

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: P322078

Luminaire Tested: **GLEON-SA4B-830-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322078
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4B-830-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13032 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

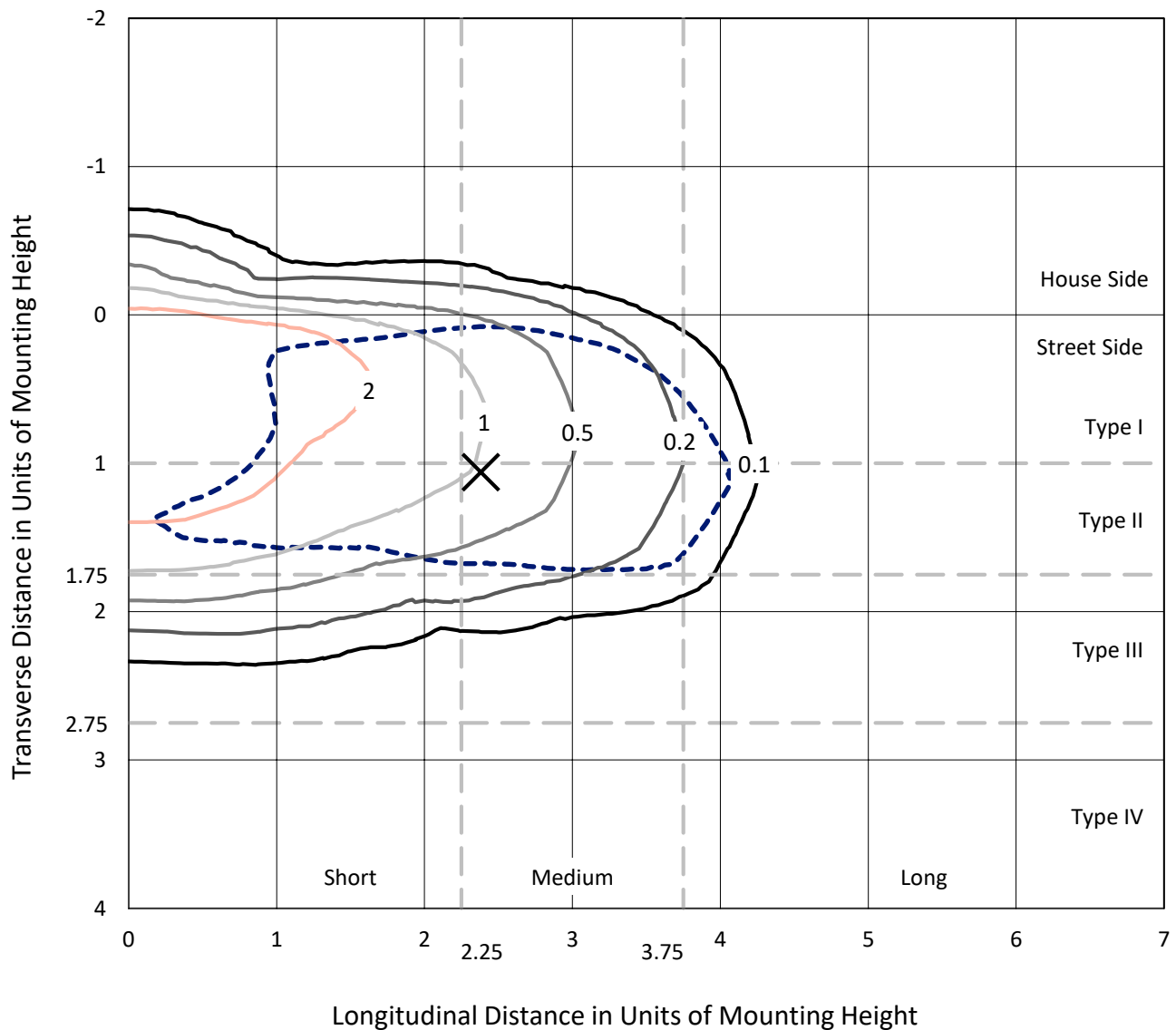
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

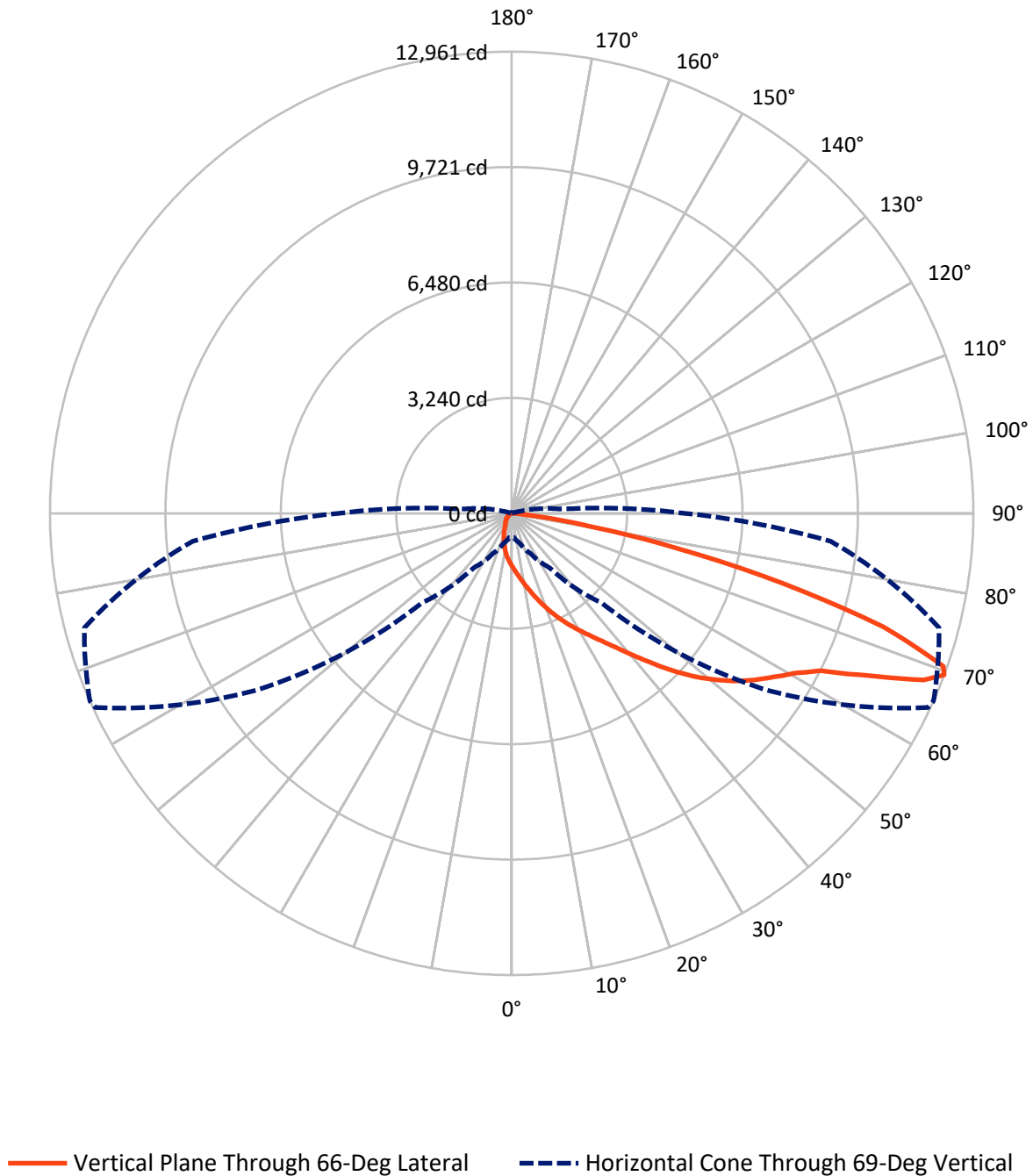
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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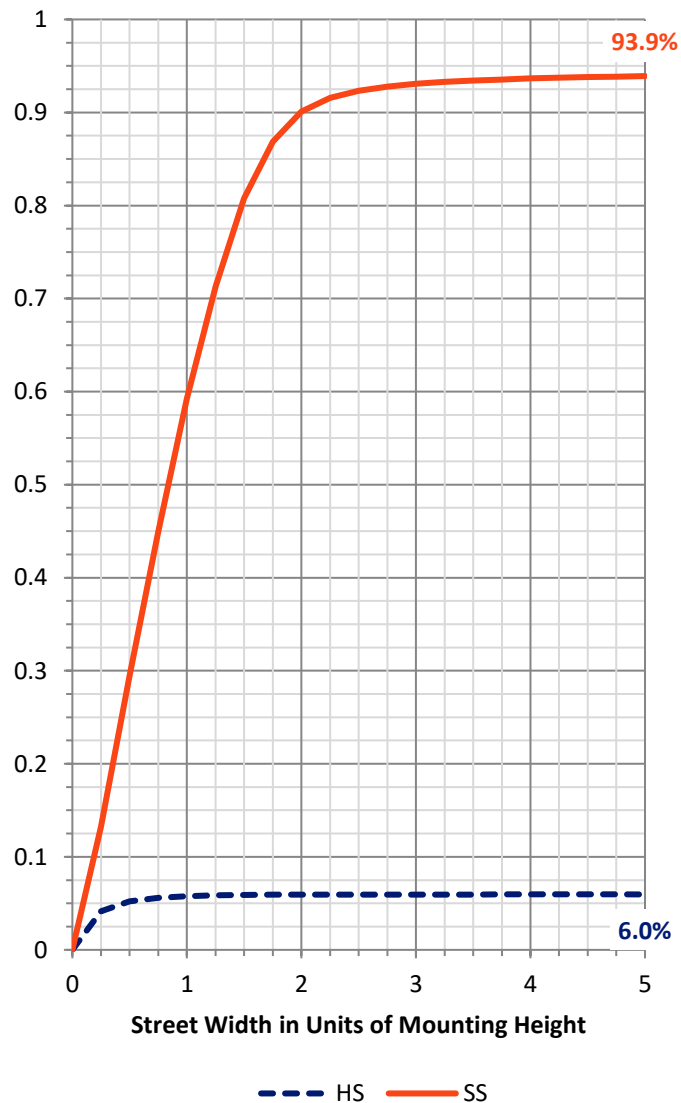
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	781.7	0.0	781.7
	% Fixture	6.0	0.0	6.0
Street Side	Lumens	12250.3	0.0	12250.3
	% Fixture	94.0	0.0	94.0
Total	Lumens	13032.0	0.0	13032.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.4	1.1
10°-20°	426.7	3.3
20°-30°	743.0	5.7
30°-40°	1303.6	10.0
40°-50°	2182.0	16.7
50°-60°	3207.3	24.6
60°-70°	3293.0	25.3
70°-80°	1625.7	12.5
80°-90°	107.5	0.8
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°	13032.0	100.0
