

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: P629083

Luminaire Tested: GWS-SA1A-830-U-SLR-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P629083
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1A-830-U-SLR-W
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2139 lumens
Efficiency: N/A
Efficacy: 108.6 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

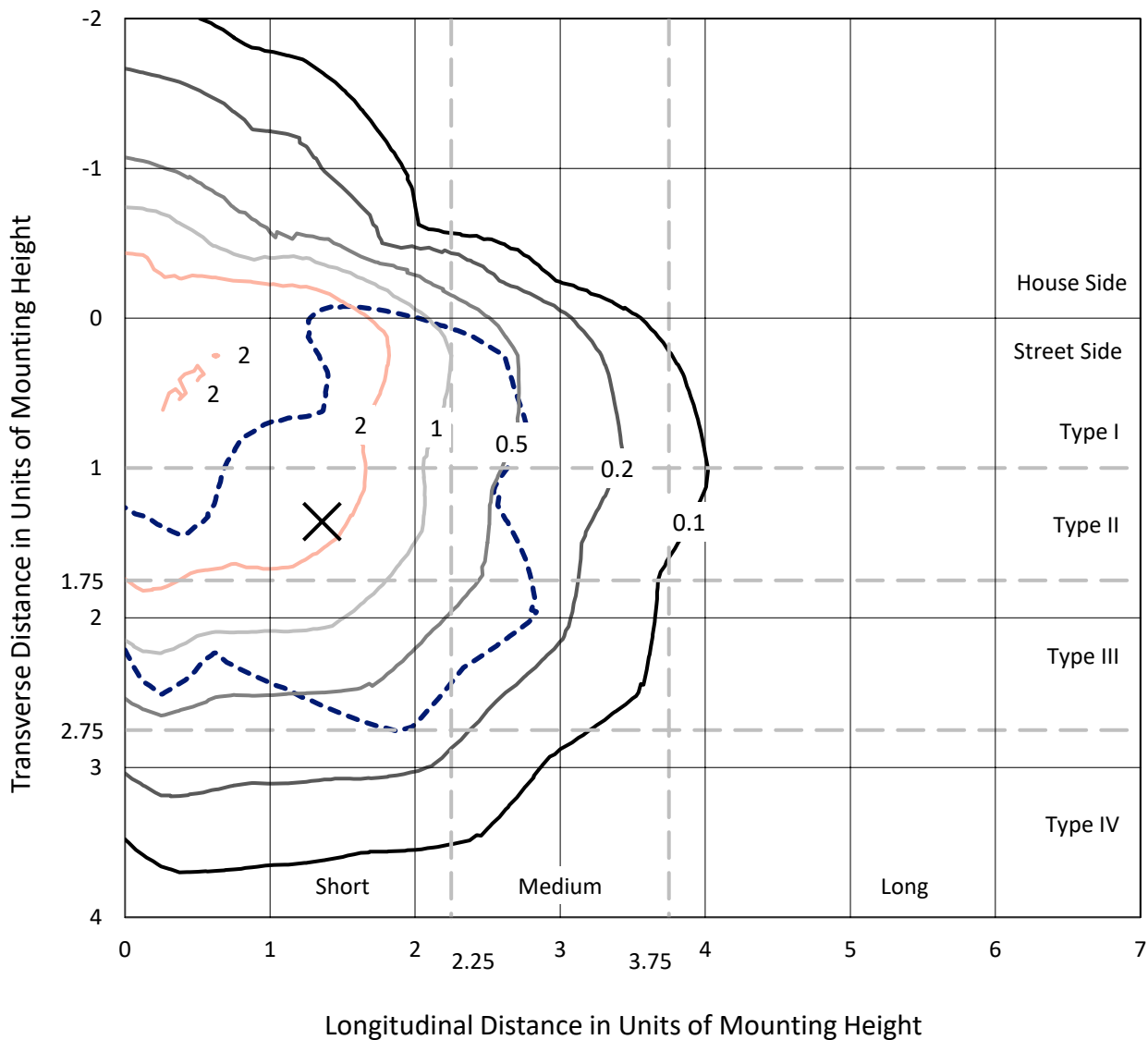
Input Watts (W): 19.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

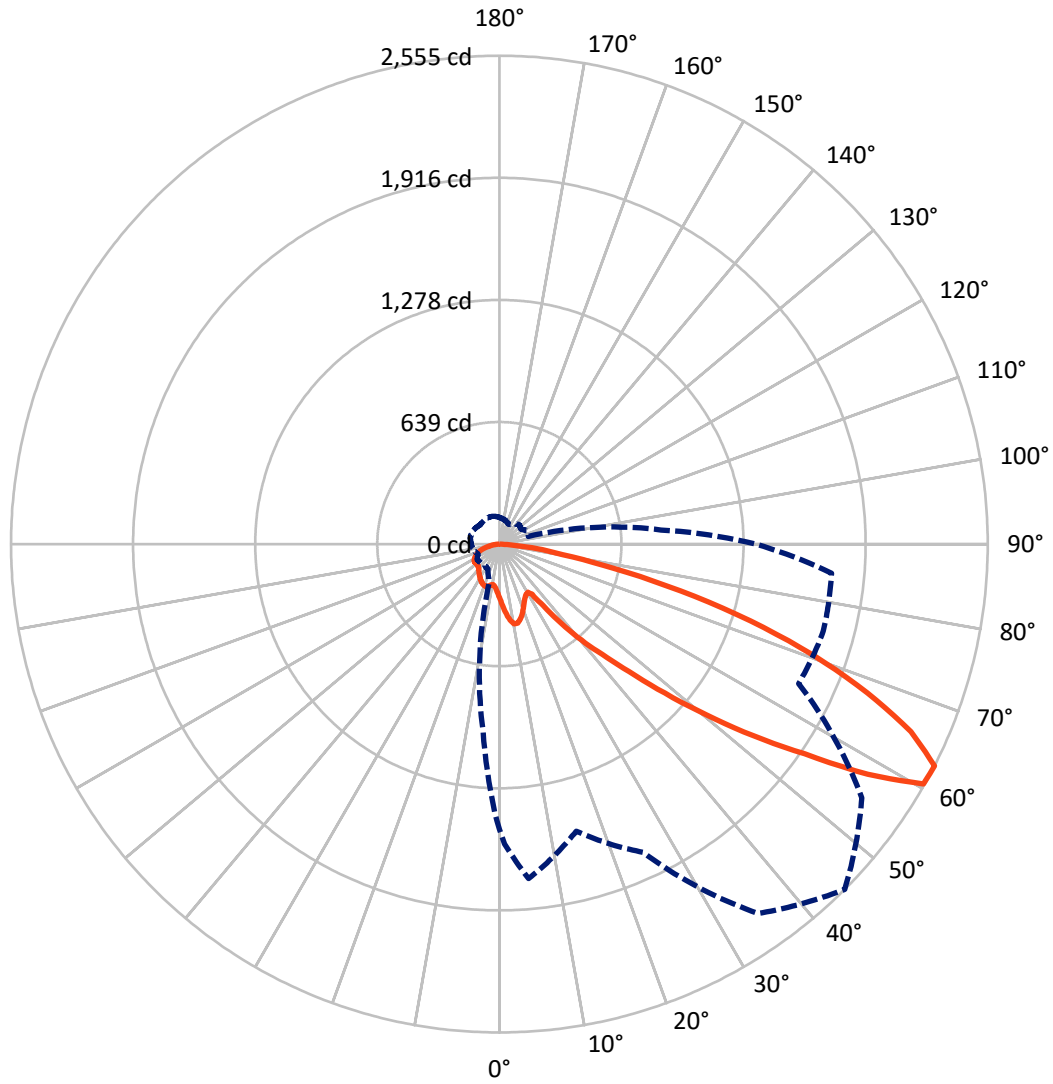
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	510.4	0.0	510.4
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	1628.6	0.0	1628.6
	% Fixture	76.1	0.0	76.1
Total	Lumens	2139.0	0.0	2139.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.7	1.3
10°-20°	86.9	4.1
20°-30°	135.0	6.3
30°-40°	183.3	8.6
40°-50°	290.5	13.6
50°-60°	512.4	24.0
60°-70°	570.2	26.7
70°-80°	289.2	13.5
80°-90°	43.8	2.0
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°	2139.0	100.0
0°-180°	2139.0	100.0

Coefficient of Utilization



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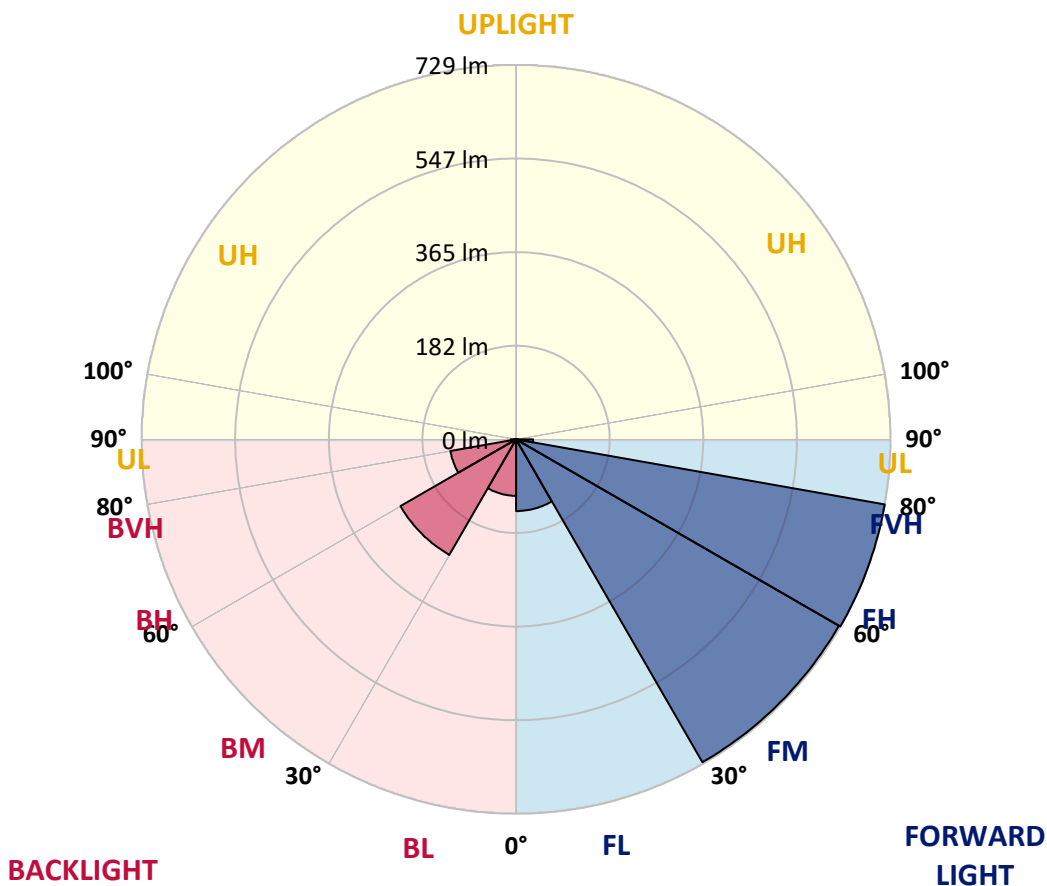
CATALOG NUMBER: GWS-SA1A-830-U-SLR-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	139.7	6.5			
FM (30°-60°)	726.3	34.0			
FH (60°-80°)	729.4	34.1			G1/1800
FVH (80°-90°)	33.2	1.6			G1/100
BL (0°-30°)	110.0	5.1	B0/110		
BM (30°-60°)	260.0	12.2	B1/1000		
BH (60°-80°)	129.9	6.1	B1/500		G1/500
