

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P638978

Luminaire Tested: GWS-SA4F-830-U-SLR-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P638978
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4F-830-U-SLR-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14419.7 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

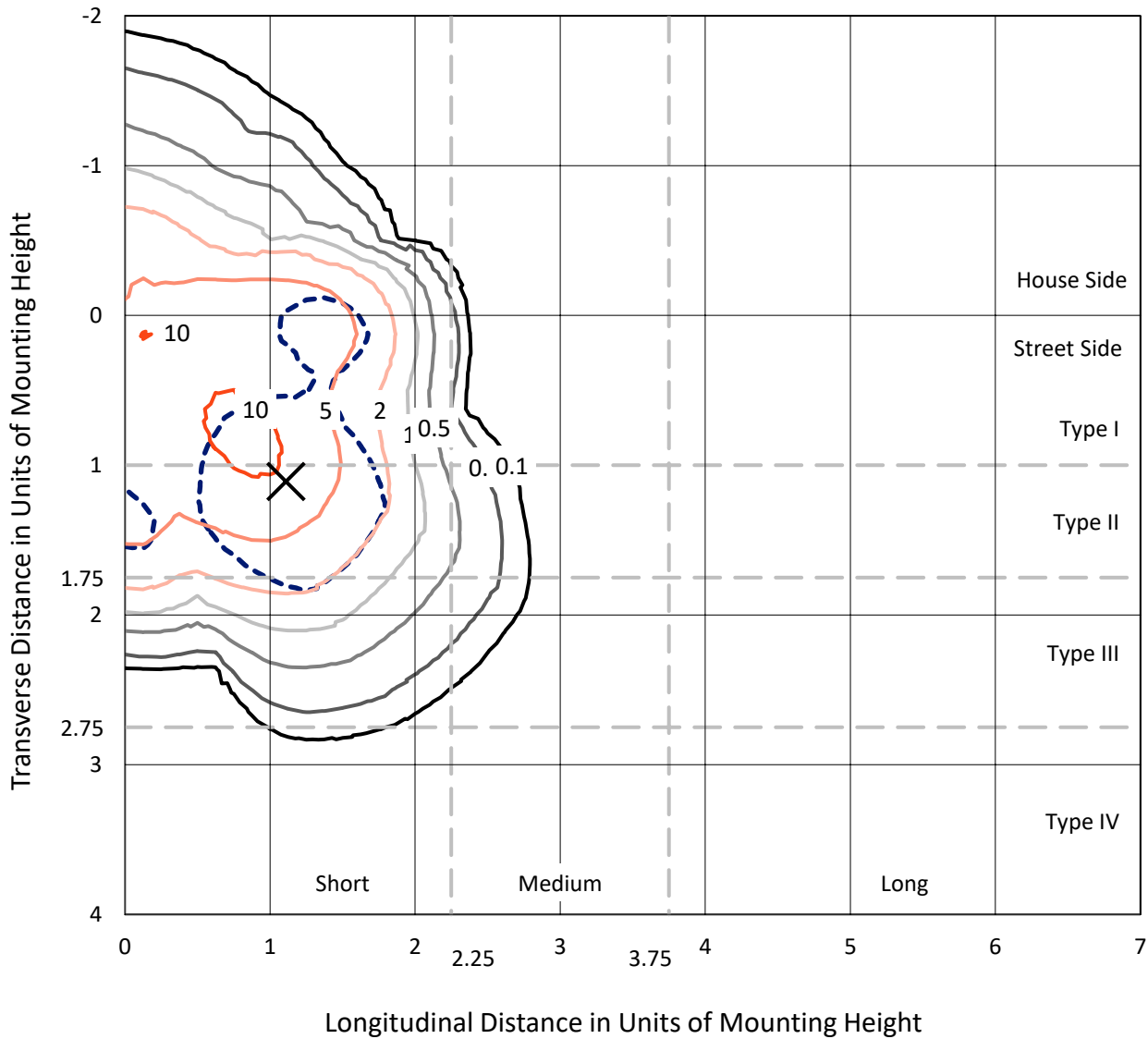
Input Watts (W): 225.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