0°-180°	13032.0	100.0

Coefficient of Utilization



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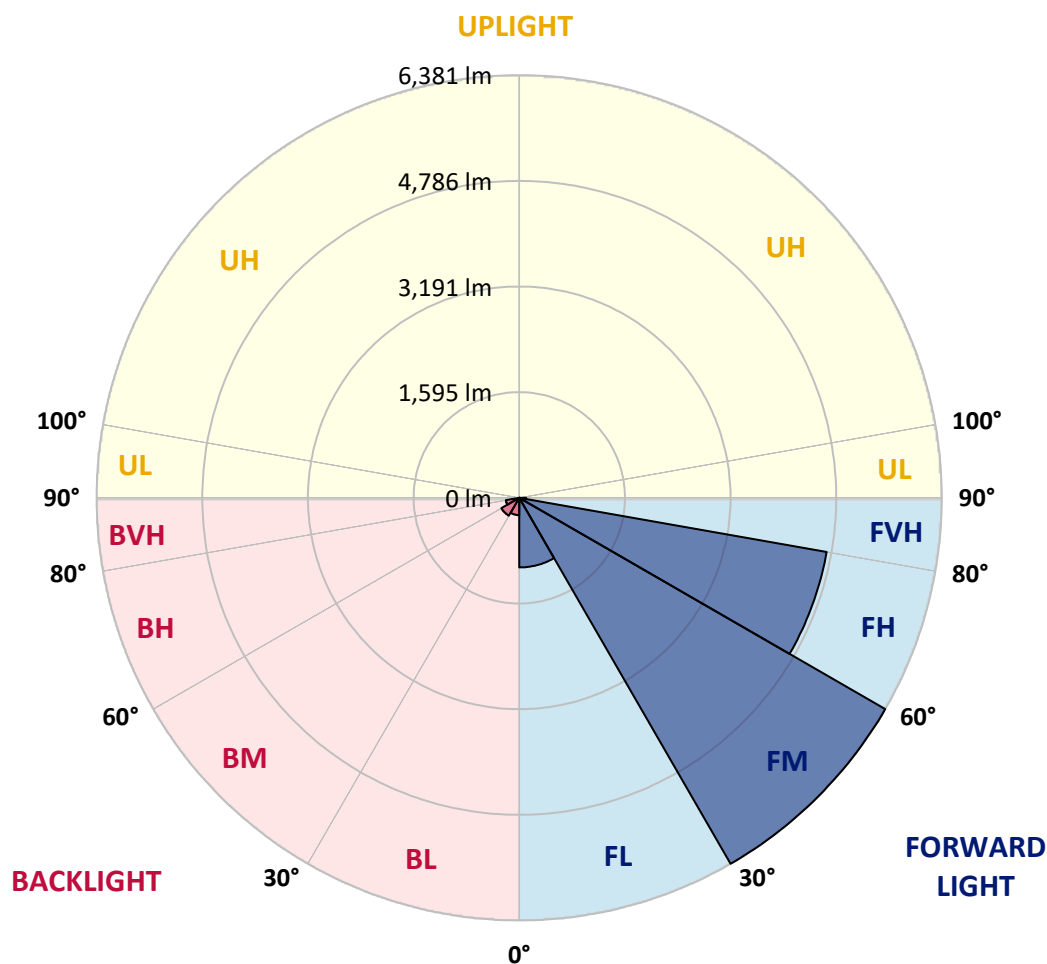
CATALOG NUMBER: GLEON-SA4B-830-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1051.6	8.1			
FM	(30°-60°)	6381.1	49.0			
FH	(60°-80°)	4712.7	36.2			G2/5000
FVH	(80°-90°)	104.9	0.8			G2/225
BL	(0°-30°)	261.4	2.0	B1/500		
BM	(30°-60°)	311.7	2.4	B1/1000		
BH	(60°-80°)	206.0	1.6	B1/500		G1/500
BVH	(80°-90°)	2.6	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1
2.5°	1745.5	1738.1	1735.0	1721.4	1697.9	1679.9	1645.3	1605.0	1597.6	1558.6	1510.9
5°	1972.1	1965.9	1961.6	1942.4	1918.2	1873.0	1809.9	1735.0	1720.8	1646.5	1551.2
7.5°	2129.9	2141.1	2141.1	2128.7	2098.4	2064.3	1986.9	1884.8	1866.9	1753.0	1605.0
10°	2222.1	2235.8	2246.3	2256.8	2252.5	2238.9	2165.8	2050.7	2029.0	1878.0	1667.5
12.5°	2230.8	2244.4	2274.1	2318.1	2360.8	2391.8	2345.9	2234.5	2209.8	2022.8	1741.8
15°	2182.5	2196.8	2242.6	2328.0	2431.4	2521.7	2536.6	2438.2	2412.8	2195.5	1834.7
17.5°	2098.4	2107.6	2173.2	2291.5	2453.6	2619.5	2709.3	2656.7	2633.2	2393.0	1938.0
