

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: P979172

Luminaire Tested: **WPLLED38S-130W-6500K**

Issue Date: 03/31/2025



Test Information

Test Method: LM-79-08
Report Number: P979172
Test Lab: Cooper Lighting Solutions
Issue Date: 03/31/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: WPLED38S-130W-6500K
Description: LUMARK WALL PACK LED LARGE 80CRI CCT AND LUMEN SELECTIVE FIXTURE
OPERATING @130W-6500K
Light Source: 6500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

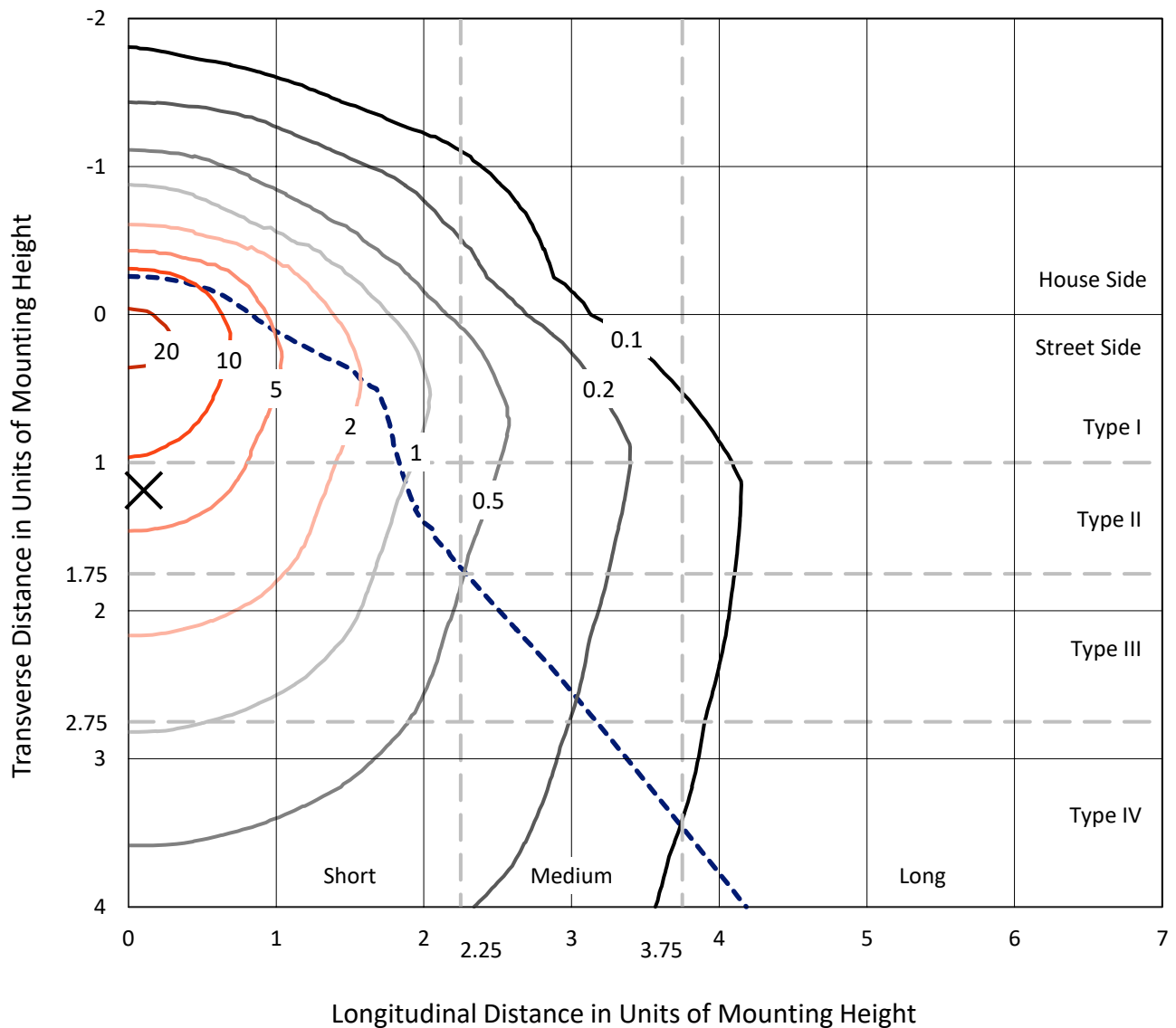
Lumens per Lamp: N/A
Luminaire Lumens: 18596.3 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 0.33' x H: 0.58')
IES Classification: Type IV - Short
BUG Rating: B3 - U5 - G5

Input Watts (W): 130.3
Input Voltage (V): 120
Input Current (A_{in}): 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

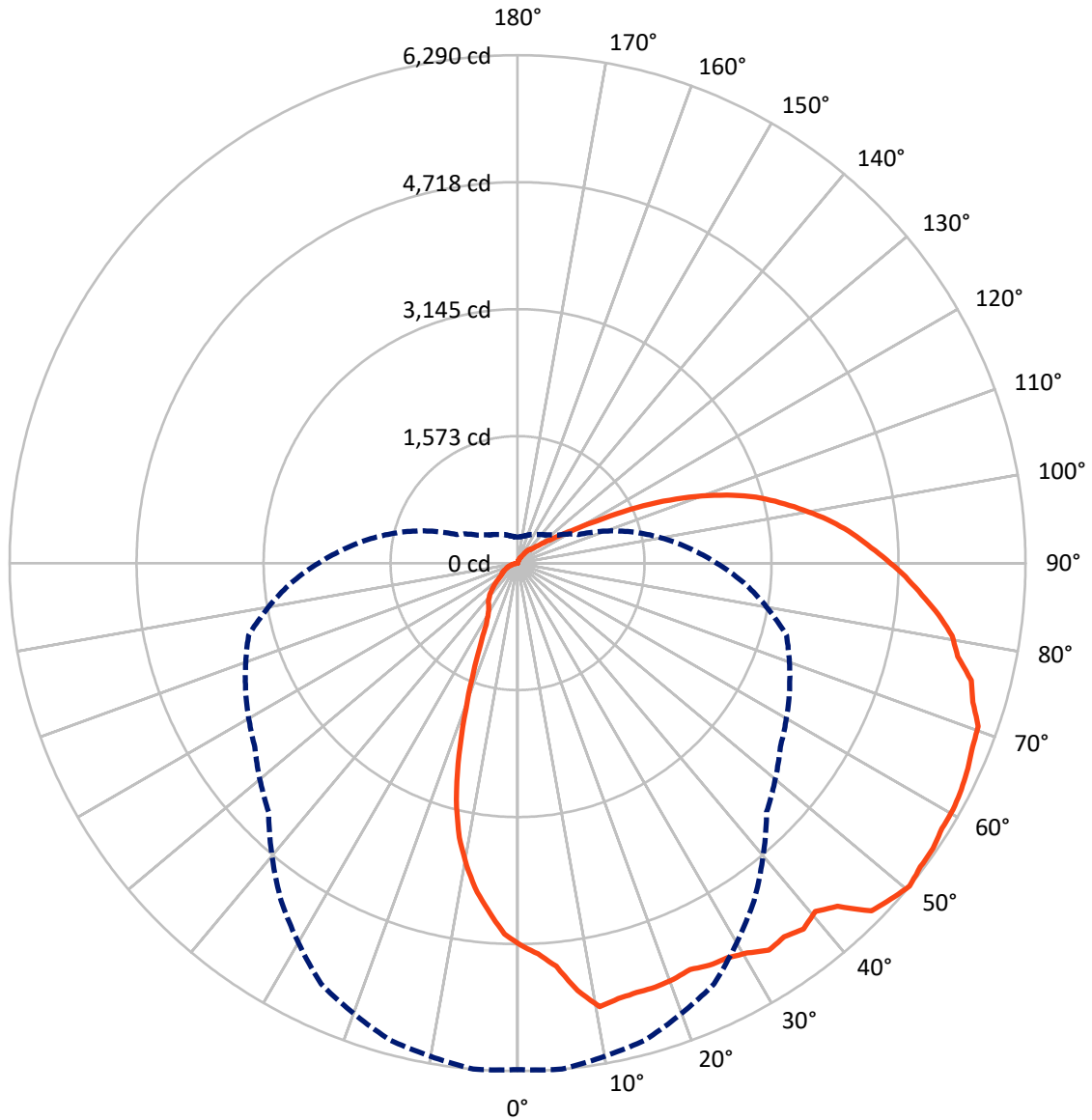
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 22.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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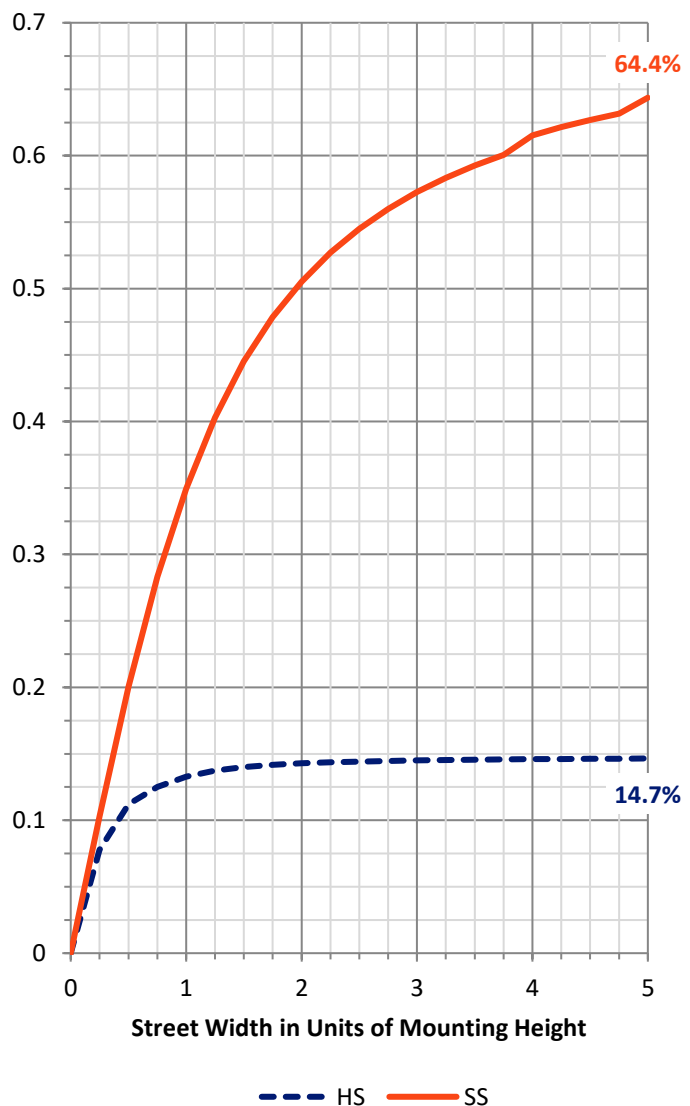
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2763.9	106.2	2870.1
	% Fixture	14.9	0.6	15.4
Street Side	Lumens	13139.0	2587.2	15726.2
	% Fixture	70.7	13.9	84.6
Total	Lumens	15902.9	2693.4	18596.3
	% Fixture	85.5	14.5	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.2	2.4
10°-20°	1258.9	6.8
20°-30°	1726.9	9.3
30°-40°	1996.0	10.7
40°-50°	2177.8	11.7
50°-60°	2306.9	12.4
60°-70°	2277.5	12.2
70°-80°	2048.6	11.0
80°-90°	1657.0	8.9
90°-100°	1238.8	6.7
100°-110°	799.2	4.3
110°-120°	368.9	2.0
120°-130°	148.4	0.8
130°-140°	77.1	0.4
140°-150°	38.9	0.2
150°-160°	15.2	0.1
160°-170°	5.3	0.0
170°-180°	1.5	0.0
0°-90°	15902.9	85.5
0°-180°	18596.3	100.0



