

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P324636

Luminaire Tested: **GLEON-SA2B-830-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324636
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA2B-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6888 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G2

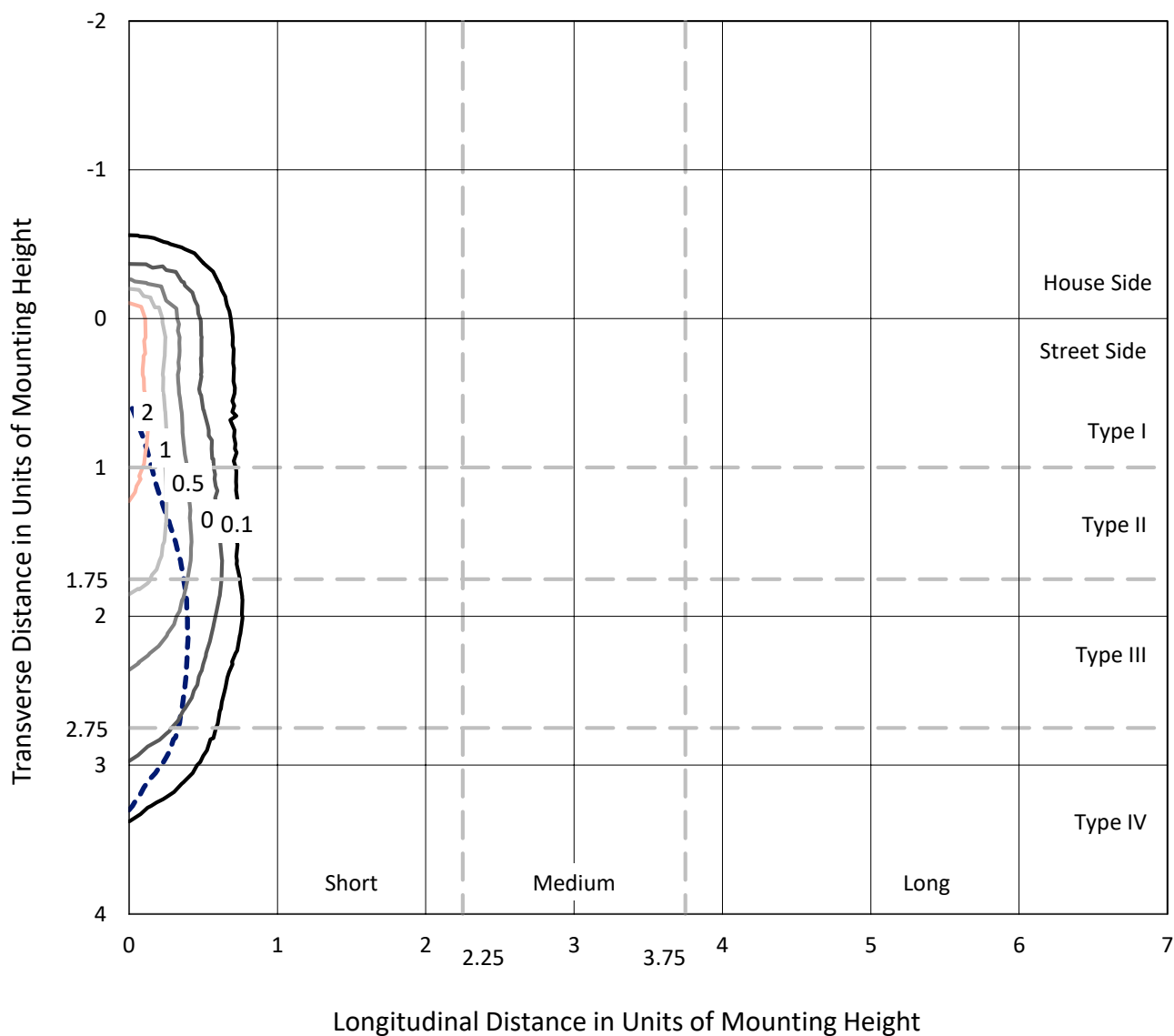
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

