

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: P640464

Luminaire Tested: GWS-SA5D-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640464
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-SA5D-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18671.2 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

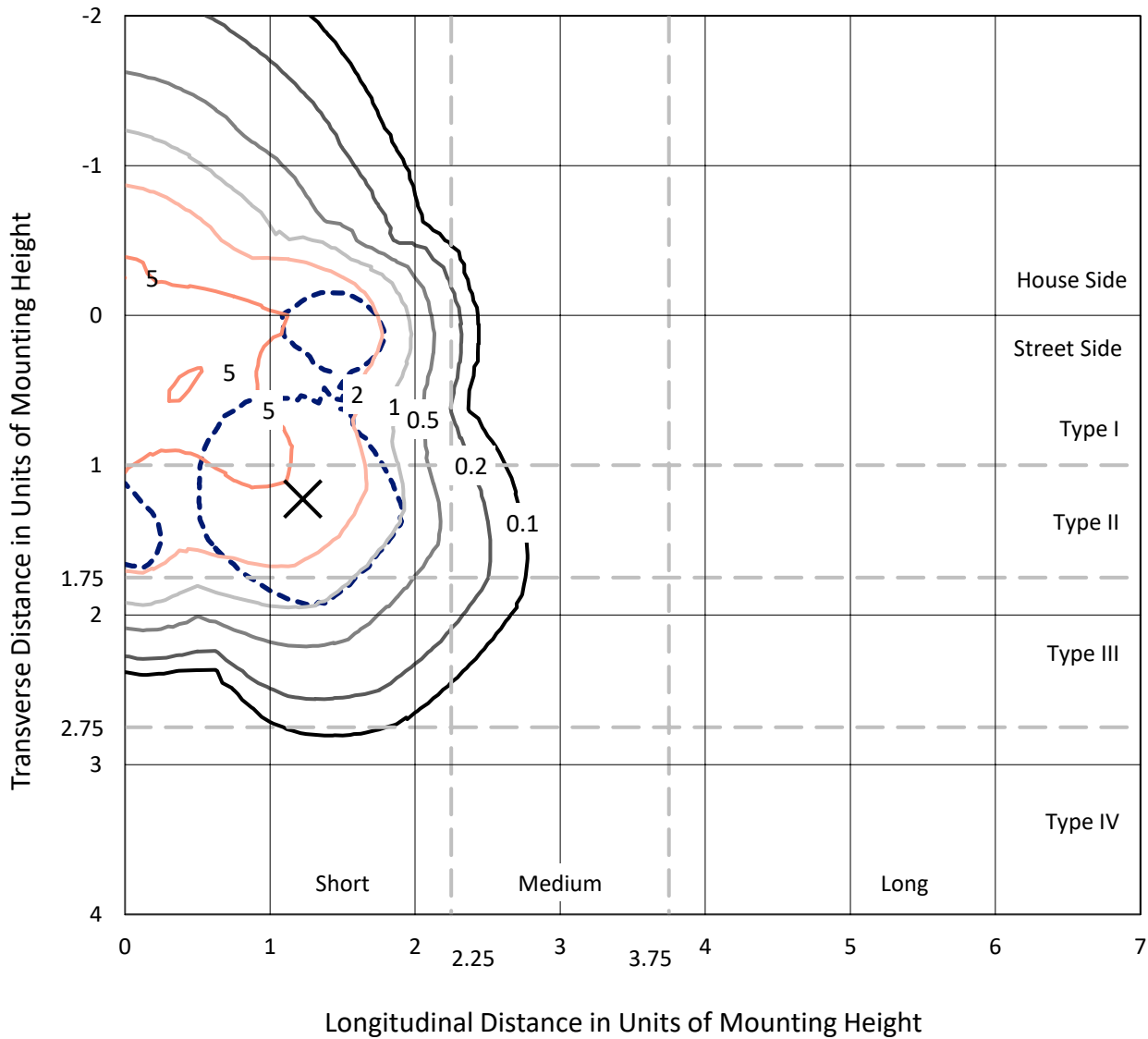
Input Watts (W): 204.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

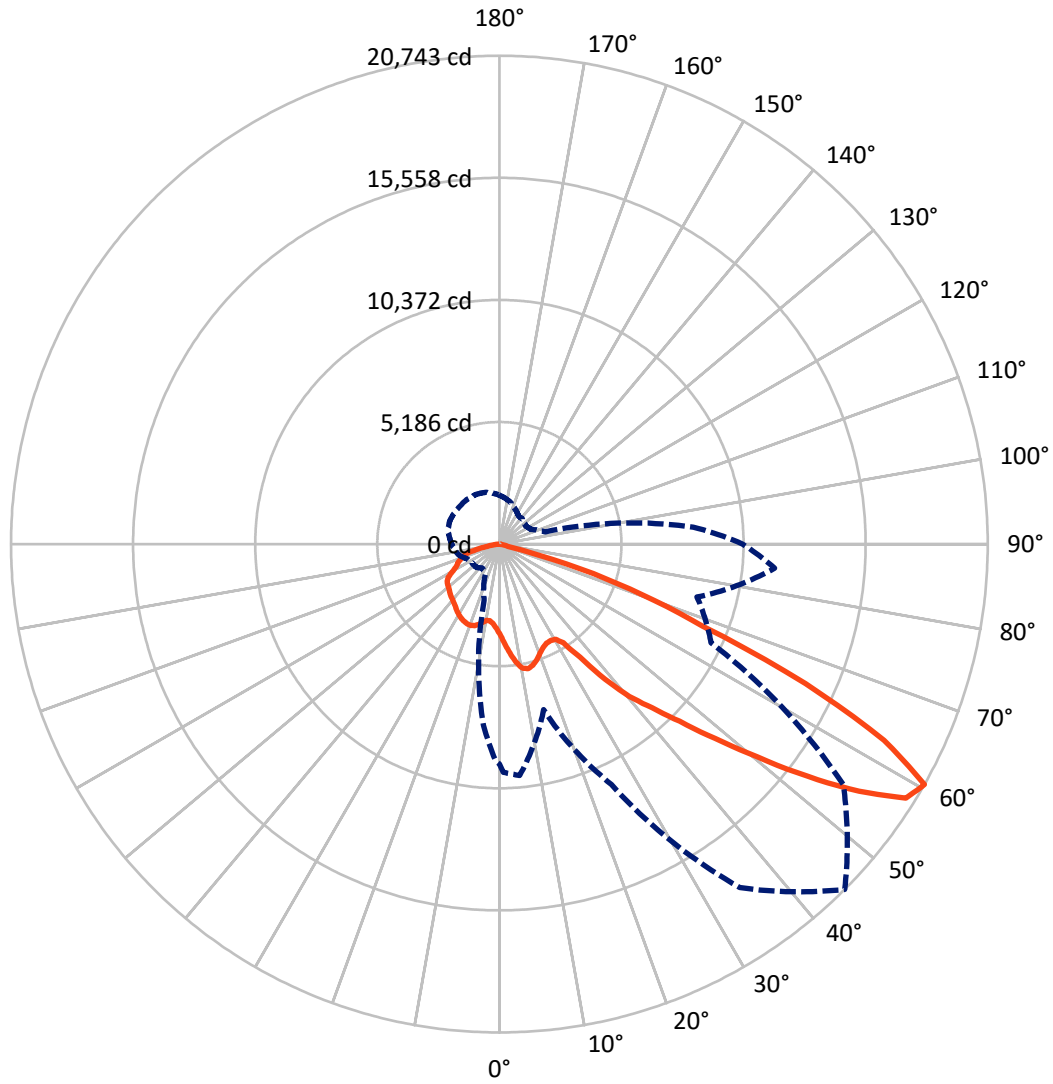
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6544.9	0.0	6544.9
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	12126.3	0.0	12126.3
	% Fixture	64.9	0.0	64.9
Total	Lumens	18671.2	0.0	18671.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.2	2.0
10°-20°	1182.6	6.3
20°-30°	1920.9	10.3
30°-40°	2709.1	14.5
40°-50°	3743.9	20.1
50°-60°	4819.5	25.8
60°-70°	3053.7	16.4
70°-80°	783.6	4.2
80°-90°	83.8	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°	18671.2	100.0
0°-180°	18671.2	100.0

Coefficient of Utilization



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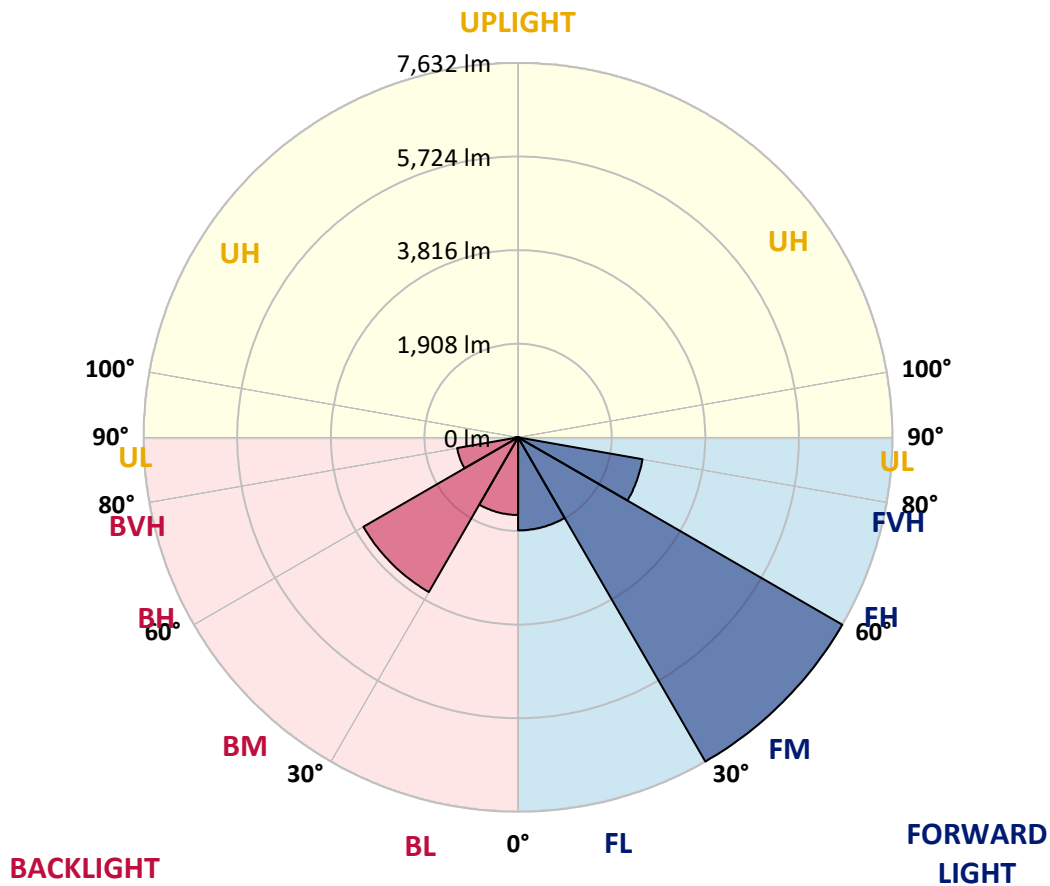
CATALOG NUMBER: GWS-SA5D-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1895.8	10.2			
FM (30°-60°)	7631.7	40.9			
FH (60°-80°)	2576.0	13.8			G2/5000
FVH (80°-90°)	22.8	0.1			G1/100
BL (0°-30°)	1581.9	8.5	B3/2500		
BM (30°-60°)	3640.7	19.5	B3/5000		
BH (60°-80°)	1261.3	6.8	B3/2500		G3/2500
BVH (80°-90°)	61.0	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°	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6
2.5°	4011.8	4039.2	4056.3	4088.8	4147.0	4179.5	4215.4	4176.1	4186.3	4181.2	4117.9
