

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: P629076

Luminaire Tested: GWS-SA1A-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P629076
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-38)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1A-830-U-SLL-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1211.3 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G0

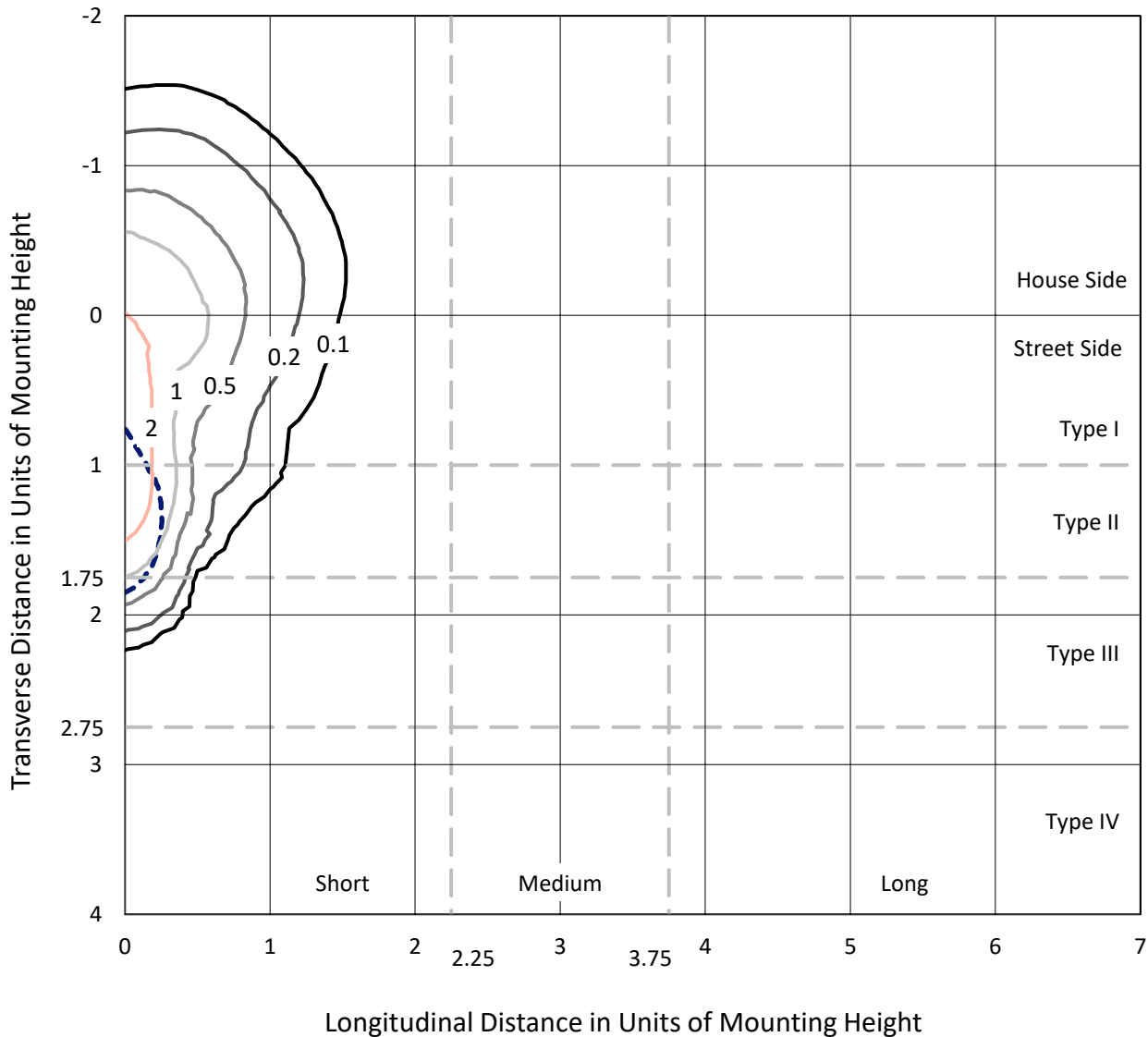
Input Watts (W): 19.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

