

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: P324653

Luminaire Tested: **GLEON-SA9C-830-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324653
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9C-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37247 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

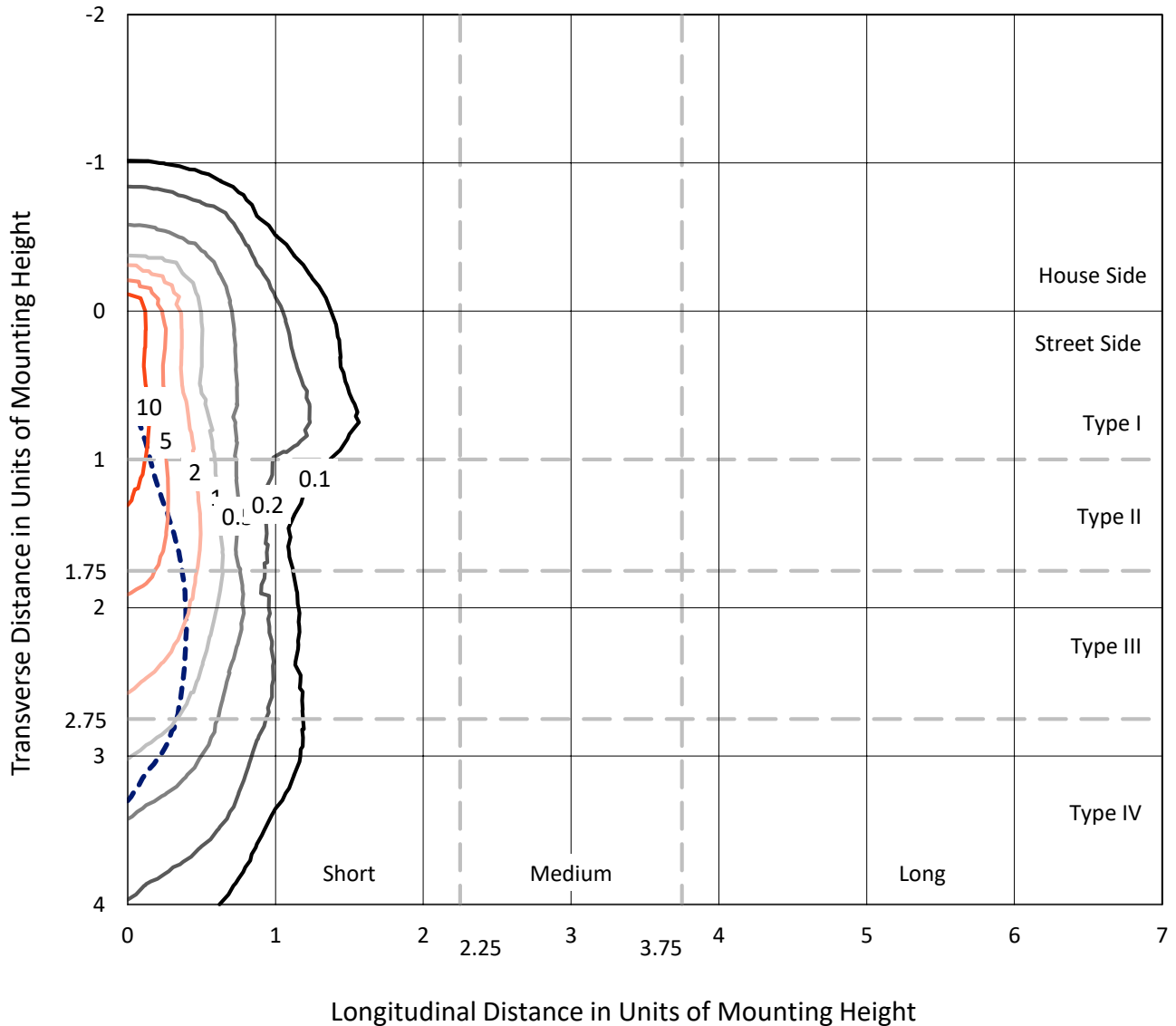
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P324653
 CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