BVH (80°-90°)	10.6	0.5			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°	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9
2.5°	305.1	304.9	308.0	312.7	317.1	319.0	322.3	321.9	319.4	316.0	314.8
5°	329.1	329.7	335.1	345.4	356.9	361.8	363.9	363.1	358.4	352.4	341.9
7.5°	350.8	351.9	360.2	375.7	390.0	396.4	401.6	400.7	393.8	382.7	367.1
10°	366.6	367.9	377.8	396.1	412.0	417.7	424.3	424.6	418.6	403.6	387.7
12.5°	382.5	383.8	393.0	409.7	420.1	420.2	424.1	426.2	426.6	419.6	403.7
15°	399.0	400.2	408.6	418.0	417.5	408.4	408.4	412.5	421.4	426.4	415.4
17.5°	413.1	414.6	421.1	418.0	403.6	387.2	385.3	390.4	406.0	425.3	424.1
20°	424.8	425.9	429.5	409.1	382.8	361.5	357.7	363.7	384.8	418.3	430.8
22.5°	436.0	436.6	434.7	397.4	360.5	336.0	331.5	337.8	360.5	406.0	436.4
25°	449.2	448.6	439.4	385.3	340.1	316.0	311.3	318.4	342.0	389.6	442.6
27.5°	464.6	462.2	443.4	372.1	324.4	301.1	297.8	305.4	327.5	374.6	447.5
30°	477.7	473.0	444.1	360.5	316.3	294.7	292.8	299.9	320.3	364.4	453.6
32.5°	492.3	485.8	447.8	357.4	320.8	310.0	312.6	313.0	322.3	361.5	462.8
35°	513.2	504.8	458.0	366.3	367.5	385.8	395.1	382.5	351.6	367.9	480.3
37.5°	544.8	534.1	478.7	404.9	463.8	504.8	527.5	498.6	440.7	392.4	506.7
40°	583.2	569.6	505.3	476.1	553.9	619.4	659.8	617.5	532.3	453.4	543.8
42.5°	636.8	622.5	556.8	546.1	637.3	734.9	787.5	724.5	613.1	532.3	603.2
45°	730.2	716.4	651.2	616.2	734.9	877.1	950.9	863.3	695.2	611.5	714.3
47.5°	902.8	886.6	791.4	693.9	846.3	1061.7	1165.0	1037.4	780.6	702.2	900.9
