

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: LUMARK

Report Number: P979155

Luminaire Tested: **WPMLED26S-70W-4000K**

Issue Date: 03/31/2025



Test Information

Test Method: LM-79-08
Report Number: P979155
Test Lab: Cooper Lighting Solutions
Issue Date: 03/31/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: WPMLD26S-70W-4000K
Description: LUMARK WALL PACK LED MEDIUM 80CRI CCT AND LUMEN SELECTIVE FIXTURE
OPERATING @70W-4000K
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

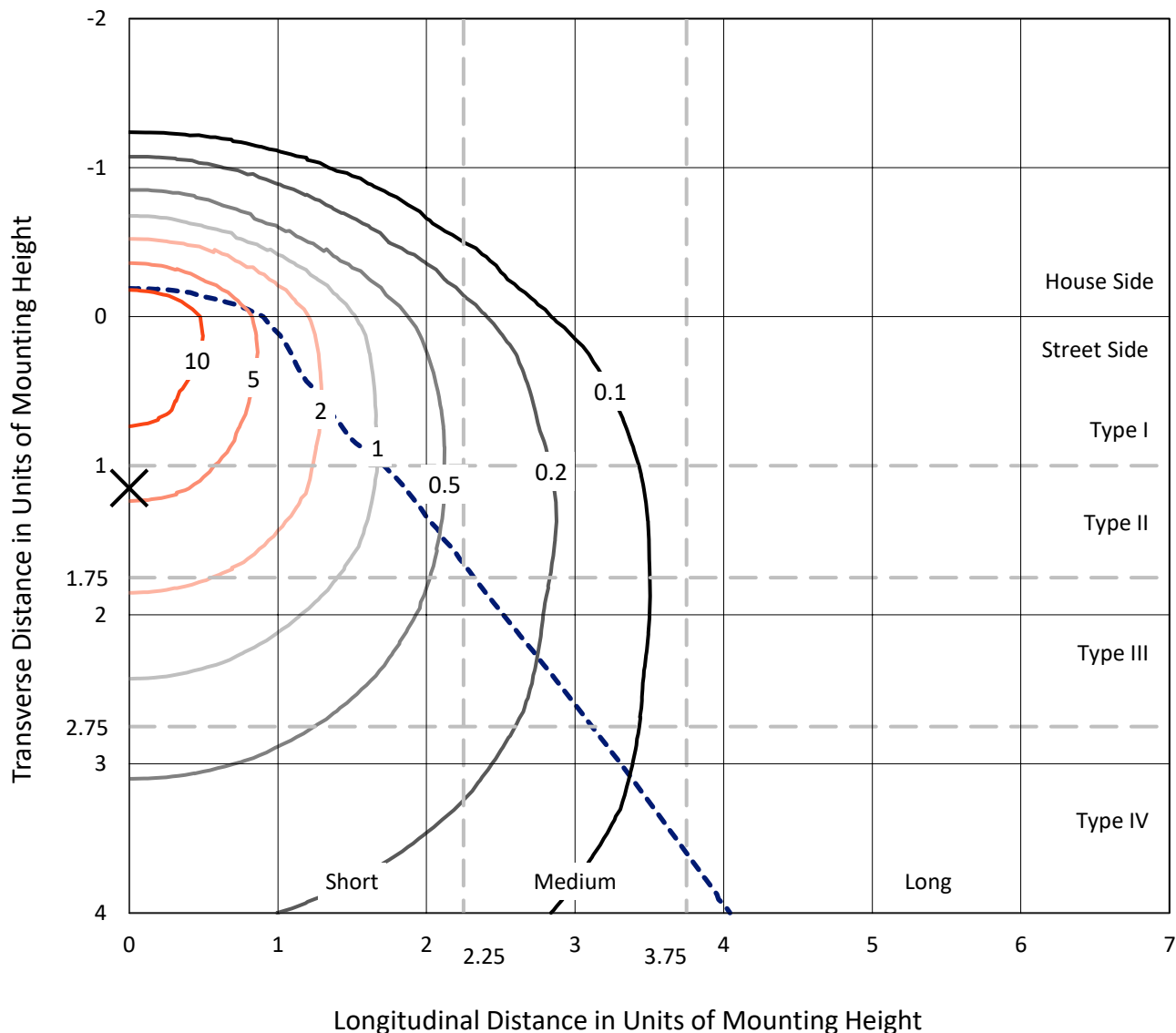
Lumens per Lamp: N/A
Luminaire Lumens: 11538.1 lumens
Efficiency: N/A
Efficacy: 160.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.86' x L: 0.17' x H: 0.58')
IES Classification: Type IV - Short
BUG Rating: B2 - U3 - G5

Input Watts (W): 72.1
Input Voltage (V): 120
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

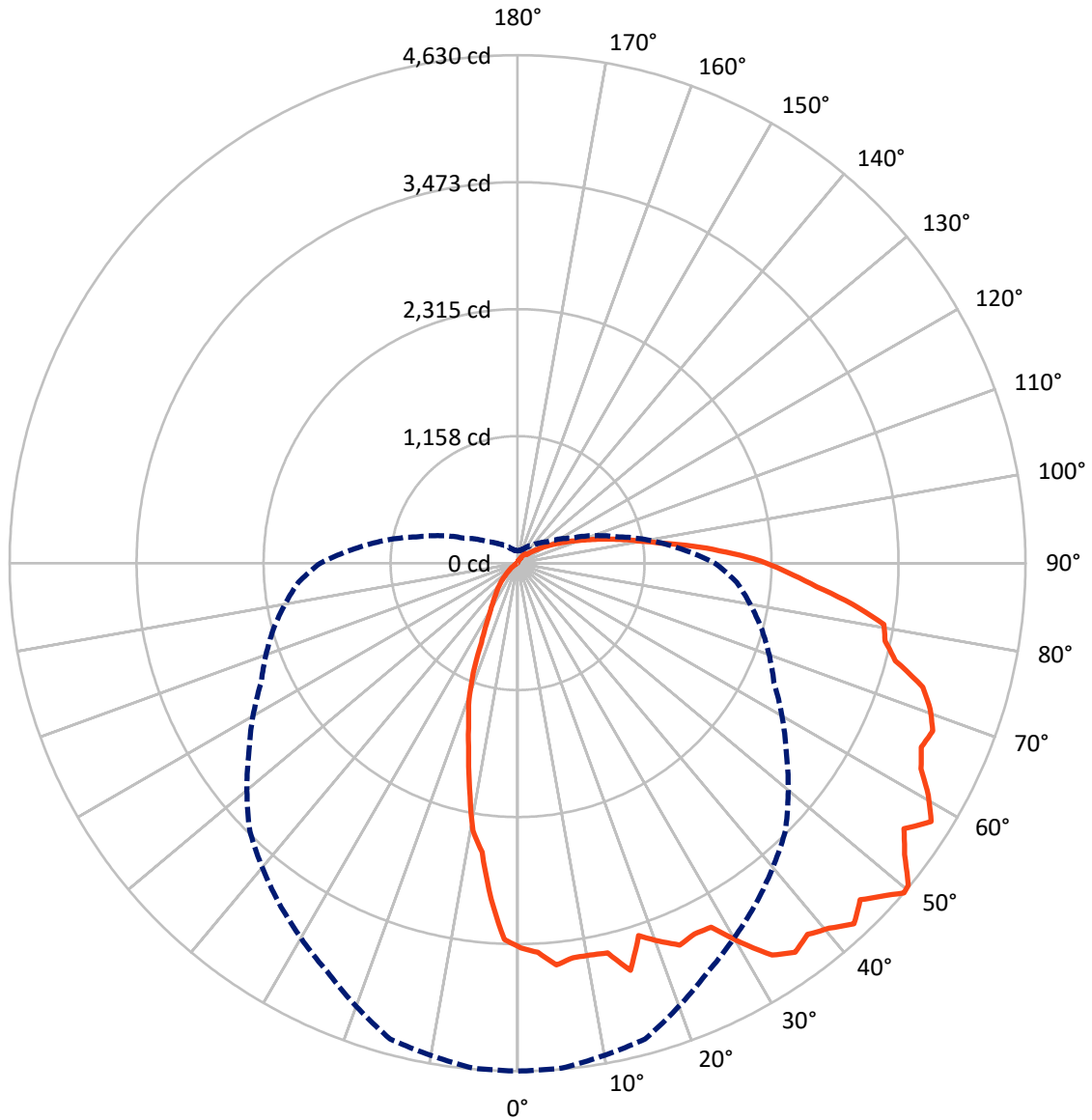
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 15.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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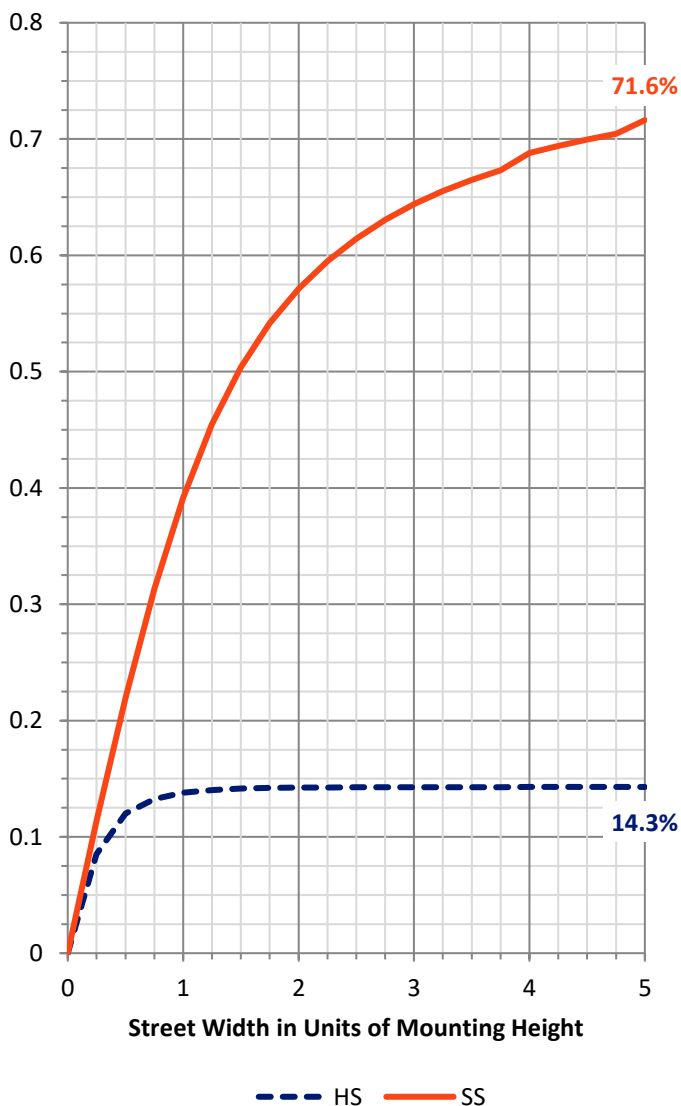
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1668.2	15.9	1684.0
	% Fixture	14.5	0.1	14.6
Street Side	Lumens	8907.5	946.5	9854.1
	% Fixture	77.2	8.2	85.4
Total	Lumens	10575.7	962.4	11538.1
	% Fixture	91.7	8.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.6	2.8
10°-20°	845.6	7.3
20°-30°	1175.7	10.2
30°-40°	1411.6	12.2
40°-50°	1557.4	13.5
50°-60°	1578.7	13.7
60°-70°	1486.7	12.9
70°-80°	1282.8	11.1
80°-90°	915.6	7.9
90°-100°	497.4	4.3
100°-110°	240.2	2.1
110°-120°	117.9	1.0
120°-130°	56.8	0.5
130°-140°	29.8	0.3
140°-150°	14.7	0.1
150°-160°	4.6	0.0
160°-170°	0.9	0.0
170°-180°	0.1	0.0
0°-90°	10575.7	91.7
0°-180°	11538.1	100.0



