

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: P1449873

Luminaire Tested: **TWC150_T3_90W_4000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449873
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ()
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2026
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: TWC150_T3_90W_4000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T3 distribution, 90W
4000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15456 lumens
Efficiency: N/A
Efficacy: 186.2 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 0.42' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

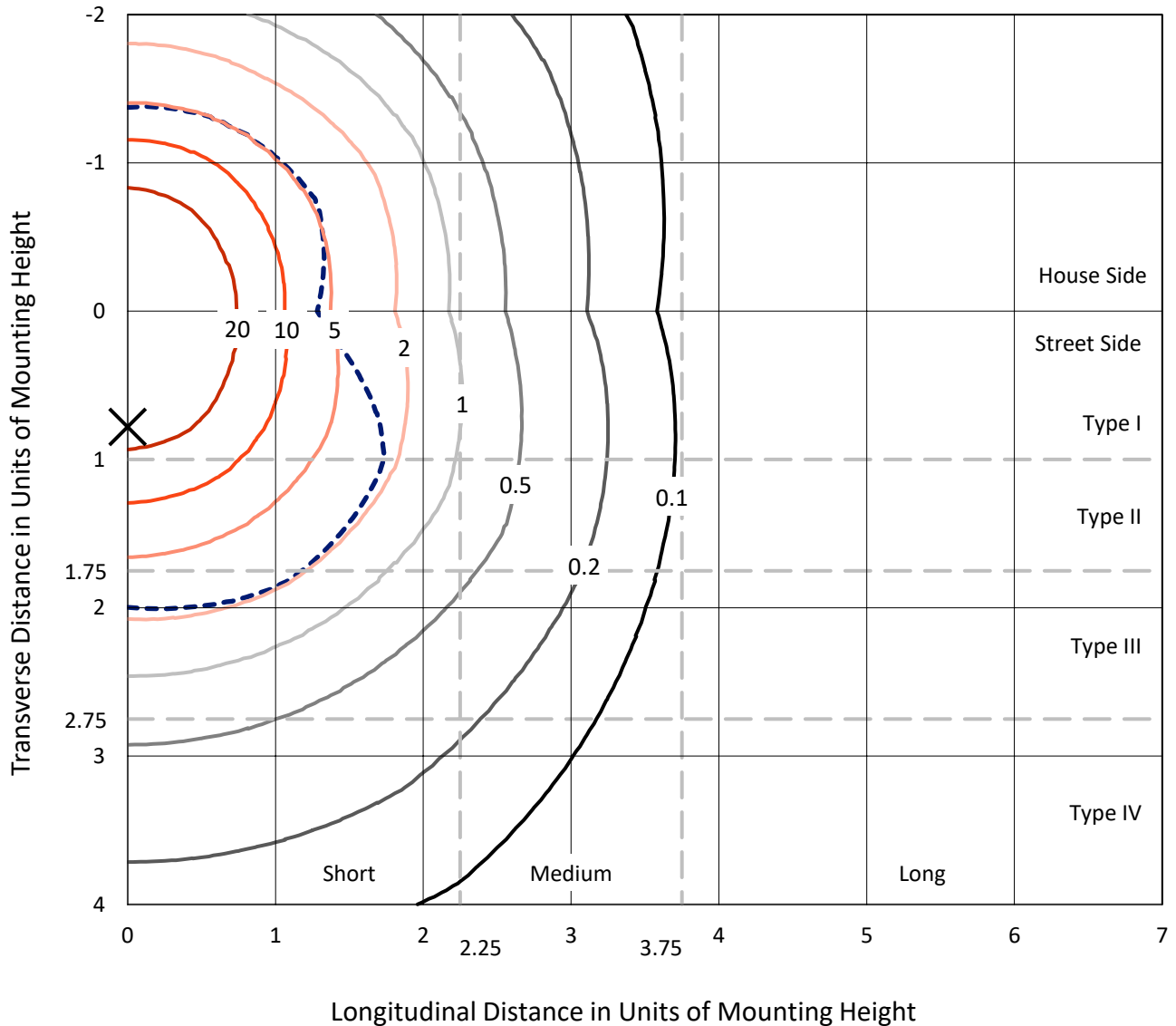
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

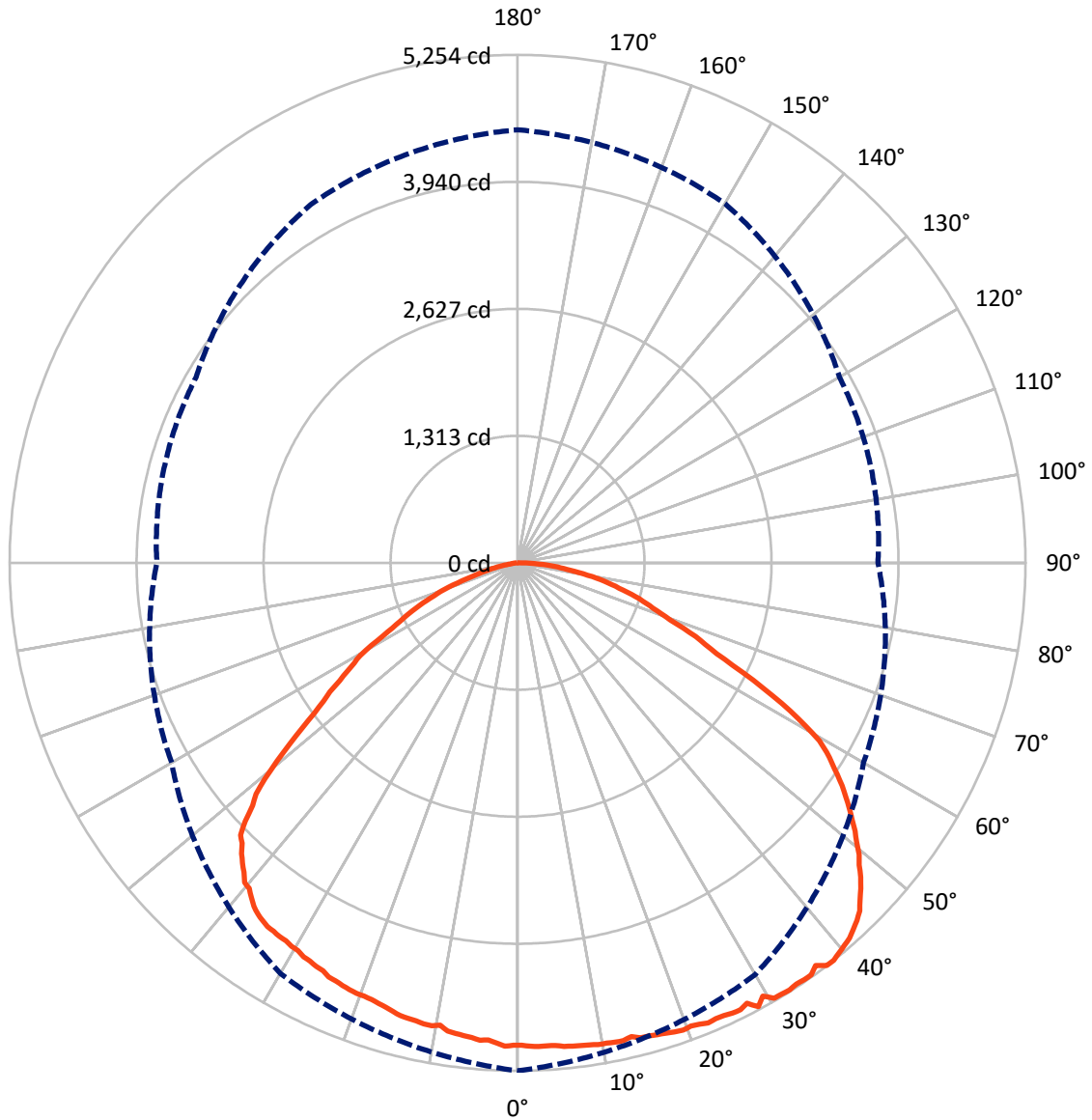
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 49.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 38-Deg Vertical

