

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: P324637

Luminaire Tested: **GLEON-SA3B-830-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324637
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-SA3B-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 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: 10277 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G2

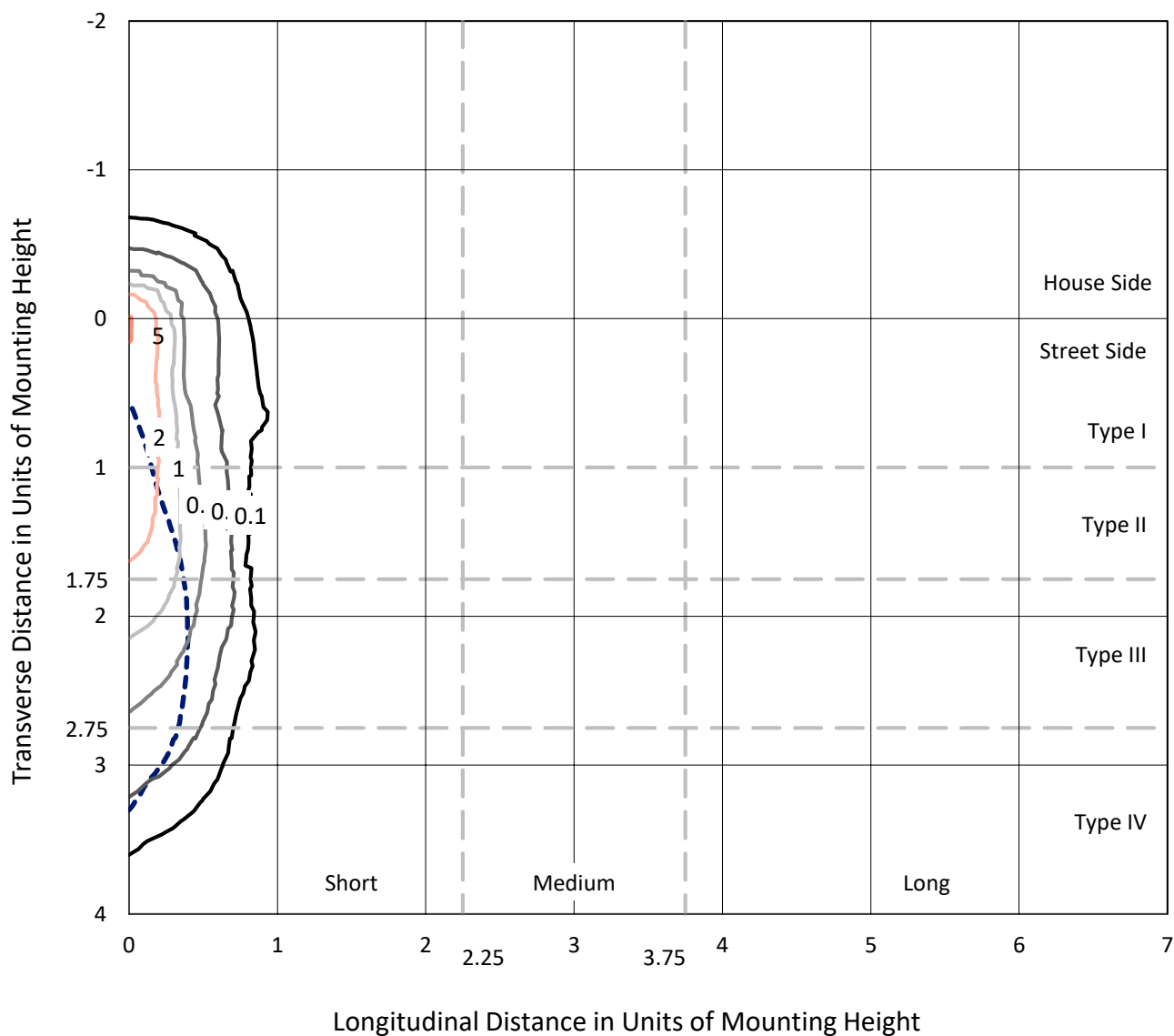
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

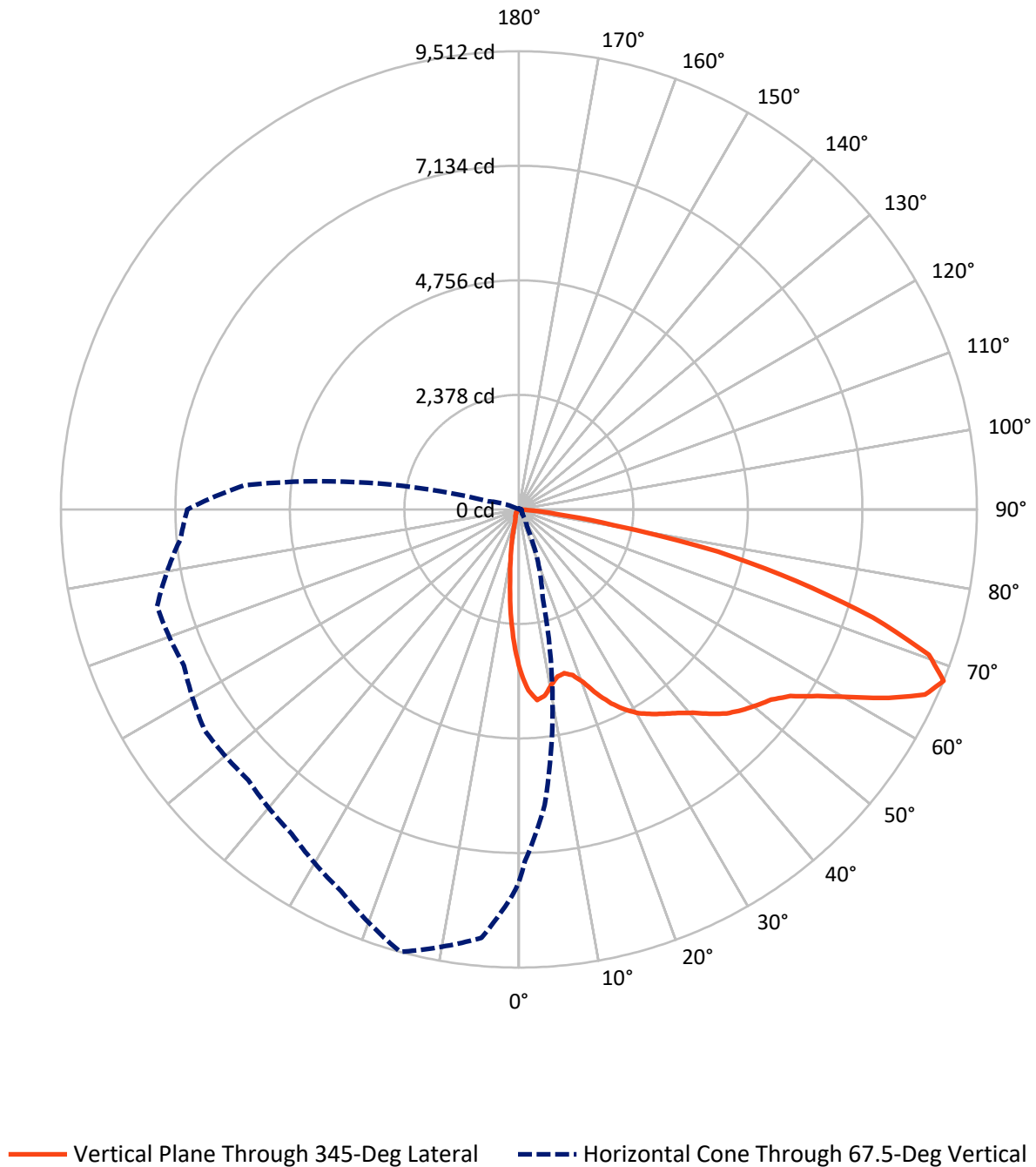
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1243.8	0.0	1243.8
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	9033.1	0.0	9033.1
	% Fixture	87.9	0.0	87.9
Total	Lumens	10277.0	0.0	10277.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.9	2.5
10°-20°	511.4	5.0
20°-30°	726.2	7.1
30°-40°	1072.7	10.4
40°-50°	1547.0	15.1
50°-60°	2171.7	21.1
60°-70°	2531.6	24.6
70°-80°	1294.2	12.6
80°-90°	165.3	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°	10277.0	100.0
0°-180°	10277.0	100.0

Coefficient of Utilization



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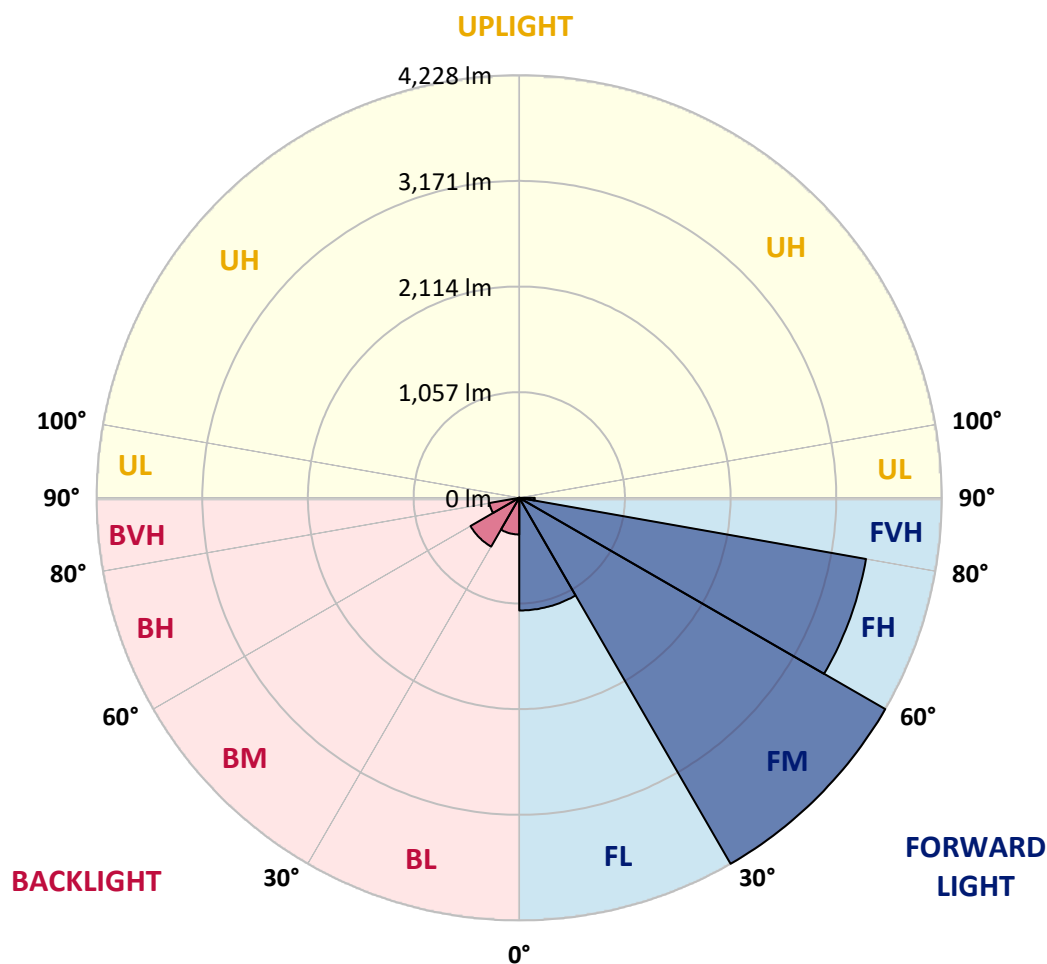
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1127.2	11.0			
FM	(30°-60°)	4228.1	41.1			
FH	(60°-80°)	3522.6	34.3			G2/5000
FVH	(80°-90°)	155.2	1.5			G2/225
BL	(0°-30°)	367.4	3.6	B1/500		
BM	(30°-60°)	563.3	5.5	B1/1000		
BH	(60°-80°)	303.2	2.9	B1/500		G1/500
BVH	(80°-90°)	10.0	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7
