	14140.6	12363.8	4453.1	1986.9	1858.3	1903.2	1787.0	2035.8	2286.7	2454.0
60°	12163.9	11833.5	10044.5	2370.4	1748.2	1552.4	1646.2	1664.6	1825.7	2117.4	2288.8
62.5°	8355.4	8114.7	6807.1	1438.1	1379.0	1246.4	1393.3	1525.8	1646.2	1893.0	2041.9
65°	4088.0	4016.6	3404.6	922.0	964.9	1007.7	1154.6	1315.7	1493.2	1709.4	1866.5
67.5°	1126.0	1134.2	1032.2	720.1	760.9	879.2	995.5	1124.0	1301.5	1501.4	1660.5
70°	495.7	503.9	520.2	554.9	632.4	740.5	860.8	993.4	1156.6	1323.9	1476.9
72.5°	344.7	352.9	377.4	422.3	491.6	593.6	707.8	834.3	1003.6	1144.4	1270.9
75°	212.1	218.3	240.7	279.5	326.4	403.9	516.1	632.4	781.3	909.8	1022.0
77.5°	112.2	108.1	122.4	148.9	189.7	230.5	306.0	379.4	485.5	589.5	683.4
80°	61.2	59.2	67.3	81.6	93.8	126.5	177.5	226.4	287.6	346.8	397.8
82.5°	26.5	24.5	26.5	34.7	42.8	61.2	89.8	124.4	159.1	199.9	232.5
85°	0.0	0.0	0.0	2.0	10.2	16.3	30.6	44.9	65.3	89.8	110.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	18.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4
2.5°	4287.9	4236.9	4232.8	4192.0	4196.1	4198.1	4157.3	4141.0	4155.3	4171.6	4163.4
5°	4100.2	4047.2	4024.7	3986.0	3981.9	3963.5	3947.2	3926.8	3941.1	3955.4	3963.5
7.5°	3937.0	3902.3	3888.0	3877.8	3881.9	3873.8	3841.1	3822.8	3820.7	3826.9	3835.0
10°	3884.0	3855.4	3873.8	3902.3	3922.7	3937.0	3902.3	3871.7	3843.2	3830.9	3830.9
12.5°	3998.2	3961.5	3998.2	4028.8	4069.6	4079.8	4041.0	4008.4	3998.2	4010.4	4034.9
15°	4251.1	4165.5	4163.4	4181.8	4214.4	4230.8	4194.0	4177.7	4177.7	4255.2	4316.4
17.5°	4504.1	4363.3	4304.2	4294.0	4314.4	4320.5	4289.9	4275.6	4312.3	4463.3	4577.5
20°	4681.6	4510.2	4381.7	4357.2	4363.3	4365.4	4340.9	4330.7	4383.7	4567.3	4663.2
22.5°	4663.2	4536.7	4379.7	4349.1	4359.3	4355.2	4332.7	4328.7	4371.5	4530.6	4575.5
25°	4536.7	4438.8	4306.2	4285.8	4302.1	4300.1	4277.7	4267.5	4285.8	4391.9	4396.0
27.5°	4391.9	4306.2	4192.0	4185.9	4212.4	4226.7	4187.9	4157.3	4151.2	4222.6	4206.3
30°	4218.5	4155.3	4063.5	4067.6	4116.5	4124.7	4077.8	4032.9	4020.6	4059.4	4037.0
32.5°	4012.5	3992.1	3943.1	3953.3	4000.2	4016.6	3967.6	3920.7	3906.4	3918.6	3871.7
35°	3837.1	3828.9	3833.0	3851.3	3892.1	3904.4	3863.6	3826.9	3806.5	3763.6	3702.4
37.5°	3655.5	3677.9	3737.1	3771.8	3794.2	3790.1	3767.7	3741.2	3708.5	3629.0	3553.5
