

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: P630564

Luminaire Tested: GWS-SA1D-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P630564
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-SA1D-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3768.8 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

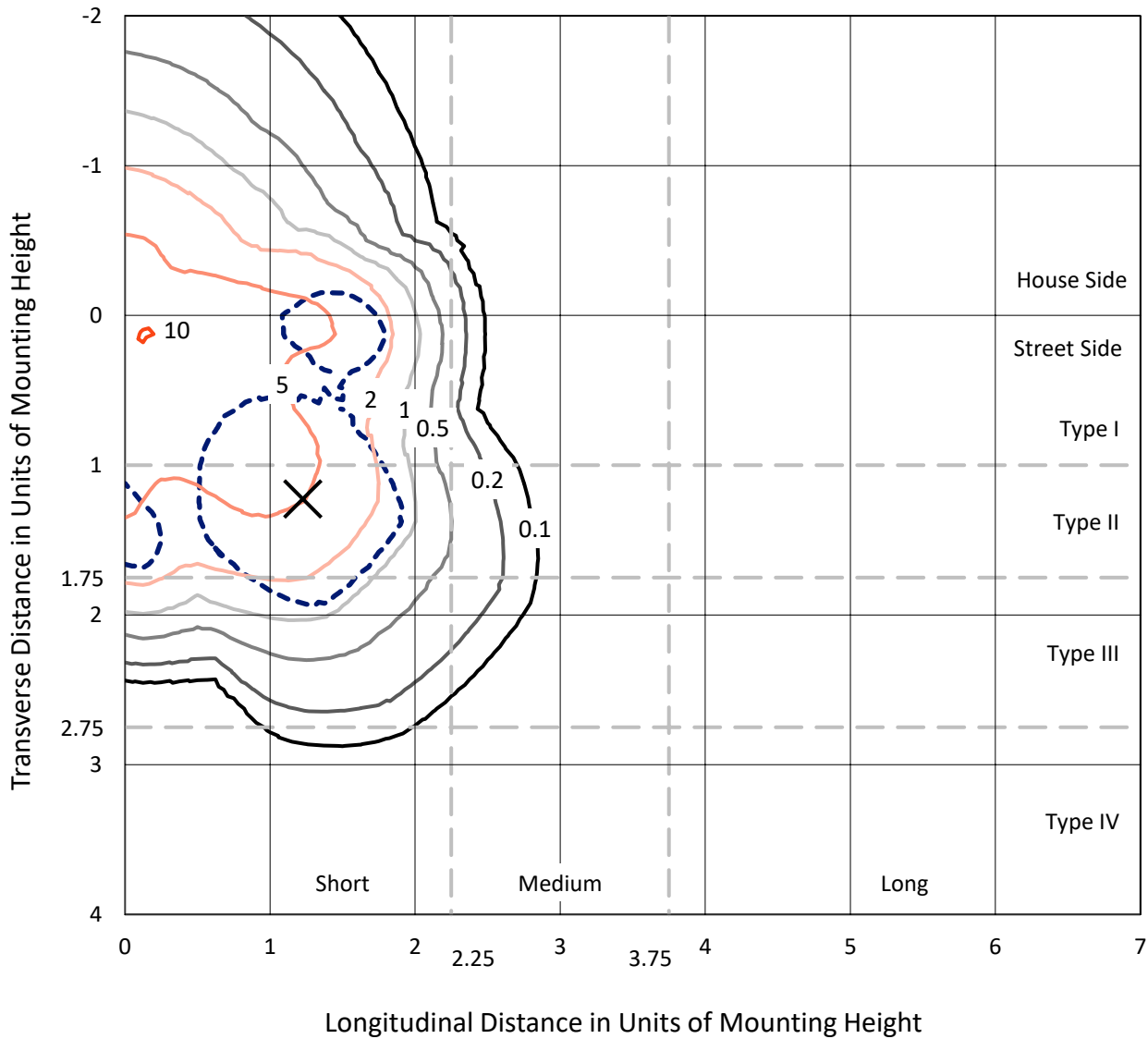
Input Watts (W): 44.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

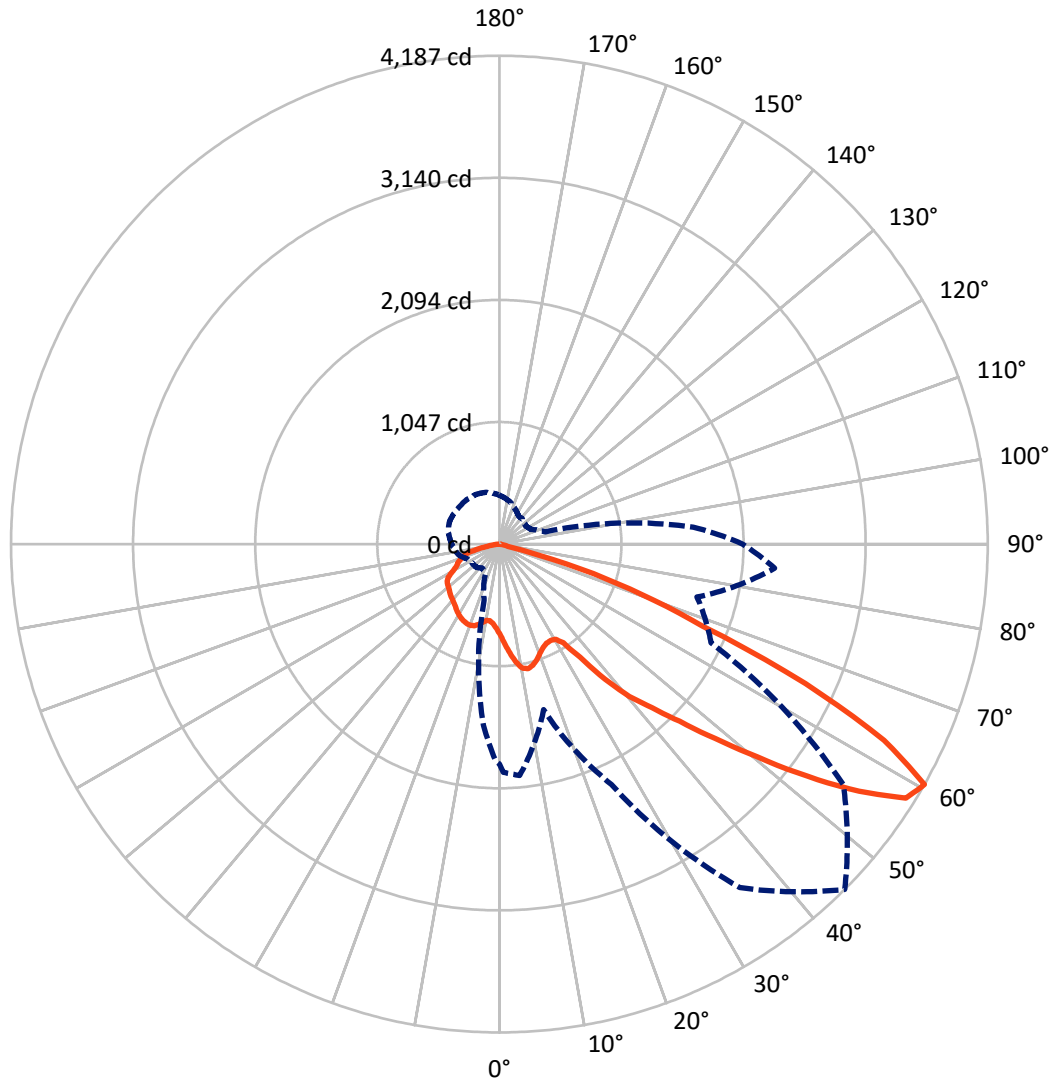
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.3 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	1321.1	0.0	1321.1
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	2447.7	0.0	2447.7
	% Fixture	64.9	0.0	64.9
Total	Lumens	3768.8	0.0	3768.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.5	2.0
10°-20°	238.7	6.3
20°-30°	387.7	10.3
30°-40°	546.8	14.5
40°-50°	755.7	20.1
50°-60°	972.8	25.8
60°-70°	616.4	16.4
70°-80°	158.2	4.2
80°-90°	16.9	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°	3768.8	100.0
0°-180°	3768.8	100.0

Coefficient of Utilization



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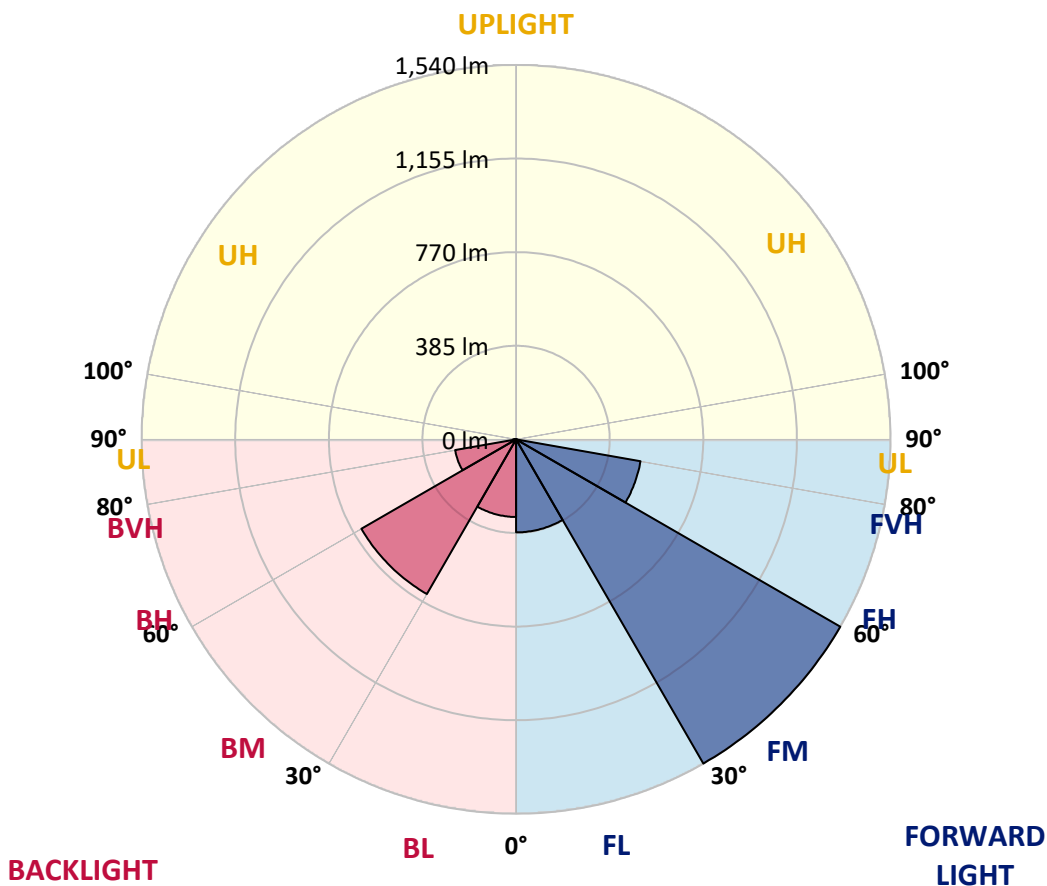
CATALOG NUMBER: GWS-SA1D-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	382.7	10.2			
FM (30°-60°)	1540.5	40.9			
FH (60°-80°)	520.0	13.8			G0/660
FVH (80°-90°)	4.6	0.1			G0/10
BL (0°-30°)	319.3	8.5	B1/500		
BM (30°-60°)	734.9	19.5	B1/1000		
BH (60°-80°)	254.6	6.8	B1/500		G1/500
BVH (80°-90°)	12.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2
