

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: P438965

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

Issue Date: 12/10/2020

Test Information

Test Method: LM-79-08
Report Number: P438965
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-20)
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-SLL
Description: IMPACT ELITE LED TRAPEZOID 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: 5522 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

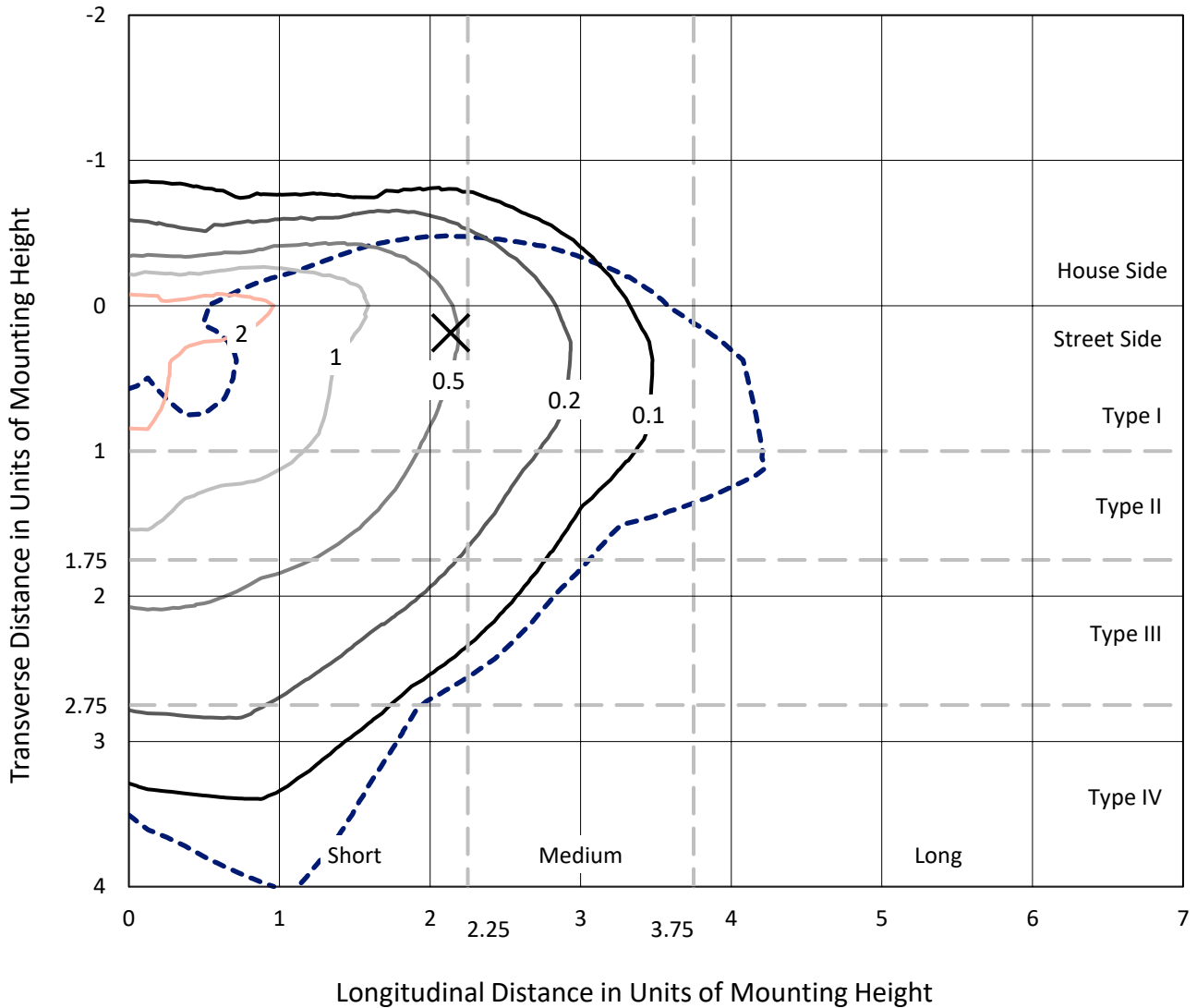
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

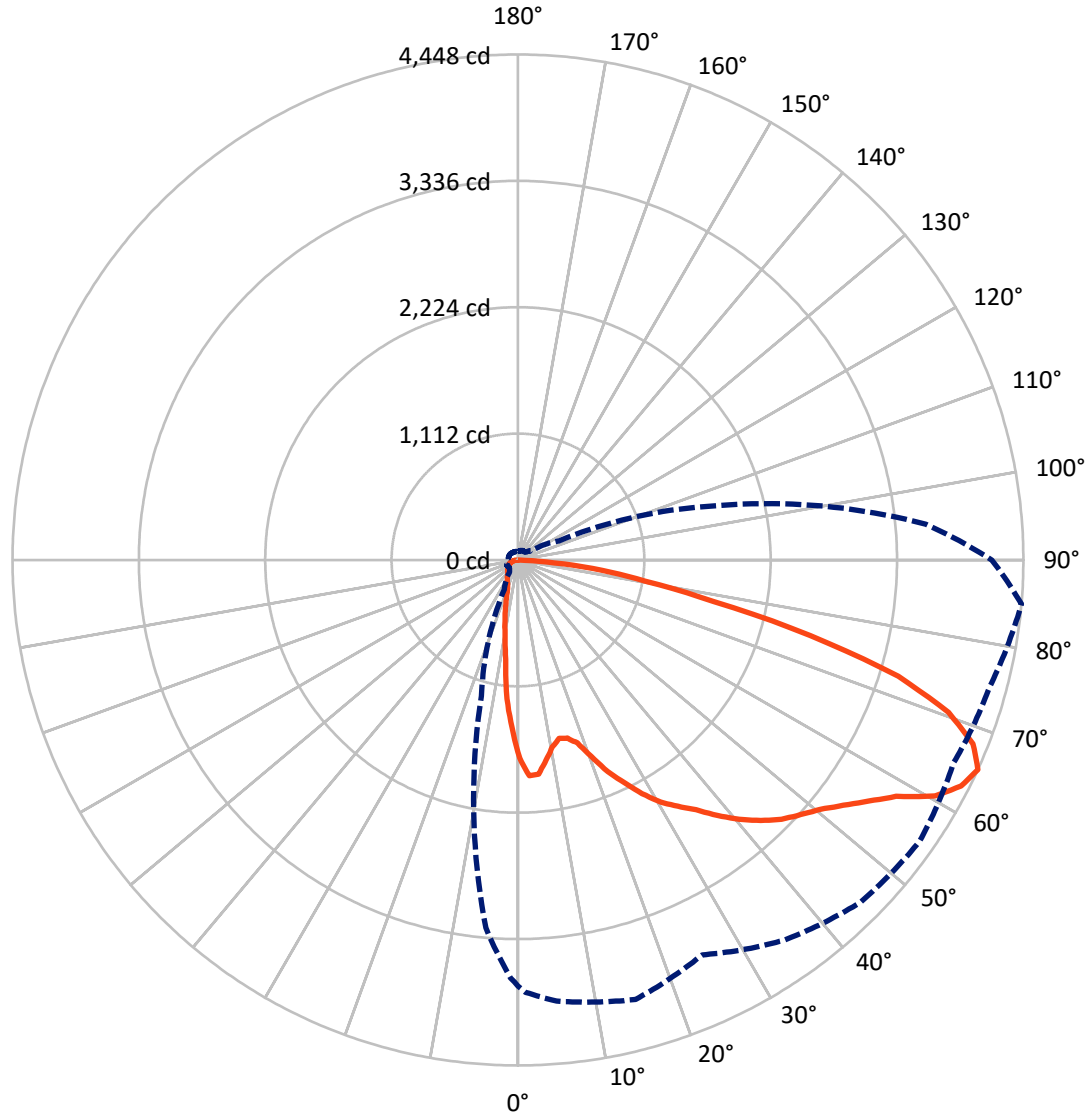
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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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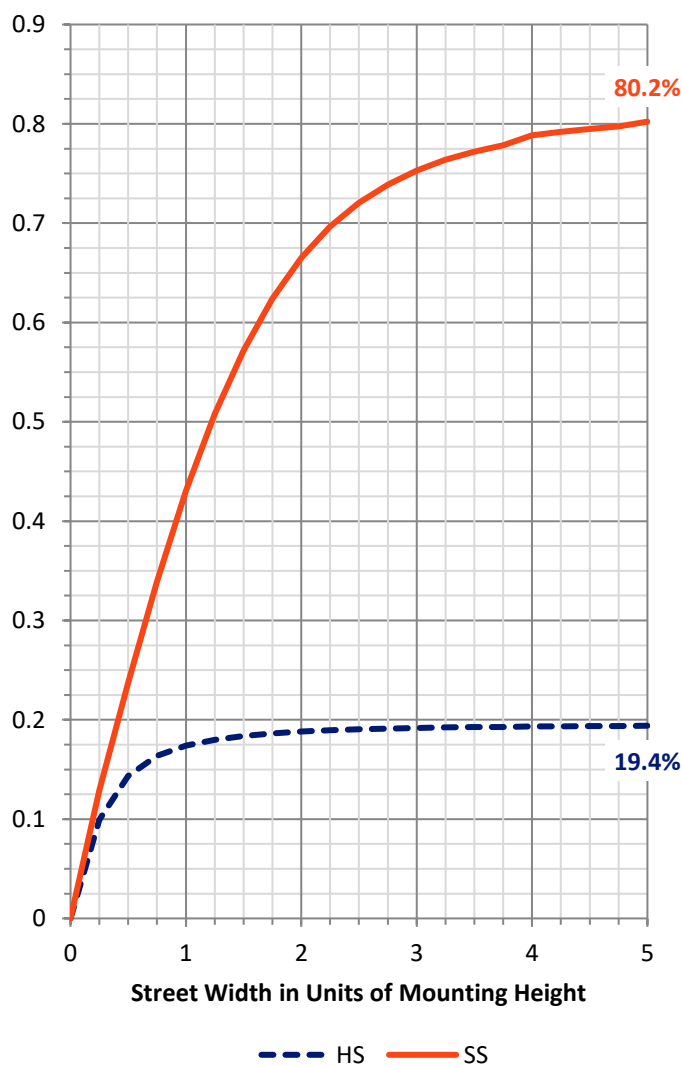
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1080.7	0.0	1080.7
	% Fixture	19.6	0.0	19.6
Street Side	Lumens	4441.3	0.0	4441.3
	% Fixture	80.4	0.0	80.4
Total	Lumens	5522.0	0.0	5522.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.9	2.4
10°-20°	276.2	5.0
20°-30°	397.2	7.2
30°-40°	570.2	10.3
40°-50°	807.2	14.6
50°-60°	1122.4	20.3
60°-70°	1336.6	24.2
70°-80°	772.5	14.0
80°-90°	106.8	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°	5522.0	100.0
0°-180°	5522.0	100.0

Coefficient of Utilization

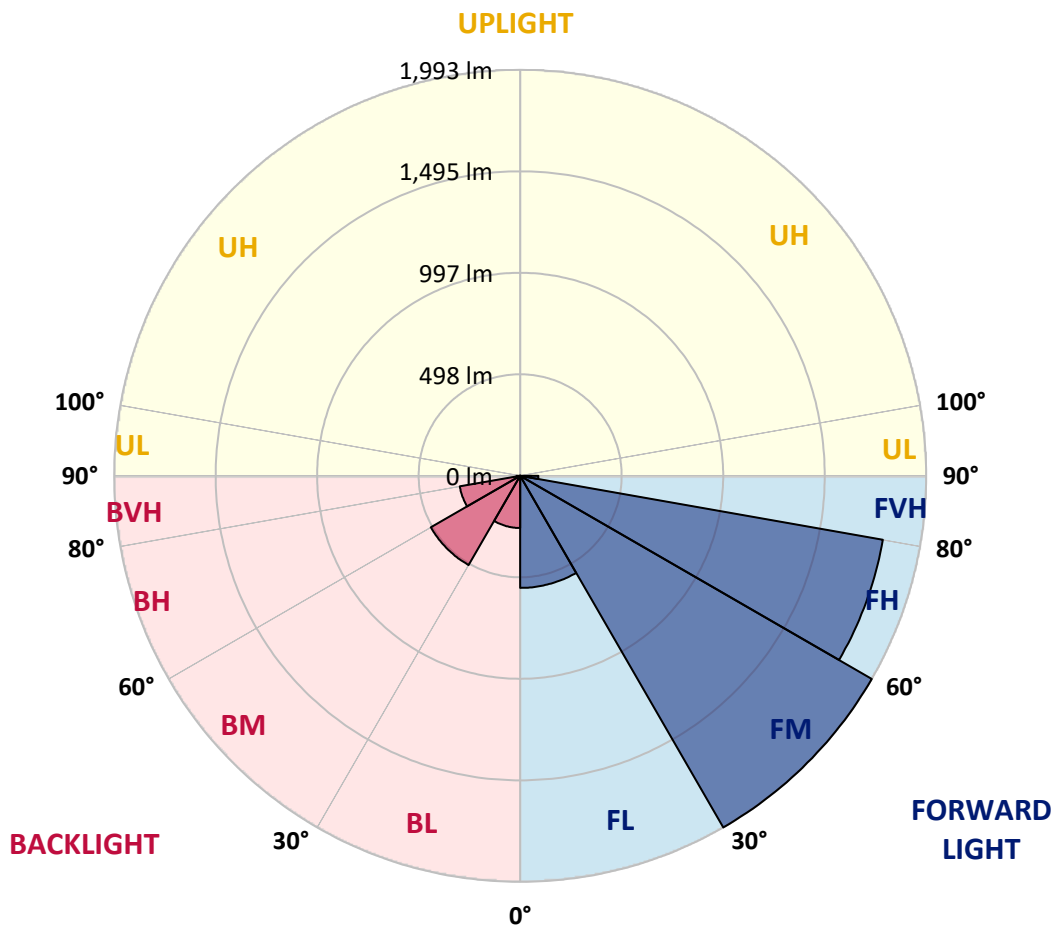


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	550.3	10.0			
FM (30°-60°)	1993.5	36.1			
FH (60°-80°)	1808.2	32.7			G2/5000
FVH (80°-90°)	89.4	1.6			G1/100
BL (0°-30°)	256.0	4.6	B1/500		
