

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 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: P322388

Luminaire Tested: **GLEON-SA4A-830-U-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322388
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-15)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4A-830-U-T3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10887 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

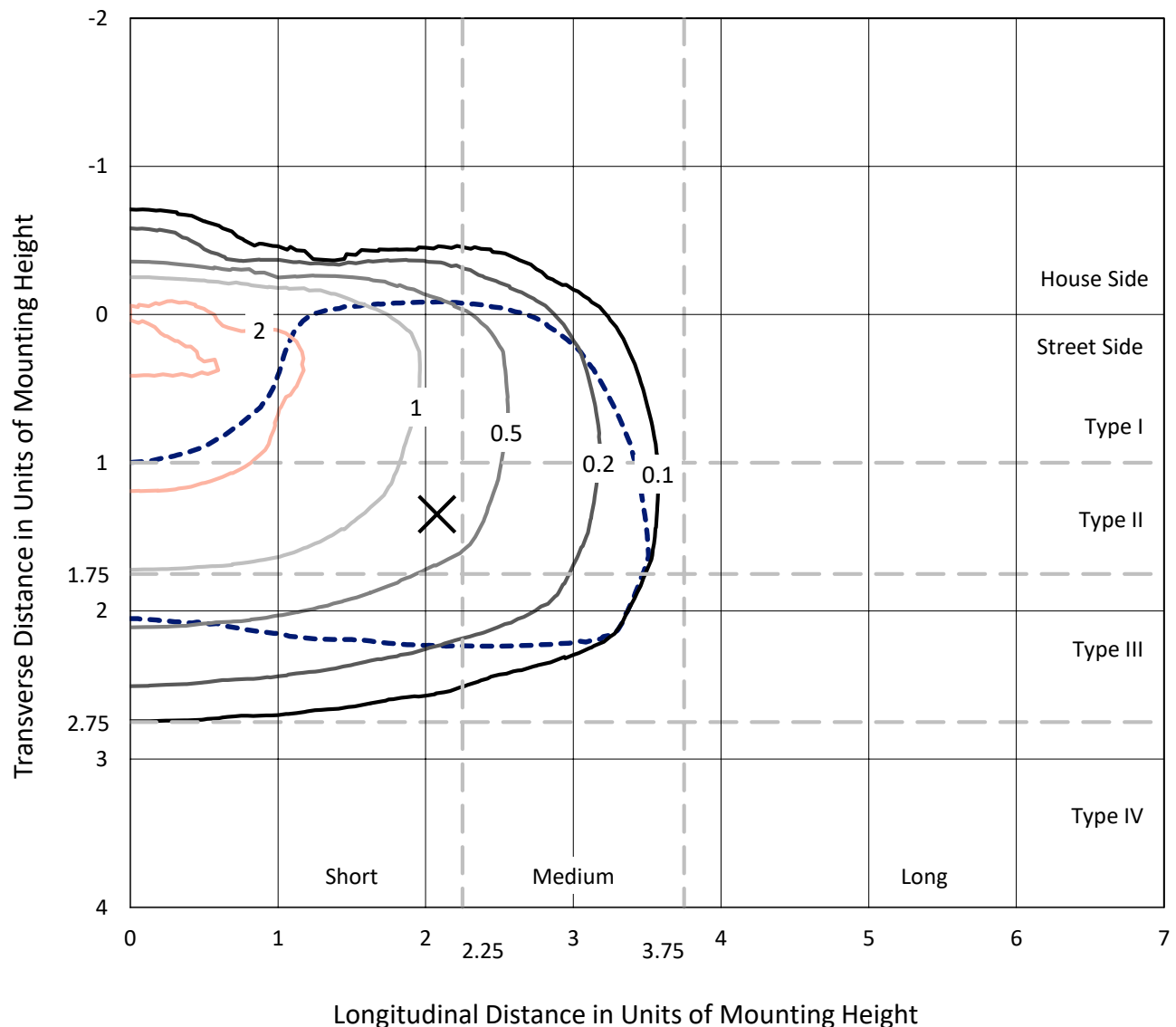
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

