

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: P437939

Luminaire Tested: **ISC-SA1F-830-U-SLL**

Issue Date: 12/9/2020

Test Information

Test Method: LM-79-08
Report Number: P437939
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-20)
Test Lab: INNOVATION CENTER
Issue Date: 12/9/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISC-SA1F-830-U-SLL
Description: IMPACT ELITE LED CYLINDER LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5479 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

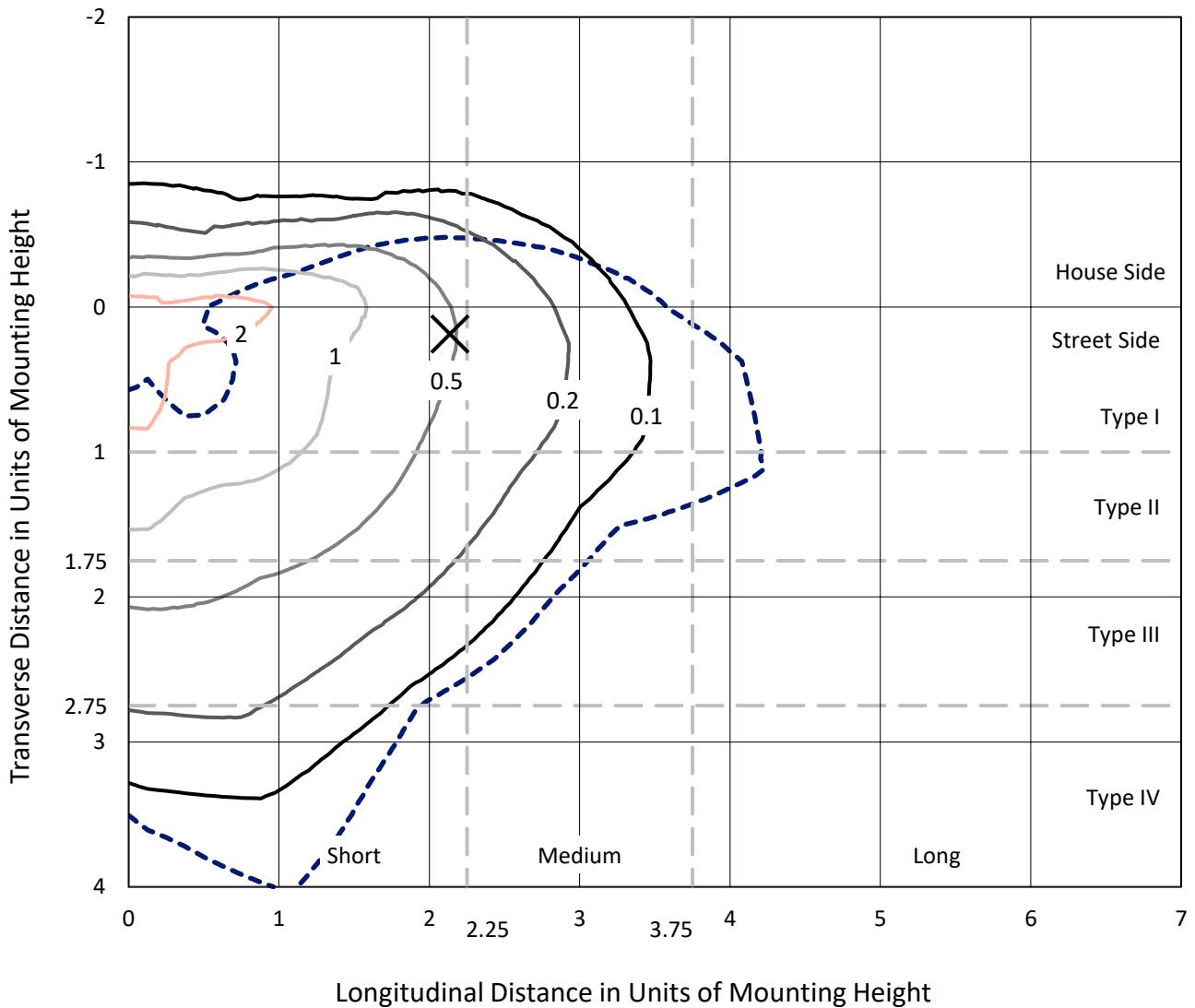
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