5°	4249.6	4282.1	4326.6	4422.4	4530.2	4590.1	4646.5	4638.0	4584.9	4496.0	4432.7
7.5°	4472.0	4509.7	4586.7	4742.3	4901.4	4993.8	5062.3	5017.8	4973.3	4833.0	4673.9
10°	4646.5	4668.8	4773.1	4981.8	5166.6	5271.0	5354.8	5344.5	5282.9	5125.6	4911.7
12.5°	4810.8	4826.2	4939.1	5147.8	5313.7	5359.9	5428.4	5450.6	5430.1	5312.0	5101.6
15°	4987.0	5016.1	5120.4	5279.5	5354.8	5306.9	5330.9	5392.4	5450.6	5450.6	5257.3
17.5°	5151.2	5176.9	5282.9	5351.4	5279.5	5152.9	5159.8	5238.5	5377.0	5522.5	5399.3
20°	5296.6	5320.6	5424.9	5359.9	5132.4	4947.6	4942.5	5038.3	5262.4	5568.7	5551.5
22.5°	5455.7	5490.0	5577.2	5366.8	4995.5	4761.2	4759.4	4858.7	5161.5	5614.8	5726.0
25°	5681.6	5734.6	5779.1	5426.7	4922.0	4639.7	4661.9	4756.0	5129.0	5690.1	5984.4
27.5°	6016.9	6059.7	6056.2	5551.5	4918.5	4590.1	4636.3	4745.8	5187.1	5823.6	6256.4
30°	6379.6	6401.8	6365.9	5726.0	4997.2	4620.9	4689.3	4819.3	5334.3	6044.3	6656.7
32.5°	6781.6	6809.0	6740.5	5987.8	5180.3	4848.4	4999.0	5062.3	5541.3	6362.5	7081.0
35°	7243.5	7296.6	7154.6	6333.4	5719.2	5678.1	5897.1	5815.0	5981.0	6738.8	7534.4
37.5°	7729.4	7731.1	7527.5	6844.9	6776.5	6846.6	7284.6	7028.0	6913.3	7158.0	7996.3
40°	8141.7	8131.4	7818.4	7534.4	7696.9	7975.7	8504.4	8110.9	7809.8	7720.8	8379.5
42.5°	8554.0	8516.4	8199.9	7972.3	8331.6	8904.7	9501.8	9019.3	8384.6	8232.4	8757.6
45°	9080.9	9068.9	8687.4	8146.8	8904.7	9944.9	10737.0	9955.1	8725.1	8530.0	9387.2
47.5°	9931.2	9873.0	9163.0	8133.1	9441.9	11330.6	12331.4	11133.9	8962.9	8536.9	10403.4
50°	10762.6	10690.8	9731.0	8131.4	9996.2	12767.7	14213.3	12565.8	9205.8	8577.9	11436.7