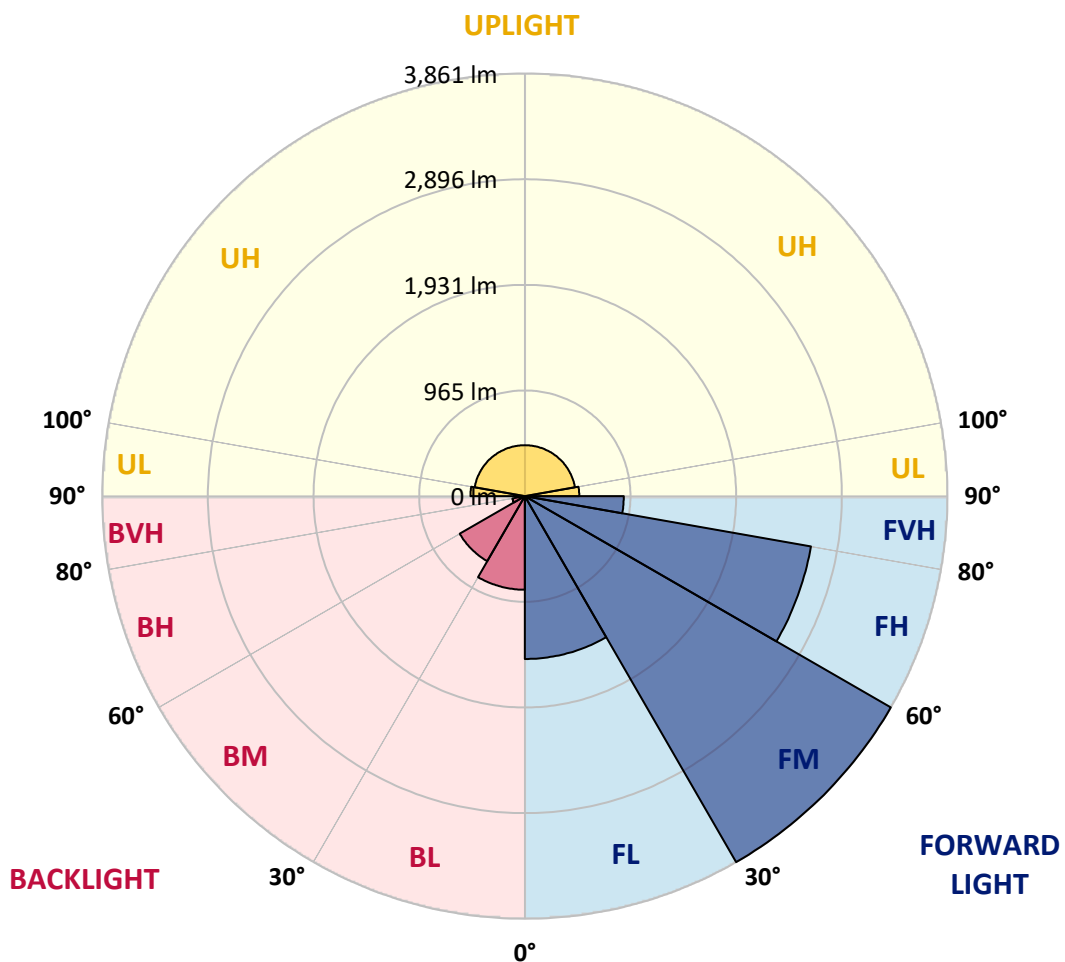
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1488.0	12.9			
FM (30°-60°)	3861.2	33.5			
FH (60°-80°)	2654.4	23.0			G2/5000
FVH (80°-90°)	904.0	7.8			G5
BL (0°-30°)	854.9	7.4	B2/1000		
BM (30°-60°)	686.5	5.9	B1/1000		
BH (60°-80°)	115.1	1.0	B1/500		G1/500
BVH (80°-90°)	11.7	0.1			G1/100
UL (90°-100°)	497.4	4.3		U3/500	
UH (100°-180°)	465.1	4.0		U3/500	

