

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: P323057

Luminaire Tested: **GLEON-SA3D-830-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323057
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA3D-830-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13643 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

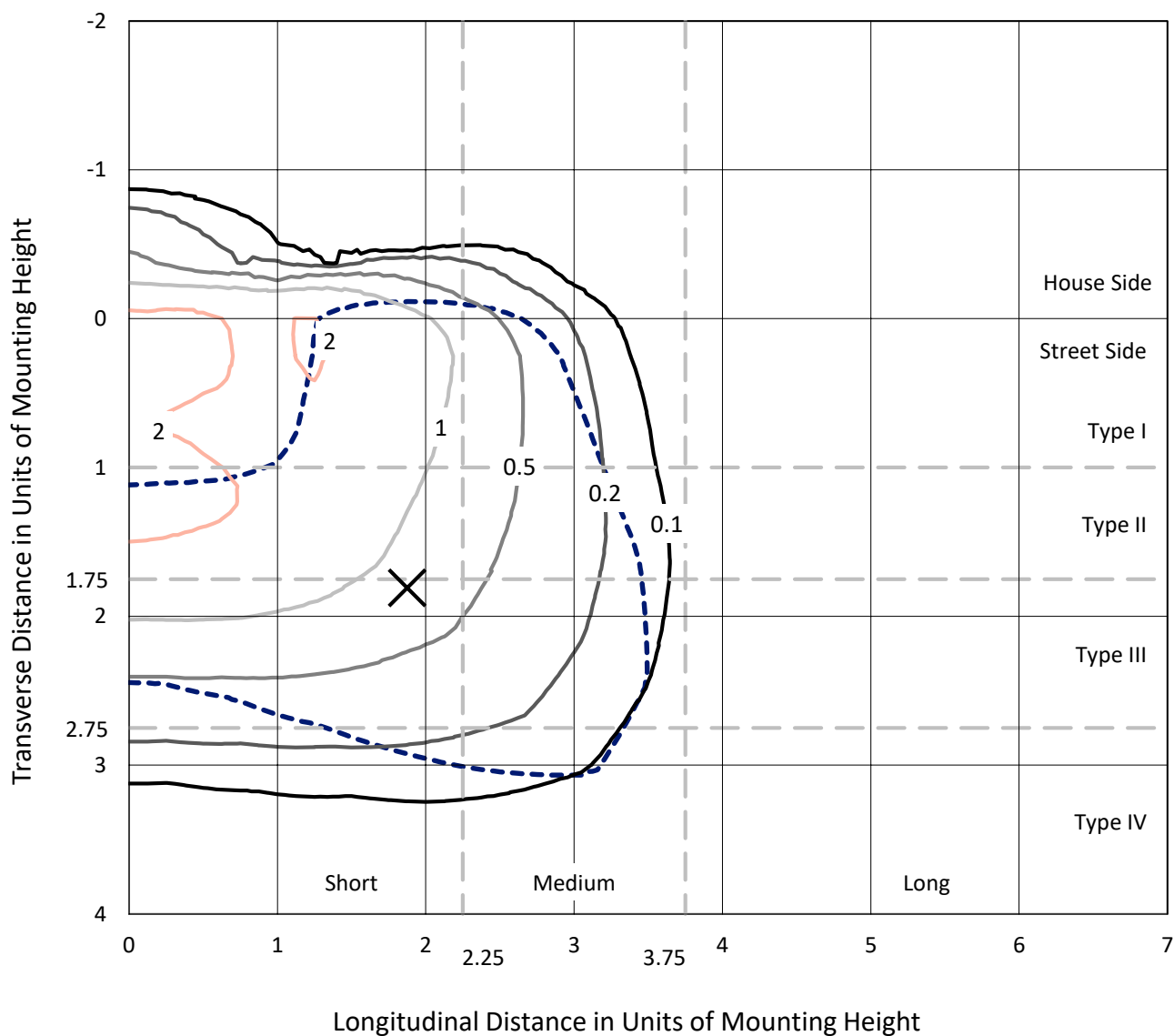
Input Watts (W): 191
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

