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: P979168

Luminaire Tested: **WPLLED38S-130W-3000K**

Issue Date: 03/31/2025

Report Generated By 670245763

Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P979168
Test Lab:	Cooper Lighting Solutions
Issue Date:	03/31/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	WPLLED38S-130W-3000K
Description:	LUMARK WALL PACK LED LARGE 80CRI CCT AND LUMEN SELECTIVE FIXTURE OPERATING @130W-3000K
Light Source:	3000K CCT, 80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	17972.8 lumens
Efficiency:	N/A
Efficacy:	138.9 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):	129.4
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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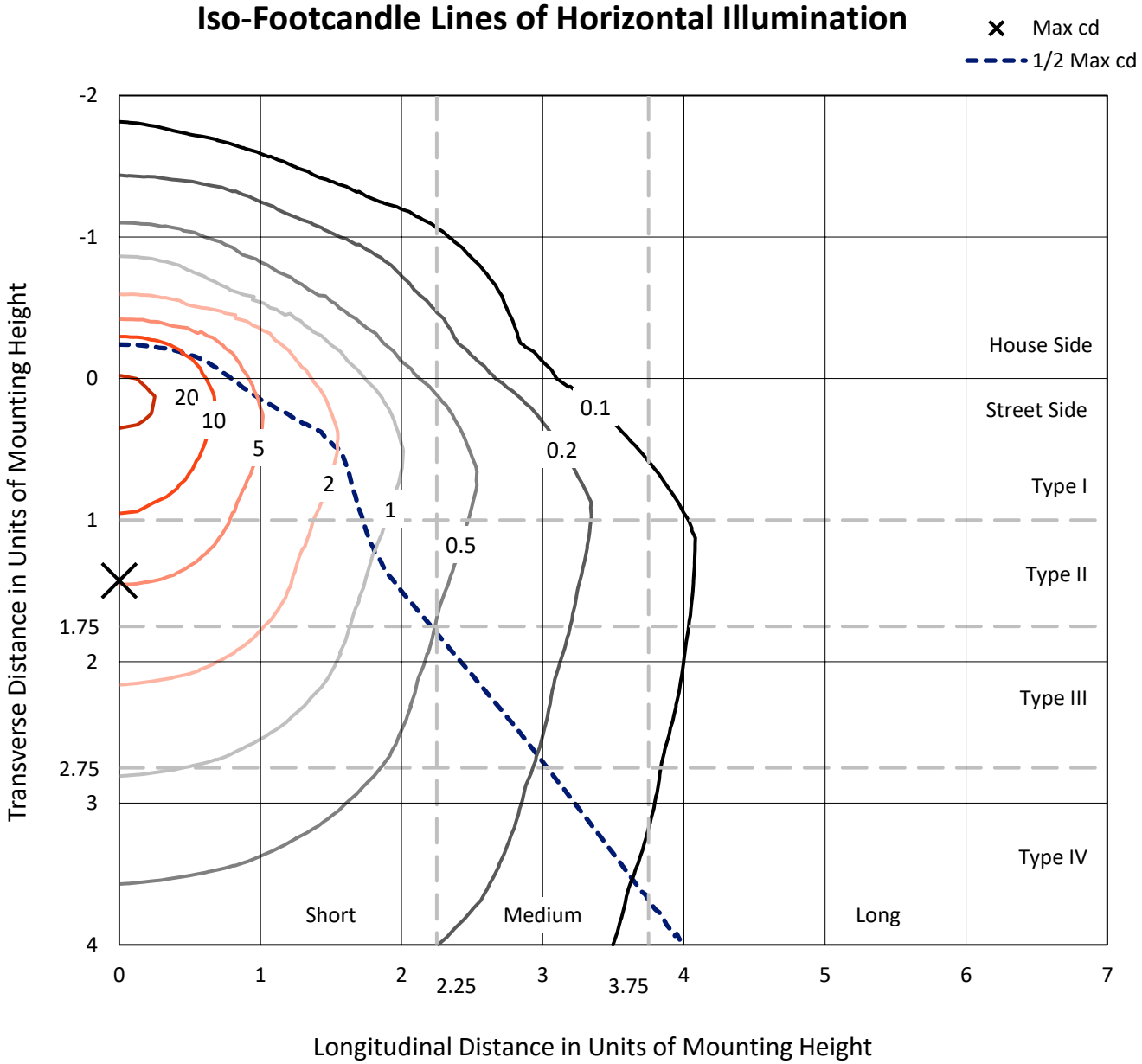
Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 22.5 fc
Type IV - Short - N/A

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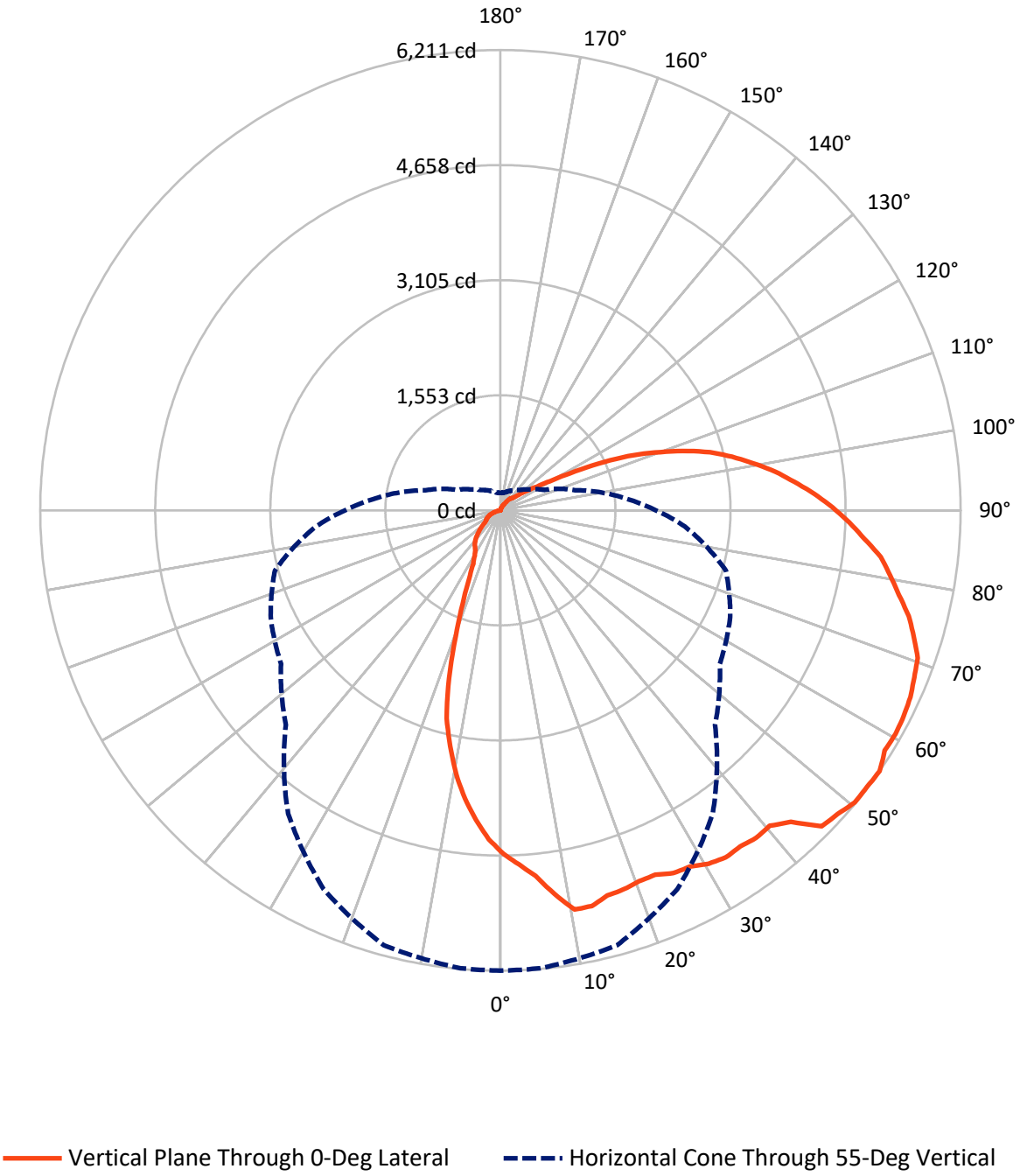
Luminous Intensity Polar Plot