2.5°	3665.6	3637.4	3606.2	3504.5	3410.0	3301.9	3213.8	3152.5	3075.6	2975.7	2950.4
5°	3639.3	3609.2	3511.3	3284.9	3086.8	2894.0	2708.0	2598.9	2463.6	2326.3	2292.2
7.5°	3375.0	3343.3	3202.1	2892.0	2625.2	2346.7	2105.2	1955.8	1802.9	1677.3	1610.6
10°	3099.9	3065.3	2906.6	2530.3	2201.6	1949.9	1772.7	1630.0	1485.4	1351.1	1244.0
12.5°	2910.5	2865.2	2692.9	2266.4	1980.1	1809.2	1643.7	1472.8	1277.1	1132.9	1015.1
15°	2831.1	2779.5	2597.4	2164.6	1901.7	1701.1	1485.4	1275.6	1046.3	881.2	773.1
17.5°	2892.5	2825.3	2630.1	2157.8	1803.4	1530.2	1257.6	1011.2	762.4	595.4	518.5
20°	3100.9	3012.7	2764.9	2155.9	1684.1	1327.2	981.5	703.0	502.4	404.1	363.7
22.5°	3429.0	3312.7	2958.7	2171.4	1560.9	1114.0	708.9	477.6	377.3	326.2	302.3
25°	3825.3	3690.5	3237.7	2226.5	1452.8	906.6	515.1	377.3	318.4	280.9	261.0
27.5°	4202.2	4092.6	3590.2	2305.8	1369.1	739.1	418.2	319.9	272.2	247.3	231.3
30°	4578.5	4440.7	3951.9	2400.3	1268.3	625.6	367.6	291.6	243.9	217.6	207.4
32.5°	4852.1	4737.7	4235.3	2468.4	1160.7	551.6	328.6	266.8	227.9	201.1	186.0
35°	5174.0	5044.5	4478.2	2483.5	1091.6	504.9	295.5	240.0	197.7	173.8	157.7
37.5°	5521.6	5360.4	4758.7	2450.4	1037.5	482.0	270.7	227.9	184.5	160.2	143.1
40°	5906.2	5724.1	5027.9	2402.7	984.4	474.2	251.7	218.6	174.3	149.5	131.9
42.5°	6311.3	6096.6	5261.1	2352.6	950.9	447.4	249.8	209.4	166.5	139.7	122.2
45°	6651.6	6434.0	5500.6	2336.0	927.0	418.2	258.0	203.0	161.2	131.9	114.9
47.5°	6922.8	6716.8	5746.0	2373.0	913.4	391.4	235.2	211.3	158.2	125.1	108.6
50°	7246.6	7013.4	6091.7	2483.5	893.4	364.7	212.8	242.0	158.2	120.7	103.2