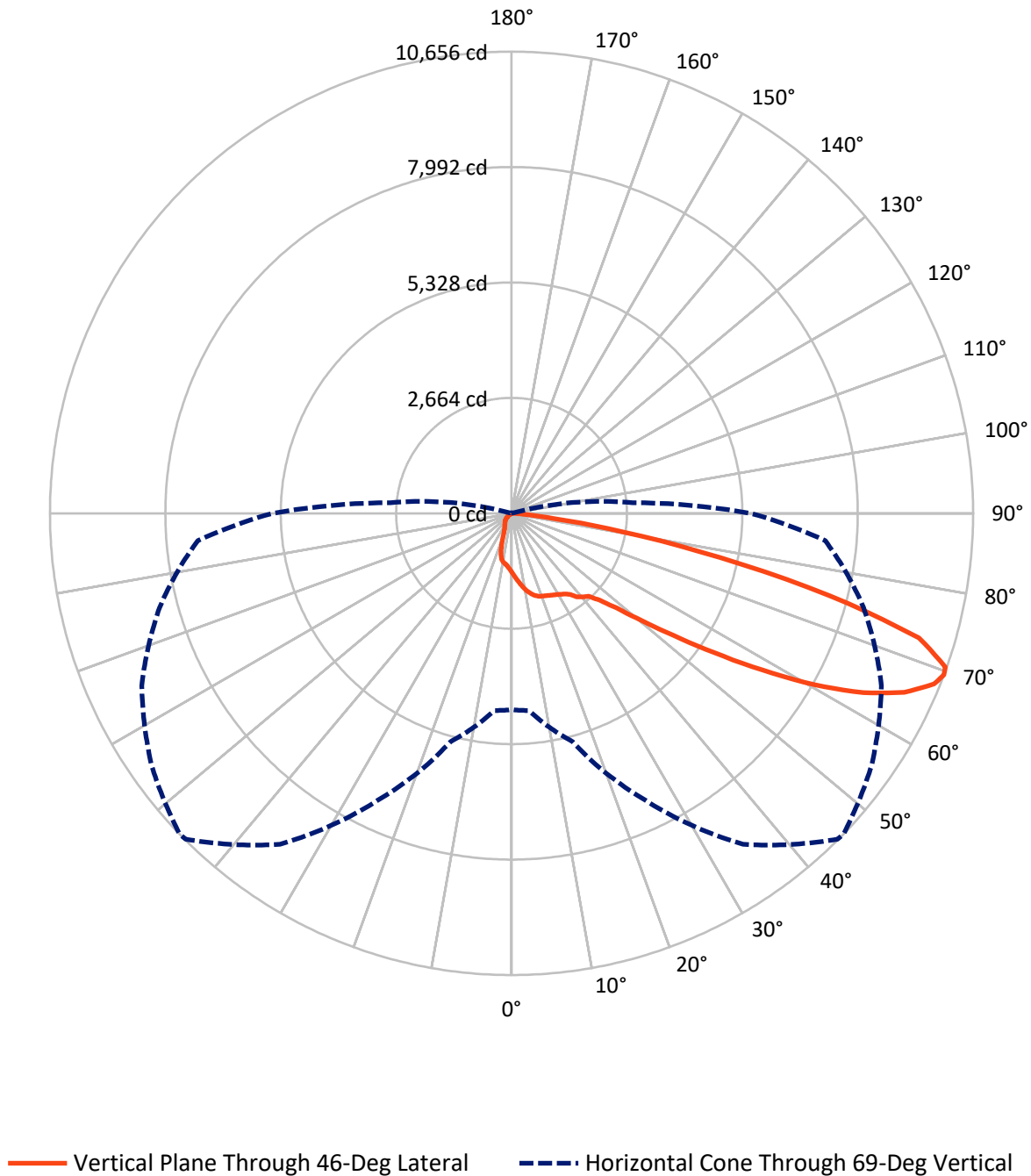
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1400.1	0.0	1400.1
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	12242.9	0.0	12242.9
	% Fixture	89.7	0.0	89.7
Total	Lumens	13643.0	0.0	13643.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.1	1.0
10°-20°	412.8	3.0
20°-30°	649.2	4.8
30°-40°	930.9	6.8
40°-50°	1608.9	11.8
50°-60°	3178.6	23.3
60°-70°	4442.4	32.6
70°-80°	2146.2	15.7
80°-90°	137.9	1.0
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°	13643.0	100.0
0°-180°	13643.0	100.0