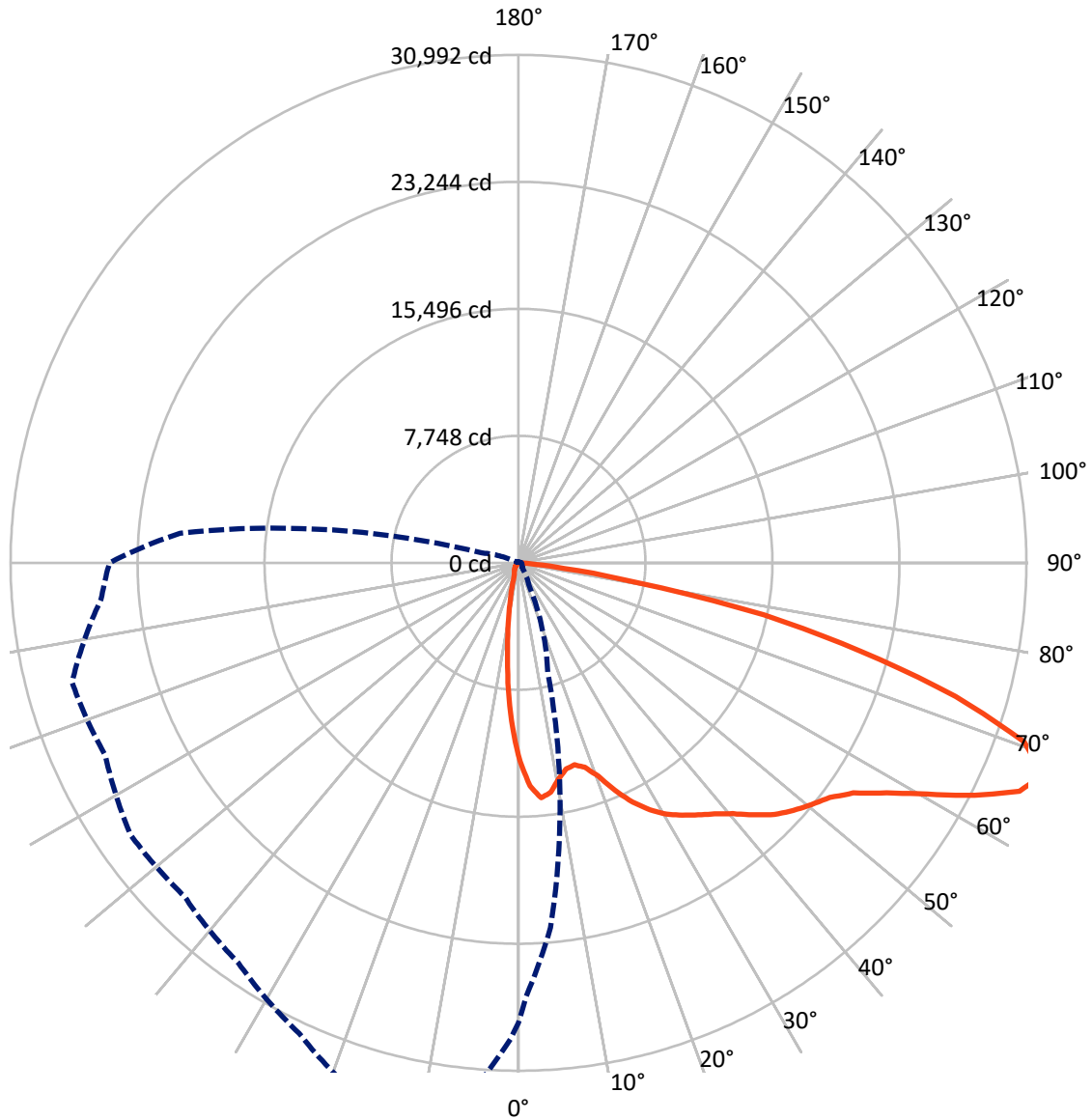
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.4 fc
 Type IV - Medium - N/A

REPORT NUMBER: P324653
CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 345-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P324653
 CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

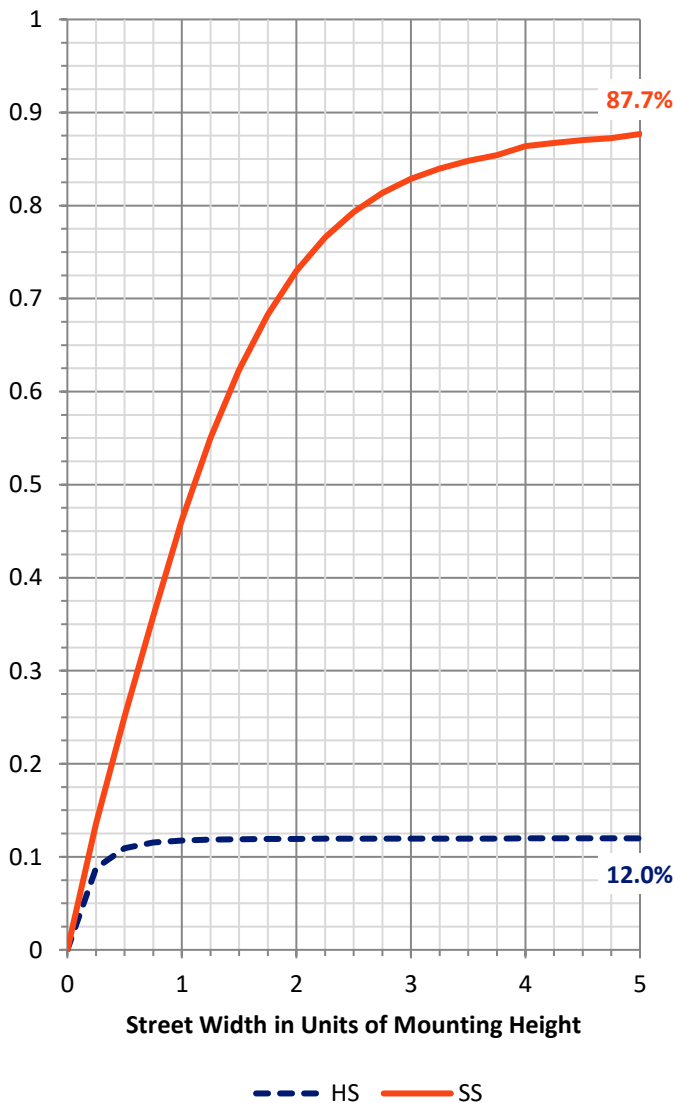
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4508.1	0.0	4508.1
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	32738.9	0.0	32738.9
	% Fixture	87.9	0.0	87.9
Total	Lumens	37247.0	0.0	37247.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	931.2	2.5
10°-20°	1853.5	5.0
20°-30°	2632.0	7.1
30°-40°	3887.7	10.4
40°-50°	5606.9	15.1
50°-60°	7870.9	21.1
60°-70°	9175.2	24.6
70°-80°	4690.5	12.6
80°-90°	599.0	1.6
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°	37247.0	100.0
0°-180°	37247.0	100.0