BM (30°-60°)	506.4	9.2	B1/1000		
BH (60°-80°)	300.9	5.4	B1/500		G1/500
BVH (80°-90°)	17.5	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-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5
2.5°	1828.0	1834.7	1850.5	1904.7	1938.5	1965.6	1999.5	1965.6	1956.6	1911.5	1902.4
5°	1762.5	1778.3	1823.4	1925.0	2008.5	2096.5	2141.6	2103.3	2051.4	1972.4	1893.4
7.5°	1633.9	1654.2	1712.9	1870.8	2028.8	2148.4	2207.1	2166.5	2060.4	1920.5	1778.3
10°	1503.0	1534.6	1604.5	1803.1	1970.1	2103.3	2193.5	2150.7	2022.0	1839.2	1670.0
12.5°	1424.0	1446.6	1525.6	1733.2	1909.2	2042.3	2110.0	2085.2	1965.6	1791.8	1611.3
15°	1405.9	1428.5	1507.5	1708.3	1864.1	1963.4	1979.2	1985.9	1940.8	1807.6	1627.1
17.5°	1455.6	1473.6	1582.0	1749.0	1812.2	1832.5	1857.3	1886.6	1909.2	1839.2	1692.5
20°	1575.2	1611.3	1706.1	1832.5	1798.6	1751.2	1764.8	1800.9	1886.6	1931.8	1843.7
22.5°	1735.4	1776.0	1895.7	1947.6	1807.6	1706.1	1694.8	1726.4	1884.4	2033.3	2024.3
25°	1913.7	1970.1	2098.8	2101.0	1846.0	1674.5	1651.9	1681.3	1879.9	2123.6	2168.7
27.5°	2098.8	2150.7	2290.6	2220.6	1920.5	1676.8	1649.7	1679.0	1891.1	2220.6	2328.9
30°	2236.4	2304.1	2426.0	2333.5	1967.9	1706.1	1665.5	1703.8	1916.0	2270.3	2471.1
32.5°	2376.3	2419.2	2547.8	2398.9	2019.8	1751.2	1699.3	1758.0	1979.2	2317.7	2584.0
35°	2500.5	2556.9	2687.8	2437.3	2096.5	1828.0	1760.3	1837.0	2069.4	2385.4	2699.1
37.5°	2658.4	2712.6	2832.2	2491.4	2159.7	1925.0	1868.6	1967.9	2180.0	2446.3	2852.5
40°	2798.3	2884.1	2974.4	2559.1	2231.9	2067.2	2031.1	2166.5	2328.9	2529.8	3001.5
42.5°	2936.0	3008.2	3107.5	2635.9	2324.4	2240.9	2256.7	2398.9	2509.5	2656.2	3134.6