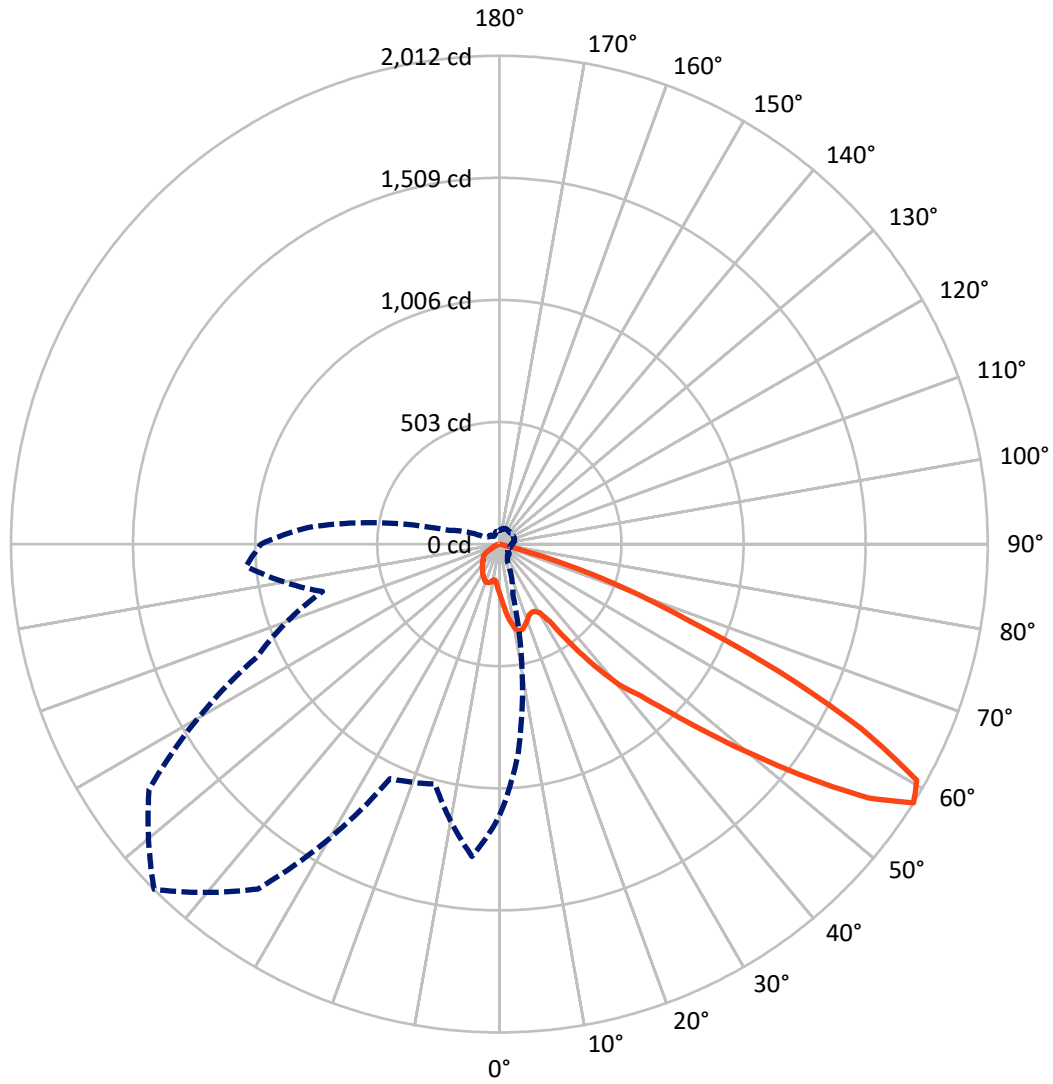
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	261.0	0.0	261.0
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	950.3	0.0	950.3
	% Fixture	78.5	0.0	78.5
Total	Lumens	1211.3	0.0	1211.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.3	1.7
10°-20°	66.9	5.5
20°-30°	108.6	9.0
30°-40°	166.7	13.8
40°-50°	266.3	22.0
50°-60°	372.8	30.8
60°-70°	191.2	15.8
70°-80°	18.4	1.5
80°-90°	0.0	0.0
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°	1211.3	100.0
0°-180°	1211.3	100.0

