

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: P319859

Luminaire Tested: **GLEON-SA5D-830-U-SL3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P319859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-22)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA5D-830-U-SL3  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30819 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G5

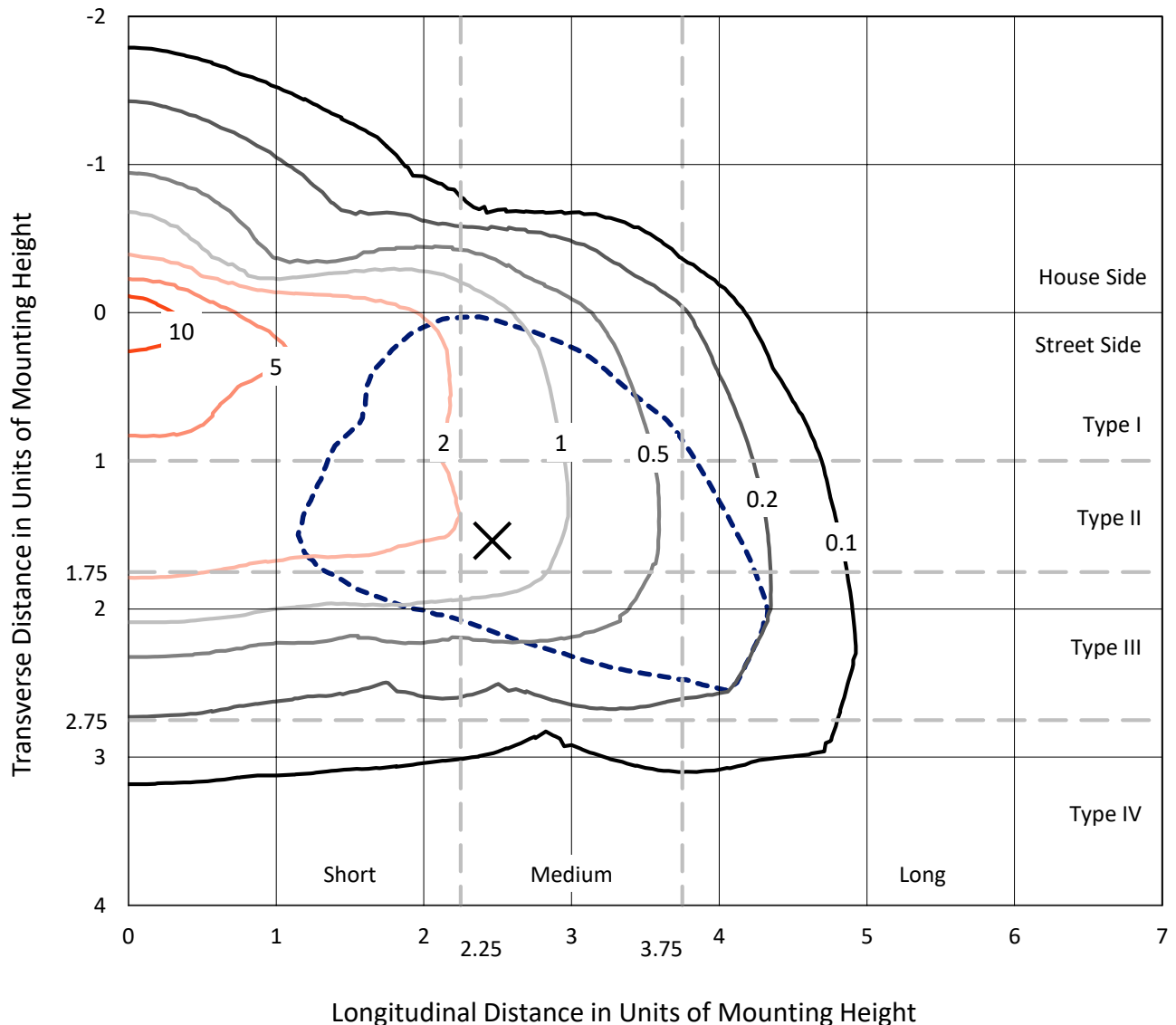
Input Watts (W): 320  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