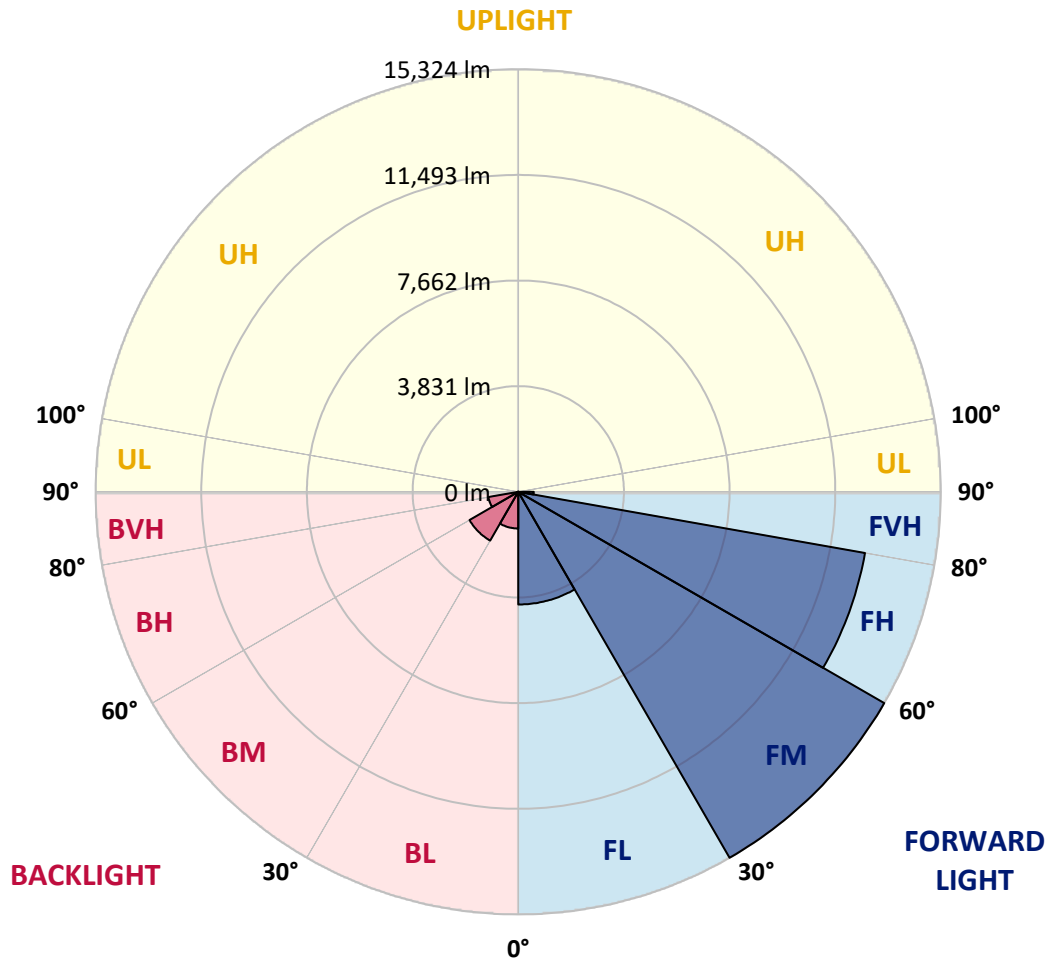


REPORT NUMBER: P324653
 CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4085.3	11.0			
FM (30°-60°)	15324.0	41.1			
FH (60°-80°)	12767.0	34.3			G5
FVH (80°-90°)	562.6	1.5			G4/750
BL (0°-30°)	1331.5	3.6	B3/2500		
BM (30°-60°)	2041.4	5.5	B2/2500		
BH (60°-80°)	1098.8	2.9	B3/2500		G3/2500
BVH (80°-90°)	36.4	0.1			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 IV Medium





