

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: P324643

Luminaire Tested: **GLEON-SA9B-830-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324643
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-SA9B-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 800mA 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: 30094 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

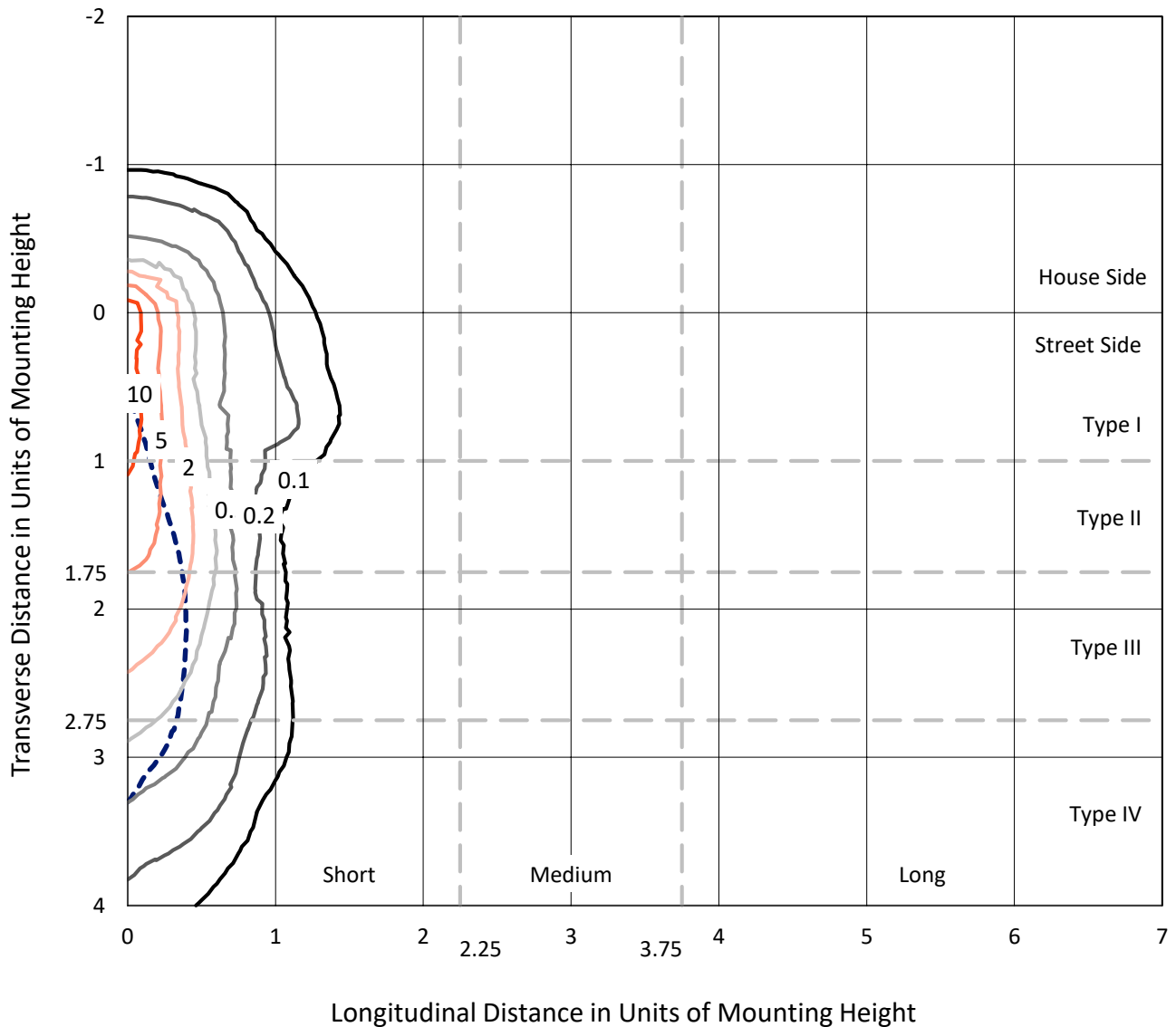
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P324643
 CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