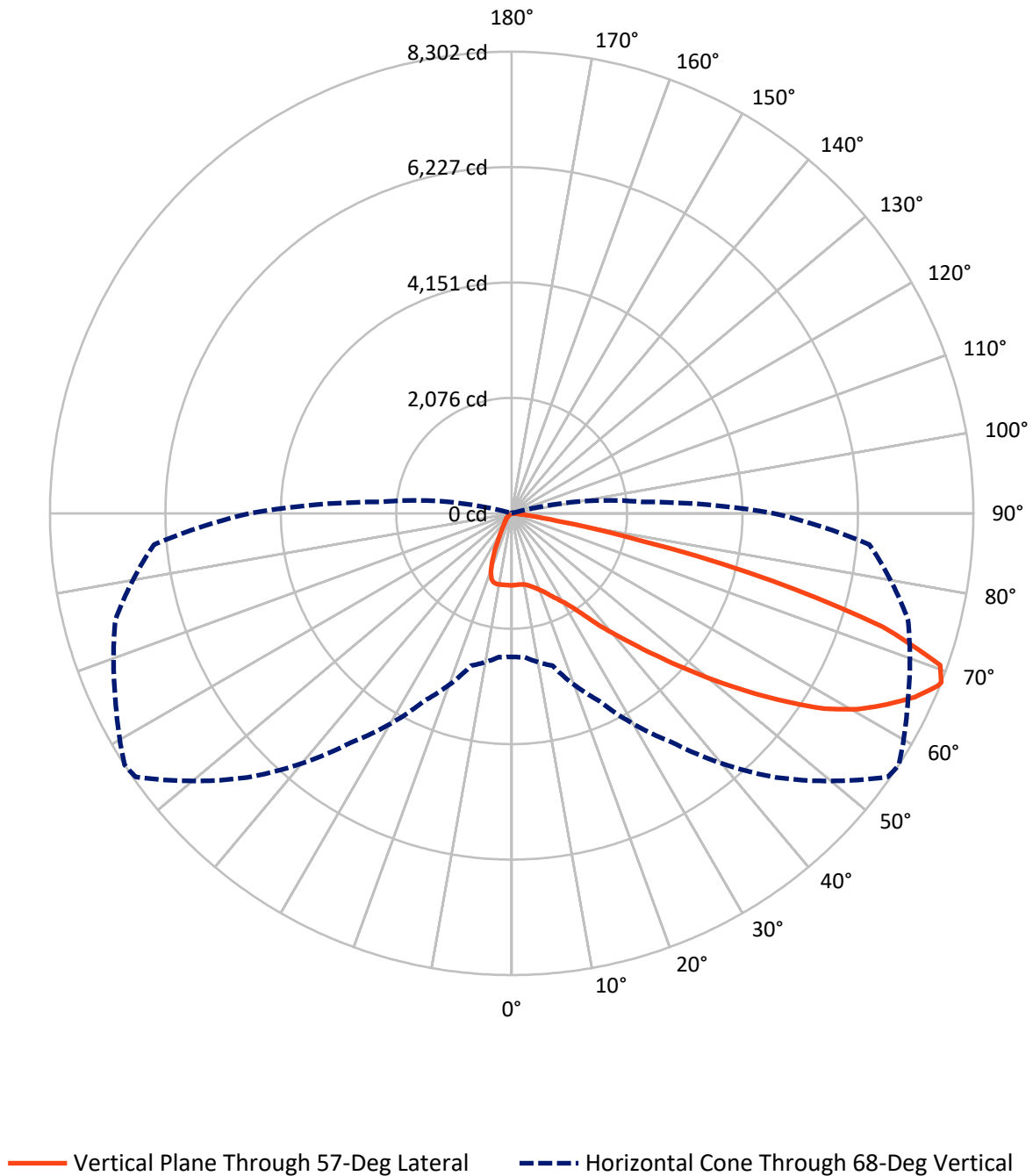
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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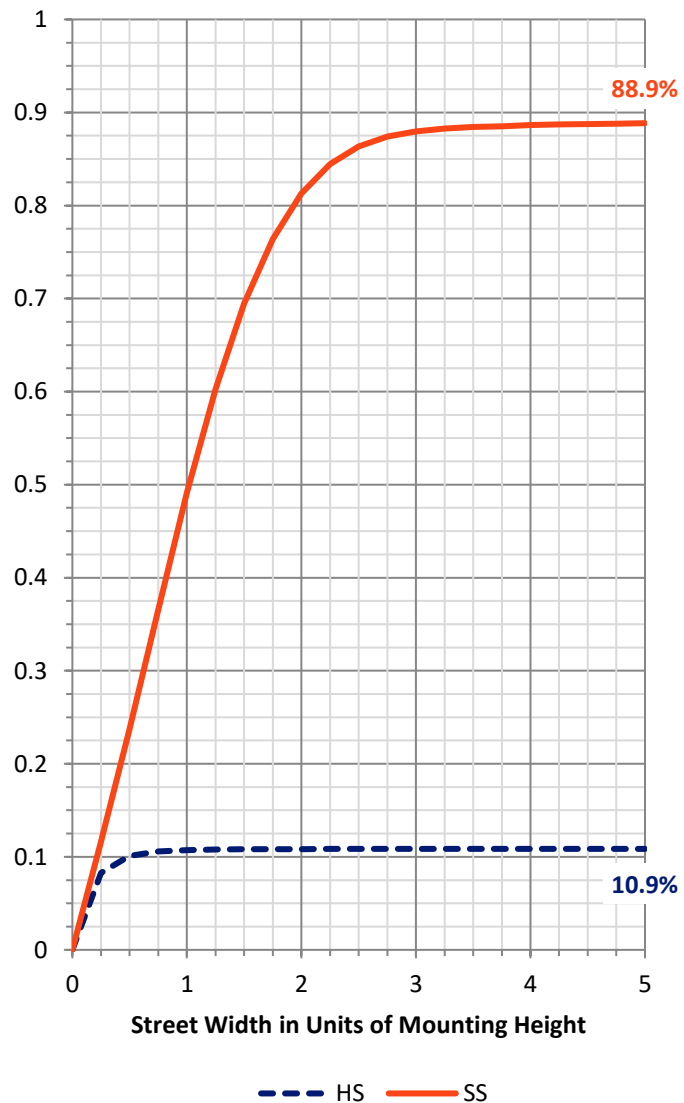
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1193.8	0.0	1193.8
	% Fixture	11.0	0.0	11.0
Street Side	Lumens	9693.2	0.0	9693.2
	% Fixture	89.0	0.0	89.0
Total	Lumens	10887.0	0.0	10887.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.1	1.1
10°-20°	335.5	3.1
20°-30°	578.7	5.3
30°-40°	998.9	9.2
40°-50°	1708.6	15.7
50°-60°	2733.6	25.1
60°-70°	3158.4	29.0
70°-80°	1206.9	11.1
80°-90°	45.2	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°	10887.0	100.0
0°-180°	10887.0	100.0