Coefficient of Utilization



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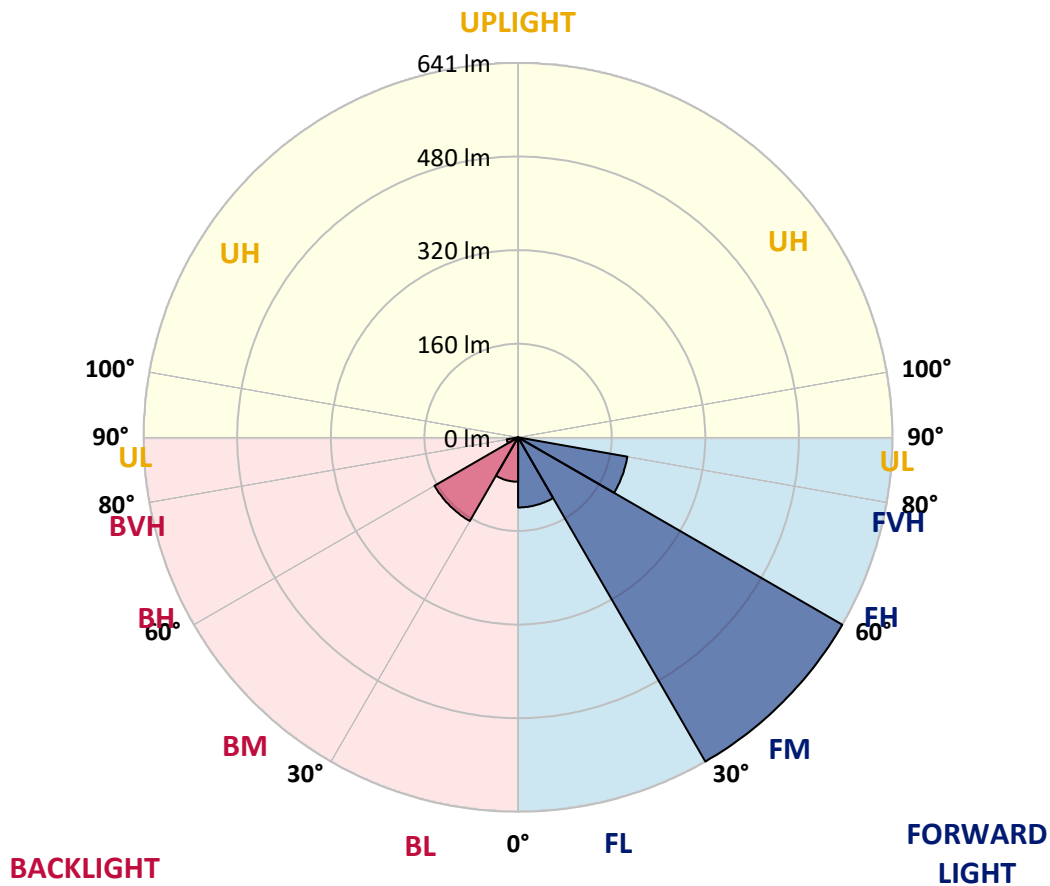
CATALOG NUMBER: GWS-SA1A-830-U-SLL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	119.9	9.9			
FM (30°-60°)	640.6	52.9			
FH (60°-80°)	189.9	15.7			G0/660
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	76.0	6.3	B0/110		
BM (30°-60°)	165.3	13.6	B0/220		
BH (60°-80°)	19.7	1.6	B0/110		G0/110
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8
2.5°	228.7	228.2	226.5	221.0	217.6	212.3	208.4	203.4	197.9	194.5	191.1
5°	252.9	251.6	247.3	234.6	224.9	214.4	206.0	196.7	186.9	180.4	174.4
7.5°	276.3	274.3	268.5	247.1	232.4	217.3	205.3	191.9	178.0	168.2	160.8
10°	299.1	294.7	285.5	259.3	239.3	221.2	207.1	191.7	175.4	163.1	154.8
12.5°	317.9	314.6	302.0	270.8	245.2	222.0	204.7	190.4	179.4	171.2	163.6
15°	334.1	330.5	318.5	281.1	250.2	218.8	194.5	182.0	183.8	187.0	180.6
17.5°	349.0	345.2	332.3	289.7	252.1	210.8	180.2	174.2	184.1	196.3	193.8
20°	364.4	360.1	344.3	296.7	251.5	198.4	165.8	167.6	181.5	195.5	196.7
22.5°	382.3	378.0	359.5	305.6	251.0	183.5	153.4	161.8	176.7	188.5	190.8
25°	406.1	400.9	380.7	318.7	252.3	169.9	144.4	156.1	168.4	179.1	180.4
27.5°	437.5	430.9	405.2	334.9	255.0	159.2	140.6	148.3	157.9	167.4	168.6
30°	478.5	470.1	433.2	349.0	253.8	151.7	138.0	140.6	146.2	154.0	154.2
32.5°	526.4	514.9	464.6	361.1	242.6	146.2	134.4	132.6	133.9	139.9	141.0
35°	582.8	567.9	499.2	372.6	222.2	135.5	127.9	121.9	121.5	124.4	127.1
37.5°	647.4	629.6	543.0	387.3	198.0	124.4	118.4	112.4	109.8	111.2	115.5
40°	707.0	687.2	588.6	405.2	173.4	114.3	107.2	101.0	98.0	98.5	103.6
42.5°	777.0	756.6	644.5	428.5	153.0	107.5	95.5	89.2	85.2	87.4	93.4
45°	883.2	860.0	725.9	448.7	136.8	105.9	85.3	76.4	74.5	78.4	85.5
47.5°	1028.3	999.9	837.8	461.0	123.1	107.4	78.2	66.1	66.6	70.9	78.1
50°	1172.2	1141.6	967.2	444.8	111.7	104.4	74.7	58.0	61.0	64.9	71.4
52.5°	1271.2	1231.3	1030.2	398.0	101.4	93.4	74.3	50.4	56.2	57.5	63.0
55°	1275.1	1226.0	998.0	313.8	87.3	78.9	70.9	44.0	50.8	51.3	56.0
57.5°	1117.7	1073.3	872.2	215.5	77.6	57.8	56.5	38.5	41.8	45.8	48.7
60°	850.3	812.6	652.3	98.8	58.9	36.8	38.7	33.2	31.3	37.2	40.2
62.5°	520.8	496.7	391.2	43.7	37.6	19.6	23.5	26.4	23.5	25.7	28.2
65°	206.8	196.1	148.5	18.6	15.4	9.9	10.7	15.4	16.5	18.1	20.4
67.5°	35.9	34.0	24.9	8.3	6.3	6.0	5.2	7.1	10.0	11.2	13.0