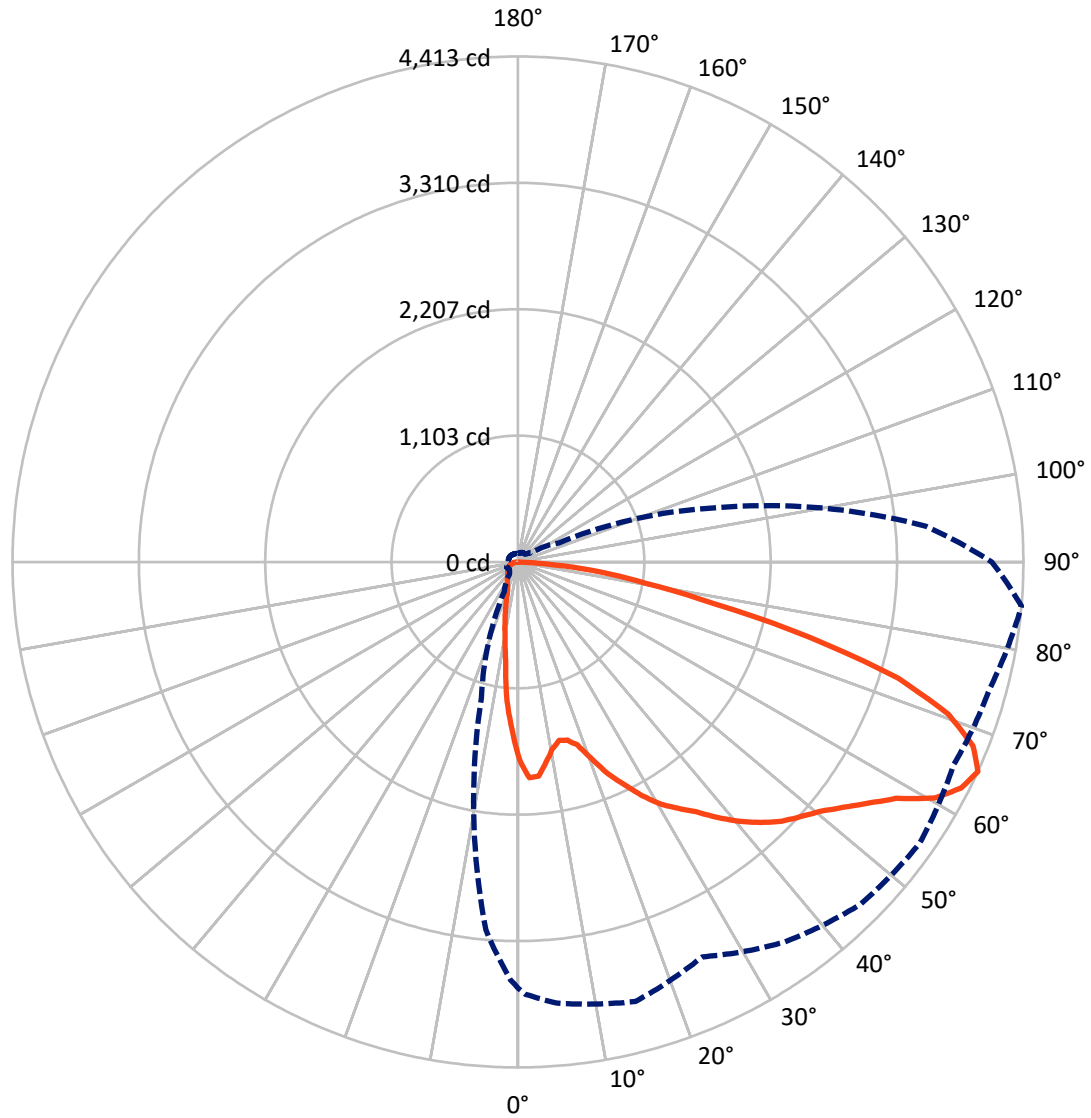
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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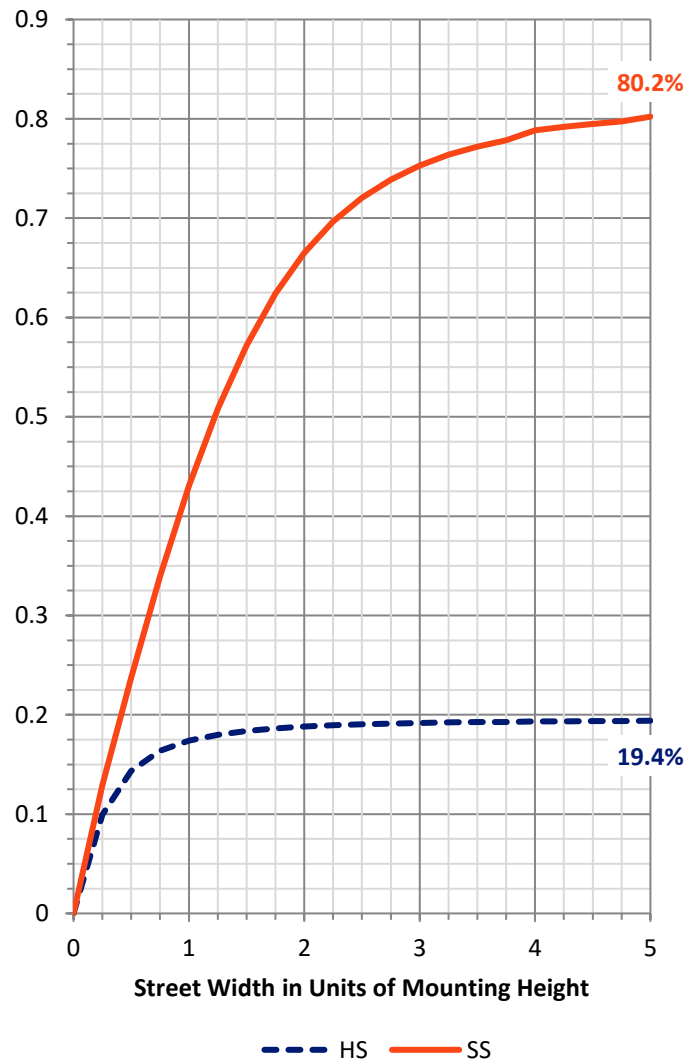
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1072.3	0.0	1072.3
	% Fixture	19.6	0.0	19.6
Street Side	Lumens	4406.7	0.0	4406.7
	% Fixture	80.4	0.0	80.4
Total	Lumens	5479.0	0.0	5479.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.8	2.4
10°-20°	274.1	5.0
20°-30°	394.1	7.2
30°-40°	565.8	10.3
40°-50°	800.9	14.6
50°-60°	1113.7	20.3
60°-70°	1326.1	24.2
70°-80°	766.5	14.0
80°-90°	106.0	1.9
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°	5479.0	100.0
0°-180°	5479.0	100.0