Coefficient of Utilization



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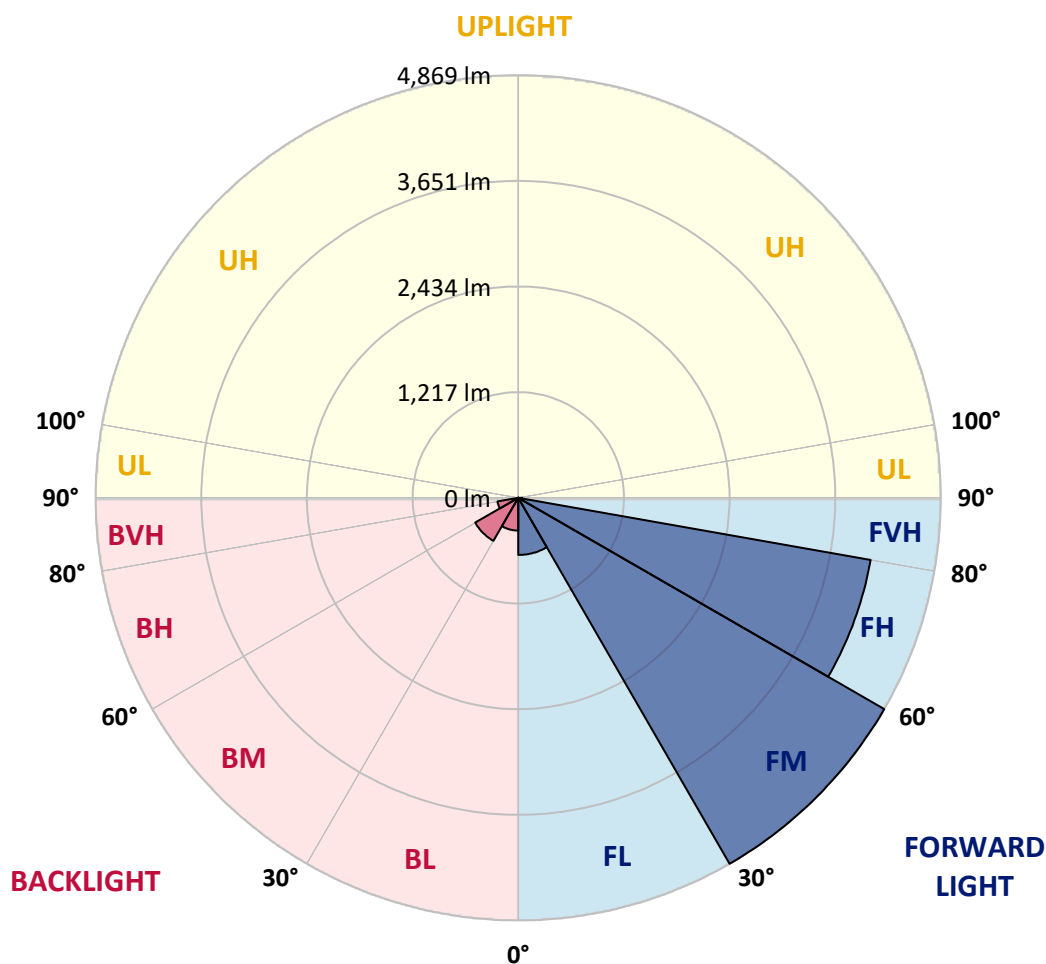
CATALOG NUMBER: GLEON-SA4A-830-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	658.0	6.0			
FM	(30°-60°)	4868.6	44.7			
FH	(60°-80°)	4122.2	37.9			G2/5000
FVH	(80°-90°)	44.4	0.4			G1/100
BL	(0°-30°)	377.3	3.5	B1/500		
BM	(30°-60°)	572.6	5.3	B1/1000		
BH	(60°-80°)	243.1	2.2	B1/500		G1/500
BVH	(80°-90°)	0.8	0.0			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 III Short





