

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: P438966

Luminaire Tested: **IST-SA1F-830-U-SLR-HSS**

Issue Date: 12/10/2020

Test Information

Test Method: LM-79-08
Report Number: P438966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-23)
Test Lab: INNOVATION CENTER
Issue Date: 12/10/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: IST-SA1F-830-U-SLR-HSS
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4642 lumens
Efficiency: N/A
Efficacy: 70.3 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

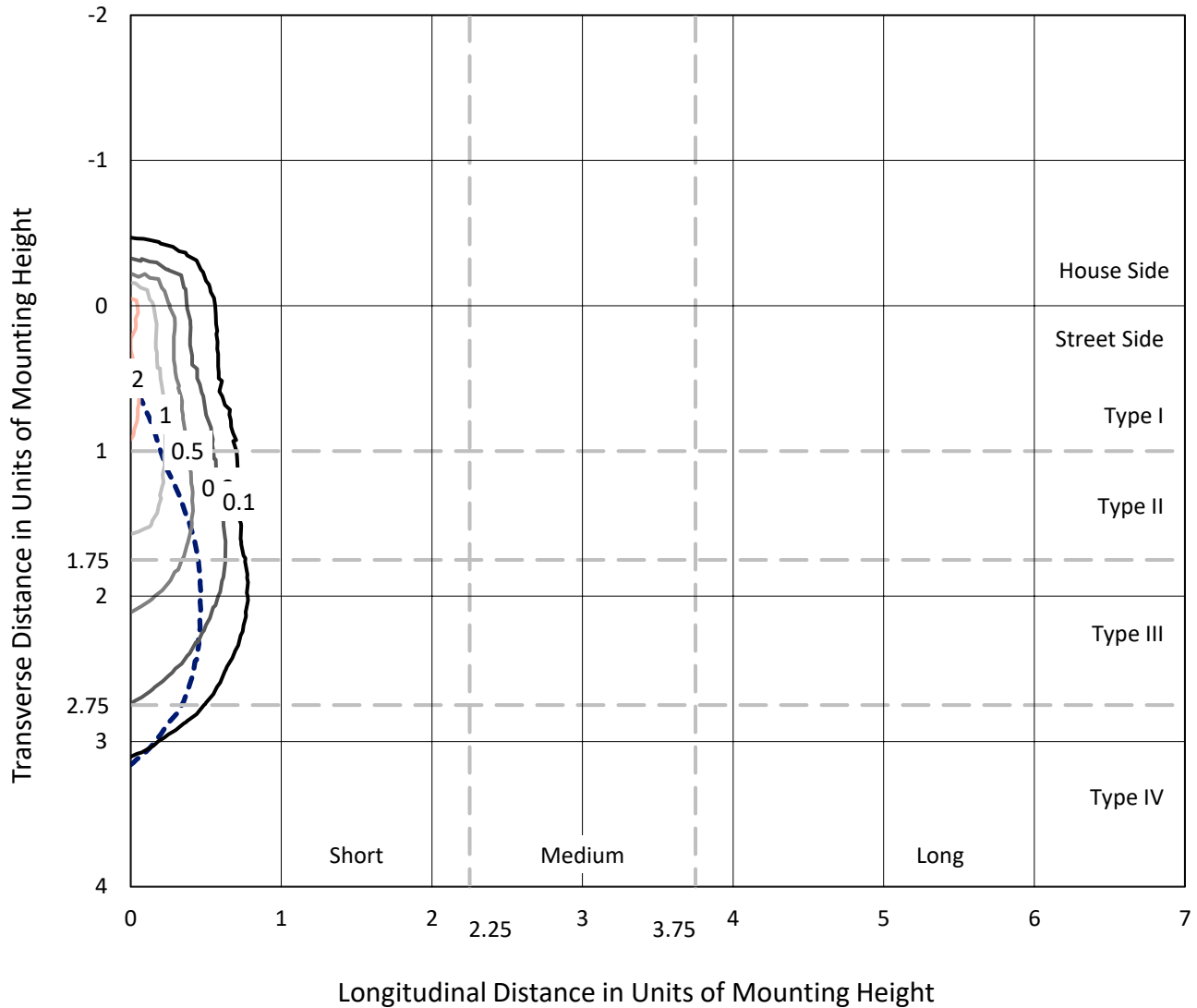
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

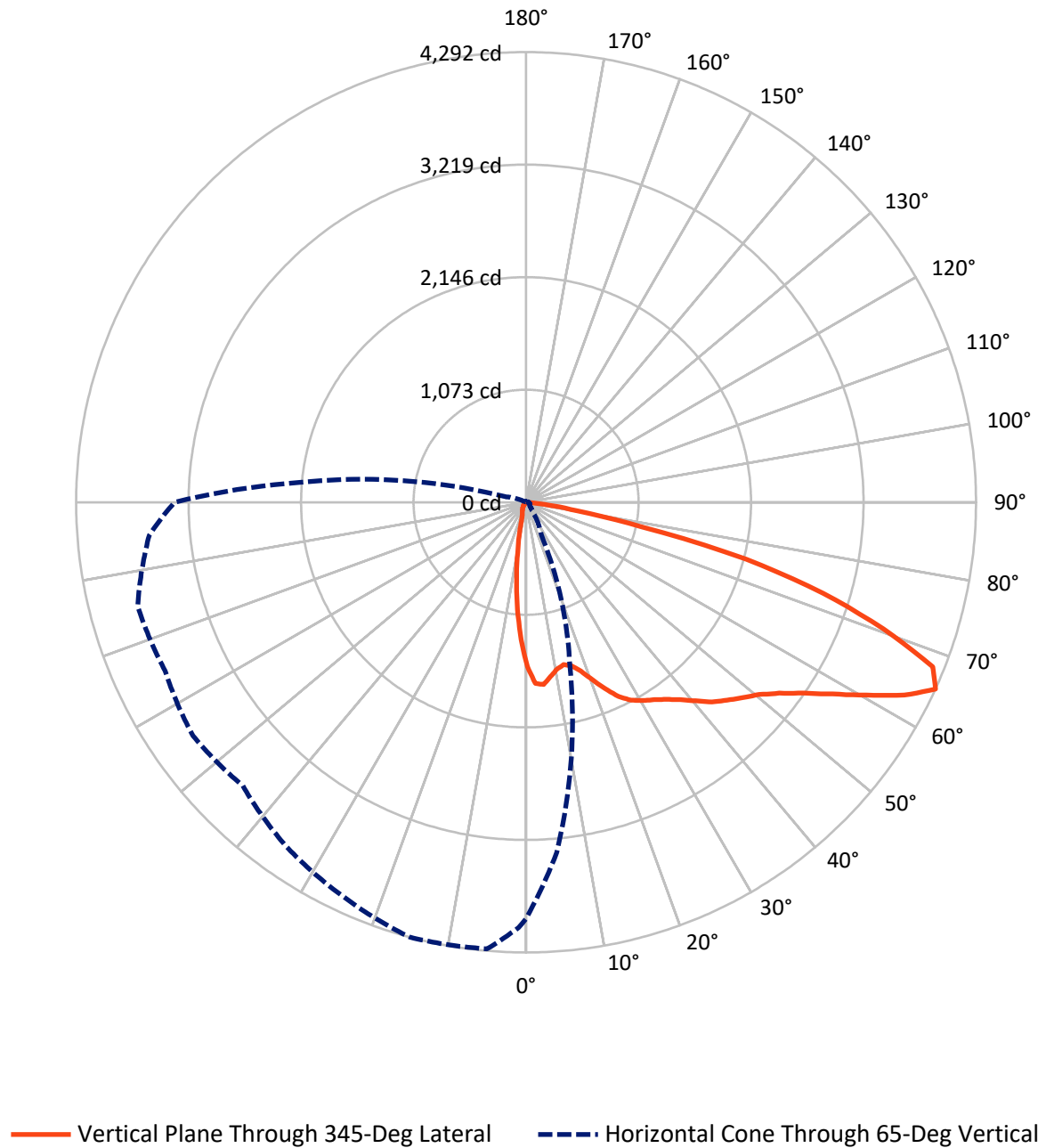
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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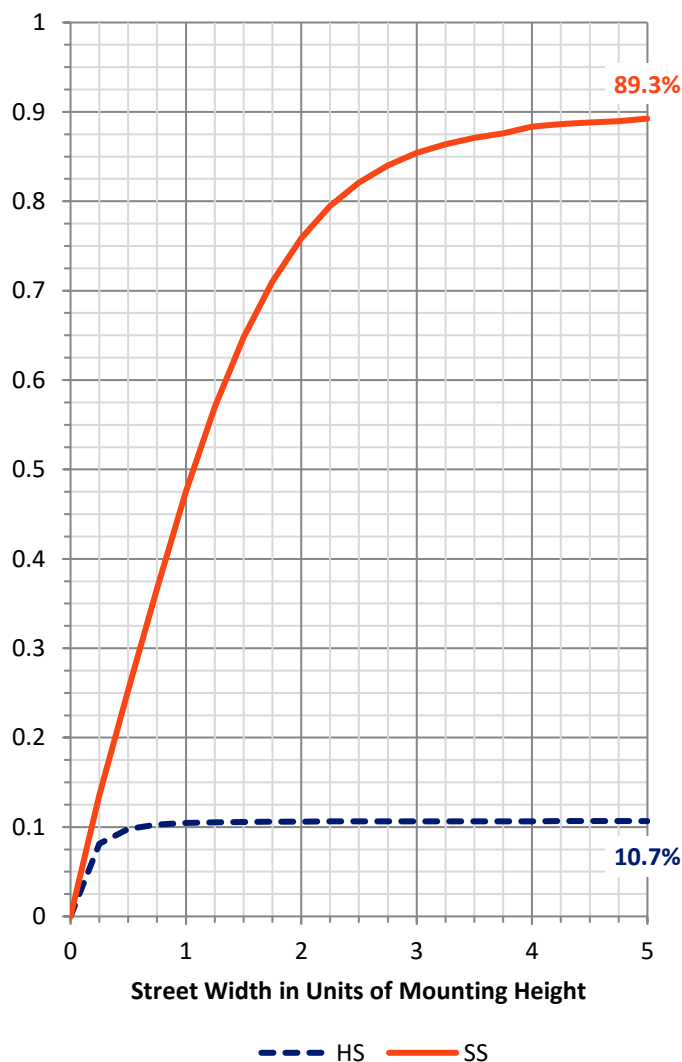
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	500.4	0.0	500.4
	% Fixture	10.8	0.0	10.8
Street Side	Lumens	4141.6	0.0	4141.6
	% Fixture	89.2	0.0	89.2
Total	Lumens	4642.0	0.0	4642.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	2.5
10°-20°	226.3	4.9
20°-30°	330.1	7.1
30°-40°	490.6	10.6
40°-50°	719.3	15.5
50°-60°	1035.1	22.3
60°-70°	1161.2	25.0
70°-80°	509.5	11.0
80°-90°	53.6	1.2
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°	4642.0	100.0
0°-180°	4642.0	100.0

Coefficient of Utilization

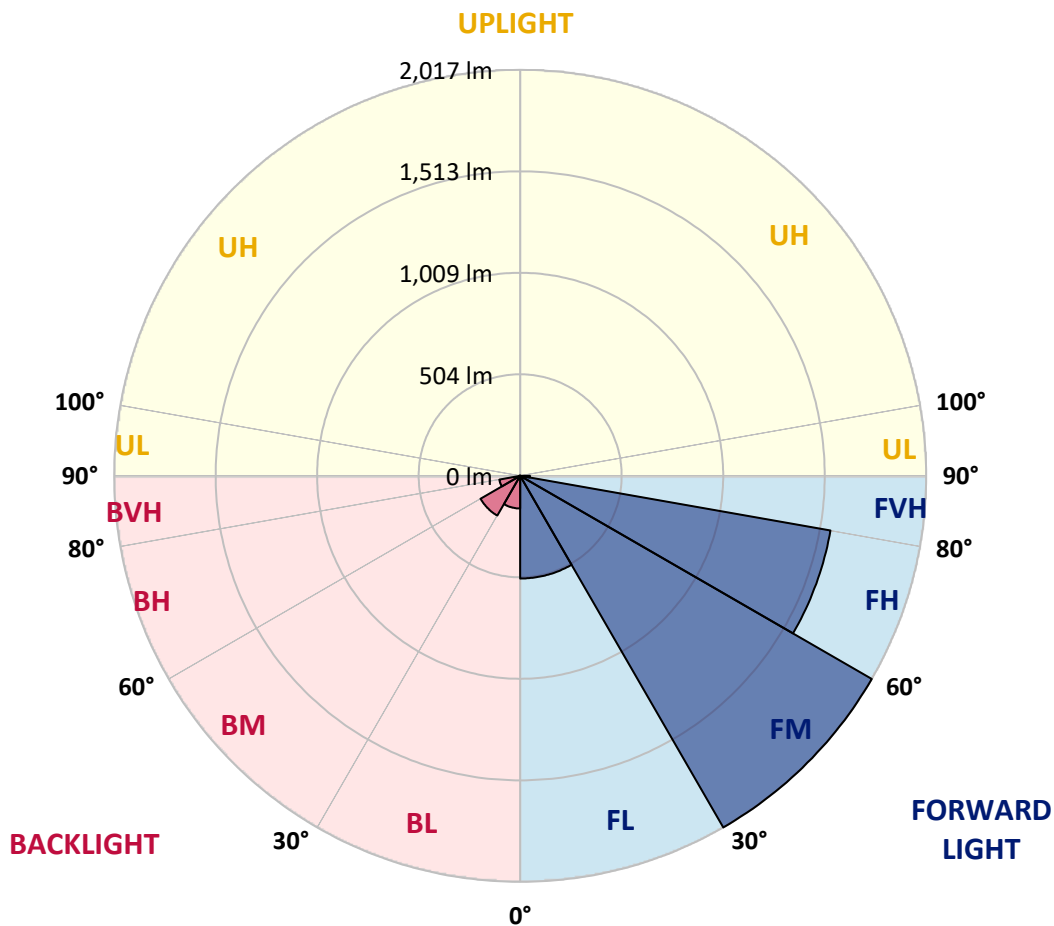


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	510.4	11.0			
FM (30°-60°)	2017.3	43.5			