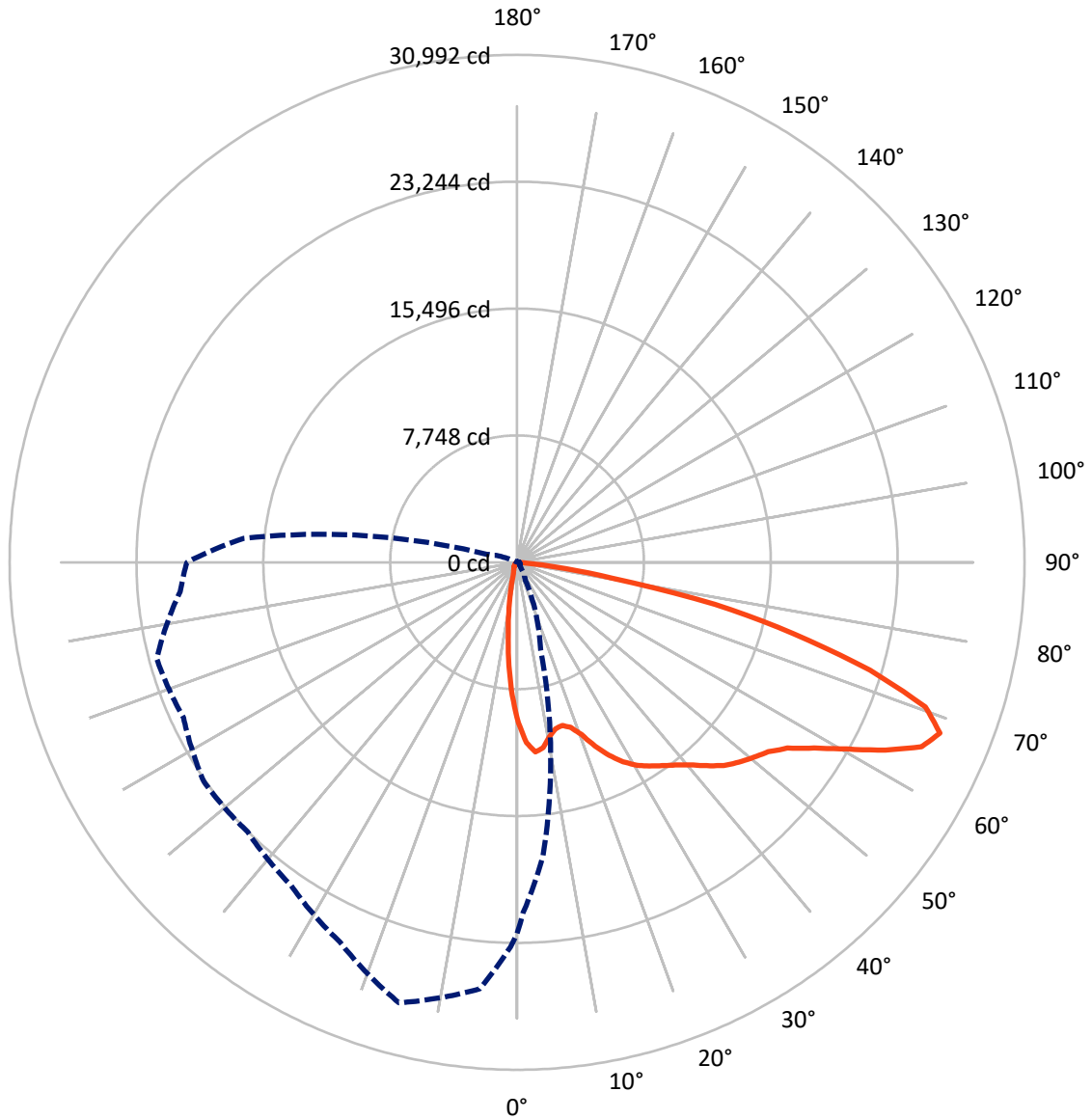
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.7 fc
 Type IV - Medium - N/A

REPORT NUMBER: P324643
CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P324643
 CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