20°	2035.8	2042.6	2100.2	2227.1	2440.0	2680.8	2872.7	2888.8	2864.0	2604.7	2050.1
22.5°	2142.9	2155.3	2157.2	2217.2	2402.9	2711.1	3016.3	3117.2	3098.6	2829.4	2160.3
25°	2435.7	2449.9	2402.9	2365.8	2434.5	2724.8	3139.5	3351.2	3336.3	3071.4	2271.0
27.5°	2822.6	2837.4	2776.8	2666.0	2599.7	2776.1	3249.0	3588.9	3588.2	3327.7	2390.5
30°	3202.6	3217.5	3155.6	3044.8	2892.5	2921.6	3343.7	3837.7	3841.4	3592.0	2517.4
32.5°	3601.2	3619.8	3556.1	3413.7	3254.6	3172.9	3476.8	4087.8	4108.8	3898.4	2660.4
35°	4054.3	4056.8	3967.1	3817.9	3634.7	3509.0	3690.4	4368.2	4418.3	4277.8	2841.8
37.5°	4498.8	4516.7	4443.1	4207.8	4039.5	3897.1	4007.9	4718.5	4789.7	4741.4	3078.8
40°	4828.1	4865.8	4855.3	4601.5	4441.8	4340.3	4402.2	5135.1	5225.5	5281.2	3377.8
42.5°	5034.8	5063.3	5111.6	4958.7	4813.8	4830.5	4867.7	5620.4	5731.8	5896.4	3721.3
45°	5271.9	5285.5	5325.7	5258.3	5160.5	5328.8	5361.6	6166.9	6283.9	6558.1	4102.6
47.5°	5561.6	5593.8	5604.9	5543.0	5498.4	5769.5	5837.6	6664.0	6828.0	7266.9	4506.2
50°	5930.5	5939.1	5958.3	5918.1	5873.5	6148.4	6264.7	7185.8	7334.9	7978.1	4904.2
52.5°	6291.3	6322.3	6389.1	6363.8	6345.8	6470.8	6645.4	7656.2	7822.7	8571.1	5301.6