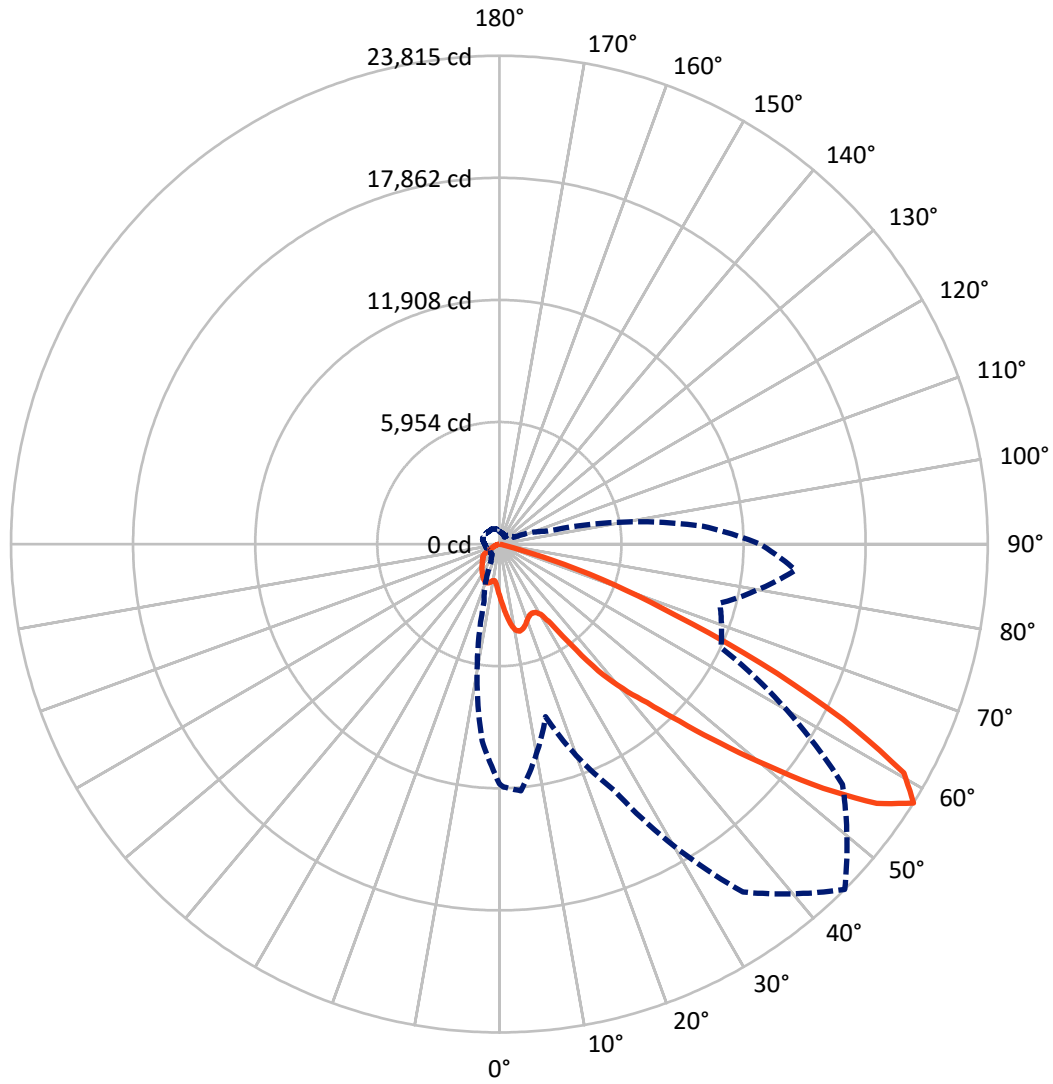
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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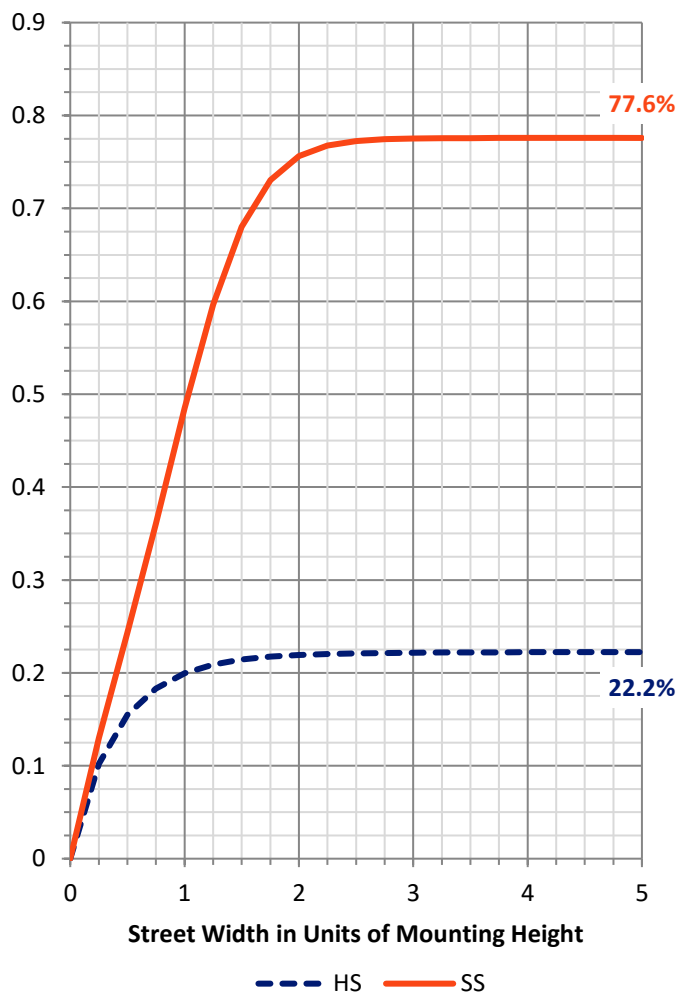
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3228.9	0.0	3228.9
	% Fixture	22.4	0.0	22.4
Street Side	Lumens	11190.7	0.0	11190.7
	% Fixture	77.6	0.0	77.6
Total	Lumens	14419.7	0.0	14419.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.3	1.7
10°-20°	806.6	5.6
20°-30°	1310.2	9.1
30°-40°	2024.5	14.0
40°-50°	3246.2	22.5
50°-60°	4436.7	30.8
60°-70°	2148.8	14.9
70°-80°	196.8	1.4
80°-90°	0.6	0.0
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°	14419.7	100.0
0°-180°	14419.7	100.0