2.5°	809.8	815.3	818.8	825.3	837.1	843.6	850.9	842.9	845.0	844.0	831.2
5°	857.8	864.4	873.3	892.7	914.4	926.5	937.9	936.2	925.5	907.5	894.7
7.5°	902.7	910.3	925.8	957.2	989.4	1008.0	1021.8	1012.8	1003.9	975.5	943.4
10°	937.9	942.4	963.5	1005.6	1042.9	1064.0	1080.9	1078.8	1066.4	1034.6	991.4
12.5°	971.1	974.2	997.0	1039.1	1072.6	1081.9	1095.7	1100.2	1096.1	1072.2	1029.8
15°	1006.6	1012.5	1033.6	1065.7	1080.9	1071.2	1076.0	1088.5	1100.2	1100.2	1061.2
17.5°	1039.8	1045.0	1066.4	1080.2	1065.7	1040.1	1041.5	1057.4	1085.4	1114.7	1089.9
20°	1069.1	1074.0	1095.0	1081.9	1036.0	998.7	997.6	1017.0	1062.2	1124.0	1120.6
22.5°	1101.2	1108.2	1125.8	1083.3	1008.4	961.0	960.7	980.7	1041.9	1133.4	1155.8
25°	1146.8	1157.5	1166.5	1095.4	993.5	936.5	941.0	960.0	1035.3	1148.6	1208.0
27.5°	1214.5	1223.1	1222.5	1120.6	992.8	926.5	935.8	957.9	1047.0	1175.5	1262.9
30°	1287.7	1292.2	1285.0	1155.8	1008.7	932.7	946.5	972.8	1076.7	1220.0	1343.7
32.5°	1368.9	1374.4	1360.6	1208.6	1045.6	978.7	1009.0	1021.8	1118.5	1284.3	1429.3
35°	1462.1	1472.8	1444.2	1278.4	1154.4	1146.1	1190.3	1173.8	1207.3	1360.2	1520.8
37.5°	1560.2	1560.5	1519.4	1381.7	1367.8	1382.0	1470.4	1418.6	1395.5	1444.8	1614.1
40°	1643.4	1641.3	1578.1	1520.8	1553.6	1609.9	1716.6	1637.2	1576.4	1558.5	1691.4
42.5°	1726.6	1719.0	1655.1	1609.2	1681.7	1797.4	1917.9	1820.6	1692.4	1661.7	1767.7
45°	1833.0	1830.6	1753.6	1644.4	1797.4	2007.4	2167.3	2009.5	1761.2	1721.8	1894.8
47.5°	2004.6	1992.9	1849.6	1641.7	1905.9	2287.1	2489.1	2247.4	1809.2	1723.2	2099.9