55°	6395.3	6421.9	6652.8	6810.7	6956.8	6868.2	7009.4	8077.7	8257.9	9100.9	5684.1
57.5°	5980.0	6033.8	6433.7	6844.7	7450.7	7486.0	7509.5	8510.4	8672.0	9507.0	6082.1
60°	4930.2	4940.7	5596.8	6301.9	7369.0	8025.1	8239.9	8975.3	9110.8	9885.2	6558.7
62.5°	3135.8	3242.9	3962.7	4958.1	6504.9	7947.1	9123.2	9678.4	9727.9	10338.9	7242.1
65°	1493.6	1562.9	2081.6	3063.3	4711.7	6948.7	9732.9	10950.4	10972.7	11238.3	8155.1
67.5°	827.0	860.4	1107.4	1649.0	2754.5	4914.1	9486.5	12457.0	12478.1	12156.8	8956.1
69°	646.8	675.3	869.7	1242.9	1867.5	3531.9	8584.7	12898.4	12960.9	12419.9	8984.5
70°	549.0	576.9	749.0	1049.8	1501.7	2729.1	7641.3	12788.8	12855.0	12395.1	8772.2
72.5°	336.1	352.2	498.9	739.1	1006.5	1372.9	4712.3	10815.5	10927.5	11370.1	7539.2
75°	226.5	235.2	312.0	510.0	719.9	706.9	2448.1	7623.4	7866.0	8844.6	5568.4
77.5°	162.2	170.2	209.2	329.9	504.5	466.7	1108.6	4737.7	4789.7	5304.7	3036.7
80°	92.2	99.7	147.9	196.2	342.3	311.3	440.7	2263.0	2289.0	2274.8	1013.9
82.5°	48.3	54.5	81.1	129.4	219.7	203.6	183.2	757.6	761.3	633.2	222.2
85°	9.3	11.1	40.2	88.5	113.3	88.5	74.9	177.6	181.4	160.3	55.1