REPORT NUMBER: P324653

CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1
2.5°	13285.4	13183.1	13070.1	12701.3	12359.0	11967.3	11647.9	11425.6	11146.7	10785.0	10693.3
5°	13190.1	13080.7	12726.0	11905.5	11187.3	10488.6	9814.5	9419.2	8928.7	8431.1	8307.6
7.5°	12232.0	12117.3	11605.5	10481.5	9514.5	8505.2	7630.0	7088.3	6534.2	6078.9	5837.2
10°	11235.0	11109.7	10534.4	9170.4	7979.4	7067.1	6424.8	5907.8	5383.7	4896.7	4508.5
12.5°	10548.6	10384.5	9759.8	8214.0	7176.5	6557.1	5957.2	5337.8	4628.5	4106.1	3679.1
15°	10260.9	10073.9	9413.9	7845.3	6892.4	6165.4	5383.7	4623.2	3792.0	3193.9	2802.1
17.5°	10483.3	10239.8	9532.2	7820.5	6535.9	5546.0	4557.9	3665.0	2763.3	2158.1	1879.3
20°	11238.5	10919.1	10021.0	7813.5	6103.6	4810.2	3557.4	2548.0	1821.0	1464.6	1318.1
22.5°	12427.8	12006.1	10723.3	7870.0	5657.2	4037.3	2569.2	1731.0	1367.5	1182.3	1095.8
25°	13864.2	13375.4	11734.3	8069.4	5265.5	3285.6	1866.9	1367.5	1154.0	1018.2	945.8
27.5°	15230.0	14832.9	13011.9	8357.0	4962.0	2678.6	1515.8	1159.3	986.4	896.4	838.2
30°	16594.0	16094.6	14323.0	8699.3	4596.7	2267.5	1332.2	1057.0	884.0	788.8	751.7
32.5°	17585.6	17171.0	15349.9	8946.3	4206.7	1999.3	1191.1	967.0	825.8	728.8	674.1
35°	18752.0	18282.6	16230.5	9001.0	3956.2	1829.9	1071.1	869.9	716.4	629.9	571.7
37.5°	20011.9	19427.8	17246.8	8881.0	3760.3	1746.9	981.1	825.8	668.8	580.5	518.8
40°	21405.9	20746.0	18222.7	8708.1	3567.9	1718.7	912.3	792.3	631.7	541.7	478.2
42.5°	22874.0	22095.9	19067.9	8526.4	3446.2	1621.6	905.2	758.8	603.5	506.4	442.9
45°	24107.5	23318.7	19936.0	8466.4	3359.7	1515.8	935.2	735.8	584.1	478.2	416.4
47.5°	25090.3	24343.9	20825.4	8600.5	3310.3	1418.7	852.3	765.8	573.5	453.5	393.5
50°	26263.8	25418.5	22078.2	9001.0	3238.0	1321.7	771.1	877.0	573.5	437.6	374.1
52.5°	27735.4	26899.0	23475.8	9622.2	3093.3	1187.6	693.5	878.8	578.8	416.4	349.4
55°	29586.4	28979.4	25471.5	10303.3	2862.1	989.9	600.0	755.2	557.6	377.6	326.4
57.5°	31361.6	30865.8	27290.7	10769.1	2553.3	772.9	522.3	608.8	510.0	331.7	291.2
59°	31846.8	31305.1	27957.7	10790.3	2322.2	674.1	483.5	502.9	499.4	310.6	270.0
60°	31846.8	31271.6	28150.1	10677.4	2154.5	619.4	458.8	448.2	520.5	296.4	257.6
62.5°	31269.8	30461.7	27525.4	9913.3	1757.5	527.6	400.6	370.6	467.6	266.4	227.6
65°	30069.9	28893.0	25397.4	8531.7	1566.9	483.5	345.9	303.5	324.7	234.7	199.4
67.5°	28068.9	26473.8	22328.8	6892.4	1491.1	471.1	298.2	257.6	245.3	201.2	174.7
70°	24545.1	22775.2	18603.8	5419.0	1425.8	465.8	250.6	217.0	197.6	169.4	148.2
72.5°	17864.4	16018.7	13207.8	4236.7	1386.9	476.4	201.2	181.8	162.3	132.3	114.7
75°	10218.6	9009.9	7423.5	2798.6	1182.3	455.3	155.3	151.8	116.5	95.3	79.4
77.5°	5279.6	5119.0	4448.5	1074.6	566.4	199.4	102.3	88.2	68.8	58.2	47.6
80°	2278.1	2253.3	1949.8	310.6	150.0	111.2	58.2	37.1	31.8	24.7	19.4
82.5°	787.0	787.0	693.5	104.1	67.1	54.7	7.1	0.0	0.0	0.0	0.0
85°	158.8	178.2	125.3	0.0	22.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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