45°	3035.3	3118.8	3206.8	2696.8	2444.0	2428.2	2534.3	2653.9	2694.5	2789.3	3254.2
47.5°	3132.3	3197.8	3276.8	2757.7	2588.5	2638.1	2823.2	2915.7	2875.1	2908.9	3349.0
50°	3261.0	3330.9	3353.5	2854.8	2771.3	2904.4	3105.3	3166.2	3048.8	3003.7	3448.3
52.5°	3446.0	3479.9	3468.6	2969.9	2945.0	3182.0	3346.7	3439.3	3229.4	3094.0	3585.9
55°	3694.3	3752.9	3680.7	3157.2	3123.3	3448.3	3640.1	3685.2	3430.2	3206.8	3743.9
57.5°	3931.2	3983.1	3960.6	3385.1	3355.8	3678.5	3863.5	3906.4	3626.6	3416.7	3924.5
60°	4019.2	4035.0	4116.3	3626.6	3588.2	3874.8	4084.7	4091.5	3861.3	3669.4	4217.8
62.5°	3924.5	3987.6	4066.6	3852.2	3728.1	4044.1	4231.4	4274.2	4084.7	3976.4	4378.1
65°	3748.4	3804.8	3897.4	4003.4	3834.2	4084.7	4260.7	4314.9	4229.1	4299.1	4448.0
67.5°	3545.3	3615.3	3678.5	4028.3	3820.6	3852.2	3998.9	4032.8	4152.4	4441.2	4319.4
70°	3283.5	3362.5	3416.7	3931.2	3497.9	3184.2	3288.1	3380.6	3563.4	4188.5	4019.2
72.5°	2719.4	2845.7	2981.1	3491.2	2829.9	2473.4	2554.6	2615.6	2746.4	3576.9	3500.2
75°	1913.7	2006.2	2173.2	2811.9	2173.2	1751.2	1877.6	1877.6	2042.3	2938.3	2658.4
77.5°	1144.2	1146.4	1308.9	1850.5	1322.4	1180.3	1252.5	1286.3	1336.0	2080.7	1764.8
80°	647.7	656.7	710.9	1196.1	783.1	805.7	891.4	981.7	907.2	1290.9	1135.1
82.5°	302.4	266.3	282.1	564.2	444.6	525.8	539.4	580.0	584.5	826.0	744.7
85°	24.8	20.3	27.1	101.6	79.0	72.2	51.9	99.3	155.7	361.1	320.5
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°	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5
2.5°	1873.1	1850.5	1800.9	1762.5	1726.4	1658.7	1631.6	1593.3	1572.9	1536.8	1545.9