BUG Rating: B2-U3-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8
2.5°	3553.2	3552.4	3556.4	3540.4	3543.6	3559.6	3573.3	3560.4	3516.4	3497.1	3512.4
5°	3679.9	3679.9	3679.0	3694.3	3663.8	3611.7	3564.5	3533.2	3558.0	3489.9	3497.1
7.5°	3631.8	3640.6	3656.6	3687.9	3691.9	3674.2	3667.0	3550.8	3523.6	3489.9	3485.1
10°	3632.6	3627.8	3614.9	3590.9	3618.1	3637.4	3666.2	3638.2	3517.2	3489.9	3471.5
12.5°	3647.0	3646.2	3618.1	3600.5	3592.5	3566.1	3618.1	3622.2	3521.2	3463.5	3421.8
15°	3852.1	3843.3	3855.3	3731.9	3614.1	3566.9	3543.6	3598.1	3538.8	3429.8	3386.6
17.5°	3570.1	3582.1	3609.3	3731.9	3793.6	3591.7	3490.7	3508.4	3501.9	3378.5	3325.6
20°	3678.2	3663.8	3579.7	3515.6	3627.0	3731.9	3461.9	3393.8	3414.6	3300.0	3247.9
22.5°	3782.4	3771.2	3736.7	3690.3	3485.9	3591.7	3531.6	3319.2	3340.1	3219.9	3161.4
25°	3744.8	3747.2	3751.2	3752.8	3668.6	3408.2	3566.9	3263.9	3277.6	3128.5	3084.4
27.5°	3758.4	3737.5	3691.1	3694.3	3678.2	3469.1	3385.0	3237.5	3183.0	3030.7	2992.3
30°	4014.0	4002.8	3933.9	3707.1	3593.3	3493.9	3227.1	3279.2	3053.2	2945.0	2894.5
32.5°	4260.8	4260.0	4167.9	3912.2	3573.3	3460.3	3247.1	3235.9	2947.4	2857.7	2796.8
35°	4357.0	4341.8	4203.1	4091.8	3758.4	3372.9	3270.4	3106.9	2857.7	2772.7	2692.6
37.5°	4295.3	4297.7	4207.1	4096.6	3845.7	3437.8	3222.3	2942.6	2791.9	2683.8	2566.0
40°	4375.4	4365.0	4300.9	4068.5	3786.4	3511.6	3098.9	2882.5	2755.1	2565.2	2427.3
42.5°	4497.2	4498.0	4461.2	4157.5	3766.4	3489.1	3074.0	2898.5	2694.2	2428.9	2259.0
45°	4378.6	4364.2	4395.5	4185.5	3880.2	3390.6	3134.1	2828.8	2571.6	2272.7	2089.1
47.5°	4525.3	4507.7	4347.4	4166.3	3832.1	3405.0	3062.8	2662.9	2416.1	2103.6	1914.5
49°	4630.3	4621.5	4490.8	4107.8	3788.0	3453.1	2989.1	2578.8	2301.5	2005.0	1799.1
50°	4615.0	4604.6	4534.1	4205.5	3788.8	3420.2	2938.6	2526.7	2228.6	1939.3	1735.7
52.5°	4417.1	4419.5	4464.4	4278.5	3821.7	3318.4	2872.9	2474.6	2072.3	1781.4	1585.1
55°	4273.7	4275.3	4255.2	4164.7	3873.8	3312.0	2862.5	2358.4	1954.5	1645.2	1445.7
57.5°	4446.8	4437.9	4281.7	4001.2	3820.9	3360.1	2726.2	2201.3	1823.9	1533.0	1315.8
60°	4302.5	4316.1	4319.3	4055.7	3653.4	3333.7	2622.9	2064.3	1699.7	1406.4	1179.6
62.5°	4127.0	4099.0	4012.4	3951.5	3643.0	3208.7	2582.0	2029.0	1587.5	1279.0	1053.0
65°	4045.3	4044.5	3966.7	3744.0	3526.8	3105.3	2494.6	1936.1	1523.4	1153.2	926.4
67.5°	4082.1	4076.5	3971.5	3720.7	3365.7	2989.1	2349.6	1820.7	1408.0	1041.8	790.1
70°	3990.8	3982.8	3901.0	3682.3	3326.5	2844.0	2224.6	1750.2	1264.5	923.2	645.1
72.5°	3864.2	3865.0	3792.8	3560.4	3265.5	2755.9	2067.5	1660.4	1180.4	777.3	504.9
75°	3558.0	3582.1	3549.2	3364.1	3089.2	2626.9	1928.9	1458.5	1063.4	633.1	383.9
77.5°	3424.2	3415.4	3324.0	3137.3	2903.3	2480.2	1784.6	1286.2	948.8	488.8	278.1
80°	3386.6	3368.9	3288.0	3022.7	2735.8	2315.9	1636.4	1138.7	805.4	367.0	196.3
82.5°	3076.4	3053.2	2991.5	2836.8	2512.3	2102.8	1463.3	997.7	644.3	260.4	133.0
85°	2733.4	2740.7	2667.7	2485.0	2264.6	1852.7	1300.6	863.9	516.1	182.7	90.6
87.5°	2465.0	2458.6	2382.4	2207.8	1969.7	1646.0	1116.3	726.0	396.7	124.2	59.3
90°	2219.0	2219.8	2131.6	1968.9	1734.9	1380.7	940.0	588.2	300.5	84.9	43.3
92.5°	1904.8	1886.4	1805.5	1659.6	1471.3	1154.8	767.7	464.0	226.8	63.3	36.1
95°	1608.3	1601.9	1541.0	1416.8	1232.5	968.8	633.1	373.4	180.3	52.9	36.1
97.5°	1313.4	1298.2	1260.5	1165.2	1020.9	799.0	531.3	300.5	147.5	49.7	37.7
100°	1110.7	1102.7	1044.2	951.2	819.0	650.7	428.7	250.0	123.4	49.7	40.1
102.5°	958.4	959.2	923.2	828.6	697.2	518.5	347.8	208.4	105.0	52.1	41.7
105°	815.8	815.0	778.1	707.6	593.8	435.9	292.5	175.5	92.2	53.7	42.5
107.5°	692.4	686.8	661.1	594.6	494.4	371.8	244.4	147.5	83.3	53.7	42.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	584.2	584.2	555.3	491.2	407.1	311.7	207.6	127.4	78.5	52.9	42.5
112.5°	502.5	499.2	474.4	417.5	342.2	256.4	175.5	110.6	74.5	52.1	41.7
115°	418.3	417.5	395.1	347.0	283.7	215.6	149.9	97.8	71.3	50.5	40.1
117.5°	355.0	355.0	334.2	289.3	234.8	181.1	129.0	86.5	67.3	47.3	37.7
120°	304.5	302.1	285.3	242.8	197.9	153.9	112.2	79.3	63.3	43.3	34.5
122.5°	250.0	250.0	235.6	202.7	167.5	134.6	100.2	72.1	58.5	39.3	30.5
125°	205.9	205.9	192.3	169.1	142.6	117.8	89.8	65.7	52.1	34.5	27.2
127.5°	169.9	169.9	158.7	142.6	125.8	105.0	80.9	60.9	46.5	31.3	24.0
130°	140.2	138.6	133.0	124.2	112.2	94.6	73.7	56.9	41.7	27.2	21.6
132.5°	118.6	117.8	116.2	113.0	102.6	85.7	67.3	52.1	36.9	24.0	19.2
135°	107.4	107.4	109.8	106.6	94.6	76.9	60.9	47.3	32.9	21.6	16.8
137.5°	109.8	109.0	108.2	101.0	84.9	68.9	54.5	42.5	28.0	18.4	14.4
140°	110.6	109.0	103.4	91.4	73.7	60.1	48.1	36.9	23.2	15.2	12.0
142.5°	97.8	97.0	89.0	77.7	63.3	52.1	42.5	31.3	19.2	12.8	9.6
145°	79.3	78.5	72.1	63.3	52.9	44.1	36.1	25.6	15.2	9.6	8.0
147.5°	60.9	60.9	56.9	51.3	44.1	37.7	30.5	20.0	12.0	8.0	6.4
150°	48.9	48.1	46.5	41.7	36.9	32.1	24.0	15.2	8.8	6.4	5.6
152.5°	39.3	39.3	37.7	34.5	30.5	25.6	18.4	11.2	7.2	5.6	4.8
155°	31.3	31.3	29.7	27.2	24.8	19.2	12.8	8.0	5.6	4.8	4.0
157.5°	24.0	24.0	23.2	20.8	17.6	13.6	8.8	6.4	4.8	4.0	3.2
160°	18.4	18.4	17.6	15.2	12.8	8.8	6.4	4.8	4.0	3.2	3.2
162.5°	12.8	13.6	12.0	10.4	8.0	6.4	4.8	4.0	4.0	3.2	3.2
165°	8.8	8.8	8.0	6.4	5.6	4.8	4.0	3.2	3.2	3.2	2.4
167.5°	5.6	4.8	4.8	4.0	4.0	4.0	3.2	3.2	3.2	3.2	2.4
170°	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.4
172.5°	0.0	0.8	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	2.4
175°	0.0	0.8	1.6	2.4	3.2	3.2	3.2	3.2	3.2	3.2	2.4
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8	3506.8
2.5°	3514.8	3525.2	3513.2	3471.5	3453.1	3441.0	3436.2	3431.4	3425.0	3433.0
5°	3522.8	3478.7	3432.2	3392.2	3323.2	3235.9	3164.6	3124.5	3091.7	3073.2
7.5°	3505.2	3438.6	3350.5	3186.2	3021.9	2872.9	2747.1	2687.8	2654.1	2654.1
10°	3476.3	3389.0	3174.2	2926.6	2699.8	2575.6	2525.1	2493.8	2473.8	2472.2
12.5°	3429.0	3284.8	2961.8	2663.7	2519.5	2424.1	2292.7	2171.7	2101.2	2098.8
15°	3356.9	3137.3	2755.9	2501.8	2355.2	2108.4	1920.1	1831.1	1797.5	1780.6
17.5°	3268.0	2969.8	2545.1	2356.8	2047.5	1816.7	1688.5	1582.7	1526.6	1522.6
20°	3188.6	2779.1	2413.7	2103.6	1787.8	1589.1	1454.5	1377.5	1338.3	1331.1
22.5°	3094.1	2622.9	2260.6	1853.5	1569.1	1388.8	1247.7	1130.7	1066.6	1076.2
25°	2969.8	2446.6	2068.3	1643.6	1375.1	1193.2	1000.1	875.1	804.6	794.1
27.5°	2852.8	2275.9	1848.7	1446.5	1193.2	955.2	770.9	677.2	633.1	621.9
30°	2721.4	2141.2	1653.2	1275.0	995.3	755.7	620.3	541.7	511.3	504.1
32.5°	2586.0	1990.6	1473.7	1114.7	813.4	601.8	502.5	453.6	427.9	423.9
35°	2436.9	1833.5	1311.8	941.6	650.7	500.9	428.7	385.5	361.4	355.8
37.5°	2294.3	1670.0	1142.7	782.1	532.1	423.1	361.4	330.2	310.9	308.5
40°	2132.4	1486.5	976.1	640.3	448.8	360.6	311.7	276.5	261.2	257.2
42.5°	1952.9	1310.2	838.2	524.1	383.1	307.7	260.4	229.2	214.8	211.6
45°	1772.6	1151.6	710.0	436.7	324.6	258.8	214.8	185.1	169.9	168.3
47.5°	1592.3	1006.5	596.2	370.2	276.5	215.6	170.7	143.4	133.0	130.6
49°	1491.3	928.0	536.1	339.8	249.2	191.5	147.5	122.6	113.8	112.2
50°	1436.0	885.5	494.4	318.9	230.8	174.7	134.6	111.4	101.0	99.4
52.5°	1296.6	755.7	409.5	274.9	191.5	138.6	105.0	84.1	76.1	75.3
55°	1154.8	645.1	351.0	236.4	159.5	109.8	80.1	64.1	55.3	54.5
57.5°	1023.3	538.5	305.3	199.5	129.8	84.1	57.7	42.5	36.9	35.3
60°	893.5	451.2	266.9	166.7	103.4	62.5	39.3	25.6	21.6	20.8
62.5°	769.3	375.0	230.8	140.2	78.5	42.5	20.8	11.2	10.4	11.2
65°	644.3	314.1	197.9	114.6	58.5	25.6	5.6	2.4	0.8	0.0
67.5°	529.7	267.7	169.1	92.2	39.3	9.6	0.0	0.0	0.0	0.0
70°	415.1	224.4	141.0	71.3	24.0	1.6	0.0	0.0	0.0	0.0
72.5°	320.5	186.7	117.0	53.7	12.0	0.0	0.0	0.0	0.0	0.0
75°	242.0	149.9	94.6	38.5	3.2	0.0	0.0	0.0	0.0	0.0
77.5°	181.1	121.0	75.3	27.2	0.8	0.0	0.0	0.0	0.0	0.0
80°	135.4	96.2	58.5	18.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	97.8	75.3	44.9	12.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	69.7	60.1	34.5	8.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	51.3	48.9	28.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0
90°	40.9	40.1	22.4	4.8	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	35.3	33.7	18.4	4.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	33.7	29.7	16.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	33.7	26.4	13.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0
100°	34.5	24.8	12.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	34.5	23.2	10.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
105°	35.3	21.6	9.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	34.5	20.0	8.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P979155
 CATALOG NUMBER: WPMLD26S-70W-4000K