50°	2172.4	2157.9	1964.2	1641.3	2017.7	2577.2	2869.0	2536.4	1858.2	1731.5	2308.5
52.5°	2342.0	2342.0	2152.4	1680.4	2135.2	2901.1	3307.9	2896.6	1941.8	1839.9	2565.1
55°	2442.8	2469.8	2364.1	1746.3	2272.6	3282.3	3742.0	3285.4	2070.9	2035.7	2802.0
57.5°	2314.7	2365.1	2349.9	1700.4	2353.7	3562.4	4110.1	3580.3	2134.8	2058.8	2766.4
60°	1886.2	1956.3	1991.2	1468.3	2273.6	3594.8	4187.1	3599.7	2002.9	1753.2	2369.6
62.5°	1253.9	1311.5	1364.7	1049.1	1968.4	3234.0	3703.3	3235.0	1672.8	1308.4	1641.7
65°	615.0	657.8	715.2	620.2	1537.7	2702.2	2887.3	2614.1	1210.0	732.4	837.4
67.5°	160.9	173.0	181.0	240.7	1101.6	1941.4	1883.1	1912.1	777.3	239.3	218.9
70°	83.6	84.3	83.9	99.5	744.5	1233.9	1297.7	1200.7	542.5	100.1	86.3
72.5°	59.7	60.1	59.1	67.0	359.5	706.9	732.4	724.5	284.2	59.4	59.1
75°	39.0	39.4	38.7	39.4	54.2	80.5	74.2	78.0	47.3	37.6	37.6
77.5°	23.1	23.5	23.1	23.8	23.1	23.1	21.4	21.4	20.4	20.4	20.7
80°	15.5	15.5	15.2	15.9	14.5	14.5	13.8	13.5	12.4	12.1	12.1
82.5°	9.3	9.7	9.3	9.3	8.6	8.6	7.9	7.6	6.6	6.6	6.2
85°	4.8	4.8	4.5	4.5	3.8	3.5	2.8	2.8	2.1	1.7	1.7
87.5°	0.7	0.7	0.3	0.3	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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CATALOG NUMBER: GWS-SA1D-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2
2.5°	827.7	820.8	810.5	800.5	791.1	781.5	770.4	759.0	749.4	739.3	734.2
5°	877.8	863.7	836.7	812.9	791.5	773.9	754.9	738.7	723.5	711.0	704.8
7.5°	923.1	901.0	860.2	822.6	793.6	769.4	743.1	719.0	698.6	683.4	677.5
10°	964.8	938.6	885.1	837.4	803.6	776.6	744.5	711.7	684.8	664.8	659.9