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CATALOG NUMBER: GLEON-SA4A-830-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7
2.5°	1263.3	1269.0	1273.1	1275.6	1278.7	1285.4	1287.5	1290.6	1292.1	1292.1	1295.7
5°	1213.4	1219.5	1228.3	1235.5	1249.9	1268.4	1281.8	1287.0	1296.2	1304.5	1309.1
7.5°	1167.0	1174.2	1184.5	1201.5	1226.2	1256.1	1283.9	1291.1	1309.1	1326.6	1335.4
10°	1137.2	1142.8	1156.2	1180.4	1212.8	1254.5	1293.7	1302.4	1333.3	1362.6	1379.1
12.5°	1126.9	1132.0	1145.9	1173.2	1213.4	1262.3	1316.3	1329.2	1374.5	1417.2	1440.4
15°	1141.8	1142.8	1157.8	1183.5	1223.1	1281.3	1353.9	1369.3	1426.5	1482.1	1510.9
17.5°	1199.5	1194.8	1202.5	1213.9	1245.3	1306.5	1393.5	1416.7	1492.9	1558.3	1585.5
20°	1343.6	1343.6	1326.1	1295.2	1295.7	1345.7	1447.1	1473.3	1566.5	1642.2	1666.9
22.5°	1590.2	1585.5	1550.5	1474.9	1405.4	1413.1	1512.4	1546.4	1655.0	1735.9	1744.1
25°	1886.7	1881.0	1827.0	1720.4	1600.0	1522.2	1601.0	1640.1	1760.6	1832.1	1815.1
27.5°	2200.7	2196.1	2142.5	2010.2	1838.8	1696.2	1706.5	1743.6	1868.2	1938.7	1884.6
30°	2505.0	2506.5	2453.5	2317.6	2123.5	1918.1	1840.4	1862.0	1972.7	2044.2	1967.0
32.5°	2794.3	2796.3	2750.5	2598.7	2417.4	2176.0	2025.7	2020.0	2094.2	2164.7	2076.1
35°	3052.2	3057.3	3025.9	2908.0	2716.0	2463.3	2266.1	2252.7	2266.6	2346.4	2243.4
37.5°	3300.8	3303.9	3280.2	3180.9	3020.3	2778.8	2569.8	2550.8	2520.9	2582.2	2464.3
40°	3573.1	3565.4	3538.1	3448.1	3310.1	3127.3	2896.2	2863.3	2811.3	2865.8	2754.6
42.5°	3826.4	3817.7	3822.3	3720.4	3604.0	3485.6	3276.6	3220.0	3189.6	3252.4	3110.9
45°	4143.0	4138.4	4153.8	4065.3	3971.1	3885.1	3712.7	3650.9	3637.5	3711.1	3541.7
47.5°	4455.5	4466.8	4514.7	4477.1	4439.0	4363.3	4174.4	4146.6	4154.9	4243.9	3996.3
50°	4716.0	4729.4	4860.6	4903.9	4959.0	4914.7	4725.2	4708.3	4740.7	4821.0	4485.3
52.5°	4904.4	4931.7	5094.9	5294.1	5494.8	5524.7	5335.8	5320.3	5364.1	5376.4	4863.2
55°	5035.1	5059.3	5244.1	5608.6	6017.4	6146.1	6028.7	5969.0	5960.7	5838.7	5260.6
57.5°	5058.3	5055.7	5321.4	5812.0	6427.1	6759.2	6685.0	6626.4	6457.5	6266.0	5716.2
60°	4927.6	4942.5	5250.8	5882.5	6684.5	7223.0	7228.7	7152.5	6889.4	6681.4	6157.9
62.5°	4525.0	4585.7	4897.2	5697.7	6681.4	7409.9	7627.1	7568.9	7254.4	7021.7	6605.8
65°	3872.2	3893.9	4190.9	5064.5	6230.0	7331.6	7985.9	7964.3	7583.3	7352.2	6835.9
67.5°	2827.7	2780.9	3092.8	3988.1	5274.5	6875.5	8243.3	8270.6	7837.1	7420.2	6590.8
68°	2580.6	2594.5	2837.5	3721.9	5024.3	6714.4	8260.3	8302.0	7862.4	7375.9	6457.0
70°	1538.2	1565.0	1781.7	2562.6	3822.3	5802.7	8077.0	8172.3	7712.0	6919.3	5584.9
72.5°	392.8	424.7	629.6	1146.9	2183.2	4088.4	6818.4	6979.5	6695.8	5613.3	3770.3
75°	161.6	169.9	225.0	377.9	813.4	1841.9	4494.1	4839.0	4641.8	3360.5	1703.9
77.5°	111.7	117.4	144.7	209.5	352.1	624.4	2203.3	2452.5	2209.5	1146.9	371.7
80°	80.3	84.9	103.5	139.5	202.3	222.9	718.1	830.4	659.4	251.7	92.1