FH (60°-80°)	1565.5	33.7			G1/1800
FVH (80°-90°)	48.4	1.0			G1/100
BL (0°-30°)	162.3	3.5	B1/500		
BM (30°-60°)	227.8	4.9	B1/1000		
BH (60°-80°)	105.2	2.3	B0/110		G0/110
BVH (80°-90°)	5.2	0.1			G0/10
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°	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6
2.5°	1657.9	1657.9	1633.4	1575.5	1522.0	1457.4	1421.7	1388.3	1352.6	1328.1	1290.2
5°	1579.9	1564.3	1528.7	1421.7	1308.1	1232.3	1174.4	1071.9	1022.8	987.2	971.6
7.5°	1450.7	1441.8	1383.8	1259.0	1123.1	1000.5	922.5	837.9	771.0	744.3	697.5
10°	1361.5	1352.6	1279.1	1109.7	951.5	862.4	800.0	739.8	675.2	610.6	561.6
12.5°	1317.0	1299.1	1227.8	1036.2	900.3	813.4	742.1	668.5	588.3	517.0	459.0
15°	1328.1	1299.1	1218.9	1022.8	862.4	755.4	664.1	557.1	476.9	392.2	338.7
17.5°	1406.1	1374.9	1276.9	1034.0	813.4	677.4	557.1	436.8	329.8	251.8	225.1
20°	1551.0	1517.5	1383.8	1058.5	782.2	599.4	430.1	300.8	218.4	182.7	167.1
22.5°	1735.9	1691.3	1533.1	1098.6	746.5	521.4	325.3	213.9	167.1	144.8	133.7
25°	1929.8	1885.2	1709.2	1158.8	724.2	454.6	251.8	167.1	135.9	122.6	115.9
27.5°	2105.8	2050.1	1867.4	1247.9	697.5	394.4	209.5	144.8	122.6	107.0	102.5
30°	2266.3	2201.6	2025.6	1323.7	659.6	340.9	180.5	133.7	113.6	100.3	93.6
32.5°	2402.2	2350.9	2154.8	1377.1	628.4	312.0	160.4	118.1	98.0	86.9	82.5
35°	2564.9	2515.8	2279.6	1421.7	608.3	298.6	147.1	111.4	91.4	80.2	71.3
37.5°	2785.5	2714.2	2417.8	1461.8	586.1	287.5	135.9	104.7	86.9	73.5	66.9