52.5°	7652.6	7421.8	6477.3	2654.9	853.5	327.7	191.3	242.5	159.7	114.9	96.4
55°	8163.3	7995.9	7028.0	2842.8	789.7	273.1	165.5	208.4	153.9	104.2	90.1
57.5°	8653.1	8516.3	7529.9	2971.4	704.5	213.2	144.1	168.0	140.7	91.5	80.3
59°	8787.0	8637.5	7714.0	2977.2	640.7	186.0	133.4	138.8	137.8	85.7	74.5
60°	8787.0	8628.3	7767.0	2946.0	594.5	170.9	126.6	123.7	143.6	81.8	71.1
62.5°	8627.8	8404.8	7594.7	2735.2	484.9	145.6	110.5	102.2	129.0	73.5	62.8
65°	8296.7	7972.0	7007.5	2354.0	432.3	133.4	95.4	83.7	89.6	64.8	55.0
67.5°	7744.6	7304.5	6160.8	1901.7	411.4	130.0	82.3	71.1	67.7	55.5	48.2
70°	6772.4	6284.0	5133.1	1495.2	393.4	128.5	69.1	59.9	54.5	46.7	40.9
72.5°	4929.1	4419.8	3644.2	1169.0	382.7	131.5	55.5	50.1	44.8	36.5	31.6
75°	2819.5	2486.0	2048.3	772.2	326.2	125.6	42.8	41.9	32.1	26.3	21.9
77.5°	1456.7	1412.4	1227.4	296.5	156.3	55.0	28.2	24.3	19.0	16.1	13.1
80°	628.5	621.7	538.0	85.7	41.4	30.7	16.1	10.2	8.8	6.8	5.4
82.5°	217.1	217.1	191.3	28.7	18.5	15.1	1.9	0.0	0.0	0.0	0.0
85°	43.8	49.2	34.6	0.0	6.3	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

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7
2.5°	2919.8	2860.8	2856.9	2819.9	2773.7	2752.8	2740.6	2762.0	2788.3	2791.2	2830.7
5°	2266.4	2204.5	2230.3	2164.6	2177.8	2164.6	2143.2	2147.1	2158.8	2122.3	2167.5
7.5°	1591.6	1544.8	1574.5	1557.0	1580.4	1589.6	1576.5	1557.0	1499.6	1492.7	1532.2
10°	1199.6	1146.6	1114.9	1081.8	1089.1	1104.2	1099.4	1085.2	1048.7	1050.7	1088.6
12.5°	964.0	904.6	841.8	760.5	740.5	751.7	740.5	732.3	697.2	700.1	733.7