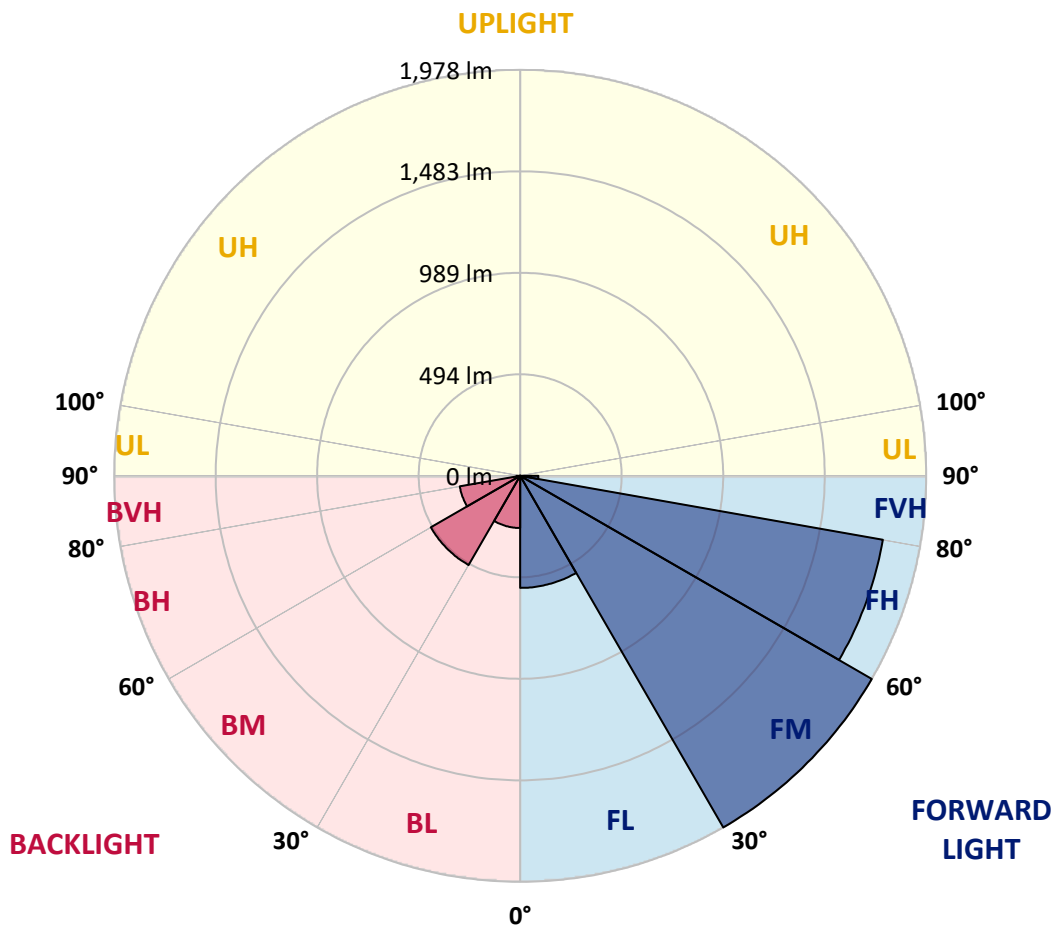


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	546.0	10.0			
FM (30°-60°)	1978.0	36.1			
FH (60°-80°)	1794.1	32.7			G1/1800
FVH (80°-90°)	88.7	1.6			G1/100
BL (0°-30°)	254.0	4.6	B1/500		
BM (30°-60°)	502.4	9.2	B1/1000		
BH (60°-80°)	298.5	5.4	B1/500		G1/500
BVH (80°-90°)	17.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9
2.5°	1813.7	1820.4	1836.1	1889.8	1923.4	1950.3	1983.9	1950.3	1941.3	1896.6	1887.6
5°	1748.8	1764.5	1809.2	1910.0	1992.9	2080.2	2125.0	2086.9	2035.4	1957.0	1878.7
7.5°	1621.2	1641.3	1699.5	1856.3	2013.0	2131.7	2189.9	2149.6	2044.4	1905.5	1764.5
10°	1491.3	1522.6	1592.0	1789.1	1954.8	2086.9	2176.5	2133.9	2006.3	1824.9	1657.0
12.5°	1412.9	1435.3	1513.7	1719.7	1894.3	2026.4	2093.6	2069.0	1950.3	1777.9	1598.8
15°	1395.0	1417.4	1495.8	1695.0	1849.5	1948.1	1963.7	1970.5	1925.7	1793.6	1614.4
17.5°	1444.3	1462.2	1569.6	1735.3	1798.0	1818.2	1842.8	1871.9	1894.3	1824.9	1679.4
20°	1562.9	1598.8	1692.8	1818.2	1784.6	1737.6	1751.0	1786.8	1871.9	1916.7	1829.4
22.5°	1721.9	1762.2	1880.9	1932.4	1793.6	1692.8	1681.6	1713.0	1869.7	2017.5	2008.5
25°	1898.8	1954.8	2082.4	2084.7	1831.6	1661.5	1639.1	1668.2	1865.2	2107.0	2151.8
27.5°	2082.4	2133.9	2272.7	2203.3	1905.5	1663.7	1636.8	1665.9	1876.4	2203.3	2310.8
30°	2219.0	2286.2	2407.1	2315.3	1952.5	1692.8	1652.5	1690.6	1901.0	2252.6	2451.9
32.5°	2357.8	2400.4	2528.0	2380.2	2004.0	1737.6	1686.1	1744.3	1963.7	2299.6	2563.8
35°	2481.0	2537.0	2666.8	2418.3	2080.2	1813.7	1746.5	1822.7	2053.3	2366.8	2678.0
37.5°	2637.7	2691.5	2810.1	2472.0	2142.9	1910.0	1854.0	1952.5	2163.0	2427.2	2830.3
40°	2776.6	2861.6	2951.2	2539.2	2214.5	2051.1	2015.2	2149.6	2310.8	2510.1	2978.1
42.5°	2913.1	2984.8	3083.3	2615.3	2306.3	2223.5	2239.2	2380.2	2489.9	2635.5	3110.2
45°	3011.7	3094.5	3181.8	2675.8	2425.0	2409.3	2514.6	2633.2	2673.6	2767.6	3228.9
47.5°	3108.0	3172.9	3251.3	2736.3	2568.3	2617.6	2801.2	2893.0	2852.7	2886.3	3322.9
50°	3235.6	3305.0	3327.4	2832.5	2749.7	2881.8	3081.1	3141.5	3025.1	2980.3	3421.4
52.5°	3419.2	3452.8	3441.6	2946.7	2922.1	3157.2	3320.7	3412.5	3204.2	3069.9	3558.0
55°	3665.5	3723.7	3652.1	3132.6	3099.0	3421.4	3611.8	3656.5	3403.5	3181.8	3714.8
57.5°	3900.6	3952.1	3929.7	3358.7	3329.6	3649.8	3833.4	3876.0	3598.3	3390.1	3893.9
60°	3987.9	4003.6	4084.2	3598.3	3560.3	3844.6	4052.9	4059.6	3831.2	3640.9	4185.0
62.5°	3893.9	3956.6	4035.0	3822.2	3699.1	4012.6	4198.4	4241.0	4052.9	3945.4	4344.0
65°	3719.2	3775.2	3867.0	3972.3	3804.3	4052.9	4227.5	4281.3	4196.2	4265.6	4413.4
67.5°	3517.7	3587.1	3649.8	3996.9	3790.9	3822.2	3967.8	4001.4	4120.1	4406.7	4285.7
70°	3258.0	3336.3	3390.1	3900.6	3470.7	3159.5	3262.5	3354.3	3535.6	4155.9	3987.9