52.5°	11602.6	11602.6	10663.4	8324.7	10577.9	14372.4	16387.7	14350.2	9619.8	9115.1	12707.8
55°	12102.2	12235.6	11712.1	8651.5	11258.8	16261.1	18538.2	16276.5	10259.7	10085.2	13881.4
57.5°	11467.5	11717.3	11642.0	8424.0	11660.8	17648.6	20361.9	17737.6	10576.2	10199.8	13705.2
60°	9344.4	9691.7	9864.5	7274.3	11263.9	17809.4	20743.4	17833.4	9922.6	8685.7	11739.5
62.5°	6211.9	6497.6	6761.1	5197.4	9751.6	16021.6	18346.6	16026.8	8287.1	6482.2	8133.1
65°	3046.9	3259.1	3543.1	3072.6	7618.2	13387.0	14304.0	12950.7	5994.6	3628.6	4148.7
67.5°	797.2	857.1	896.5	1192.4	5457.4	9618.1	9329.0	9472.7	3851.0	1185.6	1084.6
70°	414.0	417.4	415.7	492.7	3688.5	6112.7	6429.2	5948.4	2687.7	496.1	427.7
72.5°	296.0	297.7	292.5	331.9	1780.9	3502.0	3628.6	3589.3	1408.0	294.3	292.5
75°	193.3	195.0	191.6	195.0	268.6	398.6	367.8	386.6	234.4	186.5	186.5
77.5°	114.6	116.3	114.6	118.0	114.6	114.6	106.1	106.1	100.9	100.9	102.6
80°	77.0	77.0	75.3	78.7	71.9	71.9	68.4	66.7	61.6	59.9	59.9
82.5°	46.2	47.9	46.2	46.2	42.8	42.8	39.3	37.6	32.5	32.5	30.8
85°	24.0	24.0	22.2	22.2	18.8	17.1	13.7	13.7	10.3	8.6	8.6
87.5°	3.4	3.4	1.7	1.7	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6
2.5°	4100.8	4066.6	4015.2	3965.6	3919.4	3871.5	3816.8	3760.3	3712.4	3662.8	3637.2
5°	4348.9	4278.7	4145.3	4027.2	3921.2	3833.9	3739.8	3659.4	3584.1	3522.5	3491.7
7.5°	4573.0	4463.5	4261.6	4075.1	3931.4	3811.7	3681.6	3561.9	3460.9	3385.7	3356.6
10°	4780.0	4650.0	4384.8	4148.7	3981.0	3847.6	3688.5	3526.0	3392.5	3293.3	3269.3
12.5°	4947.6	4798.8	4482.3	4208.6	4010.1	3866.4	3726.1	3585.8	3454.1	3325.8	3305.3