40°	2983.8	2905.8	2578.2	1490.8	574.9	278.5	133.7	100.3	82.5	69.1	62.4
42.5°	3159.8	3088.5	2707.5	1501.9	566.0	262.9	131.5	98.0	82.5	66.9	57.9
45°	3271.3	3206.6	2861.2	1530.9	566.0	251.8	122.6	98.0	80.2	64.6	55.7
47.5°	3373.8	3311.4	2994.9	1562.1	557.1	242.9	111.4	107.0	80.2	62.4	51.3
50°	3523.1	3474.0	3164.3	1655.7	541.5	229.5	100.3	104.7	82.5	60.2	51.3
52.5°	3712.5	3690.2	3413.9	1782.7	519.2	205.0	89.1	98.0	82.5	57.9	49.0
55°	3921.9	3913.0	3674.6	1898.6	492.5	176.0	82.5	89.1	80.2	53.5	44.6
57.5°	4049.0	4049.0	3844.0	1963.2	470.2	140.4	73.5	73.5	78.0	49.0	40.1
60°	4095.8	4046.7	3823.9	1956.5	432.3	115.9	66.9	60.2	82.5	42.3	35.7
62.5°	4091.3	3984.3	3636.7	1849.6	381.1	107.0	57.9	51.3	60.2	37.9	31.2
65°	3971.0	3841.7	3351.5	1611.1	343.2	107.0	49.0	42.3	40.1	33.4	24.5
67.5°	3638.9	3560.9	2934.8	1366.0	316.4	107.0	42.3	35.7	31.2	26.7	22.3
70°	3090.8	2988.3	2364.3	1054.0	296.4	107.0	35.7	31.2	29.0	22.3	17.8
72.5°	2014.5	1956.5	1446.2	724.2	242.9	104.7	31.2	29.0	26.7	20.1	15.6
75°	1096.4	1013.9	795.5	258.5	173.8	75.8	26.7	24.5	20.1	17.8	13.4
77.5°	474.6	456.8	405.6	69.1	51.3	22.3	15.6	15.6	13.4	13.4	8.9
80°	62.4	46.8	53.5	20.1	17.8	11.1	8.9	6.7	6.7	6.7	4.5
82.5°	2.2	2.2	0.0	2.2	6.7	4.5	0.0	0.0	2.2	2.2	2.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6
2.5°	1308.1	1281.3	1261.3	1261.3	1288.0	1272.4	1290.2	1279.1	1310.3	1325.9	1321.4
5°	938.1	949.3	938.1	956.0	984.9	1000.5	1009.5	1031.7	1029.5	1038.4	1054.0
