

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: P321754

Luminaire Tested: **GLEON-SA0A-830-U-T3R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P321754  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA0A-830-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(10) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28191 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G4

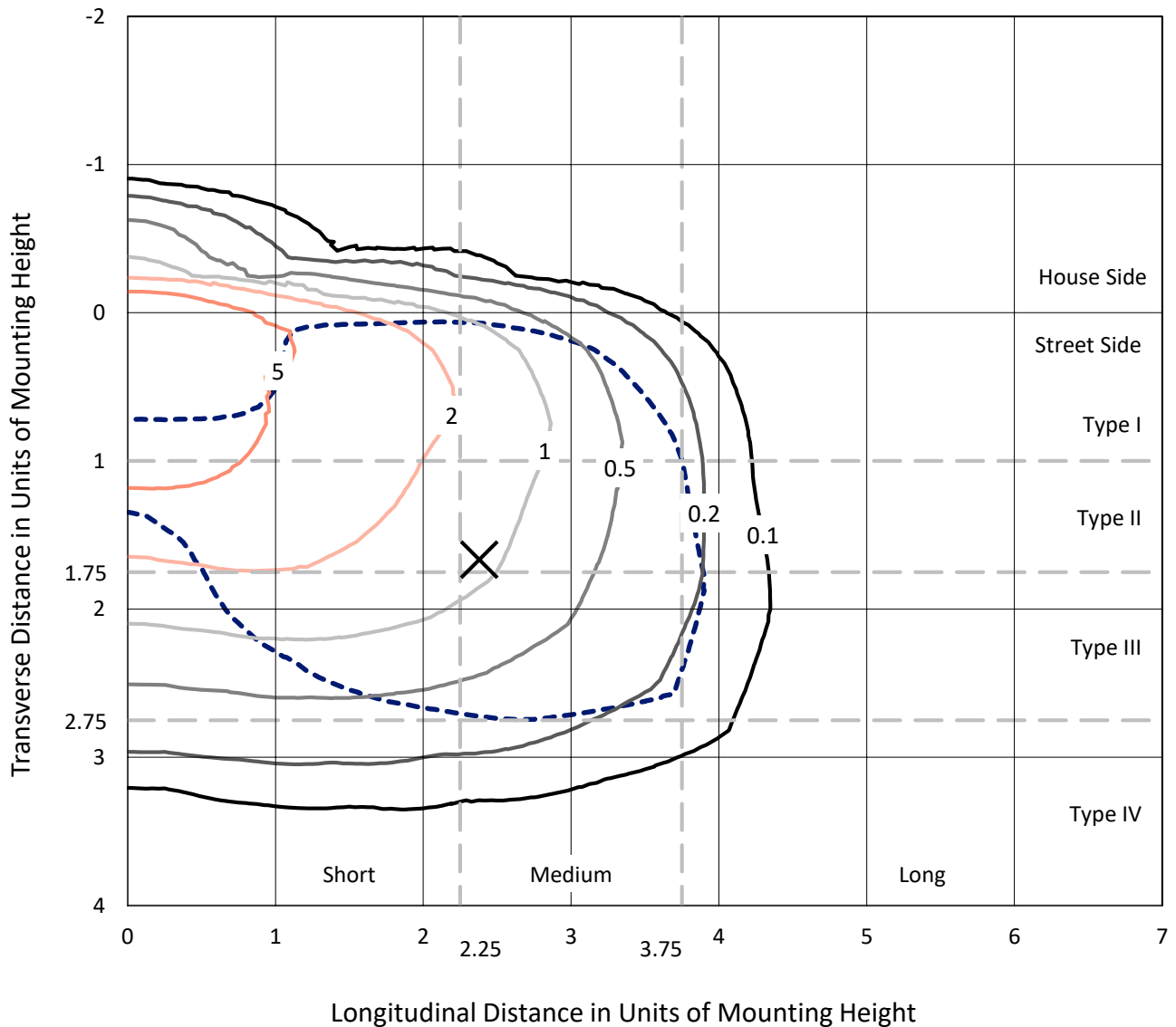
Input Watts (W): 323  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