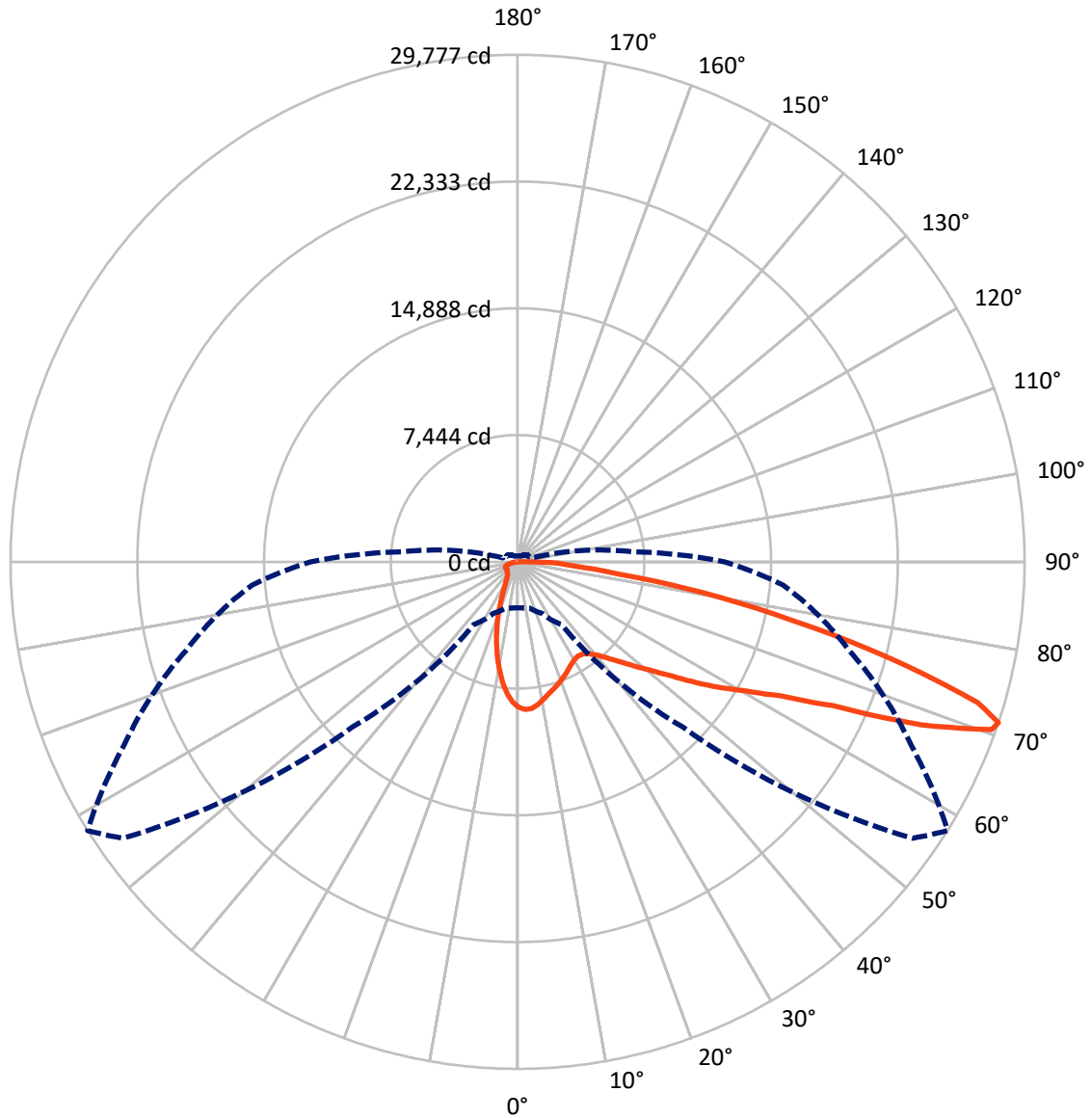
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.7 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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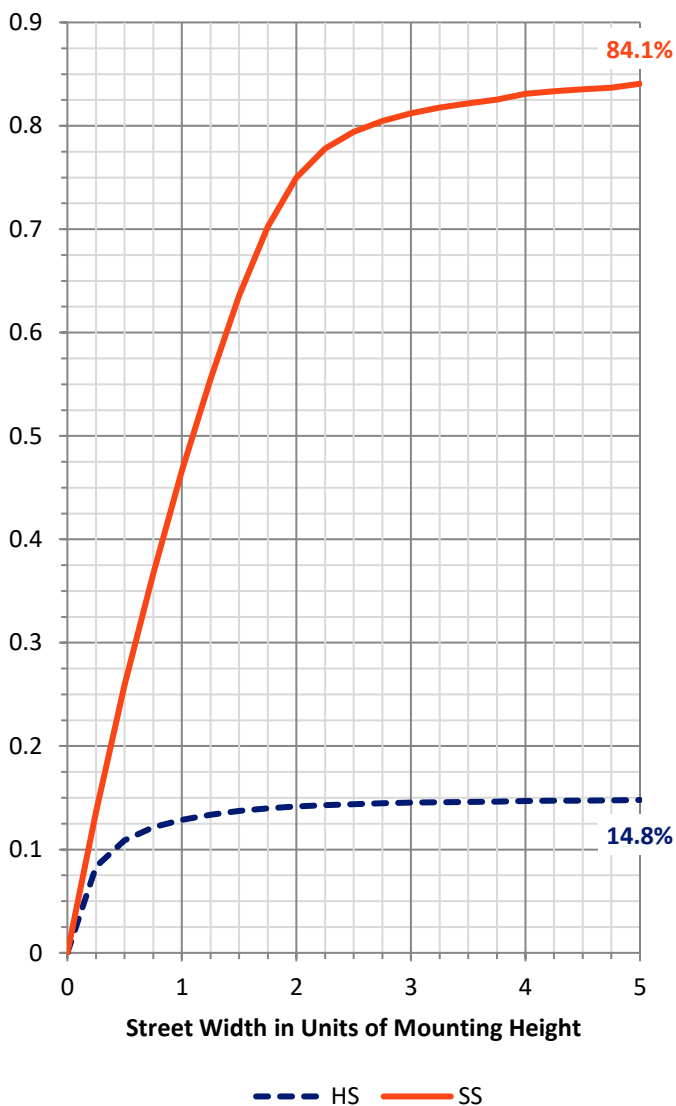
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4607.6	0.0	4607.6
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	26211.3	0.0	26211.3
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	30819.0	0.0	30819.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	736.7	2.4
10°-20°	1638.0	5.3
20°-30°	2081.8	6.8
30°-40°	2651.8	8.6
40°-50°	3760.3	12.2
50°-60°	5819.3	18.9
60°-70°	7922.2	25.7
70°-80°	5285.0	17.1
80°-90°	924.0	3.0
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°	30819.0	100.0
0°-180°	30819.0	100.0