7.5°	679.7	679.7	684.1	679.7	706.4	735.4	751.0	744.3	739.8	730.9	746.5
10°	546.0	521.4	492.5	492.5	496.9	512.5	514.8	503.6	488.0	459.0	468.0
12.5°	427.8	410.0	392.2	354.3	352.1	343.2	340.9	309.7	285.2	276.3	276.3
15°	314.2	303.1	283.0	265.2	247.4	238.4	222.8	185.0	160.4	158.2	160.4
17.5°	209.5	202.8	196.1	196.1	189.4	173.8	158.2	133.7	122.6	118.1	120.3
20°	156.0	153.8	147.1	149.3	149.3	135.9	120.3	109.2	104.7	104.7	107.0
22.5°	129.2	127.0	120.3	120.3	120.3	113.6	102.5	95.8	93.6	93.6	93.6
25°	111.4	109.2	104.7	102.5	102.5	98.0	89.1	84.7	82.5	82.5	82.5
27.5°	100.3	98.0	93.6	89.1	89.1	84.7	80.2	73.5	73.5	73.5	73.5
30°	89.1	86.9	84.7	80.2	78.0	73.5	69.1	66.9	64.6	64.6	64.6
32.5°	80.2	78.0	75.8	73.5	69.1	64.6	60.2	57.9	55.7	55.7	55.7
35°	69.1	64.6	62.4	64.6	62.4	55.7	53.5	49.0	46.8	46.8	46.8
37.5°	62.4	57.9	53.5	51.3	51.3	51.3	46.8	42.3	40.1	37.9	40.1
40°	57.9	53.5	49.0	44.6	42.3	44.6	40.1	35.7	33.4	31.2	33.4
42.5°	53.5	49.0	42.3	37.9	33.4	37.9	33.4	29.0	26.7	24.5	26.7
45°	51.3	46.8	40.1	33.4	29.0	29.0	29.0	24.5	20.1	20.1	20.1
47.5°	49.0	44.6	35.7	29.0	24.5	22.3	22.3	17.8	15.6	13.4	13.4
50°	46.8	42.3	33.4	24.5	20.1	17.8	17.8	13.4	11.1	11.1	11.1
52.5°	44.6	40.1	31.2	22.3	17.8	13.4	11.1	8.9	8.9	6.7	6.7
55°	40.1	35.7	26.7	20.1	15.6	11.1	8.9	6.7	6.7	4.5	6.7
57.5°	37.9	33.4	24.5	17.8	13.4	8.9	6.7	4.5	4.5	4.5	4.5
60°	33.4	29.0	20.1	13.4	8.9	6.7	4.5	4.5	4.5	2.2	2.2
62.5°	26.7	24.5	17.8	11.1	6.7	4.5	2.2	2.2	2.2	2.2	2.2
65°	24.5	22.3	15.6	8.9	4.5	2.2	2.2	2.2	2.2	2.2	2.2