REPORT NUMBER: P324653

CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1
2.5°	10582.1	10368.6	10354.5	10220.4	10052.7	9976.8	9932.7	10010.4	10105.7	10116.2	10259.2
5°	8214.0	7989.9	8083.5	7845.3	7892.9	7845.3	7767.6	7781.7	7824.1	7691.7	7855.8
7.5°	5768.4	5599.0	5706.6	5643.1	5727.8	5761.3	5713.7	5643.1	5434.9	5410.2	5553.1
10°	4347.9	4155.5	4040.9	3920.9	3947.3	4002.0	3984.4	3933.2	3800.9	3807.9	3945.6
12.5°	3493.8	3278.6	3050.9	2756.2	2683.9	2724.5	2683.9	2653.9	2526.9	2537.4	2659.2
15°	2650.4	2473.9	2235.7	1999.3	1870.4	1882.8	1769.9	1690.5	1611.0	1515.8	1589.9
17.5°	1789.3	1681.6	1611.0	1540.5	1386.9	1351.7	1208.7	1055.2	995.2	951.1	982.9
20°	1267.0	1208.7	1180.5	1177.0	1088.7	1044.6	905.2	809.9	779.9	771.1	790.5
22.5°	1058.7	1016.4	975.8	952.9	908.8	857.6	751.7	704.1	682.9	672.3	686.4
25°	921.1	889.3	847.0	808.2	790.5	735.8	659.9	624.7	610.5	600.0	607.0
27.5°	818.8	790.5	741.1	716.4	702.3	654.7	589.4	561.1	548.8	545.3	543.5
30°	737.6	711.1	665.2	637.0	612.3	570.0	531.1	502.9	490.5	487.0	483.5
32.5°	656.4	635.2	605.2	577.0	550.5	511.7	478.2	455.3	435.8	432.3	430.6
35°	554.1	532.9	517.0	515.3	490.5	453.5	428.8	398.8	382.9	377.6	379.4
37.5°	492.3	464.1	428.8	441.1	434.1	407.6	374.1	344.1	328.2	324.7	324.7
40°	453.5	423.5	382.9	361.7	382.9	377.6	324.7	294.7	278.8	277.0	273.5
42.5°	416.4	386.4	340.6	305.3	315.9	331.7	280.6	252.3	236.5	232.9	227.6
45°	390.0	358.2	307.0	266.4	245.3	278.8	240.0	204.7	195.9	188.8	185.3
47.5°	365.3	335.3	277.0	231.2	195.9	201.2	192.3	167.6	157.0	150.0	148.2
50°	344.1	312.3	250.6	197.6	162.3	148.2	155.3	132.3	123.5	116.5	112.9
52.5°	319.4	289.4	222.3	171.2	135.9	116.5	118.2	104.1	95.3	90.0	88.2
55°	300.0	270.0	199.4	150.0	120.0	95.3	84.7	81.2	75.9	72.3	70.6
57.5°	273.5	245.3	176.5	127.0	102.3	77.6	65.3	65.3	63.5	60.0	58.2
59°	257.6	232.9	162.3	114.7	93.5	67.1	58.2	60.0	58.2	54.7	52.9
60°	245.3	222.3	151.8	105.9	88.2	61.8	52.9	56.5	54.7	51.2	49.4
62.5°	217.0	201.2	130.6	88.2	77.6	49.4	44.1	47.6	47.6	45.9	44.1
65°	190.6	172.9	111.2	74.1	72.3	42.3	35.3	42.3	44.1	40.6	37.1
67.5°	165.9	148.2	97.1	60.0	67.1	33.5	26.5	35.3	47.6	37.1	33.5
70°	141.2	123.5	75.9	47.6	70.6	22.9	21.2	31.8	56.5	40.6	31.8
72.5°	109.4	95.3	52.9	35.3	75.9	15.9	15.9	26.5	63.5	44.1	30.0
75°	75.9	61.8	31.8	21.2	61.8	10.6	10.6	24.7	60.0	40.6	28.2
77.5°	44.1	33.5	10.6	1.8	31.8	0.0	1.8	17.6	42.3	24.7	12.4
80°	15.9	7.1	0.0	0.0	19.4	0.0	0.0	0.0	3.5	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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



REPORT NUMBER: P324653

CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1
2.5°	10296.2	10534.4	10748.0	11070.9	11453.8	11894.9	12274.3	12681.9	13064.8	13223.6	13333.0
5°	7889.4	8184.0	8528.1	9002.8	9634.5	10412.7	11141.5	11965.5	12851.3	13294.2	13710.7
7.5°	5577.8	5877.8	6304.8	6809.5	7573.5	8499.9	9452.8	10590.9	11790.8	12491.3	13181.3
10°	4010.9	4379.6	4778.4	5468.4	6244.8	7123.5	8104.6	9375.1	10712.7	11489.1	12320.2
12.5°	2729.8	3149.7	3753.2	4526.1	5438.4	6299.5	7151.8	8364.0	9916.8	10686.2	11577.3
15°	1637.5	1870.4	2509.2	3403.8	4522.6	5595.4	6528.9	7744.7	9399.8	10342.1	11268.5
17.5°	1009.3	1117.0	1464.6	2198.6	3373.8	4730.8	6010.1	7534.7	9473.9	10620.9	11612.6
20°	804.6	847.0	958.2	1298.7	2235.7	3777.9	5426.0	7492.3	10079.2	11490.8	12554.9
22.5°	698.8	739.4	813.5	944.0	1406.4	2828.6	4872.0	7531.2	10947.4	12794.9	14037.1
25°	615.8	651.1	721.7	829.3	1030.5	1992.2	4279.1	7704.1	12078.4	14413.0	15732.9
27.5°	550.5	580.5	645.8	744.6	884.0	1390.5	3606.8	7914.1	13419.5	16068.1	17370.4
30°	490.5	517.0	575.2	667.0	767.6	1069.3	2869.2	8057.0	14762.3	17370.4	18540.3
32.5°	439.4	458.8	511.7	589.4	667.0	852.3	2181.0	8034.1	15759.3	18453.8	19382.0
35°	386.4	405.8	451.7	518.8	580.5	704.1	1715.2	7605.3	16627.5	19577.8	20345.4
37.5°	328.2	352.9	397.0	457.0	499.4	619.4	1386.9	7088.3	17508.0	20862.4	21420.0
40°	278.8	303.5	342.3	407.6	434.1	587.6	1065.8	6458.3	18497.9	22298.8	22598.8
42.5°	231.2	254.1	294.7	351.1	409.4	506.4	788.8	5738.4	19449.0	23526.9	23673.4
45°	187.0	210.0	252.3	308.8	437.6	420.0	610.5	4967.2	20216.6	24548.6	24596.3
47.5°	148.2	169.4	213.5	291.2	407.6	335.3	435.8	4362.0	20860.7	25346.2	25220.9
50°	114.7	132.3	178.2	333.5	356.4	277.0	330.0	4160.8	21437.7	25840.3	25515.6
52.5°	90.0	105.9	146.5	312.3	277.0	229.4	277.0	4349.6	22228.2	26249.7	25681.5
55°	72.3	88.2	114.7	178.2	188.8	194.1	236.5	4526.1	23592.2	27209.6	26660.8
57.5°	60.0	75.9	93.5	125.3	142.9	164.1	210.0	4545.5	25199.7	28804.7	28286.0
59°	54.7	68.8	84.7	111.2	125.3	150.0	197.6	4439.6	25766.2	29385.3	29125.9
60°	51.2	65.3	79.4	102.3	116.5	141.2	190.6	4339.1	25790.9	29364.1	29484.1
62.5°	44.1	58.2	70.6	86.5	98.8	120.0	171.2	3966.7	24746.2	28402.4	29268.8
65°	38.8	51.2	63.5	74.1	84.7	107.6	155.3	3287.4	22962.3	26851.4	27795.4
67.5°	35.3	44.1	58.2	65.3	75.9	95.3	137.6	2343.3	20733.6	24954.5	25566.8
70°	31.8	42.3	52.9	60.0	68.8	82.9	118.2	1346.4	17508.0	22177.0	22612.9
72.5°	30.0	40.6	47.6	56.5	61.8	74.1	107.6	633.5	12819.6	17765.6	18903.8
75°	26.5	37.1	44.1	52.9	58.2	67.1	91.8	303.5	8526.4	12856.6	14150.0
77.5°	15.9	30.0	40.6	47.6	51.2	58.2	75.9	174.7	5441.9	8898.7	10481.5
80°	0.0	10.6	30.0	40.6	44.1	49.4	58.2	137.6	2911.5	5083.7	6101.9
82.5°	0.0	0.0	21.2	31.8	30.0	33.5	44.1	86.5	1312.8	3322.7	3744.4
85°	0.0	0.0	7.1	24.7	21.2	15.9	30.0	30.0	287.6	1681.6	2098.1
87.5°	0.0	0.0	0.0	1.8	10.6	7.1	12.4	3.5	1.8	125.3	508.2
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: P324653