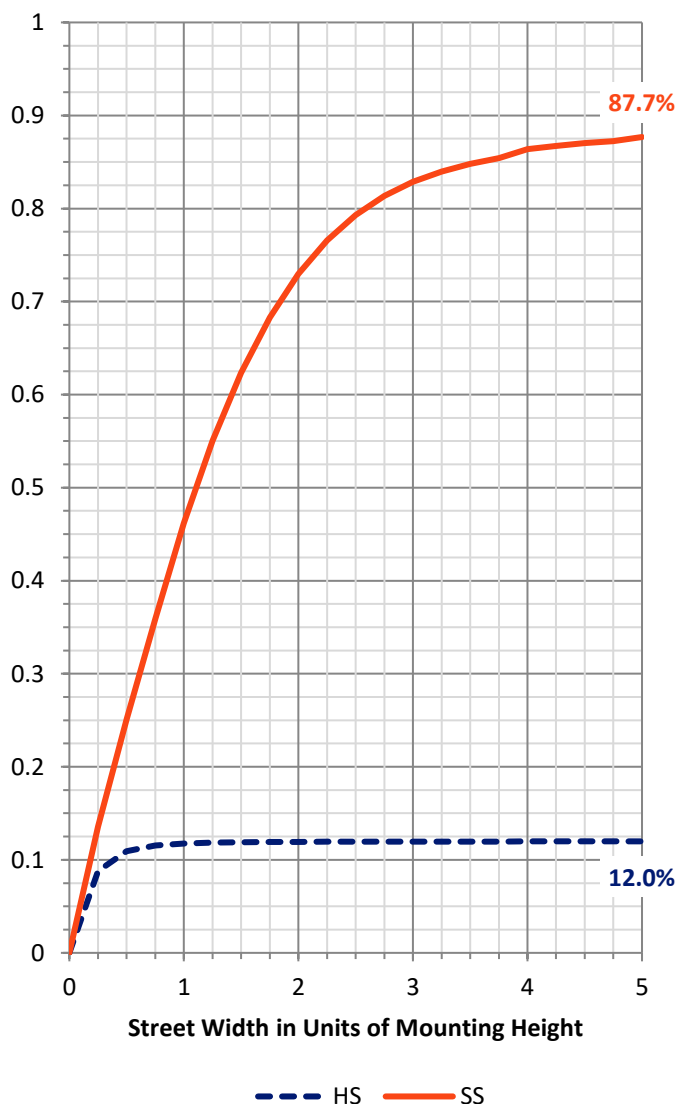
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3642.4	0.0	3642.4
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	26451.6	0.0	26451.6
	% Fixture	87.9	0.0	87.9
Total	Lumens	30094.0	0.0	30094.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	752.4	2.5
10°-20°	1497.6	5.0
20°-30°	2126.6	7.1
30°-40°	3141.1	10.4
40°-50°	4530.1	15.1
50°-60°	6359.3	21.1
60°-70°	7413.2	24.6
70°-80°	3789.8	12.6
80°-90°	484.0	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°	30094.0	100.0
0°-180°	30094.0	100.0