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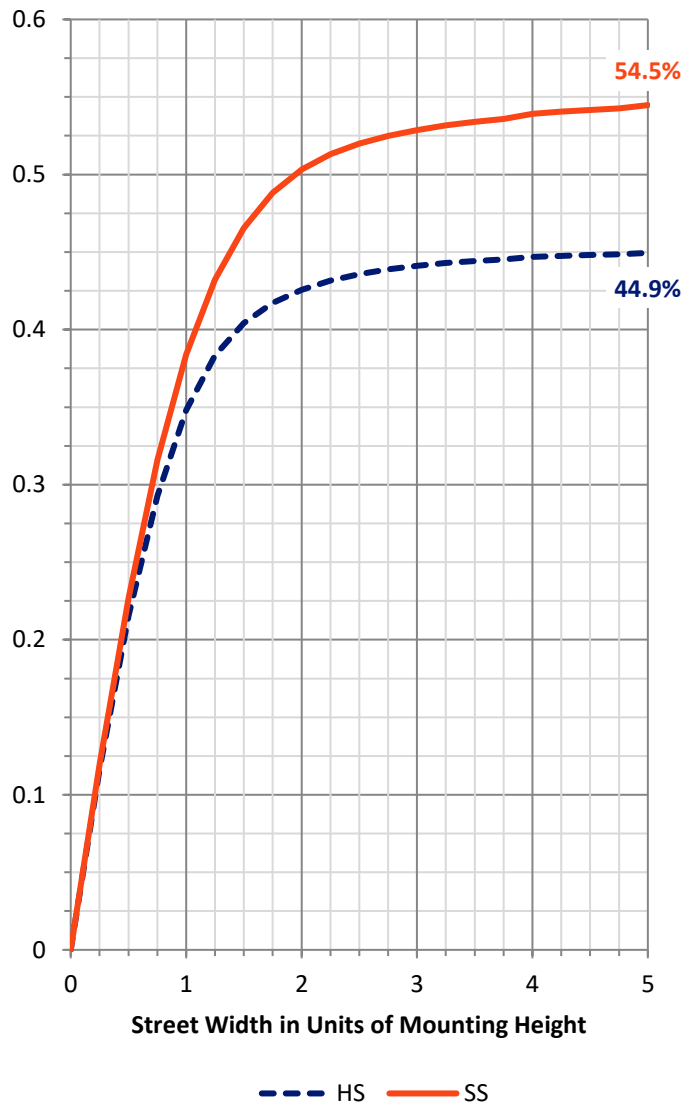
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6979.5	0.0	6979.5
	% Fixture	45.2	0.0	45.2
Street Side	Lumens	8476.5	0.0	8476.5
	% Fixture	54.8	0.0	54.8
Total	Lumens	15456.0	0.0	15456.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.6	3.1
10°-20°	1377.0	8.9
20°-30°	2159.5	14.0
30°-40°	2755.7	17.8
40°-50°	3040.5	19.7
50°-60°	2739.1	17.7
60°-70°	1865.8	12.1
70°-80°	846.0	5.5
80°-90°	198.8	1.3
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°	15456.0	100.0
0°-180°	15456.0	100.0