15°	731.3	682.6	616.9	551.6	516.1	519.5	488.3	466.4	444.5	418.2	438.7
17.5°	493.7	464.0	444.5	425.0	382.7	372.9	333.5	291.1	274.6	262.4	271.2
20°	349.6	333.5	325.7	324.7	300.4	288.2	249.8	223.5	215.2	212.8	218.1
22.5°	292.1	280.4	269.2	262.9	250.7	236.6	207.4	194.3	188.4	185.5	189.4
25°	254.1	245.4	233.7	223.0	218.1	203.0	182.1	172.4	168.5	165.5	167.5
27.5°	225.9	218.1	204.5	197.7	193.8	180.6	162.6	154.8	151.4	150.4	150.0
30°	203.5	196.2	183.5	175.8	168.9	157.3	146.5	138.8	135.3	134.4	133.4
32.5°	181.1	175.3	167.0	159.2	151.9	141.2	131.9	125.6	120.3	119.3	118.8
35°	152.9	147.0	142.7	142.2	135.3	125.1	118.3	110.0	105.7	104.2	104.7
37.5°	135.8	128.0	118.3	121.7	119.8	112.5	103.2	94.9	90.6	89.6	89.6
40°	125.1	116.8	105.7	99.8	105.7	104.2	89.6	81.3	76.9	76.4	75.5
42.5°	114.9	106.6	94.0	84.2	87.1	91.5	77.4	69.6	65.2	64.3	62.8
45°	107.6	98.8	84.7	73.5	67.7	76.9	66.2	56.5	54.0	52.1	51.1
47.5°	100.8	92.5	76.4	63.8	54.0	55.5	53.1	46.3	43.3	41.4	40.9
50°	94.9	86.2	69.1	54.5	44.8	40.9	42.8	36.5	34.1	32.1	31.2
52.5°	88.1	79.8	61.3	47.2	37.5	32.1	32.6	28.7	26.3	24.8	24.3
55°	82.8	74.5	55.0	41.4	33.1	26.3	23.4	22.4	20.9	20.0	19.5
57.5°	75.5	67.7	48.7	35.1	28.2	21.4	18.0	18.0	17.5	16.6	16.1
59°	71.1	64.3	44.8	31.6	25.8	18.5	16.1	16.6	16.1	15.1	14.6
60°	67.7	61.3	41.9	29.2	24.3	17.0	14.6	15.6	15.1	14.1	13.6
62.5°	59.9	55.5	36.0	24.3	21.4	13.6	12.2	13.1	13.1	12.7	12.2
65°	52.6	47.7	30.7	20.4	20.0	11.7	9.7	11.7	12.2	11.2	10.2
67.5°	45.8	40.9	26.8	16.6	18.5	9.3	7.3	9.7	13.1	10.2	9.3
70°	38.9	34.1	20.9	13.1	19.5	6.3	5.8	8.8	15.6	11.2	8.8