Coefficient of Utilization

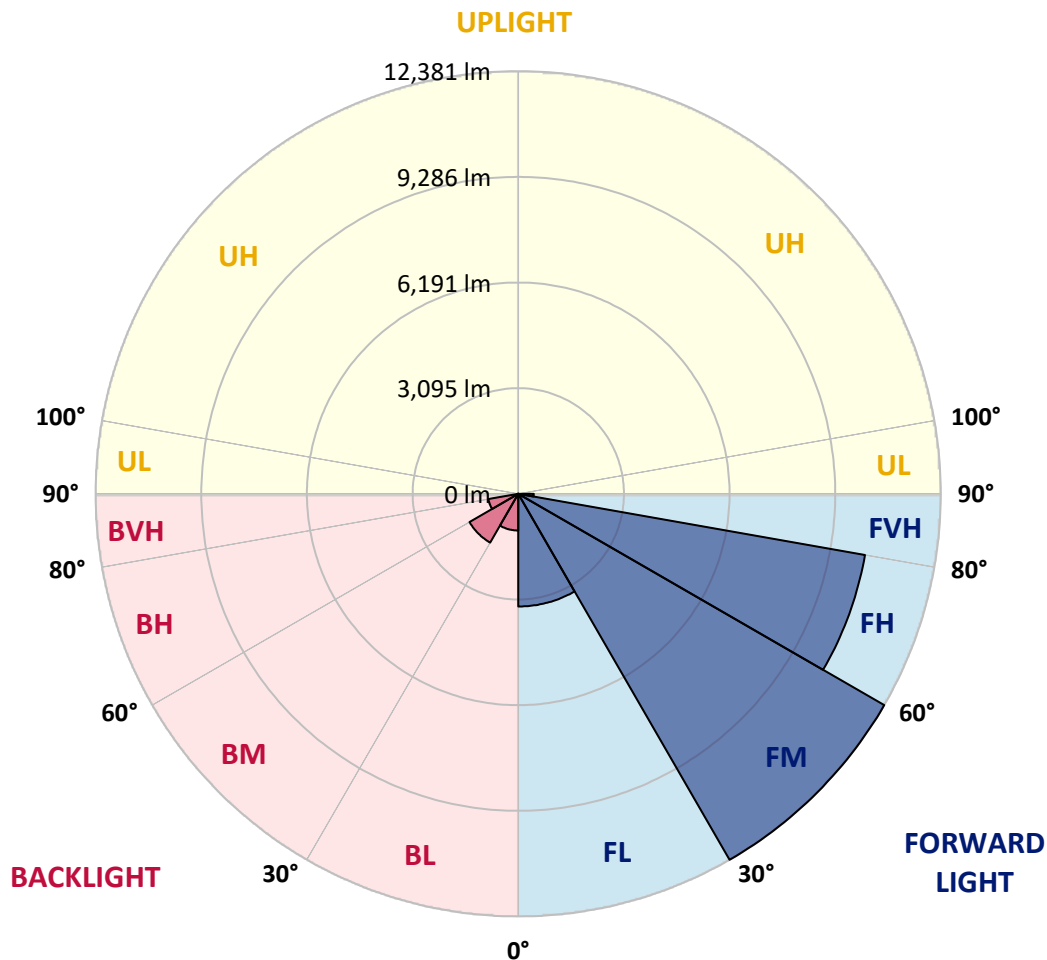


REPORT NUMBER: P324643
 CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3300.7	11.0			
FM (30°-60°)	12381.2	41.1			
FH (60°-80°)	10315.2	34.3			G4/12000
FVH (80°-90°)	454.6	1.5			G3/500
BL (0°-30°)	1075.8	3.6	B3/2500		
BM (30°-60°)	1649.4	5.5	B2/2500		
BH (60°-80°)	887.7	2.9	B2/1000		G2/1000
BVH (80°-90°)	29.4	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-G4
 Type IV Medium





REPORT NUMBER: P324643

CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1
2.5°	10734.0	10651.4	10560.1	10262.1	9985.6	9669.0	9411.0	9231.4	9006.1	8713.8	8639.7
5°	10657.1	10568.7	10282.1	9619.2	9038.9	8474.3	7929.7	7610.3	7214.0	6812.0	6712.2
7.5°	9882.9	9790.2	9376.8	8468.6	7687.3	6871.8	6164.7	5727.0	5279.3	4911.5	4716.2
10°	9077.4	8976.2	8511.4	7409.3	6447.0	5709.9	5190.9	4773.2	4349.8	3956.3	3642.6
12.5°	8522.8	8390.2	7885.5	6636.6	5798.3	5297.9	4813.1	4312.7	3739.6	3317.6	2972.6
15°	8290.4	8139.3	7606.1	6338.6	5568.8	4981.4	4349.8	3735.3	3063.8	2580.5	2264.0
17.5°	8470.0	8273.3	7701.6	6318.7	5280.8	4481.0	3682.6	2961.2	2232.6	1743.6	1518.4
20°	9080.2	8822.2	8096.5	6313.0	4931.5	3886.4	2874.2	2058.7	1471.3	1183.3	1065.0
22.5°	10041.2	9700.4	8663.9	6358.6	4570.8	3262.0	2075.8	1398.6	1104.9	955.2	885.4
25°	11201.7	10806.8	9480.9	6519.7	4254.3	2654.6	1508.4	1104.9	932.4	822.6	764.2
27.5°	12305.2	11984.4	10513.1	6752.1	4009.0	2164.2	1224.7	936.7	797.0	724.3	677.2
30°	13407.2	13003.7	11572.3	7028.7	3713.9	1832.0	1076.4	854.0	714.3	637.3	607.3
32.5°	14208.5	13873.4	12402.1	7228.3	3398.9	1615.3	962.3	781.3	667.2	588.8	544.6
35°	15150.8	14771.6	13113.5	7272.5	3196.4	1478.4	865.4	702.9	578.8	509.0	461.9
37.5°	16168.8	15696.9	13934.7	7175.5	3038.2	1411.4	792.7	667.2	540.3	469.1	419.2
40°	17295.1	16761.9	14723.1	7035.8	2882.8	1388.6	737.1	640.1	510.4	437.7	386.4
42.5°	18481.3	17852.5	15406.0	6888.9	2784.4	1310.2	731.4	613.0	487.6	409.2	357.8
45°	19477.8	18840.5	16107.5	6840.5	2714.5	1224.7	755.6	594.5	471.9	386.4	336.5
47.5°	20271.9	19668.9	16826.0	6948.8	2674.6	1146.3	688.6	618.8	463.4	366.4	317.9
50°	21220.0	20537.1	17838.3	7272.5	2616.1	1067.8	623.0	708.6	463.4	353.6	302.2
52.5°	22409.0	21733.3	18967.4	7774.3	2499.2	959.5	560.3	710.0	467.6	336.5	282.3
55°	23904.6	23414.2	20579.9	8324.6	2312.5	799.8	484.7	610.2	450.5	305.1	263.8
57.5°	25338.8	24938.2	22049.8	8701.0	2063.0	624.5	422.0	491.9	412.0	268.0	235.2
59°	25730.9	25293.2	22588.7	8718.1	1876.2	544.6	390.6	406.3	403.5	250.9	218.1
60°	25730.9	25266.1	22744.1	8626.9	1740.8	500.4	370.7	362.1	420.6	239.5	208.2
62.5°	25264.7	24611.7	22239.4	8009.5	1420.0	426.3	323.6	299.4	377.8	215.3	183.9
65°	24295.2	23344.3	20520.0	6893.2	1266.0	390.6	279.4	245.2	262.3	189.6	161.1
67.5°	22678.5	21389.7	18040.7	5568.8	1204.7	380.7	240.9	208.2	198.2	162.5	141.1
70°	19831.4	18401.4	15031.1	4378.3	1152.0	376.4	202.4	175.4	159.7	136.9	119.8
72.5°	14433.7	12942.4	10671.3	3423.1	1120.6	384.9	162.5	146.8	131.2	106.9	92.7
75°	8256.2	7279.6	5997.9	2261.1	955.2	367.8	125.5	122.6	94.1	77.0	64.2
77.5°	4265.7	4135.9	3594.2	868.2	457.6	161.1	82.7	71.3	55.6	47.0	38.5
80°	1840.6	1820.6	1575.4	250.9	121.2	89.8	47.0	29.9	25.7	20.0	15.7
82.5°	635.9	635.9	560.3	84.1	54.2	44.2	5.7	0.0	0.0	0.0	0.0
85°	128.3	144.0	101.2	0.0	18.5	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: P324643

CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1
2.5°	8549.9	8377.4	8366.0	8257.6	8122.2	8060.9	8025.2	8088.0	8164.9	8173.5	8289.0
5°	6636.6	6455.5	6531.1	6338.6	6377.1	6338.6	6275.9	6287.3	6321.5	6214.6	6347.2
7.5°	4660.6	4523.7	4610.7	4559.4	4627.8	4654.9	4616.4	4559.4	4391.1	4371.2	4486.7
10°	3512.9	3357.5	3264.8	3167.9	3189.3	3233.5	3219.2	3177.9	3070.9	3076.6	3187.8
12.5°	2822.9	2648.9	2465.0	2226.9	2168.5	2201.3	2168.5	2144.2	2041.6	2050.1	2148.5
15°	2141.4	1998.8	1806.4	1615.3	1511.2	1521.2	1430.0	1365.8	1301.7	1224.7	1284.5
17.5°	1445.7	1358.7	1301.7	1244.6	1120.6	1092.1	976.6	852.6	804.1	768.4	794.1
20°	1023.6	976.6	953.8	950.9	879.7	844.0	731.4	654.4	630.2	623.0	638.7
22.5°	855.4	821.2	788.4	769.9	734.2	692.9	607.3	568.9	551.7	543.2	554.6
25°	744.2	718.5	684.3	653.0	638.7	594.5	533.2	504.7	493.3	484.7	490.4
27.5°	661.5	638.7	598.8	578.8	567.4	528.9	476.2	453.4	443.4	440.5	439.1
30°	595.9	574.6	537.5	514.7	494.7	460.5	429.1	406.3	396.3	393.5	390.6
32.5°	530.4	513.2	489.0	466.2	444.8	413.5	386.4	367.8	352.1	349.3	347.9
35°	447.7	430.6	417.7	416.3	396.3	366.4	346.4	322.2	309.4	305.1	306.5
37.5°	397.8	375.0	346.4	356.4	350.7	329.3	302.2	278.0	265.2	262.3	262.3
40°	366.4	342.2	309.4	292.3	309.4	305.1	262.3	238.1	225.3	223.8	221.0
42.5°	336.5	312.2	275.2	246.6	255.2	268.0	226.7	203.9	191.0	188.2	183.9
45°	315.1	289.4	248.1	215.3	198.2	225.3	193.9	165.4	158.3	152.5	149.7
47.5°	295.1	270.9	223.8	186.8	158.3	162.5	155.4	135.4	126.9	121.2	119.8
50°	278.0	252.3	202.4	159.7	131.2	119.8	125.5	106.9	99.8	94.1	91.2
52.5°	258.1	233.8	179.6	138.3	109.8	94.1	95.5	84.1	77.0	72.7	71.3
55°	242.4	218.1	161.1	121.2	96.9	77.0	68.4	65.6	61.3	58.5	57.0
57.5°	221.0	198.2	142.6	102.6	82.7	62.7	52.8	52.8	51.3	48.5	47.0
59°	208.2	188.2	131.2	92.7	75.6	54.2	47.0	48.5	47.0	44.2	42.8
60°	198.2	179.6	122.6	85.5	71.3	49.9	42.8	45.6	44.2	41.3	39.9
62.5°	175.4	162.5	105.5	71.3	62.7	39.9	35.6	38.5	38.5	37.1	35.6
65°	154.0	139.7	89.8	59.9	58.5	34.2	28.5	34.2	35.6	32.8	29.9
67.5°	134.0	119.8	78.4	48.5	54.2	27.1	21.4	28.5	38.5	29.9	27.1
70°	114.1	99.8	61.3	38.5	57.0	18.5	17.1	25.7	45.6	32.8	25.7
72.5°	88.4	77.0	42.8	28.5	61.3	12.8	12.8	21.4	51.3	35.6	24.2
75°	61.3	49.9	25.7	17.1	49.9	8.6	8.6	20.0	48.5	32.8	22.8
77.5°	35.6	27.1	8.6	1.4	25.7	0.0	1.4	14.3	34.2	20.0	10.0
80°	12.8	5.7	0.0	0.0	15.7	0.0	0.0	0.0	2.9	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: P324643

CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1
2.5°	8318.9	8511.4	8683.9	8944.8	9254.2	9610.6	9917.1	10246.5	10555.8	10684.1	10772.5
5°	6374.3	6612.4	6890.4	7273.9	7784.3	8413.0	9001.8	9667.6	10383.3	10741.2	11077.6
7.5°	4506.6	4749.0	5094.0	5501.7	6119.1	6867.6	7637.4	8557.0	9526.5	10092.5	10649.9
10°	3240.6	3538.6	3860.8	4418.2	5045.5	5755.5	6548.2	7574.7	8655.4	9282.7	9954.2
12.5°	2205.5	2544.9	3032.4	3656.9	4394.0	5089.7	5778.3	6757.8	8012.4	8634.0	9354.0
15°	1323.0	1511.2	2027.3	2750.2	3654.1	4520.9	5275.1	6257.4	7594.7	8356.0	9104.5
17.5°	815.5	902.5	1183.3	1776.4	2725.9	3822.3	4855.9	6087.7	7654.5	8581.2	9382.5
20°	650.1	684.3	774.2	1049.3	1806.4	3052.4	4384.0	6053.5	8143.6	9284.1	10143.8
22.5°	564.6	597.4	657.2	762.7	1136.3	2285.4	3936.3	6084.9	8845.0	10337.7	11341.4
25°	497.6	526.1	583.1	670.1	832.6	1609.6	3457.3	6224.6	9758.9	11645.1	12711.5
27.5°	444.8	469.1	521.8	601.6	714.3	1123.4	2914.1	6394.2	10842.4	12982.4	14034.5
30°	396.3	417.7	464.8	538.9	620.2	864.0	2318.2	6509.7	11927.3	14034.5	14979.8
32.5°	355.0	370.7	413.5	476.2	538.9	688.6	1762.2	6491.2	12732.9	14909.9	15659.8
35°	312.2	327.9	365.0	419.2	469.1	568.9	1385.8	6144.7	13434.3	15818.1	16438.2
37.5°	265.2	285.1	320.8	369.3	403.5	500.4	1120.6	5727.0	14145.7	16856.0	17306.5
40°	225.3	245.2	276.6	329.3	350.7	474.8	861.1	5218.0	14945.5	18016.5	18258.8
42.5°	186.8	205.3	238.1	283.7	330.8	409.2	637.3	4636.4	15714.0	19008.8	19127.1
45°	151.1	169.7	203.9	249.5	353.6	339.3	493.3	4013.3	16334.2	19834.2	19872.7
47.5°	119.8	136.9	172.5	235.2	329.3	270.9	352.1	3524.3	16854.5	20478.7	20377.4
50°	92.7	106.9	144.0	269.5	288.0	223.8	266.6	3361.8	17320.7	20877.8	20615.5
52.5°	72.7	85.5	118.3	252.3	223.8	185.3	223.8	3514.3	17959.5	21208.6	20749.5
55°	58.5	71.3	92.7	144.0	152.5	156.8	191.0	3656.9	19061.5	21984.2	21540.8
57.5°	48.5	61.3	75.6	101.2	115.5	132.6	169.7	3672.6	20360.3	23273.0	22853.9
59°	44.2	55.6	68.4	89.8	101.2	121.2	159.7	3587.0	20818.0	23742.1	23532.5
60°	41.3	52.8	64.2	82.7	94.1	114.1	154.0	3505.8	20837.9	23725.0	23821.9
62.5°	35.6	47.0	57.0	69.9	79.8	96.9	138.3	3205.0	19993.9	22948.0	23648.0
65°	31.4	41.3	51.3	59.9	68.4	87.0	125.5	2656.1	18552.5	21694.8	22457.5
67.5°	28.5	35.6	47.0	52.8	61.3	77.0	111.2	1893.3	16751.9	20162.1	20656.9
70°	25.7	34.2	42.8	48.5	55.6	67.0	95.5	1087.8	14145.7	17918.1	18270.3
72.5°	24.2	32.8	38.5	45.6	49.9	59.9	87.0	511.8	10357.7	14353.9	15273.4
75°	21.4	29.9	35.6	42.8	47.0	54.2	74.1	245.2	6888.9	10387.6	11432.6
77.5°	12.8	24.2	32.8	38.5	41.3	47.0	61.3	141.1	4396.8	7189.8	8468.6
80°	0.0	8.6	24.2	32.8	35.6	39.9	47.0	111.2	2352.4	4107.4	4930.0
82.5°	0.0	0.0	17.1	25.7	24.2	27.1	35.6	69.9	1060.7	2684.6	3025.3
85°	0.0	0.0	5.7	20.0	17.1	12.8	24.2	24.2	232.4	1358.7	1695.1
87.5°	0.0	0.0	0.0	1.4	8.6	5.7	10.0	2.9	1.4	101.2	410.6
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: P324643