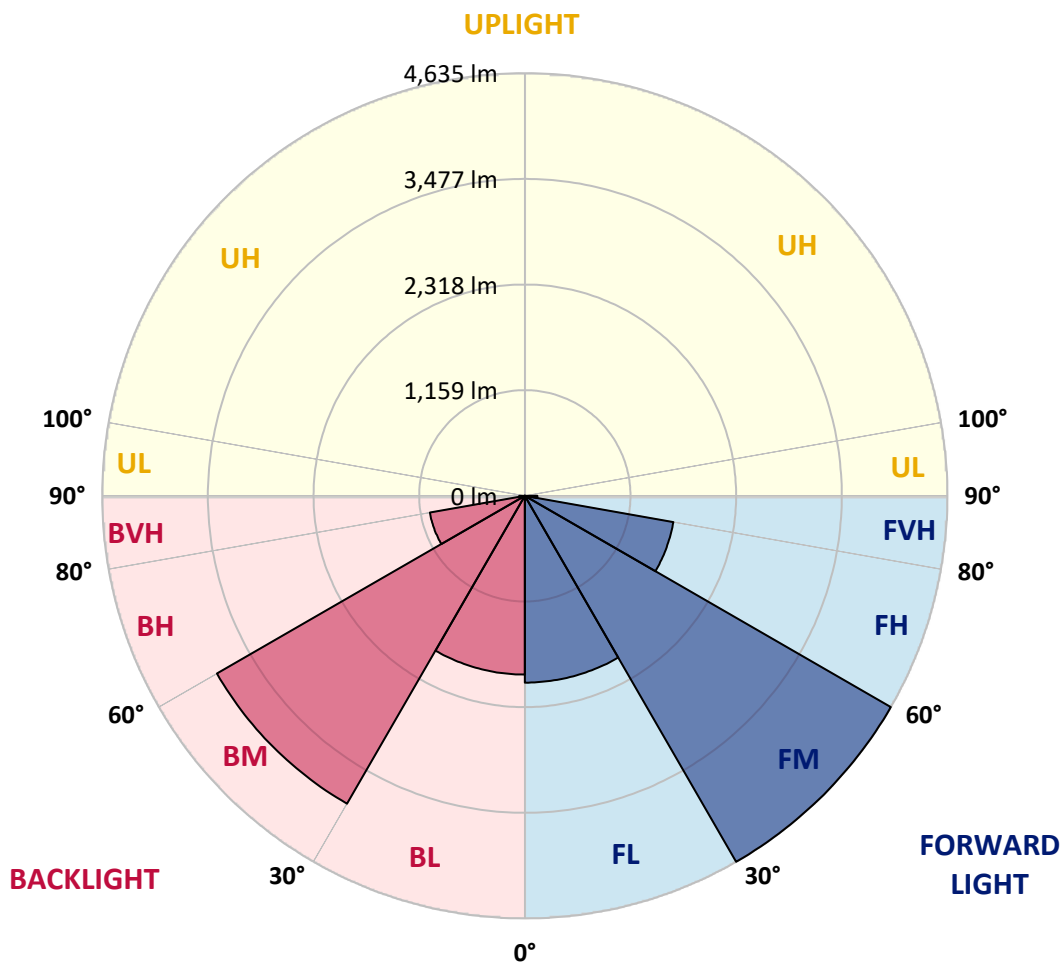


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2049.3	13.3			
FM (30°-60°)	4635.5	30.0			
FH (60°-80°)	1654.3	10.7			G1/1800
FVH (80°-90°)	137.4	0.9			G2/225
BL (0°-30°)	1960.8	12.7	B3/2500		
BM (30°-60°)	3899.8	25.2	B3/5000		
BH (60°-80°)	1057.5	6.8	B3/2500		G3/2500
BVH (80°-90°)	61.4	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	4990.7	4990.7	4990.7	4990.7	4990.7	4990.7	4990.7	4990.7	4990.7	4990.7	4990.7
1°	5002.2	5018.6	4997.9	4983.0	4987.3	4991.0	4991.0	4974.1	4987.5	4989.4	4995.0
2°	5007.6	5014.5	5023.4	4993.5	4998.9	4978.0	5002.0	4992.3	4981.9	4917.7	5002.0
3°	5004.8	5024.7	5008.7	4979.7	4976.5	4981.2	4971.5	4965.4	4974.3	4984.7	4999.4
4°	5007.0	5006.1	5008.5	4981.7	4974.1	4954.6	4943.2	4959.6	4965.7	4991.8	4989.4
5°	5024.3	5002.8	4987.3	5010.4	4950.3	4939.3	4954.6	4951.2	4956.1	4980.6	4985.6
6°	5030.5	5005.2	4987.3	4955.1	4936.7	4925.0	4933.6	4938.4	4943.8	5005.7	4982.5
7°	5036.8	5008.5	4973.4	4939.9	4924.4	4914.8	4921.3	4940.6	4936.0	4941.4	4975.0
8°	5041.7	5014.3	4965.2	4920.2	4912.5	4905.1	4910.9	4934.7	4916.4	4936.0	4968.2
9°	5052.6	5022.9	4964.6	4902.7	4892.1	4833.8	4897.3	4903.4	4906.0	4920.0	4976.2
10°	5053.0	5018.9	4903.8	4896.0	4875.1	4870.5	4848.5	4885.4	4880.0	4901.7	4964.8
11°	5060.3	5026.6	4942.5	4884.1	4863.4	4854.9	4870.7	4864.2	4881.8	4901.0	4936.9
12°	5061.9	5024.7	4931.5	4874.6	4847.8	4846.5	4865.8	4888.9	4837.0	4852.3	4913.6
13°	5039.2	5018.9	4949.0	4838.5	4824.5	4830.1	4853.4	4839.8	4812.4	4831.4	4901.9
14°	5073.7	5028.4	4906.6	4818.9	4781.4	4826.4	4846.9	4772.3	4792.0	4813.6	4889.8
15°	5079.6	5000.0	4883.3	4784.2	4759.6	4813.9	4838.3	4795.5	4717.0	4787.9	4877.2
16°	5089.3	5077.4	4862.7	4754.2	4745.6	4791.2	4816.9	4791.6	4733.6	4772.1	4863.8
17°	5102.1	5041.3	4841.3	4741.7	4704.0	4772.1	4794.8	4766.9	4710.5	4739.5	4856.9
18°	5115.3	5015.8	4815.6	4738.4	4675.9	4736.5	4778.4	4741.0	4684.4	4696.5	4833.1
19°	5128.2	5022.1	4795.7	4668.1	4650.4	4712.5	4762.4	4733.9	4659.3	4684.4	4812.1
20°	5115.5	5022.1	4776.7	4639.2	4623.6	4688.7	4755.0	4728.2	4620.6	4659.0	4782.5
21°	5129.5	5015.8	4757.9	4604.3	4595.7	4725.2	4755.3	4694.1	4584.9	4609.3	4716.1
22°	5151.8	4948.6	4732.3	4573.9	4559.0	4666.8	4744.0	4675.9	4560.9	4573.2	4740.6
23°	5142.3	4994.2	4701.4	4534.3	4529.1	4656.5	4732.4	4641.3	4519.2	4534.1	4716.6
24°	5144.9	4995.5	4679.4	4491.9	4481.3	4642.4	4714.8	4628.3	4480.5	4498.4	4678.3
25°	5160.5	4992.2	4660.6	4456.5	4432.9	4611.1	4708.8	4603.0	4450.8	4457.1	4648.0
26°	5165.9	4976.2	4566.3	4413.6	4401.8	4587.7	4675.9	4620.4	4401.3	4420.3	4605.6
27°	5137.1	4973.4	4519.4	4378.2	4363.5	4570.2	4665.5	4560.9	4363.1	4373.7	4569.1
28°	5224.2	4967.6	4581.6	4313.1	4321.5	4529.5	4645.2	4536.9	4317.7	4322.8	4534.5
29°	5148.3	4961.5	4500.4	4293.9	4281.5	4518.5	4636.1	4510.3	4282.8	4275.3	4521.5
30°	5227.5	4971.7	4455.0	4211.0	4244.1	4495.0	4610.4	4484.3	4238.5	4228.8	4475.7
31°	5231.6	4970.2	4427.7	4159.2	4202.2	4476.3	4604.1	4459.5	4217.1	4171.5	4433.7
32°	5237.0	4969.6	4387.0	4104.9	4167.4	4437.0	4585.3	4439.6	4163.1	4118.7	4416.2
33°	5225.3	4962.8	4355.5	4052.3	4122.0	4423.0	4584.4	4422.5	4116.6	4045.0	4355.0
34°	5233.8	4946.0	4346.4	3989.2	4067.1	4397.2	4570.2	4405.0	4067.5	3981.7	4310.5
35°	5233.5	4928.5	4229.2	3926.5	4017.1	4377.5	4565.6	4374.3	4004.1	3925.0	4262.3
36°	5180.8	4930.0	4216.0	3863.6	3951.6	4349.7	4543.6	4328.0	3952.5	3857.7	4229.9
37°	5251.7	4917.7	4173.4	3792.2	3895.1	4318.3	4517.6	4307.9	3895.8	3801.3	4181.2
38°	5253.7	4915.7	4131.9	3727.1	3843.3	4289.5	4478.3	4278.9	3839.4	3730.6	4132.4
39°	5227.7	4888.9	4088.9	3657.5	3788.6	4252.1	4424.7	4251.9	3798.9	3672.0	4093.9
40°	5206.3	4877.2	4048.9	3596.6	3745.1	4208.3	4364.3	4214.5	3741.8	3601.7	4047.2
41°	5181.4	4859.7	4008.3	3527.1	3694.5	4165.2	4346.8	4184.2	3688.0	3528.7	4003.0
42°	5141.4	4833.8	3959.8	3444.6	3639.6	4109.6	4271.2	4133.0	3626.8	3454.9	3964.1
43°	5100.1	4821.4	3919.2	3376.2	3583.6	4051.9	4211.0	4081.3	3569.1	3374.5	3919.6
44°	5048.3	4806.3	3864.0	3300.8	3528.5	3995.9	4146.0	4026.2	3513.3	3302.9	3871.2