70°	4.7	4.5	4.0	3.4	3.2	2.9	2.3	4.5	6.8	7.1	8.3
72.5°	1.1	1.0	1.0	0.8	1.0	0.3	0.3	2.4	4.9	5.0	5.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.1	3.4	4.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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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CATALOG NUMBER: GWS-SA1A-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8
2.5°	188.3	185.1	184.0	182.3	180.2	180.9	178.0	177.0	178.5	180.4	179.9
5°	171.2	167.6	165.2	161.4	160.8	159.3	158.4	157.1	158.7	161.0	161.4
7.5°	157.6	154.5	152.1	150.9	150.1	149.5	147.5	146.6	146.6	147.5	148.3
10°	151.7	149.5	149.0	149.3	150.6	150.4	148.7	147.4	145.7	144.9	145.9
12.5°	159.8	156.1	155.5	155.6	157.2	157.1	155.1	153.5	153.2	153.5	156.6
15°	173.6	167.9	163.7	162.9	163.7	163.4	161.9	161.0	161.4	166.1	171.3
17.5°	185.9	177.2	169.5	166.6	166.5	166.0	164.5	164.2	166.6	175.4	183.0
20°	189.5	180.9	170.0	166.3	165.5	165.0	163.4	163.9	167.0	177.5	184.0
22.5°	184.8	176.5	165.2	161.4	160.8	160.6	159.0	159.7	162.3	171.5	176.8
25°	175.9	168.9	157.1	153.8	153.8	153.5	152.1	152.4	154.0	162.1	167.3
27.5°	165.0	158.4	148.5	145.3	145.7	146.2	144.4	144.0	145.3	152.9	155.9
30°	152.5	147.8	140.1	137.2	137.0	138.9	136.5	135.9	137.6	143.6	144.3
32.5°	140.4	138.1	132.6	130.4	130.5	130.8	129.5	129.5	131.2	134.4	134.2
35°	128.6	127.1	126.1	124.5	124.4	123.7	123.7	124.0	125.8	127.0	124.9
37.5°	117.2	118.7	119.8	118.2	116.9	116.9	116.9	118.4	120.0	119.5	115.9
40°	107.2	110.3	113.8	112.1	109.0	108.8	109.5	111.9	114.3	111.4	108.2
42.5°	98.6	102.5	107.5	106.6	103.2	102.7	103.2	106.2	108.2	104.4	100.9
45°	90.2	95.1	101.0	101.0	97.3	96.8	97.0	101.0	102.2	97.8	93.3
47.5°	83.1	88.4	94.7	94.7	91.7	90.7	91.5	95.7	96.5	90.4	86.1
50°	76.3	82.1	89.1	88.6	86.5	85.7	87.1	91.7	90.7	83.9	79.5
52.5°	67.7	73.8	83.4	83.9	82.7	82.9	84.7	87.6	84.9	76.6	72.9
55°	59.9	66.2	75.8	78.4	78.4	78.2	79.0	81.3	79.0	69.1	64.6
57.5°	51.5	56.8	64.8	65.4	65.9	64.1	65.3	68.3	67.2	58.8	56.2
60°	42.3	46.8	51.3	51.8	49.7	46.0	48.1	51.7	52.5	46.2	43.2
62.5°	30.0	34.3	39.7	39.7	37.6	33.8	36.6	39.7	38.5	32.1	30.3
65°	22.3	26.4	30.4	32.2	30.4	27.9	30.0	32.2	30.4	25.1	22.5
67.5°	14.4	17.2	19.6	21.1	21.4	21.1	22.0	21.4	19.3	15.7	14.3
70°	8.7	10.2	11.5	12.8	13.8	14.3	14.7	13.3	11.2	9.2	8.7
72.5°	6.3	7.6	8.7	9.7	10.8	11.2	11.2	10.2	8.3	6.5	6.0
75°	4.4	5.5	6.5	7.1	8.1	8.4	8.4	7.6	6.2	4.7	4.2