72.5°	30.2	26.3	14.6	9.7	20.9	4.4	4.4	7.3	17.5	12.2	8.3
75°	20.9	17.0	8.8	5.8	17.0	2.9	2.9	6.8	16.6	11.2	7.8
77.5°	12.2	9.3	2.9	0.5	8.8	0.0	0.5	4.9	11.7	6.8	3.4
80°	4.4	1.9	0.0	0.0	5.4	0.0	0.0	0.0	1.0	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7
2.5°	2840.9	2906.6	2965.5	3054.6	3160.3	3282.0	3386.7	3499.1	3604.8	3648.6	3678.8
5°	2176.8	2258.1	2353.0	2484.0	2658.3	2873.0	3074.1	3301.5	3545.9	3668.1	3783.0
7.5°	1539.0	1621.8	1739.6	1878.8	2089.6	2345.2	2608.2	2922.2	3253.3	3446.5	3636.9
10°	1106.7	1208.4	1318.4	1508.8	1723.0	1965.5	2236.2	2586.7	2955.8	3170.0	3399.3
12.5°	753.2	869.1	1035.6	1248.8	1500.5	1738.1	1973.3	2307.8	2736.2	2948.5	3194.3
15°	451.8	516.1	692.3	939.2	1247.8	1543.9	1801.4	2136.9	2593.6	2853.5	3109.1
17.5°	278.5	308.2	404.1	606.6	930.9	1305.3	1658.3	2078.9	2614.0	2930.5	3204.1
20°	222.0	233.7	264.4	358.3	616.9	1042.4	1497.1	2067.2	2781.0	3170.5	3464.1
22.5°	192.8	204.0	224.4	260.5	388.0	780.5	1344.2	2078.0	3020.5	3530.3	3873.0
25°	169.9	179.7	199.1	228.8	284.3	549.7	1180.7	2125.7	3332.6	3976.7	4340.9
27.5°	151.9	160.2	178.2	205.5	243.9	383.7	995.2	2183.6	3702.6	4433.4	4792.7
30°	135.3	142.7	158.7	184.0	211.8	295.0	791.6	2223.0	4073.1	4792.7	5115.5
32.5°	121.2	126.6	141.2	162.6	184.0	235.2	601.8	2216.7	4348.2	5091.7	5347.8
35°	106.6	112.0	124.6	143.1	160.2	194.3	473.2	2098.4	4587.8	5401.8	5613.6
37.5°	90.6	97.4	109.5	126.1	137.8	170.9	382.7	1955.8	4830.7	5756.3	5910.1
40°	76.9	83.7	94.5	112.5	119.8	162.1	294.1	1781.9	5103.9	6152.6	6235.3
42.5°	63.8	70.1	81.3	96.9	113.0	139.7	217.6	1583.3	5366.3	6491.4	6531.8