72.5°	2698.2	2823.6	2957.9	3464.0	2807.9	2454.1	2534.7	2595.2	2725.1	3549.1	3472.9
75°	1898.8	1990.6	2156.3	2790.0	2156.3	1737.6	1863.0	1863.0	2026.4	2915.4	2637.7
77.5°	1135.3	1137.5	1298.7	1836.1	1312.1	1171.1	1242.7	1276.3	1325.6	2064.5	1751.0
80°	642.6	651.6	705.3	1186.8	777.0	799.4	884.5	974.0	900.1	1280.8	1126.3
82.5°	300.0	264.2	279.9	559.8	441.1	521.7	535.2	575.5	579.9	819.5	738.9
85°	24.6	20.2	26.9	100.8	78.4	71.7	51.5	98.5	154.5	358.3	318.0
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°	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9
2.5°	1858.5	1836.1	1786.8	1748.8	1713.0	1645.8	1618.9	1580.8	1560.7	1524.9	1533.8
5°	1820.4	1768.9	1657.0	1580.8	1482.3	1401.7	1352.5	1307.7	1289.8	1251.7	1238.3
7.5°	1681.6	1636.8	1495.8	1370.4	1249.5	1153.2	1061.4	994.2	962.8	929.3	927.0
10°	1562.9	1489.0	1327.8	1180.0	1041.2	951.6	884.5	828.5	779.2	736.7	712.1
12.5°	1495.8	1404.0	1224.8	1045.7	949.4	886.7	812.8	743.4	687.4	638.2	609.1
15°	1495.8	1388.3	1175.6	1000.9	904.6	810.6	725.5	653.8	579.9	521.7	503.8
17.5°	1565.2	1433.1	1186.8	971.8	835.2	730.0	622.5	528.4	456.8	405.3	387.4
20°	1701.8	1542.8	1213.6	938.2	768.0	622.5	492.6	391.9	326.9	302.3	297.8
22.5°	1860.7	1674.9	1253.9	906.9	698.6	508.3	369.5	297.8	268.7	259.7	259.7
25°	2035.4	1822.7	1305.4	873.3	627.0	403.0	282.1	248.5	237.4	232.9	232.9
27.5°	2198.9	1983.9	1397.2	859.8	559.8	326.9	246.3	221.7	215.0	210.5	212.7
30°	2357.8	2127.2	1491.3	833.0	485.9	284.4	221.7	203.8	194.8	192.6	194.8
32.5°	2494.4	2250.4	1556.2	792.7	434.4	255.3	206.0	188.1	179.1	176.9	179.1
35°	2651.2	2371.3	1621.2	763.6	407.5	237.4	194.8	176.9	167.9	163.5	163.5
37.5°	2834.8	2516.8	1670.4	721.0	389.6	219.4	185.9	167.9	156.7	152.3	152.3
40°	3081.1	2693.7	1710.7	687.4	369.5	210.5	174.7	159.0	147.8	143.3	141.1
42.5°	3251.3	2848.2	1744.3	665.0	349.3	206.0	167.9	154.5	141.1	134.3	132.1
45°	3367.7	2984.8	1766.7	653.8	331.4	194.8	163.5	150.0	134.3	125.4	125.4
47.5°	3479.7	3096.8	1768.9	638.2	318.0	181.4	170.2	143.3	127.6	118.7	118.7
50°	3605.0	3237.8	1811.5	622.5	302.3	165.7	167.9	141.1	123.2	114.2	112.0
52.5°	3730.4	3430.4	1894.3	600.1	279.9	152.3	159.0	143.3	118.7	109.7	107.5
55°	3954.4	3670.0	1997.3	566.5	250.8	138.8	147.8	141.1	112.0	103.0	100.8
57.5°	4099.9	3893.9	2077.9	530.7	208.2	129.9	129.9	136.6	105.2	96.3	94.0
60°	4182.7	3936.4	2093.6	488.1	170.2	116.4	112.0	138.8	98.5	87.3	87.3
62.5°	4180.5	3790.9	2015.2	447.8	147.8	107.5	100.8	120.9	91.8	82.8	80.6
65°	4138.0	3575.9	1838.3	396.3	138.8	98.5	89.6	91.8	85.1	76.1	73.9
67.5°	3954.4	3204.2	1556.2	344.8	134.3	89.6	82.8	78.4	73.9	67.2	64.9
70°	3508.8	2785.5	1213.6	320.2	132.1	78.4	71.7	67.2	62.7	58.2	58.2