5°	1834.7	1782.8	1670.0	1593.3	1494.0	1412.7	1363.1	1317.9	1299.9	1261.5	1248.0
7.5°	1694.8	1649.7	1507.5	1381.1	1259.3	1162.2	1069.7	1002.0	970.4	936.5	934.3
10°	1575.2	1500.7	1338.2	1189.3	1049.4	959.1	891.4	835.0	785.3	742.5	717.6
12.5°	1507.5	1415.0	1234.4	1053.9	956.9	893.7	819.2	749.2	692.8	643.2	613.8
15°	1507.5	1399.2	1184.8	1008.8	911.7	816.9	731.2	659.0	584.5	525.8	507.8
17.5°	1577.5	1444.3	1196.1	979.4	841.8	735.7	627.4	532.6	460.4	408.5	390.4
20°	1715.1	1554.9	1223.1	945.6	774.1	627.4	496.5	394.9	329.5	304.7	300.1
22.5°	1875.3	1688.0	1263.8	914.0	704.1	512.3	372.4	300.1	270.8	261.8	261.8
25°	2051.4	1837.0	1315.7	880.1	631.9	406.2	284.3	250.5	239.2	234.7	234.7
27.5°	2216.1	1999.5	1408.2	866.6	564.2	329.5	248.2	223.4	216.6	212.1	214.4
30°	2376.3	2143.9	1503.0	839.5	489.7	286.6	223.4	205.4	196.3	194.1	196.3
32.5°	2514.0	2268.0	1568.4	798.9	437.8	257.3	207.6	189.6	180.5	178.3	180.5
35°	2672.0	2389.9	1633.9	769.5	410.7	239.2	196.3	178.3	169.3	164.7	164.7
37.5°	2857.0	2536.6	1683.5	726.7	392.7	221.2	187.3	169.3	158.0	153.5	153.5
40°	3105.3	2714.8	1724.1	692.8	372.4	212.1	176.0	160.2	148.9	144.4	142.2
42.5°	3276.8	2870.6	1758.0	670.2	352.1	207.6	169.3	155.7	142.2	135.4	133.1
45°	3394.1	3008.2	1780.6	659.0	334.0	196.3	164.7	151.2	135.4	126.4	126.4
47.5°	3507.0	3121.1	1782.8	643.2	320.5	182.8	171.5	144.4	128.6	119.6	119.6
50°	3633.3	3263.2	1825.7	627.4	304.7	167.0	169.3	142.2	124.1	115.1	112.8
52.5°	3759.7	3457.3	1909.2	604.8	282.1	153.5	160.2	144.4	119.6	110.6	108.3
55°	3985.4	3698.8	2013.0	571.0	252.8	139.9	148.9	142.2	112.8	103.8	101.6