40°	3486.2	3543.3	3649.4	3688.1	3696.3	3698.3	3682.0	3659.6	3618.8	3512.7	3427.0
42.5°	3355.6	3418.9	3559.6	3618.8	3622.9	3626.9	3610.6	3592.3	3535.1	3394.4	3310.8
45°	3219.0	3302.6	3467.8	3539.2	3535.1	3533.1	3518.8	3510.7	3443.3	3280.2	3188.4
47.5°	3102.7	3200.6	3378.1	3439.3	3437.2	3435.2	3425.0	3425.0	3357.7	3180.2	3076.2
50°	2988.5	3100.6	3286.3	3337.3	3341.4	3337.3	3333.2	3339.3	3259.8	3070.0	2968.1
52.5°	2864.0	2990.5	3184.3	3231.2	3255.7	3265.9	3265.9	3251.6	3157.8	2959.9	2847.7
55°	2727.3	2847.7	3072.1	3135.3	3155.7	3174.1	3174.1	3145.5	3057.8	2857.9	2737.5
57.5°	2558.0	2664.1	2841.6	2904.8	2953.8	2966.0	2966.0	2919.1	2847.7	2655.9	2558.0
60°	2374.4	2466.2	2586.6	2653.9	2690.6	2666.1	2684.5	2672.3	2615.2	2437.7	2356.1
62.5°	2129.7	2223.5	2356.1	2425.4	2441.8	2417.3	2441.8	2439.7	2362.2	2203.1	2105.2
65°	1954.2	2046.0	2176.6	2266.3	2292.8	2286.7	2303.0	2278.6	2182.7	2031.7	1937.9
67.5°	1746.2	1844.1	1995.0	2095.0	2150.1	2156.2	2178.6	2127.6	2029.7	1864.5	1746.2
70°	1548.3	1631.9	1748.2	1842.0	1919.5	1958.3	1962.4	1888.9	1766.6	1629.9	1544.2
72.5°	1340.2	1425.9	1566.6	1668.6	1766.6	1811.4	1811.4	1721.7	1589.1	1438.1	1346.3
75°	1087.3	1166.8	1295.3	1405.5	1517.7	1574.8	1572.8	1495.2	1348.4	1205.6	1109.7
77.5°	736.4	795.6	877.2	960.8	977.1	1022.0	1044.4	946.5	864.9	787.4	701.7
80°	428.4	465.1	510.0	556.9	567.1	581.4	544.7	507.9	465.1	414.1	375.3
82.5°	250.9	275.4	297.8	334.5	340.7	344.7	312.1	295.8	261.1	230.5	206.0
85°	122.4	130.6	151.0	169.3	161.2	157.1	142.8	126.5	112.2	100.0	87.7
87.5°	24.5	24.5	36.7	34.7	28.6	24.5	14.3	18.4	4.1	4.1	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4
2.5°	4190.0	4224.6	4267.5	4324.6	4389.9	4459.2	4526.5	4577.5	4628.5	4704.0	4691.8
5°	3975.8	4034.9	4102.2	4190.0	4296.0	4416.4	4551.0	4685.6	4830.5	4952.9	5005.9
7.5°	3851.3	3916.6	3996.2	4110.4	4247.1	4393.9	4583.7	4801.9	5036.5	5197.7	5297.6
10°	3851.3	3935.0	4039.0	4149.2	4269.5	4420.5	4655.0	4928.4	5230.3	5442.5	5558.7
12.5°	4073.7	4157.3	4179.8	4175.7	4243.0	4410.3	4712.2	5061.0	5422.1	5646.4	5789.2
15°	4420.5	4449.0	4279.7	4124.7	4134.9	4336.8	4738.7	5167.1	5587.3	5856.6	6011.6
17.5°	4653.0	4577.5	4275.6	4004.3	3947.2	4212.4	4738.7	5269.1	5762.7	6066.7	6211.5