72.5°	2852.7	2172.0	927.0	306.8	134.3	71.7	60.5	58.2	53.7	51.5	49.3
75°	1974.9	1605.5	671.7	270.9	129.9	60.5	51.5	47.0	44.8	40.3	40.3
77.5°	1269.6	1050.2	445.6	217.2	105.2	49.3	38.1	35.8	33.6	31.3	31.3
80°	835.2	714.3	259.7	154.5	64.9	33.6	26.9	26.9	24.6	20.2	20.2
82.5°	530.7	539.6	134.3	71.7	38.1	20.2	15.7	13.4	13.4	9.0	9.0
85°	116.4	203.8	60.5	29.1	13.4	2.2	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°	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9
2.5°	1502.5	1484.6	1477.8	1477.8	1448.7	1451.0	1451.0	1468.9	1466.6	1482.3	1475.6
5°	1222.6	1204.7	1204.7	1209.1	1213.6	1193.5	1200.2	1182.3	1215.9	1191.2	1173.3
7.5°	902.4	900.1	915.8	951.6	944.9	938.2	924.8	891.2	873.3	891.2	882.2
10°	691.9	698.6	694.1	709.8	712.1	709.8	687.4	680.7	671.7	680.7	691.9
12.5°	579.9	553.1	524.0	521.7	539.6	539.6	537.4	539.6	546.4	546.4	555.3
15°	483.7	465.7	427.7	409.8	423.2	414.2	416.5	425.4	432.2	441.1	436.6
17.5°	385.1	369.5	351.5	340.4	347.1	340.4	338.1	335.9	335.9	333.6	342.6
20°	293.3	291.1	297.8	293.3	295.6	291.1	284.4	275.4	268.7	273.2	277.7
22.5°	255.3	257.5	262.0	266.5	266.5	262.0	250.8	241.8	239.6	239.6	241.8
25°	235.1	235.1	241.8	244.1	246.3	239.6	226.2	219.4	219.4	219.4	219.4
27.5°	212.7	217.2	221.7	226.2	228.4	221.7	210.5	203.8	203.8	201.5	199.3
30°	197.0	199.3	203.8	206.0	208.2	201.5	194.8	188.1	188.1	188.1	185.9
32.5°	179.1	185.9	188.1	190.3	192.6	188.1	181.4	176.9	174.7	172.4	167.9
35°	165.7	167.9	174.7	174.7	176.9	174.7	170.2	165.7	159.0	156.7	156.7
37.5°	152.3	152.3	156.7	161.2	165.7	163.5	156.7	150.0	147.8	147.8	147.8
40°	143.3	141.1	143.3	150.0	154.5	154.5	145.5	141.1	141.1	138.8	138.8
42.5°	132.1	132.1	132.1	138.8	147.8	143.3	134.3	134.3	134.3	132.1	132.1
45°	125.4	123.2	125.4	125.4	136.6	129.9	127.6	125.4	127.6	125.4	127.6
47.5°	116.4	116.4	116.4	118.7	125.4	120.9	118.7	118.7	120.9	120.9	120.9
50°	109.7	109.7	109.7	112.0	114.2	114.2	114.2	114.2	114.2	116.4	116.4
52.5°	105.2	103.0	105.2	105.2	107.5	109.7	107.5	109.7	109.7	109.7	112.0
55°	100.8	98.5	100.8	100.8	105.2	103.0	103.0	105.2	105.2	107.5	109.7
57.5°	94.0	91.8	96.3	96.3	100.8	100.8	98.5	100.8	100.8	103.0	103.0
60°	87.3	87.3	89.6	89.6	94.0	96.3	96.3	96.3	96.3	96.3	96.3
62.5°	80.6	80.6	82.8	85.1	89.6	89.6	91.8	91.8	91.8	91.8	89.6
65°	73.9	76.1	78.4	78.4	82.8	85.1	85.1	85.1	85.1	85.1	85.1
67.5°	64.9	69.4	71.7	73.9	78.4	78.4	80.6	80.6	78.4	78.4	78.4
70°	58.2	60.5	62.7	64.9	71.7	71.7	73.9	73.9	71.7	71.7	73.9
72.5°	49.3	51.5	53.7	58.2	64.9	64.9	67.2	67.2	64.9	64.9	64.9
75°	42.5	42.5	44.8	49.3	58.2	58.2	58.2	60.5	58.2	58.2	56.0
77.5°	31.3	33.6	35.8	42.5	49.3	51.5	51.5	51.5	49.3	49.3	47.0
80°	20.2	22.4	26.9	31.3	38.1	40.3	42.5	42.5	40.3	40.3	38.1