50°	1110.1	1094.6	967.5	785.9	969.4	1259.1	1402.8	1242.0	878.9	812.5	1123.9
52.5°	1359.5	1356.6	1218.6	902.2	1097.5	1469.6	1666.6	1468.5	986.6	961.0	1376.5
55°	1584.3	1612.8	1537.7	1079.5	1263.0	1734.1	1937.8	1715.6	1132.6	1206.5	1672.4
57.5°	1705.4	1782.0	1897.5	1441.3	1503.7	2050.2	2272.6	2017.3	1383.7	1615.2	1946.7
60°	1625.4	1712.2	1921.5	1713.7	1742.4	2303.5	2548.8	2270.9	1630.1	1899.0	1931.2
62.5°	1492.3	1570.2	1756.3	1554.7	1779.3	2359.2	2555.3	2315.2	1728.1	1755.0	1744.5
65°	1334.4	1413.0	1610.1	1357.1	1661.9	2226.9	2366.8	2185.1	1552.1	1585.6	1589.5
67.5°	1124.7	1197.3	1397.9	1206.6	1514.8	2032.7	2077.4	1999.9	1429.3	1482.8	1426.9
70°	840.3	905.8	1082.9	980.6	1276.9	1779.8	1743.7	1755.2	1291.5	1344.6	1191.9
72.5°	574.3	623.5	775.4	770.5	977.8	1424.8	1374.4	1483.4	1078.7	1149.2	908.7
75°	401.6	440.0	560.5	608.7	739.1	1056.0	978.8	1110.3	842.4	943.0	663.0
77.5°	246.5	271.9	354.0	451.0	475.5	722.8	607.9	835.5	591.6	687.8	442.3
80°	123.2	135.5	172.0	283.6	315.3	425.9	335.7	485.0	400.3	425.9	244.7
82.5°	37.2	41.1	50.4	107.7	163.4	245.2	198.4	281.8	218.6	199.7	96.4
85°	9.9	11.2	13.9	31.9	57.3	87.9	67.0	136.5	104.8	73.7	36.3
87.5°	0.8	0.8	0.6	0.6	0.3	0.0	0.0	9.7	19.6	11.2	6.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9
2.5°	309.2	308.5	301.9	297.0	291.3	285.8	280.2	275.1	269.5	263.8	262.2
5°	334.1	329.6	315.5	303.6	292.0	281.8	272.9	263.6	256.2	248.9	246.2
7.5°	356.1	348.2	327.8	309.8	293.6	281.0	267.9	254.4	243.9	233.5	230.9