**Coefficient of Utilization**

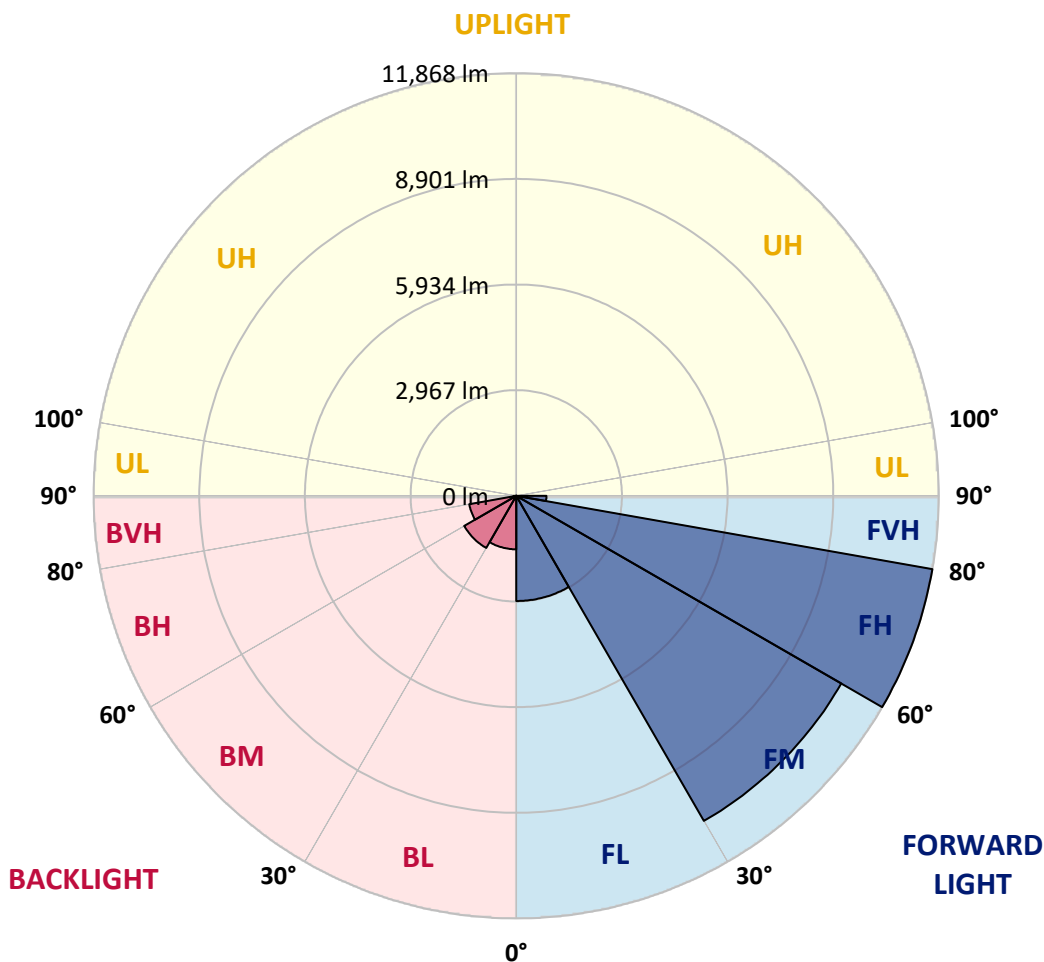


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2954.5	9.6			
FM (30°-60°)	10541.6	34.2			
FH (60°-80°)	11868.0	38.5			G4/12000
FVH (80°-90°)	847.2	2.7			G5
BL (0°-30°)	1502.0	4.9	B3/2500		
BM (30°-60°)	1689.8	5.5	B2/2500		
BH (60°-80°)	1339.2	4.3	B3/2500		G3/2500
BVH (80°-90°)	76.8	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9
2.5°	8765.4	8753.6	8757.9	8749.3	8728.9	8708.5	8678.5	8683.9	8642.0	8579.7	8502.4
5°	8600.1	8595.8	8628.0	8646.3	8661.3	8649.5	8640.9	8651.6	8590.5	8504.6	8370.4
7.5°	8253.4	8206.1	8246.9	8308.1	8366.1	8410.1	8468.1	8475.6	8436.9	8346.8	8170.7
10°	7760.6	7715.5	7775.6	7871.2	7987.1	8092.3	8209.3	8230.8	8238.3	8156.7	7943.1
12.5°	7249.6	7215.3	7275.4	7409.6	7601.7	7763.8	7950.6	7982.8	8049.4	7994.6	7732.7
15°	6792.3	6779.4	6852.4	6984.4	7205.6	7453.6	7723.0	7782.1	7894.8	7876.6	7568.4
17.5°	6397.2	6394.0	6449.8	6588.3	6833.1	7146.5	7496.5	7596.4	7763.8	7785.3	7433.2
20°	6103.1	6096.6	6135.3	6237.3	6489.5	6844.9	7251.8	7389.2	7630.7	7705.9	7293.6
22.5°	5945.3	5944.2	5945.3	5993.6	6199.7	6530.3	7013.4	7180.9	7500.8	7642.5	7139.0
25°	5918.4	5915.2	5891.6	5886.2	6003.2	6267.3	6777.2	6961.9	7377.4	7598.5	6992.0
27.5°	5988.2	5992.5	5961.4	5910.9	5934.5	6094.5	6572.2	6769.7	7278.6	7589.9	6890.0
30°	6133.1	6131.0	6104.1	6051.5	6005.4	6030.1	6426.2	6623.7	7212.0	7627.5	6820.2
32.5°	6293.1	6304.9	6299.5	6270.5	6201.8	6103.1	6382.2	6575.4	7192.7	7717.7	6790.1
35°	6485.2	6498.1	6536.8	6559.3	6478.8	6319.9	6476.7	6644.1	7248.5	7887.3	6838.4
37.5°	6667.7	6701.0	6809.5	6905.0	6836.3	6659.2	6727.9	6847.0	7421.4	8154.6	6968.3
40°	6878.2	6907.1	7084.3	7287.2	7276.4	7092.9	7132.6	7212.0	7726.3	8537.8	7203.4
42.5°	7085.4	7143.3	7399.9	7687.6	7770.3	7608.2	7671.5	7713.4	8155.7	9045.6	7613.5
45°	7361.3	7423.5	7779.9	8126.7	8319.9	8228.7	8329.6	8345.7	8695.7	9737.0	8209.3
47.5°	7778.9	7849.7	8265.2	8629.1	8924.3	8934.0	9100.4	9093.9	9369.8	10528.2	8959.8
50°	8429.4	8531.4	8871.7	9212.0	9570.6	9770.3	9992.5	9961.4	10178.2	11370.9	9823.9
52.5°	9281.8	9329.0	9581.3	9832.5	10278.1	10725.7	11044.6	11016.6	11095.0	12237.3	10805.2