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	4967.2	4761.1	3823.2	3221.2	3460.3	3935.0	4065.7	3949.9	3465.5	3222.5	3824.5
46°	4894.3	4705.5	3779.0	3139.5	3397.4	3863.8	4016.9	3885.9	3398.7	3139.5	3781.4
47°	4813.0	4650.0	3732.3	3061.6	3337.7	3777.5	3884.3	3824.0	3325.6	3063.1	3721.1
48°	4718.7	4585.3	3681.5	2977.5	3264.5	3699.7	3716.6	3750.7	3259.0	2975.6	3672.0
49°	4645.7	4511.6	3641.8	2848.9	3191.4	3611.0	3611.5	3622.9	3199.8	2897.5	3636.6
50°	4545.3	4393.1	3597.0	2797.0	3110.5	3510.7	3434.2	3577.5	3112.5	2809.3	3593.8
51°	4459.9	4322.4	3557.4	2712.9	3037.0	3390.9	3222.9	3463.4	3035.7	2727.8	3560.0
52°	4359.8	4224.9	3524.8	2625.5	2954.6	3200.0	3012.3	3332.3	2957.6	2638.1	3520.4
53°	4269.6	4115.1	3488.7	2533.6	2877.4	3013.8	2808.5	3161.3	2905.5	2547.3	3476.3
54°	4171.5	4000.9	3450.4	2440.7	2798.3	2818.4	2614.3	2974.5	2788.8	2437.8	3429.0
55°	4072.3	3912.9	3406.3	2346.4	2716.1	2609.7	2467.0	2767.4	2700.5	2357.8	3396.6
56°	3963.7	3826.2	3353.1	2239.1	2610.0	2429.2	2353.5	2586.4	2619.9	2245.9	3352.9
57°	3855.0	3730.2	3307.7	2141.0	2519.8	2277.8	2206.7	2383.4	2529.5	2149.9	3306.8
58°	3750.5	3614.5	3231.8	2046.3	2429.2	2146.8	2085.2	2232.7	2439.2	2051.0	3277.0
59°	3620.6	3502.1	3151.2	1952.4	2337.9	2014.3	1981.8	2115.3	2348.3	1957.4	3174.7
60°	3422.1	3393.1	3059.7	1848.6	2243.3	1902.5	1888.7	2009.3	2253.8	1858.2	3082.2
61°	3208.7	3293.4	2959.2	1755.5	2148.5	1820.5	1738.2	1880.4	2159.1	1765.0	2985.1
62°	2975.4	3161.8	2838.7	1663.1	2044.3	1726.1	1584.6	1782.7	2058.6	1657.7	2873.3
63°	2725.0	2989.0	2694.1	1574.3	1920.5	1602.6	1460.6	1700.6	1951.6	1568.0	2745.8
64°	2461.6	2787.5	2550.3	1477.2	1772.3	1472.5	1362.0	1581.4	1830.1	1477.4	2595.5
65°	2264.9	2569.1	2399.8	1385.3	1649.3	1385.9	1278.5	1454.7	1697.9	1387.0	2447.2
66°	2118.3	2304.4	2243.7	1291.3	1496.0	1317.2	1194.0	1362.2	1557.6	1290.6	2301.2
67°	1994.8	2081.5	2088.9	1192.9	1352.4	1247.6	1102.3	1296.6	1384.9	1197.8	2136.9
68°	1843.2	1903.6	1915.3	1088.4	1213.8	1170.0	1018.4	1218.4	1249.1	1092.8	1970.2
69°	1689.1	1759.6	1767.1	990.5	1106.0	1094.3	925.9	1152.6	1123.9	1001.9	1819.2
70°	1576.2	1639.8	1642.4	896.6	1023.1	1022.7	847.6	1076.6	1033.7	900.5	1677.9
71°	1475.9	1501.4	1533.9	805.6	949.8	950.3	753.1	1008.6	956.8	813.2	1583.4
72°	1395.2	1387.9	1397.8	707.3	869.4	877.9	654.0	938.2	881.9	720.2	1456.2
73°	1314.4	1300.6	1223.4	625.5	807.8	801.3	558.7	866.8	810.6	631.4	1293.9
74°	1224.7	1222.1	1036.6	542.9	755.0	714.8	474.0	785.7	753.5	545.1	1099.7
75°	1128.0	1137.7	846.7	466.8	699.2	608.9	409.9	698.2	705.9	470.3	911.6
76°	1038.9	1063.4	727.6	392.2	649.3	524.6	347.3	598.3	651.2	401.1	770.8
77°	955.9	983.2	647.8	328.2	602.2	454.5	292.6	518.7	607.1	330.6	680.0
78°	874.8	903.1	560.7	270.9	557.0	392.2	239.4	440.9	560.2	273.3	598.3
79°	784.4	841.1	488.4	222.0	513.1	328.6	186.6	375.6	517.4	224.9	512.2
80°	688.9	780.5	406.3	173.2	463.8	279.4	138.0	324.3	472.7	179.0	440.6
81°	591.8	712.9	339.3	137.1	417.7	229.8	91.7	274.8	426.0	140.6	364.8
82°	512.9	614.1	291.9	107.0	371.7	152.7	70.7	220.3	377.7	108.1	311.3
83°	449.1	489.5	256.6	79.3	317.8	67.7	53.0	128.4	330.8	83.5	268.5
84°	380.7	381.4	222.9	60.5	256.6	36.7	41.1	54.5	276.5	60.8	237.4
85°	308.8	316.3	192.4	43.5	209.9	25.7	27.7	34.0	221.8	44.3	207.3
86°	228.7	249.9	164.8	29.6	164.7	15.3	16.2	21.8	178.8	30.3	178.4
87°	170.0	179.3	131.9	19.7	97.1	10.4	0.0	12.7	123.5	19.2	154.4
88°	88.4	117.4	75.7	0.0	0.0	8.4	0.0	0.0	0.0	0.0	102.9
89°	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	38.0



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449873
 CATALOG NUMBER: TWC150_T3_90W_4000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449873
CATALOG NUMBER: TWC150_T3_90W_4000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449873
CATALOG NUMBER: TWC150_T3_90W_4000K

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	4990.7	4990.7
1°	4990.5	5002.2
2°	4997.7	5007.6
3°	4996.4	5004.8
4°	5017.8	5007.0
5°	5016.0	5024.3
6°	5013.4	5030.5
7°	5013.9	5036.8
8°	5013.0	5041.7
9°	5002.4	5052.6
10°	5006.9	5053.0
11°	5029.2	5060.3
12°	5016.9	5061.9
13°	5058.2	5039.2
14°	5013.7	5073.7
15°	5004.1	5079.6
16°	5001.3	5089.3
17°	5001.1	5102.1
18°	5011.5	5115.3
19°	5010.2	5128.2
20°	5010.8	5115.5
21°	4969.5	5129.5
22°	4985.8	5151.8
23°	4980.6	5142.3
24°	4939.9	5144.9
25°	4983.2	5160.5
26°	5002.4	5165.9
27°	4968.5	5137.1
28°	4965.6	5224.2
29°	4972.6	5148.3
30°	4955.9	5227.5
31°	4948.6	5231.6
32°	4958.5	5237.0
33°	4939.7	5225.3
34°	4933.2	5233.8
35°	4921.3	5233.5
36°	4909.0	5180.8
37°	4896.0	5251.7
38°	4904.7	5253.7
39°	4853.7	5227.7
40°	4877.7	5206.3
41°	4858.4	5181.4
42°	4835.7	5141.4
43°	4806.3	5100.1
44°	4835.5	5048.3



REPORT NUMBER: P1449873
CATALOG NUMBER: TWC150_T3_90W_4000K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	4753.5	4967.2
46°	4724.3	4894.3
47°	4686.7	4813.0
48°	4625.5	4718.7
49°	4557.9	4645.7
50°	4469.0	4545.3
51°	4379.7	4459.9
52°	4280.9	4359.8
53°	4174.3	4269.6
54°	4072.3	4171.5
55°	3975.4	4072.3
56°	3874.6	3963.7
57°	3784.9	3855.0
58°	3678.1	3750.5
59°	3572.3	3620.6
60°	3461.2	3422.1
61°	3354.8	3208.7
62°	3228.8	2975.4
63°	3115.0	2725.0
64°	2922.2	2461.6
65°	2706.0	2264.9
66°	2477.0	2118.3
67°	2214.5	1994.8
68°	2037.4	1843.2
69°	1867.0	1689.1
70°	1729.3	1576.2
71°	1599.1	1475.9
72°	1459.3	1395.2
73°	1359.1	1314.4
74°	1280.0	1224.7
75°	1201.5	1128.0
76°	1121.7	1038.9
77°	1043.5	955.9
78°	970.0	874.8
79°	890.2	784.4
80°	816.7	688.9
81°	767.6	591.8
82°	692.8	512.9
83°	593.7	449.1
84°	455.4	380.7
85°	366.3	308.8
86°	305.3	228.7
87°	235.2	170.0
88°	169.1	88.4
89°	99.9	0.0