10°	376.0	365.5	339.8	317.1	299.1	284.7	269.3	251.3	236.1	223.5	220.1
12.5°	390.8	379.3	350.1	324.1	303.6	287.5	272.2	256.4	240.3	224.0	220.2
15°	402.4	390.4	358.7	329.4	303.8	282.9	268.2	262.7	257.7	241.6	234.8
17.5°	411.8	399.2	366.2	332.6	299.4	269.2	256.4	264.5	277.2	267.2	254.4
20°	420.4	407.6	371.8	334.9	289.7	250.2	243.1	260.2	279.5	279.2	267.7
22.5°	429.8	417.3	380.1	336.2	276.1	230.9	235.1	254.1	269.8	274.5	267.4
25°	441.8	430.8	391.6	339.1	260.7	217.7	229.3	246.2	259.3	260.4	256.2
27.5°	455.7	447.5	408.7	345.9	245.8	210.9	222.5	235.0	247.0	247.5	242.4
30°	470.9	465.4	424.6	351.6	234.7	208.7	213.8	223.8	231.4	232.7	228.3
32.5°	490.4	485.5	438.7	347.9	228.0	208.3	205.7	210.9	217.2	217.2	213.8
35°	517.1	510.3	453.6	333.6	219.9	206.3	197.1	198.5	201.3	201.8	199.8
37.5°	555.0	543.8	468.7	305.4	206.6	199.4	187.2	185.4	186.4	187.7	187.2
40°	601.9	583.6	490.7	271.6	190.8	185.9	177.0	173.6	172.8	175.4	176.4
42.5°	661.1	633.0	514.3	240.0	176.4	170.5	165.0	162.1	160.8	165.2	167.8
45°	755.5	709.3	537.0	208.7	168.3	157.4	153.7	151.6	152.2	157.4	160.6
47.5°	918.6	825.8	558.5	189.0	167.6	148.0	143.5	144.0	145.8	151.3	155.1
50°	1124.9	981.7	573.0	180.7	169.6	142.3	136.4	138.9	141.7	147.0	151.6
52.5°	1334.9	1127.0	555.8	176.2	169.4	142.5	129.7	137.5	138.8	144.1	149.0
55°	1479.4	1143.2	480.2	169.2	166.8	149.0	124.5	136.8	137.7	142.5	146.9
57.5°	1534.4	1087.8	366.2	171.2	159.0	154.0	122.3	132.3	138.1	142.3	146.9
60°	1467.9	983.3	222.5	176.2	146.6	153.7	123.7	124.0	134.1	141.2	145.8