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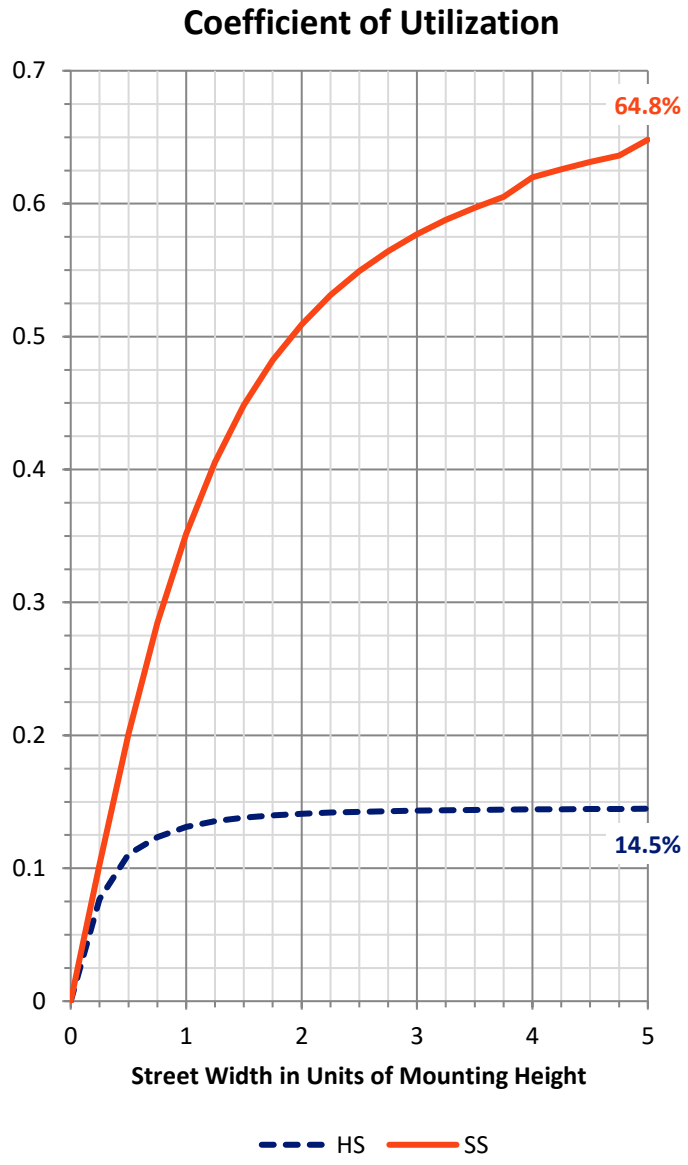
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2640.2	101.0	2741.2
	% Fixture	14.7	0.6	15.3
Street Side	Lumens	12774.6	2456.9	15231.5
	% Fixture	71.1	13.7	84.7
Total	Lumens	15414.8	2557.9	17972.8
	% Fixture	85.8	14.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	437.2	2.4
10°-20°	1217.4	6.8
20°-30°	1673.2	9.3
30°-40°	1939.3	10.8
40°-50°	2119.0	11.8
50°-60°	2243.4	12.5
60°-70°	2216.1	12.3
70°-80°	1978.2	11.0
80°-90°	1591.0	8.9
90°-100°	1181.5	6.6
100°-110°	756.7	4.2
110°-120°	347.2	1.9
120°-130°	140.5	0.8
130°-140°	73.6	0.4
140°-150°	37.2	0.2
150°-160°	14.5	0.1
160°-170°	5.2	0.0
170°-180°	1.5	0.0
0°-90°	15414.8	85.8
0°-180°	17972.8	100.0