57.5°	4132.1	3924.5	2094.2	534.8	209.9	130.9	130.9	137.7	106.1	97.0	94.8
60°	4215.6	3967.3	2110.0	492.0	171.5	117.4	112.8	139.9	99.3	88.0	88.0
62.5°	4213.3	3820.6	2031.1	451.3	148.9	108.3	101.6	121.9	92.5	83.5	81.2
65°	4170.4	3604.0	1852.8	399.4	139.9	99.3	90.3	92.5	85.8	76.7	74.5
67.5°	3985.4	3229.4	1568.4	347.5	135.4	90.3	83.5	79.0	74.5	67.7	65.4
70°	3536.3	2807.4	1223.1	322.7	133.1	79.0	72.2	67.7	63.2	58.7	58.7
72.5°	2875.1	2189.0	934.3	309.2	135.4	72.2	60.9	58.7	54.2	51.9	49.6
75°	1990.4	1618.1	677.0	273.1	130.9	60.9	51.9	47.4	45.1	40.6	40.6
77.5°	1279.6	1058.4	449.1	218.9	106.1	49.6	38.4	36.1	33.9	31.6	31.6
80°	841.8	719.9	261.8	155.7	65.4	33.9	27.1	27.1	24.8	20.3	20.3
82.5°	534.8	543.9	135.4	72.2	38.4	20.3	15.8	13.5	13.5	9.0	9.0
85°	117.4	205.4	60.9	29.3	13.5	2.3	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°	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5
2.5°	1514.3	1496.2	1489.4	1489.4	1460.1	1462.4	1462.4	1480.4	1478.2	1494.0	1487.2
5°	1232.2	1214.1	1214.1	1218.6	1223.1	1202.8	1209.6	1191.6	1225.4	1200.6	1182.5
7.5°	909.5	907.2	923.0	959.1	952.3	945.6	932.0	898.2	880.1	898.2	889.2
10°	697.3	704.1	699.6	715.4	717.6	715.4	692.8	686.0	677.0	686.0	697.3
12.5°	584.5	557.4	528.1	525.8	543.9	543.9	541.6	543.9	550.6	550.6	559.7
15°	487.5	469.4	431.0	413.0	426.5	417.5	419.8	428.8	435.5	444.6	440.1
17.5°	388.2	372.4	354.3	343.0	349.8	343.0	340.8	338.5	338.5	336.3	345.3
20°	295.6	293.4	300.1	295.6	297.9	293.4	286.6	277.6	270.8	275.3	279.8
22.5°	257.3	259.5	264.0	268.6	268.6	264.0	252.8	243.7	241.5	241.5	243.7