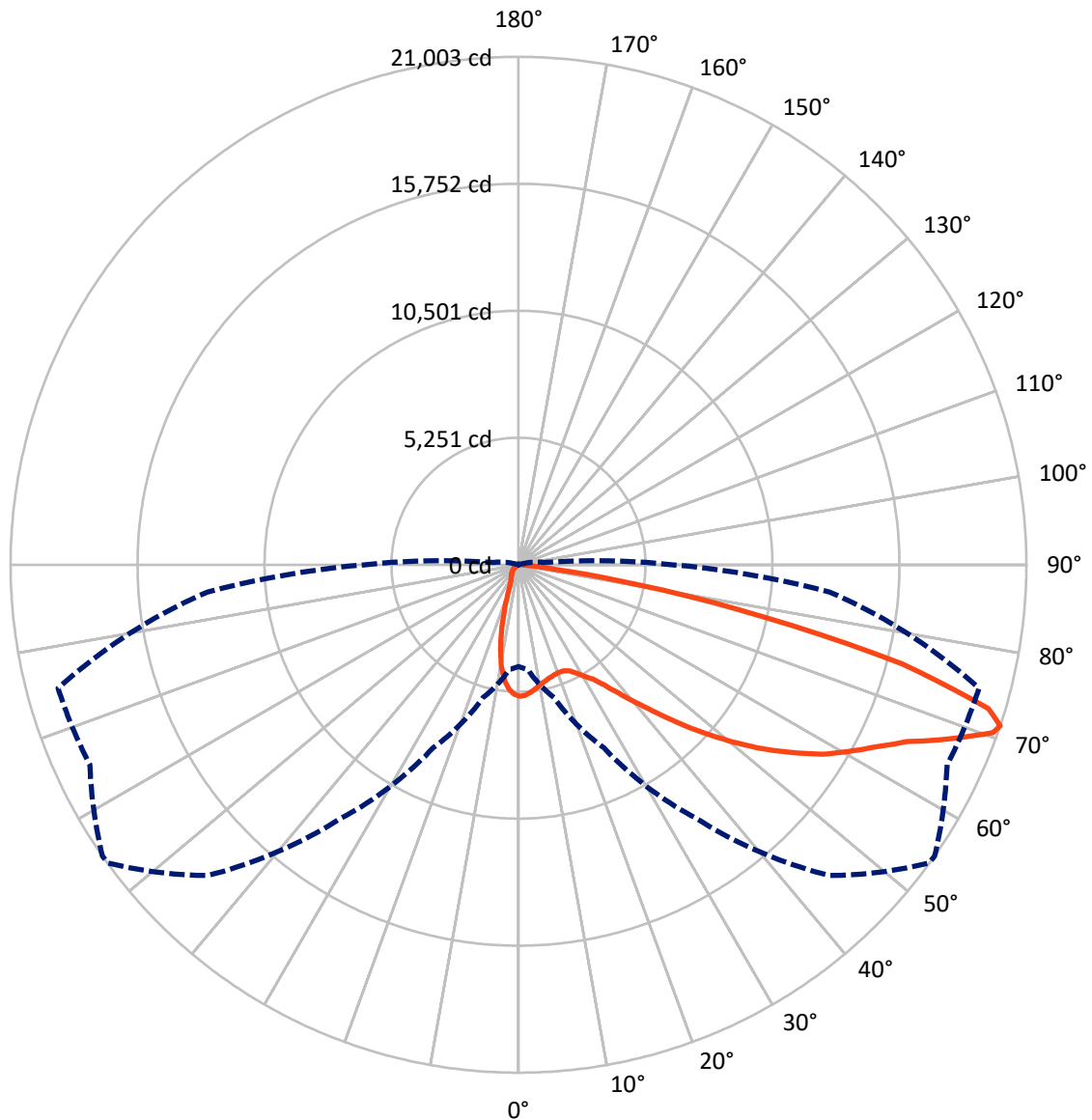
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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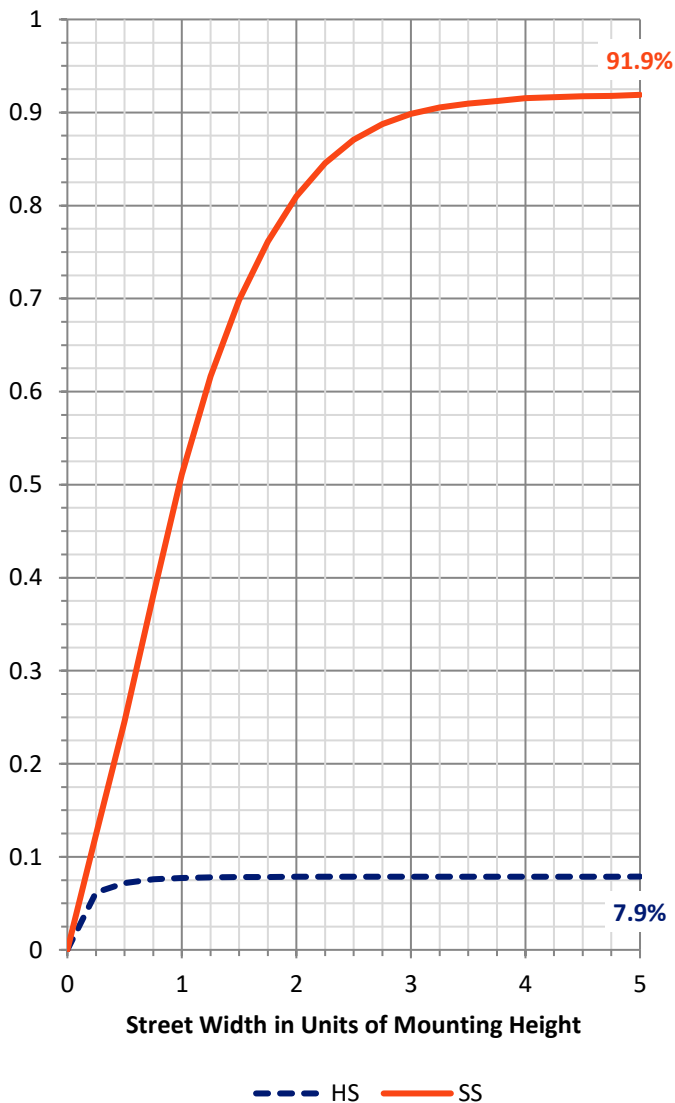
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2232.0	0.0	2232.0
	% Fixture	7.9	0.0	7.9
<b>Street Side</b>	Lumens	25959.1	0.0	25959.1
	% Fixture	92.1	0.0	92.1
<b>Total</b>	Lumens	28191.0	0.0	28191.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	463.6	1.6
10°-20°	1046.5	3.7
20°-30°	1681.8	6.0
30°-40°	2857.4	10.1
40°-50°	4435.1	15.7
50°-60°	5962.8	21.2
60°-70°	7294.5	25.9
70°-80°	4264.9	15.1
80°-90°	184.4	0.7
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°	28191.0	100.0
0°-180°	28191.0	100.0