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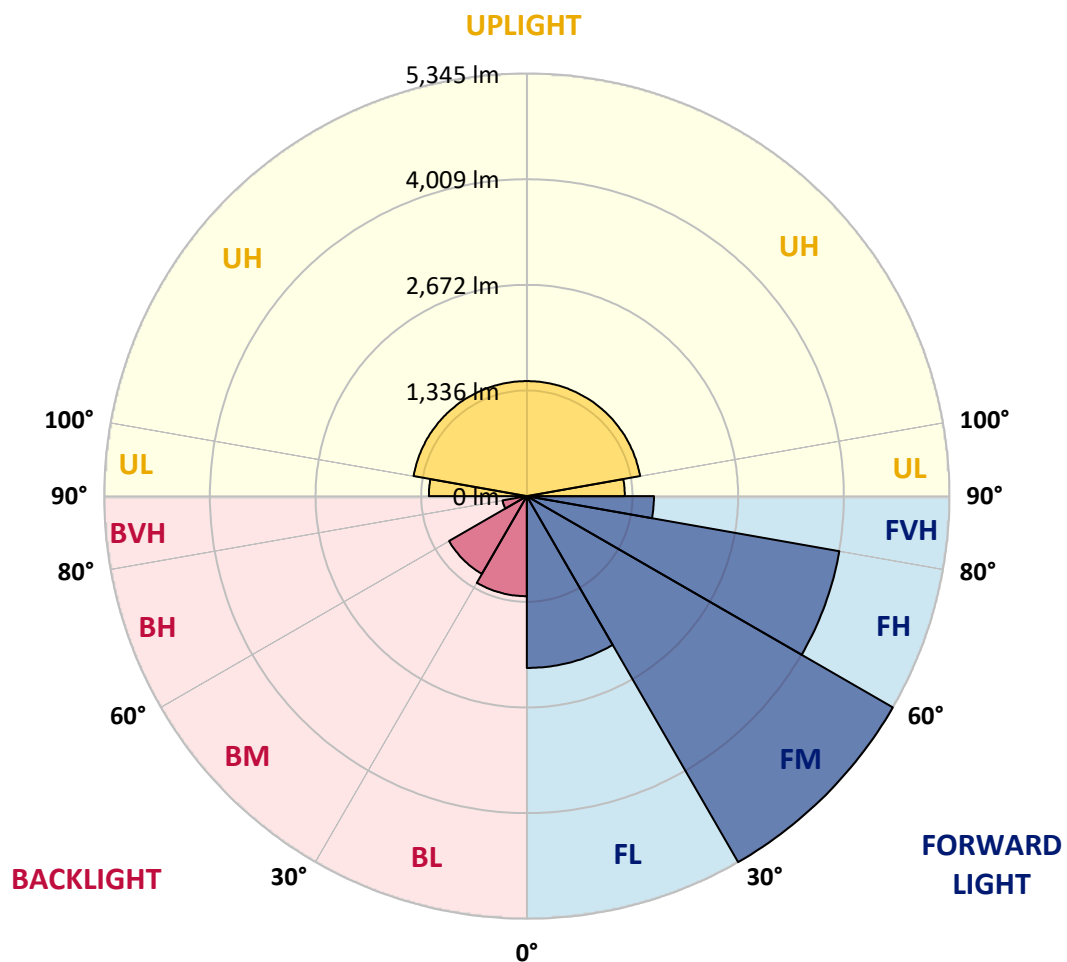
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2173.2	11.7			
FM (30°-60°)	5344.7	28.7			
FH (60°-80°)	4013.8	21.6			G2/5000
FVH (80°-90°)	1607.3	8.6			G5
BL (0°-30°)	1265.8	6.8	B3/2500		
BM (30°-60°)	1136.1	6.1	B2/2500		
BH (60°-80°)	312.4	1.7	B1/500		G1/500
BVH (80°-90°)	49.7	0.3			G1/100
UL (90°-100°)	1238.8	6.7		U5	
UH (100°-180°)	1454.5	7.8		U5	