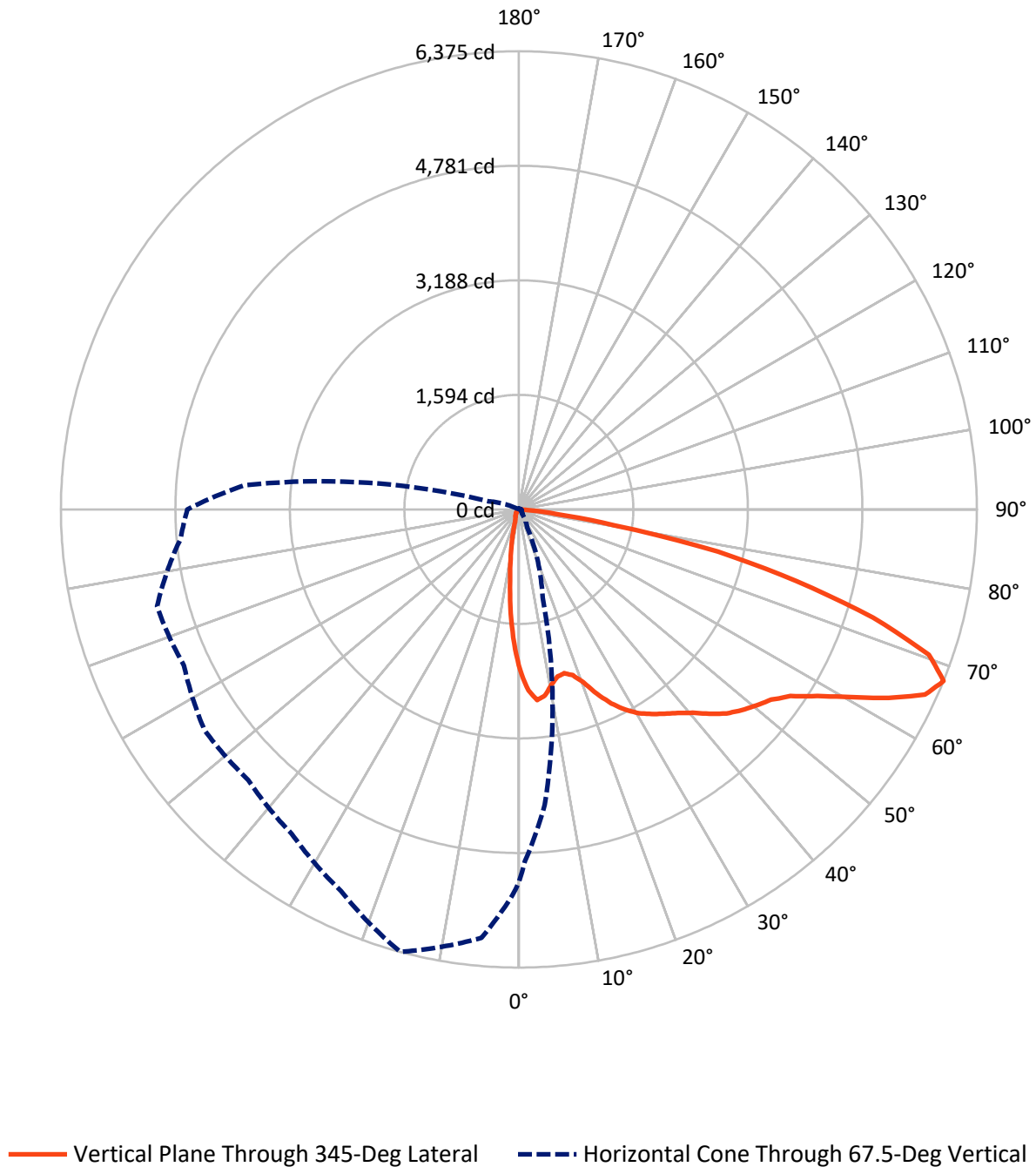
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	833.7	0.0	833.7
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	6054.3	0.0	6054.3
	% Fixture	87.9	0.0	87.9
Total	Lumens	6888.0	0.0	6888.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.2	2.5
10°-20°	342.8	5.0
20°-30°	486.7	7.1
30°-40°	718.9	10.4
40°-50°	1036.9	15.1
50°-60°	1455.5	21.1
60°-70°	1696.7	24.6
70°-80°	867.4	12.6
80°-90°	110.8	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°	6888.0	100.0
0°-180°	6888.0	100.0