77.5°	0.2	1.1	1.1	1.0	1.3	1.6	1.6	1.9	1.8	1.3	1.1
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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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CATALOG NUMBER: GWS-SA1A-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8
2.5°	180.9	186.7	188.3	194.3	199.7	205.0	211.5	215.4	221.2	225.2	227.5
5°	163.1	167.9	173.8	182.7	191.9	202.1	214.4	225.1	238.5	248.4	251.6
7.5°	150.1	156.4	163.2	174.4	187.0	200.6	218.0	235.5	256.0	269.5	278.0
10°	147.7	154.2	163.2	174.2	187.5	203.1	224.3	246.9	272.7	289.1	298.8
12.5°	159.3	166.3	170.2	175.2	185.3	202.6	229.8	258.6	288.9	306.7	317.1
15°	176.5	182.7	176.3	170.0	176.5	197.4	232.9	268.3	303.1	323.7	334.4
17.5°	188.3	188.8	175.1	161.6	163.4	188.0	234.0	278.0	318.4	339.9	351.1
20°	187.2	183.3	169.4	154.5	149.0	175.9	232.7	286.6	333.7	356.3	367.3
22.5°	178.5	173.9	162.1	147.5	136.8	161.4	230.4	294.4	347.8	373.4	383.8
25°	167.9	163.1	153.4	140.6	129.1	147.5	228.7	305.1	365.6	395.8	403.9
27.5°	155.6	151.4	143.1	133.9	125.8	137.0	228.2	319.2	387.2	423.0	428.6
30°	143.6	139.7	133.3	127.9	124.5	130.8	226.5	334.2	412.9	454.2	460.4
32.5°	132.1	128.3	124.2	123.4	123.6	128.6	221.0	349.1	443.5	499.6	504.1
35°	122.3	117.7	116.1	118.0	121.6	124.7	205.5	361.4	476.4	549.0	552.7
37.5°	112.9	108.3	108.2	112.9	116.8	118.7	187.2	373.6	520.8	599.2	603.9
40°	104.3	99.8	101.4	107.0	110.1	111.1	165.0	392.0	567.7	652.1	649.5
42.5°	97.0	92.3	93.3	100.6	103.3	105.9	144.6	407.4	612.9	702.3	701.5
45°	89.9	86.3	85.7	93.6	96.0	106.4	129.7	419.2	671.1	766.3	767.6
47.5°	82.9	80.2	80.3	83.7	89.7	108.8	117.1	427.0	755.4	867.6	845.1
50°	76.6	74.5	76.3	72.4	85.7	105.7	106.2	425.4	849.7	964.8	919.6
52.5°	69.6	69.1	70.0	60.6	79.2	93.3	96.0	403.9	893.9	1031.2	1005.4
55°	62.5	62.3	55.9	48.4	66.2	74.5	82.3	337.0	892.4	1066.5	1097.7
57.5°	54.1	52.8	42.4	39.5	51.5	51.8	75.0	220.7	790.9	982.0	1046.7
60°	41.0	40.0	31.1	32.1	35.9	33.2	59.8	110.0	591.1	765.0	838.0
62.5°	28.3	27.0	23.2	24.8	23.2	18.9	36.6	54.4	358.0	483.0	549.3
65°	20.7	19.3	15.9	13.6	10.8	10.8	13.9	20.9	138.6	205.3	247.6
67.5°	12.8	12.1	9.4	6.8	6.6	7.1	7.3	10.4	22.3	35.6	43.6
70°	8.3	7.6	6.3	4.4	4.0	4.2	4.4	4.9	5.7	6.2	7.4
72.5°	5.7	5.3	4.5	2.4	1.9	2.1	2.3	2.3	2.8	2.6	3.1
75°	4.0	3.7	3.2	1.1	0.6	0.8	1.0	0.8	1.0	0.6	0.8