62.5°	1342.4	849.2	156.3	161.9	137.5	145.1	127.1	114.3	127.0	135.5	139.6
65°	1198.6	691.5	119.2	139.4	133.1	131.8	128.3	105.7	117.2	125.7	129.2
67.5°	1048.8	537.5	96.8	104.0	120.3	119.2	117.2	98.1	105.7	111.7	115.8
70°	860.1	376.0	81.8	78.1	103.2	106.9	102.5	88.6	91.0	97.2	100.4
72.5°	629.2	234.3	67.2	64.5	82.9	93.4	91.2	78.1	79.2	85.0	87.6
75°	452.5	134.1	53.9	53.1	63.3	80.0	75.5	67.2	68.5	72.9	74.7
77.5°	287.6	74.7	41.6	42.8	45.3	59.8	64.5	57.5	57.5	60.1	61.5
80°	154.0	42.8	30.4	30.9	31.7	45.7	50.9	44.5	44.5	42.8	44.5
82.5°	62.8	24.6	20.9	19.4	21.2	31.3	35.6	28.3	29.6	26.7	27.4
85°	20.7	12.3	10.4	10.2	10.0	13.8	17.2	14.1	16.8	10.7	11.2
87.5°	2.8	2.3	1.3	1.0	1.1	0.5	1.0	1.1	1.1	0.8	0.8
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°	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9
2.5°	261.1	259.8	255.1	256.2	255.4	254.1	255.4	253.0	254.9	255.5	259.6
5°	244.1	241.0	236.4	234.2	233.7	232.4	232.6	231.4	231.7	234.5	239.0
7.5°	228.8	225.9	222.4	220.7	219.3	217.8	217.7	217.5	218.8	221.2	225.6
10°	217.8	216.2	214.7	215.4	214.7	214.1	213.0	213.0	215.1	219.4	224.8
12.5°	217.8	217.5	217.8	219.8	219.6	219.8	218.3	219.1	224.9	232.4	240.0
15°	229.5	226.9	226.9	227.9	227.5	227.5	227.5	230.9	244.2	255.7	263.8
17.5°	243.7	236.1	232.9	232.4	232.2	232.2	232.9	240.2	260.9	273.0	277.7
20°	253.6	239.2	233.8	231.7	231.9	232.2	234.2	244.2	267.0	273.2	272.1
22.5°	255.4	236.8	230.3	227.2	227.7	228.0	230.9	241.6	258.6	259.6	257.3
25°	247.1	230.0	223.0	220.6	221.2	221.1	223.6	231.4	243.6	243.2	241.9