Coefficient of Utilization



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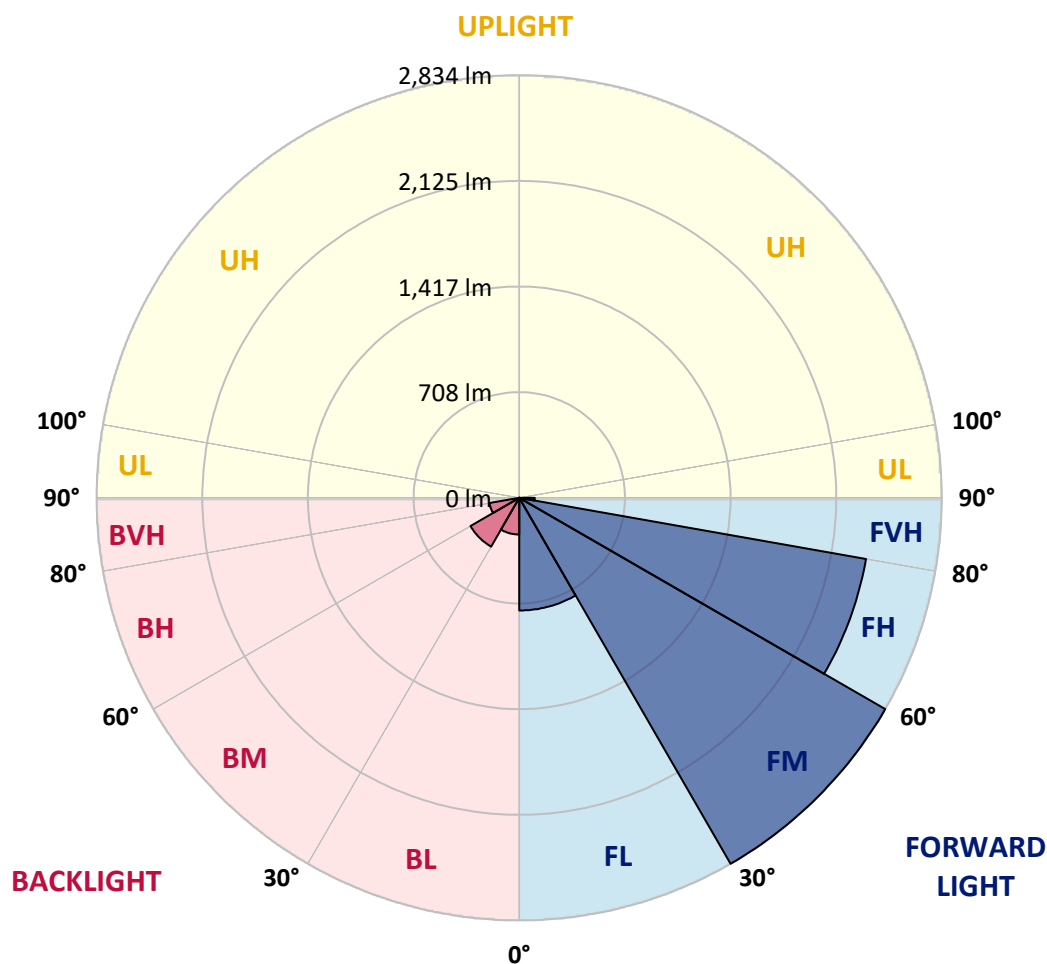
CATALOG NUMBER: GLEON-SA2B-830-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	755.5	11.0			
FM	(30°-60°)	2833.8	41.1			
FH	(60°-80°)	2361.0	34.3			G2/5000
FVH	(80°-90°)	104.0	1.5			G2/225
BL	(0°-30°)	246.2	3.6	B1/500		
BM	(30°-60°)	377.5	5.5	B1/1000		
BH	(60°-80°)	203.2	2.9	B1/500		G1/500
BVH	(80°-90°)	6.7	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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8
2.5°	2456.8	2437.9	2417.0	2348.8	2285.5	2213.1	2154.0	2112.9	2061.3	1994.4	1977.5
5°	2439.2	2419.0	2353.4	2201.7	2068.8	1939.6	1815.0	1741.9	1651.2	1559.1	1536.3
7.5°	2262.0	2240.8	2146.2	1938.3	1759.5	1572.8	1411.0	1310.8	1208.4	1124.2	1079.5
10°	2077.7	2054.5	1948.1	1695.9	1475.6	1306.9	1188.1	1092.5	995.6	905.5	833.7
12.5°	1950.7	1920.4	1804.9	1519.0	1327.1	1212.6	1101.6	987.1	855.9	759.3	680.4
15°	1897.5	1862.9	1740.9	1450.8	1274.6	1140.2	995.6	854.9	701.3	590.6	518.2
17.5°	1938.6	1893.6	1762.8	1446.2	1208.7	1025.6	842.9	677.8	511.0	399.1	347.5
20°	2078.3	2019.2	1853.2	1444.9	1128.7	889.5	657.9	471.2	336.8	270.8	243.8
22.5°	2298.2	2220.3	1983.0	1455.4	1046.2	746.6	475.1	320.1	252.9	218.6	202.6
25°	2563.9	2473.5	2170.0	1492.2	973.7	607.6	345.2	252.9	213.4	188.3	174.9
27.5°	2816.4	2743.0	2406.3	1545.4	917.6	495.3	280.3	214.4	182.4	165.8	155.0
30°	3068.7	2976.3	2648.7	1608.7	850.1	419.3	246.4	195.5	163.5	145.9	139.0
32.5°	3252.1	3175.4	2838.6	1654.4	777.9	369.7	220.3	178.8	152.7	134.8	124.7
35°	3467.8	3381.0	3001.5	1664.5	731.6	338.4	198.1	160.9	132.5	116.5	105.7
37.5°	3700.8	3592.7	3189.4	1642.4	695.4	323.1	181.4	152.7	123.7	107.4	95.9