12.5°	998.7	968.6	904.8	849.5	809.4	780.4	752.1	723.8	697.2	671.3	667.2
15°	1028.7	993.2	919.6	857.1	807.4	770.4	746.6	743.1	743.1	713.8	705.5
17.5°	1054.6	1015.6	931.7	860.6	794.3	740.7	726.2	756.3	790.1	769.0	750.4
20°	1084.3	1037.0	941.7	860.6	770.1	703.1	701.7	752.8	802.9	803.2	783.5
22.5°	1114.4	1061.9	953.4	857.4	736.9	659.6	685.1	739.0	783.5	802.5	789.1
25°	1163.1	1096.4	972.1	855.0	698.3	629.9	670.3	720.7	758.3	778.4	769.7
27.5°	1224.9	1142.0	1000.4	858.8	659.9	612.3	654.4	696.9	731.1	748.7	742.5
30°	1293.9	1194.5	1030.8	865.4	632.3	603.3	635.4	669.6	700.0	717.6	714.8
32.5°	1382.0	1251.5	1057.0	856.4	616.8	598.8	615.4	639.9	669.2	680.3	682.7
35°	1487.3	1314.3	1077.1	821.2	602.6	594.0	593.6	608.8	629.5	647.1	648.9
37.5°	1584.4	1387.9	1099.2	760.8	577.0	581.9	568.1	577.0	597.4	615.0	621.9
40°	1680.4	1462.5	1129.9	683.7	543.5	554.9	538.7	544.9	561.2	584.3	595.3
42.5°	1773.6	1529.8	1162.4	605.0	510.0	517.3	505.2	511.4	528.3	557.4	569.8
45°	1875.1	1621.0	1187.6	530.8	481.0	477.9	468.3	477.2	502.8	534.6	549.4
47.5°	2067.1	1764.6	1204.2	481.4	465.5	443.1	432.0	451.3	480.3	512.5	530.4
50°	2301.6	1972.5	1199.3	450.0	452.0	407.1	403.3	428.9	460.0	493.5	513.2
52.5°	2487.4	2176.6	1144.4	419.9	425.8	384.3	373.3	410.6	440.3	474.5	494.9
55°	2629.3	2245.3	975.9	384.3	383.0	367.8	344.6	391.6	420.6	452.4	474.5
57.5°	2513.6	2092.3	723.5	335.3	327.0	335.0	312.5	359.5	396.4	427.9	447.5
60°	2086.1	1668.3	403.0	297.0	273.5	292.8	289.4	325.6	370.2	403.3	420.3
62.5°	1416.2	1110.9	239.0	234.8	221.7	249.3	267.6	291.5	335.3	362.2	378.1