77.5°	1.1	1.1	0.8	0.2	0.0	0.2	0.3	0.3	0.2	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	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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CATALOG NUMBER: GWS-SA1A-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8	205.8
2.5°	233.3	237.1	238.5	236.4	238.2	235.3	234.2	229.8	229.5	228.7
5°	264.8	273.2	278.2	281.3	277.7	273.8	268.0	258.0	254.9	252.9
7.5°	295.7	308.8	317.4	321.4	320.5	312.5	302.0	285.2	279.2	276.3
10°	322.6	338.6	349.0	354.0	351.9	344.9	329.9	308.8	300.9	299.1
12.5°	341.4	356.1	363.2	367.6	367.8	365.0	350.7	329.5	320.1	317.9
15°	353.2	359.5	359.7	362.2	366.8	372.9	366.3	347.5	337.5	334.1
17.5°	360.6	353.7	346.5	347.2	354.6	371.0	377.8	363.4	352.7	349.0
20°	366.0	343.9	330.7	330.8	338.4	363.2	385.7	378.8	367.8	364.4
22.5°	369.4	335.4	316.4	315.9	324.0	354.0	393.0	397.1	386.2	382.3
25°	376.3	331.3	307.8	310.6	317.7	351.1	402.9	421.4	411.3	406.1
27.5°	388.8	335.4	307.0	313.3	321.4	359.7	420.1	453.7	443.4	437.5
30°	410.3	350.6	319.5	328.2	338.0	382.2	448.9	498.9	484.0	478.5
32.5°	445.0	382.2	358.0	376.8	386.2	419.1	492.1	549.6	537.5	526.4
35°	492.8	454.2	451.5	495.2	492.9	489.0	545.2	611.8	593.5	582.8
37.5°	558.5	570.2	590.6	634.0	632.5	602.9	615.0	670.6	661.2	647.4
40°	640.6	665.4	700.0	762.2	742.8	705.5	700.7	730.8	723.2	707.0
42.5°	689.0	731.8	797.8	853.7	838.2	773.1	767.6	811.3	794.6	777.0
45°	711.5	785.9	915.4	991.0	943.9	817.9	815.8	916.2	906.8	883.2
47.5°	721.9	840.4	1053.1	1167.5	1079.5	857.3	849.7	1068.4	1056.1	1028.3
50°	733.4	915.7	1218.9	1372.1	1243.2	901.8	907.3	1210.3	1205.1	1172.2
52.5°	758.7	995.4	1423.1	1605.9	1441.7	971.6	1006.3	1344.1	1309.1	1271.2
55°	796.6	1082.2	1635.5	1844.7	1644.3	1065.4	1113.3	1415.1	1317.0	1275.1
57.5°	754.6	1103.9	1761.4	2011.5	1734.1	1065.7	1022.8	1291.9	1158.3	1117.7
60°	598.8	1027.0	1712.9	1975.4	1657.6	946.3	783.1	1008.7	877.5	850.3
62.5°	404.8	861.3	1507.9	1670.7	1418.7	744.4	509.0	656.0	543.3	520.8
65°	221.8	642.6	1218.4	1263.9	1110.4	520.0	261.8	284.7	216.8	206.8
67.5°	61.2	447.3	896.5	838.5	779.1	338.6	67.7	50.8	36.3	35.9
70°	15.4	295.9	537.1	553.7	477.7	216.8	13.0	6.2	4.9	4.7
72.5°	6.5	127.3	254.9	292.9	244.5	100.4	4.7	1.8	1.5	1.1
75°	0.8	10.2	21.7	32.9	22.5	10.8	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
85°	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
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			