CATALOG NUMBER: GLEON-SA9C-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1	12133.1
2.5°	13716.0	13846.5	14067.1	14171.2	14120.0	13903.0	13643.6	13378.9	13223.6	13285.4
5°	14559.4	15231.7	15619.9	15748.7	15533.5	15046.4	14409.4	13569.5	13271.3	13190.1
7.5°	14559.4	15824.6	16625.7	16766.9	16286.9	15332.3	14137.7	12826.6	12390.8	12232.0
10°	14047.7	15769.9	16886.9	17111.0	16440.4	15012.9	13412.4	11916.1	11399.1	11235.0
12.5°	13470.7	15325.2	16502.2	16811.0	16260.5	14695.3	12909.5	11300.3	10691.5	10548.6
15°	13116.0	14778.2	15752.3	15976.4	15743.4	14510.0	12789.6	11115.0	10398.6	10260.9
17.5°	13243.1	14354.7	14705.9	14836.5	14993.5	14444.7	13116.0	11520.8	10613.9	10483.3
20°	13721.2	13908.3	13726.5	13890.6	14314.1	14508.2	13894.2	12501.9	11413.2	11238.5
22.5°	14532.9	13677.1	13167.2	13232.5	13747.7	14718.2	15083.5	13903.0	12646.6	12427.8
25°	15478.8	13864.2	12856.6	12798.4	13327.8	14995.3	16170.5	15427.6	14105.9	13864.2
27.5°	16668.1	14284.1	12793.1	12734.9	13181.3	15254.7	17073.9	16934.5	15642.9	15230.0
30°	17585.6	14697.1	12981.9	12847.8	13327.8	15434.6	17799.2	18213.8	16867.5	16594.0
32.5°	18243.8	15184.1	13288.9	13094.8	13740.7	15745.2	18358.5	19385.5	18000.3	17585.6
35°	18745.0	15713.4	13784.8	13465.4	14308.8	16216.3	18882.6	20633.0	19205.5	18752.0
37.5°	19214.3	16456.3	14559.4	14178.3	15200.0	16975.1	19436.7	22048.2	20553.6	20011.9
40°	19869.0	17298.0	15754.0	15415.2	16698.1	18009.1	20128.4	23523.4	22087.0	21405.9
42.5°	20523.6	18201.5	16976.9	17068.6	18566.7	19265.5	21021.2	25083.3	23601.0	22874.0
45°	21121.8	19133.2	18718.5	19142.0	20301.3	20643.6	21908.8	25985.0	24809.8	24107.5
47.5°	21654.7	20297.8	20449.5	21577.1	22274.1	21891.2	22572.3	26763.1	25709.7	25090.3
50°	22274.1	21804.7	22731.1	24326.3	24545.1	23020.5	23175.8	27684.2	26761.4	26263.8
52.5°	22951.7	23392.8	25258.0	26664.3	26593.7	24246.9	23782.8	28716.5	28203.0	27735.4
55°	23721.0	24675.7	27483.1	28852.4	28792.4	25616.2	24788.6	29992.3	30009.9	29586.4
57.5°	24862.7	25780.3	28993.5	30622.2	30722.8	27197.2	26493.2	31421.6	31643.9	31361.6
59°	25681.5	26496.7	29591.7	31361.6	31771.0	28420.1	27738.9	32250.9	32104.5	31846.8
60°	26288.5	26951.9	29888.2	31748.0	32379.7	29249.4	28658.3	32738.0	32159.2	31846.8
62.5°	27790.1	27943.6	30422.8	32185.6	33080.3	31091.6	31245.1	33567.3	31779.8	31269.8
65°	28490.6	28570.1	30415.8	31402.2	32402.7	32526.2	33592.0	33592.0	30853.4	30069.9
67.5°	28197.7	27814.8	28907.1	28804.7	29803.5	31673.9	34474.3	32360.3	29081.8	28068.9
70°	25815.6	24342.2	23856.9	23901.0	24665.1	27550.1	32727.4	28735.9	25729.1	24545.1
72.5°	21480.0	17945.6	16747.5	18115.0	18314.4	21173.0	27890.7	21640.6	18974.4	17864.4
75°	17276.8	12650.2	10702.1	12145.5	12484.3	15494.6	21575.3	13477.7	11083.2	10218.6
77.5°	12411.9	9080.4	7679.4	7578.8	8016.4	9826.9	15309.4	6783.0	5657.2	5279.6
80°	7051.2	5976.6	6435.4	6071.9	6292.4	6144.2	7273.5	2975.1	2436.9	2278.1
82.5°	4256.1	3532.7	3825.6	3185.0	4030.3	3509.7	2802.1	952.9	827.6	787.0
85°	2768.6	1930.4	1005.8	674.1	1388.7	2242.8	626.4	259.4	199.4	158.8
87.5°	954.6	492.3	49.4	21.2	148.2	418.2	22.9	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