40°	3958.5	3836.5	3369.9	1610.4	659.8	317.8	168.7	146.5	116.8	100.2	88.4
42.5°	4230.0	4086.1	3526.2	1576.8	637.3	299.9	167.4	140.3	111.6	93.7	81.9
45°	4458.1	4312.3	3686.7	1565.7	621.3	280.3	172.9	136.1	108.0	88.4	77.0
47.5°	4639.9	4501.9	3851.2	1590.5	612.2	262.4	157.6	141.6	106.1	83.9	72.8
50°	4856.9	4700.6	4082.9	1664.5	598.8	244.4	142.6	162.2	106.1	80.9	69.2
52.5°	5129.0	4974.4	4341.3	1779.4	572.0	219.6	128.2	162.5	107.0	77.0	64.6
55°	5471.4	5359.1	4710.4	1905.4	529.3	183.1	110.9	139.7	103.1	69.8	60.4
57.5°	5799.6	5707.9	5046.8	1991.5	472.2	142.9	96.6	112.6	94.3	61.3	53.8
59°	5889.4	5789.2	5170.2	1995.4	429.4	124.7	89.4	93.0	92.3	57.4	49.9
60°	5889.4	5783.0	5205.7	1974.5	398.4	114.5	84.8	82.9	96.3	54.8	47.6
62.5°	5782.7	5633.2	5090.2	1833.2	325.0	97.6	74.1	68.5	86.5	49.3	42.1
65°	5560.8	5343.1	4696.7	1577.7	289.8	89.4	64.0	56.1	60.0	43.4	36.9
67.5°	5190.7	4895.7	4129.2	1274.6	275.7	87.1	55.1	47.6	45.4	37.2	32.3
70°	4539.1	4211.8	3440.4	1002.1	263.7	86.1	46.3	40.1	36.5	31.3	27.4
72.5°	3303.6	2962.3	2442.5	783.5	256.5	88.1	37.2	33.6	30.0	24.5	21.2
75°	1889.7	1666.2	1372.8	517.5	218.6	84.2	28.7	28.1	21.5	17.6	14.7
77.5°	976.3	946.6	822.6	198.7	104.7	36.9	18.9	16.3	12.7	10.8	8.8
80°	421.3	416.7	360.6	57.4	27.7	20.6	10.8	6.9	5.9	4.6	3.6
82.5°	145.5	145.5	128.2	19.3	12.4	10.1	1.3	0.0	0.0	0.0	0.0
85°	29.4	33.0	23.2	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8
2.5°	1956.9	1917.4	1914.8	1890.0	1859.0	1845.0	1836.8	1851.2	1868.8	1870.8	1897.2
5°	1519.0	1477.6	1494.9	1450.8	1459.6	1450.8	1436.4	1439.1	1446.9	1422.4	1452.8
7.5°	1066.7	1035.4	1055.3	1043.6	1059.2	1065.4	1056.6	1043.6	1005.1	1000.5	1026.9
10°	804.0	768.5	747.3	725.1	730.0	740.1	736.8	727.4	702.9	704.2	729.6
12.5°	646.1	606.3	564.2	509.7	496.3	503.8	496.3	490.8	467.3	469.2	491.8