65°	705.8	539.7	158.9	175.8	177.5	205.1	239.7	265.9	302.5	330.1	346.0
67.5°	204.8	167.8	120.9	134.3	153.0	175.1	202.7	233.8	269.4	302.2	320.8
70°	88.4	89.4	96.0	111.9	130.2	153.0	180.6	211.0	241.0	266.2	280.4
72.5°	62.5	64.9	72.2	88.4	105.7	127.4	155.1	184.4	206.2	231.7	246.6
75°	40.1	41.8	47.7	60.1	72.9	93.9	120.2	147.1	169.6	187.9	202.0
77.5°	22.1	22.4	27.3	34.5	43.2	56.6	76.0	97.0	113.6	124.0	136.7
80°	12.8	12.8	15.2	19.7	24.9	33.2	43.9	54.2	64.2	70.8	77.0
82.5°	6.9	6.9	7.9	10.7	13.5	18.3	24.5	29.7	35.9	39.4	43.5
85°	2.1	2.1	2.8	3.8	4.8	6.9	9.7	12.4	15.2	17.6	20.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2
2.5°	733.1	728.3	725.5	722.1	723.1	720.0	718.3	719.3	713.1	719.3	725.5
5°	702.4	695.5	690.0	685.5	683.4	679.3	676.8	676.8	673.0	679.3	686.9
7.5°	675.5	669.9	667.2	664.4	661.3	657.5	653.4	652.0	649.6	656.1	662.7
10°	657.5	658.2	659.9	663.7	663.0	660.6	654.4	650.9	650.9	658.5	668.6
12.5°	665.8	673.0	677.2	684.1	685.5	683.4	677.2	674.4	681.3	692.7	709.3
15°	697.9	702.7	706.2	711.7	711.4	709.6	704.8	706.9	729.7	751.8	766.6
17.5°	732.8	727.3	726.6	730.0	731.1	729.0	726.2	735.5	773.2	793.9	801.5
20°	758.0	739.0	734.9	736.2	739.0	738.0	738.0	753.2	792.2	801.8	792.2
22.5°	765.6	738.7	732.4	732.8	736.6	736.9	738.7	754.5	777.3	777.7	762.8
25°	753.5	727.6	723.1	723.8	728.3	727.9	728.6	737.6	747.6	743.5	732.4
27.5°	730.7	708.3	706.9	710.7	716.6	713.4	711.4	713.8	718.6	713.4	703.8
30°	704.8	685.8	686.5	693.8	700.0	694.8	689.6	691.0	691.3	685.8	674.8
32.5°	677.5	663.4	665.8	673.4	680.6	675.1	669.6	668.9	662.3	655.8	645.1