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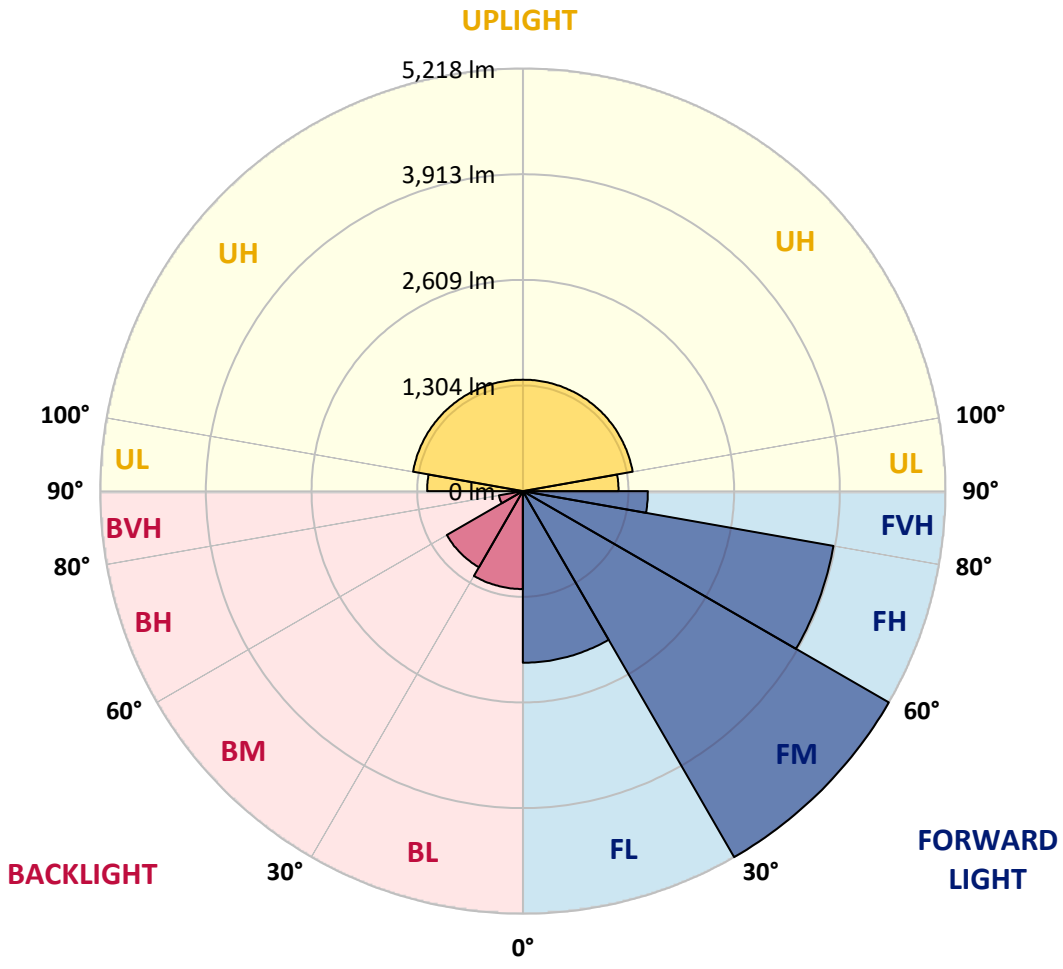
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2118.8	11.8			
FM	(30°-60°)	5217.5	29.0			
FH	(60°-80°)	3894.4	21.7			G2/5000
FVH	(80°-90°)	1543.9	8.6			G5
BL	(0°-30°)	1209.0	6.7	B3/2500		
BM	(30°-60°)	1084.2	6.0	B2/2500		
BH	(60°-80°)	299.8	1.7	B1/500		G1/500
BVH	(80°-90°)	47.2	0.3			G1/100
UL	(90°-100°)	1181.5	6.6		U5	
UH	(100°-180°)	1376.4	7.7		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°	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7
2.5°	4783.7	4783.7	4780.5	4766.8	4757.1	4763.6	4739.4	4687.8	4663.6	4641.0	4620.0
5°	4953.0	4947.4	4938.5	4907.1	4844.2	4775.7	4756.3	4700.7	4668.4	4622.5	4587.0
7.5°	5224.8	5261.0	5201.4	5090.1	4982.9	4965.9	4912.7	4845.0	4753.1	4648.3	4599.9
10°	5477.1	5509.4	5455.4	5386.0	5338.4	5211.9	4999.8	4890.1	4761.1	4612.8	4550.7
12.5°	5479.5	5507.0	5414.2	5410.2	5473.1	5364.2	5159.4	4889.3	4715.2	4544.2	4479.7
15°	5394.1	5428.7	5355.4	5439.2	5408.6	5366.7	5274.7	4978.0	4729.7	4525.7	4430.6
17.5°	5378.0	5423.9	5352.1	5397.3	5378.0	5312.6	5330.4	5046.6	4697.4	4461.2	4351.5
20°	5343.3	5388.4	5345.7	5307.0	5278.0	5252.2	5235.2	5115.9	4667.6	4392.7	4258.8
22.5°	5340.9	5363.4	5333.6	5268.3	5204.6	5170.7	5119.1	5095.7	4639.4	4294.3	4158.0
25°	5423.1	5447.3	5365.9	5281.2	5126.4	5071.6	4978.8	4964.3	4595.0	4200.0	4038.7
27.5°	5445.7	5469.9	5376.3	5281.2	5129.6	4953.8	4879.7	4807.1	4541.8	4063.7	3909.7
30°	5533.6	5565.8	5462.6	5288.5	5115.1	4861.1	4728.9	4635.4	4432.2	3934.7	3730.7
32.5°	5583.6	5624.7	5557.8	5350.5	5087.7	4815.2	4569.2	4480.6	4354.0	3776.7	3579.1
35°	5571.5	5630.3	5569.0	5394.1	5093.3	4762.8	4418.5	4323.3	4204.0	3610.6	3390.4
37.5°	5607.7	5664.2	5569.0	5386.8	5069.9	4687.8	4352.4	4145.9	4037.1	3428.3	3176.8
40°	5596.5	5645.6	5503.7	5352.1	5040.1	4606.3	4240.3	3998.4	3847.6	3225.2	2964.7
42.5°	5746.4	5777.9	5581.1	5342.5	4962.7	4497.5	4142.7	3879.9	3673.5	3053.4	2784.1
45°	6080.2	6118.9	5817.4	5420.7	4935.3	4405.6	4016.1	3755.7	3534.8	2910.7	2617.2
47.5°	6124.6	6155.2	5972.2	5529.5	4962.7	4324.1	3946.8	3671.8	3408.2	2798.6	2477.7
50°	6195.5	6203.6	6019.8	5607.7	4977.2	4258.0	3856.5	3613.0	3323.5	2689.0	2353.6
52.5°	6196.3	6204.4	6051.2	5640.0	4978.8	4180.6	3769.4	3527.5	3246.9	2595.4	2238.3
55°	6210.8	6200.4	6074.6	5641.6	4995.0	4096.0	3613.8	3421.1	3151.0	2498.7	2098.8
57.5°	6115.7	6098.0	5999.6	5628.7	5003.0	4026.6	3486.4	3307.4	3079.2	2411.6	1969.0
60°	6126.2	6081.0	5985.1	5596.5	4958.7	3921.8	3377.5	3171.1	2993.8	2305.2	1825.4
62.5°	6109.3	6055.2	5952.8	5572.3	4910.3	3850.8	3265.5	3027.6	2882.5	2194.7	1656.1
65°	6078.6	6014.1	5924.6	5553.7	4857.9	3780.7	3132.4	2899.4	2783.3	2009.3	1446.5
67.5°	6023.8	5950.4	5862.5	5494.1	4799.8	3702.5	2999.4	2748.6	2630.1	1794.0	1223.1
70°	5973.8	5894.0	5798.8	5411.8	4733.7	3598.5	2883.3	2599.5	2467.2	1553.7	978.0
72.5°	5835.1	5748.8	5655.3	5271.5	4634.6	3500.9	2752.7	2434.2	2252.0	1259.4	736.9
75°	5690.8	5611.0	5509.4	5154.6	4522.5	3382.4	2637.4	2262.4	2020.6	983.7	541.8
77.5°	5499.7	5405.4	5300.5	4963.5	4350.7	3239.7	2505.1	2092.3	1749.6	727.3	413.6
80°	5333.6	5232.0	5139.3	4806.3	4201.6	3091.3	2386.6	1919.0	1479.5	514.4	338.6
82.5°	5171.5	5049.8	4941.7	4617.6	4015.3	2932.5	2239.1	1765.8	1232.0	374.9	279.0
85°	4928.0	4805.5	4695.0	4390.2	3791.2	2747.8	2107.6	1609.4	995.0	292.7	232.2
87.5°	4713.6	4624.1	4495.1	4162.9	3563.8	2568.0	1938.3	1439.2	787.7	239.5	195.1
90°	4483.0	4385.4	4261.2	3922.6	3327.6	2382.6	1774.6	1271.5	615.2	207.2	170.9
92.5°	4242.7	4151.6	4023.4	3677.5	3093.7	2210.0	1621.4	1090.9	491.8	183.0	158.0
95°	3985.5	3928.2	3777.5	3450.1	2854.3	2017.3	1459.4	926.4	402.3	169.3	149.2
97.5°	3746.8	3676.7	3540.4	3212.3	2594.6	1843.2	1300.5	768.4	334.6	159.6	142.7
100°	3471.9	3408.2	3270.3	2939.7	2322.1	1647.2	1115.9	628.1	283.0	153.2	138.7
102.5°	3209.8	3163.9	3017.1	2656.7	2046.4	1425.5	928.8	510.4	244.3	150.0	133.8
105°	2934.9	2893.0	2747.0	2365.7	1775.4	1211.9	750.7	413.6	218.5	148.4	130.6
107.5°	2589.8	2567.2	2406.0	2005.2	1477.9	1000.6	611.2	339.4	200.0	146.7	127.4
110°	2224.6	2218.9	2026.2	1665.0	1211.0	802.3	490.2	287.0	185.4	142.7	123.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	*1871.4*	1806.1	1658.5	1286.8	948.2	632.1	395.9	249.1	173.4	137.1	117.7
115°	*1464.2*	1423.9	1265.1	998.2	734.5	501.5	332.2	217.7	165.3	129.8	111.3
117.5°	*1061.1*	1026.4	919.2	765.2	582.9	419.3	279.8	197.5	157.2	120.1	103.2
120°	*774.0*	764.4	682.9	581.3	483.8	358.8	242.7	179.0	147.6	109.7	93.5
122.5°	*582.9*	576.5	542.6	480.5	415.2	308.8	216.1	164.5	136.3	99.2	84.7
125°	*479.7*	467.6	445.9	406.4	349.1	270.1	198.3	154.0	123.4	88.7	75.8
127.5°	*388.6*	389.4	371.7	339.4	304.8	240.3	185.4	146.7	111.3	77.4	67.7
130°	*319.3*	315.3	309.6	291.9	269.3	220.9	176.6	138.7	99.2	68.5	59.7
132.5°	*267.7*	266.1	262.0	250.8	236.2	204.8	168.5	129.0	87.9	61.3	54.0
135°	*233.8*	234.6	229.0	218.5	214.5	190.3	159.6	116.9	75.8	54.8	49.2
137.5°	*217.7*	216.9	204.0	194.3	193.5	178.2	146.7	104.0	66.9	50.0	46.0
140°	*200.8*	199.2	186.3	175.8	171.7	162.1	132.2	90.3	58.1	46.0	42.7
142.5°	*171.7*	168.5	161.3	154.8	148.4	143.5	113.7	77.4	50.0	41.9	39.5
145°	*130.6*	132.2	133.0	127.4	122.6	118.5	95.1	64.5	44.3	38.7	37.1
147.5°	*105.6*	104.0	104.8	103.2	100.0	93.5	78.2	53.2	39.5	36.3	34.7
150°	*86.3*	84.7	85.5	83.0	80.6	75.0	64.5	44.3	35.5	33.9	33.1
152.5°	*70.1*	70.1	71.0	68.5	66.1	60.5	50.0	37.1	32.3	31.4	31.4
155°	*56.4*	57.2	56.4	55.6	52.4	46.8	38.7	31.4	29.8	29.8	29.8
157.5°	*45.2*	45.2	45.2	44.3	40.3	37.1	31.4	27.4	28.2	29.0	29.0
160°	*33.9*	34.7	34.7	33.9	31.4	27.4	25.0	25.0	26.6	27.4	27.4
162.5°	*24.2*	23.4	25.0	25.0	21.8	20.2	21.8	23.4	25.8	26.6	26.6
165°	*14.5*	14.5	16.1	16.1	16.1	16.1	19.4	22.6	25.0	25.8	26.6
167.5°	*8.1*	8.1	8.9	11.3	12.1	14.5	19.4	22.6	25.0	25.8	26.6
170°	*4.0*	4.0	5.6	8.9	11.3	14.5	20.2	23.4	25.0	25.8	26.6
172.5°	*2.4*	3.2	5.6	8.9	11.3	15.3	20.2	23.4	25.0	26.6	26.6
175°	*3.2*	3.2	5.6	8.9	12.1	15.3	20.2	23.4	25.8	26.6	27.4
177.5°	*3.2*	4.0	6.5	9.7	12.1	15.3	21.0	23.4	25.8	26.6	27.4
180°	*15.3*	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7	4633.7
2.5°	4595.0	4577.3	4553.9	4517.6	4491.8	4479.7	4471.7	4444.3	4446.7	4441.8
5°	4555.5	4496.7	4443.5	4375.7	4304.8	4269.3	4233.0	4212.1	4180.6	4187.9
7.5°	4562.8	4478.1	4372.5	4238.7	4139.5	4063.7	3998.4	3986.3	3941.9	3918.6
10°	4503.1	4379.0	4224.2	4084.7	3946.0	3827.5	3725.9	3707.3	3632.3	3613.0
12.5°	4410.4	4240.3	4058.1	3894.4	3738.0	3541.2	3420.3	3365.5	3288.0	3251.8
15°	4353.2	4134.7	3915.3	3697.6	3467.9	3269.5	3085.7	2974.4	2884.1	2897.8
17.5°	4250.8	4000.0	3736.3	3467.9	3171.9	2937.3	2670.4	2465.6	2372.1	2369.7
20°	4146.7	3852.5	3552.5	3215.5	2851.8	2501.1	2187.5	1926.2	1840.0	1802.1
22.5°	4015.3	3685.5	3332.4	2943.8	2488.2	2009.3	1690.8	1477.9	1369.9	1354.6
25°	3871.8	3496.1	3087.3	2646.2	2054.4	1602.1	1278.8	1096.6	1021.6	1011.9
27.5°	3702.5	3314.7	2855.1	2279.4	1668.2	1227.2	984.5	857.9	814.4	806.3
30°	3517.0	3099.4	2588.2	1908.5	1328.8	957.9	799.0	730.5	707.9	704.7
32.5°	3350.9	2900.2	2335.0	1615.8	1069.9	801.5	712.8	666.0	647.5	639.4
35°	3142.9	2655.9	2050.4	1343.3	878.9	715.2	654.7	619.2	607.1	602.3
37.5°	2914.7	2434.2	1788.4	1124.8	768.4	658.7	613.6	587.0	578.1	575.7
40°	2693.8	2207.6	1542.4	938.5	682.9	607.9	574.1	541.0	533.0	533.8
42.5°	2512.4	2007.7	1309.4	784.5	614.4	560.4	523.3	503.9	491.0	487.8
45°	2339.0	1816.6	1097.4	678.9	562.8	504.7	477.3	446.7	432.2	429.8
47.5°	2190.7	1615.0	913.5	620.0	517.6	468.5	421.7	385.4	374.1	371.7
50°	2025.4	1401.3	795.0	573.3	469.3	416.0	372.5	333.8	315.3	315.3
52.5°	1881.9	1217.5	707.9	533.8	429.8	374.9	326.5	288.7	264.5	262.0
55°	*1727.9*	*1044.1*	*649.9*	*490.2*	*389.4*	*329.8*	*287.0*	*250.8*	*235.4*	*236.2*
57.5°	1568.2	911.9	608.7	451.5	344.3	290.3	250.8	224.1	224.1	229.0
60°	1389.2	802.3	575.7	410.4	301.6	252.4	220.9	200.0	204.0	207.2
62.5°	1200.6	716.8	541.8	366.9	265.3	216.1	188.7	179.0	187.1	188.7
65°	1004.6	653.9	503.1	324.9	229.8	188.7	161.3	162.9	168.5	170.1
67.5°	816.0	595.0	451.5	284.6	197.5	155.6	145.1	142.7	150.8	150.8
70°	648.3	545.9	400.7	245.1	166.1	129.8	123.4	120.9	125.0	123.4
72.5°	540.2	490.2	346.7	208.0	136.3	106.4	100.8	100.0	97.6	95.9
75°	461.2	431.4	299.9	173.4	110.5	86.3	75.8	73.4	68.5	68.5
77.5°	398.3	366.9	249.9	142.7	89.5	66.1	51.6	43.5	41.1	39.5
80°	341.9	308.0	207.2	114.5	67.7	43.5	24.2	13.7	8.9	10.5
82.5°	289.5	255.6	172.5	92.7	49.2	21.8	4.8	0.8	0.0	0.0
85°	243.5	212.1	145.9	76.6	40.3	19.4	5.6	1.6	0.0	0.0
87.5°	204.8	179.0	125.8	66.9	36.3	18.5	6.5	2.4	0.8	0.0
90°	178.2	156.4	113.7	60.5	33.9	17.7	6.5	3.2	1.6	1.6
92.5°	161.3	141.1	103.2	55.6	31.4	17.7	7.3	4.0	2.4	2.4
95°	145.9	129.8	94.3	52.4	29.8	17.7	8.1	4.8	4.0	4.0
97.5°	134.7	119.3	87.9	49.2	29.0	17.7	8.9	5.6	4.8	4.0
100°	125.8	111.3	79.8	46.0	27.4	16.9	8.9	6.5	4.8	4.8
102.5°	120.1	104.8	73.4	42.7	26.6	16.9	8.9	6.5	4.8	4.8
105°	115.3	100.8	67.7	41.1	25.0	16.1	8.9	6.5	4.8	4.8
107.5°	111.3	96.8	62.9	38.7	24.2	15.3	8.9	6.5	4.8	4.8
110°	107.2	89.5	58.1	36.3	22.6	14.5	8.9	5.6	4.8	4.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P979168
CATALOG NUMBER: WPLLED38S-130W-3000K