20°	4671.4	4483.7	4171.6	3888.0	3741.2	4047.2	4706.0	5346.6	5932.0	6268.6	6423.6
22.5°	4510.2	4324.6	4061.4	3788.1	3571.9	3847.2	4653.0	5405.7	6076.9	6458.3	6650.1
25°	4326.6	4171.6	3949.2	3686.1	3455.6	3645.3	4604.1	5505.7	6278.8	6715.3	6909.1
27.5°	4147.1	4016.6	3814.6	3600.4	3390.3	3469.9	4573.5	5652.6	6519.5	7080.5	7247.8
30°	3971.7	3853.4	3669.8	3518.8	3355.6	3355.6	4546.9	5821.9	6837.7	7490.5	7657.8
32.5°	3794.2	3682.0	3533.1	3439.3	3335.2	3310.8	4473.5	5981.0	7166.2	7939.3	8110.6
35°	3629.0	3516.8	3402.6	3363.8	3325.0	3276.1	4291.9	6105.4	7486.4	8463.5	8610.4
37.5°	3473.9	3365.8	3280.2	3270.0	3274.0	3182.2	4006.4	6209.5	7886.3	9000.0	9077.6
40°	3339.3	3219.0	3151.6	3149.6	3170.0	3031.3	3645.3	6358.4	8343.2	9454.9	9422.3
42.5°	3219.0	3092.5	3010.9	3029.3	3017.0	2880.3	3292.4	6495.0	8741.0	9881.3	9816.0
45°	3100.6	2978.3	2864.0	2890.5	2876.3	2786.5	2992.5	6595.0	9181.6	10393.3	10401.4
47.5°	2986.4	2866.1	2751.8	2719.2	2717.1	2757.9	2762.0	6627.6	9899.6	11217.4	11031.8
50°	2880.3	2760.0	2641.7	2531.5	2574.4	2700.8	2590.7	6603.2	10974.7	12127.2	11609.1
52.5°	2770.2	2655.9	2525.4	2327.5	2439.7	2564.2	2437.7	6515.4	11631.5	12930.9	12620.9
55°	2643.7	2535.6	2358.1	2117.4	2254.1	2280.6	2280.6	5666.8	11911.0	13726.5	13918.2
57.5°	2474.4	2331.6	2050.1	1856.3	1978.7	1876.7	2113.3	3965.6	11450.0	13475.6	14220.1
60°	2282.6	2129.7	1831.8	1693.1	1729.8	1550.3	1801.2	2486.6	9489.6	11466.3	12755.5
62.5°	2029.7	1888.9	1642.1	1534.0	1458.5	1264.7	1450.4	1572.8	6505.2	8514.5	9393.7
65°	1860.4	1705.4	1485.0	1342.3	1187.2	1017.9	962.8	1032.2	3498.4	4765.2	5358.8
67.5°	1660.5	1507.5	1299.4	1119.9	995.5	873.1	777.2	752.7	1199.5	1587.0	1717.6
70°	1470.8	1323.9	1150.5	983.2	858.8	738.4	644.6	577.3	554.9	550.8	542.6
72.5°	1277.0	1140.3	995.5	840.4	703.8	593.6	510.0	432.5	399.8	389.6	379.4
75°	1046.5	938.4	793.5	626.2	516.1	414.1	348.8	297.8	269.3	259.1	246.8
77.5°	673.2	624.2	497.7	403.9	312.1	246.8	212.1	179.5	161.2	157.1	146.9
80°	359.0	334.5	275.4	232.5	185.6	151.0	132.6	114.2	104.0	100.0	95.9
82.5°	199.9	181.6	153.0	134.6	108.1	91.8	81.6	73.4	67.3	65.3	63.2
85°	89.8	77.5	61.2	57.1	51.0	46.9	44.9	40.8	38.8	36.7	34.7
87.5°	4.1	8.2	10.2	8.2	8.2	12.2	14.3	14.3	12.2	12.2	10.2
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: P642935