REPORT NUMBER: P1449873
CATALOG NUMBER: TWC150_T3_90W_4000K

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	0.0	0.0
91°	0.0	0.0
92°	0.0	0.0
93°	0.0	0.0
94°	0.0	0.0
95°	0.0	0.0
96°	0.0	0.0
97°	0.0	0.0
98°	0.0	0.0
99°	0.0	0.0
100°	0.0	0.0
101°	0.0	0.0
102°	0.0	0.0
103°	0.0	0.0
104°	0.0	0.0
105°	0.0	0.0
106°	0.0	0.0
107°	0.0	0.0
108°	0.0	0.0
109°	0.0	0.0
110°	0.0	0.0
111°	0.0	0.0
112°	0.0	0.0
113°	0.0	0.0
114°	0.0	0.0
115°	0.0	0.0
116°	0.0	0.0
117°	0.0	0.0
118°	0.0	0.0
119°	0.0	0.0
120°	0.0	0.0
121°	0.0	0.0
122°	0.0	0.0
123°	0.0	0.0
124°	0.0	0.0
125°	0.0	0.0
126°	0.0	0.0
127°	0.0	0.0
128°	0.0	0.0
129°	0.0	0.0
130°	0.0	0.0
131°	0.0	0.0
132°	0.0	0.0
133°	0.0	0.0
134°	0.0	0.0



REPORT NUMBER: P1449873
CATALOG NUMBER: TWC150_T3_90W_4000K

CANDELA DISTRIBUTION (continued):

	330°	360°
135°	0.0	0.0
136°	0.0	0.0
137°	0.0	0.0
138°	0.0	0.0
139°	0.0	0.0
140°	0.0	0.0
141°	0.0	0.0
142°	0.0	0.0
143°	0.0	0.0
144°	0.0	0.0
145°	0.0	0.0
146°	0.0	0.0
147°	0.0	0.0
148°	0.0	0.0
149°	0.0	0.0
150°	0.0	0.0
151°	0.0	0.0
152°	0.0	0.0
153°	0.0	0.0
154°	0.0	0.0
155°	0.0	0.0
156°	0.0	0.0
157°	0.0	0.0
158°	0.0	0.0
159°	0.0	0.0
160°	0.0	0.0
161°	0.0	0.0
162°	0.0	0.0
163°	0.0	0.0
164°	0.0	0.0
165°	0.0	0.0
166°	0.0	0.0
167°	0.0	0.0
168°	0.0	0.0
169°	0.0	0.0
170°	0.0	0.0
171°	0.0	0.0
172°	0.0	0.0
173°	0.0	0.0
174°	0.0	0.0
175°	0.0	0.0
176°	0.0	0.0
177°	0.0	0.0
178°	0.0	0.0
179°	0.0	0.0

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

Scaled Data Report



REPORT NUMBER: P1449873
CATALOG NUMBER: TWC150_T3_90W_4000K

CANDELA DISTRIBUTION (continued):

	330°	360°
180°	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: SP1-2601-659-2

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-4000K

Data in this report applies to families of products including ;MWP2460W34VDDKYYAD

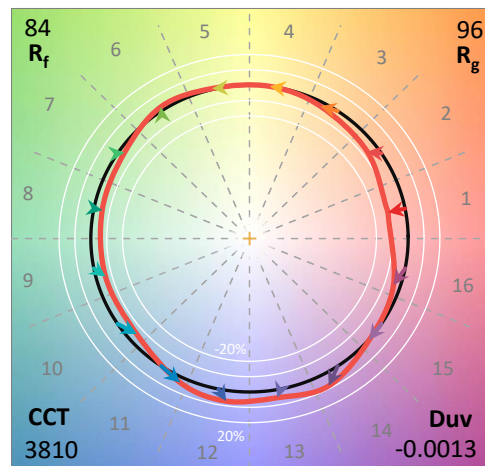
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 02/16/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **MWP2460W34VDDKYYAD-T4-24W-4000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 4000K

Spectral Parameters

CCT (K): 3810
 CIE u': 0.2295
 CIE v': 0.5035
 Duv: -0.0013
 CIE x: 0.3881
 CIE y: 0.3785
 CIE z: 0.2334
 Peak Wavelength (nm): 453
 Dominant Wavelength (nm): 580
 Purity: 30.07368
 Rf: 84.4
 Rg: 96.5

CRI (Ra):	84.5		
R1:	83.7	R9:	15.9
R2:	90.7	R10:	77.2
R3:	95.1	R11:	83.0
R4:	83.6	R12:	62.4
R5:	83.4	R13:	85.6
R6:	86.7	R14:	97.4
R7:	86.3	R15:	77.9
R8:	66.5		



Test Conditions

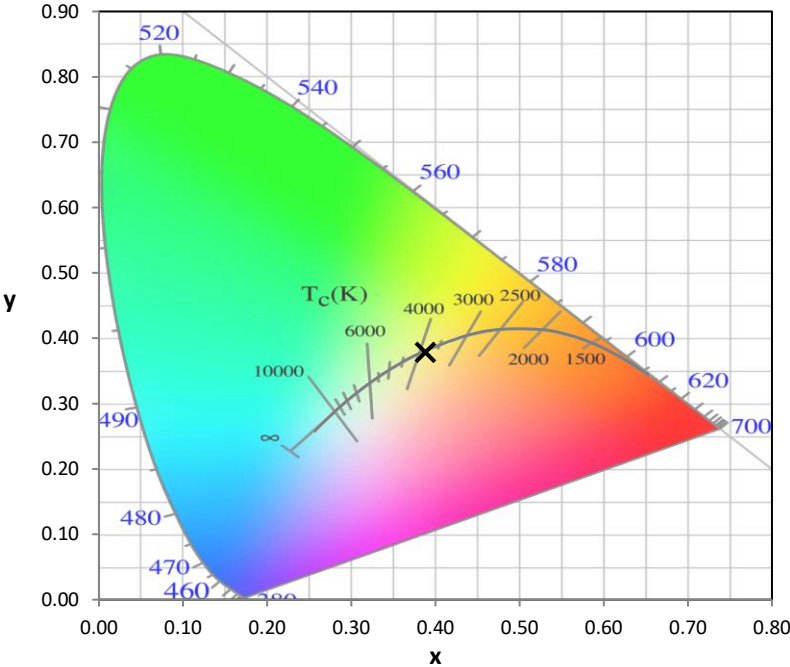
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-2

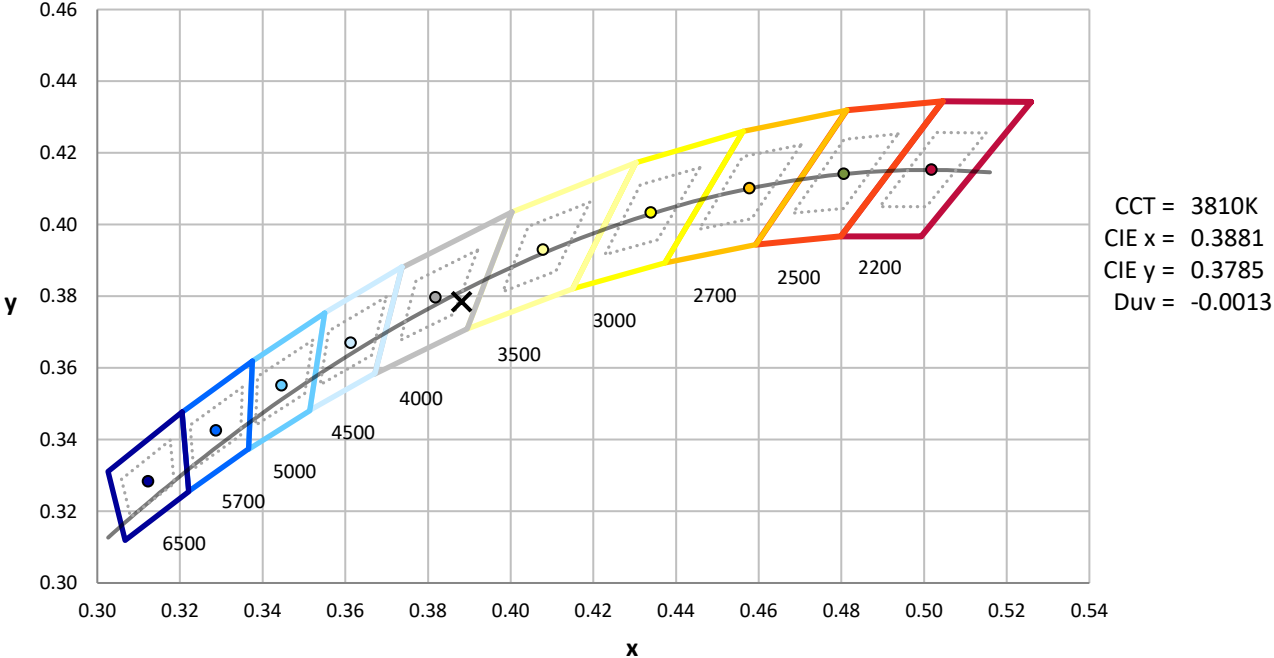
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