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	101.6	81.4	53.2	33.9	21.8	13.7	8.1	5.6	4.0	4.0
115°	95.9	71.8	48.4	32.3	21.0	12.9	8.1	5.6	4.0	3.2
117.5°	88.7	63.7	44.3	29.8	20.2	12.1	8.1	4.8	3.2	3.2
120°	79.8	56.4	41.1	29.0	19.4	11.3	7.3	4.8	3.2	3.2
122.5°	71.8	51.6	38.7	27.4	18.5	11.3	7.3	4.8	3.2	2.4
125°	63.7	47.6	36.3	26.6	17.7	10.5	7.3	4.8	2.4	2.4
127.5°	56.4	43.5	34.7	26.6	17.7	10.5	7.3	4.8	2.4	2.4
130°	51.6	41.1	33.1	25.8	16.9	10.5	8.1	4.8	3.2	2.4
132.5°	47.6	38.7	32.3	25.8	16.9	11.3	8.1	4.8	3.2	3.2
135°	44.3	37.1	31.4	25.0	16.1	11.3	8.1	4.8	3.2	3.2
137.5°	41.9	35.5	30.6	24.2	16.1	11.3	8.9	5.6	4.0	3.2
140°	39.5	33.9	29.8	24.2	16.1	12.1	8.9	5.6	4.0	4.0
142.5°	37.1	33.1	28.2	23.4	16.1	12.1	8.9	5.6	4.0	4.0
145°	34.7	31.4	27.4	22.6	16.1	12.1	8.9	5.6	4.0	4.0
147.5°	33.1	30.6	26.6	21.8	15.3	12.1	8.9	5.6	4.0	3.2
150°	31.4	29.0	25.8	21.0	15.3	12.1	8.9	5.6	4.0	3.2
152.5°	30.6	28.2	25.0	20.2	15.3	12.1	8.9	5.6	3.2	3.2
155°	29.0	27.4	24.2	20.2	15.3	12.1	8.9	5.6	3.2	3.2
157.5°	28.2	26.6	23.4	20.2	15.3	11.3	8.9	4.8	3.2	3.2
160°	27.4	25.8	23.4	20.2	15.3	11.3	8.9	4.8	3.2	3.2
162.5°	26.6	25.8	23.4	20.2	15.3	11.3	8.1	4.8	3.2	3.2
165°	25.8	25.0	23.4	20.2	14.5	11.3	8.1	4.8	2.4	2.4
167.5°	26.6	25.0	23.4	20.2	14.5	11.3	8.1	4.0	2.4	2.4
170°	26.6	25.0	23.4	19.4	14.5	10.5	8.1	4.0	2.4	1.6
172.5°	26.6	25.8	23.4	19.4	14.5	11.3	8.1	4.0	2.4	1.6
175°	26.6	25.8	23.4	20.2	14.5	11.3	8.1	4.0	2.4	1.6
177.5°	26.6	25.8	23.4	20.2	14.5	10.5	8.1	4.0	2.4	1.6
180°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3

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

Lumark

Report Number: SP1-2407-168-1

Test Date: 08/08/2024

Luminaire Tested: LSDL-92S-100W 3000k

Data in this report applies to families of products including LSDL-92S-100W 3000k.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

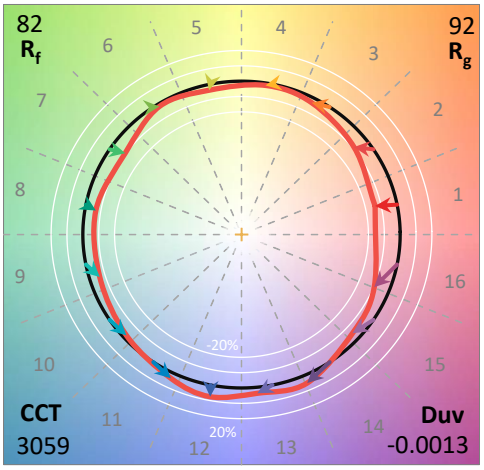
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-168-1
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 3000k**
Description:	Lumark Wallpack 100W

Spectral Parameters

CCT (K):	3059	CRI (Ra):	79.3		
CIE u':	0.2490	R1:	78.1	R9:	-8.3
CIE v':	0.5184	R2:	92.3	R10:	82.8
Duv:	-0.0013	R3:	91.2	R11:	73.1
CIE x:	0.4310	R4:	74.6	R12:	70.5
CIE y:	0.3988	R5:	78.8	R13:	81.8
CIE z:	0.1702	R6:	90.5	R14:	95.7
Peak Wavelength (nm):	600	R7:	77.6	R15:	69.8
Dominant Wavelength (nm):	583	R8:	50.9		
Purity:	49.0643				