Coefficient of Utilization



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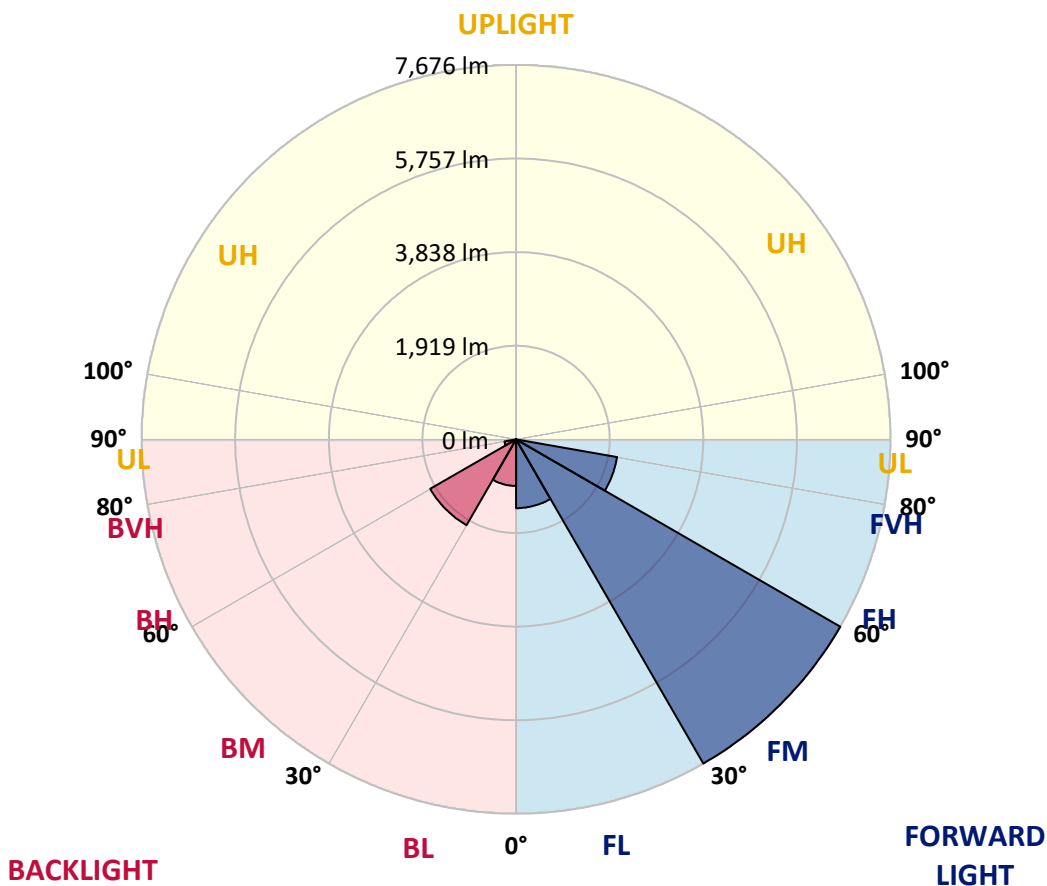
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1410.7	9.8			
FM (30°-60°)	7675.9	53.2			
FH (60°-80°)	2103.6	14.6			G2/5000
FVH (80°-90°)	0.6	0.0			G0/10
BL (0°-30°)	955.4	6.6	B2/1000		
BM (30°-60°)	2031.5	14.1	B2/2500		
BH (60°-80°)	242.0	1.7	B1/500		G1/500
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4
2.5°	2745.6	2763.1	2792.1	2854.1	2906.4	2941.3	2956.8	2952.9	2931.6	2916.1	2885.1
5°	3040.1	3040.1	3096.3	3237.8	3346.3	3414.1	3449.0	3427.7	3385.0	3317.2	3212.6
7.5°	3297.8	3307.5	3402.5	3604.0	3768.7	3865.6	3921.8	3910.1	3834.6	3704.7	3495.5
10°	3499.4	3511.0	3636.9	3883.0	4076.8	4175.6	4258.9	4266.7	4183.3	4010.9	3770.6
12.5°	3695.1	3706.7	3838.4	4074.8	4245.3	4286.0	4359.7	4388.7	4367.4	4245.3	3995.4
15°	3906.3	3933.4	4045.8	4222.1	4293.8	4245.3	4293.8	4346.1	4417.8	4406.2	4181.4
17.5°	4113.6	4133.0	4247.3	4309.3	4229.8	4103.9	4127.1	4189.2	4351.9	4510.8	4365.5
20°	4305.4	4332.5	4427.5	4346.1	4105.8	3910.1	3912.1	3993.5	4241.5	4574.7	4553.4
22.5°	4506.9	4547.6	4615.4	4386.8	3991.5	3757.1	3766.7	3840.4	4154.3	4634.8	4766.6
25°	4770.4	4809.2	4853.8	4487.5	3954.7	3681.5	3718.3	3786.1	4154.3	4737.5	5030.1
27.5°	5127.0	5154.1	5156.0	4675.5	4018.6	3693.1	3770.6	3848.1	4278.3	4942.9	5382.7
30°	5574.6	5617.2	5561.0	4968.1	4218.2	3848.1	3962.4	4059.3	4545.7	5289.7	5902.0
32.5°	6119.0	6179.1	6103.5	5402.1	4634.8	4382.9	4590.2	4646.4	4972.0	5791.6	6491.1
35°	6758.4	6808.8	6727.4	6002.8	5607.5	5654.0	6029.9	5958.2	5828.4	6409.7	7178.9
37.5°	7459.9	7506.4	7349.4	6913.5	7045.2	7246.7	7847.4	7601.3	7182.8	7206.0	7924.9
40°	8103.2	8153.5	7907.5	7903.6	8174.9	8543.0	9267.7	8928.6	8358.9	8248.5	8624.4
42.5°	8769.7	8804.6	8581.8	8430.6	9046.8	9804.4	10571.7	10114.4	9137.9	9017.7	9500.2
45°	9721.1	9794.7	9397.5	8690.3	9831.5	11255.7	12325.2	11432.0	9668.8	9571.9	10841.0
47.5°	11120.0	11174.3	10364.4	8853.0	10562.0	13063.5	14516.7	13141.0	10135.7	9914.8	12674.0
50°	12276.8	12313.6	11253.7	9031.3	11339.0	15012.7	17014.3	15167.7	10660.8	10482.6	14384.9
52.5°	13129.4	13268.9	12422.1	9397.5	12360.1	17305.0	19779.3	17568.5	11480.4	11579.3	15803.3
55°	13305.7	13495.6	13220.4	9622.3	13259.2	19639.8	22333.1	19717.3	12298.1	12410.5	16279.9
57.5°	11693.6	11844.7	12073.4	8715.4	13237.9	20709.4	23815.4	20430.3	11926.1	11129.7	14495.4
60°	8760.0	8864.6	9279.3	6661.6	12174.1	19763.8	22660.6	19217.4	10428.3	8492.6	11044.5
62.5°	5194.8	5241.3	5766.4	4315.1	10104.7	17020.1	18793.1	16582.2	8240.7	5712.1	6764.3
65°	1993.8	1974.4	2375.5	2129.5	7430.8	13557.6	13978.0	12641.1	5654.0	2617.7	2579.0
67.5°	308.1	294.5	397.2	629.7	5359.5	9395.6	9223.1	9110.7	3542.0	610.4	532.8
70°	69.8	69.8	85.3	186.0	3274.6	5520.3	5907.8	5632.7	2267.0	129.8	69.8
72.5°	32.9	32.9	40.7	79.4	1185.8	2274.8	2650.7	2610.0	736.3	42.6	25.2
75°	11.6	13.6	13.6	17.4	71.7	118.2	271.3	193.8	46.5	0.0	0.0
77.5°	3.9	3.9	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.9	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4
2.5°	2817.3	2803.7	2753.4	2685.6	2619.7	2561.5	2501.5	2429.8	2377.5	2317.4	2298.0
5°	3131.2	3046.0	2908.4	2765.0	2633.2	2520.9	2412.3	2296.1	2210.8	2125.6	2096.5
7.5°	3396.7	3270.7	3047.9	2832.8	2652.6	2493.7	2336.8	2177.9	2053.9	1953.1	1922.1
10°	3635.0	3489.7	3191.3	2925.8	2699.1	2515.0	2325.2	2125.6	1964.8	1844.6	1815.6
12.5°	3840.4	3671.8	3313.3	2995.6	2718.5	2507.3	2323.2	2164.3	2019.0	1881.4	1844.6
15°	4012.8	3826.8	3416.0	3042.1	2689.4	2410.4	2249.6	2224.4	2212.8	2061.6	1989.9
17.5°	4181.4	3972.1	3499.4	3063.4	2608.0	2239.9	2123.6	2238.0	2360.0	2261.2	2170.1
20°	4357.7	4119.4	3584.6	3067.3	2472.4	2048.1	2028.7	2208.9	2363.9	2332.9	2247.6
22.5°	4565.1	4303.5	3691.2	3065.3	2301.9	1885.3	1958.9	2152.7	2278.7	2276.7	2208.9
25°	4865.4	4536.0	3834.6	3077.0	2115.9	1759.4	1881.4	2057.8	2160.5	2156.6	2100.4
27.5°	5187.0	4813.1	4020.6	3106.0	1957.0	1685.7	1790.4	1927.9	2017.1	2013.2	1964.8
30°	5638.5	5132.8	4198.8	3108.0	1842.7	1647.0	1689.6	1784.6	1869.8	1860.1	1823.3
32.5°	6186.8	5493.2	4348.0	2997.5	1771.0	1610.2	1585.0	1633.4	1699.3	1685.7	1676.0
35°	6849.5	5921.4	4475.9	2755.3	1660.5	1536.5	1468.7	1478.4	1524.9	1532.7	1528.8
37.5°	7605.2	6431.0	4634.8	2435.6	1511.3	1430.0	1338.9	1331.2	1358.3	1383.5	1402.8
40°	8351.2	7004.5	4849.9	2112.0	1375.7	1294.3	1207.1	1187.8	1199.4	1244.0	1284.6
42.5°	9190.2	7669.1	5082.4	1834.9	1282.7	1145.1	1061.8	1025.0	1057.9	1129.6	1178.1
45°	10399.2	8601.1	5309.1	1614.0	1244.0	1013.4	901.0	897.1	933.9	1026.9	1081.2
47.5°	12096.6	9806.3	5458.3	1441.6	1242.0	910.7	777.0	800.2	842.9	933.9	995.9
50°	13751.3	11315.7	5293.6	1309.8	1201.3	842.9	684.0	730.5	773.1	852.6	916.5
52.5°	14749.2	12127.6	4652.2	1185.8	1075.4	811.9	592.9	674.3	682.0	753.7	821.6
55°	14644.6	11602.5	3563.3	994.0	889.4	767.3	498.0	608.4	612.3	666.5	724.7
57.5°	12710.8	9961.3	2447.2	806.1	668.5	633.6	410.8	513.5	550.3	583.2	625.9
60°	9473.1	7268.0	1090.9	654.9	424.3	428.2	350.7	387.5	443.7	482.5	519.3
62.5°	5582.3	4181.4	443.7	393.3	234.5	269.3	282.9	282.9	317.8	346.8	370.1
65°	2110.1	1462.9	180.2	197.6	122.1	125.9	166.6	205.4	232.5	257.7	288.7
67.5°	370.1	255.8	93.0	73.6	71.7	63.9	85.3	133.7	149.2	168.6	182.1
70°	62.0	52.3	38.8	36.8	32.9	34.9	56.2	94.9	104.6	110.4	116.3
72.5°	17.4	15.5	11.6	9.7	7.8	9.7	34.9	73.6	77.5	81.4	87.2
75°	0.0	0.0	0.0	0.0	0.0	0.0	13.6	52.3	56.2	58.1	63.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6	15.5	19.4	15.5
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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°	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4
2.5°	2286.4	2247.6	2226.3	2214.7	2214.7	2199.2	2181.8	2176.0	2201.1	2201.1	2243.8
5°	2059.7	2028.7	1993.8	1972.5	1939.6	1945.4	1926.0	1924.1	1949.3	1960.9	2005.4
7.5°	1902.8	1864.0	1842.7	1829.1	1811.7	1803.9	1786.5	1780.7	1794.2	1813.6	1856.2
10°	1798.1	1792.3	1790.4	1800.1	1800.1	1790.4	1774.9	1765.2	1769.1	1805.9	1854.3
12.5°	1825.2	1836.9	1840.7	1856.2	1864.0	1856.2	1844.6	1848.5	1873.7	1941.5	2013.2
15°	1943.4	1933.8	1929.9	1937.6	1943.4	1935.7	1931.8	1960.9	2048.1	2145.0	2226.3
17.5°	2069.4	2007.4	1980.3	1980.3	1984.1	1980.3	1984.1	2040.3	2181.8	2278.7	2338.7
20°	2133.3	2019.0	1976.4	1966.7	1974.4	1976.4	1989.9	2053.9	2208.9	2276.7	2290.3
22.5°	2114.0	1970.6	1922.1	1914.4	1922.1	1929.9	1943.4	1997.7	2143.0	2177.9	2172.1
25°	2017.1	1875.6	1836.9	1836.9	1854.3	1852.4	1858.2	1896.9	2017.1	2038.4	2028.7
27.5°	1895.0	1761.3	1728.4	1747.7	1763.2	1759.4	1761.3	1794.2	1883.4	1889.2	1879.5
30°	1771.0	1654.7	1623.7	1647.0	1668.3	1664.4	1666.4	1699.3	1755.5	1749.7	1736.1
32.5°	1645.0	1559.8	1536.5	1550.1	1583.0	1579.2	1586.9	1621.8	1643.1	1617.9	1602.4
35°	1528.8	1484.2	1466.8	1474.5	1499.7	1505.5	1519.1	1542.4	1542.4	1511.3	1484.2
37.5°	1420.3	1414.5	1402.8	1393.2	1416.4	1433.8	1453.2	1480.3	1441.6	1397.0	1371.8
40°	1319.5	1344.7	1329.2	1304.0	1317.6	1342.8	1381.5	1402.8	1356.3	1311.8	1269.1
42.5°	1226.5	1269.1	1263.3	1232.3	1244.0	1267.2	1311.8	1329.2	1275.0	1224.6	1183.9
45°	1137.4	1197.5	1201.3	1162.6	1174.2	1197.5	1249.8	1255.6	1185.8	1131.6	1102.5
47.5°	1059.9	1125.8	1127.7	1098.6	1102.5	1135.4	1183.9	1185.8	1106.4	1056.0	1019.2
50°	986.3	1061.8	1067.6	1042.4	1046.3	1085.1	1125.8	1118.0	1032.8	980.4	947.5
52.5°	897.1	999.8	1013.4	1001.8	1017.3	1048.3	1073.4	1046.3	947.5	895.2	866.1
55°	800.2	933.9	963.0	955.3	972.7	997.9	1003.7	986.3	862.2	809.9	782.8
57.5°	687.9	769.2	819.6	804.1	817.7	842.9	860.3	846.7	753.7	713.0	689.8
60°	569.7	623.9	635.5	610.4	598.7	643.3	684.0	666.5	587.1	561.9	534.8
62.5°	416.6	478.6	486.3	453.4	439.8	488.3	523.2	505.7	418.5	391.4	370.1
65°	333.3	391.4	406.9	375.9	368.1	405.0	426.3	383.7	321.6	292.6	269.3
67.5°	219.0	265.5	306.1	304.2	288.7	300.3	284.8	250.0	205.4	189.9	174.4
70°	135.6	162.8	187.9	197.6	195.7	191.8	170.5	145.3	131.8	125.9	118.2
72.5°	104.6	131.8	151.1	156.9	158.9	153.1	135.6	112.4	98.8	91.1	85.3
75°	77.5	98.8	114.3	122.1	125.9	122.1	104.6	89.1	75.6	69.8	63.9
77.5°	27.1	32.9	40.7	44.6	42.6	40.7	36.8	36.8	29.1	27.1	23.3
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P638978