82.5°	47.9	51.5	77.2	99.4	123.0	106.6	178.6	202.8	191.0	125.1	41.2
85°	23.7	27.8	52.0	71.0	66.4	44.8	54.6	60.7	75.2	76.2	22.1
87.5°	1.5	3.1	30.4	42.7	18.5	10.3	16.0	19.6	26.8	37.6	9.3
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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CATALOG NUMBER: GLEON-SA4A-830-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7	1293.7
2.5°	1297.3	1297.8	1294.2	1292.6	1293.7	1287.5	1284.9	1285.9	1285.9	1287.5	1284.9
5°	1310.1	1310.1	1304.0	1295.7	1291.1	1279.2	1271.5	1269.5	1267.9	1266.9	1264.8
7.5°	1337.9	1334.8	1324.0	1306.0	1290.6	1264.8	1245.3	1235.0	1229.8	1227.8	1226.2
10°	1382.7	1377.1	1359.0	1325.6	1290.1	1244.2	1201.5	1171.1	1145.9	1135.6	1129.4
12.5°	1443.0	1434.7	1404.3	1348.7	1286.5	1202.0	1109.4	1020.3	937.4	903.5	886.5
15°	1512.4	1500.6	1452.7	1368.3	1265.3	1106.8	905.5	749.5	634.7	591.5	573.0
17.5°	1583.0	1567.5	1494.9	1380.7	1202.0	909.6	635.2	479.8	403.1	382.5	375.3
20°	1654.0	1631.4	1531.5	1371.4	1058.9	655.8	419.0	350.6	328.4	322.3	320.2
22.5°	1721.5	1686.4	1564.4	1335.4	838.6	440.1	331.5	309.9	302.7	299.1	298.1
25°	1780.1	1731.2	1593.3	1224.2	593.6	332.6	298.6	291.4	282.1	275.4	275.9
27.5°	1835.2	1776.0	1610.8	1040.9	395.9	284.2	276.4	266.7	249.7	239.9	239.9
30°	1901.6	1835.7	1623.6	801.0	291.4	251.2	245.0	230.1	206.9	194.1	194.1
32.5°	2001.5	1926.3	1615.4	562.1	241.4	220.8	206.4	185.8	160.6	148.3	147.7
35°	2154.4	2066.4	1556.7	368.6	213.1	192.0	168.9	143.6	121.5	111.2	110.7
37.5°	2360.3	2253.7	1424.9	263.6	191.0	165.2	137.4	109.6	93.2	86.5	86.0
40°	2627.5	2471.5	1236.5	213.6	170.4	139.5	106.0	84.9	73.6	68.5	69.0
42.5°	2948.2	2704.7	1010.5	184.3	150.3	114.8	82.9	66.9	59.7	56.1	55.1
45°	3304.4	2934.8	773.7	164.2	130.2	92.7	64.9	53.0	47.4	45.3	45.3
47.5°	3696.2	3158.7	566.3	146.7	108.6	71.6	52.0	43.2	38.6	37.1	36.5
50°	4051.9	3314.2	408.2	128.2	89.1	56.6	42.2	36.0	32.9	30.9	30.9
52.5°	4348.4	3363.1	300.6	108.1	72.1	45.3	35.0	30.9	27.8	26.3	26.3
55°	4609.4	3343.0	223.4	89.1	58.2	37.1	29.9	26.3	23.7	22.1	22.1
57.5°	4859.6	3278.2	166.8	72.6	46.8	29.9	25.2	22.1	19.6	18.5	18.5
60°	5064.0	3170.1	124.1	58.7	37.6	24.2	21.1	18.0	16.0	14.4	14.4
62.5°	5229.7	3050.6	91.1	48.4	29.9	19.0	16.5	14.9	11.8	10.3	10.3
65°	5230.8	2852.4	68.5	40.2	23.2	14.9	12.4	11.8	7.7	6.2	5.7
67.5°	4852.4	2459.1	52.5	34.5	18.0	11.3	9.3	9.8	4.1	2.6	2.1
68°	4714.9	2359.3	49.4	34.0	17.0	10.8	8.8	9.8	3.6	2.1	1.5
70°	3975.2	1876.9	39.6	32.9	14.9	8.2	7.2	9.8	3.1	1.5	1.0
72.5°	2542.5	1089.3	29.3	26.3	11.3	6.2	4.6	8.8	3.1	1.0	0.5
75°	1082.1	337.7	20.1	18.5	6.7	4.6	3.1	5.7	2.1	0.5	0.0
77.5°	228.1	76.2	11.8	11.3	4.6	3.1	2.1	1.5	0.5	0.0	0.0
80°	58.7	22.1	6.2	5.7	2.6	1.5	1.0	0.0	0.0	0.0	0.0
82.5°	18.5	8.8	3.6	2.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.3	5.1	2.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	1.5	0.5	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