Rf:	81.8
Rg:	91.9



Test Conditions

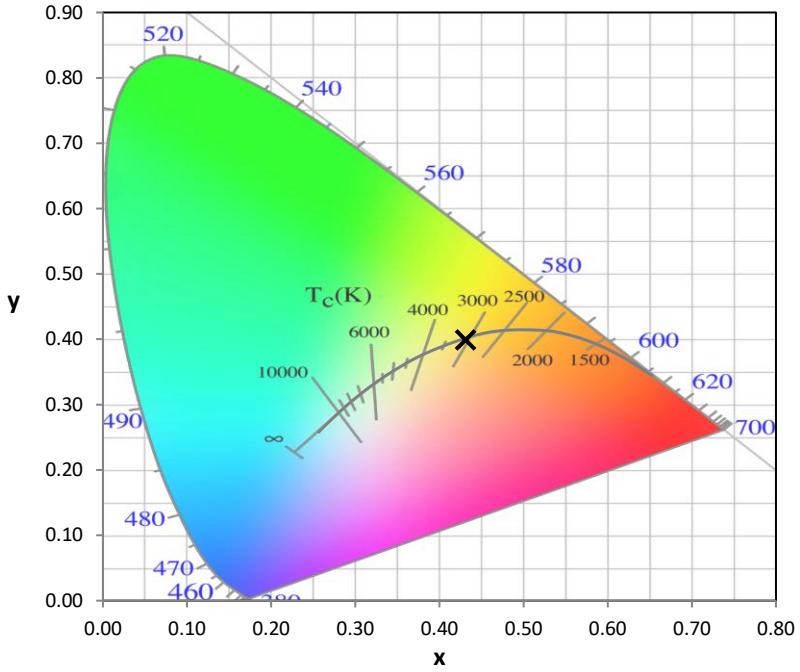
Stabilization Time:	51M
Operation Time:	1H 51M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2407-168-1

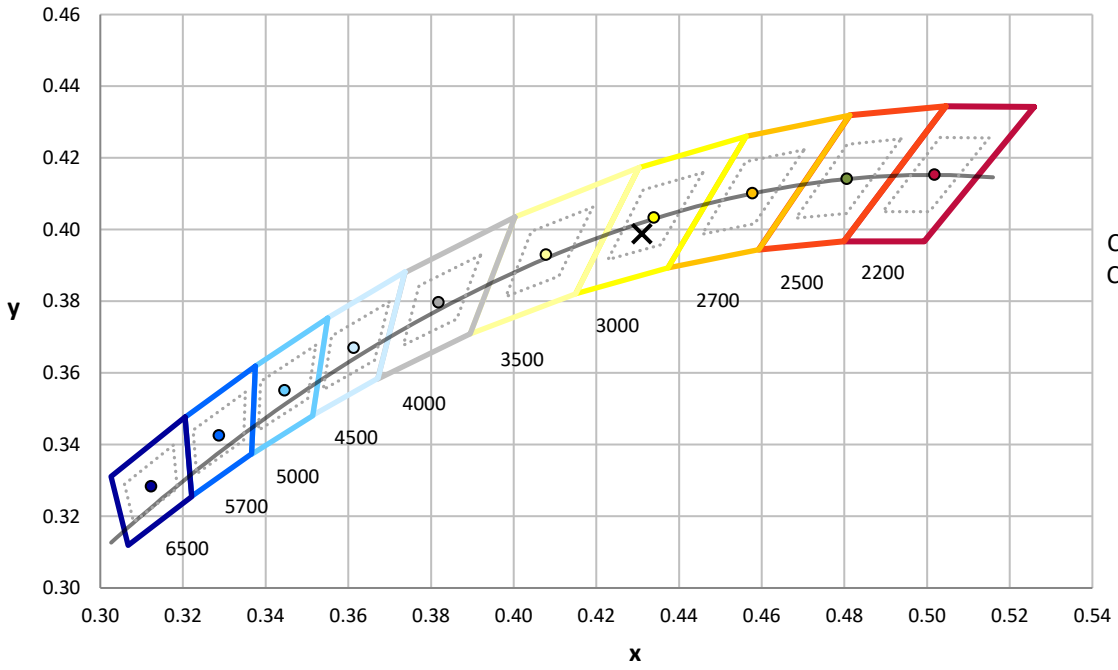
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-168-1