CATALOG NUMBER: GLEON-SA9B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1	9803.1
2.5°	11081.9	11187.4	11365.6	11449.7	11408.4	11233.0	11023.5	10809.6	10684.1	10734.0
5°	11763.4	12306.6	12620.2	12724.3	12550.4	12156.9	11642.2	10963.6	10722.6	10657.1
7.5°	11763.4	12785.6	13432.9	13546.9	13159.1	12387.8	11422.7	10363.4	10011.2	9882.9
10°	11349.9	12741.4	13643.9	13824.9	13283.2	12129.8	10836.7	9627.7	9210.0	9077.4
12.5°	10883.7	12382.1	13333.1	13582.6	13137.8	11873.2	10430.4	9130.1	8638.3	8522.8
15°	10597.2	11940.2	12727.2	12908.2	12720.0	11723.5	10333.4	8980.4	8401.6	8290.4
17.5°	10699.8	11598.0	11881.7	11987.2	12114.1	11670.7	10597.2	9308.3	8575.5	8470.0
20°	11086.2	11237.3	11090.5	11223.1	11565.2	11722.0	11225.9	10101.0	9221.4	9080.2
22.5°	11742.0	11050.5	10638.5	10691.3	11107.6	11891.7	12186.8	11233.0	10217.9	10041.2
25°	12506.2	11201.7	10387.6	10340.6	10768.3	12115.5	13065.1	12464.8	11397.0	11201.7
27.5°	13467.1	11541.0	10336.3	10289.2	10649.9	12325.1	13795.0	13682.4	12638.8	12305.2
30°	14208.5	11874.6	10488.8	10380.5	10768.3	12470.5	14381.0	14716.0	13628.2	13407.2
32.5°	14740.2	12268.1	10736.9	10580.1	11101.9	12721.5	14832.9	15662.7	14543.5	14208.5
35°	15145.1	12695.8	11137.5	10879.5	11560.9	13102.1	15256.3	16670.6	15517.2	15150.8
37.5°	15524.4	13296.0	11763.4	11455.4	12280.9	13715.2	15704.0	17814.0	16606.5	16168.8
40°	16053.3	13976.1	12728.6	12454.9	13491.3	14550.6	16262.9	19005.9	17845.4	17295.1
42.5°	16582.2	14706.0	13716.6	13790.7	15001.1	15565.7	16984.3	20266.2	19068.6	18481.3
45°	17065.5	15458.8	15123.8	15465.9	16402.6	16679.2	17701.4	20994.8	20045.2	19477.8
47.5°	17496.1	16399.7	16522.4	17433.4	17996.5	17687.1	18237.5	21623.5	20772.3	20271.9
50°	17996.5	17617.3	18365.8	19654.6	19831.4	18599.6	18725.1	22367.7	21622.1	21220.0
52.5°	18544.0	18900.4	20407.4	21543.6	21486.6	19590.4	19215.5	23201.7	22786.9	22409.0
55°	19165.6	19936.9	22205.2	23311.5	23263.0	20696.8	20028.1	24232.5	24246.8	23904.6
57.5°	20088.0	20829.4	23425.6	24741.5	24822.7	21974.2	21405.4	25387.3	25567.0	25338.8
59°	20749.5	21408.2	23908.9	25338.8	25669.6	22962.2	22411.9	26057.4	25939.1	25730.9
60°	21240.0	21776.0	24148.4	25651.1	26161.5	23632.3	23154.7	26450.9	25983.3	25730.9
62.5°	22453.2	22577.3	24580.4	26004.6	26727.5	25120.7	25244.7	27121.0	25676.7	25264.7
65°	23019.2	23083.4	24574.7	25371.6	26180.0	26279.8	27140.9	27140.9	24928.2	24295.2
67.5°	22782.6	22473.2	23355.7	23273.0	24080.0	25591.2	27853.8	26145.8	23496.8	22678.5
70°	20857.9	19667.4	19275.4	19311.0	19928.3	22259.3	26442.3	23217.4	20788.0	19831.4
72.5°	17355.0	14499.3	13531.3	14636.2	14797.3	17106.9	22534.5	17484.7	15330.5	14433.7
75°	13959.0	10220.8	8646.8	9813.0	10086.8	12519.0	17431.9	10889.4	8954.8	8256.2
77.5°	10028.3	7336.6	6204.6	6123.4	6476.9	7939.7	12369.3	5480.4	4570.8	4265.7
80°	5697.1	4828.8	5199.5	4905.8	5084.0	4964.3	5876.7	2403.7	1968.9	1840.6
82.5°	3438.8	2854.2	3090.9	2573.4	3256.3	2835.7	2264.0	769.9	668.6	635.9
85°	2236.9	1559.7	812.6	544.6	1122.0	1812.1	506.1	209.6	161.1	128.3
87.5°	771.3	397.8	39.9	17.1	119.8	337.9	18.5	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