82.5°	9.0	13.4	15.7	20.2	24.6	31.3	31.3	33.6	31.3	29.1	29.1
85°	0.0	0.0	2.2	6.7	11.2	17.9	20.2	22.4	20.2	17.9	17.9
87.5°	0.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5	2.2	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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9	1730.9
2.5°	1500.2	1524.9	1562.9	1585.3	1636.8	1683.8	1733.1	1798.0	1811.5	1813.7
5°	1191.2	1220.3	1292.0	1321.1	1415.1	1491.3	1603.2	1713.0	1742.1	1748.8
7.5°	909.1	931.5	1009.9	1065.8	1168.8	1276.3	1419.6	1549.5	1614.4	1621.2
10°	709.8	770.3	830.7	913.6	1003.1	1108.4	1258.4	1424.1	1495.8	1491.3
12.5°	597.9	660.6	734.4	817.3	909.1	1003.1	1139.7	1323.3	1395.0	1412.9
15°	479.2	555.3	635.9	721.0	828.5	920.3	1079.3	1283.0	1370.4	1395.0
17.5°	371.7	432.2	510.5	620.2	725.5	855.4	1056.9	1321.1	1419.6	1444.3
20°	293.3	338.1	394.1	499.3	633.7	794.9	1045.7	1392.8	1527.1	1562.9
22.5°	250.8	268.7	309.0	400.8	541.9	730.0	1039.0	1493.5	1661.5	1721.9
25°	223.9	235.1	257.5	315.7	450.1	674.0	1050.2	1618.9	1849.5	1898.8
27.5°	203.8	212.7	223.9	266.5	389.6	624.7	1070.3	1760.0	2010.8	2082.4
30°	185.9	192.6	208.2	237.4	340.4	575.5	1077.0	1898.8	2154.1	2219.0
32.5°	172.4	181.4	194.8	219.4	311.2	541.9	1059.1	2004.0	2286.2	2357.8
35°	159.0	170.2	183.6	203.8	286.6	512.8	1018.8	2091.4	2411.6	2481.0
37.5°	152.3	159.0	172.4	188.1	268.7	483.7	983.0	2178.7	2541.4	2637.7
40°	143.3	150.0	163.5	176.9	246.3	452.3	958.4	2290.7	2689.2	2776.6
42.5°	136.6	145.5	156.7	172.4	228.4	418.7	933.7	2380.2	2821.3	2913.1
45°	132.1	141.1	152.3	172.4	212.7	391.9	906.9	2458.6	2922.1	3011.7
47.5°	125.4	136.6	152.3	165.7	206.0	373.9	906.9	2552.6	3013.9	3108.0
50°	123.2	134.3	159.0	161.2	201.5	367.2	944.9	2660.1	3146.0	3235.6
52.5°	120.9	132.1	159.0	152.3	197.0	371.7	1003.1	2854.9	3316.2	3419.2
55°	114.2	129.9	152.3	141.1	185.9	376.2	1068.1	3110.2	3569.2	3665.5
57.5°	109.7	127.6	143.3	129.9	170.2	369.5	1155.4	3338.6	3833.4	3900.6
60°	103.0	125.4	125.4	120.9	152.3	349.3	1253.9	3484.1	3934.2	3987.9
62.5°	98.5	123.2	112.0	112.0	138.8	318.0	1287.5	3448.3	3835.7	3893.9
65°	91.8	107.5	100.8	103.0	127.6	282.1	1229.3	3224.4	3649.8	3719.2
67.5°	85.1	91.8	89.6	94.0	123.2	246.3	1072.6	2957.9	3410.2	3517.7
70°	76.1	80.6	80.6	85.1	116.4	221.7	895.7	2615.3	3099.0	3258.0
72.5°	69.4	71.7	71.7	78.4	109.7	208.2	707.6	2219.0	2599.7	2698.2
75°	58.2	62.7	62.7	67.2	98.5	176.9	483.7	1625.6	1818.2	1898.8
77.5°	51.5	51.5	53.7	56.0	78.4	118.7	284.4	1000.9	1092.7	1135.3
80°	40.3	42.5	40.3	40.3	49.3	78.4	154.5	586.7	665.0	642.6
82.5°	29.1	29.1	24.6	24.6	29.1	42.5	67.2	304.5	311.2	300.0
85°	15.7	11.2	9.0	9.0	9.0	9.0	9.0	64.9	31.3	24.6
87.5°	0.0	0.0	0.0	2.2	2.2	2.2	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