CIE 1931 Chromaticity Diagram



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

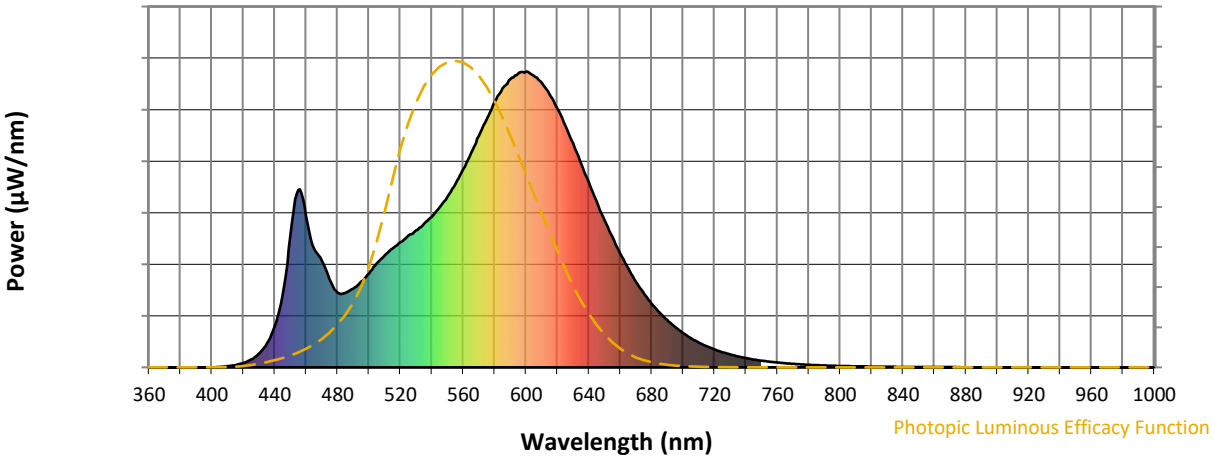


CCT = 3059K
CIE x = 0.4310
CIE y = 0.3988
Duv = -0.0013

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-168-1

Photopic Flux vs. Wavelength

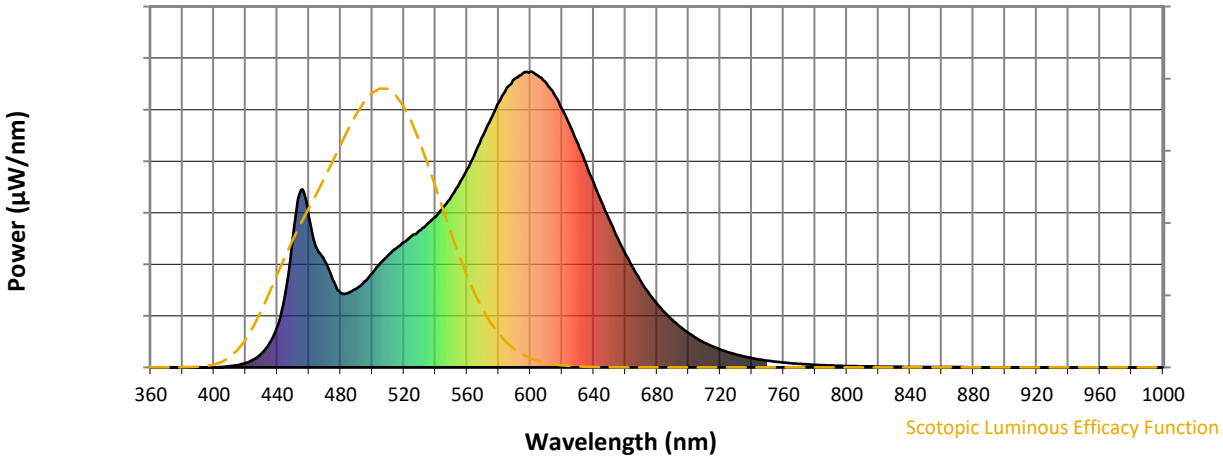


Photopic Lumens: NR

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	266	NR	620	875	NR	750	23	NR	880	0	NR
365	0	NR	495	290	NR	625	818	NR	755	19	NR	885	0	NR
370	0	NR	500	317	NR	630	758	NR	760	16	NR	890	0	NR
375	0	NR	505	352	NR	635	690	NR	765	14	NR	895	0	NR
380	0	NR	510	379	NR	640	625	NR	770	12	NR	900	0	NR
385	0	NR	515	402	NR	645	560	NR	775	10	NR	905	0	NR
390	0	NR	520	423	NR	650	498	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	440	NR	785	7	NR	915	0	NR
400	0	NR	530	463	NR	660	385	NR	790	6	NR	920	0	NR
405	1	NR	535	486	NR	665	335	NR	795	5	NR	925	0	NR
410	4	NR	540	509	NR	670	289	NR	800	5	NR	930	0	NR
415	8	NR	545	542	NR	675	250	NR	805	4	NR	935	0	NR
420	15	NR	550	577	NR	680	216	NR	810	3	NR	940	0	NR
425	27	NR	555	620	NR	685	185	NR	815	3	NR	945	0	NR
430	46	NR	560	670	NR	690	160	NR	820	3	NR	950	0	NR
435	81	NR	565	725	NR	695	136	NR	825	2	NR	955	0	NR
440	139	NR	570	782	NR	700	116	NR	830	2	NR	960	0	NR
445	246	NR	575	840	NR	705	99	NR	835	2	NR	965	0	NR
450	446	NR	580	896	NR	710	84	NR	840	1	NR	970	0	NR
455	601	NR	585	944	NR	715	71	NR	845	1	NR	975	0	NR
460	511	NR	590	975	NR	720	61	NR	850	1	NR	980	0	NR
465	402	NR	595	994	NR	725	51	NR	855	1	NR	985	0	NR
470	359	NR	600	1000	NR	730	44	NR	860	1	NR	990	0	NR
475	297	NR	605	985	NR	735	37	NR	865	1	NR	995	0	NR
480	252	NR	610	962	NR	740	32	NR	870	1	NR	1000	0	NR
485	252	NR	615	923	NR	745	27	NR	875	1	NR			

REPORT NUMBER: SP1-2407-168-1

Scotopic Flux vs. Wavelength

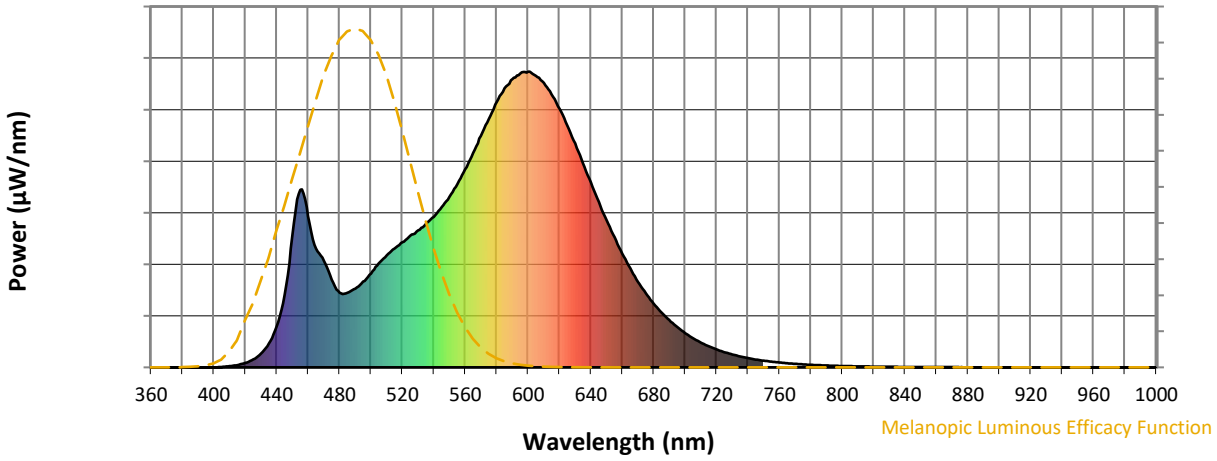


Scotopic Lumens: NR **S/P: 1.39**

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	266	NR	620	875	NR	750	23	NR	880	0	NR
365	0	NR	495	290	NR	625	818	NR	755	19	NR	885	0	NR
370	0	NR	500	317	NR	630	758	NR	760	16	NR	890	0	NR
375	0	NR	505	352	NR	635	690	NR	765	14	NR	895	0	NR
380	0	NR	510	379	NR	640	625	NR	770	12	NR	900	0	NR
385	0	NR	515	402	NR	645	560	NR	775	10	NR	905	0	NR
390	0	NR	520	423	NR	650	498	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	440	NR	785	7	NR	915	0	NR
400	0	NR	530	463	NR	660	385	NR	790	6	NR	920	0	NR
405	1	NR	535	486	NR	665	335	NR	795	5	NR	925	0	NR
410	4	NR	540	509	NR	670	289	NR	800	5	NR	930	0	NR
415	8	NR	545	542	NR	675	250	NR	805	4	NR	935	0	NR
420	15	NR	550	577	NR	680	216	NR	810	3	NR	940	0	NR
425	27	NR	555	620	NR	685	185	NR	815	3	NR	945	0	NR
430	46	NR	560	670	NR	690	160	NR	820	3	NR	950	0	NR
435	81	NR	565	725	NR	695	136	NR	825	2	NR	955	0	NR
440	139	NR	570	782	NR	700	116	NR	830	2	NR	960	0	NR
445	246	NR	575	840	NR	705	99	NR	835	2	NR	965	0	NR
450	446	NR	580	896	NR	710	84	NR	840	1	NR	970	0	NR
455	601	NR	585	944	NR	715	71	NR	845	1	NR	975	0	NR
460	511	NR	590	975	NR	720	61	NR	850	1	NR	980	0	NR
465	402	NR	595	994	NR	725	51	NR	855	1	NR	985	0	NR
470	359	NR	600	1000	NR	730	44	NR	860	1	NR	990	0	NR
475	297	NR	605	985	NR	735	37	NR	865	1	NR	995	0	NR
480	252	NR	610	962	NR	740	32	NR	870	1	NR	1000	0	NR
485	252	NR	615	923	NR	745	27	NR	875	1	NR			

REPORT NUMBER: SP1-2407-168-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.77**

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	266	NR	620	875	NR	750	23	NR	880	0	NR
365	0	NR	495	290	NR	625	818	NR	755	19	NR	885	0	NR
370	0	NR	500	317	NR	630	758	NR	760	16	NR	890	0	NR
375	0	NR	505	352	NR	635	690	NR	765	14	NR	895	0	NR
380	0	NR	510	379	NR	640	625	NR	770	12	NR	900	0	NR
385	0	NR	515	402	NR	645	560	NR	775	10	NR	905	0	NR
390	0	NR	520	423	NR	650	498	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	440	NR	785	7	NR	915	0	NR
400	0	NR	530	463	NR	660	385	NR	790	6	NR	920	0	NR
405	1	NR	535	486	NR	665	335	NR	795	5	NR	925	0	NR
410	4	NR	540	509	NR	670	289	NR	800	5	NR	930	0	NR
415	8	NR	545	542	NR	675	250	NR	805	4	NR	935	0	NR
420	15	NR	550	577	NR	680	216	NR	810	3	NR	940	0	NR
425	27	NR	555	620	NR	685	185	NR	815	3	NR	945	0	NR
430	46	NR	560	670	NR	690	160	NR	820	3	NR	950	0	NR
435	81	NR	565	725	NR	695	136	NR	825	2	NR	955	0	NR
440	139	NR	570	782	NR	700	116	NR	830	2	NR	960	0	NR
445	246	NR	575	840	NR	705	99	NR	835	2	NR	965	0	NR
450	446	NR	580	896	NR	710	84	NR	840	1	NR	970	0	NR
455	601	NR	585	944	NR	715	71	NR	845	1	NR	975	0	NR
460	511	NR	590	975	NR	720	61	NR	850	1	NR	980	0	NR
465	402	NR	595	994	NR	725	51	NR	855	1	NR	985	0	NR
470	359	NR	600	1000	NR	730	44	NR	860	1	NR	990	0	NR
475	297	NR	605	985	NR	735	37	NR	865	1	NR	995	0	NR
480	252	NR	610	962	NR	740	32	NR	870	1	NR	1000	0	NR
485	252	NR	615	923	NR	745	27	NR	875	1	NR			