REPORT NUMBER: SP1-2601-659-2

CIE 1931 Chromaticity Diagram



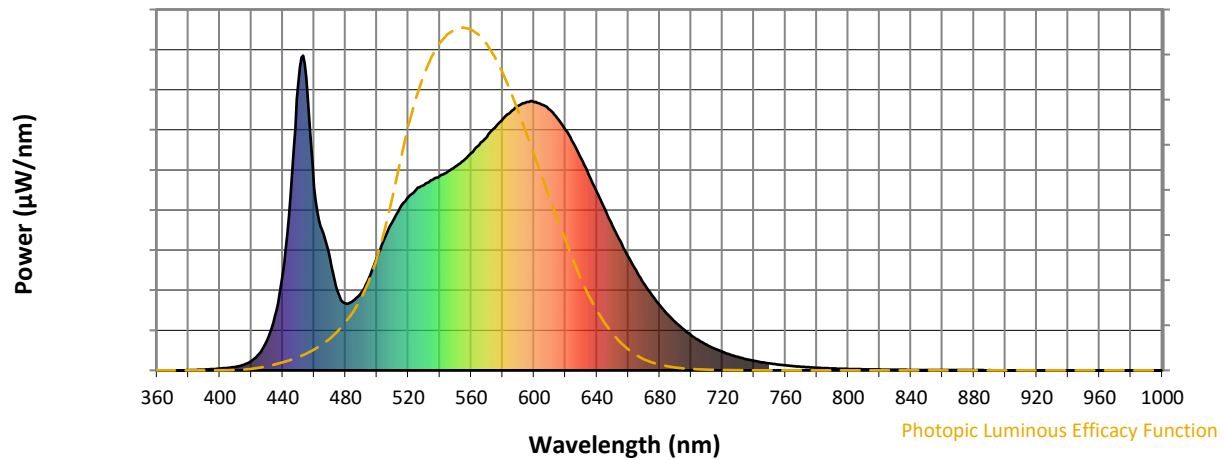
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2601-659-2

Photopic Flux vs. Wavelength

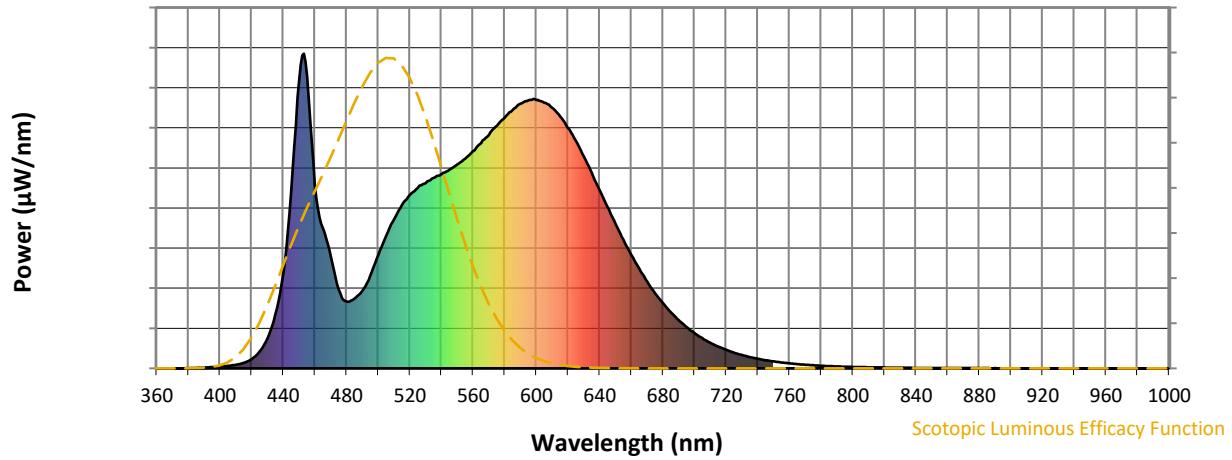


Photopic Lumens: NR

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	247	NR	620	764	NR	750	22	NR	880	1	NR
365	0	NR	495	294	NR	625	723	NR	755	19	NR	885	1	NR
370	0	NR	500	359	NR	630	674	NR	760	16	NR	890	1	NR
375	0	NR	505	421	NR	635	620	NR	765	14	NR	895	0	NR
380	1	NR	510	474	NR	640	566	NR	770	12	NR	900	0	NR
385	1	NR	515	518	NR	645	512	NR	775	10	NR	905	0	NR
390	3	NR	520	552	NR	650	459	NR	780	8	NR	910	0	NR
395	4	NR	525	574	NR	655	410	NR	785	7	NR	915	0	NR
400	6	NR	530	589	NR	660	361	NR	790	6	NR	920	0	NR
405	8	NR	535	605	NR	665	317	NR	795	5	NR	925	0	NR
410	11	NR	540	617	NR	670	276	NR	800	5	NR	930	0	NR
415	18	NR	545	632	NR	675	239	NR	805	4	NR	935	0	NR
420	30	NR	550	648	NR	680	207	NR	810	3	NR	940	0	NR
425	53	NR	555	666	NR	685	178	NR	815	3	NR	945	0	NR
430	95	NR	560	690	NR	690	153	NR	820	3	NR	950	0	NR
435	173	NR	565	716	NR	695	131	NR	825	2	NR	955	0	NR
440	304	NR	570	742	NR	700	112	NR	830	2	NR	960	0	NR
445	559	NR	575	771	NR	705	95	NR	835	2	NR	965	0	NR
450	915	NR	580	798	NR	710	81	NR	840	1	NR	970	0	NR
455	929	NR	585	820	NR	715	69	NR	845	1	NR	975	0	NR
460	582	NR	590	841	NR	720	59	NR	850	1	NR	980	0	NR
465	446	NR	595	852	NR	725	50	NR	855	1	NR	985	0	NR
470	356	NR	600	852	NR	730	42	NR	860	1	NR	990	0	NR
475	250	NR	605	845	NR	735	36	NR	865	1	NR	995	0	NR
480	212	NR	610	827	NR	740	30	NR	870	1	NR	1000	0	NR
485	221	NR	615	801	NR	745	26	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