45°	51.6	57.9	69.6	85.2	120.7	115.9	168.5	1370.5	5578.1	6773.3	6786.5
47.5°	40.9	46.7	58.9	80.3	112.5	92.5	120.3	1203.5	5755.8	6993.4	6958.8
50°	31.6	36.5	49.2	92.0	98.3	76.4	91.0	1148.0	5915.0	7129.7	7040.1
52.5°	24.8	29.2	40.4	86.2	76.4	63.3	76.4	1200.1	6133.1	7242.7	7085.9
55°	20.0	24.3	31.6	49.2	52.1	53.6	65.2	1248.8	6509.4	7507.5	7356.1
57.5°	16.6	20.9	25.8	34.6	39.4	45.3	57.9	1254.2	6953.0	7947.7	7804.5
59°	15.1	19.0	23.4	30.7	34.6	41.4	54.5	1225.0	7109.3	8107.8	8036.3
60°	14.1	18.0	21.9	28.2	32.1	38.9	52.6	1197.2	7116.1	8102.0	8135.1
62.5°	12.2	16.1	19.5	23.9	27.3	33.1	47.2	1094.5	6827.9	7836.6	8075.7
65°	10.7	14.1	17.5	20.4	23.4	29.7	42.8	907.0	6335.6	7408.7	7669.2
67.5°	9.7	12.2	16.1	18.0	20.9	26.3	38.0	646.6	5720.7	6885.3	7054.3
70°	8.8	11.7	14.6	16.6	19.0	22.9	32.6	371.5	4830.7	6119.0	6239.2
72.5°	8.3	11.2	13.1	15.6	17.0	20.4	29.7	174.8	3537.1	4901.8	5215.8
75°	7.3	10.2	12.2	14.6	16.1	18.5	25.3	83.7	2352.6	3547.3	3904.2
77.5°	4.4	8.3	11.2	13.1	14.1	16.1	20.9	48.2	1501.5	2455.3	2892.0
80°	0.0	2.9	8.3	11.2	12.2	13.6	16.1	38.0	803.3	1402.7	1683.6
82.5°	0.0	0.0	5.8	8.8	8.3	9.3	12.2	23.9	362.2	916.8	1033.1
85°	0.0	0.0	1.9	6.8	5.8	4.4	8.3	8.3	79.4	464.0	578.9
87.5°	0.0	0.0	0.0	0.5	2.9	1.9	3.4	1.0	0.5	34.6	140.2
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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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7	3347.7
2.5°	3784.4	3820.5	3881.3	3910.0	3895.9	3836.0	3764.5	3691.4	3648.6	3665.6