BUG Rating: B3-U5-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7
2.5°	4845.3	4844.5	4827.4	4870.7	4887.8	4904.9	4900.9	4854.3	4864.9	4848.6	4828.2
5°	5007.0	5016.0	5016.8	5082.1	5061.7	5033.9	5009.4	4945.8	4904.1	4871.5	4837.2
7.5°	5331.9	5346.6	5411.9	5349.9	5262.5	5146.6	5055.2	4967.8	4857.6	4768.6	4721.3
10°	5558.9	5586.6	5665.8	5643.8	5487.9	5287.0	5109.9	4981.7	4883.7	4765.3	4719.6
12.5°	5478.1	5535.2	5588.3	5607.0	5523.0	5509.9	5303.3	5082.1	4937.6	4742.5	4678.8
15°	5478.9	5518.1	5529.5	5557.2	5489.5	5532.8	5430.7	5188.2	4852.7	4683.7	4597.2
17.5°	5466.6	5522.1	5453.6	5464.2	5467.4	5449.5	5446.2	5213.5	4888.6	4633.9	4518.0
20°	5391.5	5503.4	5466.6	5394.8	5398.0	5394.0	5327.8	5257.6	4842.1	4569.4	4438.8
22.5°	5387.4	5467.4	5446.2	5345.8	5296.0	5264.2	5242.9	5247.8	4807.8	4481.2	4330.2
25°	5455.2	5518.9	5456.8	5367.0	5255.2	5148.2	5147.4	5103.3	4786.6	4358.0	4197.1
27.5°	5500.9	5533.6	5452.7	5387.4	5225.0	5046.2	4986.6	4928.6	4674.7	4233.9	4057.5
30°	5594.0	5602.1	5534.4	5377.6	5214.4	5011.1	4816.0	4802.9	4634.7	4098.3	3898.3
32.5°	5713.2	5715.6	5629.1	5440.5	5194.8	4949.0	4691.0	4602.9	4495.9	3934.2	3728.5
35°	5691.1	5683.8	5657.7	5465.8	5200.5	4856.0	4574.3	4421.6	4354.7	3754.6	3535.0
37.5°	5754.0	5749.9	5669.9	5460.1	5177.6	4790.6	4464.9	4279.6	4175.1	3564.4	3305.6
40°	5680.5	5674.8	5616.0	5418.5	5153.9	4717.2	4331.0	4113.8	3989.8	3361.1	3091.7
42.5°	5815.2	5808.7	5678.9	5414.4	5070.7	4618.4	4240.4	3980.0	3792.2	3183.2	2912.9
45°	6132.8	6145.1	5914.0	5526.2	5026.6	4527.8	4167.7	3886.9	3659.9	3044.4	2744.7
47.5°	6193.2	6219.3	6084.6	5662.6	5074.8	4431.4	4043.6	3788.9	3544.8	2917.8	2593.7
50°	6273.2	6290.4	6114.8	5754.0	5104.1	4360.4	3971.8	3716.3	3447.7	2815.8	2464.7
52.5°	6247.9	6247.1	6133.6	5788.3	5115.6	4303.3	3847.7	3632.2	3366.0	2712.9	2343.9
55°	6236.5	6240.6	6141.8	5795.6	5135.2	4223.2	3747.3	3549.7	3295.0	2614.9	2209.2
57.5°	6197.3	6198.1	6077.3	5777.7	5118.8	4155.5	3625.6	3423.2	3203.6	2526.8	2077.7
60°	6185.9	6197.3	6024.2	5709.1	5068.2	4075.5	3501.5	3290.1	3108.9	2420.6	1916.1
62.5°	6167.9	6169.5	5993.2	5675.6	5027.4	3988.9	3361.1	3161.1	3018.2	2296.5	1732.4
65°	6110.0	6127.1	5954.8	5675.6	4972.7	3896.7	3243.6	3014.2	2888.4	2128.4	1512.8
67.5°	6045.5	6076.5	5916.5	5633.2	4939.2	3824.8	3121.1	2868.8	2757.8	1897.3	1286.6
70°	6029.1	6051.2	5859.3	5559.7	4869.8	3720.3	2992.9	2721.9	2592.1	1641.8	1024.6
72.5°	5868.3	5896.9	5727.1	5445.4	4774.3	3630.5	2868.8	2548.0	2390.4	1343.0	776.4
75°	5764.6	5802.2	5628.3	5345.0	4676.3	3530.9	2761.1	2377.4	2136.5	1047.4	573.1
77.5°	5534.4	5574.4	5395.6	5147.4	4514.7	3387.3	2627.2	2204.3	1863.0	767.4	434.3
80°	5406.2	5455.2	5270.7	4993.9	4382.4	3237.8	2485.1	2028.8	1568.3	541.3	355.1
82.5°	5214.4	5254.4	5077.2	4784.1	4177.5	3083.5	2343.9	1860.6	1303.8	394.3	292.3
85°	4990.7	5024.1	4832.3	4549.0	3951.4	2894.1	2194.5	1707.1	1063.8	307.0	244.1
87.5°	4793.1	4805.3	4643.7	4320.4	3735.0	2699.8	2036.1	1517.7	839.3	249.8	205.7
90°	4572.7	4571.9	4402.0	4091.0	3498.3	2506.4	1873.6	1338.1	656.4	217.2	180.4
92.5°	4364.5	4338.4	4166.9	3828.9	3246.0	2318.6	1710.4	1159.3	520.9	193.5	165.7
95°	4141.6	4120.4	3935.9	3608.5	2992.9	2140.6	1546.3	986.2	423.7	178.0	156.7
97.5°	3920.4	3877.9	3687.7	3351.3	2740.7	1947.9	1370.7	827.0	356.8	166.5	151.0
100°	3622.4	3602.8	3441.1	3090.9	2460.6	1730.0	1187.0	667.0	302.1	160.0	145.3
102.5°	3347.2	3334.2	3146.4	2792.9	2183.1	1507.9	987.8	556.8	261.2	157.6	140.4
105°	3093.3	3063.1	2877.0	2490.0	1897.3	1290.7	805.8	444.9	231.9	155.9	137.2
107.5°	2746.4	2727.6	2512.9	2138.2	1560.1	1052.3	640.9	364.9	211.4	153.5	133.9
110°	2370.0	2357.8	2147.1	1746.3	1279.3	846.6	516.8	303.7	195.1	149.4	129.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	1978.1	1960.2	1738.9	1397.7	1008.3	659.7	422.9	263.7	182.9	143.7	123.3
115°	1552.8	1543.0	1354.4	1058.9	777.2	533.1	349.4	230.2	173.1	136.3	116.7
117.5°	1134.8	1115.2	981.3	790.3	612.3	443.3	298.0	208.2	164.9	125.7	107.8
120°	822.9	816.4	724.1	619.6	515.1	376.4	257.2	188.6	155.1	115.9	98.0
122.5°	622.9	627.0	571.5	505.4	439.2	324.9	228.6	173.1	142.1	103.7	88.2
125°	504.5	500.5	470.2	426.2	373.1	283.3	209.0	161.6	129.0	92.3	80.0
127.5°	413.9	409.8	387.0	362.5	320.0	255.5	195.1	154.3	115.1	81.6	71.0
130°	339.6	335.5	320.8	308.6	283.3	231.9	185.3	145.3	102.9	71.8	62.0
132.5°	282.5	283.3	274.3	264.5	249.0	214.7	176.3	135.5	90.6	63.7	55.5
135°	246.6	246.6	238.4	229.4	223.7	198.4	167.4	124.1	79.2	57.1	51.4
137.5°	227.8	226.1	214.7	205.7	201.7	187.0	154.3	110.2	69.4	52.2	47.4
140°	209.8	209.0	195.1	183.7	178.8	169.0	138.8	95.5	60.4	48.2	44.1
142.5°	178.0	177.2	169.8	164.1	155.1	149.4	119.2	80.8	52.2	44.1	40.8
145°	137.2	138.0	137.2	134.7	129.0	124.9	99.6	67.8	44.9	40.8	38.4
147.5°	110.2	109.4	110.2	107.8	104.5	100.4	82.5	56.3	40.8	37.6	35.9
150°	90.6	89.8	89.8	88.2	84.9	78.4	67.8	46.5	36.7	35.1	33.5
152.5°	73.5	74.3	73.5	71.0	68.6	62.0	53.1	38.4	33.5	32.7	31.8
155°	58.8	59.6	60.4	58.0	55.5	49.8	41.6	32.7	31.0	31.0	30.2
157.5°	48.2	47.4	47.4	46.5	42.5	38.4	32.7	28.6	28.6	29.4	29.4
160°	35.9	35.9	36.7	35.1	31.8	28.6	26.1	25.3	26.9	28.6	27.8
162.5°	24.5	25.3	25.3	25.3	23.7	21.2	22.0	24.5	26.1	26.9	26.9
165°	15.5	15.5	17.1	18.0	16.3	17.1	20.4	23.7	25.3	26.9	26.9
167.5°	8.2	8.2	9.8	11.4	13.1	14.7	20.4	23.7	25.3	26.9	26.9
170°	4.1	4.1	5.7	9.0	11.4	14.7	20.4	23.7	26.1	26.9	26.9
172.5°	3.3	3.3	5.7	9.0	11.4	15.5	20.4	23.7	26.1	26.9	26.9
175°	3.3	3.3	5.7	9.0	12.2	15.5	21.2	24.5	26.1	26.9	26.9
177.5°	3.3	4.1	6.5	9.8	12.2	16.3	21.2	24.5	26.1	27.8	26.9
180°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7	4732.7
2.5°	4798.0	4769.4	4756.4	4709.0	4647.8	4624.9	4606.1	4612.7	4596.3	4603.7
5°	4785.7	4750.6	4679.6	4593.9	4526.9	4456.7	4411.0	4364.5	4347.3	4339.2
7.5°	4676.3	4601.2	4509.8	4424.9	4357.1	4245.3	4169.4	4144.1	4105.7	4074.7
10°	4675.5	4536.7	4386.5	4252.6	4104.9	4015.9	3903.2	3835.5	3803.6	3814.2
12.5°	4611.0	4448.6	4253.5	4066.5	3887.7	3739.1	3610.9	3451.7	3474.6	3465.6
15°	4518.8	4302.4	4088.5	3860.8	3620.7	3419.1	3254.2	3091.7	3025.6	3051.7
17.5°	4411.0	4165.3	3913.8	3620.7	3346.4	3041.9	2829.6	2605.1	2478.6	2490.8
20°	4334.3	4005.3	3706.5	3366.8	3008.4	2637.8	2282.7	2038.6	1910.4	1956.9
22.5°	4204.5	3859.1	3495.0	3064.0	2598.6	2143.1	1777.3	1574.0	1452.4	1446.7
25°	4052.6	3664.0	3262.3	2770.9	2169.2	1694.0	1350.3	1157.7	1088.3	1063.0
27.5°	3875.5	3459.1	2995.4	2403.5	1753.6	1325.0	1040.9	909.5	855.6	842.5
30°	3696.7	3263.2	2716.2	2036.9	1414.0	1011.5	844.2	769.9	742.1	734.8
32.5°	3489.3	3023.1	2462.3	1710.4	1142.1	840.9	744.6	693.9	673.5	671.1
35°	3272.1	2804.3	2148.8	1414.8	929.9	751.9	683.3	643.3	631.1	628.6
37.5°	3041.9	2547.2	1878.5	1191.1	807.4	688.2	638.4	611.5	600.1	597.6
40°	2823.1	2312.9	1626.3	979.7	712.7	633.5	597.6	560.9	551.9	552.7
42.5°	2623.1	2103.1	1381.4	821.3	645.0	582.9	545.4	520.0	506.2	507.0
45°	2454.9	1907.9	1160.9	717.6	590.3	528.2	496.4	458.8	444.9	442.5
47.5°	2303.1	1709.5	967.4	652.3	538.0	486.6	439.2	401.7	387.8	390.2
50°	2130.0	1483.4	837.6	601.7	491.5	432.7	389.4	348.6	324.9	324.1
52.5°	1976.5	1287.5	746.2	560.1	453.1	391.1	338.8	297.2	267.0	262.1
55°	1818.1	1103.0	685.0	513.5	404.1	348.6	295.5	253.1	235.9	235.1
57.5°	1638.5	967.4	644.1	476.8	360.0	299.6	251.5	223.7	223.7	227.0
60°	1467.1	841.7	609.0	427.0	317.6	258.8	221.2	198.4	202.5	208.2
62.5°	1281.8	752.7	573.1	385.3	277.6	223.7	191.9	174.7	179.6	180.4
65°	1064.6	687.4	531.5	341.3	240.8	193.5	161.6	154.3	154.3	156.7
67.5°	853.1	629.4	478.4	299.6	204.9	158.4	139.6	133.9	139.6	140.4
70°	685.0	569.8	422.9	258.8	173.9	131.4	123.3	119.2	119.2	118.4
72.5°	569.8	514.3	365.7	220.4	142.9	111.0	103.7	98.8	93.1	94.7
75°	487.4	453.9	315.1	184.5	115.9	89.8	76.7	71.8	67.8	65.3
77.5°	422.9	387.8	262.1	150.2	92.3	68.6	52.2	42.5	40.0	38.4
80°	360.0	327.4	220.4	122.5	71.0	45.7	25.3	13.9	9.8	9.8
82.5°	305.3	269.4	182.1	98.8	52.2	23.7	5.7	0.8	0.0	0.0
85°	255.5	224.5	152.7	80.8	42.5	20.4	5.7	1.6	0.0	0.0
87.5°	214.7	187.0	133.1	70.2	38.4	19.6	6.5	1.6	0.8	0.0
90°	189.4	164.9	120.0	63.7	35.1	18.8	7.3	3.3	1.6	1.6
92.5°	169.0	148.6	109.4	58.8	33.5	18.8	8.2	4.1	3.3	2.4
95°	154.3	135.5	99.6	55.5	31.8	18.8	9.0	5.7	4.1	4.1
97.5°	142.1	125.7	92.3	51.4	30.2	18.8	9.0	6.5	4.9	4.9
100°	133.1	116.7	84.9	48.2	29.4	18.0	9.0	6.5	4.9	4.9
102.5°	126.5	111.0	77.6	44.9	28.6	18.0	9.8	6.5	5.7	4.9
105°	120.8	106.1	71.0	43.3	26.9	17.1	9.8	7.3	5.7	4.9
107.5°	117.6	102.1	66.1	40.8	26.1	16.3	9.8	6.5	4.9	4.9
110°	112.7	94.7	61.2	38.4	24.5	15.5	9.0	6.5	4.9	4.9