CATALOG NUMBER: GWS-SA4F-830-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4	2534.4
2.5°	2292.2	2327.1	2391.0	2449.2	2511.2	2575.1	2644.9	2716.6	2749.5	2745.6
5°	2073.3	2148.8	2253.5	2367.8	2495.7	2633.2	2786.3	2943.3	3011.1	3040.1
7.5°	1935.7	2042.3	2179.8	2325.2	2493.7	2689.4	2920.0	3166.1	3264.9	3297.8
10°	1953.1	2077.1	2191.5	2332.9	2513.1	2766.9	3053.7	3346.3	3462.5	3499.4
12.5°	2094.6	2121.7	2152.7	2269.0	2495.7	2825.1	3175.8	3524.5	3658.2	3695.1
15°	2222.5	2096.5	2038.4	2145.0	2433.7	2865.8	3299.8	3716.4	3863.6	3906.3
17.5°	2228.3	2038.4	1908.6	1991.9	2332.9	2883.2	3421.9	3912.1	4072.9	4113.6
20°	2156.6	1974.4	1807.8	1809.7	2195.3	2879.3	3522.6	4088.4	4268.6	4305.4
22.5°	2051.9	1898.9	1726.4	1666.4	2048.1	2871.6	3633.1	4276.3	4472.0	4506.9
25°	1935.7	1802.0	1648.9	1557.9	1900.8	2879.3	3788.1	4522.4	4737.5	4770.4
27.5°	1809.7	1695.4	1588.9	1515.2	1776.8	2908.4	3974.1	4836.3	5092.1	5127.0
30°	1678.0	1592.7	1550.1	1505.5	1699.3	2916.1	4175.6	5202.5	5526.1	5574.6
32.5°	1548.2	1501.7	1503.6	1511.3	1625.7	2861.9	4359.7	5609.4	6041.5	6119.0
35°	1428.0	1414.5	1453.2	1492.0	1519.1	2722.4	4520.5	6090.0	6679.0	6758.4
37.5°	1325.3	1337.0	1385.4	1424.2	1402.8	2524.7	4733.6	6690.6	7392.0	7459.9
40°	1226.5	1255.6	1311.8	1329.2	1313.7	2294.2	4989.4	7270.0	8010.2	8103.2
42.5°	1135.4	1156.8	1236.2	1240.1	1288.5	2059.7	5235.5	7893.9	8721.3	8769.7
45°	1061.8	1057.9	1139.3	1164.5	1321.5	1800.1	5475.7	8725.1	9651.3	9721.1
47.5°	990.1	986.3	1005.6	1119.9	1335.0	1559.8	5714.1	9942.0	10999.9	11120.0
50°	922.3	928.1	868.1	1098.6	1261.4	1375.7	5822.6	11067.7	12226.4	12276.8
52.5°	862.2	840.9	736.3	1028.9	1104.4	1201.3	5514.5	11579.3	12986.0	13129.4
55°	777.0	658.8	606.5	835.1	871.9	1048.3	4516.6	11282.8	13051.9	13305.7
57.5°	664.6	517.3	515.4	616.2	616.2	972.7	2892.9	9639.7	11247.9	11693.6
60°	511.5	401.1	426.3	428.2	395.3	709.2	1623.7	6983.2	8316.3	8760.0
62.5°	364.3	306.1	321.6	255.8	226.7	354.6	778.9	4020.6	5132.8	5194.8
65°	244.1	207.3	168.6	141.4	139.5	151.1	321.6	1453.2	1767.1	1993.8
67.5°	160.8	125.9	89.1	89.1	100.8	100.8	122.1	240.3	337.1	308.1
70°	104.6	87.2	56.2	54.3	65.9	65.9	62.0	65.9	69.8	69.8
72.5°	77.5	65.9	32.9	29.1	36.8	38.8	34.9	32.9	32.9	32.9
75°	58.1	46.5	19.4	13.6	17.4	23.3	19.4	13.6	13.6	11.6
77.5°	23.3	17.4	7.8	5.8	9.7	13.6	11.6	5.8	3.9	3.9
80°	1.9	3.9	3.9	3.9	5.8	7.8	9.7	3.9	1.9	1.9
82.5°	0.0	1.9	1.9	1.9	3.9	5.8	7.8	3.9	1.9	1.9
85°	0.0	0.0	0.0	0.0	3.9	5.8	3.9	1.9	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	1.9	5.8	3.9	1.9	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