15°	5096.5	4920.3	4555.9	4246.2	3999.8	3816.8	3698.7	3681.6	3681.6	3536.2	3495.2
17.5°	5224.8	5031.5	4615.7	4263.3	3934.8	3669.7	3597.8	3746.7	3914.3	3809.9	3717.6
20°	5371.9	5137.5	4665.3	4263.3	3815.1	3483.2	3476.3	3729.5	3977.6	3979.3	3881.8
22.5°	5520.7	5260.7	4723.5	4247.9	3650.8	3267.6	3394.2	3661.1	3881.8	3975.9	3909.2
25°	5762.0	5431.8	4815.9	4235.9	3459.2	3120.5	3320.7	3570.4	3756.9	3856.1	3813.4
27.5°	6068.2	5657.6	4956.2	4254.8	3269.3	3033.2	3242.0	3452.4	3621.8	3709.0	3678.2
30°	6410.4	5917.7	5106.7	4287.3	3132.5	2988.8	3147.9	3317.2	3467.8	3555.0	3541.4
32.5°	6846.6	6199.9	5236.8	4242.8	3055.5	2966.5	3048.6	3170.1	3315.5	3370.3	3382.2
35°	7368.4	6511.3	5336.0	4068.3	2985.3	2942.6	2940.9	3016.1	3118.8	3206.0	3214.6
37.5°	7849.1	6875.7	5445.5	3768.9	2858.7	2882.7	2814.3	2858.7	2959.7	3046.9	3081.1
40°	8324.7	7245.2	5597.7	3387.4	2692.8	2749.3	2668.8	2699.6	2780.0	2894.7	2949.4
42.5°	8786.7	7578.8	5758.6	2997.3	2526.9	2562.8	2502.9	2533.7	2617.5	2761.2	2822.8
45°	9289.6	8030.5	5883.4	2629.5	2383.1	2367.7	2319.8	2364.3	2490.9	2648.3	2721.9
47.5°	10240.8	8742.2	5965.6	2384.9	2306.2	2195.0	2140.2	2236.0	2379.7	2538.8	2627.8
50°	11402.5	9772.1	5941.6	2229.2	2239.4	2017.0	1998.2	2124.8	2278.8	2444.7	2542.2
52.5°	12322.9	10783.2	5669.6	2080.3	2109.4	1904.1	1849.4	2034.1	2181.3	2350.6	2451.6
55°	13026.0	11123.6	4834.7	1904.1	1897.3	1822.0	1707.4	1940.0	2083.8	2241.1	2350.6
57.5°	12452.9	10365.7	3584.1	1661.2	1620.1	1659.5	1548.3	1780.9	1964.0	2119.7	2217.2
60°	10334.9	8264.9	1996.5	1471.3	1355.0	1450.8	1433.6	1613.3	1834.0	1998.2	2082.0
62.5°	7016.0	5503.6	1183.9	1163.3	1098.3	1235.2	1325.9	1443.9	1661.2	1794.6	1873.3