55°	10165.3	10200.8	10304.9	10442.3	11041.3	11771.3	12445.5	12401.5	12202.9	13136.9	11774.6
57.5°	10959.8	11031.7	11103.6	11160.5	11810.0	12864.2	13878.7	13881.9	13405.3	14107.4	12776.2
60°	11083.2	11146.5	11622.1	12070.9	13125.1	14322.1	15412.8	15380.6	14649.5	15160.5	13892.7
62.5°	9797.1	9939.9	10734.3	11928.1	14391.9	16988.7	17369.8	17330.1	16137.4	16458.4	15192.7
65°	7020.9	7183.0	8141.7	9935.6	13777.8	19927.0	20901.8	20367.2	18166.4	18054.8	16715.0
67.5°	4050.5	4089.1	4504.6	5945.3	10490.6	20080.5	26289.9	25541.6	21317.2	19865.8	17460.0
70°	2995.2	2994.1	3092.9	3658.6	5676.9	16388.6	28852.4	29523.4	24634.5	20461.6	16406.9
71°	2708.5	2711.8	2822.3	3330.1	4496.0	13717.7	28308.1	29776.7	25508.3	20167.5	15644.7
72.5°	2316.7	2327.4	2480.9	2986.6	3782.1	9460.0	25963.5	28256.6	25922.7	19441.8	14452.0
75°	1757.4	1782.1	1994.6	2517.4	3456.8	4797.6	19055.3	22563.6	23028.5	17155.1	10738.6
77.5°	1253.9	1281.8	1522.3	2117.0	3286.1	3615.7	12761.1	16458.4	16946.9	10994.1	4843.8
80°	792.3	825.6	1007.0	1684.4	3087.5	3433.2	8019.3	11062.8	9241.0	3518.0	1232.4
82.5°	464.8	490.6	624.8	1100.4	2521.7	3306.5	4718.2	6132.1	3596.4	1062.8	560.4
85°	269.5	281.3	389.7	701.0	1831.5	3120.8	3466.5	3427.8	1560.9	519.6	265.2
87.5°	125.6	139.6	230.8	366.1	1016.6	2261.9	2739.7	2367.2	970.5	243.7	124.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P319859  
 CATALOG NUMBER: GLEON-SA5D-830-U-SL3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9	8538.9
2.5°	8464.8	8446.6	8370.4	8302.7	8231.9	8139.6	8037.6	8024.7	7962.4	7974.2	7952.8
5°	8297.4	8251.2	8067.6	7901.2	7704.8	7528.7	7337.6	7249.6	7122.9	7114.3	7082.1
7.5°	8058.0	7972.1	7687.6	7372.0	7056.4	6755.8	6458.4	6263.0	6063.3	5978.5	5971.0
10°	7788.5	7642.5	7223.8	6756.8	6301.7	5862.6	5437.5	5122.9	4839.5	4705.3	4700.0
12.5°	7533.0	7317.2	6742.9	6107.4	5484.7	4915.7	4332.8	3919.5	3564.1	3445.0	3394.5
15°	7316.2	7012.4	6274.8	5462.2	4706.4	3916.3	3252.8	2818.0	2489.5	2375.7	2354.3
17.5°	7105.7	6715.0	5795.0	4810.5	3896.9	3028.5	2363.9	2040.8	1865.8	1819.6	1818.6
20°	6896.4	6409.0	5293.6	4143.9	3114.3	2265.2	1817.5	1672.6	1613.5	1608.2	1599.6