**Coefficient of Utilization**

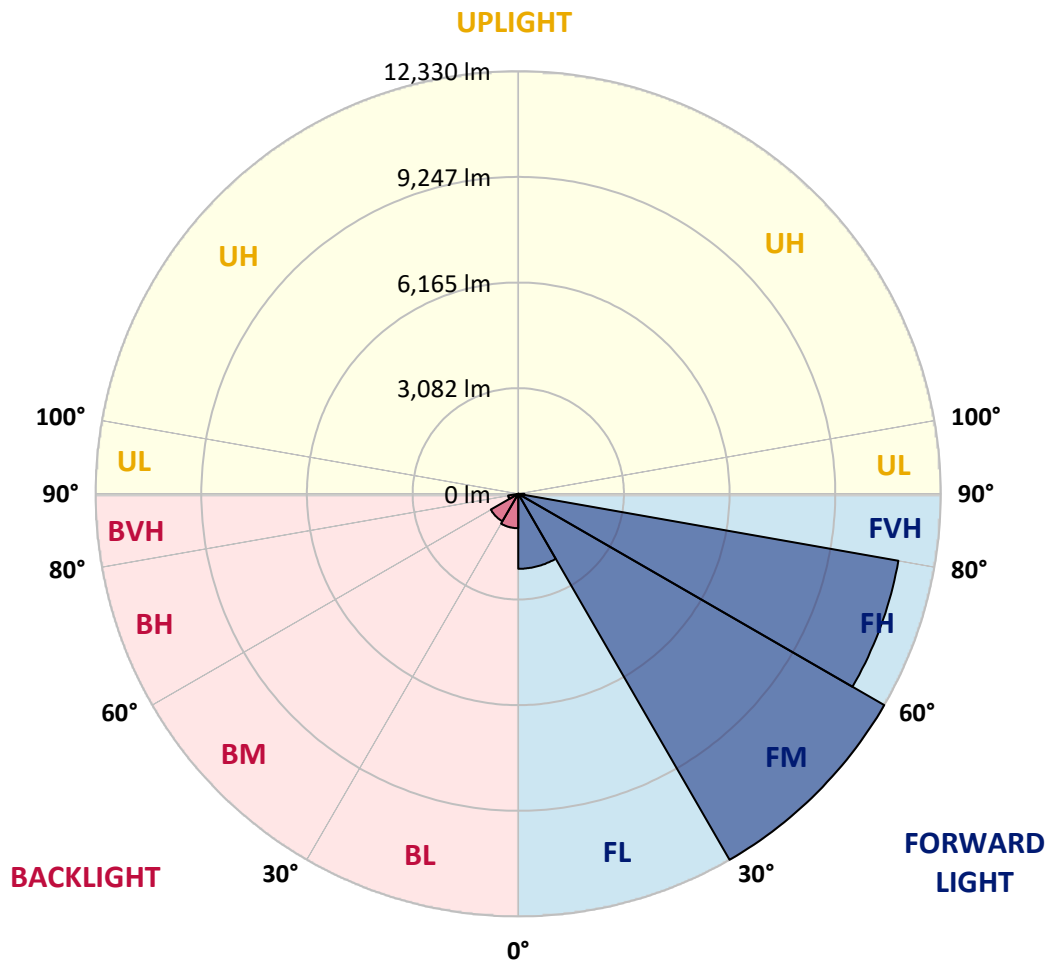


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2187.2	7.8			
FM (30°-60°)	12329.9	43.7			
FH (60°-80°)	11260.4	39.9			G4/12000
FVH (80°-90°)	181.5	0.6			G2/225
BL (0°-30°)	1004.6	3.6	B3/2500		
BM (30°-60°)	925.4	3.3	B1/1000		
BH (60°-80°)	299.0	1.1	B1/500		G1/500
BVH (80°-90°)	2.9	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7
2.5°	5277.2	5283.6	5306.4	5316.5	5340.5	5381.0	5401.3	5402.6	5435.5	5448.1	5458.3
5°	4903.8	4941.8	4979.8	5020.3	5093.7	5191.2	5287.4	5296.2	5402.6	5481.0	5522.8
7.5°	4582.3	4616.5	4662.0	4726.6	4830.4	4983.6	5144.3	5163.3	5364.6	5543.1	5636.7
10°	4251.9	4279.8	4345.6	4440.5	4583.6	4788.6	5005.1	5036.7	5330.4	5626.6	5791.2
12.5°	3898.8	3915.2	3995.0	4131.7	4341.8	4602.6	4887.4	4929.1	5308.9	5722.8	5973.4
15°	3630.4	3638.0	3713.9	3855.7	4096.2	4435.5	4796.2	4846.9	5314.0	5838.0	6172.2
17.5°	3562.0	3565.8	3606.3	3703.8	3916.5	4286.1	4724.1	4786.1	5329.1	5950.7	6372.2
20°	3839.3	3812.7	3770.9	3755.7	3846.9	4196.2	4681.0	4750.7	5349.4	6050.7	6551.9
22.5°	4600.0	4521.5	4348.1	4116.5	3976.0	4202.6	4692.4	4762.0	5414.0	6173.4	6759.5
25°	5729.1	5620.3	5325.3	4869.6	4431.7	4384.8	4787.4	4858.3	5539.3	6320.3	6958.3
27.5°	7014.0	6906.4	6545.6	5895.0	5148.1	4745.6	5005.1	5070.9	5725.3	6450.7	7110.2
30°	8244.3	8214.0	7788.6	7049.4	6049.4	5330.4	5286.1	5341.8	5863.3	6529.1	7230.4
32.5°	9287.4	9239.3	8897.5	8178.5	7081.0	6032.9	5616.5	5632.9	5967.1	6630.4	7387.4
35°	10254.5	10195.0	9895.0	9215.2	8139.3	6891.2	6125.3	6101.3	6193.7	6834.2	7615.2
37.5°	11098.8	11153.2	10820.3	10173.5	9088.7	7783.6	6811.4	6739.3	6548.1	7165.9	7945.6
40°	11805.1	11805.1	11631.7	11092.5	10114.0	8706.4	7587.4	7492.4	7081.0	7677.3	8364.6