REPORT NUMBER: P979172
 CATALOG NUMBER: WPLLED38S-130W-6500K

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	106.9	85.7	56.3	35.9	22.9	14.7	9.0	5.7	4.1	4.1
115°	101.2	75.1	51.4	33.5	22.9	13.9	9.0	5.7	4.1	4.1
117.5°	93.1	66.9	46.5	31.8	21.2	13.1	8.2	5.7	3.3	3.3
120°	84.1	59.6	43.3	30.2	20.4	12.2	8.2	4.9	3.3	3.3
122.5°	75.9	53.9	40.0	29.4	19.6	11.4	8.2	4.9	3.3	3.3
125°	66.9	49.0	37.6	28.6	18.8	11.4	8.2	4.9	3.3	2.4
127.5°	59.6	44.9	35.9	27.8	18.0	11.4	8.2	4.9	3.3	2.4
130°	53.9	42.5	35.1	26.9	18.0	11.4	8.2	4.9	3.3	3.3
132.5°	49.0	40.0	33.5	26.9	18.0	11.4	9.0	4.9	3.3	3.3
135°	45.7	37.6	32.7	26.1	17.1	12.2	9.0	5.7	3.3	3.3
137.5°	43.3	36.7	31.0	25.3	17.1	12.2	9.0	5.7	4.1	4.1
140°	40.8	35.1	30.2	24.5	17.1	12.2	9.8	5.7	4.1	4.1
142.5°	38.4	34.3	29.4	24.5	16.3	13.1	9.8	5.7	4.1	4.1
145°	35.9	32.7	28.6	22.9	16.3	13.1	9.8	5.7	4.1	4.1
147.5°	34.3	31.0	26.9	22.0	16.3	13.1	9.8	5.7	4.1	4.1
150°	32.7	29.4	26.1	21.2	16.3	13.1	9.8	5.7	4.1	3.3
152.5°	31.0	28.6	25.3	21.2	15.5	13.1	9.8	5.7	4.1	3.3
155°	30.2	27.8	24.5	21.2	15.5	12.2	9.8	5.7	4.1	3.3
157.5°	28.6	26.9	24.5	20.4	15.5	12.2	9.0	5.7	3.3	3.3
160°	27.8	26.1	24.5	21.2	15.5	12.2	9.0	5.7	3.3	3.3
162.5°	26.9	26.1	23.7	20.4	15.5	12.2	9.0	4.9	3.3	3.3
165°	26.9	26.1	23.7	20.4	15.5	12.2	9.0	4.9	3.3	2.4
167.5°	26.9	26.1	23.7	20.4	15.5	12.2	9.0	4.9	2.4	2.4
170°	26.9	25.3	23.7	20.4	15.5	11.4	8.2	4.9	2.4	2.4
172.5°	26.9	26.1	23.7	20.4	15.5	11.4	8.2	4.1	2.4	2.4
175°	26.9	26.1	23.7	20.4	15.5	11.4	8.2	4.1	2.4	2.4
177.5°	27.8	26.1	23.7	20.4	15.5	11.4	8.2	4.1	2.4	1.6
180°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3

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

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2407-168-5

Test Date: 08/08/2024

Luminaire Tested: LSDL-92S-100W 6500k

Data in this report applies to families of products including LSDL-92S-100W 6500k.