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	33.7	18.4	7.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	33.7	17.6	5.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0
115°	32.1	16.0	4.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	29.7	14.4	4.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
120°	26.4	12.0	4.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	23.2	10.4	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
125°	20.8	9.6	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	18.4	8.8	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
130°	16.0	8.0	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	14.4	6.4	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0
135°	12.8	6.4	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	11.2	5.6	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
140°	9.6	4.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	7.2	3.2	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
145°	6.4	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	5.6	3.2	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
150°	4.8	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	4.0	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	3.2	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	3.2	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2407-168-3

Test Date: 08/08/2024

Luminaire Tested: LSDL-92S-100W 4000k

Data in this report applies to families of products including LSDL-92S-100W 4000k.

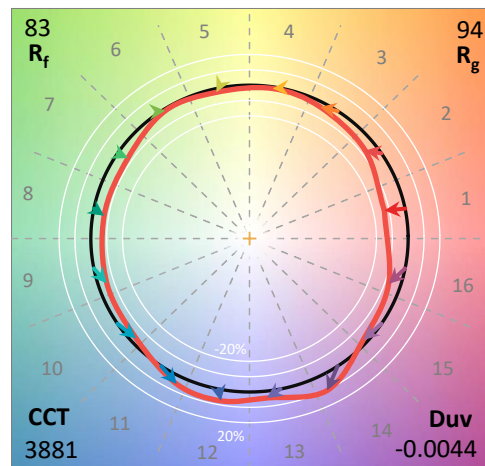
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-168-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/12/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **LSDL-92S-100W 4000k**
 Description: Lumark Wallpack 100W

Spectral Parameters

CCT (K): 3881
 CIE u': 0.2297
 CIE v': 0.4983
 Duv: -0.0044
 CIE x: 0.3825
 CIE y: 0.3688
 CIE z: 0.2487
 Peak Wavelength (nm): 453
 Dominant Wavelength (nm): 582
 Purity: 25.44833
 R_f: 82.8
 R_g: 93.7

CRI (Ra):	82.7		
R1:	82.3	R9:	4.8
R2:	93.7	R10:	84.4
R3:	93.3	R11:	77.9
R4:	79.0	R12:	66.7
R5:	82.7	R13:	85.8
R6:	89.4	R14:	97.2
R7:	81.3	R15:	76.3
R8:	59.9		



Test Conditions

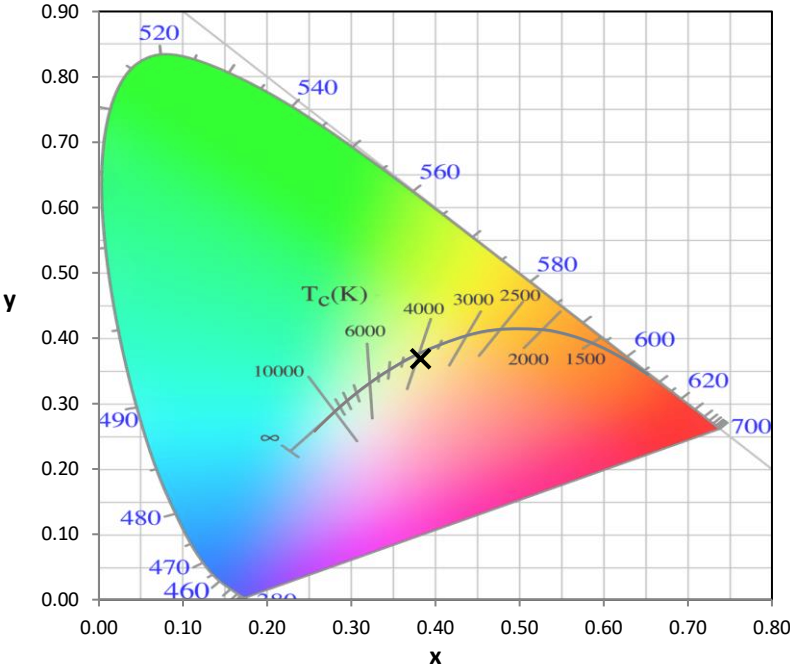
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-168-3