Coefficient of Utilization



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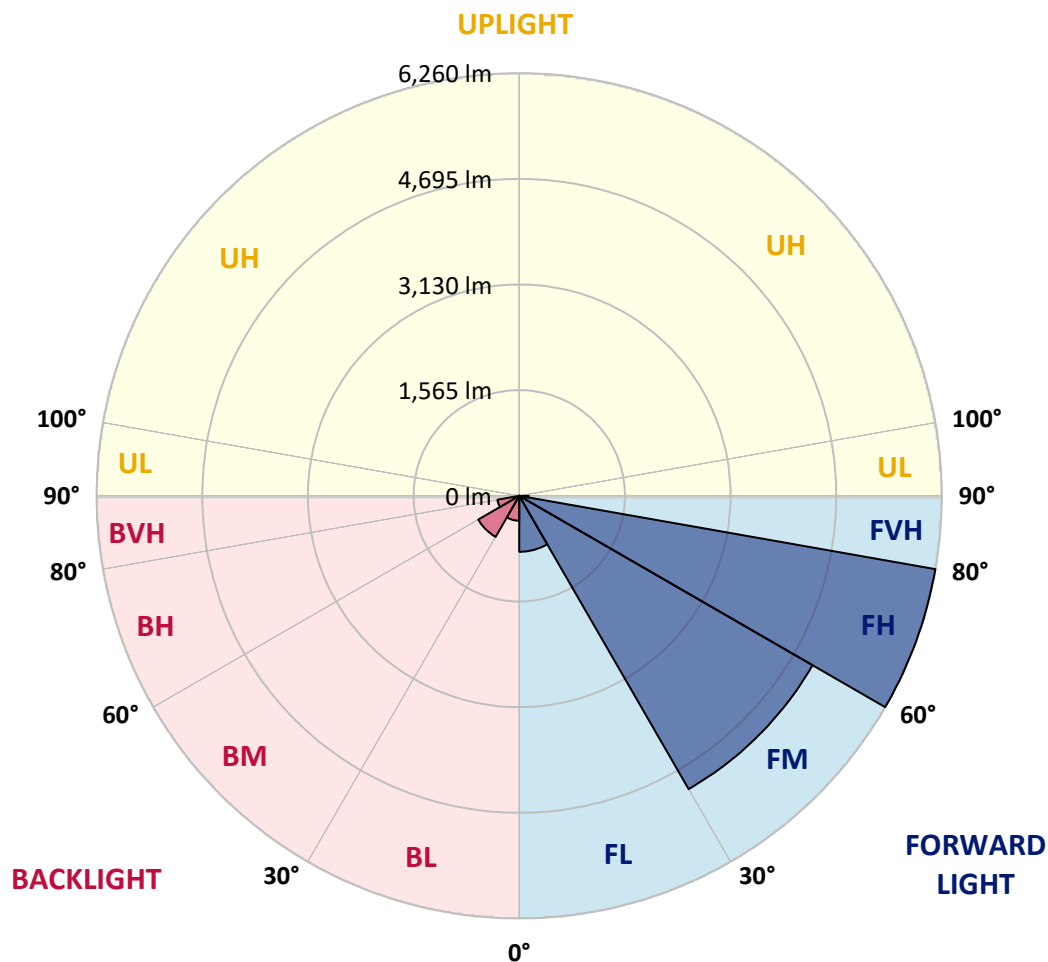
CATALOG NUMBER: GLEON-SA3D-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	829.0	6.1			
FM	(30°-60°)	5016.8	36.8			
FH	(60°-80°)	6260.3	45.9			G3/7500
FVH	(80°-90°)	136.8	1.0			G2/225
BL	(0°-30°)	369.0	2.7	B1/500		
BM	(30°-60°)	701.6	5.1	B1/1000		
BH	(60°-80°)	328.3	2.4	B1/500		G1/500
BVH	(80°-90°)	1.2	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0
2.5°	1518.6	1516.7	1507.7	1503.9	1482.1	1469.3	1464.2	1448.2	1425.2	1402.2	1376.6
5°	1691.3	1690.7	1674.0	1658.0	1617.1	1578.7	1571.7	1534.6	1482.8	1434.1	1385.5
7.5°	1867.8	1859.5	1842.9	1812.2	1752.7	1691.3	1685.5	1633.1	1559.5	1489.2	1419.4
10°	2017.5	2012.4	1990.7	1944.0	1874.2	1804.5	1797.5	1732.9	1649.7	1563.4	1474.4
12.5°	2133.9	2130.1	2101.3	2043.1	1968.9	1896.6	1887.0	1829.5	1740.5	1644.0	1539.0
15°	2204.9	2203.0	2167.8	2105.8	2032.9	1970.2	1961.9	1911.3	1828.8	1727.8	1609.4
17.5°	2221.6	2222.2	2185.8	2123.1	2062.9	2018.2	2011.8	1973.4	1904.3	1803.9	1679.8
20°	2184.5	2192.2	2159.5	2105.2	2068.1	2044.4	2039.3	2016.2	1958.0	1863.4	1736.1
22.5°	2132.0	2135.9	2113.5	2077.0	2061.7	2066.1	2063.6	2050.8	2001.5	1914.5	1791.7
25°	2100.0	2100.0	2086.6	2055.9	2066.1	2093.6	2094.3	2091.7	2052.7	1977.2	1859.5
27.5°	2098.8	2094.9	2079.6	2056.5	2084.7	2126.9	2129.5	2146.7	2122.4	2053.3	1944.0
30°	2149.9	2145.5	2112.8	2082.8	2118.6	2164.0	2170.4	2208.1	2196.0	2135.9	2038.0
32.5°	2269.6	2253.6	2181.3	2132.0	2158.9	2213.3	2221.6	2281.7	2300.9	2237.6	2128.8
35°	2433.3	2382.8	2278.5	2225.4	2228.0	2284.9	2292.6	2380.9	2437.8	2331.0	2199.2
37.5°	2659.1	2634.2	2464.7	2322.6	2334.2	2420.5	2442.9	2538.9	2522.9	2382.1	2279.1
40°	3154.2	3115.2	2934.8	2595.1	2435.9	2530.5	2537.6	2588.7	2590.0	2497.9	2445.5
42.5°	3828.4	3812.4	3622.5	3089.6	2636.1	2604.1	2616.9	2703.3	2799.8	2742.3	2739.7
45°	4574.9	4566.6	4365.1	3745.9	3041.0	2845.3	2861.2	2977.0	3161.9	3174.7	3255.9