15°	490.1	457.5	413.4	369.7	345.9	348.2	327.3	312.6	297.9	280.3	294.0
17.5°	330.9	311.0	297.9	284.9	256.5	250.0	223.5	195.1	184.0	175.9	181.8
20°	234.3	223.5	218.3	217.7	201.3	193.2	167.4	149.8	144.2	142.6	146.2
22.5°	195.8	188.0	180.5	176.2	168.1	158.6	139.0	130.2	126.3	124.3	126.9
25°	170.3	164.5	156.6	149.5	146.2	136.1	122.0	115.5	112.9	110.9	112.3
27.5°	151.4	146.2	137.1	132.5	129.9	121.1	109.0	103.8	101.5	100.8	100.5
30°	136.4	131.5	123.0	117.8	113.2	105.4	98.2	93.0	90.7	90.1	89.4
32.5°	121.4	117.5	111.9	106.7	101.8	94.6	88.4	84.2	80.6	79.9	79.6
35°	102.5	98.5	95.6	95.3	90.7	83.9	79.3	73.7	70.8	69.8	70.2
37.5°	91.0	85.8	79.3	81.6	80.3	75.4	69.2	63.6	60.7	60.0	60.0
40°	83.9	78.3	70.8	66.9	70.8	69.8	60.0	54.5	51.6	51.2	50.6
42.5°	77.0	71.5	63.0	56.5	58.4	61.3	51.9	46.7	43.7	43.1	42.1
45°	72.1	66.2	56.8	49.3	45.4	51.6	44.4	37.9	36.2	34.9	34.3
47.5°	67.5	62.0	51.2	42.7	36.2	37.2	35.6	31.0	29.0	27.7	27.4
50°	63.6	57.8	46.3	36.5	30.0	27.4	28.7	24.5	22.8	21.5	20.9
52.5°	59.1	53.5	41.1	31.7	25.1	21.5	21.9	19.3	17.6	16.6	16.3
55°	55.5	49.9	36.9	27.7	22.2	17.6	15.7	15.0	14.0	13.4	13.1
57.5°	50.6	45.4	32.6	23.5	18.9	14.4	12.1	12.1	11.7	11.1	10.8
59°	47.6	43.1	30.0	21.2	17.3	12.4	10.8	11.1	10.8	10.1	9.8
60°	45.4	41.1	28.1	19.6	16.3	11.4	9.8	10.4	10.1	9.5	9.1
62.5°	40.1	37.2	24.1	16.3	14.4	9.1	8.2	8.8	8.8	8.5	8.2
65°	35.2	32.0	20.6	13.7	13.4	7.8	6.5	7.8	8.2	7.5	6.9
67.5°	30.7	27.4	17.9	11.1	12.4	6.2	4.9	6.5	8.8	6.9	6.2
70°	26.1	22.8	14.0	8.8	13.1	4.2	3.9	5.9	10.4	7.5	5.9
72.5°	20.2	17.6	9.8	6.5	14.0	2.9	2.9	4.9	11.7	8.2	5.5
75°	14.0	11.4	5.9	3.9	11.4	2.0	2.0	4.6	11.1	7.5	5.2
77.5°	8.2	6.2	2.0	0.3	5.9	0.0	0.3	3.3	7.8	4.6	2.3
80°	2.9	1.3	0.0	0.0	3.6	0.0	0.0	0.0	0.7	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0