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



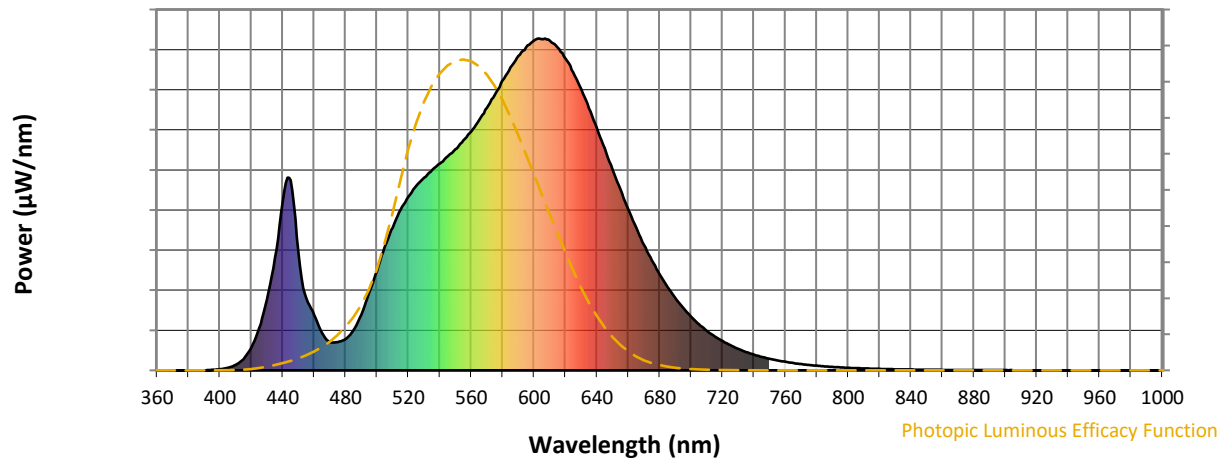
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



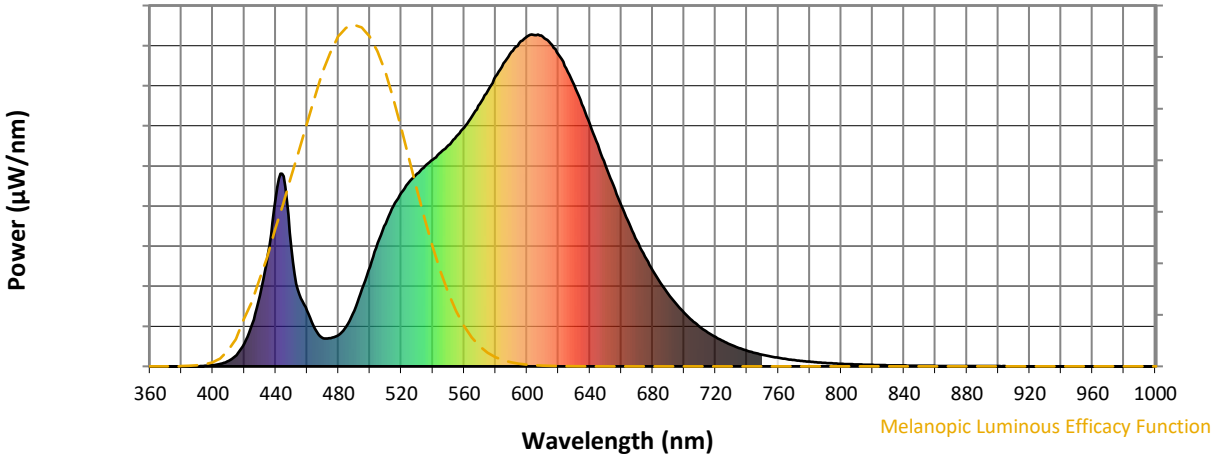
Scotopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