67.5°	20.1	17.8	11.1	6.7	2.2	2.2	0.0	2.2	2.2	0.0	0.0
70°	15.6	15.6	8.9	4.5	2.2	0.0	0.0	2.2	2.2	0.0	0.0
72.5°	13.4	13.4	8.9	2.2	0.0	0.0	0.0	2.2	2.2	2.2	0.0
75°	11.1	11.1	8.9	4.5	0.0	0.0	0.0	2.2	2.2	2.2	2.2
77.5°	8.9	6.7	4.5	2.2	0.0	0.0	0.0	2.2	2.2	2.2	2.2
80°	4.5	4.5	2.2	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2
82.5°	2.2	2.2	0.0	0.0	0.0	0.0	0.0	2.2	4.5	4.5	2.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.5	4.5	4.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.5	4.5	4.5	4.5
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°	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6
2.5°	1332.6	1368.2	1408.3	1432.8	1486.3	1533.1	1588.8	1637.9	1695.8	1727.0	1738.1
5°	1069.6	1089.7	1140.9	1207.8	1267.9	1352.6	1450.7	1559.9	1678.0	1733.7	1773.8
7.5°	737.6	755.4	829.0	891.4	991.6	1100.8	1234.5	1383.8	1537.6	1615.6	1686.9
10°	481.3	505.8	568.2	655.1	782.2	915.9	1051.8	1207.8	1386.1	1477.4	1573.2
12.5°	278.5	307.5	383.3	496.9	621.7	764.3	904.7	1076.3	1274.6	1374.9	1473.0
15°	160.4	171.6	216.2	316.4	456.8	630.6	795.5	980.5	1212.2	1323.7	1439.5
17.5°	120.3	127.0	140.4	182.7	291.9	483.6	715.3	951.5	1218.9	1368.2	1470.7
20°	107.0	111.4	118.1	133.7	185.0	343.2	617.3	931.5	1283.5	1475.2	1600.0
22.5°	95.8	100.3	107.0	118.1	140.4	231.8	514.8	929.2	1390.5	1633.4	1773.8
25°	84.7	89.1	95.8	107.0	124.8	167.1	398.9	922.5	1524.2	1807.2	1983.3
27.5°	73.5	78.0	84.7	95.8	111.4	138.2	303.1	902.5	1684.7	1994.4	2181.6