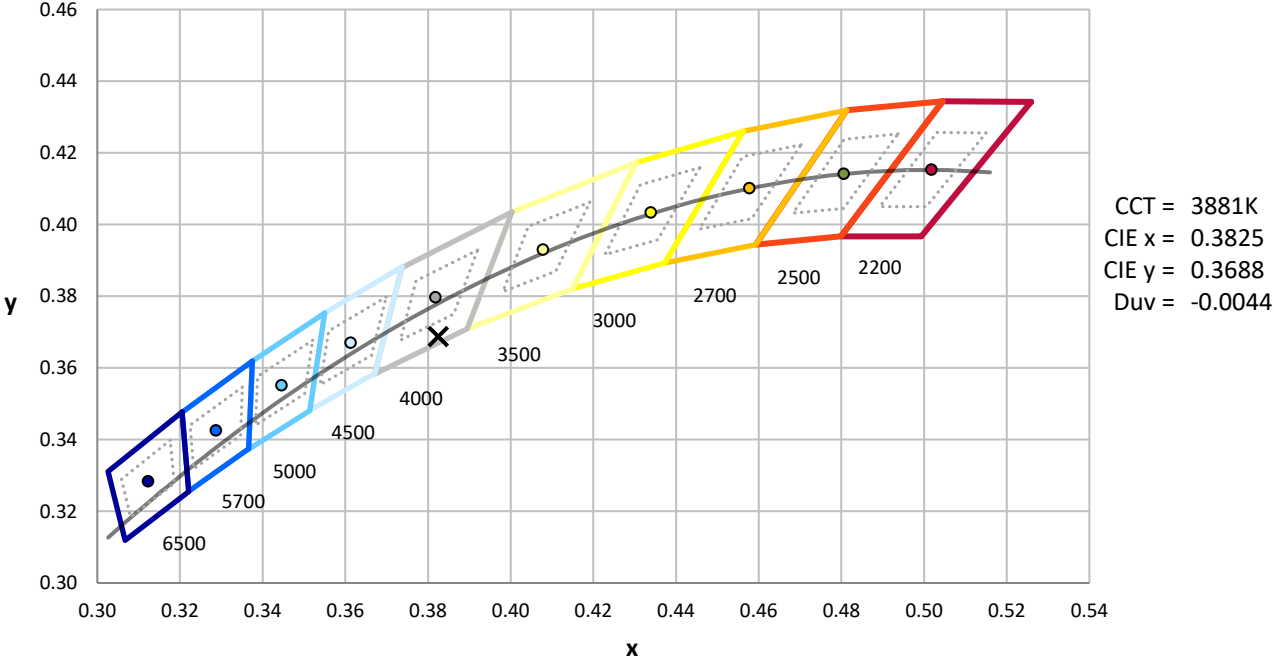
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-168-3

CIE 1931 Chromaticity Diagram



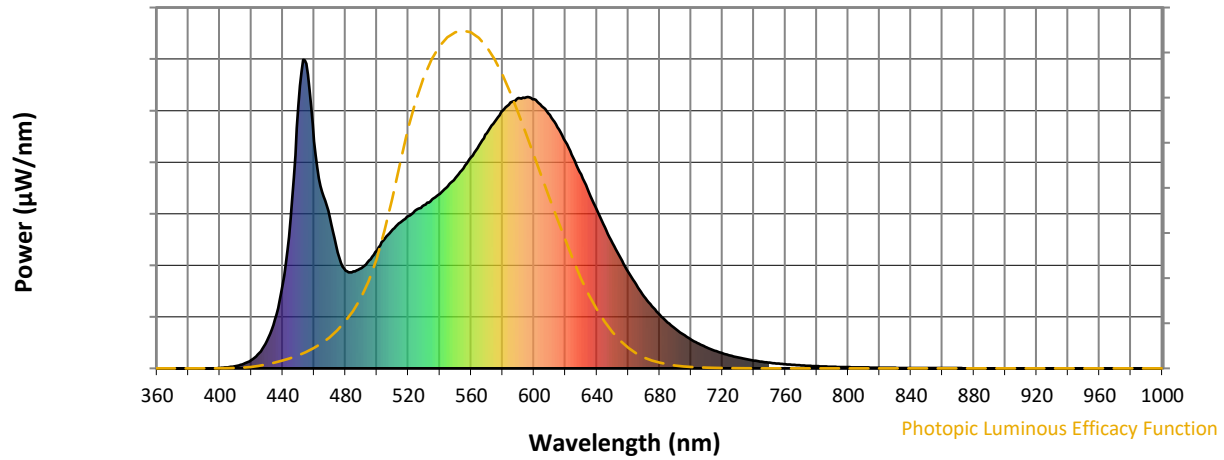
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2407-168-3

Photopic Flux vs. Wavelength

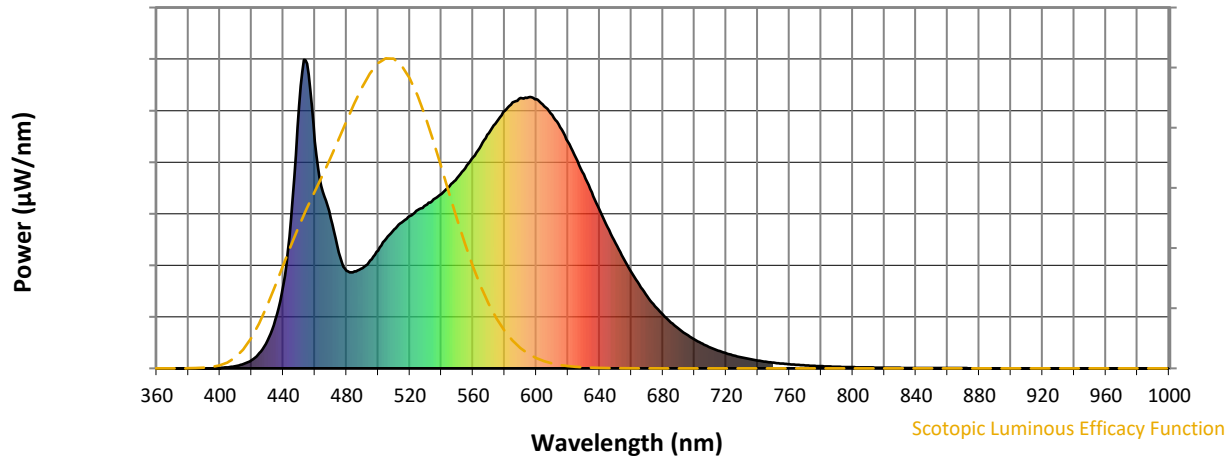


Photopic Lumens: NR

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	325	NR	620	735	NR	750	18	NR	880	0	NR
365	0	NR	495	350	NR	625	682	NR	755	16	NR	885	0	NR
370	0	NR	500	382	NR	630	629	NR	760	13	NR	890	0	NR
375	0	NR	505	421	NR	635	570	NR	765	11	NR	895	0	NR
380	0	NR	510	450	NR	640	514	NR	770	10	NR	900	0	NR
385	0	NR	515	474	NR	645	458	NR	775	8	NR	905	0	NR
390	0	NR	520	494	NR	650	406	NR	780	7	NR	910	0	NR
395	0	NR	525	513	NR	655	358	NR	785	6	NR	915	0	NR
400	2	NR	530	529	NR	660	312	NR	790	5	NR	920	0	NR
405	4	NR	535	548	NR	665	271	NR	795	4	NR	925	0	NR
410	8	NR	540	565	NR	670	234	NR	800	4	NR	930	0	NR
415	14	NR	545	591	NR	675	202	NR	805	3	NR	935	0	NR
420	27	NR	550	618	NR	680	174	NR	810	3	NR	940	0	NR
425	50	NR	555	649	NR	685	149	NR	815	2	NR	945	0	NR
430	89	NR	560	685	NR	690	129	NR	820	2	NR	950	0	NR
435	159	NR	565	723	NR	695	110	NR	825	2	NR	955	0	NR
440	272	NR	570	762	NR	700	93	NR	830	2	NR	960	0	NR
445	486	NR	575	800	NR	705	80	NR	835	1	NR	965	0	NR
450	852	NR	580	835	NR	710	67	NR	840	1	NR	970	0	NR
455	988	NR	585	862	NR	715	57	NR	845	1	NR	975	0	NR
460	735	NR	590	876	NR	720	49	NR	850	1	NR	980	0	NR
465	572	NR	595	879	NR	725	42	NR	855	1	NR	985	0	NR
470	486	NR	600	872	NR	730	35	NR	860	1	NR	990	0	NR
475	375	NR	605	850	NR	735	30	NR	865	1	NR	995	0	NR
480	317	NR	610	821	NR	740	25	NR	870	1	NR	1000	0	NR
485	314	NR	615	782	NR	745	22	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-3