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

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

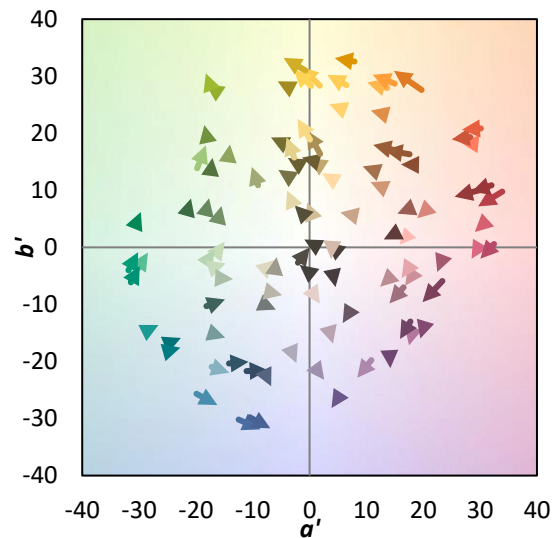
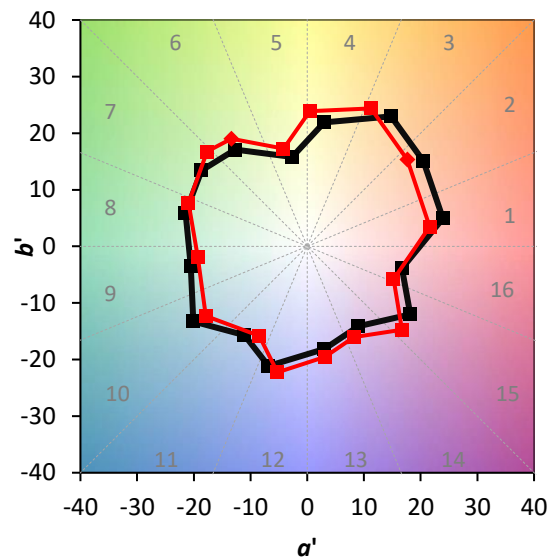
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