65°	3496.9	2674.0	787.0	870.8	879.4	1016.2	1187.3	1317.3	1498.7	1635.5	1714.2
67.5°	1014.5	831.4	598.8	665.5	757.9	867.4	1004.2	1158.2	1334.4	1496.9	1589.3
70°	438.0	443.1	475.6	554.3	645.0	757.9	894.7	1045.3	1194.1	1319.0	1389.2
72.5°	309.7	321.6	357.6	438.0	523.5	631.3	768.1	913.6	1021.3	1147.9	1221.5
75°	198.5	207.0	236.1	297.7	361.0	465.3	595.4	728.8	840.0	930.7	1000.8
77.5°	109.5	111.2	135.2	171.1	213.8	280.6	376.4	480.7	562.9	614.2	677.5
80°	63.3	63.3	75.3	97.5	123.2	164.2	217.3	268.6	318.2	350.7	381.5
82.5°	34.2	34.2	39.3	53.0	66.7	90.7	121.5	147.1	177.9	195.0	215.6
85°	10.3	10.3	13.7	18.8	24.0	34.2	47.9	61.6	75.3	87.3	99.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6
2.5°	3632.0	3608.1	3594.4	3577.3	3582.4	3567.0	3558.5	3563.6	3532.8	3563.6	3594.4
5°	3479.8	3445.5	3418.2	3395.9	3385.7	3365.1	3353.2	3353.2	3334.3	3365.1	3402.8
7.5°	3346.3	3319.0	3305.3	3291.6	3276.2	3257.4	3236.8	3230.0	3218.0	3250.5	3283.0
10°	3257.4	3260.8	3269.3	3288.2	3284.7	3272.8	3242.0	3224.9	3224.9	3262.5	3312.1
12.5°	3298.4	3334.3	3354.9	3389.1	3395.9	3385.7	3354.9	3341.2	3375.4	3431.9	3514.0
15°	3457.5	3481.5	3498.6	3526.0	3524.2	3515.7	3491.7	3502.0	3614.9	3724.4	3798.0
17.5°	3630.3	3602.9	3599.5	3616.6	3621.8	3611.5	3597.8	3644.0	3830.5	3933.1	3970.8
20°	3755.2	3661.1	3640.6	3647.4	3661.1	3656.0	3656.0	3731.3	3924.6	3972.5	3924.6
22.5°	3792.8	3659.4	3628.6	3630.3	3649.1	3650.8	3659.4	3738.1	3851.0	3852.7	3779.2
25°	3733.0	3604.7	3582.4	3585.8	3608.1	3606.4	3609.8	3654.3	3703.9	3683.4	3628.6
27.5°	3620.1	3508.8	3502.0	3520.8	3549.9	3534.5	3524.2	3536.2	3560.2	3534.5	3486.6