Scotopic Flux vs. Wavelength



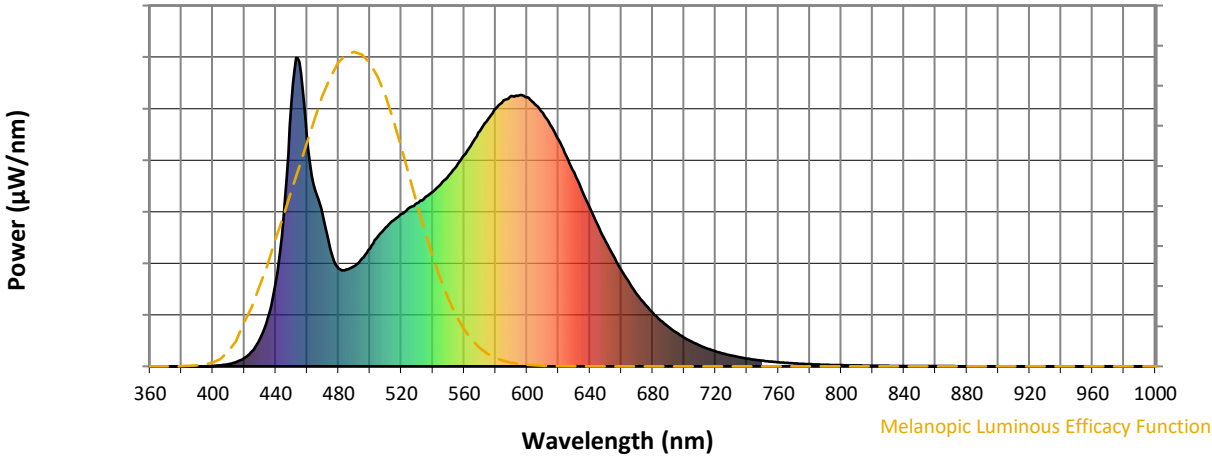
Scotopic Lumens: NR

S/P: 1.72

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	325	NR	620	735	NR	750	18	NR	880	0	NR
365	0	NR	495	350	NR	625	682	NR	755	16	NR	885	0	NR
370	0	NR	500	382	NR	630	629	NR	760	13	NR	890	0	NR
375	0	NR	505	421	NR	635	570	NR	765	11	NR	895	0	NR
380	0	NR	510	450	NR	640	514	NR	770	10	NR	900	0	NR
385	0	NR	515	474	NR	645	458	NR	775	8	NR	905	0	NR
390	0	NR	520	494	NR	650	406	NR	780	7	NR	910	0	NR
395	0	NR	525	513	NR	655	358	NR	785	6	NR	915	0	NR
400	2	NR	530	529	NR	660	312	NR	790	5	NR	920	0	NR
405	4	NR	535	548	NR	665	271	NR	795	4	NR	925	0	NR
410	8	NR	540	565	NR	670	234	NR	800	4	NR	930	0	NR
415	14	NR	545	591	NR	675	202	NR	805	3	NR	935	0	NR
420	27	NR	550	618	NR	680	174	NR	810	3	NR	940	0	NR
425	50	NR	555	649	NR	685	149	NR	815	2	NR	945	0	NR
430	89	NR	560	685	NR	690	129	NR	820	2	NR	950	0	NR
435	159	NR	565	723	NR	695	110	NR	825	2	NR	955	0	NR
440	272	NR	570	762	NR	700	93	NR	830	2	NR	960	0	NR
445	486	NR	575	800	NR	705	80	NR	835	1	NR	965	0	NR
450	852	NR	580	835	NR	710	67	NR	840	1	NR	970	0	NR
455	988	NR	585	862	NR	715	57	NR	845	1	NR	975	0	NR
460	735	NR	590	876	NR	720	49	NR	850	1	NR	980	0	NR
465	572	NR	595	879	NR	725	42	NR	855	1	NR	985	0	NR
470	486	NR	600	872	NR	730	35	NR	860	1	NR	990	0	NR
475	375	NR	605	850	NR	735	30	NR	865	1	NR	995	0	NR
480	317	NR	610	821	NR	740	25	NR	870	1	NR	1000	0	NR
485	314	NR	615	782	NR	745	22	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-3