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

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

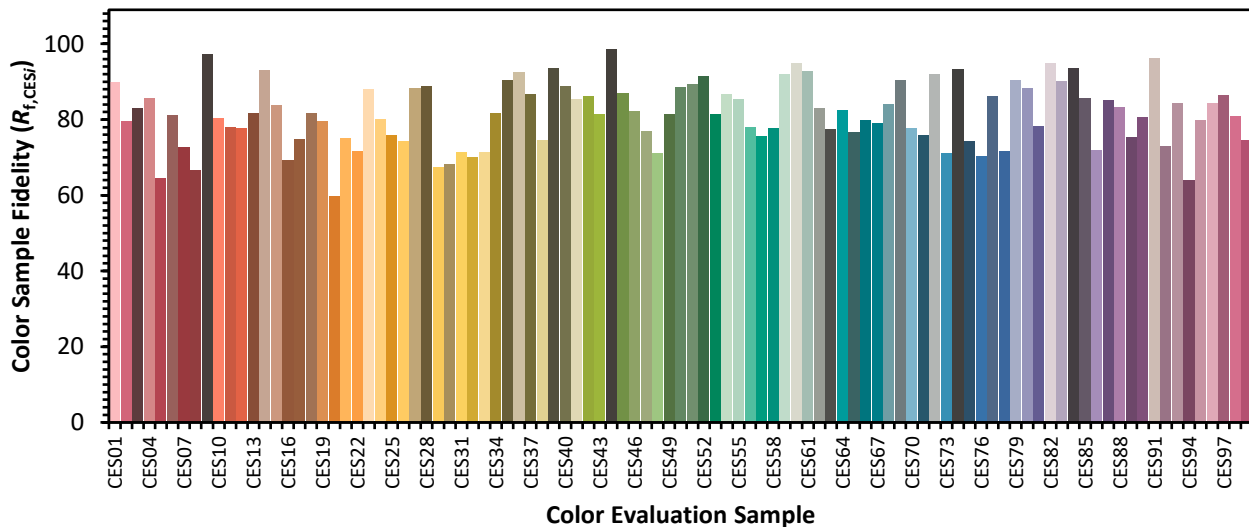


Color Vector Graphics

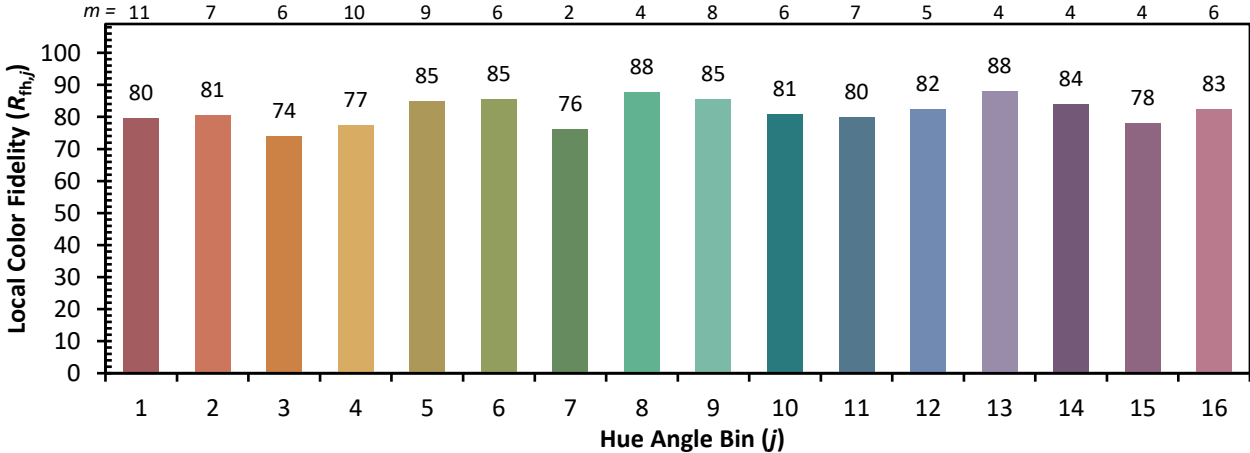


Individual Sample Fidelity Index ($R_{f,i}$)

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)