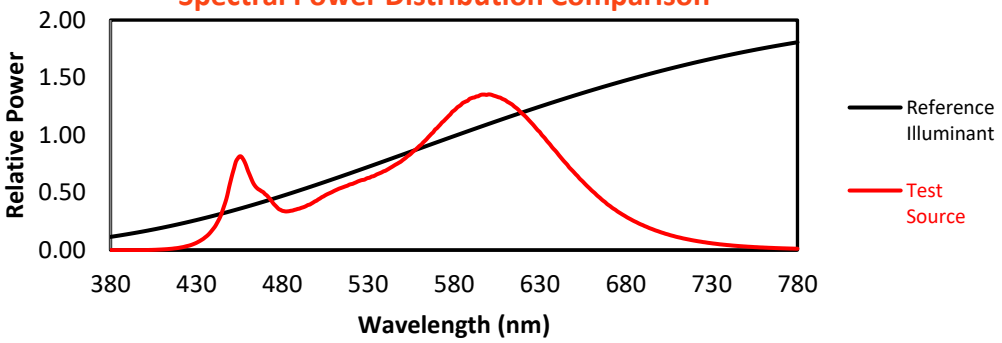
REPORT NUMBER: SP1-2407-168-1

TM-30-18

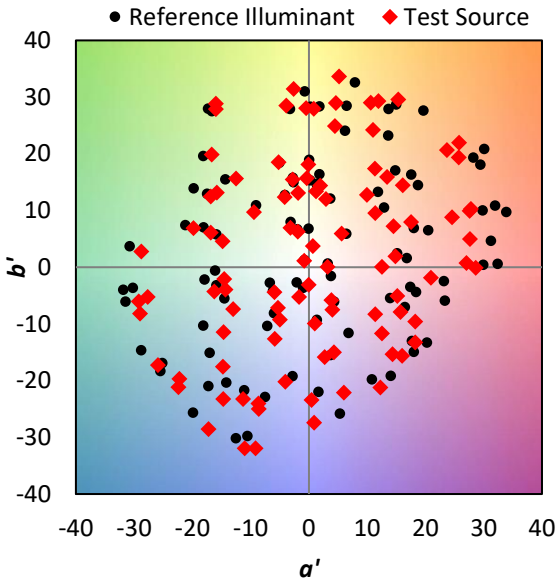
Summary

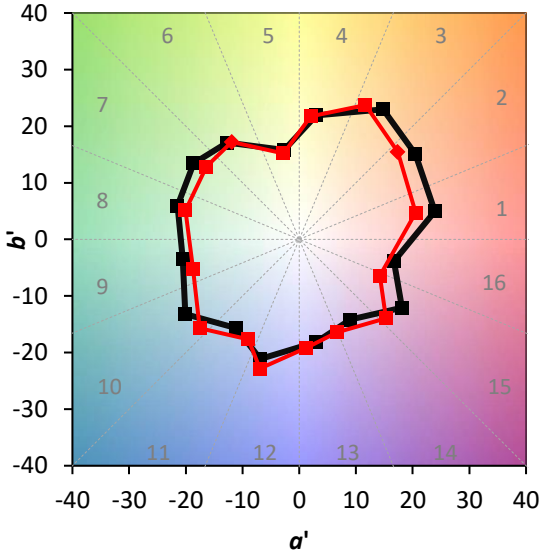
R_f = 81.8
R_g = 91.9
CIE R_a = 79.3
R_9 = -8.3

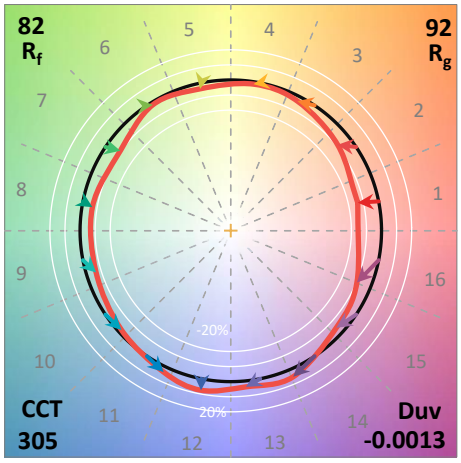
Spectral Power Distribution Comparison

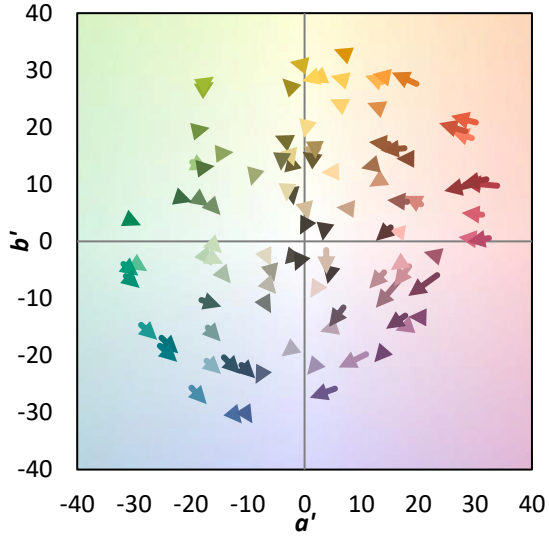


Color Vector Graphics







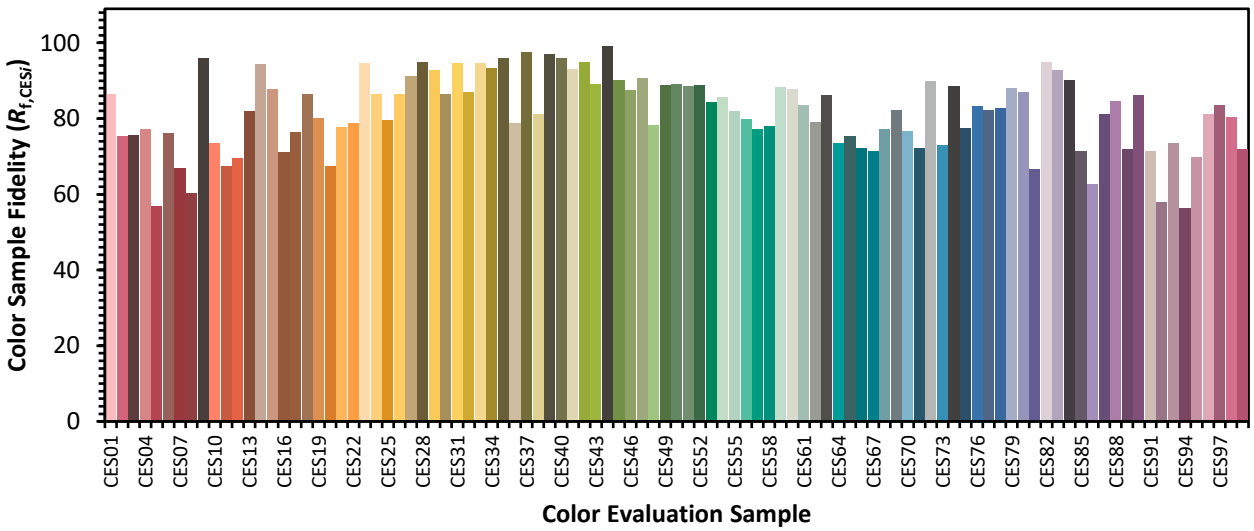


REPORT NUMBER: SP1-2407-168-1

TM-30-18

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

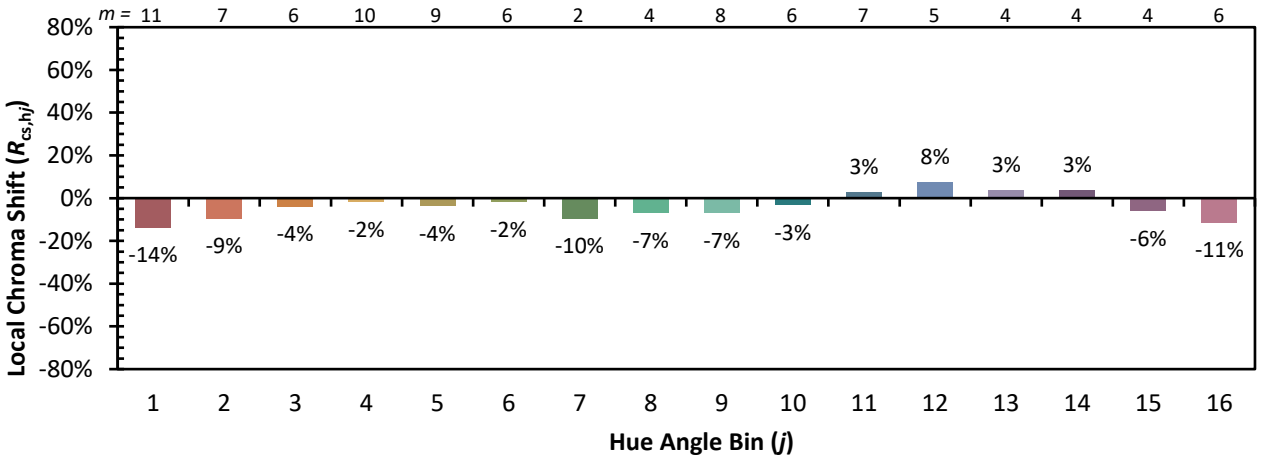
CES01 = 86	CES26 = 86	CES51 = 88	CES76 = 83
CES02 = 63	CES27 = 91	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 95	CES53 = 84	CES78 = 83
CES04 = 71	CES29 = 93	CES54 = 86	CES79 = 88
CES05 = 49	CES30 = 86	CES55 = 82	CES80 = 87
CES06 = 51	CES31 = 95	CES56 = 80	CES81 = 67
CES07 = 42	CES32 = 87	CES57 = 77	CES82 = 95
CES08 = 40	CES33 = 95	CES58 = 78	CES83 = 93
CES09 = 29	CES34 = 93	CES59 = 88	CES84 = 90
CES10 = 76	CES35 = 96	CES60 = 88	CES85 = 71
CES11 = 59	CES36 = 79	CES61 = 84	CES86 = 63
CES12 = 65	CES37 = 98	CES62 = 79	CES87 = 81
CES13 = 43	CES38 = 81	CES63 = 86	CES88 = 85
CES14 = 74	CES39 = 97	CES64 = 73	CES89 = 72
CES15 = 71	CES40 = 96	CES65 = 75	CES90 = 86
CES16 = 47	CES41 = 93	CES66 = 72	CES91 = 71
CES17 = 50	CES42 = 95	CES67 = 71	CES92 = 58
CES18 = 56	CES43 = 89	CES68 = 77	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 82	CES94 = 56
CES20 = 66	CES45 = 90	CES70 = 77	CES95 = 70
CES21 = 87	CES46 = 88	CES71 = 72	CES96 = 81
CES22 = 79	CES47 = 91	CES72 = 90	CES97 = 84
CES23 = 92	CES48 = 78	CES73 = 73	CES98 = 80
CES24 = 91	CES49 = 89	CES74 = 89	CES99 = 72
CES25 = 72	CES50 = 89	CES75 = 78	