22.5°	6659.2	6084.8	4766.5	3475.0	2430.5	1781.0	1544.8	1486.9	1479.3	1498.7	1498.7
25°	6436.9	5762.8	4231.9	2820.2	1890.5	1485.8	1379.5	1367.7	1388.1	1422.4	1425.7
27.5°	6229.7	5452.5	3710.1	2238.3	1514.8	1308.6	1264.6	1278.6	1315.1	1354.8	1355.9
30°	6059.0	5159.4	3203.4	1763.8	1279.7	1176.6	1169.1	1197.0	1236.7	1267.8	1275.4
32.5°	5927.0	4909.3	2713.9	1418.1	1126.1	1077.8	1084.3	1107.9	1132.6	1149.8	1161.6
35°	5865.8	4694.6	2261.9	1195.9	1028.4	1001.6	1010.2	1023.1	1033.8	1046.7	1056.4
37.5°	5876.5	4528.2	1858.3	1057.4	963.0	949.0	949.0	949.0	949.0	955.4	956.5
40°	5976.4	4432.6	1529.8	969.4	918.9	903.9	892.1	881.4	872.8	877.1	874.9
42.5°	6231.9	4424.1	1289.3	913.6	883.5	858.8	835.2	820.2	809.4	813.7	815.9
45°	6665.6	4531.4	1127.2	873.9	850.2	812.7	782.6	766.5	759.0	772.9	775.1
47.5°	7227.1	4765.4	1028.4	844.9	819.1	769.7	737.5	722.5	724.6	745.0	750.4
50°	7950.6	5145.5	981.2	826.6	797.6	733.2	699.9	687.1	693.5	722.5	728.9
52.5°	8745.0	5693.0	986.6	821.3	783.7	706.4	671.0	655.9	666.7	693.5	698.9
55°	9661.8	6351.1	1075.7	828.8	763.3	689.2	647.3	621.6	630.2	654.9	659.2
57.5°	10680.6	7104.7	1255.0	826.6	737.5	673.1	622.7	584.0	590.4	605.5	609.8
60°	11741.3	8015.0	1533.0	833.1	725.7	653.8	589.4	541.1	538.9	551.8	553.9
62.5°	13014.5	9068.2	1850.8	837.4	733.2	629.1	545.4	498.1	491.7	494.9	497.0
65°	14326.4	9830.4	1731.6	820.2	756.8	608.7	506.7	456.3	444.4	442.3	443.4
67.5°	14367.2	9013.4	1214.2	785.8	766.5	598.0	477.7	420.8	401.5	394.0	392.9
70°	12884.6	7322.6	945.8	749.3	727.9	580.8	450.9	391.8	362.9	351.0	350.0
71°	12161.0	6740.7	896.4	731.1	698.9	563.6	439.1	379.0	348.9	336.0	333.9
72.5°	11026.3	6042.9	836.3	702.1	643.0	519.6	416.5	360.7	329.6	314.5	311.3
75°	7913.1	3951.7	718.2	625.9	532.5	414.4	365.0	324.2	297.4	279.1	277.0
77.5°	3048.8	1572.7	543.2	520.7	407.9	324.2	300.6	280.2	260.9	242.6	241.5
80°	942.6	703.2	396.1	391.8	295.2	241.5	234.0	228.7	221.1	201.8	197.5
82.5°	503.5	403.7	272.7	253.4	193.2	161.0	169.6	171.8	172.8	152.4	150.3
85°	240.5	213.6	153.5	143.9	112.7	90.2	104.1	112.7	113.8	93.4	87.0
87.5°	114.9	111.6	71.9	54.8	41.9	30.1	36.5	45.1	49.4	35.4	31.1
90°	0.0	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