25°	237.0	237.0	243.7	246.0	248.2	241.5	227.9	221.2	221.2	221.2	221.2
27.5°	214.4	218.9	223.4	227.9	230.2	223.4	212.1	205.4	205.4	203.1	200.8
30°	198.6	200.8	205.4	207.6	209.9	203.1	196.3	189.6	189.6	189.6	187.3
32.5°	180.5	187.3	189.6	191.8	194.1	189.6	182.8	178.3	176.0	173.8	169.3
35°	167.0	169.3	176.0	176.0	178.3	176.0	171.5	167.0	160.2	158.0	158.0
37.5°	153.5	153.5	158.0	162.5	167.0	164.7	158.0	151.2	148.9	148.9	148.9
40°	144.4	142.2	144.4	151.2	155.7	155.7	146.7	142.2	142.2	139.9	139.9
42.5°	133.1	133.1	133.1	139.9	148.9	144.4	135.4	135.4	135.4	133.1	133.1
45°	126.4	124.1	126.4	126.4	137.7	130.9	128.6	126.4	128.6	126.4	128.6
47.5°	117.4	117.4	117.4	119.6	126.4	121.9	119.6	119.6	121.9	121.9	121.9
50°	110.6	110.6	110.6	112.8	115.1	115.1	115.1	115.1	115.1	117.4	117.4
52.5°	106.1	103.8	106.1	106.1	108.3	110.6	108.3	110.6	110.6	110.6	112.8
55°	101.6	99.3	101.6	101.6	106.1	103.8	103.8	106.1	106.1	108.3	110.6
57.5°	94.8	92.5	97.0	97.0	101.6	101.6	99.3	101.6	101.6	103.8	103.8
60°	88.0	88.0	90.3	90.3	94.8	97.0	97.0	97.0	97.0	97.0	97.0
62.5°	81.2	81.2	83.5	85.8	90.3	90.3	92.5	92.5	92.5	92.5	90.3
65°	74.5	76.7	79.0	79.0	83.5	85.8	85.8	85.8	85.8	85.8	85.8
67.5°	65.4	70.0	72.2	74.5	79.0	79.0	81.2	81.2	79.0	79.0	79.0
70°	58.7	60.9	63.2	65.4	72.2	72.2	74.5	74.5	72.2	72.2	74.5
72.5°	49.6	51.9	54.2	58.7	65.4	65.4	67.7	67.7	65.4	65.4	65.4
75°	42.9	42.9	45.1	49.6	58.7	58.7	58.7	60.9	58.7	58.7	56.4
77.5°	31.6	33.9	36.1	42.9	49.6	51.9	51.9	51.9	49.6	49.6	47.4
80°	20.3	22.6	27.1	31.6	38.4	40.6	42.9	42.9	40.6	40.6	38.4
82.5°	9.0	13.5	15.8	20.3	24.8	31.6	31.6	33.9	31.6	29.3	29.3