Melanopic Flux vs. Wavelength



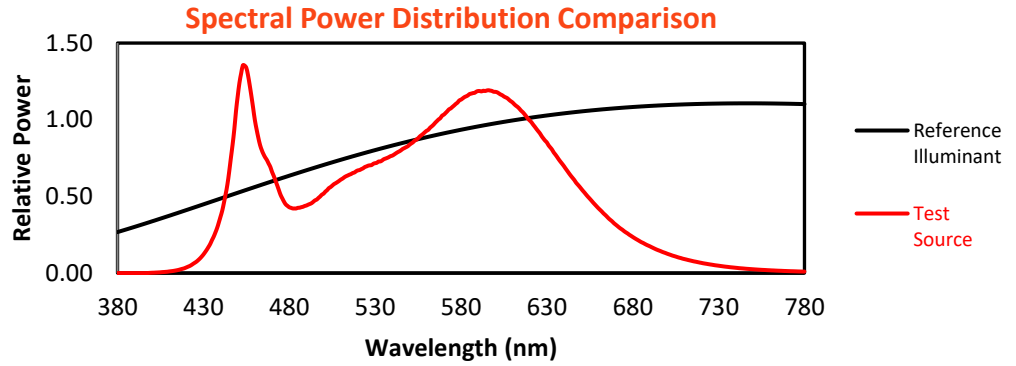
Melanopic Lumens: NR

M/P: 3.62

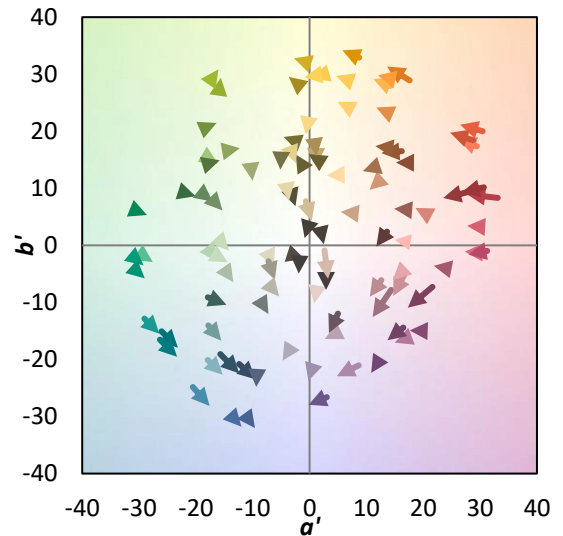
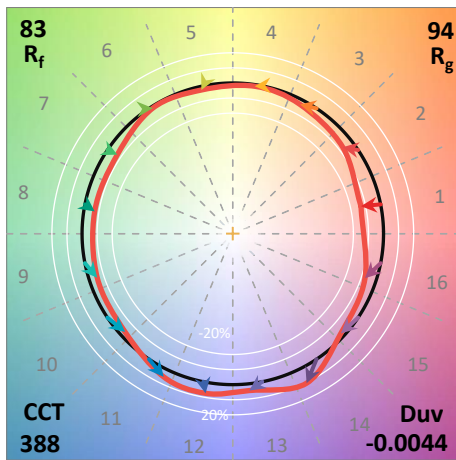
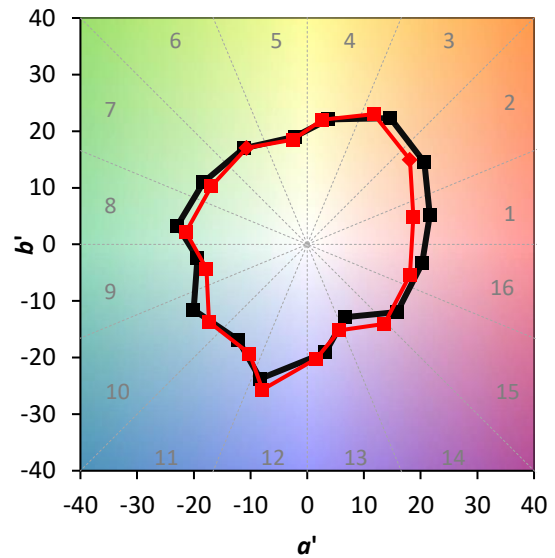
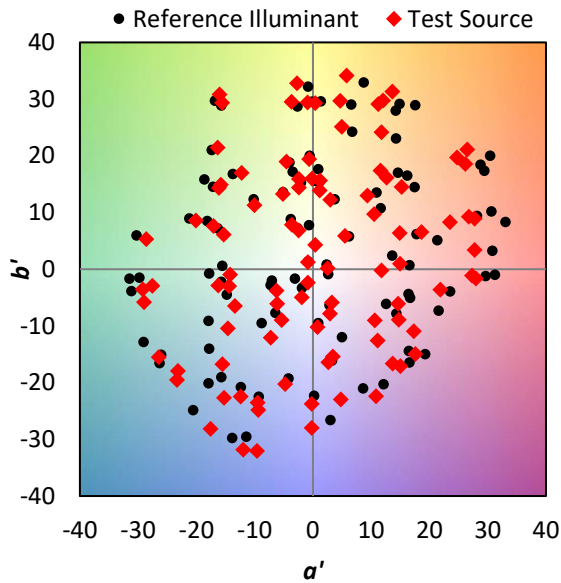
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	325	NR	620	735	NR	750	18	NR	880	0	NR
365	0	NR	495	350	NR	625	682	NR	755	16	NR	885	0	NR
370	0	NR	500	382	NR	630	629	NR	760	13	NR	890	0	NR
375	0	NR	505	421	NR	635	570	NR	765	11	NR	895	0	NR
380	0	NR	510	450	NR	640	514	NR	770	10	NR	900	0	NR
385	0	NR	515	474	NR	645	458	NR	775	8	NR	905	0	NR
390	0	NR	520	494	NR	650	406	NR	780	7	NR	910	0	NR
395	0	NR	525	513	NR	655	358	NR	785	6	NR	915	0	NR
400	2	NR	530	529	NR	660	312	NR	790	5	NR	920	0	NR
405	4	NR	535	548	NR	665	271	NR	795	4	NR	925	0	NR
410	8	NR	540	565	NR	670	234	NR	800	4	NR	930	0	NR
415	14	NR	545	591	NR	675	202	NR	805	3	NR	935	0	NR
420	27	NR	550	618	NR	680	174	NR	810	3	NR	940	0	NR
425	50	NR	555	649	NR	685	149	NR	815	2	NR	945	0	NR
430	89	NR	560	685	NR	690	129	NR	820	2	NR	950	0	NR
435	159	NR	565	723	NR	695	110	NR	825	2	NR	955	0	NR
440	272	NR	570	762	NR	700	93	NR	830	2	NR	960	0	NR
445	486	NR	575	800	NR	705	80	NR	835	1	NR	965	0	NR
450	852	NR	580	835	NR	710	67	NR	840	1	NR	970	0	NR
455	988	NR	585	862	NR	715	57	NR	845	1	NR	975	0	NR
460	735	NR	590	876	NR	720	49	NR	850	1	NR	980	0	NR
465	572	NR	595	879	NR	725	42	NR	855	1	NR	985	0	NR
470	486	NR	600	872	NR	730	35	NR	860	1	NR	990	0	NR
475	375	NR	605	850	NR	735	30	NR	865	1	NR	995	0	NR
480	317	NR	610	821	NR	740	25	NR	870	1	NR	1000	0	NR
485	314	NR	615	782	NR	745	22	NR	875	0	NR			