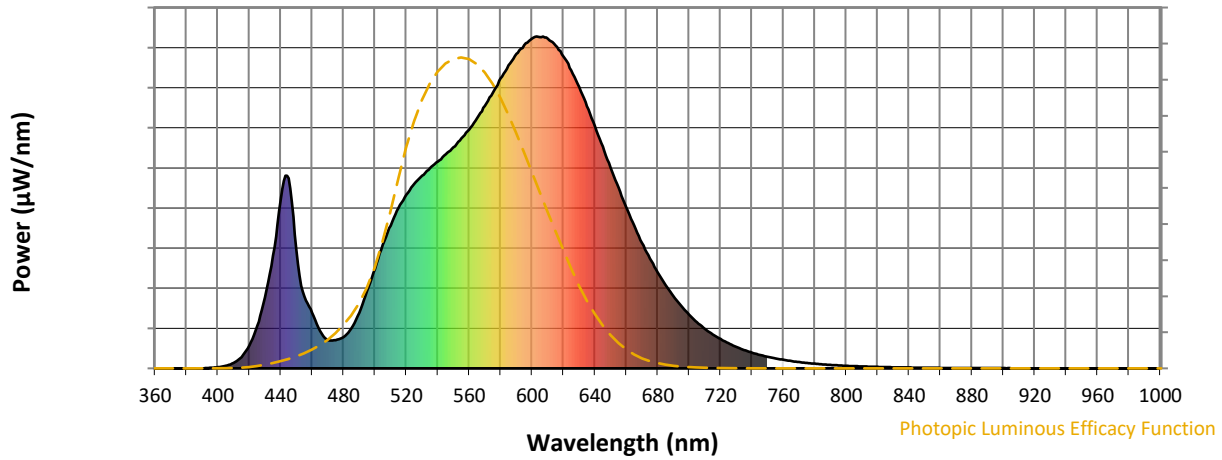
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**