47.5°	5175.6	5171.7	5056.0	4478.3	3660.8	3254.0	3259.1	3381.9	3706.9	3867.5	3997.3
50°	5723.1	5741.7	5650.2	5270.9	4505.2	3894.3	3882.2	3964.0	4486.0	4748.9	4910.1
52.5°	6484.3	6510.6	6254.1	6010.4	5391.1	4688.8	4679.2	4764.9	5422.5	5619.5	5648.3
55°	7156.6	7111.9	6909.1	6838.7	6471.6	5670.0	5667.5	5743.0	6328.3	6412.1	6465.2
57.5°	7453.5	7436.2	7534.0	7695.2	7603.1	6829.8	6824.0	6766.4	7138.7	7147.7	7310.8
60°	7640.9	7662.0	7962.0	8459.0	8688.7	8077.8	8040.7	7689.5	7912.7	7892.9	8067.5
62.5°	7500.1	7541.7	8081.6	8910.0	9501.0	9167.1	9114.7	8535.1	8574.2	8505.7	8668.2
65°	6753.0	6817.6	7702.3	8824.9	9904.0	10018.5	9965.4	9281.6	9099.3	8986.7	8896.5
67.5°	5483.3	5521.6	6445.3	8084.8	9722.4	10526.4	10515.6	9936.0	9495.9	8905.5	8205.7
69°	4531.4	4569.2	5458.3	7305.7	9322.6	10635.2	10656.3	10145.8	9420.4	8411.7	7270.5
70°	3838.0	3878.3	4706.7	6637.9	8858.8	10584.6	10622.4	10126.0	9204.2	7839.8	6449.8
72.5°	2013.0	2047.6	2897.7	4573.0	7221.9	9719.2	9833.7	9270.1	7802.1	5693.7	3813.7
75°	632.6	652.5	1131.6	2390.5	4944.7	7557.1	7583.3	7271.8	5540.2	3131.8	1588.3
77.5°	241.2	235.4	376.8	880.8	2499.8	4758.5	4919.1	4544.2	2907.3	1107.3	366.5
80°	129.9	130.5	195.7	364.6	1069.5	2445.5	2581.1	2202.4	1033.1	345.4	84.4
82.5°	56.3	58.8	110.0	193.2	491.3	901.9	969.7	807.3	394.7	232.2	31.3
85°	12.2	13.4	53.1	104.9	200.2	253.3	265.5	261.6	251.4	180.4	12.2
87.5°	0.0	0.0	23.7	37.7	50.5	57.6	50.5	65.9	138.8	121.5	6.4
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-SA3D-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0	1367.0
2.5°	1368.3	1356.7	1336.9	1315.2	1299.8	1283.8	1271.0	1265.3	1258.9	1254.4	1260.2
5°	1365.7	1343.3	1304.9	1267.8	1241.0	1219.2	1201.3	1194.3	1187.2	1182.1	1181.5
7.5°	1388.1	1356.7	1297.9	1243.5	1201.9	1172.5	1148.2	1138.0	1129.7	1125.8	1122.6
10°	1430.9	1390.6	1312.0	1241.0	1187.2	1137.3	1084.9	1044.6	1018.4	1006.2	1001.7
12.5°	1486.6	1436.1	1338.8	1254.4	1176.4	1080.4	969.1	873.2	811.1	790.6	778.5
15°	1551.8	1489.2	1374.0	1271.7	1136.7	961.4	772.7	647.3	589.8	578.3	565.5