27.5°	234.8	219.1	213.9	212.3	213.4	212.1	213.0	218.9	228.3	228.0	227.5
30°	222.2	208.6	203.9	203.1	204.5	202.6	202.8	207.8	214.3	213.9	213.8
32.5°	209.6	198.1	193.8	193.8	195.3	193.2	193.5	197.9	202.3	201.0	201.0
35°	197.6	189.5	186.1	185.4	186.6	185.1	185.8	189.8	191.4	189.6	188.5
37.5°	187.0	183.5	180.1	177.8	178.0	178.1	180.1	183.2	182.2	179.6	178.1
40°	177.3	177.3	174.1	169.9	169.4	170.5	173.8	177.2	174.4	171.5	169.7
42.5°	170.4	171.8	168.7	164.5	163.6	165.5	169.1	171.5	168.3	165.0	162.6
45°	163.9	167.5	165.3	160.6	159.4	161.6	166.2	167.1	162.8	159.7	157.9
47.5°	159.4	164.2	162.8	158.2	156.3	159.5	164.2	164.0	158.5	155.3	153.8
50°	156.1	162.3	162.1	158.2	156.1	160.2	164.4	162.3	156.3	152.9	151.4
52.5°	153.5	162.1	163.2	161.0	159.5	163.1	165.7	161.6	154.7	151.1	150.0
55°	152.4	162.8	163.6	161.5	160.2	163.4	165.7	162.9	154.7	151.4	150.4
57.5°	152.7	161.9	162.1	159.2	156.9	161.0	164.5	163.7	156.4	152.7	151.6
60°	150.8	157.6	157.9	153.4	150.8	155.6	161.9	161.5	155.6	151.7	149.6
62.5°	144.3	150.3	150.4	146.2	142.5	149.5	156.4	156.3	150.9	147.0	144.6
65°	133.4	139.8	141.4	137.3	134.4	141.9	149.2	148.8	143.5	139.9	137.5
67.5°	120.0	126.8	129.9	127.1	126.0	132.8	139.6	139.4	135.1	131.7	129.6
70°	103.6	109.3	114.5	114.5	113.7	121.5	128.7	128.1	124.0	121.5	119.8
72.5°	90.0	94.4	96.0	97.7	100.1	108.2	114.3	114.8	111.9	110.6	111.9
75°	76.6	79.4	80.8	79.5	83.7	92.1	100.2	101.1	98.0	95.9	96.4
77.5°	63.0	66.1	67.5	64.6	64.3	75.0	84.9	86.6	84.0	80.8	81.8