30°	3491.7	3397.6	3401.1	3437.0	3467.8	3442.1	3416.5	3423.3	3425.0	3397.6	3342.9
32.5°	3356.6	3286.4	3298.4	3336.1	3372.0	3344.6	3317.2	3313.8	3281.3	3248.8	3195.8
35°	3221.4	3194.1	3209.5	3240.3	3271.0	3248.8	3231.7	3221.4	3151.3	3103.4	3058.9
37.5°	3098.3	3118.8	3146.2	3165.0	3175.2	3173.5	3163.3	3139.3	3046.9	2990.5	2932.3
40°	2988.8	3052.1	3081.1	3089.7	3105.1	3101.7	3100.0	3065.8	2944.3	2884.4	2817.7
42.5°	2889.5	2978.5	3028.1	3036.7	3045.2	3046.9	3041.8	2992.2	2853.6	2783.5	2720.2
45°	2793.7	2910.1	2973.4	2964.8	2976.8	2976.8	2981.9	2916.9	2764.7	2692.8	2626.1
47.5°	2709.9	2846.8	2904.9	2894.7	2901.5	2906.6	2911.8	2836.5	2667.1	2598.7	2530.3
50°	2632.9	2778.3	2828.0	2831.4	2831.4	2843.3	2841.6	2768.1	2585.0	2511.5	2443.0
52.5°	2550.8	2708.2	2761.2	2783.5	2790.3	2795.4	2771.5	2686.0	2501.2	2412.2	2348.9
55°	2455.0	2636.3	2684.2	2713.3	2727.0	2723.6	2691.1	2603.8	2415.6	2326.7	2254.8
57.5°	2309.6	2482.4	2550.8	2564.5	2586.7	2573.0	2535.4	2461.8	2278.8	2189.8	2116.3
60°	2150.5	2275.4	2330.1	2342.1	2325.0	2330.1	2325.0	2254.8	2095.7	2025.6	1950.3
62.5°	1941.8	2053.0	2111.1	2126.5	2097.4	2116.3	2109.4	2022.2	1863.1	1789.5	1722.8
65°	1784.4	1905.8	1974.3	1982.8	1974.3	1982.8	1958.9	1852.8	1702.2	1627.0	1558.5
67.5°	1661.2	1786.1	1857.9	1881.9	1873.3	1871.6	1834.0	1710.8	1555.1	1473.0	1385.7
70°	1449.0	1558.5	1650.9	1709.1	1709.1	1676.6	1604.7	1490.1	1365.2	1295.1	1226.6
72.5°	1283.1	1421.7	1512.3	1572.2	1584.2	1565.4	1464.4	1343.0	1199.3	1129.1	1057.3
75°	1057.3	1192.4	1289.9	1368.6	1384.0	1363.5	1247.2	1127.4	994.0	925.5	853.7