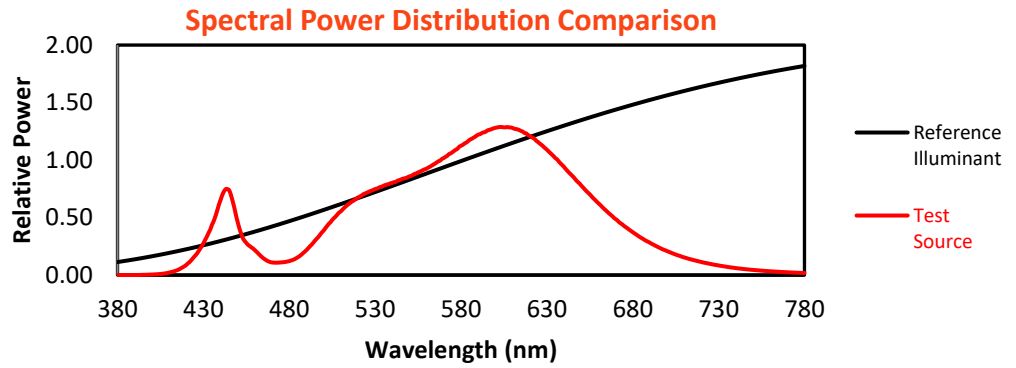
**Melanopic Lumens: NR**

**M/P: 2.32**

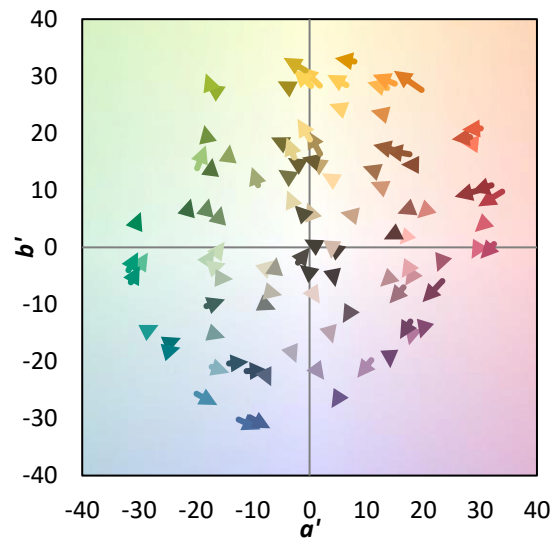
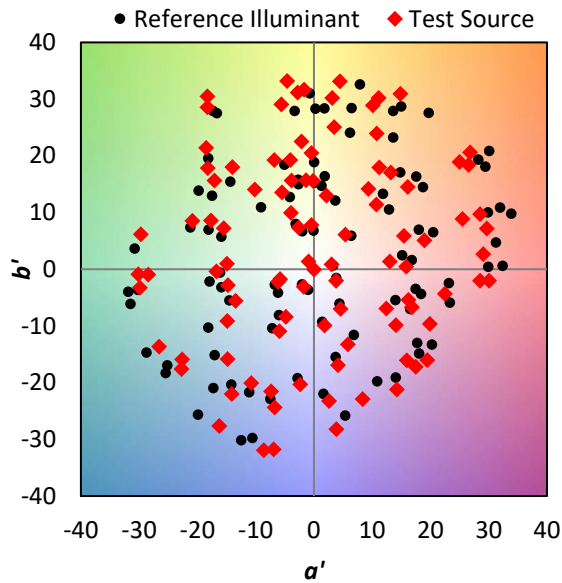
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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**