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

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4	4467.4
2.5°	4767.2	4828.4	4834.6	4855.0	4828.4	4822.3	4779.5	4755.0	4732.6	4726.4
5°	5138.5	5260.9	5309.9	5344.5	5311.9	5295.6	5201.7	5103.8	5048.8	5022.2
7.5°	5520.0	5703.6	5799.4	5842.3	5846.4	5772.9	5611.8	5428.2	5336.4	5301.7
10°	5860.6	6087.1	6213.5	6295.1	6266.6	6176.8	5956.5	5707.6	5591.4	5560.8
12.5°	6113.6	6329.8	6427.7	6480.8	6478.7	6429.8	6221.7	5952.4	5819.8	5789.2
15°	6276.8	6405.3	6411.4	6423.6	6458.3	6523.6	6415.5	6166.6	6019.7	5976.9
17.5°	6405.3	6354.3	6258.4	6225.8	6303.3	6484.8	6550.1	6348.2	6189.1	6152.3
20°	6486.9	6229.9	6060.5	5997.3	6087.1	6382.8	6631.7	6511.4	6346.1	6299.2
22.5°	6550.1	6113.6	5840.2	5797.4	5891.2	6272.7	6715.3	6705.1	6523.6	6458.3
25°	6650.1	6036.1	5685.2	5654.6	5742.3	6219.7	6827.5	6968.3	6807.1	6713.3
27.5°	6807.1	6027.9	5605.6	5595.4	5715.8	6266.6	6988.7	7353.8	7151.9	7082.5
30°	7025.4	6105.4	5624.0	5644.4	5791.3	6435.9	7239.6	7794.5	7592.5	7484.4
32.5°	7339.6	6313.5	5903.5	5991.2	6099.3	6707.2	7606.8	8271.8	8118.8	7959.7
35°	7753.7	6884.7	6729.6	7102.9	7000.9	7300.8	8049.4	8851.1	8665.5	8526.8
37.5°	8306.5	8055.6	8198.4	8712.4	8465.6	8422.7	8590.0	9377.4	9275.4	9136.7
40°	9081.6	9132.6	9395.8	10071.0	9714.0	9438.6	9253.0	9773.2	9807.8	9636.5
42.5°	9595.7	9830.3	10464.7	11231.7	10740.1	10081.2	9807.8	10279.1	10281.1	10126.1
45°	9787.4	10401.4	11727.4	12610.7	11788.6	10448.4	10113.8	10966.5	10946.1	10768.6
47.5°	9718.1	10882.9	13039.0	14389.4	13134.9	10709.5	10071.0	11945.6	12110.9	11841.6
50°	9573.2	11366.3	14571.0	16568.1	14787.2	10986.9	10005.7	13030.9	13304.2	13096.2
52.5°	9720.1	11904.9	16382.4	18820.1	16859.8	11429.6	10446.3	14424.1	14375.2	14124.3
55°	10185.2	12541.3	18583.5	21649.5	19136.3	12178.2	11578.5	15752.1	15254.4	14954.5
57.5°	10162.8	12996.2	20513.2	23887.2	21117.0	12792.2	11972.2	15892.9	14887.2	14507.8
60°	9224.4	12788.1	21247.6	25302.9	21714.7	12453.6	10676.8	14195.7	12561.7	12163.9
62.5°	6884.7	11348.0	19823.7	23530.2	20023.7	10756.4	8029.0	10189.3	9026.6	8355.4
65°	4404.1	8877.6	16666.0	19062.9	16504.8	8226.9	4781.5	5462.9	4279.7	4088.0
67.5°	1874.7	6266.6	12955.4	12741.2	12347.5	5330.3	1846.1	1538.1	1146.4	1126.0
70°	620.1	4263.4	7986.2	8498.2	7374.2	3671.8	609.9	516.1	514.1	495.7
72.5°	405.9	2288.8	4495.9	5005.9	4744.8	2113.3	369.2	344.7	352.9	344.7
75°	242.7	497.7	756.8	983.2	756.8	354.9	222.3	218.3	222.3	212.1
77.5°	142.8	138.7	134.6	134.6	132.6	122.4	112.2	108.1	110.2	112.2
80°	91.8	87.7	83.6	81.6	71.4	67.3	63.2	59.2	59.2	61.2
82.5°	59.2	55.1	51.0	44.9	36.7	30.6	28.6	24.5	24.5	26.5
85°	30.6	24.5	18.4	14.3	8.2	4.1	0.0	0.0	0.0	0.0
87.5°	6.1	0.0	0.0	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

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

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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

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

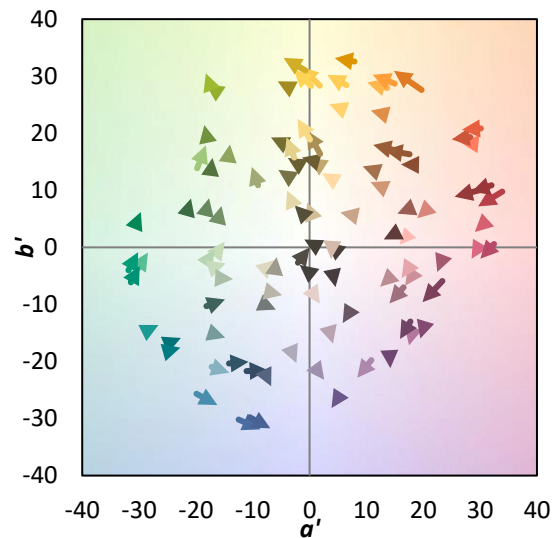
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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			

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)