17.5°	1614.5	1545.4	1416.2	1274.9	1049.7	768.2	566.1	481.0	458.6	466.3	468.2
20°	1669.5	1601.1	1457.8	1246.7	891.7	576.3	438.2	417.1	425.4	440.1	442.7
22.5°	1725.2	1654.8	1496.2	1172.5	689.6	437.5	394.7	399.8	408.1	422.8	425.4
25°	1793.0	1720.1	1532.0	1036.3	517.5	372.3	374.8	382.5	390.8	404.3	405.6
27.5°	1871.0	1802.6	1555.7	859.1	383.8	342.2	350.5	362.1	370.4	383.2	385.7
30°	1974.7	1911.3	1563.4	675.5	321.8	315.4	319.2	333.3	345.4	356.9	358.9
32.5°	2071.9	2018.8	1537.8	509.8	298.1	290.4	290.4	298.7	312.8	323.7	326.2
35°	2161.4	2126.9	1455.9	372.9	280.2	267.4	261.0	261.0	269.9	278.9	281.5
37.5°	2279.8	2278.5	1323.5	297.4	262.9	248.2	234.8	224.5	221.3	223.2	224.5
40°	2482.6	2484.5	1150.8	266.7	248.2	228.4	207.9	189.3	172.1	166.3	165.7
42.5°	2799.2	2770.4	969.7	252.0	235.4	207.9	177.2	152.2	125.4	117.1	116.4
45°	3302.0	3131.2	777.8	238.6	222.0	184.9	146.5	112.6	90.8	84.4	84.4
47.5°	4034.4	3605.2	602.6	223.9	204.1	158.6	110.7	81.2	66.5	63.3	64.0
50°	4791.8	4069.6	461.8	205.3	182.3	131.1	81.9	58.8	50.5	50.5	51.2
52.5°	5463.4	4409.9	360.1	185.5	155.4	103.0	62.0	46.1	42.2	41.6	42.2
55°	6092.2	4629.3	275.7	162.5	123.5	76.8	47.3	37.7	35.2	33.9	33.3
57.5°	6698.6	4738.0	206.6	131.1	89.6	55.7	37.7	32.0	29.4	27.5	26.9
60°	7102.3	4649.8	142.0	96.6	62.0	40.3	31.3	27.5	24.3	22.4	21.7
62.5°	7330.0	4408.6	91.5	69.7	44.1	30.1	24.9	23.0	18.6	16.6	16.6
65°	7237.9	4010.7	64.0	49.9	32.0	22.4	18.6	18.6	13.4	10.9	10.2
67.5°	6414.0	3388.3	48.6	37.1	23.0	16.6	14.1	16.0	8.3	5.1	5.1
69°	5518.4	2808.2	41.6	30.7	19.2	13.4	12.2	14.7	5.8	3.8	3.2
70°	4796.3	2422.4	37.7	26.9	16.0	11.5	10.9	14.1	5.8	3.2	2.6
72.5°	2869.6	1351.0	28.8	19.2	10.2	9.0	9.0	16.0	5.8	3.2	2.6
75°	1159.7	475.9	21.1	13.4	7.7	7.7	10.9	20.5	5.1	2.6	1.9
77.5°	262.9	104.3	12.2	8.3	5.1	7.7	12.8	16.0	3.2	1.3	0.0
80°	64.0	25.6	7.7	5.1	3.2	5.8	9.6	9.0	0.6	0.0	0.0
82.5°	21.1	9.0	3.2	2.6	0.6	1.9	4.5	2.6	0.0	0.0	0.0
85°	9.0	5.1	1.3	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0
87.5°	5.8	1.9	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