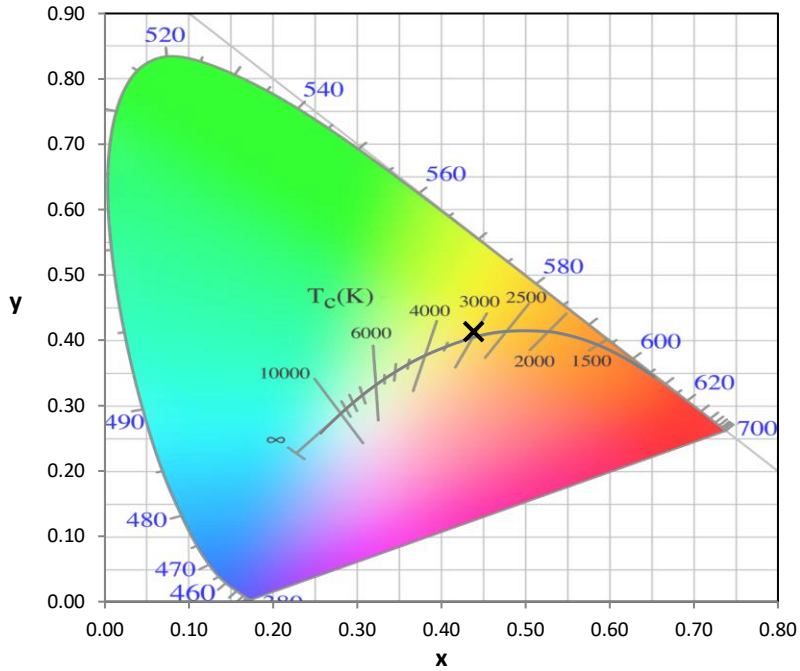
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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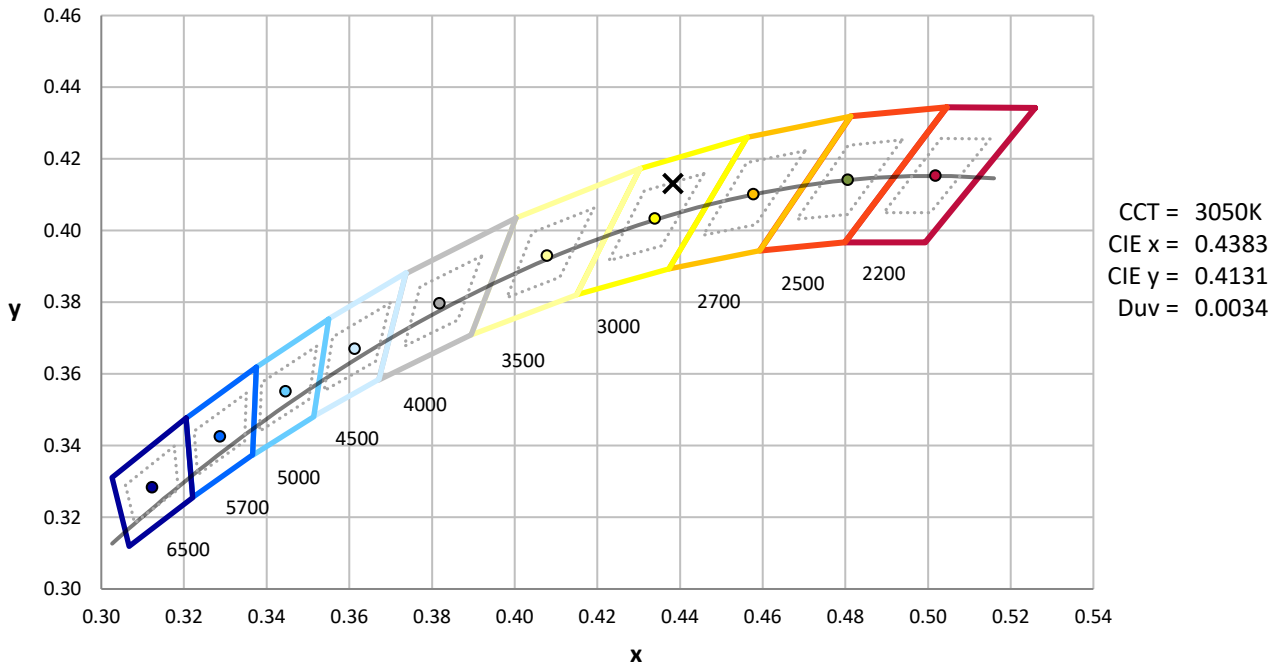
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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CIE 1931 Chromaticity Diagram