30°	64.6	69.1	75.8	84.7	100.3	120.3	231.8	869.1	1822.8	2161.5	2315.3
32.5°	55.7	60.2	66.9	75.8	89.1	104.7	187.2	797.8	1929.8	2293.0	2424.5
35°	46.8	51.3	57.9	66.9	78.0	89.1	153.8	681.9	2039.0	2428.9	2556.0
37.5°	40.1	44.6	49.0	57.9	69.1	80.2	127.0	608.3	2119.2	2598.3	2723.1
40°	33.4	37.9	44.6	51.3	60.2	75.8	102.5	510.3	2199.4	2761.0	2876.8
42.5°	26.7	31.2	37.9	46.8	55.7	66.9	82.5	421.2	2279.6	2908.0	3017.2
45°	20.1	24.5	31.2	42.3	55.7	57.9	66.9	358.8	2299.7	3046.2	3139.8
47.5°	15.6	17.8	24.5	35.7	53.5	51.3	55.7	312.0	2337.6	3155.4	3260.1
50°	11.1	13.4	20.1	33.4	46.8	42.3	49.0	294.1	2391.1	3240.1	3295.8
52.5°	8.9	11.1	15.6	29.0	37.9	37.9	44.6	312.0	2460.1	3340.3	3387.1
55°	6.7	8.9	13.4	20.1	29.0	33.4	42.3	336.5	2593.8	3516.4	3507.5
57.5°	4.5	6.7	11.1	15.6	22.3	29.0	40.1	374.4	2729.8	3714.7	3723.6
60°	4.5	6.7	8.9	13.4	20.1	24.5	35.7	378.8	2707.5	3743.7	3875.2
62.5°	2.2	4.5	8.9	11.1	15.6	20.1	31.2	318.7	2493.6	3603.3	3794.9
65°	2.2	4.5	6.7	11.1	13.4	17.8	24.5	202.8	2170.4	3353.7	3607.7
67.5°	2.2	4.5	6.7	8.9	11.1	15.6	20.1	104.7	1840.6	3095.2	3340.3
70°	2.2	4.5	6.7	8.9	11.1	13.4	17.8	51.3	1395.0	2609.4	2925.9
72.5°	2.2	4.5	6.7	8.9	8.9	11.1	15.6	35.7	895.8	1961.0	2266.3
75°	2.2	4.5	4.5	6.7	8.9	11.1	13.4	24.5	579.4	1319.2	1718.1
77.5°	2.2	4.5	4.5	6.7	8.9	11.1	15.6	22.3	423.4	904.7	1187.7
80°	2.2	4.5	4.5	6.7	8.9	8.9	11.1	15.6	227.3	599.4	755.4
82.5°	4.5	4.5	6.7	6.7	6.7	8.9	11.1	11.1	118.1	383.3	510.3
85°	4.5	4.5	6.7	6.7	8.9	8.9	8.9	11.1	51.3	160.4	254.0