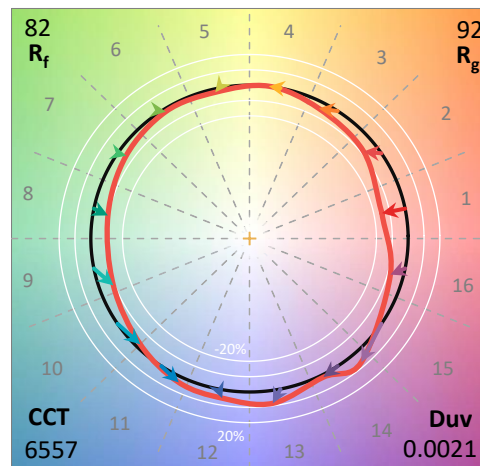
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-168-5
 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 6500k**
 Description: Lumark Wallpack 100W

Spectral Parameters

CCT (K): 6557
 CIE u': 0.1985
 CIE v': 0.4668
 Duv: 0.0021
 CIE x: 0.3121
 CIE y: 0.3263
 CIE z: 0.3616
 Peak Wavelength (nm): 453
 Dominant Wavelength (nm): 487
 Purity: 7.689333
 Rf: 81.6
 Rg: 92.3

CRI (Ra):	82.1		
R1:	80.1	R9:	-3.7
R2:	89.1	R10:	72.9
R3:	92.6	R11:	78.9
R4:	79.9	R12:	57.0
R5:	80.7	R13:	83.1
R6:	82.7	R14:	96.5
R7:	86.0	R15:	74.6
R8:	65.5		



Test Conditions

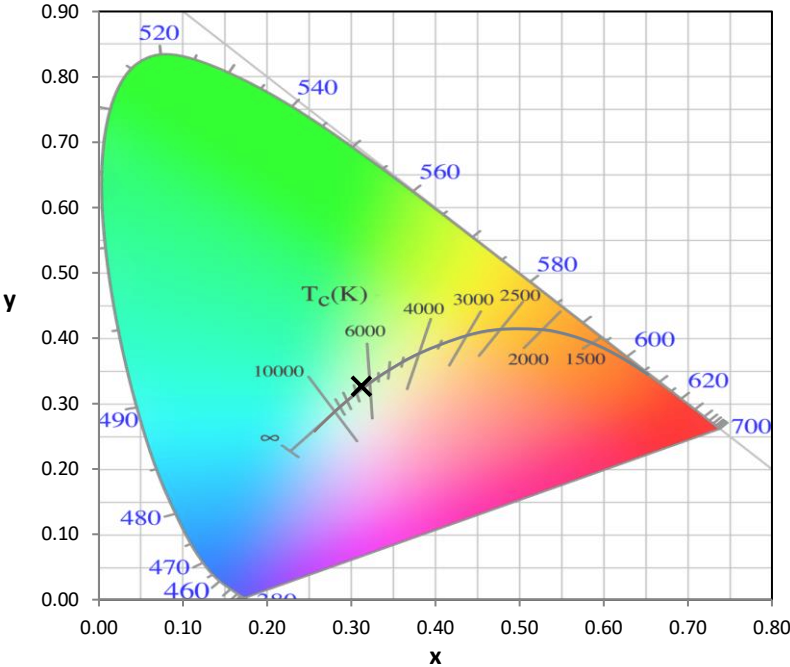
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-168-5

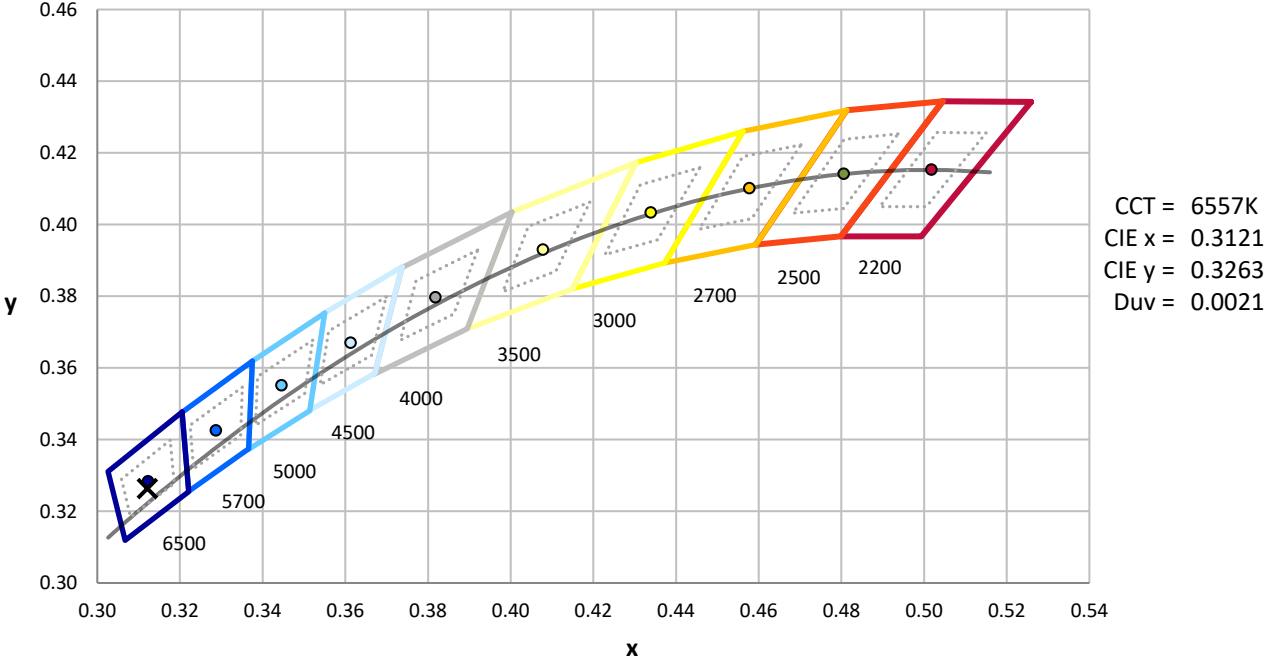
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-168-5

CIE 1931 Chromaticity Diagram



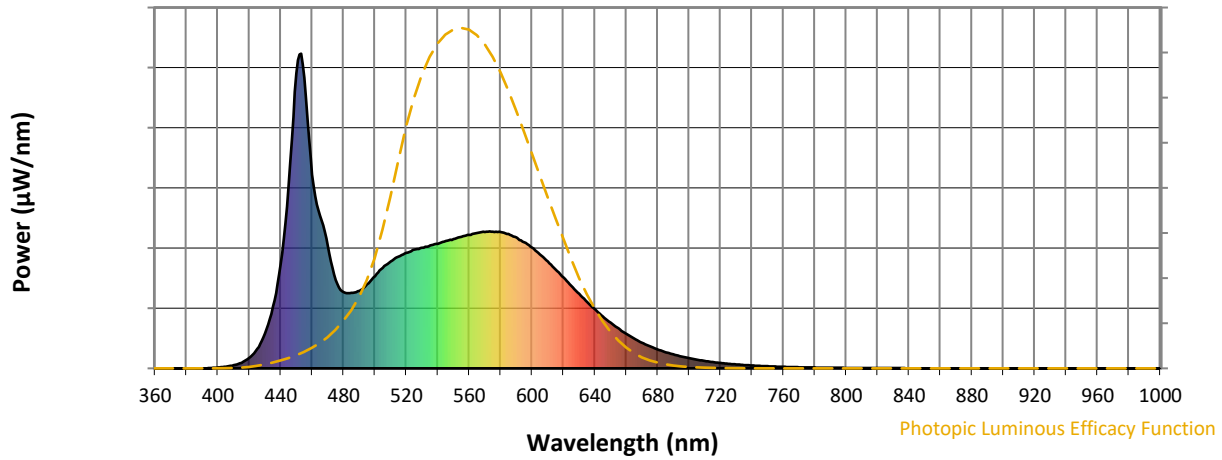
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 6500K 4-step quadrangle