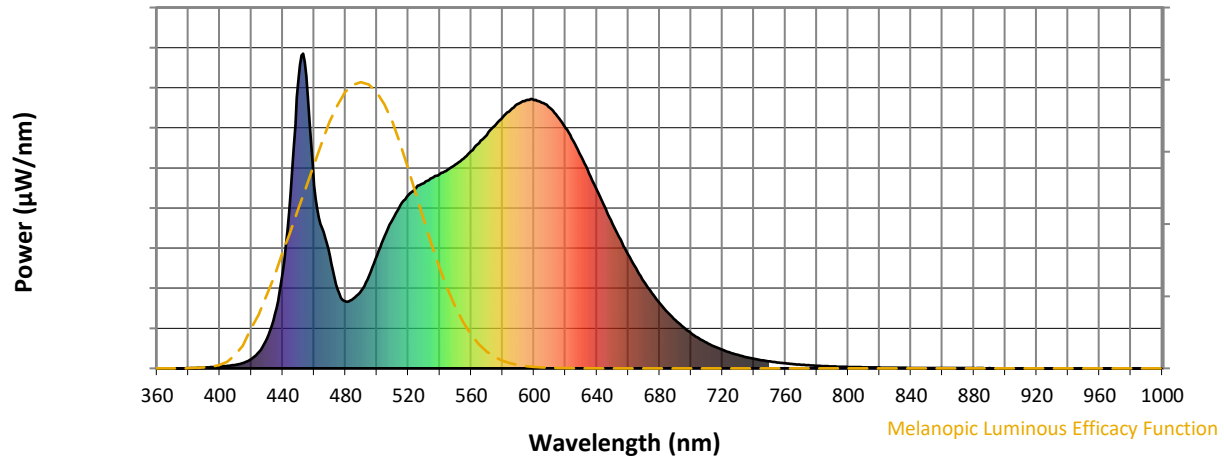
Scotopic Lumens: NR

S/P: 1.64

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	247	NR	620	764	NR	750	22	NR	880	1	NR
365	0	NR	495	294	NR	625	723	NR	755	19	NR	885	1	NR
370	0	NR	500	359	NR	630	674	NR	760	16	NR	890	1	NR
375	0	NR	505	421	NR	635	620	NR	765	14	NR	895	0	NR
380	1	NR	510	474	NR	640	566	NR	770	12	NR	900	0	NR
385	1	NR	515	518	NR	645	512	NR	775	10	NR	905	0	NR
390	3	NR	520	552	NR	650	459	NR	780	8	NR	910	0	NR
395	4	NR	525	574	NR	655	410	NR	785	7	NR	915	0	NR
400	6	NR	530	589	NR	660	361	NR	790	6	NR	920	0	NR
405	8	NR	535	605	NR	665	317	NR	795	5	NR	925	0	NR
410	11	NR	540	617	NR	670	276	NR	800	5	NR	930	0	NR
415	18	NR	545	632	NR	675	239	NR	805	4	NR	935	0	NR
420	30	NR	550	648	NR	680	207	NR	810	3	NR	940	0	NR
425	53	NR	555	666	NR	685	178	NR	815	3	NR	945	0	NR
430	95	NR	560	690	NR	690	153	NR	820	3	NR	950	0	NR
435	173	NR	565	716	NR	695	131	NR	825	2	NR	955	0	NR
440	304	NR	570	742	NR	700	112	NR	830	2	NR	960	0	NR
445	559	NR	575	771	NR	705	95	NR	835	2	NR	965	0	NR
450	915	NR	580	798	NR	710	81	NR	840	1	NR	970	0	NR
455	929	NR	585	820	NR	715	69	NR	845	1	NR	975	0	NR
460	582	NR	590	841	NR	720	59	NR	850	1	NR	980	0	NR
465	446	NR	595	852	NR	725	50	NR	855	1	NR	985	0	NR
470	356	NR	600	852	NR	730	42	NR	860	1	NR	990	0	NR
475	250	NR	605	845	NR	735	36	NR	865	1	NR	995	0	NR
480	212	NR	610	827	NR	740	30	NR	870	1	NR	1000	0	NR
485	221	NR	615	801	NR	745	26	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-2