42.5°	12059.6	12114.0	12178.5	11873.5	11031.7	9665.9	8451.9	8353.2	7831.7	8402.6	8893.7
45°	12074.7	12160.8	12491.2	12489.9	11860.8	10619.0	9426.6	9379.8	8793.7	9334.2	9549.4
47.5°	11860.8	11968.4	12512.7	12821.6	12517.8	11506.4	10492.5	10434.2	9924.1	10476.0	10235.5
50°	11530.4	11649.4	12282.3	12952.0	12964.6	12278.5	11615.2	11527.9	11168.4	11781.1	10944.4
52.5°	10939.3	11169.7	12076.0	12982.3	13258.3	12945.6	12683.6	12645.6	12560.8	13038.0	11508.9
55°	9674.7	9930.4	11558.3	12992.5	13530.4	13536.8	13684.9	13695.0	13865.9	14212.7	11929.2
57.5°	9077.3	9221.6	10654.5	13040.6	13934.2	14207.7	14705.1	14783.6	15048.2	15327.9	12408.9
60°	8701.3	8872.2	10208.9	12974.7	14568.4	15087.4	15650.7	15677.3	15960.8	16478.6	13058.3
62.5°	8401.3	8569.7	9927.9	12721.6	15281.1	16145.6	16574.8	16577.3	16790.0	17849.5	13796.3
65°	7660.8	7802.6	9359.5	12436.8	15752.0	17192.5	17648.2	17631.7	17805.2	19295.0	14653.2
67.5°	6589.9	6698.8	8198.8	11357.0	15574.8	18144.4	19268.4	19214.0	19003.9	20544.4	14989.9
70°	5095.0	5134.2	6462.1	9464.6	13914.0	18510.2	20834.3	20806.4	19739.3	20320.4	13755.8
71°	4211.4	4340.5	5695.0	8353.2	12801.3	18172.2	20986.2	21002.6	19554.5	19710.2	12906.4
72.5°	2445.6	2555.7	4127.9	6415.2	10868.4	16762.1	20198.8	20317.8	18691.2	17927.9	11024.1
75°	524.1	560.8	1530.4	3105.1	5978.5	11748.2	15943.1	16367.2	15234.3	12196.3	6644.3
77.5°	364.6	393.7	655.7	1408.9	1976.0	5805.1	9903.8	10382.3	9101.3	4583.6	2126.6
80°	288.6	321.5	511.4	696.2	534.2	1872.2	4639.3	4931.7	3035.5	1022.8	358.2
82.5°	160.8	191.1	398.7	376.0	205.1	355.7	1298.7	1468.4	607.6	206.3	84.8
85°	46.8	57.0	257.0	273.4	87.3	68.4	221.5	274.7	115.2	54.4	38.0
87.5°	0.0	0.0	124.1	105.1	25.3	10.1	20.3	22.8	22.8	22.8	25.3
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: P321754