87.5°	0.0	0.6	16.1	19.8	22.3	22.9	24.1	34.7	37.1	50.1	14.9
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-SA4B-830-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1	1483.1
2.5°	1489.9	1467.6	1424.9	1375.4	1337.0	1299.2	1269.5	1238.6	1227.4	1221.9	1221.3
5°	1504.7	1457.7	1367.3	1274.5	1198.4	1126.5	1075.2	1026.3	1003.4	992.8	988.5
7.5°	1529.5	1454.0	1308.5	1166.8	1057.2	967.5	896.3	843.1	816.4	805.3	801.0
10°	1558.6	1449.0	1239.8	1052.9	913.0	820.2	749.6	697.0	667.9	655.5	649.3
12.5°	1592.6	1440.4	1160.6	937.8	789.8	697.0	611.6	546.6	513.1	498.9	492.1
15°	1634.7	1431.7	1077.6	829.4	681.5	568.2	474.8	430.8	424.0	421.5	422.1
17.5°	1676.2	1418.1	987.3	722.4	567.6	443.8	396.1	393.7	394.9	394.9	394.9
20°	1713.3	1387.1	888.9	630.7	459.3	374.5	364.6	360.2	357.2	354.7	351.6
22.5°	1742.4	1345.7	794.2	539.8	375.1	342.9	327.4	313.8	302.7	295.3	291.5
25°	1762.2	1290.6	707.5	452.5	337.3	312.0	284.1	261.2	243.9	233.4	229.0
27.5°	1777.1	1231.2	630.1	378.8	311.3	276.1	239.5	212.3	194.4	185.1	181.4
30°	1787.6	1163.7	562.0	333.0	282.3	238.3	199.3	172.7	159.7	154.7	152.3