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
 R_f: 81.5
 R_g: 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

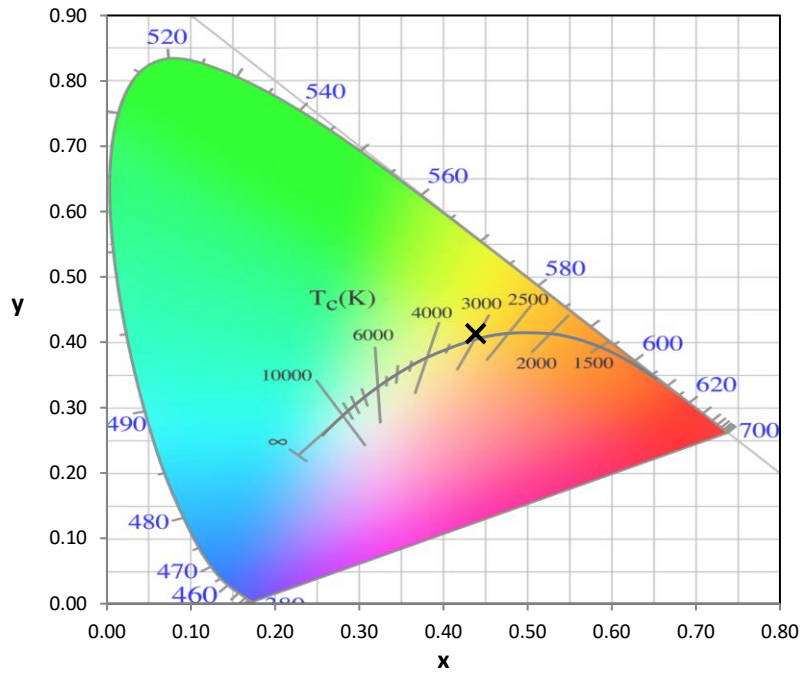
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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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 ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /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 ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /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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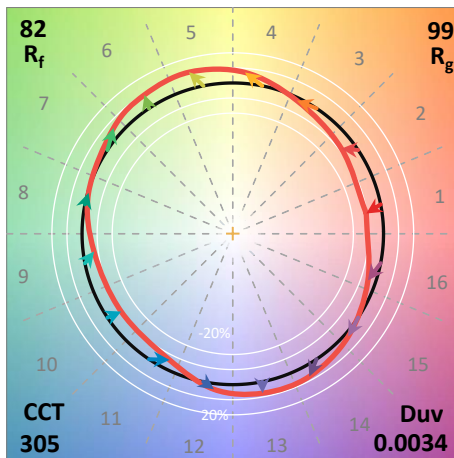
TM-30-18