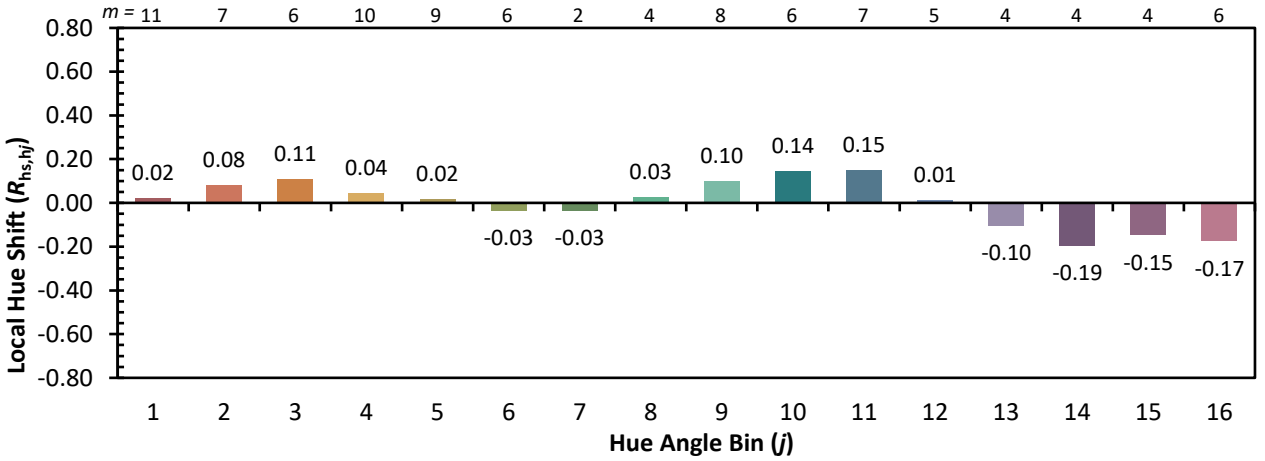


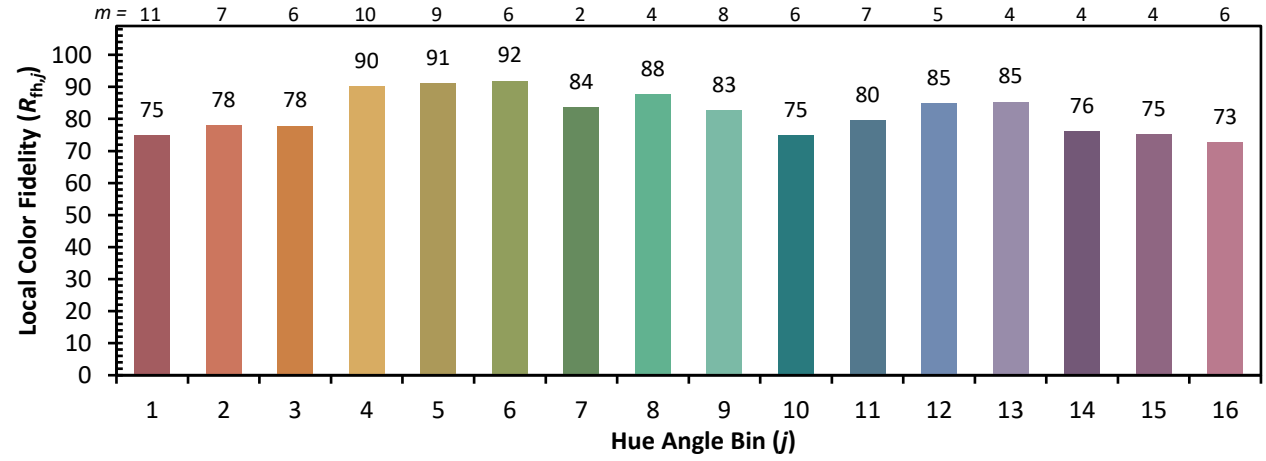
REPORT NUMBER: SP1-2407-168-1

TM-30-18

Color Rendition by Hue-Angle Bin



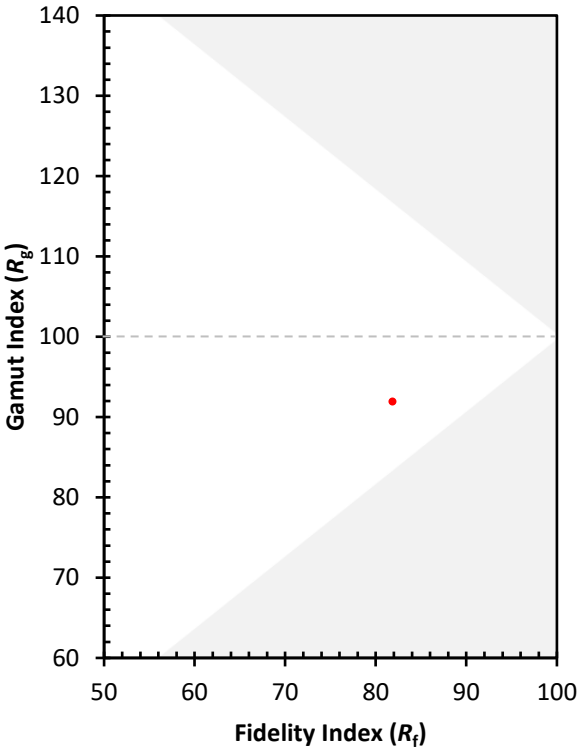


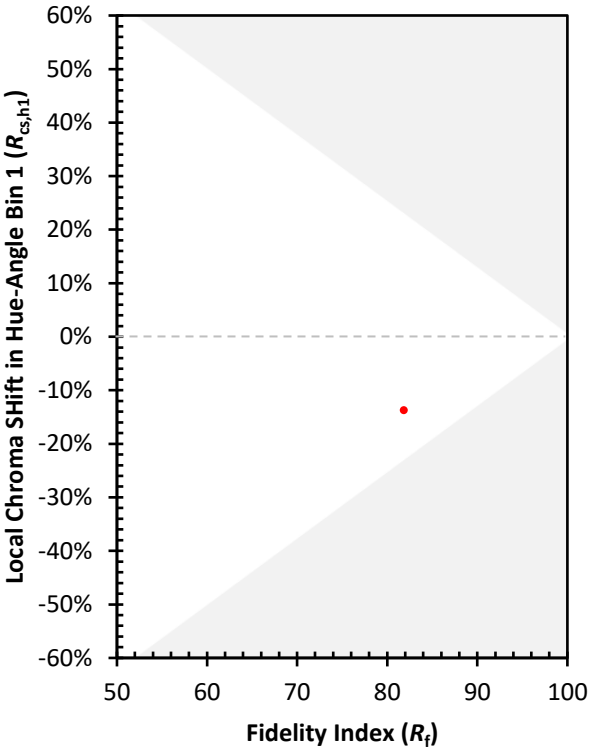


REPORT NUMBER: SP1-2407-168-1

TM-30-18

Measure Comparisons





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