32.5°	1797.5	1088.8	497.7	311.3	255.0	203.6	167.1	146.7	138.7	132.5	130.6
35°	1822.3	1019.5	436.4	288.4	227.2	173.9	143.6	128.7	120.7	117.0	115.7
37.5°	1881.1	968.1	377.6	264.9	199.3	150.4	125.7	115.1	107.7	104.0	102.8
40°	1975.8	942.1	328.1	239.5	172.1	132.5	113.9	104.0	95.9	90.4	89.1
42.5°	2115.1	945.8	293.4	214.2	150.4	118.2	102.8	91.0	82.3	77.4	76.1
45°	2284.0	973.0	269.3	189.4	132.5	107.1	90.4	78.0	69.9	65.6	64.4
47.5°	2467.3	1017.0	249.5	167.1	118.2	96.6	78.0	65.0	58.2	54.5	53.9
50°	2660.4	1059.7	229.0	145.5	105.8	86.0	65.6	53.9	48.3	45.2	43.9
52.5°	2856.0	1109.2	210.5	125.7	95.3	73.7	54.5	43.9	39.6	37.1	35.9
55°	3066.4	1146.4	192.5	110.2	84.8	62.5	45.2	36.5	32.8	29.7	29.1
57.5°	3314.0	1203.9	173.9	95.3	72.4	52.0	37.1	29.1	26.0	22.9	22.3
60°	3648.3	1271.4	154.1	84.2	59.4	42.7	30.3	23.5	19.8	17.3	16.7
62.5°	4089.0	1346.3	129.4	73.7	48.3	34.7	24.1	18.6	14.2	11.1	11.1
65°	4647.9	1468.2	105.8	61.9	39.6	28.5	18.6	13.6	8.0	5.0	5.0
67.5°	4974.1	1489.3	85.4	50.8	32.2	24.1	15.5	9.3	2.5	0.6	0.0
69°	4869.5	1367.3	72.4	43.3	27.9	22.9	14.2	6.8	1.2	0.0	0.0
70°	4672.7	1250.3	63.8	38.4	25.4	21.7	13.6	5.0	1.2	0.0	0.0