CATALOG NUMBER: GLEON-SA0A-830-U-T3R-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7	5436.7
2.5°	5458.3	5467.1	5435.5	5393.7	5349.4	5295.0	5238.0	5193.7	5192.4	5170.9	5149.4
5°	5525.3	5520.3	5432.9	5300.0	5143.1	4979.8	4824.1	4648.1	4589.9	4517.7	4493.7
7.5°	5649.4	5614.0	5429.1	5138.0	4793.7	4451.9	4098.8	3743.1	3591.2	3454.4	3430.4
10°	5805.1	5738.0	5405.1	4895.0	4263.3	3632.9	3100.0	2616.5	2403.8	2240.5	2232.9
12.5°	5967.1	5864.6	5338.0	4527.9	3568.4	2682.3	2068.4	1592.4	1415.2	1301.3	1311.4
15°	6136.7	5983.6	5193.7	4032.9	2777.2	1820.3	1270.9	991.1	920.3	891.1	898.7
17.5°	6310.2	6065.9	4992.4	3436.7	1996.2	1174.7	879.8	801.3	801.3	807.6	810.1
20°	6460.8	6110.2	4696.2	2768.4	1353.2	855.7	769.6	758.2	764.6	774.7	776.0
22.5°	6610.2	6112.7	4310.1	2091.1	946.8	749.4	732.9	727.9	731.6	743.0	744.3
25°	6731.7	6082.3	3826.6	1487.3	755.7	706.3	698.7	696.2	698.7	712.7	712.7
27.5°	6781.0	5972.2	3236.7	1045.6	677.2	658.2	655.7	658.2	662.0	672.2	673.4
30°	6786.1	5779.8	2593.7	757.0	613.9	593.7	598.7	607.6	603.8	601.3	603.8
32.5°	6798.8	5557.0	1967.1	622.8	560.8	529.1	522.8	522.8	507.6	498.7	493.7
35°	6840.5	5295.0	1426.6	559.5	506.3	469.6	445.6	417.7	388.6	373.4	369.6
37.5°	6906.4	5020.3	1021.5	517.7	458.2	416.5	370.9	321.5	279.7	268.4	268.4
40°	7026.6	4736.7	755.7	484.8	420.3	368.4	300.0	235.4	197.5	191.1	191.1
42.5°	7216.5	4438.0	602.5	455.7	387.3	319.0	229.1	170.9	143.0	139.2	138.0
45°	7414.0	4108.9	526.6	427.9	351.9	262.0	169.6	126.6	110.1	106.3	106.3
47.5°	7611.4	3758.2	489.9	401.3	317.7	203.8	126.6	100.0	92.4	92.4	93.7
50°	7778.5	3392.4	463.3	372.2	273.4	154.4	100.0	84.8	82.3	87.3	88.6
52.5°	7820.3	3032.9	430.4	335.4	219.0	117.7	82.3	74.7	74.7	74.7	74.7
55°	7795.0	2754.4	387.3	289.9	162.0	93.7	70.9	65.8	64.6	64.6	64.6
57.5°	7881.1	2589.9	310.1	225.3	116.5	75.9	62.0	58.2	55.7	54.4	54.4
60°	8054.5	2482.3	221.5	162.0	87.3	63.3	53.2	49.4	45.6	43.0	43.0
62.5°	8284.9	2388.6	164.6	120.3	67.1	50.6	44.3	40.5	35.4	32.9	32.9
65°	8462.1	2221.5	125.3	89.9	50.6	40.5	34.2	32.9	25.3	22.8	21.5
67.5°	8191.2	1854.4	101.3	65.8	38.0	31.6	26.6	25.3	15.2	12.7	12.7
70°	7025.4	1291.1	81.0	48.1	27.8	25.3	21.5	16.5	11.4	10.1	10.1
71°	6370.9	1078.5	73.4	40.5	24.1	24.1	20.3	13.9	10.1	8.9	8.9
72.5°	5292.4	765.8	62.0	31.6	21.5	25.3	21.5	12.7	10.1	8.9	7.6
75°	3072.2	320.3	43.0	21.5	16.5	30.4	27.8	11.4	7.6	6.3	6.3
77.5°	924.1	117.7	24.1	13.9	12.7	26.6	31.6	10.1	3.8	1.3	1.3
80°	168.4	50.6	15.2	8.9	8.9	16.5	24.1	5.1	0.0	0.0	0.0
82.5°	59.5	25.3	8.9	5.1	3.8	7.6	11.4	0.0	0.0	0.0	0.0
85°	34.2	17.7	5.1	2.5	0.0	1.3	2.5	0.0	0.0	0.0	0.0
87.5°	22.8	5.1	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