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

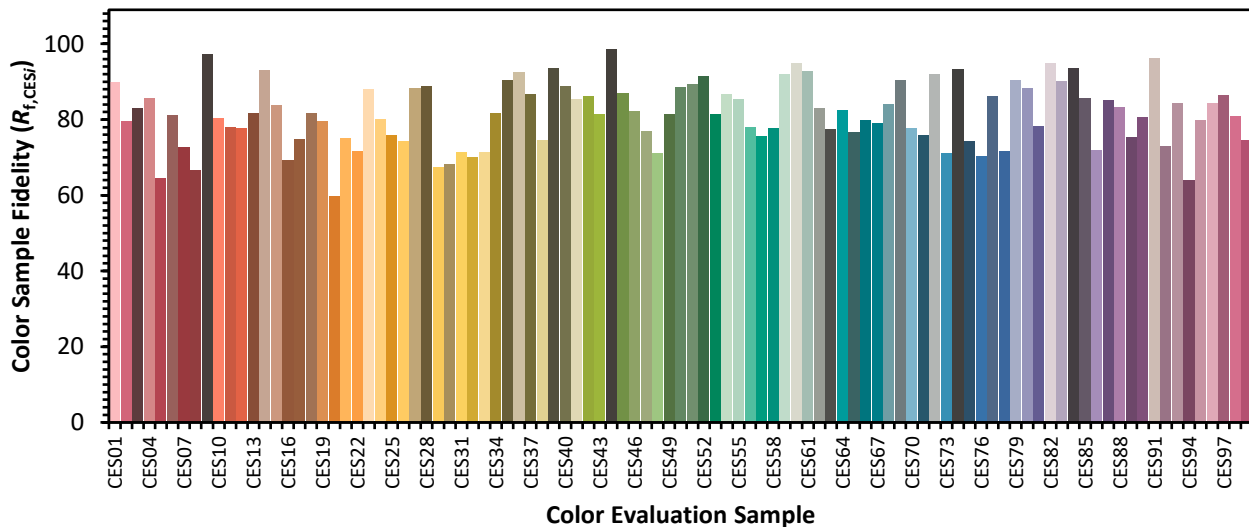


Color Vector Graphics

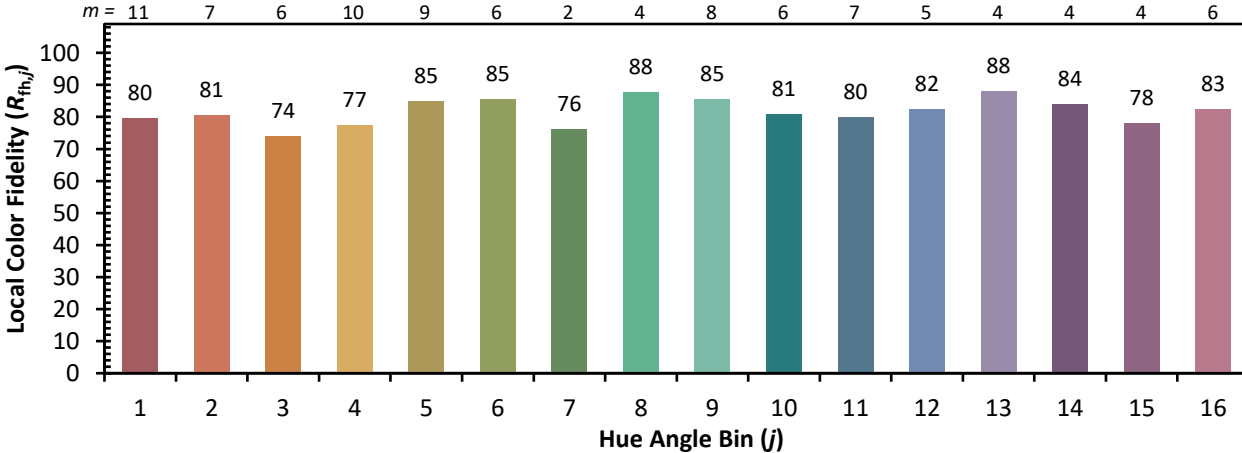


Individual Sample Fidelity Index ($R_{f,i}$)

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)