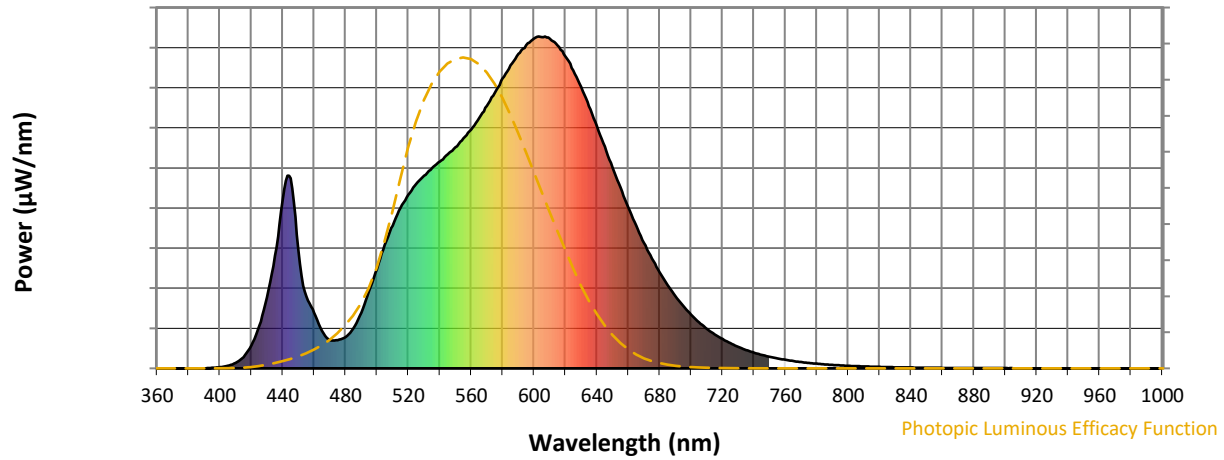
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

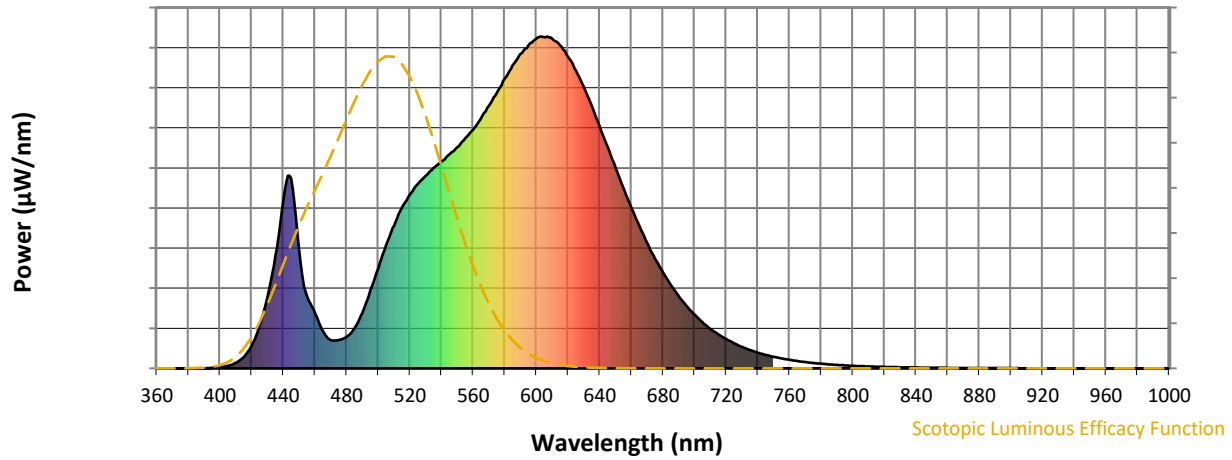


Photopic Lumens: NR

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			

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Scotopic Flux vs. Wavelength