35°	650.2	644.7	647.8	654.0	660.3	655.8	652.3	650.2	636.1	626.4	617.4
37.5°	625.4	629.5	635.1	638.9	640.9	640.6	638.5	633.7	615.0	603.6	591.9
40°	603.3	616.1	621.9	623.7	626.8	626.1	625.7	618.8	594.3	582.2	568.8
42.5°	583.3	601.2	611.2	613.0	614.7	615.0	614.0	604.0	576.0	561.8	549.1
45°	563.9	587.4	600.2	598.5	600.9	600.9	601.9	588.8	558.0	543.5	530.1
47.5°	547.0	574.6	586.4	584.3	585.7	586.7	587.7	572.6	538.4	524.6	510.7
50°	531.5	560.8	570.8	571.5	571.5	573.9	573.6	558.7	521.8	506.9	493.1
52.5°	514.9	546.7	557.4	561.8	563.2	564.3	559.4	542.2	504.9	486.9	474.1
55°	495.5	532.1	541.8	547.7	550.5	549.8	543.2	525.6	487.6	469.6	455.1
57.5°	466.2	501.1	514.9	517.6	522.1	519.4	511.8	496.9	460.0	442.0	427.2
60°	434.1	459.3	470.3	472.8	469.3	470.3	469.3	455.1	423.0	408.9	393.7
62.5°	391.9	414.4	426.1	429.2	423.4	427.2	425.8	408.2	376.1	361.2	347.7
65°	360.2	384.7	398.5	400.2	398.5	400.2	395.4	374.0	343.6	328.4	314.6
67.5°	335.3	360.5	375.0	379.9	378.1	377.8	370.2	345.3	313.9	297.3	279.7
70°	292.5	314.6	333.2	345.0	345.0	338.4	323.9	300.8	275.6	261.4	247.6
72.5°	259.0	287.0	305.3	317.4	319.8	316.0	295.6	271.1	242.1	227.9	213.4
75°	213.4	240.7	260.4	276.3	279.4	275.2	251.7	227.6	200.6	186.8	172.3
77.5°	142.6	158.9	174.7	189.2	186.1	188.9	173.0	154.7	138.1	127.8	121.2
80°	80.5	91.2	96.0	103.9	103.9	103.9	93.6	85.0	75.6	69.8	63.2
82.5°	45.6	52.5	54.6	61.1	62.8	63.2	56.3	50.8	44.9	41.8	37.3
85°	21.1	24.9	25.2	29.0	30.4	33.2	30.0	26.2	22.8	21.4	18.6
87.5°	0.7	2.1	2.8	5.2	6.9	7.9	8.6	8.6	7.3	6.6	5.5