REPORT NUMBER: SP1-2407-168-5

Photopic Flux vs. Wavelength

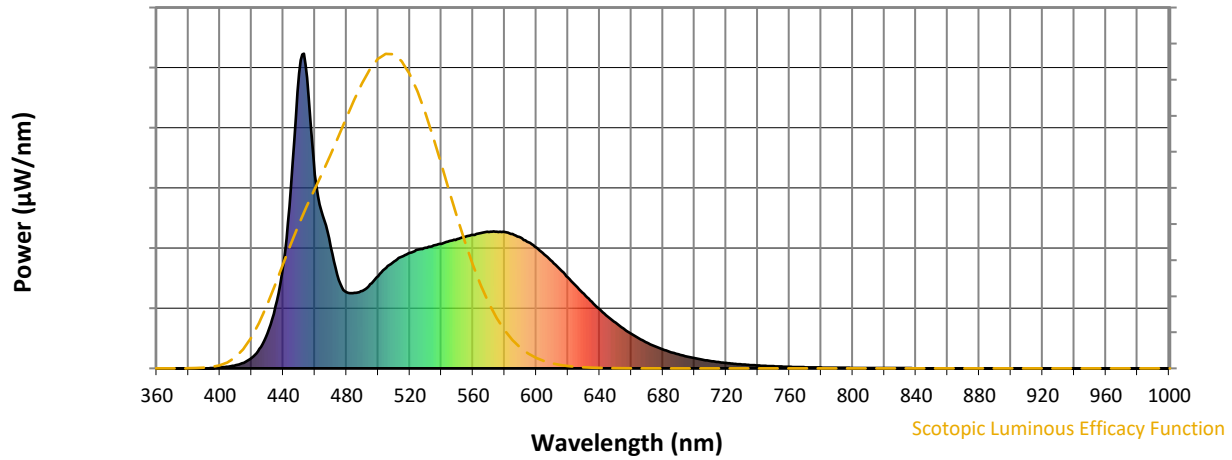


Photopic Lumens: NR

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	246	NR	620	288	NR	750	7	NR	880	0	NR
365	0	NR	495	267	NR	625	262	NR	755	6	NR	885	0	NR
370	0	NR	500	293	NR	630	237	NR	760	5	NR	890	0	NR
375	0	NR	505	319	NR	635	211	NR	765	4	NR	895	0	NR
380	0	NR	510	339	NR	640	188	NR	770	4	NR	900	0	NR
385	0	NR	515	355	NR	645	165	NR	775	3	NR	905	0	NR
390	0	NR	520	367	NR	650	145	NR	780	3	NR	910	0	NR
395	1	NR	525	377	NR	655	127	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	110	NR	790	2	NR	920	0	NR
405	5	NR	535	391	NR	665	95	NR	795	2	NR	925	0	NR
410	10	NR	540	396	NR	670	81	NR	800	1	NR	930	0	NR
415	18	NR	545	405	NR	675	70	NR	805	1	NR	935	0	NR
420	33	NR	550	411	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	418	NR	685	51	NR	815	1	NR	945	0	NR
430	111	NR	560	425	NR	690	44	NR	820	1	NR	950	0	NR
435	196	NR	565	430	NR	695	38	NR	825	1	NR	955	0	NR
440	331	NR	570	434	NR	700	32	NR	830	1	NR	960	0	NR
445	583	NR	575	434	NR	705	28	NR	835	1	NR	965	0	NR
450	937	NR	580	433	NR	710	23	NR	840	1	NR	970	0	NR
455	923	NR	585	427	NR	715	20	NR	845	0	NR	975	0	NR
460	616	NR	590	416	NR	720	17	NR	850	0	NR	980	0	NR
465	485	NR	595	401	NR	725	15	NR	855	0	NR	985	0	NR
470	386	NR	600	384	NR	730	13	NR	860	0	NR	990	0	NR
475	280	NR	605	362	NR	735	11	NR	865	0	NR	995	0	NR
480	242	NR	610	339	NR	740	9	NR	870	0	NR	1000	0	NR
485	240	NR	615	314	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-5

Scotopic Flux vs. Wavelength



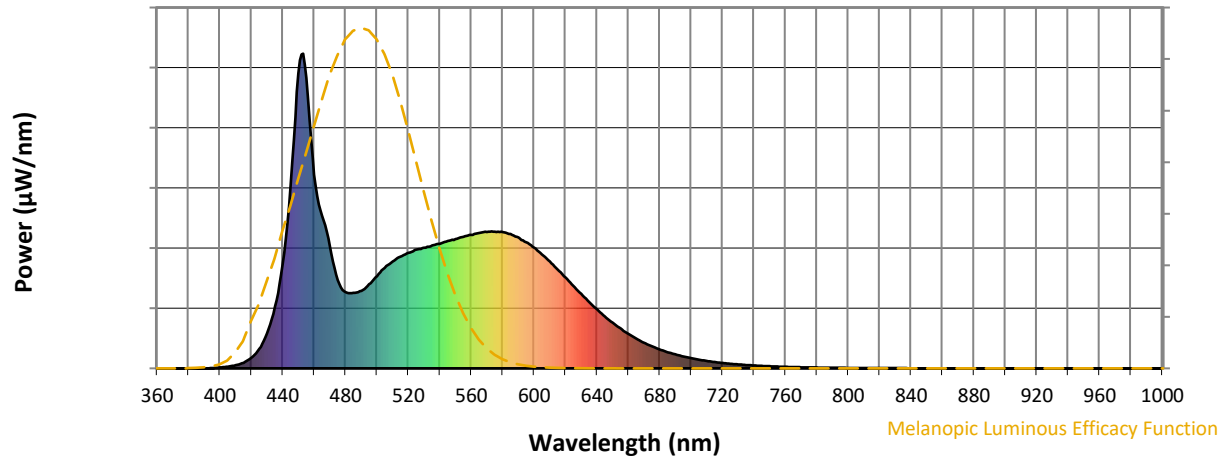
Scotopic Lumens: NR

S/P: 2.27

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	246	NR	620	288	NR	750	7	NR	880	0	NR
365	0	NR	495	267	NR	625	262	NR	755	6	NR	885	0	NR
370	0	NR	500	293	NR	630	237	NR	760	5	NR	890	0	NR
375	0	NR	505	319	NR	635	211	NR	765	4	NR	895	0	NR
380	0	NR	510	339	NR	640	188	NR	770	4	NR	900	0	NR
385	0	NR	515	355	NR	645	165	NR	775	3	NR	905	0	NR
390	0	NR	520	367	NR	650	145	NR	780	3	NR	910	0	NR
395	1	NR	525	377	NR	655	127	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	110	NR	790	2	NR	920	0	NR
405	5	NR	535	391	NR	665	95	NR	795	2	NR	925	0	NR
410	10	NR	540	396	NR	670	81	NR	800	1	NR	930	0	NR
415	18	NR	545	405	NR	675	70	NR	805	1	NR	935	0	NR
420	33	NR	550	411	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	418	NR	685	51	NR	815	1	NR	945	0	NR
430	111	NR	560	425	NR	690	44	NR	820	1	NR	950	0	NR
435	196	NR	565	430	NR	695	38	NR	825	1	NR	955	0	NR
440	331	NR	570	434	NR	700	32	NR	830	1	NR	960	0	NR
445	583	NR	575	434	NR	705	28	NR	835	1	NR	965	0	NR
450	937	NR	580	433	NR	710	23	NR	840	1	NR	970	0	NR
455	923	NR	585	427	NR	715	20	NR	845	0	NR	975	0	NR
460	616	NR	590	416	NR	720	17	NR	850	0	NR	980	0	NR
465	485	NR	595	401	NR	725	15	NR	855	0	NR	985	0	NR
470	386	NR	600	384	NR	730	13	NR	860	0	NR	990	0	NR
475	280	NR	605	362	NR	735	11	NR	865	0	NR	995	0	NR
480	242	NR	610	339	NR	740	9	NR	870	0	NR	1000	0	NR
485	240	NR	615	314	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-5