87.5°	4.5	6.7	6.7	6.7	8.9	8.9	8.9	8.9	6.7	8.9	8.9
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°	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6	1566.6
2.5°	1771.6	1800.5	1813.9	1802.8	1793.8	1767.1	1729.2	1691.3	1660.1	1657.9
5°	1865.2	1927.5	1976.6	1952.1	1918.6	1840.6	1744.8	1637.9	1597.7	1579.9
7.5°	1845.1	1981.0	2063.5	2041.2	1974.3	1827.3	1678.0	1537.6	1473.0	1450.7
10°	1753.7	1936.5	2045.7	2039.0	1976.6	1802.8	1617.8	1448.4	1379.4	1361.5
12.5°	1669.1	1849.6	1954.3	1958.7	1936.5	1776.0	1588.8	1408.3	1325.9	1317.0
15°	1624.5	1778.2	1840.6	1854.0	1862.9	1773.8	1615.6	1435.1	1348.2	1328.1
17.5°	1633.4	1706.9	1722.5	1711.4	1771.6	1776.0	1691.3	1528.7	1430.6	1406.1
20°	1686.9	1660.1	1608.9	1620.0	1686.9	1784.9	1805.0	1693.6	1582.1	1551.0
22.5°	1789.4	1657.9	1555.4	1546.5	1633.4	1800.5	1927.5	1869.6	1753.7	1735.9
25°	1940.9	1691.3	1533.1	1515.3	1591.1	1816.1	2052.3	2054.6	1963.2	1929.8
27.5°	2088.0	1744.8	1530.9	1513.1	1591.1	1836.2	2137.0	2237.3	2141.5	2105.8
30°	2172.7	1807.2	1566.6	1533.1	1620.0	1854.0	2192.7	2382.1	2297.5	2266.3
32.5°	2250.7	1874.1	1604.4	1564.3	1675.7	1903.0	2244.0	2513.6	2440.1	2402.2
35°	2315.3	1952.1	1675.7	1613.3	1758.2	1974.3	2306.4	2658.5	2611.7	2564.9
37.5°	2377.7	2030.1	1776.0	1740.4	1896.4	2076.8	2388.8	2810.0	2832.3	2785.5
40°	2466.8	2119.2	1947.6	1918.6	2099.1	2232.8	2489.1	2961.5	3035.1	2983.8
42.5°	2551.5	2232.8	2121.4	2148.2	2344.3	2413.3	2602.7	3099.7	3182.1	3159.8