77.5°	706.6	787.0	865.7	937.5	922.1	935.8	857.1	766.4	684.3	633.0	600.5
80°	398.6	451.7	475.6	515.0	515.0	515.0	463.6	420.9	374.7	345.6	313.1
82.5°	225.8	260.0	270.3	302.8	311.4	313.1	278.9	251.5	222.4	207.0	184.8
85°	104.4	123.2	124.9	143.7	150.6	164.2	148.8	130.0	112.9	106.1	92.4
87.5°	3.4	10.3	13.7	25.7	34.2	39.3	42.8	42.8	35.9	32.5	27.4
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: P640464

CATALOG NUMBER: GWS-SA5D-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6	3835.6
2.5°	3632.0	3673.1	3721.0	3755.2	3816.8	3868.1	3921.2	3979.3	4022.1	4011.8
5°	3449.0	3517.4	3604.7	3685.1	3799.7	3916.0	4044.3	4176.1	4253.0	4249.6
7.5°	3346.3	3443.8	3549.9	3657.7	3792.8	3960.5	4157.2	4362.5	4466.9	4472.0
10°	3401.1	3505.4	3577.3	3668.0	3809.9	4020.4	4256.5	4502.8	4622.6	4646.5
12.5°	3573.9	3565.3	3560.2	3625.2	3796.3	4063.1	4352.3	4646.5	4781.7	4810.8
15°	3738.1	3561.9	3455.8	3500.3	3734.7	4090.5	4446.4	4803.9	4956.2	4987.0
17.5°	3768.9	3502.0	3305.3	3336.1	3637.2	4099.1	4537.0	4957.9	5122.1	5151.2
20°	3683.4	3425.0	3195.8	3153.0	3514.0	4076.8	4593.5	5086.2	5265.8	5296.6
22.5°	3575.6	3356.6	3113.7	3002.5	3363.4	4054.6	4656.8	5221.4	5428.4	5455.7
25°	3462.7	3269.3	3036.7	2867.3	3192.4	4040.9	4762.9	5399.3	5649.1	5681.6
27.5°	3342.9	3163.3	2969.9	2802.3	3035.0	4058.0	4913.4	5686.7	5970.7	6016.9
30°	3214.6	3057.2	2927.2	2780.0	2927.2	4073.4	5079.4	5981.0	6314.6	6379.6
32.5°	3081.1	2959.7	2882.7	2790.3	2860.5	4037.5	5224.8	6311.1	6725.2	6781.6
35°	2947.7	2860.5	2826.2	2809.1	2771.5	3905.8	5342.8	6644.7	7193.9	7243.5
37.5°	2822.8	2757.8	2747.5	2766.4	2634.6	3690.2	5479.7	7069.0	7654.1	7729.4