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 $\text{W}^\wedge/\text{nm}$	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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Scotopic Flux vs. Wavelength



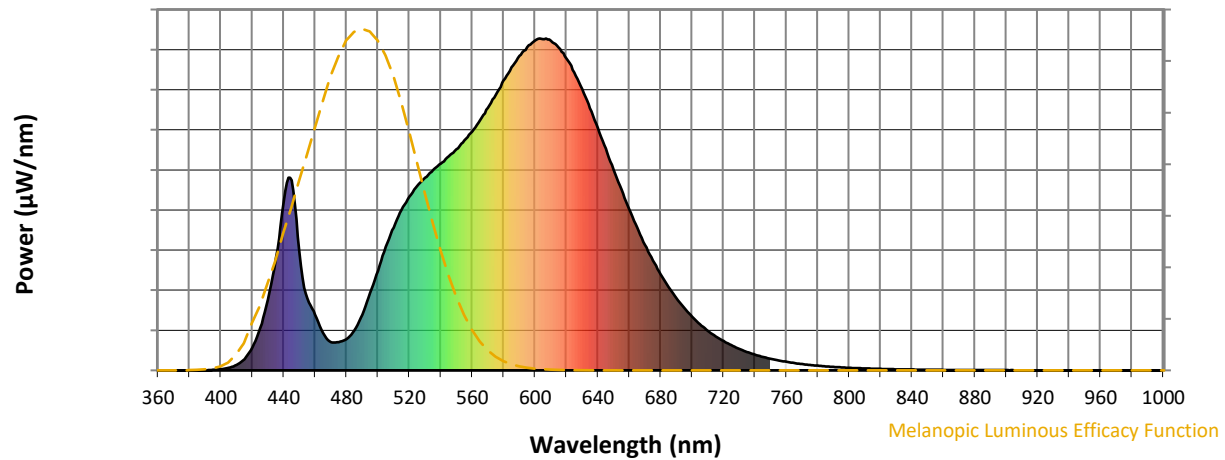
Scotopic Lumens: NR

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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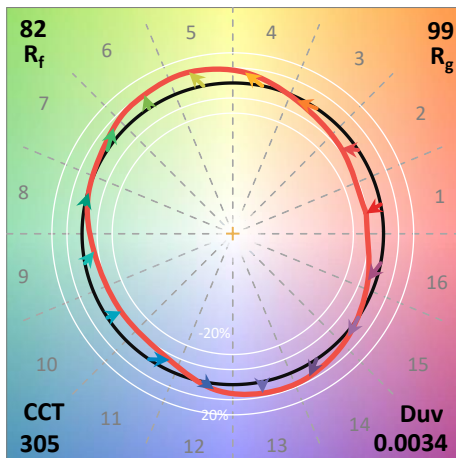
TM-30-18