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			

Summary

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



Color Vector Graphics

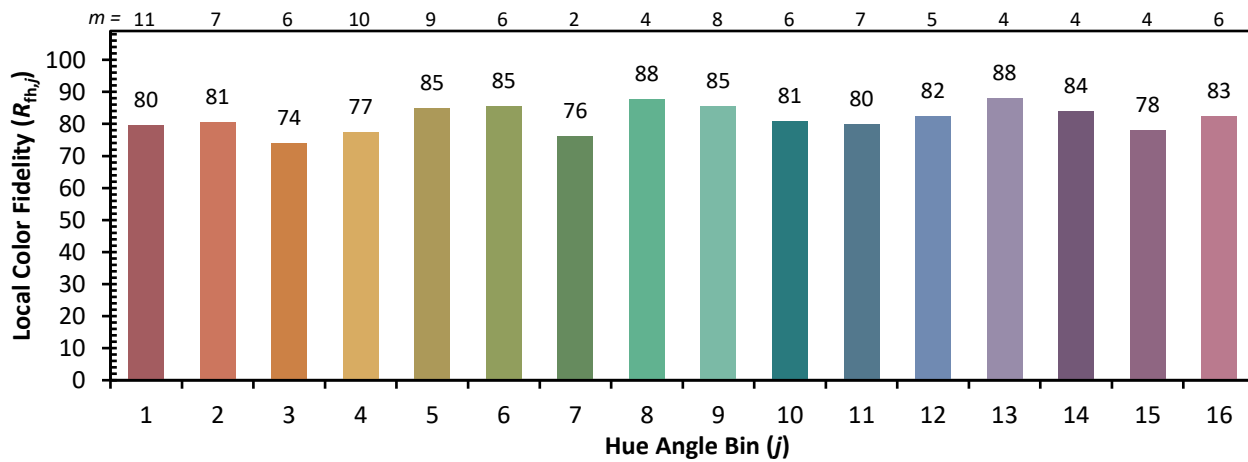
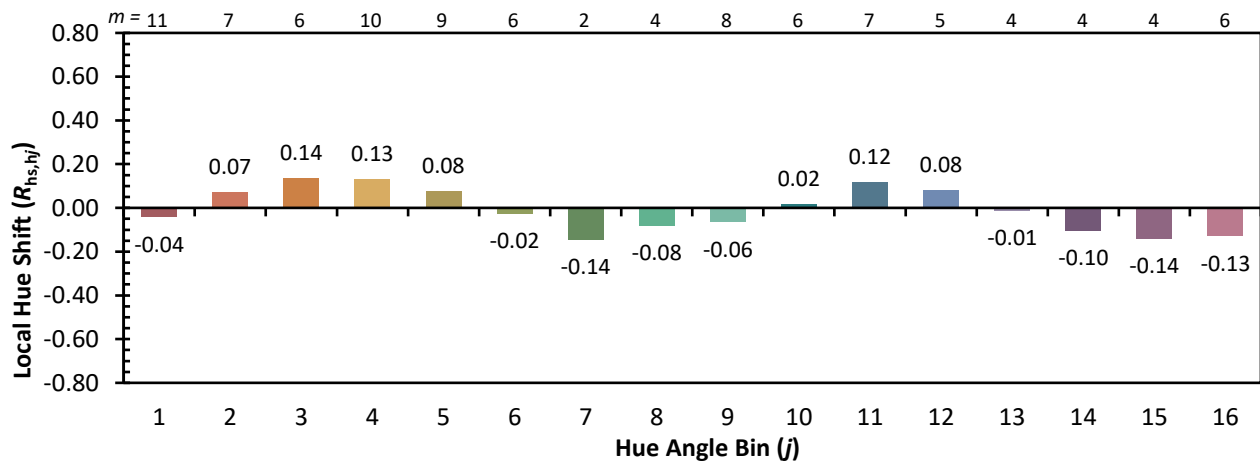
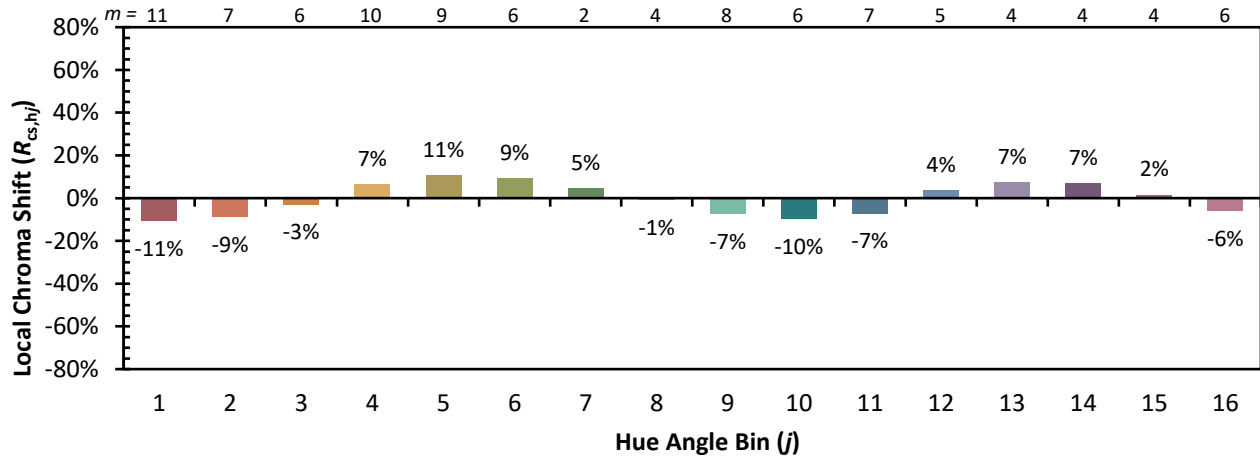


Individual Sample Fidelity Index ($R_{f,i}$)

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)