5°	4017.2	4202.7	4309.8	4345.3	4285.9	4151.5	3975.8	3744.0	3661.7	3639.3
7.5°	4017.2	4366.2	4587.3	4626.2	4493.8	4230.4	3900.8	3539.1	3418.8	3375.0
10°	3876.0	4351.2	4659.3	4721.2	4536.2	4142.3	3700.7	3287.8	3145.2	3099.9
12.5°	3716.8	4228.5	4553.2	4638.4	4486.5	4054.6	3561.9	3117.9	2949.9	2910.5
15°	3618.9	4077.5	4346.3	4408.1	4343.8	4003.5	3528.8	3066.8	2869.1	2831.1
17.5°	3654.0	3960.7	4057.6	4093.6	4136.9	3985.5	3618.9	3178.8	2928.5	2892.5
20°	3785.9	3837.5	3787.4	3832.6	3949.5	4003.0	3833.6	3449.5	3149.1	3100.9
22.5°	4009.9	3773.7	3633.0	3651.0	3793.2	4061.0	4161.8	3836.0	3489.4	3429.0
25°	4270.8	3825.3	3547.3	3531.3	3677.3	4137.4	4461.7	4256.7	3892.0	3825.3
27.5°	4599.0	3941.2	3529.8	3513.7	3636.9	4209.0	4710.9	4672.5	4316.1	4202.2
30°	4852.1	4055.1	3581.9	3544.9	3677.3	4258.6	4911.1	5025.5	4654.0	4578.5
32.5°	5033.7	4189.5	3666.6	3613.1	3791.3	4344.3	5065.4	5348.7	4966.6	4852.1
35°	5172.0	4335.6	3803.4	3715.3	3948.0	4474.3	5210.0	5693.0	5299.1	5174.0
37.5°	5301.5	4540.5	4017.2	3912.0	4193.9	4683.7	5362.9	6083.4	5671.1	5521.6
40°	5482.1	4772.8	4346.8	4253.3	4607.2	4969.0	5553.7	6490.5	6094.1	5906.2
42.5°	5662.8	5022.1	4684.2	4709.5	5122.8	5315.6	5800.1	6920.8	6511.9	6311.3
45°	5827.8	5279.1	5164.7	5281.6	5601.4	5695.9	6045.0	7169.6	6845.4	6651.6
47.5°	5974.9	5600.5	5642.3	5953.4	6145.8	6040.1	6228.0	7384.3	7093.7	6922.8
50°	6145.8	6016.2	6271.9	6712.0	6772.4	6351.7	6394.5	7638.5	7383.9	7246.6
52.5°	6332.7	6454.4	6969.0	7357.1	7337.6	6690.1	6562.0	7923.3	7781.6	7652.6
55°	6545.0	6808.4	7583.0	7960.8	7944.2	7067.9	6839.5	8275.3	8280.2	8163.3