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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CATALOG NUMBER: GWS-SA1D-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2	774.2
2.5°	733.1	741.4	751.1	758.0	770.4	780.8	791.5	803.2	811.9	809.8
5°	696.2	710.0	727.6	743.8	767.0	790.5	816.4	842.9	858.5	857.8
7.5°	675.5	695.1	716.6	738.3	765.6	799.4	839.1	880.6	901.6	902.7
10°	686.5	707.6	722.1	740.4	769.0	811.5	859.2	908.9	933.1	937.9
12.5°	721.4	719.7	718.6	731.7	766.3	820.2	878.5	937.9	965.2	971.1
15°	754.5	719.0	697.6	706.5	753.8	825.7	897.5	969.7	1000.4	1006.6
17.5°	760.8	706.9	667.2	673.4	734.2	827.4	915.8	1000.8	1033.9	1039.8
20°	743.5	691.3	645.1	636.4	709.3	822.9	927.2	1026.7	1062.9	1069.1
22.5°	721.7	677.5	628.5	606.0	678.9	818.4	940.0	1053.9	1095.7	1101.2
25°	698.9	659.9	613.0	578.8	644.4	815.7	961.4	1089.9	1140.3	1146.8
27.5°	674.8	638.5	599.5	565.6	612.6	819.1	991.8	1147.9	1205.2	1214.5
30°	648.9	617.1	590.9	561.2	590.9	822.2	1025.3	1207.3	1274.6	1287.7
32.5°	621.9	597.4	581.9	563.2	577.4	815.0	1054.6	1273.9	1357.5	1368.9
35°	595.0	577.4	570.5	567.0	559.4	788.4	1078.5	1341.2	1452.1	1462.1
37.5°	569.8	556.7	554.6	558.4	531.8	744.9	1106.1	1426.9	1545.0	1560.2
40°	546.3	534.2	533.9	533.2	501.4	685.5	1143.4	1513.9	1636.5	1643.4
42.5°	524.6	509.4	512.1	503.8	476.6	621.2	1178.6	1588.2	1721.8	1726.6
45°	505.2	485.2	488.3	477.9	464.8	553.9	1209.7	1675.9	1829.9	1833.0
47.5°	486.6	465.2	456.5	455.8	462.7	491.7	1240.1	1844.7	1999.1	2004.6
50°	469.3	446.2	421.6	436.8	450.0	445.1	1278.1	2025.7	2173.8	2172.4