Melanopic Flux vs. Wavelength



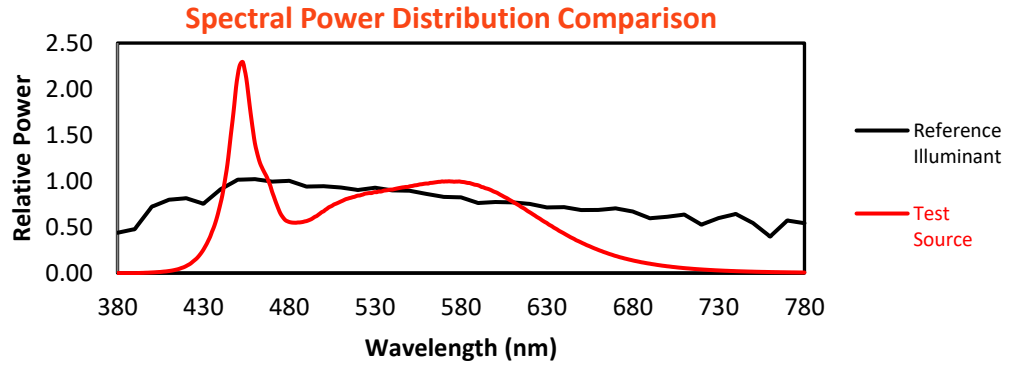
Melanopic Lumens: NR

M/P: 5.06

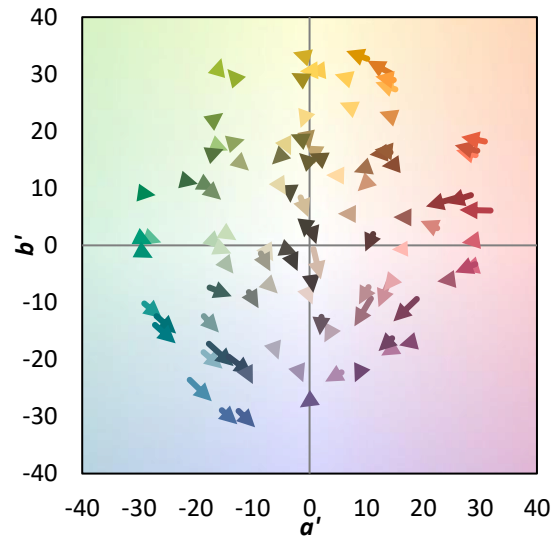
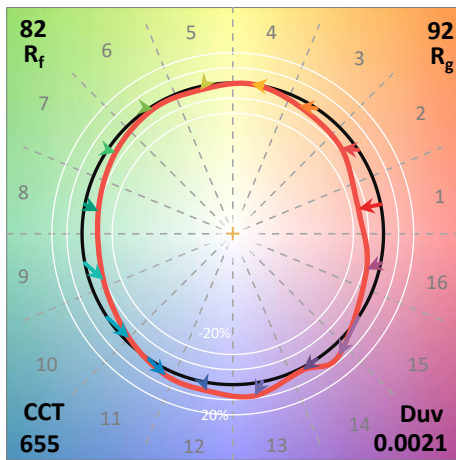
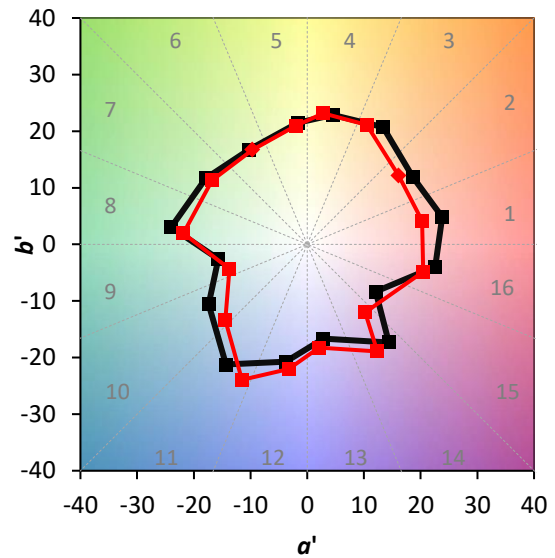
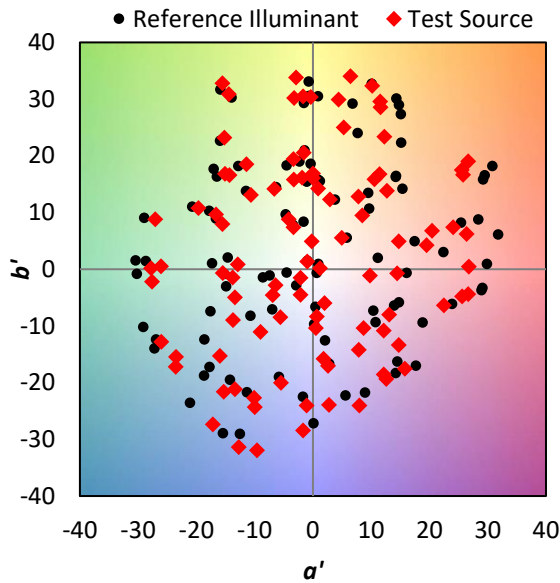
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	246	NR	620	288	NR	750	7	NR	880	0	NR
365	0	NR	495	267	NR	625	262	NR	755	6	NR	885	0	NR
370	0	NR	500	293	NR	630	237	NR	760	5	NR	890	0	NR
375	0	NR	505	319	NR	635	211	NR	765	4	NR	895	0	NR
380	0	NR	510	339	NR	640	188	NR	770	4	NR	900	0	NR
385	0	NR	515	355	NR	645	165	NR	775	3	NR	905	0	NR
390	0	NR	520	367	NR	650	145	NR	780	3	NR	910	0	NR
395	1	NR	525	377	NR	655	127	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	110	NR	790	2	NR	920	0	NR
405	5	NR	535	391	NR	665	95	NR	795	2	NR	925	0	NR
410	10	NR	540	396	NR	670	81	NR	800	1	NR	930	0	NR
415	18	NR	545	405	NR	675	70	NR	805	1	NR	935	0	NR
420	33	NR	550	411	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	418	NR	685	51	NR	815	1	NR	945	0	NR
430	111	NR	560	425	NR	690	44	NR	820	1	NR	950	0	NR
435	196	NR	565	430	NR	695	38	NR	825	1	NR	955	0	NR
440	331	NR	570	434	NR	700	32	NR	830	1	NR	960	0	NR
445	583	NR	575	434	NR	705	28	NR	835	1	NR	965	0	NR
450	937	NR	580	433	NR	710	23	NR	840	1	NR	970	0	NR
455	923	NR	585	427	NR	715	20	NR	845	0	NR	975	0	NR
460	616	NR	590	416	NR	720	17	NR	850	0	NR	980	0	NR
465	485	NR	595	401	NR	725	15	NR	855	0	NR	985	0	NR
470	386	NR	600	384	NR	730	13	NR	860	0	NR	990	0	NR
475	280	NR	605	362	NR	735	11	NR	865	0	NR	995	0	NR
480	242	NR	610	339	NR	740	9	NR	870	0	NR	1000	0	NR
485	240	NR	615	314	NR	745	8	NR	875	0	NR			