Summary

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



Color Vector Graphics

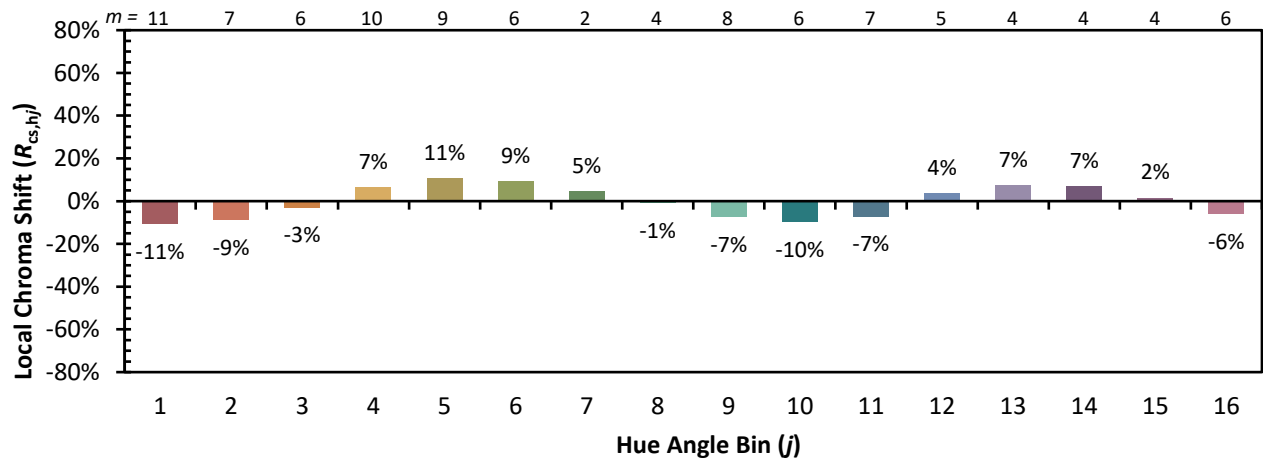


Individual Sample Fidelity Index ($R_{f,i}$)

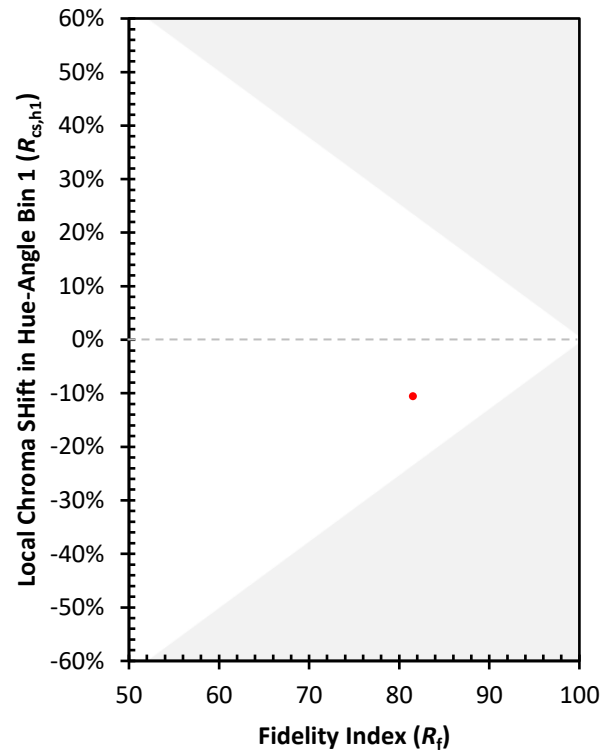
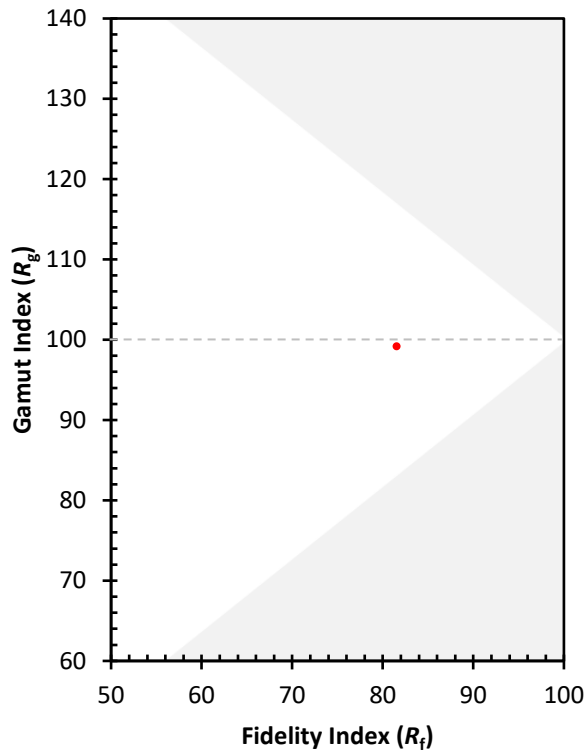
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)