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



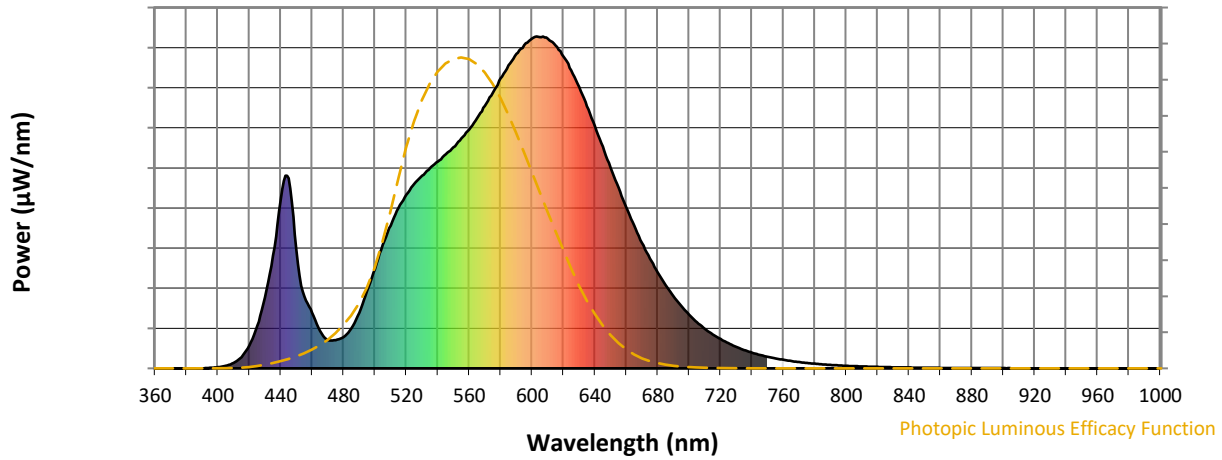
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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**



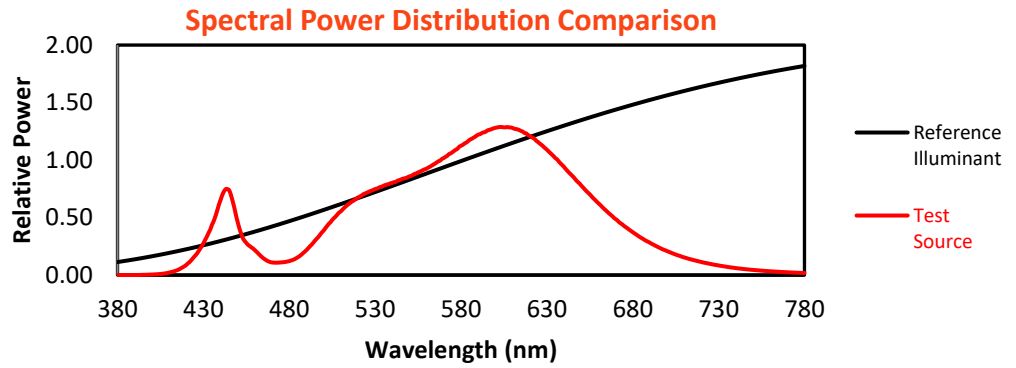
**Melanopic Lumens: NR**

**M/P: 2.32**

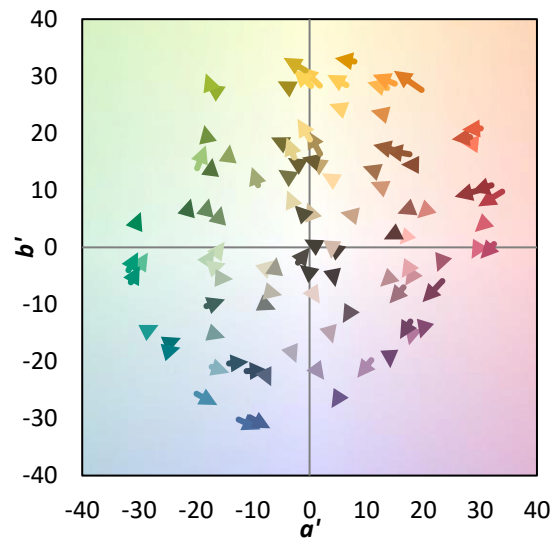
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625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