Summary

$R_f = 81.6$
 $R_g = 92.3$
 $CIE R_a = 82.1$
 $R_9 = -3.7$

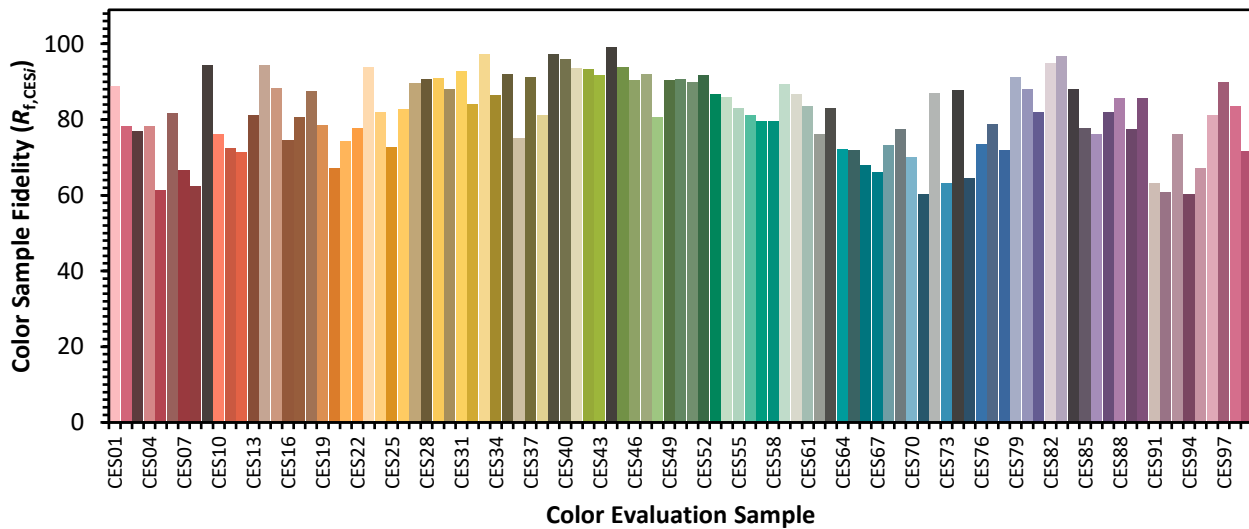


Color Vector Graphics

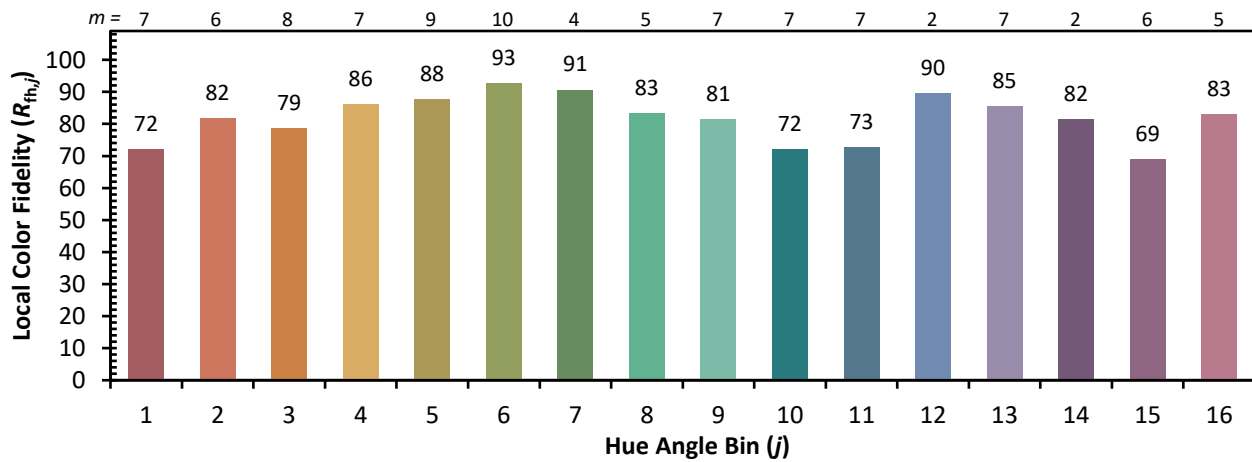
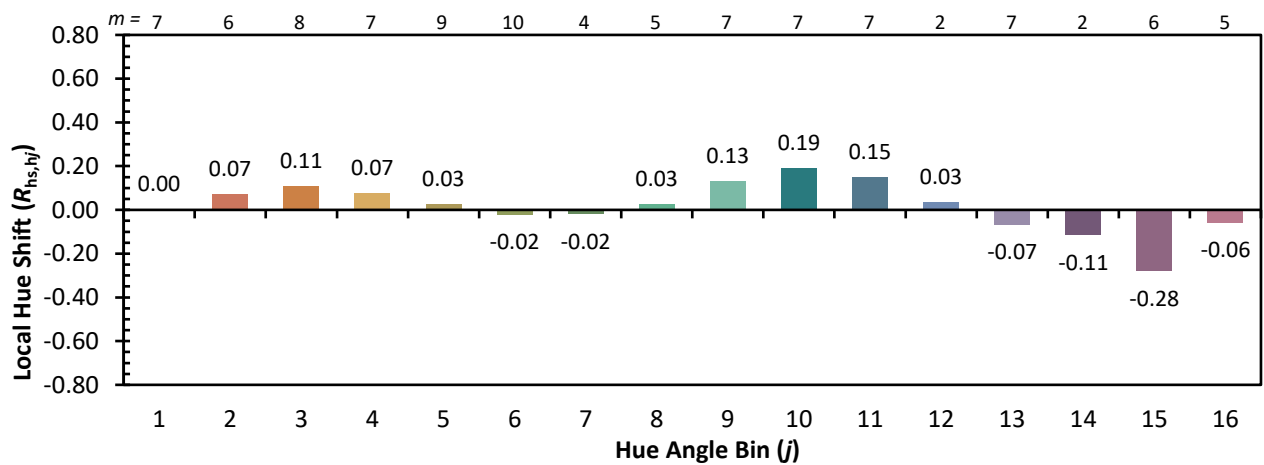
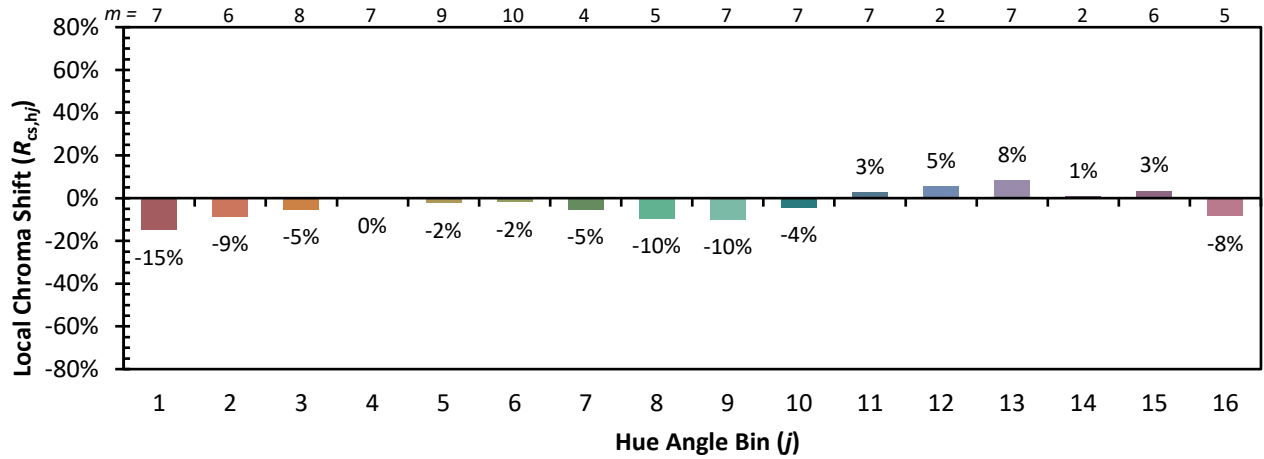


Individual Sample Fidelity Index ($R_{f,i}$)

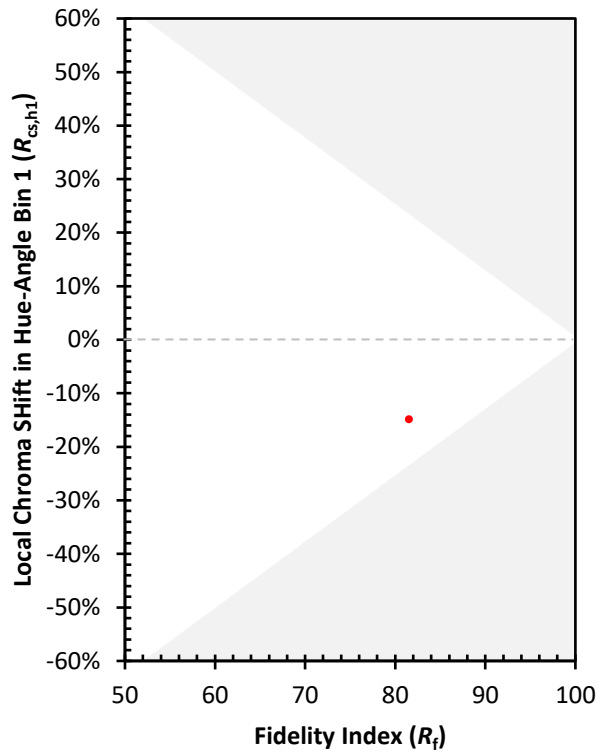
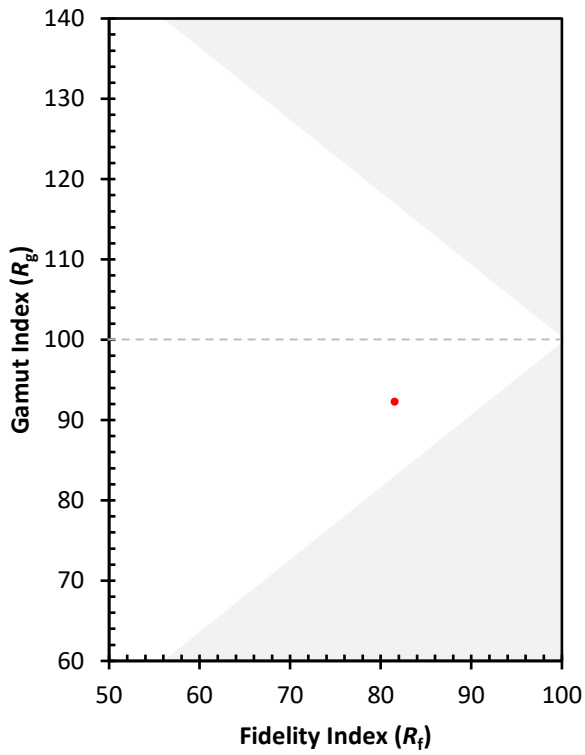
CES01 = 85	CES26 = 83	CES51 = 90	CES76 = 74
CES02 = 59	CES27 = 90	CES52 = 92	CES77 = 79
CES03 = 30	CES28 = 91	CES53 = 87	CES78 = 72
CES04 = 68	CES29 = 91	CES54 = 86	CES79 = 91
CES05 = 45	CES30 = 88	CES55 = 83	CES80 = 88
CES06 = 49	CES31 = 93	CES56 = 81	CES81 = 82
CES07 = 38	CES32 = 84	CES57 = 80	CES82 = 95
CES08 = 38	CES33 = 97	CES58 = 80	CES83 = 97
CES09 = 29	CES34 = 86	CES59 = 89	CES84 = 88
CES10 = 72	CES35 = 92	CES60 = 87	CES85 = 78
CES11 = 55	CES36 = 75	CES61 = 83	CES86 = 76
CES12 = 60	CES37 = 91	CES62 = 76	CES87 = 82
CES13 = 41	CES38 = 81	CES63 = 83	CES88 = 86
CES14 = 74	CES39 = 97	CES64 = 72	CES89 = 77
CES15 = 70	CES40 = 96	CES65 = 72	CES90 = 86
CES16 = 45	CES41 = 93	CES66 = 68	CES91 = 63
CES17 = 48	CES42 = 93	CES67 = 66	CES92 = 61
CES18 = 55	CES43 = 92	CES68 = 73	CES93 = 76
CES19 = 70	CES44 = 99	CES69 = 77	CES94 = 60
CES20 = 63	CES45 = 94	CES70 = 70	CES95 = 67
CES21 = 84	CES46 = 90	CES71 = 60	CES96 = 81
CES22 = 76	CES47 = 92	CES72 = 87	CES97 = 90
CES23 = 91	CES48 = 81	CES73 = 63	CES98 = 83
CES24 = 90	CES49 = 90	CES74 = 88	CES99 = 72
CES25 = 70	CES50 = 91	CES75 = 65	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)