80°	45.5	49.6	52.0	50.0	49.4	54.1	67.7	69.6	67.2	64.6	66.1
82.5°	27.9	30.1	30.8	32.7	36.8	38.7	43.6	50.0	48.3	46.0	50.0
85°	11.0	13.1	14.6	16.5	19.3	22.8	26.9	32.1	29.2	28.2	33.2
87.5°	0.6	0.2	0.0	0.3	2.8	5.3	11.5	15.9	13.3	14.3	17.2
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°	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9	283.9
2.5°	262.8	267.0	272.7	277.4	283.4	289.1	294.9	300.7	303.8	305.1
5°	244.2	252.0	261.1	271.1	282.8	295.1	307.5	320.3	328.4	329.1
7.5°	233.0	244.2	256.7	269.3	283.7	300.7	320.5	340.2	348.5	350.8
10°	236.6	249.1	258.9	270.8	286.6	307.9	331.2	354.3	363.9	366.6
12.5°	250.9	253.3	256.4	267.2	286.6	314.0	342.2	369.7	379.9	382.5
15°	262.7	251.0	245.5	257.0	282.8	319.4	353.8	384.3	396.6	399.0
17.5°	263.6	243.6	231.6	241.9	276.0	323.1	365.0	400.5	410.9	413.1
20°	253.8	235.6	220.1	226.4	266.7	324.7	373.1	412.3	422.5	424.8
22.5°	242.6	229.2	212.3	212.0	255.5	326.5	382.8	423.5	434.5	436.0
25°	232.1	220.2	206.0	201.5	242.6	329.9	396.0	440.3	448.7	449.2
27.5°	219.8	210.7	201.0	196.6	231.3	336.4	415.4	460.4	465.4	464.6
30°	208.6	201.8	197.4	196.1	224.1	341.2	433.8	480.2	480.5	477.7
32.5°	196.8	194.2	194.2	198.4	218.3	340.1	448.9	499.4	496.4	492.3
35°	186.2	186.7	190.1	200.0	208.6	328.7	463.3	523.6	519.0	513.2
37.5°	176.2	179.9	184.8	194.3	195.8	311.9	480.2	557.7	552.1	544.8
40°	167.6	173.3	178.9	183.6	182.2	287.9	503.6	597.9	591.6	583.2
42.5°	160.8	166.3	172.6	173.1	173.6	263.0	528.6	647.1	646.0	636.8