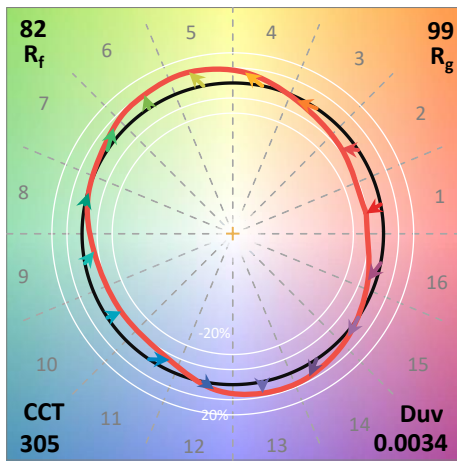
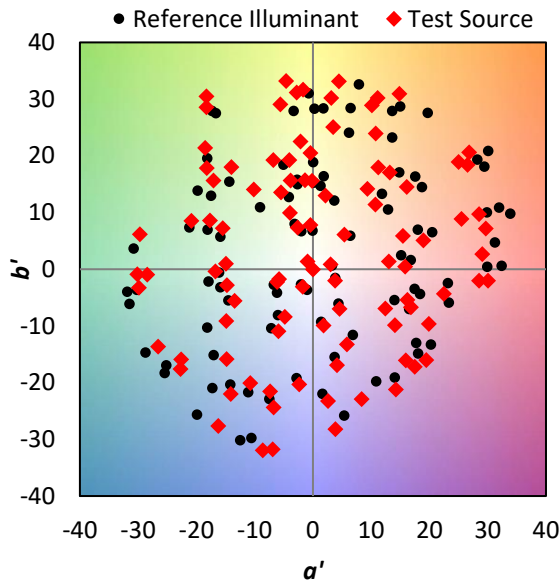
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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)