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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8
2.5°	1904.1	1948.1	1987.6	2047.3	2118.1	2199.7	2269.9	2345.2	2416.0	2445.4	2465.6
5°	1459.0	1513.5	1577.1	1664.9	1781.7	1925.6	2060.4	2212.8	2376.6	2458.5	2535.5
7.5°	1031.5	1087.0	1165.9	1259.3	1400.6	1571.9	1748.1	1958.6	2180.4	2310.0	2437.6
10°	741.7	809.9	883.7	1011.3	1154.8	1317.3	1498.8	1733.7	1981.1	2124.6	2278.3
12.5°	504.8	582.5	694.1	837.0	1005.7	1165.0	1322.6	1546.7	1833.9	1976.2	2141.0
15°	302.8	345.9	464.0	629.5	836.3	1034.8	1207.4	1432.2	1738.3	1912.5	2083.9
17.5°	186.7	206.6	270.8	406.6	623.9	874.9	1111.4	1393.4	1752.0	1964.1	2147.5
20°	148.8	156.6	177.2	240.2	413.4	698.6	1003.4	1385.5	1863.9	2125.0	2321.7
22.5°	129.2	136.7	150.4	174.6	260.1	523.1	901.0	1392.7	2024.5	2366.1	2595.8
25°	113.9	120.4	133.5	153.4	190.6	368.4	791.3	1424.7	2233.6	2665.4	2909.4
27.5°	101.8	107.4	119.4	137.7	163.5	257.1	667.0	1463.5	2481.6	2971.4	3212.3
30°	90.7	95.6	106.4	123.3	141.9	197.7	530.6	1490.0	2730.0	3212.3	3428.6
32.5°	81.3	84.8	94.6	109.0	123.3	157.6	403.3	1485.7	2914.3	3412.6	3584.3
35°	71.5	75.1	83.5	95.9	107.4	130.2	317.2	1406.4	3074.9	3620.5	3762.4
37.5°	60.7	65.3	73.4	84.5	92.3	114.5	256.5	1310.8	3237.7	3858.0	3961.2
40°	51.6	56.1	63.3	75.4	80.3	108.7	197.1	1194.3	3420.8	4123.7	4179.1
42.5°	42.7	47.0	54.5	64.9	75.7	93.7	145.9	1061.2	3596.7	4350.8	4377.9
45°	34.6	38.8	46.7	57.1	80.9	77.7	112.9	918.6	3738.6	4539.7	4548.5
47.5°	27.4	31.3	39.5	53.8	75.4	62.0	80.6	806.7	3857.7	4687.2	4664.0
50°	21.2	24.5	33.0	61.7	65.9	51.2	61.0	769.5	3964.4	4778.6	4718.5
52.5°	16.6	19.6	27.1	57.8	51.2	42.4	51.2	804.4	4110.6	4854.3	4749.2
55°	13.4	16.3	21.2	33.0	34.9	35.9	43.7	837.0	4362.9	5031.8	4930.3
57.5°	11.1	14.0	17.3	23.2	26.4	30.3	38.8	840.6	4660.1	5326.8	5230.9
59°	10.1	12.7	15.7	20.6	23.2	27.7	36.5	821.0	4764.9	5434.2	5386.2
60°	9.5	12.1	14.7	18.9	21.5	26.1	35.2	802.4	4769.4	5430.2	5452.4
62.5°	8.2	10.8	13.1	16.0	18.3	22.2	31.7	733.6	4576.3	5252.4	5412.6
65°	7.2	9.5	11.7	13.7	15.7	19.9	28.7	607.9	4246.4	4965.6	5140.1
67.5°	6.5	8.2	10.8	12.1	14.0	17.6	25.5	433.3	3834.2	4614.8	4728.0
70°	5.9	7.8	9.8	11.1	12.7	15.3	21.9	249.0	3237.7	4101.1	4181.7
72.5°	5.5	7.5	8.8	10.4	11.4	13.7	19.9	117.1	2370.7	3285.4	3495.8
75°	4.9	6.9	8.2	9.8	10.8	12.4	17.0	56.1	1576.8	2377.5	2616.7
77.5°	2.9	5.5	7.5	8.8	9.5	10.8	14.0	32.3	1006.4	1645.6	1938.3
80°	0.0	2.0	5.5	7.5	8.2	9.1	10.8	25.5	538.4	940.1	1128.4
82.5°	0.0	0.0	3.9	5.9	5.5	6.2	8.2	16.0	242.8	614.5	692.4
85°	0.0	0.0	1.3	4.6	3.9	2.9	5.5	5.5	53.2	311.0	388.0
87.5°	0.0	0.0	0.0	0.3	2.0	1.3	2.3	0.7	0.3	23.2	94.0
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8	2243.8
2.5°	2536.5	2560.6	2601.4	2620.6	2611.2	2571.0	2523.1	2474.1	2445.4	2456.8
5°	2692.4	2816.8	2888.6	2912.4	2872.6	2782.5	2664.7	2509.4	2454.2	2439.2
7.5°	2692.4	2926.4	3074.6	3100.7	3011.9	2835.4	2614.4	2372.0	2291.4	2262.0
10°	2597.8	2916.3	3122.9	3164.3	3040.3	2776.3	2480.3	2203.6	2108.0	2077.7