Summary

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

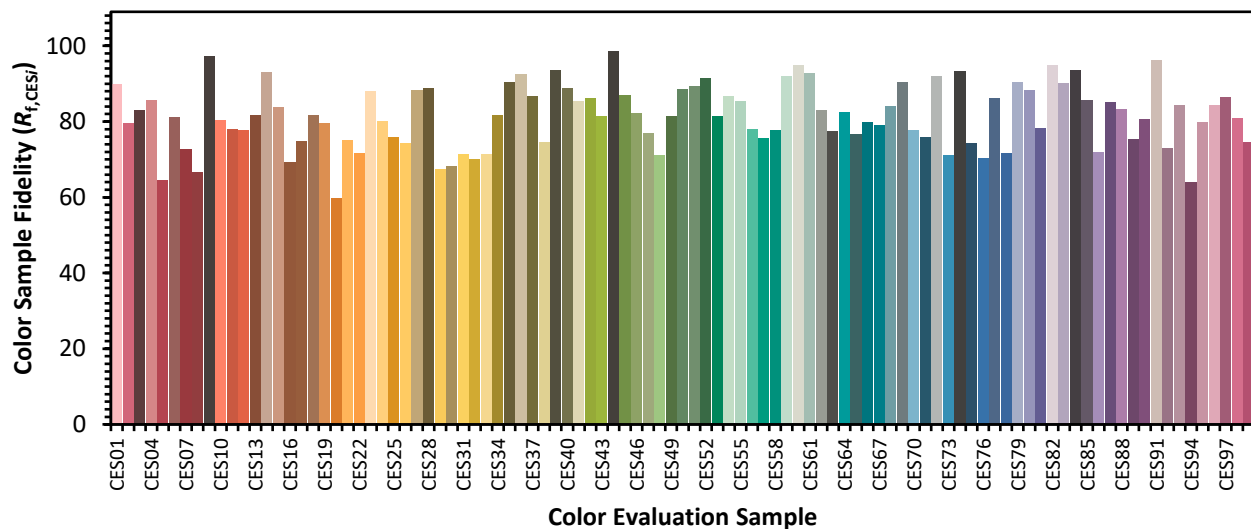


Color Vector Graphics

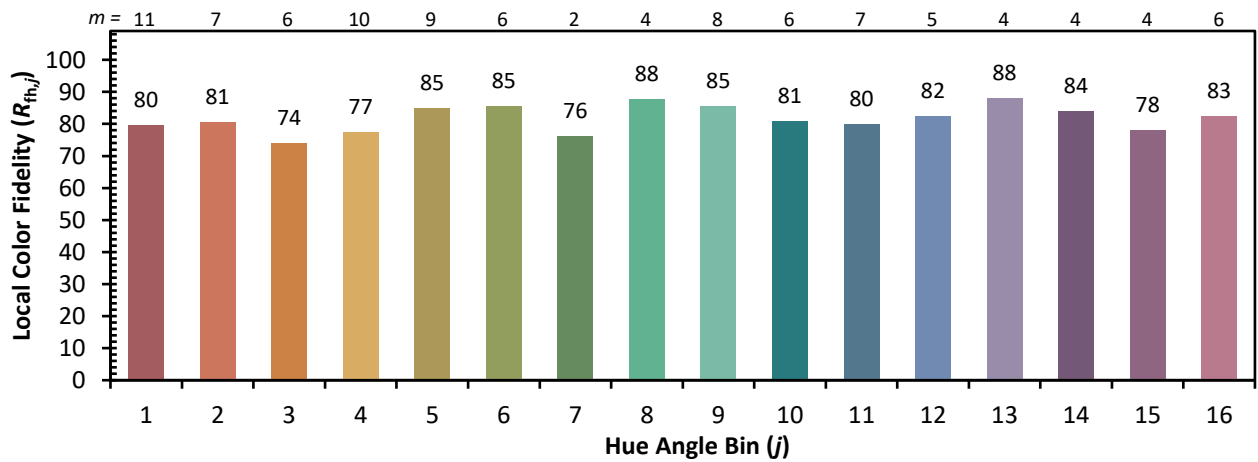