45°	156.4	160.0	166.0	165.2	173.1	235.5	551.6	722.3	737.2	730.2
47.5°	153.5	156.3	156.9	160.3	177.3	210.9	581.2	869.3	910.8	902.8
50°	151.9	154.7	147.4	160.6	178.0	195.0	622.2	1053.9	1120.7	1110.1
52.5°	151.7	151.1	140.1	164.0	174.4	185.3	643.6	1188.7	1336.7	1359.5
55°	152.1	144.0	136.4	165.0	167.3	181.7	572.0	1253.5	1536.0	1584.3
57.5°	149.2	136.2	138.5	161.1	153.8	191.3	422.8	1230.3	1615.7	1705.4
60°	143.6	128.7	142.3	150.6	140.1	174.9	291.2	1127.0	1533.1	1625.4
62.5°	135.7	123.6	141.9	137.0	135.1	143.2	200.2	982.4	1402.1	1492.3
65°	126.8	119.4	134.3	123.9	125.0	110.1	141.5	819.1	1245.7	1334.4
67.5°	117.2	116.8	123.1	110.3	105.6	87.3	103.2	656.5	1044.7	1124.7
70°	106.4	110.0	111.9	98.0	85.7	68.5	76.6	459.1	770.7	840.3
72.5°	95.5	95.9	98.6	85.2	64.1	54.9	57.5	278.1	523.6	574.3
75°	84.5	81.5	84.0	69.3	47.8	45.0	44.4	171.8	361.6	401.6
77.5°	72.7	69.3	65.9	52.1	38.4	34.8	34.0	96.4	221.9	246.5
80°	59.1	54.6	49.2	38.2	28.0	24.9	24.8	47.0	110.6	123.2
82.5°	46.0	37.4	36.0	23.8	17.3	15.2	16.2	18.0	33.4	37.2
85°	32.2	27.2	19.1	9.6	7.8	6.3	6.2	5.3	8.9	9.9
87.5°	18.0	11.8	6.2	1.1	1.3	1.5	1.1	0.8	0.8	0.8
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



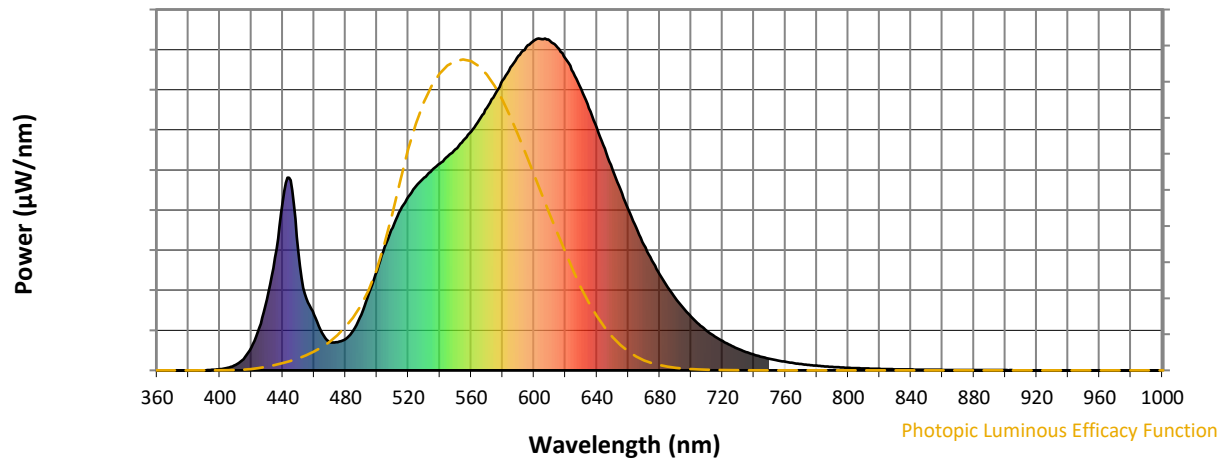
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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

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

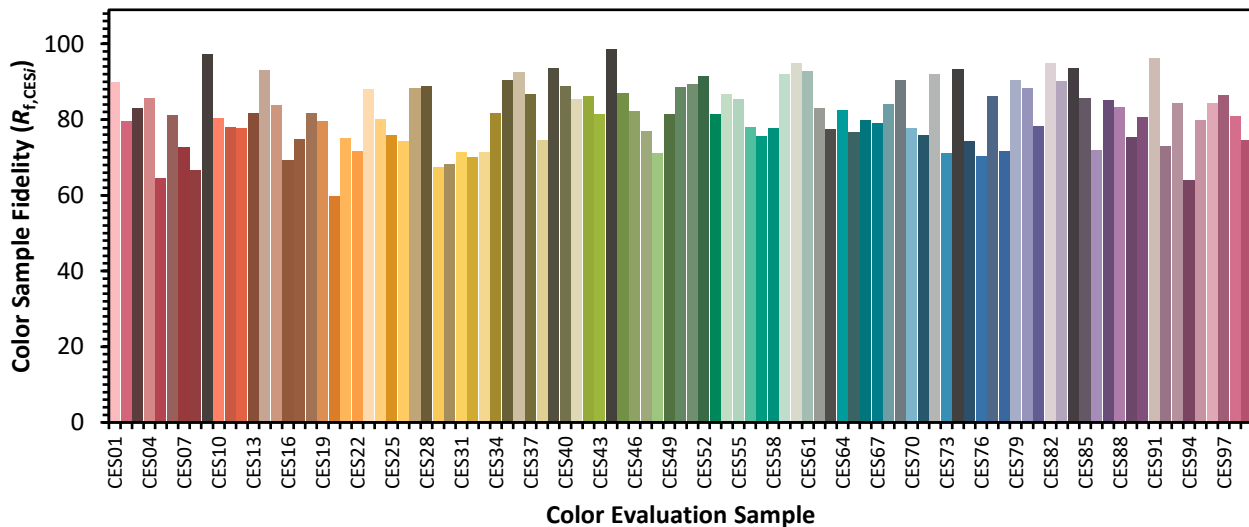


Color Vector Graphics



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)