52.5°	452.7	422.3	387.5	416.8	416.8	410.6	1267.3	2135.5	2318.2	2342.0
55°	433.7	384.0	351.9	383.3	368.1	379.5	1077.8	2171.4	2409.0	2442.8
57.5°	396.1	336.7	308.7	325.6	302.9	351.9	774.2	1993.2	2254.6	2314.7
60°	359.8	301.8	283.5	280.4	250.7	287.0	501.8	1560.5	1855.8	1886.2
62.5°	317.4	271.8	256.2	232.4	201.7	208.9	303.9	1027.0	1247.0	1253.9
65°	285.2	246.2	216.5	188.2	165.1	151.6	179.6	495.2	623.3	615.0
67.5°	244.8	211.0	182.7	162.3	143.3	126.4	119.5	147.1	166.4	160.9
70°	217.9	185.4	158.2	138.8	121.2	104.3	92.2	86.7	85.0	83.6
72.5°	187.9	159.5	131.2	112.6	96.0	80.5	69.4	62.8	61.1	59.7
75°	149.9	123.3	97.4	79.8	65.3	54.2	47.0	41.4	40.4	39.0
77.5°	99.1	79.1	58.0	47.3	38.7	32.8	28.0	24.5	23.8	23.1
80°	54.6	45.6	35.6	28.7	23.1	20.0	18.3	16.2	15.9	15.5
82.5°	32.5	27.3	20.4	16.2	13.5	12.1	11.1	10.0	9.7	9.3
85°	16.2	12.8	9.0	7.6	6.9	6.2	6.2	5.2	4.8	4.8
87.5°	4.1	3.5	2.1	1.7	1.7	1.7	1.4	1.0	1.0	0.7
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

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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

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			

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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

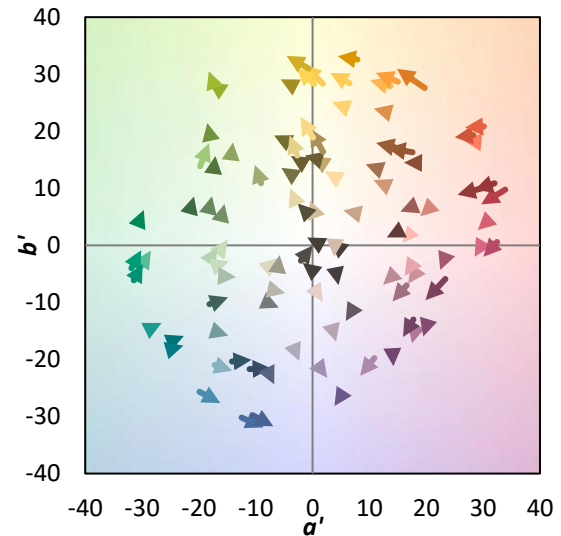
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

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

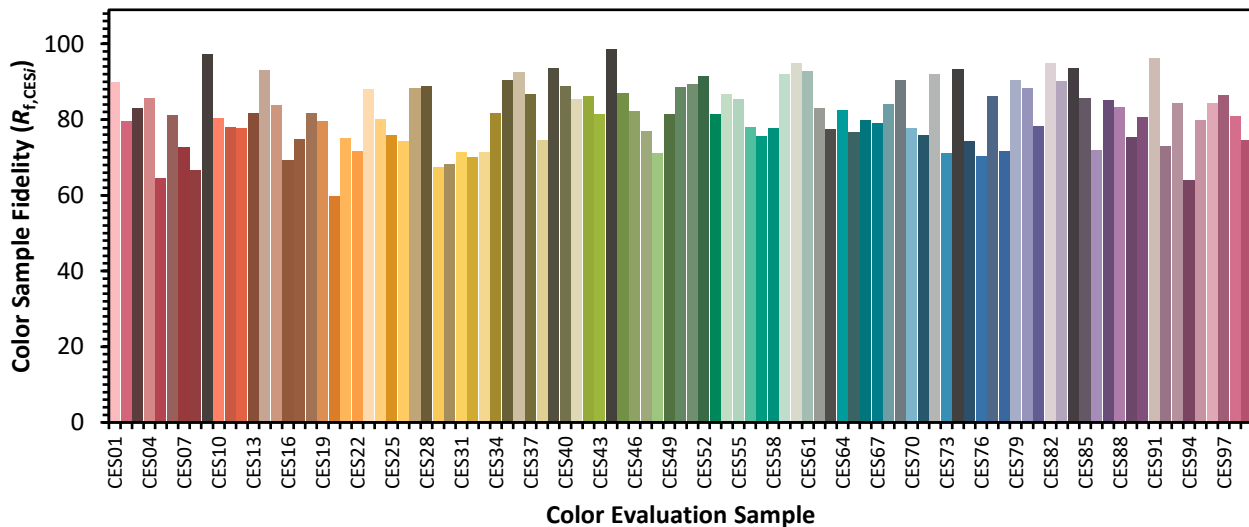


Color Vector Graphics



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)