Summary

$R_f = 82.8$
 $R_g = 93.7$
 CIE $R_a = 82.7$
 $R_9 = 4.8$

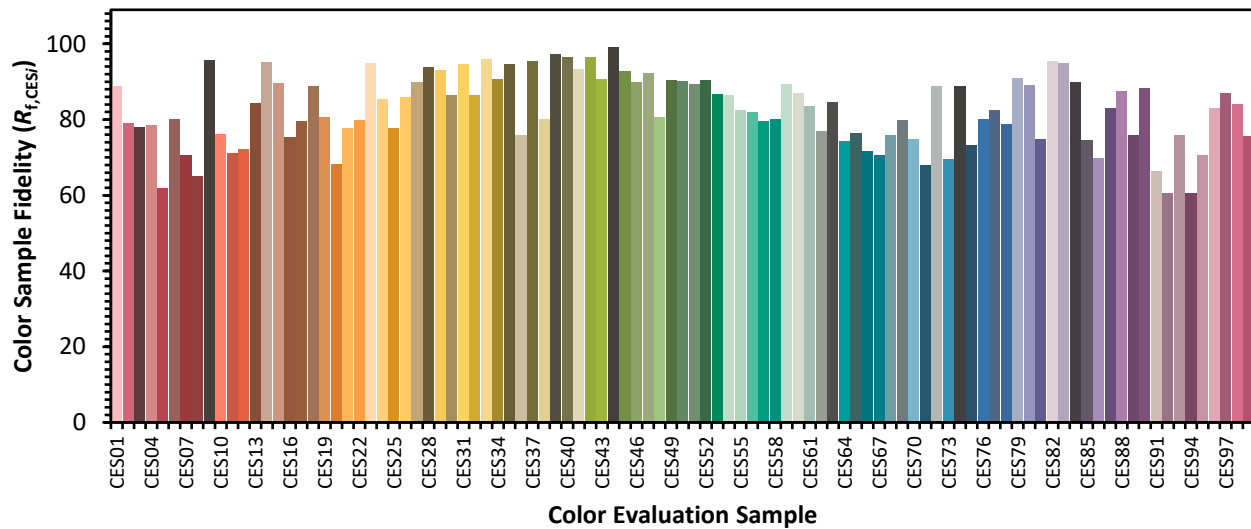


Color Vector Graphics

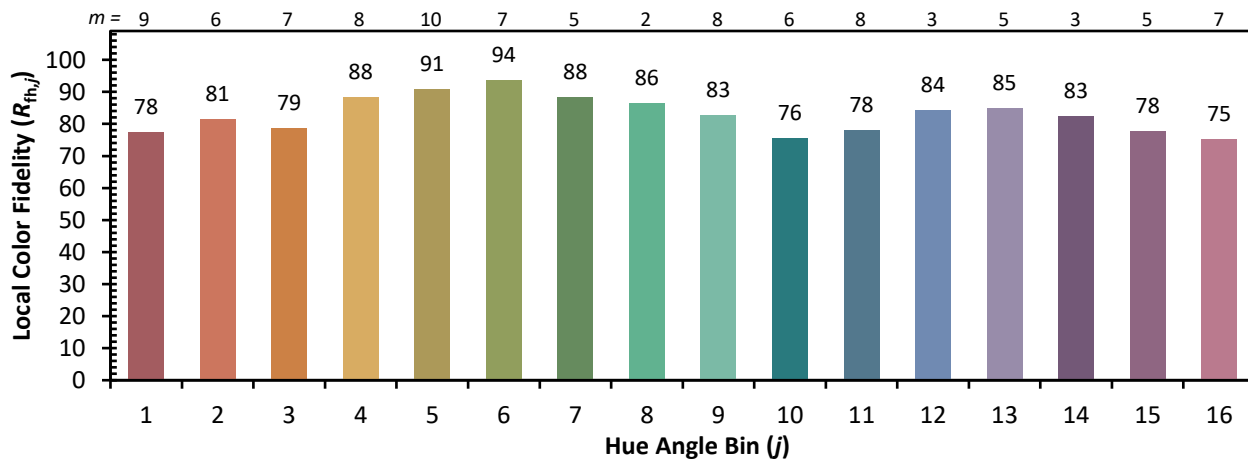
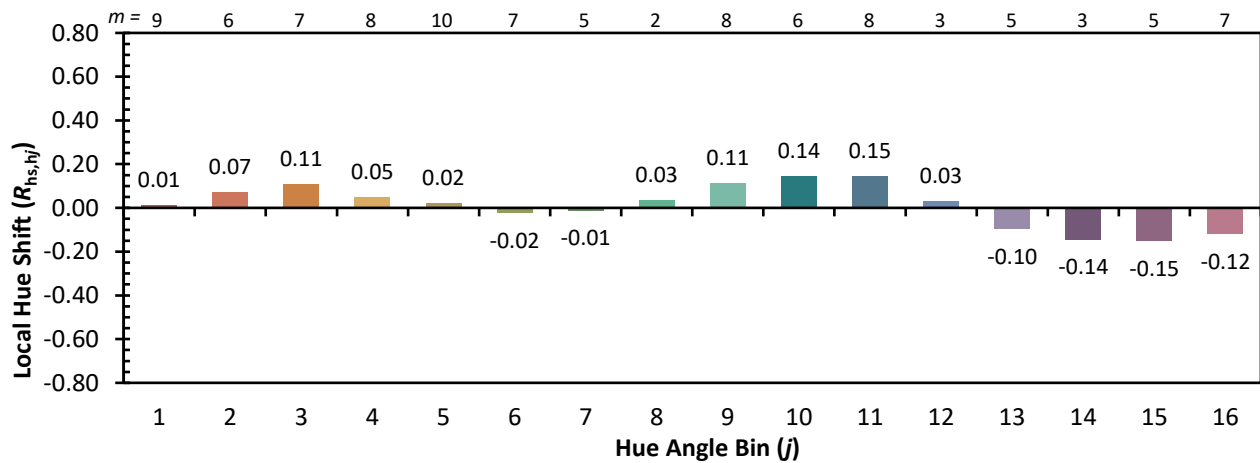
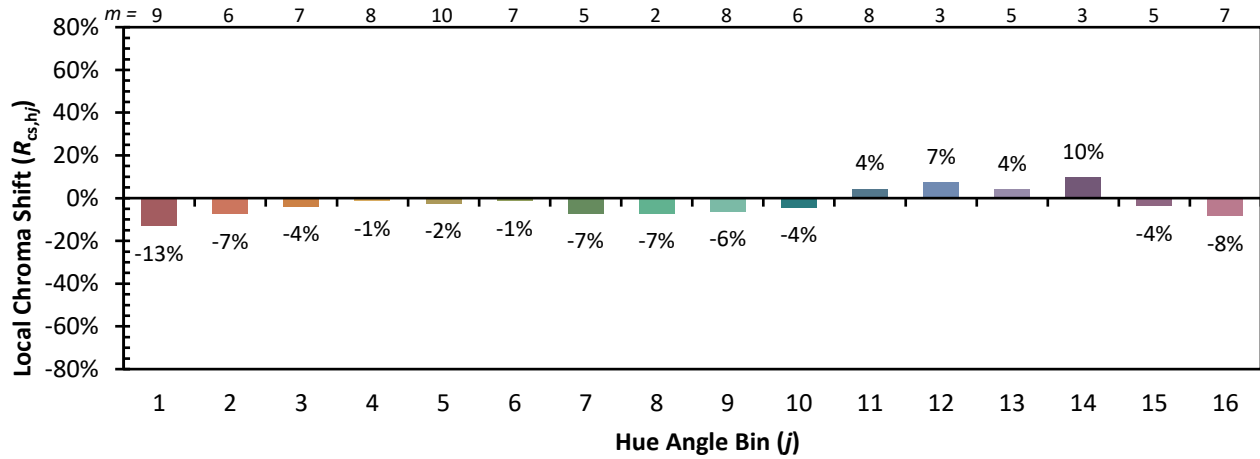


Individual Sample Fidelity Index ($R_{f,i}$)

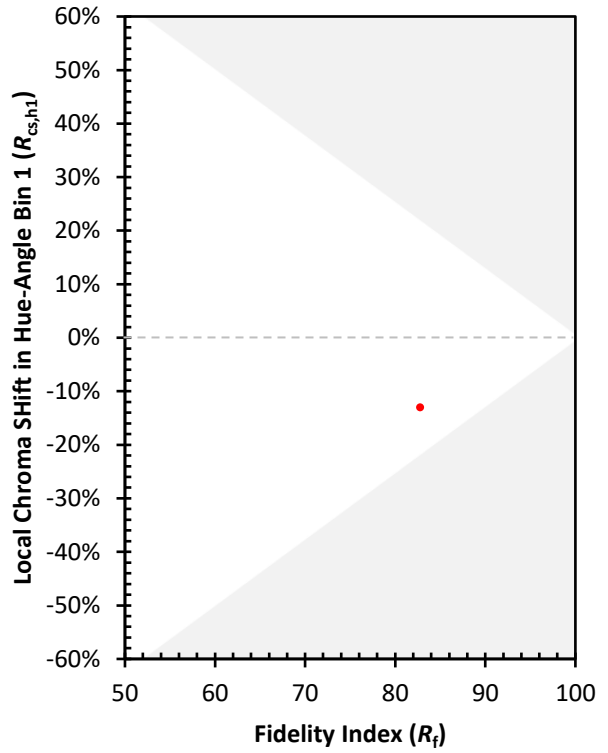
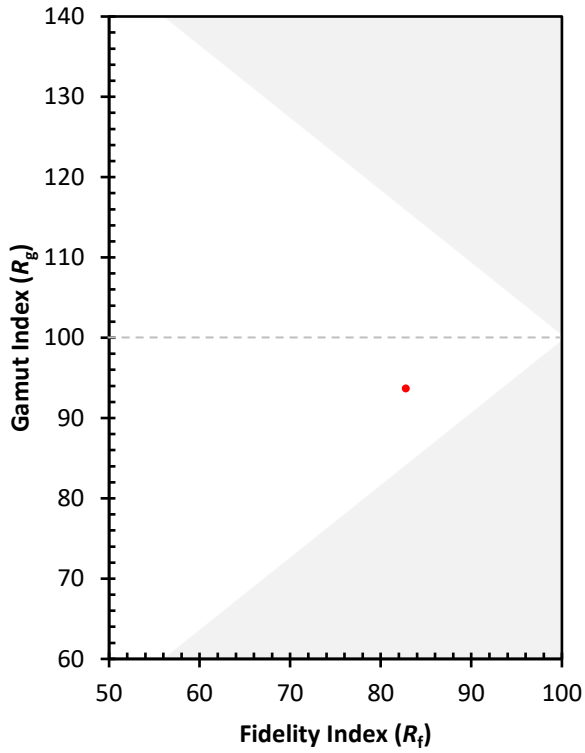
CES01 = 86	CES26 = 86	CES51 = 89	CES76 = 80
CES02 = 62	CES27 = 90	CES52 = 91	CES77 = 83
CES03 = 31	CES28 = 94	CES53 = 87	CES78 = 79
CES04 = 70	CES29 = 93	CES54 = 86	CES79 = 91
CES05 = 48	CES30 = 86	CES55 = 83	CES80 = 89
CES06 = 51	CES31 = 95	CES56 = 82	CES81 = 75
CES07 = 41	CES32 = 86	CES57 = 80	CES82 = 95
CES08 = 40	CES33 = 96	CES58 = 80	CES83 = 95
CES09 = 29	CES34 = 91	CES59 = 89	CES84 = 90
CES10 = 75	CES35 = 95	CES60 = 87	CES85 = 75
CES11 = 58	CES36 = 76	CES61 = 83	CES86 = 70
CES12 = 64	CES37 = 95	CES62 = 77	CES87 = 83
CES13 = 43	CES38 = 80	CES63 = 85	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 74	CES89 = 76
CES15 = 71	CES40 = 96	CES65 = 76	CES90 = 88
CES16 = 47	CES41 = 93	CES66 = 72	CES91 = 66
CES17 = 49	CES42 = 96	CES67 = 71	CES92 = 60
CES18 = 56	CES43 = 91	CES68 = 76	CES93 = 76
CES19 = 72	CES44 = 99	CES69 = 80	CES94 = 61
CES20 = 65	CES45 = 93	CES70 = 75	CES95 = 71
CES21 = 86	CES46 = 90	CES71 = 68	CES96 = 83
CES22 = 78	CES47 = 92	CES72 = 89	CES97 = 87
CES23 = 91	CES48 = 81	CES73 = 70	CES98 = 84
CES24 = 90	CES49 = 90	CES74 = 89	CES99 = 76
CES25 = 71	CES50 = 90	CES75 = 73	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)