12.5°	2491.1	2834.1	3051.7	3108.8	3007.0	2717.6	2387.3	2089.7	1977.2	1950.7
15°	2425.5	2732.9	2913.0	2954.5	2911.4	2683.3	2365.1	2055.5	1923.0	1897.5
17.5°	2449.0	2654.6	2719.5	2743.7	2772.7	2671.2	2425.5	2130.5	1962.8	1938.6
20°	2537.4	2572.0	2538.4	2568.8	2647.1	2683.0	2569.4	2312.0	2110.6	2078.3
22.5°	2687.5	2529.3	2435.0	2447.0	2542.3	2721.8	2789.4	2571.0	2338.7	2298.2
25°	2862.4	2563.9	2377.5	2366.8	2464.7	2773.0	2990.4	2853.0	2608.6	2563.9
27.5°	3082.4	2641.5	2365.8	2355.0	2437.6	2821.0	3157.4	3131.7	2892.8	2816.4
30°	3252.1	2717.9	2400.7	2375.9	2464.7	2854.3	3291.6	3368.2	3119.3	3068.7
32.5°	3373.8	2808.0	2457.5	2421.6	2541.0	2911.7	3395.0	3584.9	3328.8	3252.1
35°	3466.5	2905.8	2549.2	2490.1	2646.1	2998.8	3491.9	3815.6	3551.6	3467.8
37.5°	3553.3	3043.2	2692.4	2622.0	2810.9	3139.2	3594.4	4077.3	3800.9	3700.8
40°	3674.3	3198.9	2913.4	2850.7	3087.9	3330.4	3722.3	4350.1	4084.5	3958.5
42.5°	3795.4	3366.0	3139.5	3156.5	3433.5	3562.7	3887.4	4638.6	4364.5	4230.0
45°	3906.0	3538.3	3461.6	3539.9	3754.3	3817.6	4051.5	4805.3	4588.0	4458.1
47.5°	4004.6	3753.6	3781.7	3990.2	4119.1	4048.3	4174.2	4949.2	4754.4	4639.9
50°	4119.1	4032.3	4203.6	4498.6	4539.1	4257.1	4285.8	5119.6	4948.9	4856.9
52.5°	4244.4	4326.0	4670.9	4931.0	4917.9	4483.9	4398.1	5310.5	5215.5	5129.0
55°	4386.7	4563.2	5082.4	5335.6	5324.5	4737.1	4584.1	5546.4	5549.7	5471.4
57.5°	4597.8	4767.5	5361.7	5662.9	5681.5	5029.5	4899.3	5810.7	5851.8	5799.6
59°	4749.2	4900.0	5472.3	5799.6	5875.3	5255.7	5129.7	5964.1	5937.0	5889.4
60°	4861.5	4984.2	5527.2	5871.1	5987.9	5409.0	5299.7	6054.2	5947.1	5889.4
62.5°	5139.2	5167.6	5626.0	5952.0	6117.5	5749.7	5778.1	6207.5	5877.0	5782.7
65°	5268.7	5283.4	5624.7	5807.1	5992.2	6015.0	6212.1	6212.1	5705.6	5560.8
67.5°	5214.5	5143.7	5345.7	5326.8	5511.5	5857.4	6375.2	5984.3	5378.0	5190.7
70°	4774.0	4501.5	4411.8	4420.0	4561.3	5094.8	6052.2	5314.1	4758.0	4539.1
72.5°	3972.3	3318.6	3097.1	3350.0	3386.8	3915.5	5157.8	4001.9	3508.9	3303.6
75°	3195.0	2339.4	1979.1	2246.0	2308.7	2865.4	3989.9	2492.4	2049.6	1889.7
77.5°	2295.3	1679.2	1420.1	1401.5	1482.5	1817.3	2831.1	1254.4	1046.2	976.3
80°	1304.0	1105.2	1190.1	1122.9	1163.6	1136.2	1345.1	550.2	450.6	421.3
82.5°	787.1	653.3	707.5	589.0	745.3	649.0	518.2	176.2	153.0	145.5
85°	512.0	357.0	186.0	124.7	256.8	414.7	115.8	48.0	36.9	29.4
87.5°	176.5	91.0	9.1	3.9	27.4	77.3	4.2	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

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



Test Conditions

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

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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

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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			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.32

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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			

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TM-30-18

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)