40°	2706.5	2646.6	2644.9	2641.5	2484.1	3395.9	5664.5	7500.1	8107.5	8141.7
42.5°	2598.7	2523.4	2537.1	2496.1	2360.9	3077.7	5839.0	7868.0	8530.0	8554.0
45°	2502.9	2403.7	2419.1	2367.7	2302.7	2744.1	5992.9	8302.5	9065.5	9080.9
47.5°	2410.5	2304.4	2261.7	2258.3	2292.5	2436.2	6143.5	9139.1	9903.8	9931.2
50°	2325.0	2210.4	2088.9	2164.2	2229.2	2205.2	6331.7	10035.5	10769.5	10762.6
52.5°	2242.9	2092.3	1919.5	2064.9	2064.9	2034.1	6278.6	10579.6	11484.6	11602.6
55°	2148.8	1902.4	1743.3	1899.0	1823.7	1880.2	5339.4	10757.5	11934.5	12102.2
57.5°	1962.3	1668.0	1529.5	1613.3	1500.4	1743.3	3835.6	9874.7	11169.8	11467.5
60°	1782.7	1495.2	1404.6	1389.2	1242.0	1421.7	2485.8	7731.1	9193.8	9344.4
62.5°	1572.2	1346.4	1269.4	1151.4	999.1	1035.0	1505.5	5087.9	6177.7	6211.9
65°	1413.1	1219.8	1072.7	932.4	817.8	751.0	889.6	2453.3	3088.0	3046.9
67.5°	1213.0	1045.3	905.0	804.1	710.0	626.2	591.9	728.8	824.6	797.2
70°	1079.5	918.7	783.5	687.7	600.5	516.7	456.8	429.4	420.9	414.0
72.5°	930.7	790.4	650.1	557.7	475.6	398.6	343.9	311.4	302.8	296.0
75°	742.5	610.8	482.4	395.2	323.3	268.6	232.7	205.3	200.2	193.3
77.5°	491.0	391.8	287.4	234.4	191.6	162.5	138.6	121.5	118.0	114.6
80°	270.3	225.8	176.2	142.0	114.6	99.2	90.7	80.4	78.7	77.0
82.5°	160.8	135.2	100.9	80.4	66.7	59.9	54.7	49.6	47.9	46.2
85°	80.4	63.3	44.5	37.6	34.2	30.8	30.8	25.7	24.0	24.0
87.5°	20.5	17.1	10.3	8.6	8.6	8.6	6.8	5.1	5.1	3.4
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

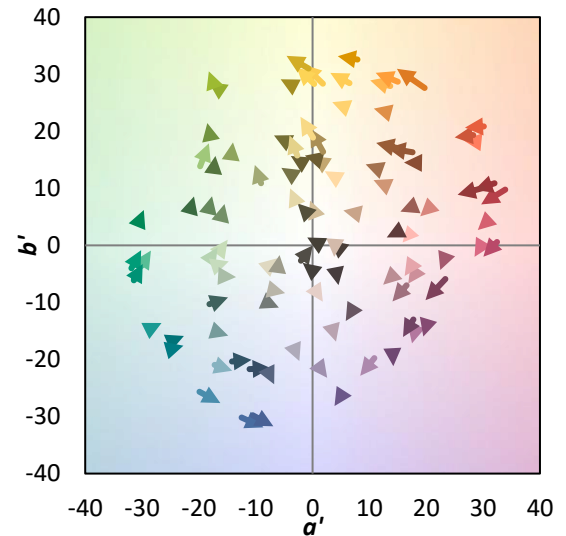
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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