45°	2629.5	2373.2	2373.2	2437.8	2609.4	2611.7	2689.7	3195.5	3282.4	3271.3
47.5°	2732.0	2547.0	2633.9	2812.2	2903.6	2783.2	2783.2	3286.9	3405.0	3373.8
50°	2832.3	2778.8	2979.3	3142.0	3222.2	2990.5	2879.1	3409.4	3549.8	3523.1
52.5°	2941.5	3003.9	3302.5	3462.9	3509.7	3226.7	3023.9	3532.0	3712.5	3712.5
55°	3117.5	3195.5	3643.4	3777.1	3844.0	3422.8	3208.9	3705.8	3910.8	3921.9
57.5°	3298.0	3380.5	3835.0	4004.4	4091.3	3712.5	3447.3	3937.5	4051.2	4049.0
60°	3487.4	3574.3	3984.3	4151.5	4278.5	4008.9	3730.3	4149.2	4118.0	4095.8
62.5°	3721.4	3721.4	4040.1	4118.0	4271.8	4196.0	4049.0	4269.6	4142.6	4091.3
65°	3835.0	3799.4	3879.6	3821.7	3997.7	4142.6	4291.9	4274.0	4055.6	3971.0
67.5°	3774.9	3558.7	3420.6	3333.7	3371.5	3621.1	4184.9	4062.3	3703.6	3638.9
70°	3362.6	2845.6	2716.4	2578.2	2504.7	2763.2	3616.7	3587.7	3150.9	3090.8
72.5°	2740.9	2054.6	1742.6	1883.0	1811.7	2103.6	2963.7	2531.4	2067.9	2014.5
75°	2275.2	1528.7	1136.5	1138.7	1149.8	1381.6	2166.0	1504.2	1136.5	1096.4
77.5°	1646.8	1076.3	918.1	822.3	831.2	882.4	1127.6	641.8	523.7	474.6
80°	1005.0	666.3	742.1	659.6	637.3	490.2	485.8	93.6	62.4	62.4
82.5°	548.2	423.4	394.4	142.6	220.6	267.4	220.6	4.5	2.2	2.2
85°	278.5	169.4	80.2	24.5	29.0	24.5	4.5	0.0	0.0	0.0
87.5°	8.9	6.7	6.7	4.5	4.5	2.2	2.2	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



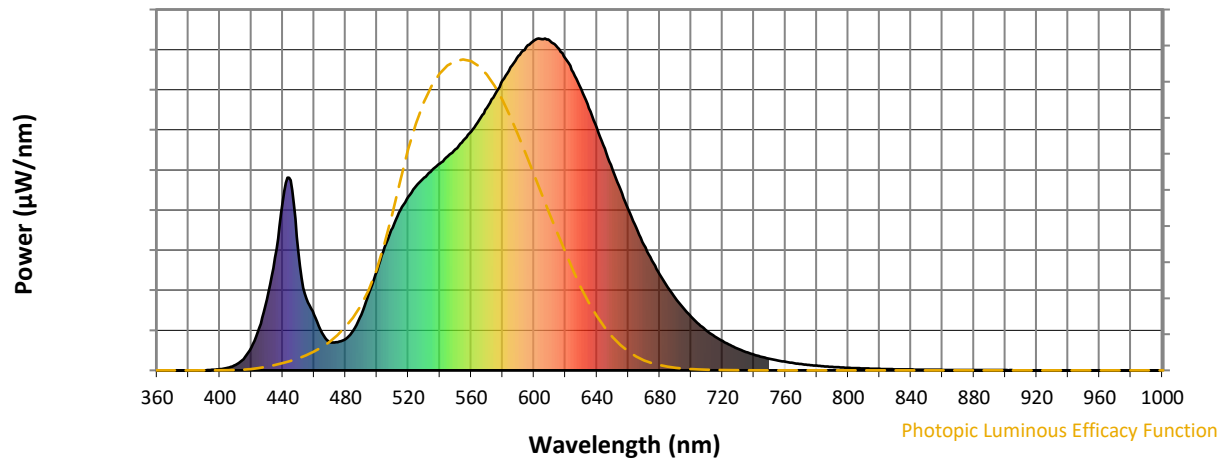
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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)