57.5°	6860.0	7113.2	7999.8	8449.1	8476.9	7504.1	7309.9	8669.7	8731.0	8653.1
59°	7085.9	7310.8	8164.8	8653.1	8766.1	7841.5	7653.6	8898.5	8858.1	8787.0
60°	7253.4	7436.4	8246.6	8759.8	8934.1	8070.3	7907.2	9032.9	8873.2	8787.0
62.5°	7667.7	7710.1	8394.1	8880.5	9127.3	8578.6	8621.0	9261.7	8768.5	8627.8
65°	7861.0	7882.9	8392.2	8664.3	8940.4	8974.5	9268.5	9268.5	8512.9	8296.7
67.5°	7780.2	7674.5	7975.9	7947.7	8223.2	8739.3	9512.0	8928.7	8024.1	7744.6
70°	7122.9	6716.4	6582.5	6594.6	6805.5	7601.5	9030.0	7928.7	7099.0	6772.4
72.5°	5926.7	4951.5	4620.9	4998.2	5053.2	5841.9	7695.5	5971.0	5235.3	4929.1
75°	4766.9	3490.4	2952.9	3351.1	3444.6	4275.2	5953.0	3718.7	3058.0	2819.5
77.5°	3424.6	2505.4	2118.9	2091.1	2211.8	2711.4	4224.1	1871.5	1560.9	1456.7
80°	1945.5	1649.0	1775.6	1675.3	1736.2	1695.3	2006.9	820.9	672.4	628.5
82.5°	1174.3	974.7	1055.5	878.8	1112.0	968.4	773.1	262.9	228.3	217.1
85°	763.9	532.6	277.5	186.0	383.2	618.8	172.8	71.6	55.0	43.8
87.5°	263.4	135.8	13.6	5.8	40.9	115.4	6.3	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

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

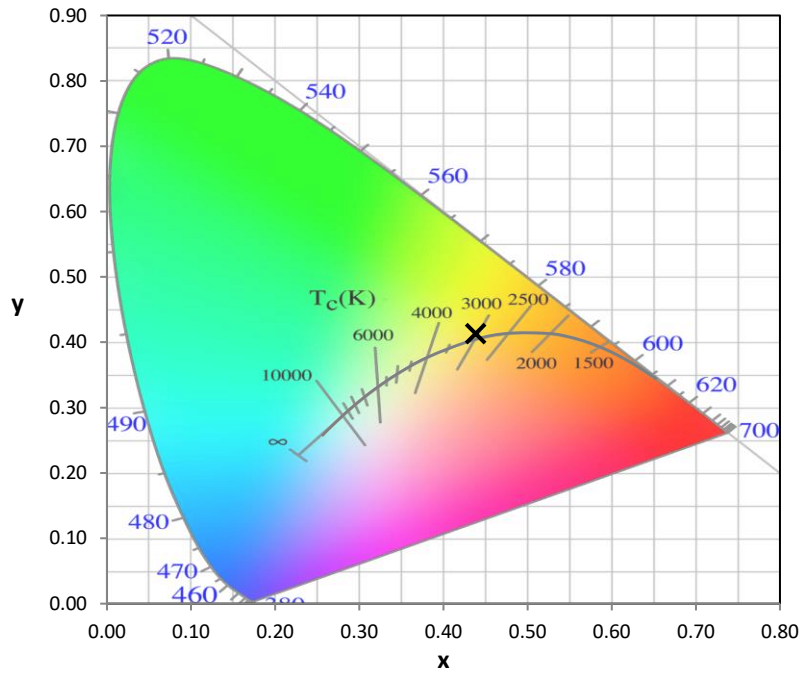
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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



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Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /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			

REPORT NUMBER: SP1-2408-195-9

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)