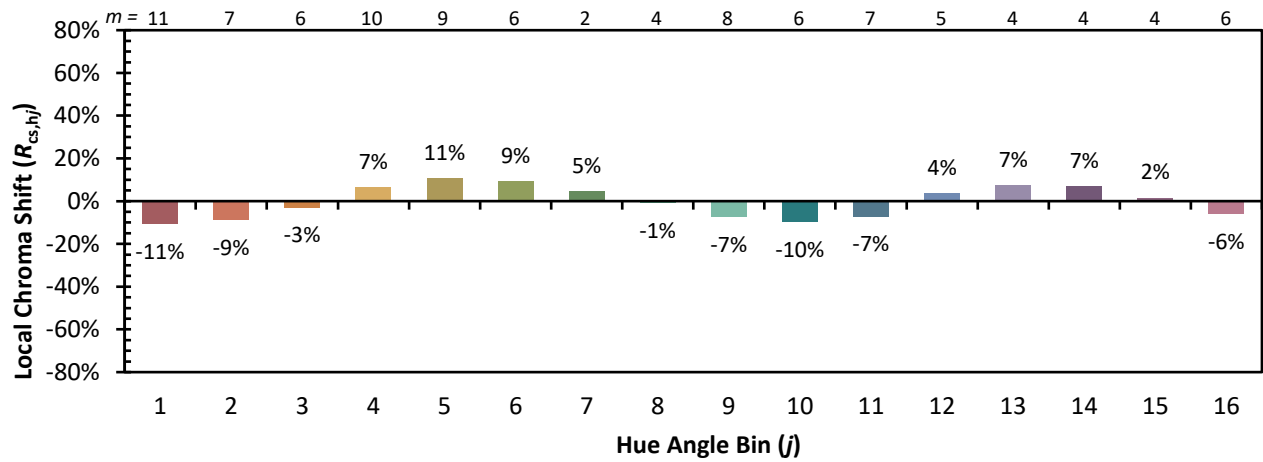


Individual Sample Fidelity Index ($R_{f,i}$)

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)