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



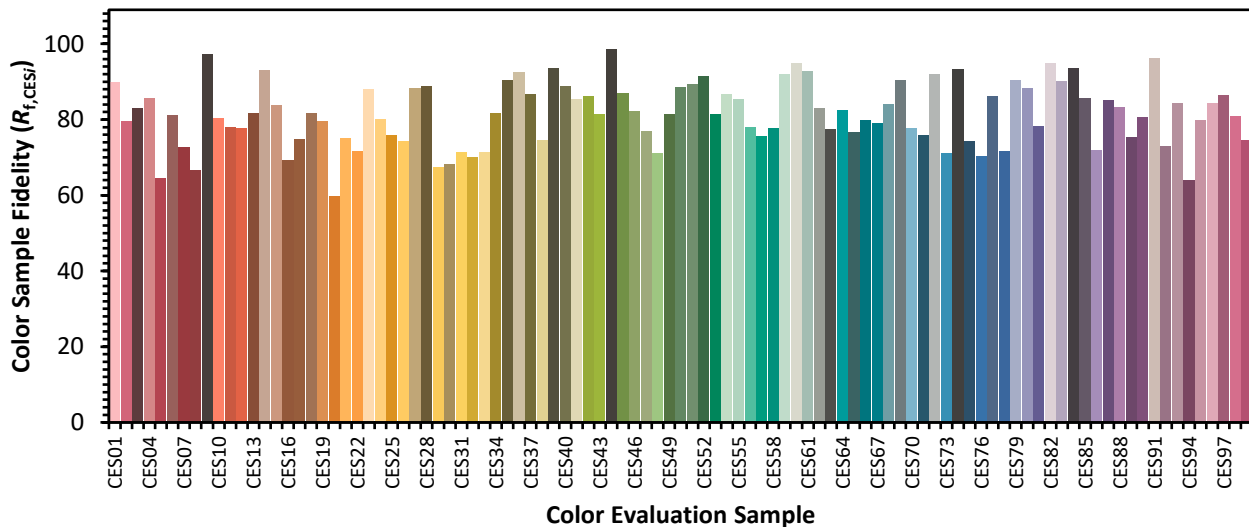
**Color Vector Graphics**



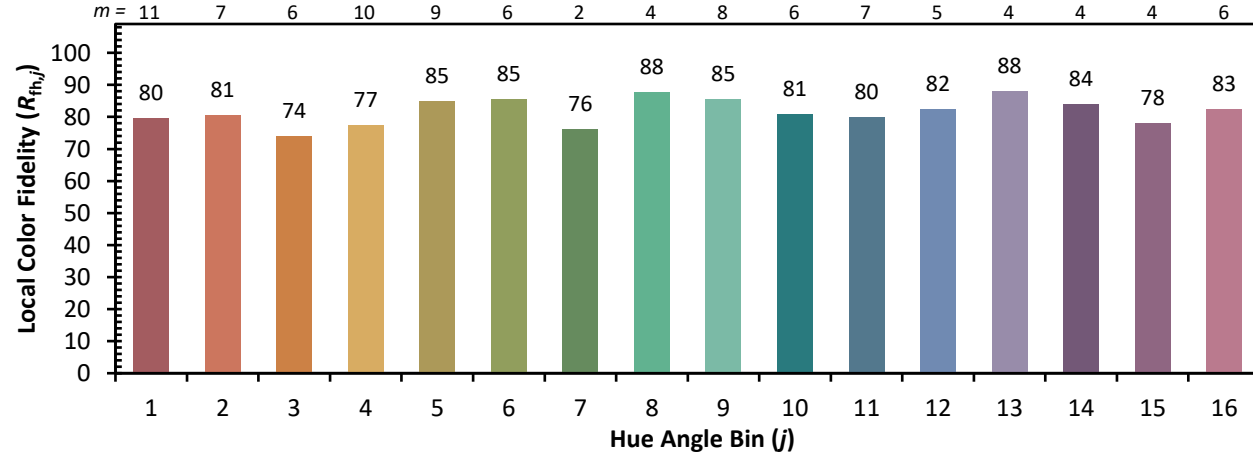


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)