72.5°	3861.2	890.1	48.3	28.5	18.6	19.2	12.4	3.1	1.2	0.0	0.0
75°	2812.7	541.0	34.7	19.8	11.8	14.2	8.7	1.2	0.6	0.0	0.0
77.5°	1564.8	255.0	21.7	11.1	7.4	8.7	4.3	0.0	0.0	0.0	0.0
80°	508.2	69.3	9.9	6.2	4.3	5.0	1.9	0.0	0.0	0.0	0.0
82.5°	94.1	19.8	5.6	3.1	1.2	1.2	0.0	0.0	0.0	0.0	0.0
85°	20.4	8.0	3.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.8	2.5	0.6	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 $\text{W}^\wedge/\text{nm}$	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 [^] /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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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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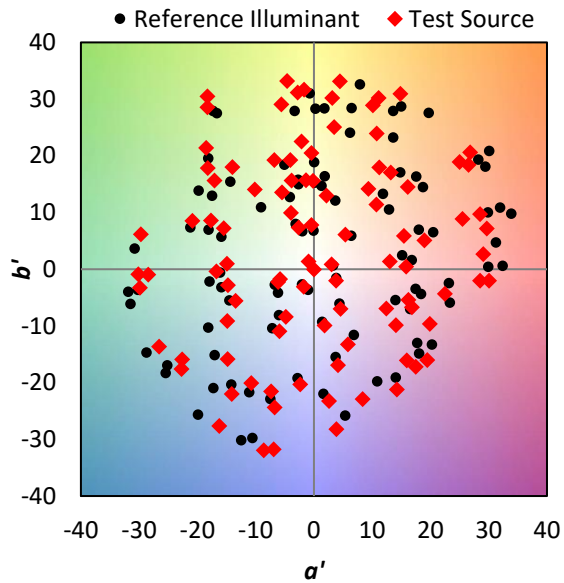
TM-30-18

Summary

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



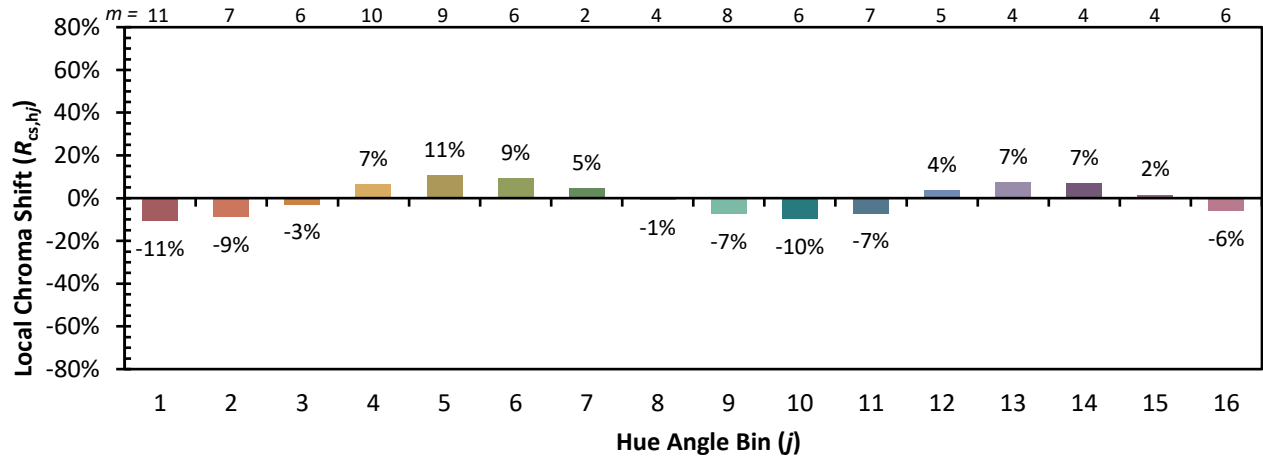
Color Vector Graphics



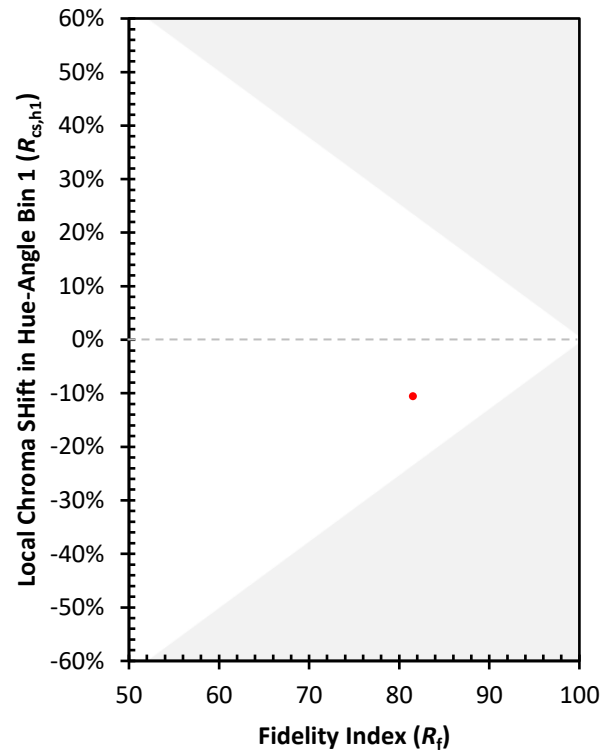
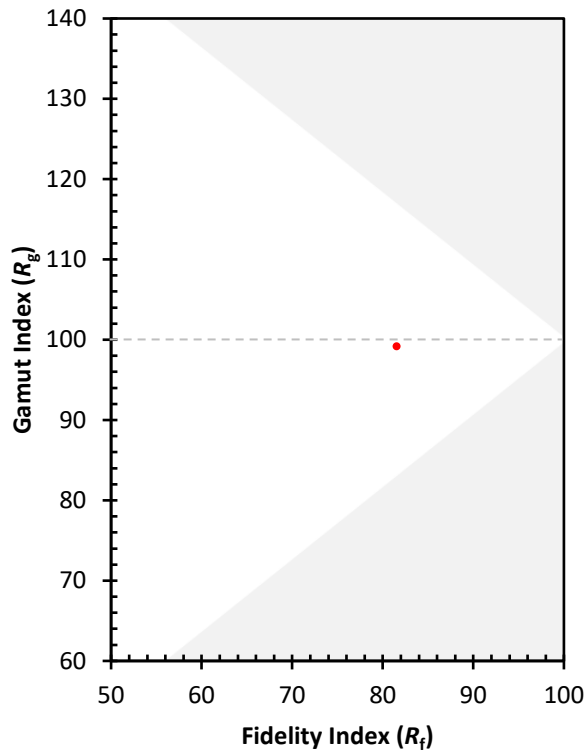
Individual Sample Fidelity Index ($R_{f,i}$)

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)