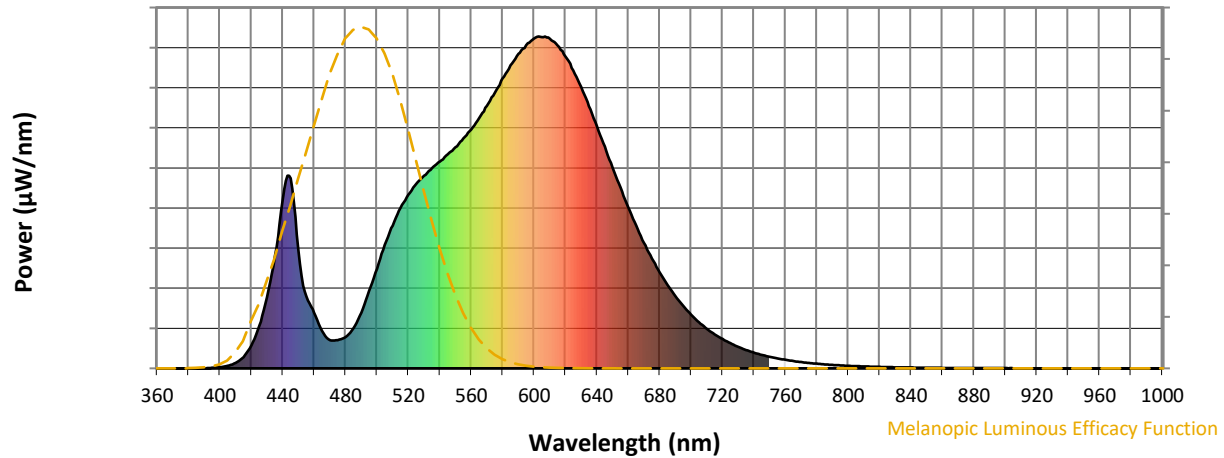
Scotopic Lumens: NR

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

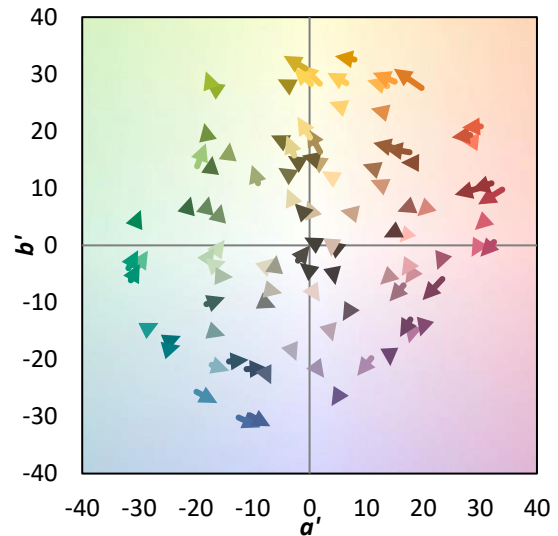
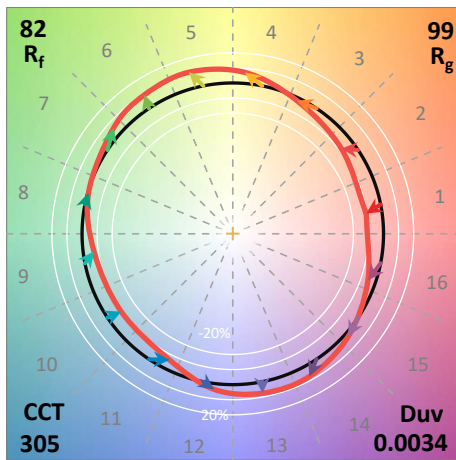
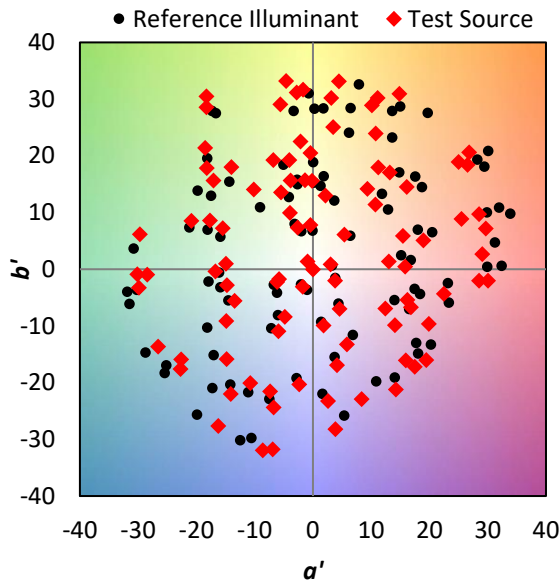
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