85°	0.0	0.0	2.3	6.8	11.3	18.1	20.3	22.6	20.3	18.1	18.1
87.5°	0.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5	2.3	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°	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5	1744.5
2.5°	1512.0	1536.8	1575.2	1597.8	1649.7	1697.1	1746.7	1812.2	1825.7	1828.0
5°	1200.6	1229.9	1302.1	1331.5	1426.3	1503.0	1615.8	1726.4	1755.7	1762.5
7.5°	916.2	938.8	1017.8	1074.2	1178.0	1286.3	1430.8	1561.7	1627.1	1633.9
10°	715.4	776.3	837.2	920.7	1011.0	1117.1	1268.3	1435.3	1507.5	1503.0
12.5°	602.5	665.7	740.2	823.7	916.2	1011.0	1148.7	1333.7	1405.9	1424.0
15°	482.9	559.7	640.9	726.7	835.0	927.5	1087.7	1293.1	1381.1	1405.9
17.5°	374.6	435.5	514.5	625.1	731.2	862.1	1065.2	1331.5	1430.8	1455.6
20°	295.6	340.8	397.2	503.3	638.7	801.1	1053.9	1403.7	1539.1	1575.2
22.5°	252.8	270.8	311.4	404.0	546.1	735.7	1047.1	1505.2	1674.5	1735.4
25°	225.7	237.0	259.5	318.2	453.6	679.3	1058.4	1631.6	1864.1	1913.7
27.5°	205.4	214.4	225.7	268.6	392.7	629.6	1078.7	1773.8	2026.5	2098.8
30°	187.3	194.1	209.9	239.2	343.0	580.0	1085.5	1913.7	2171.0	2236.4
32.5°	173.8	182.8	196.3	221.2	313.7	546.1	1067.4	2019.8	2304.1	2376.3
35°	160.2	171.5	185.1	205.4	288.9	516.8	1026.8	2107.8	2430.5	2500.5
37.5°	153.5	160.2	173.8	189.6	270.8	487.5	990.7	2195.8	2561.4	2658.4
40°	144.4	151.2	164.7	178.3	248.2	455.9	965.9	2308.6	2710.3	2798.3
42.5°	137.7	146.7	158.0	173.8	230.2	422.0	941.1	2398.9	2843.5	2936.0
45°	133.1	142.2	153.5	173.8	214.4	394.9	914.0	2477.9	2945.0	3035.3
47.5°	126.4	137.7	153.5	167.0	207.6	376.9	914.0	2572.7	3037.6	3132.3