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



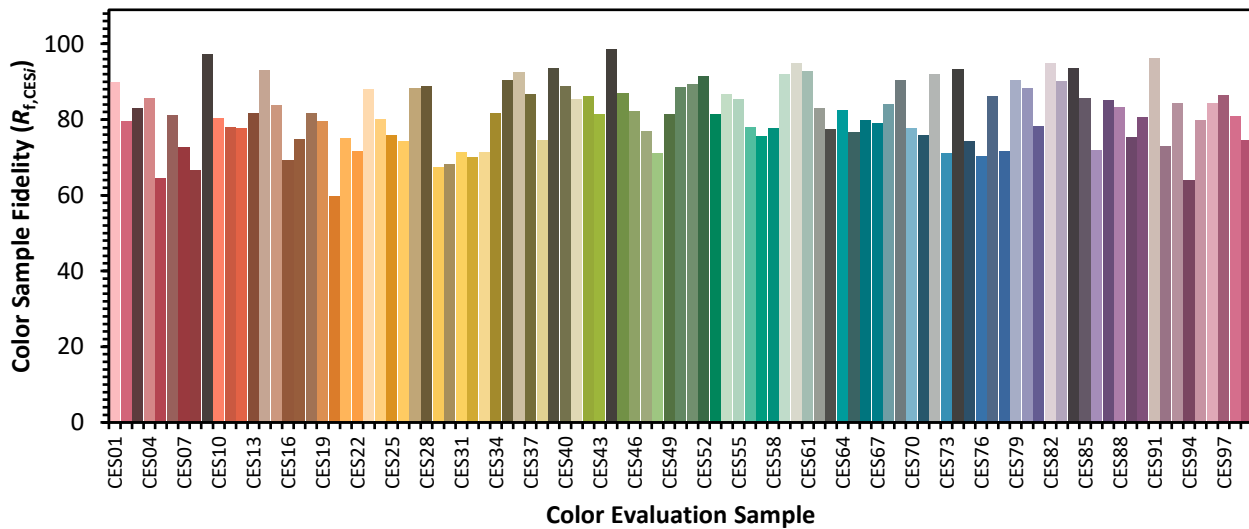
**Color Vector Graphics**



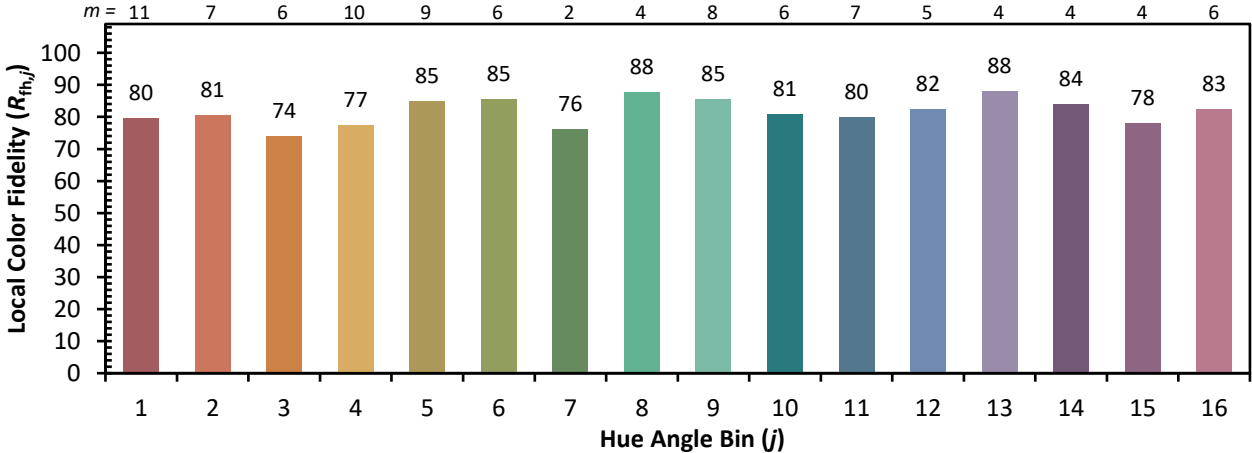


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)