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

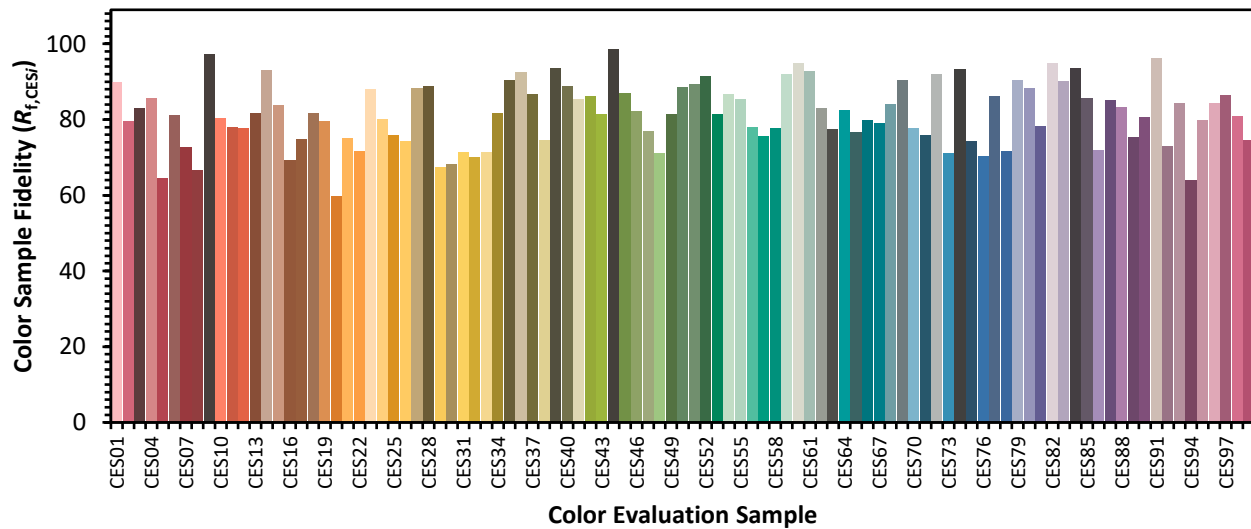


Color Vector Graphics

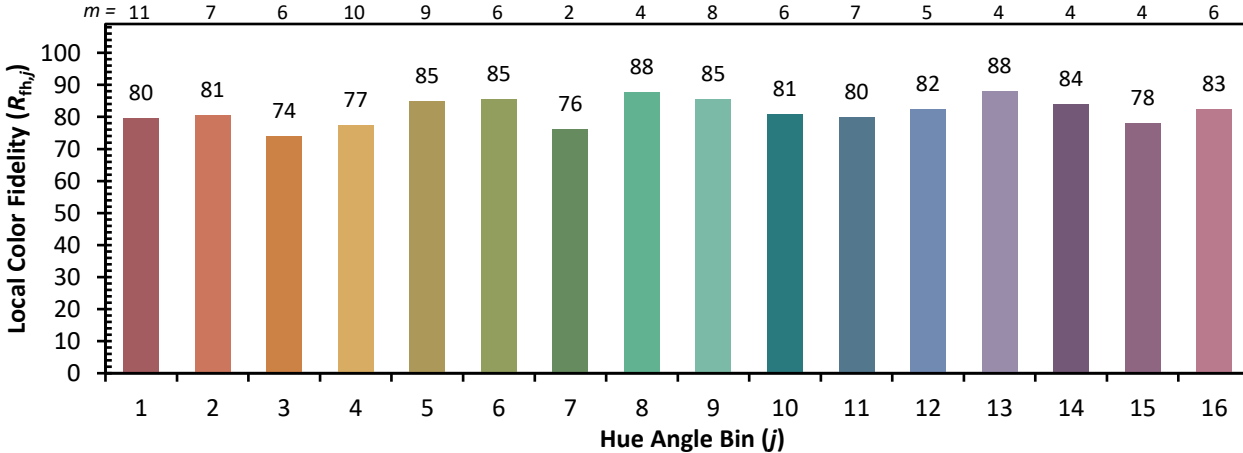
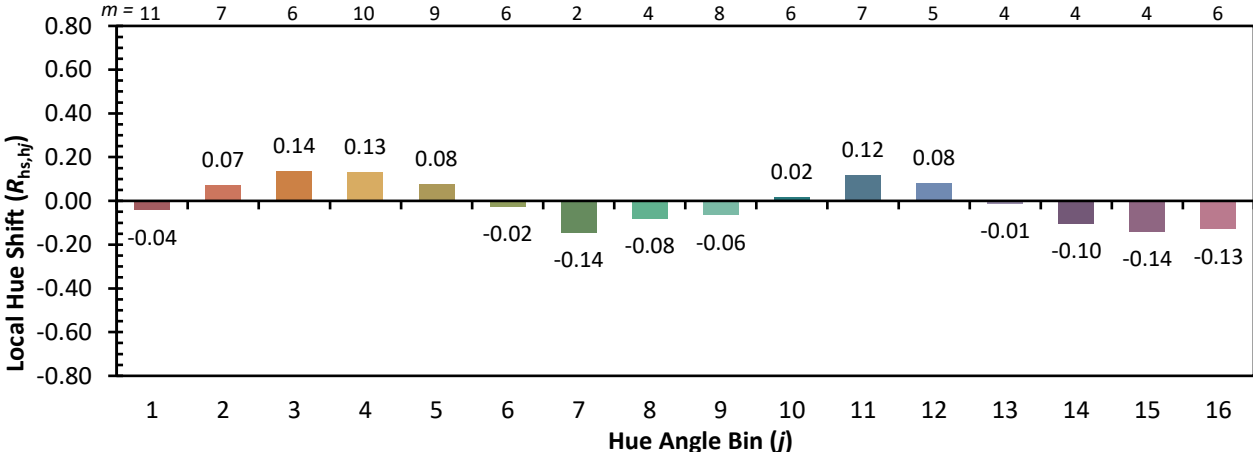
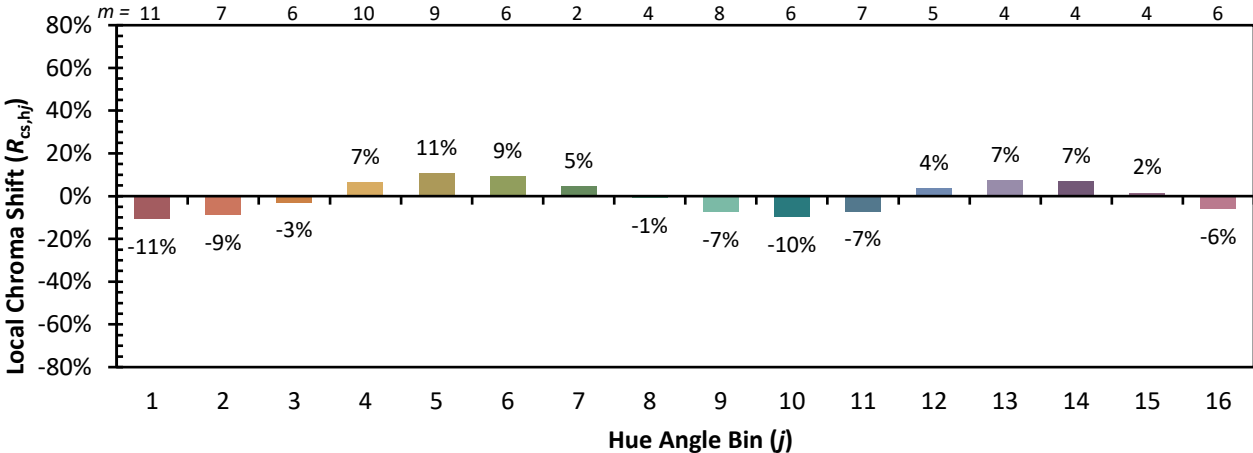


Individual Sample Fidelity Index ($R_{f,i}$)

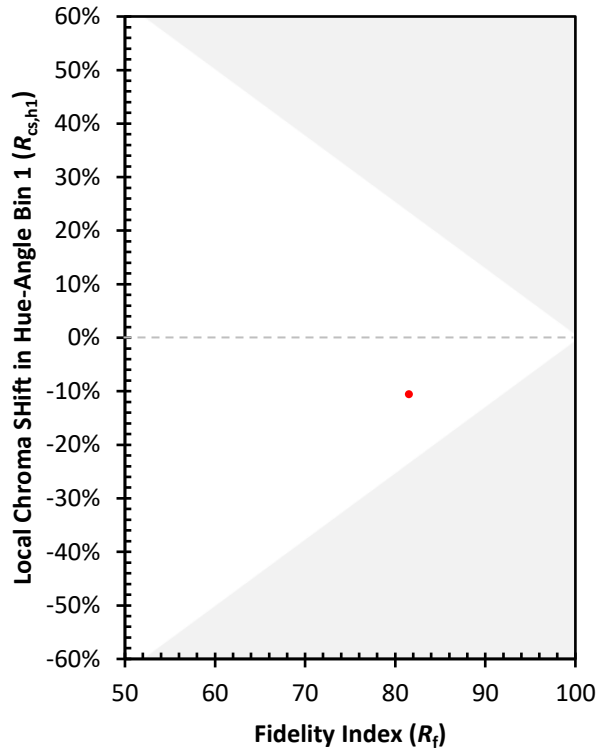
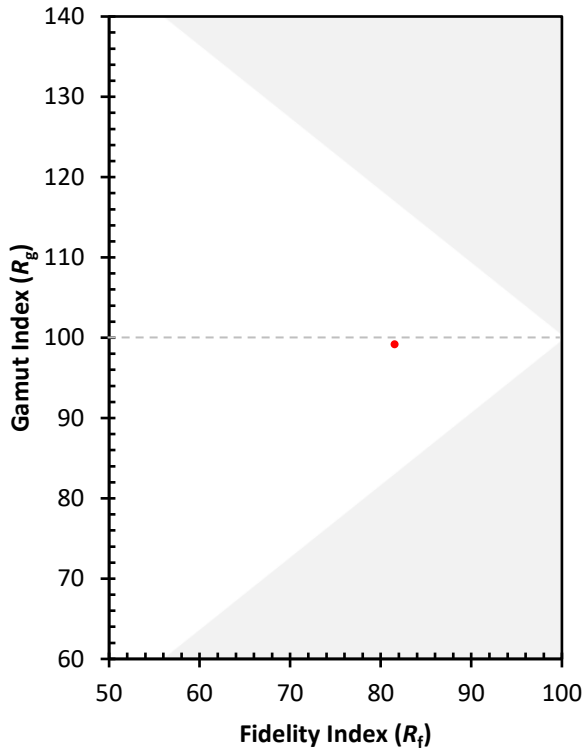
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)