50°	124.1	135.4	160.2	162.5	203.1	370.1	952.3	2681.0	3170.7	3261.0
52.5°	121.9	133.1	160.2	153.5	198.6	374.6	1011.0	2877.3	3342.2	3446.0
55°	115.1	130.9	153.5	142.2	187.3	379.1	1076.5	3134.6	3597.2	3694.3
57.5°	110.6	128.6	144.4	130.9	171.5	372.4	1164.5	3364.8	3863.5	3931.2
60°	103.8	126.4	126.4	121.9	153.5	352.1	1263.8	3511.5	3965.1	4019.2
62.5°	99.3	124.1	112.8	112.8	139.9	320.5	1297.6	3475.4	3865.8	3924.5
65°	92.5	108.3	101.6	103.8	128.6	284.3	1238.9	3249.7	3678.5	3748.4
67.5°	85.8	92.5	90.3	94.8	124.1	248.2	1081.0	2981.1	3437.0	3545.3
70°	76.7	81.2	81.2	85.8	117.4	223.4	902.7	2635.9	3123.3	3283.5
72.5°	70.0	72.2	72.2	79.0	110.6	209.9	713.1	2236.4	2620.1	2719.4
75°	58.7	63.2	63.2	67.7	99.3	178.3	487.5	1638.4	1832.5	1913.7
77.5°	51.9	51.9	54.2	56.4	79.0	119.6	286.6	1008.8	1101.3	1144.2
80°	40.6	42.9	40.6	40.6	49.6	79.0	155.7	591.3	670.2	647.7
82.5°	29.3	29.3	24.8	24.8	29.3	42.9	67.7	306.9	313.7	302.4
85°	15.8	11.3	9.0	9.0	9.0	9.0	9.0	65.4	31.6	24.8
87.5°	0.0	0.0	0.0	2.3	2.3	2.3	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

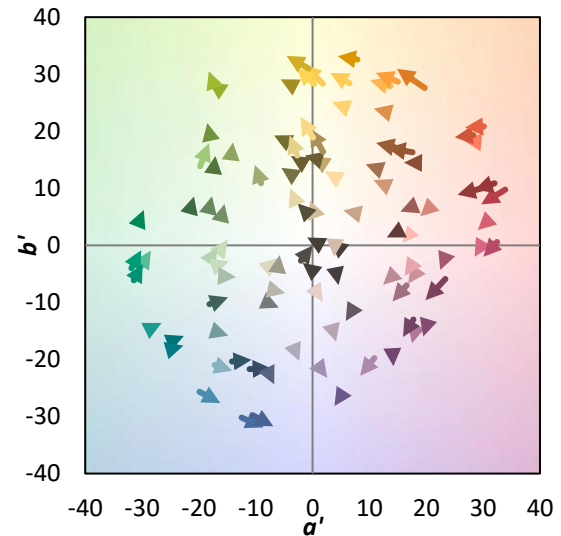
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

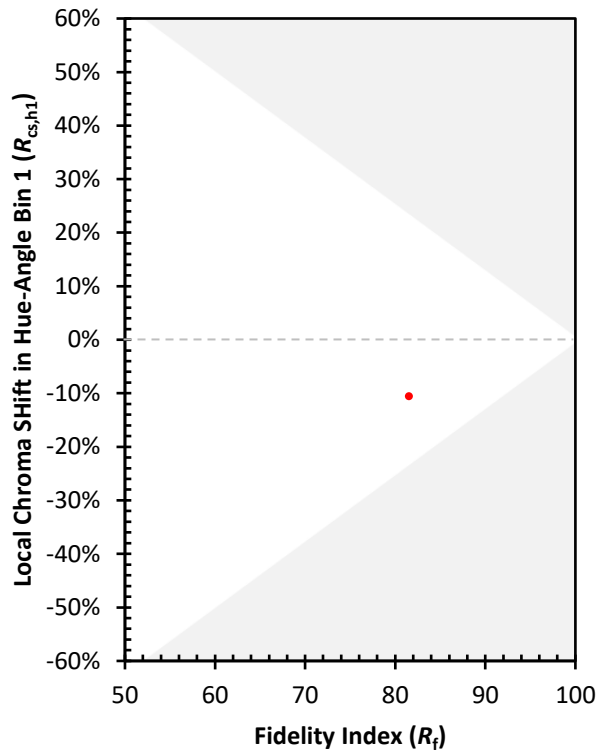
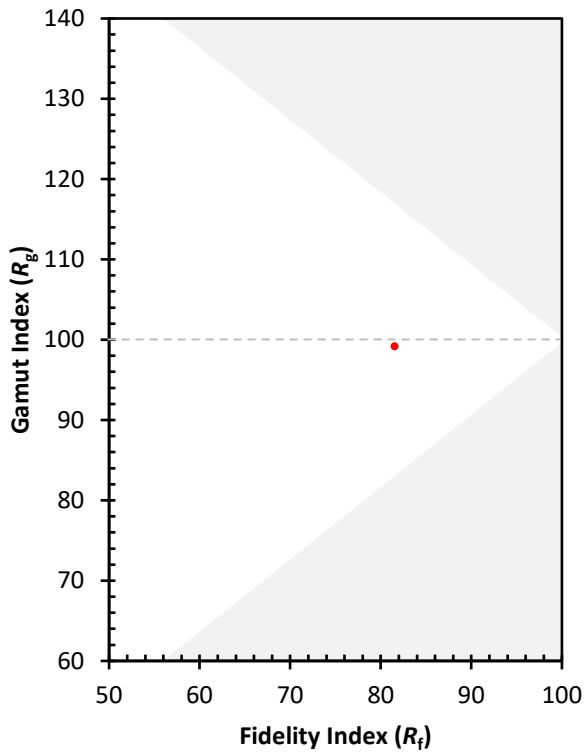
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CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
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CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
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CES11 = 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)