Melanopic Flux vs. Wavelength



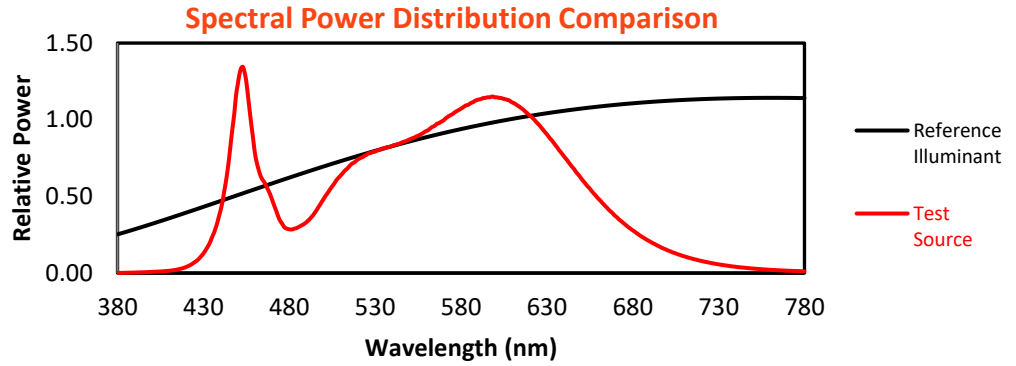
Melanopic Lumens: NR

M/P: 3.35

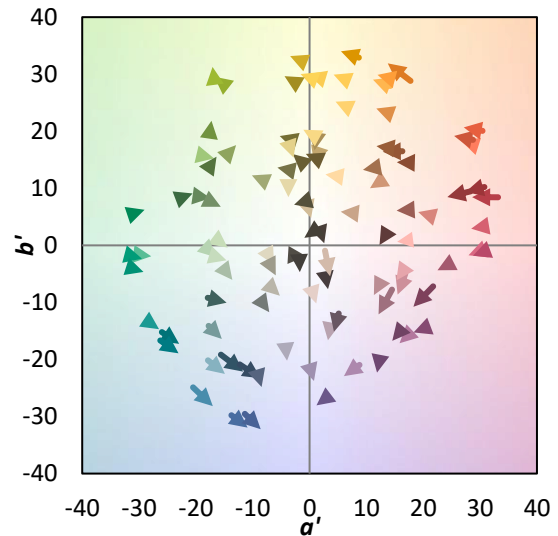
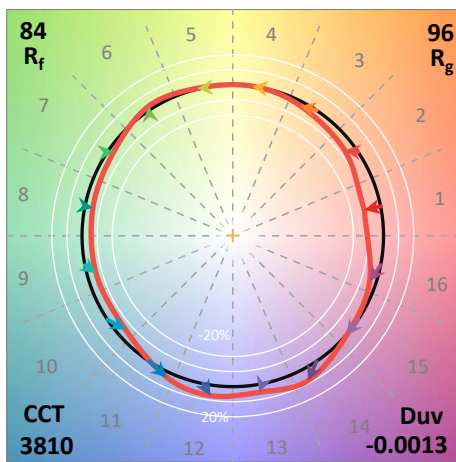
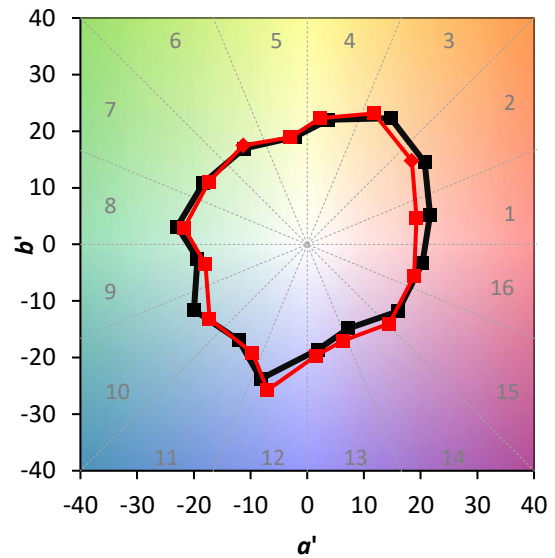
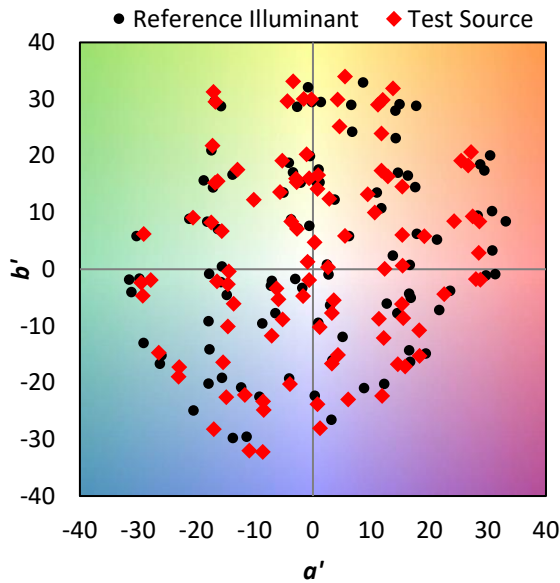
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	247	NR	620	764	NR	750	22	NR	880	1	NR
365	0	NR	495	294	NR	625	723	NR	755	19	NR	885	1	NR
370	0	NR	500	359	NR	630	674	NR	760	16	NR	890	1	NR
375	0	NR	505	421	NR	635	620	NR	765	14	NR	895	0	NR
380	1	NR	510	474	NR	640	566	NR	770	12	NR	900	0	NR
385	1	NR	515	518	NR	645	512	NR	775	10	NR	905	0	NR
390	3	NR	520	552	NR	650	459	NR	780	8	NR	910	0	NR
395	4	NR	525	574	NR	655	410	NR	785	7	NR	915	0	NR
400	6	NR	530	589	NR	660	361	NR	790	6	NR	920	0	NR
405	8	NR	535	605	NR	665	317	NR	795	5	NR	925	0	NR
410	11	NR	540	617	NR	670	276	NR	800	5	NR	930	0	NR
415	18	NR	545	632	NR	675	239	NR	805	4	NR	935	0	NR
420	30	NR	550	648	NR	680	207	NR	810	3	NR	940	0	NR
425	53	NR	555	666	NR	685	178	NR	815	3	NR	945	0	NR
430	95	NR	560	690	NR	690	153	NR	820	3	NR	950	0	NR
435	173	NR	565	716	NR	695	131	NR	825	2	NR	955	0	NR
440	304	NR	570	742	NR	700	112	NR	830	2	NR	960	0	NR
445	559	NR	575	771	NR	705	95	NR	835	2	NR	965	0	NR
450	915	NR	580	798	NR	710	81	NR	840	1	NR	970	0	NR
455	929	NR	585	820	NR	715	69	NR	845	1	NR	975	0	NR
460	582	NR	590	841	NR	720	59	NR	850	1	NR	980	0	NR
465	446	NR	595	852	NR	725	50	NR	855	1	NR	985	0	NR
470	356	NR	600	852	NR	730	42	NR	860	1	NR	990	0	NR
475	250	NR	605	845	NR	735	36	NR	865	1	NR	995	0	NR
480	212	NR	610	827	NR	740	30	NR	870	1	NR	1000	0	NR
485	221	NR	615	801	NR	745	26	NR	875	1	NR			

Summary

$R_f = 84.4$
 $R_g = 96.5$
 CIE $R_a = 84.5$
 $R_9 = 15.9$

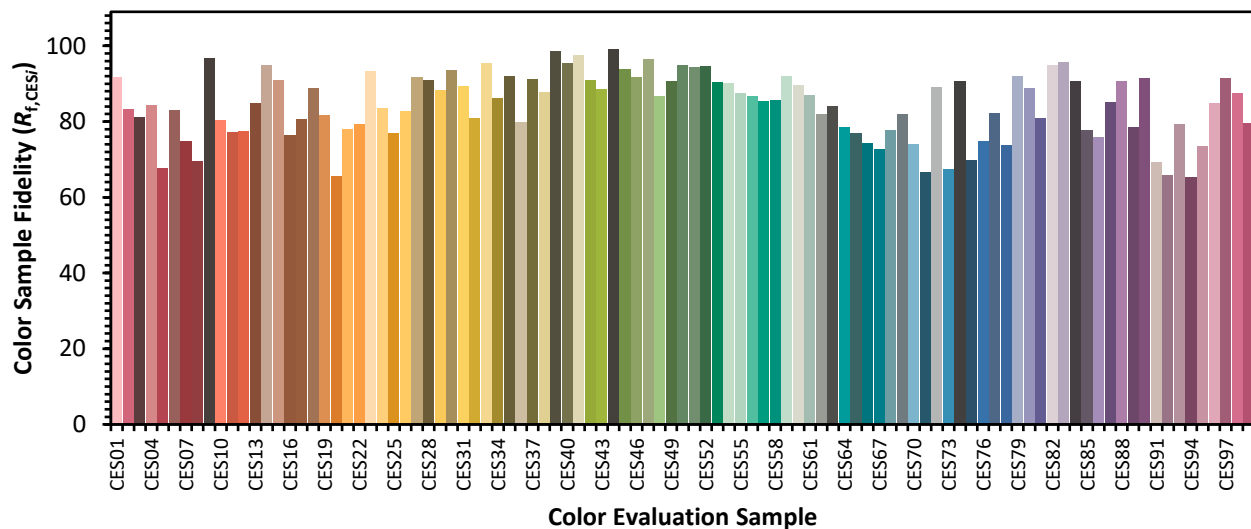


Color Vector Graphics

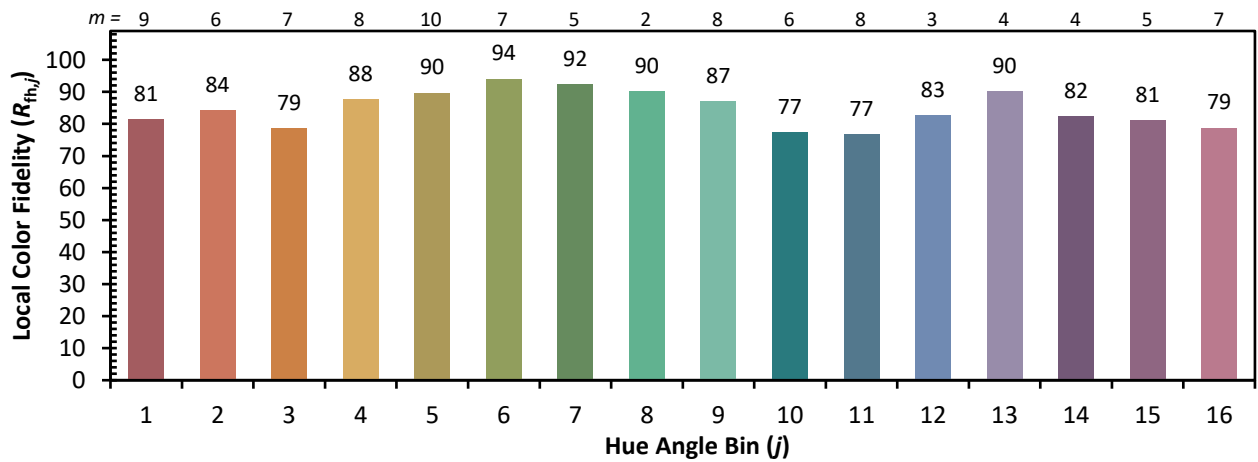
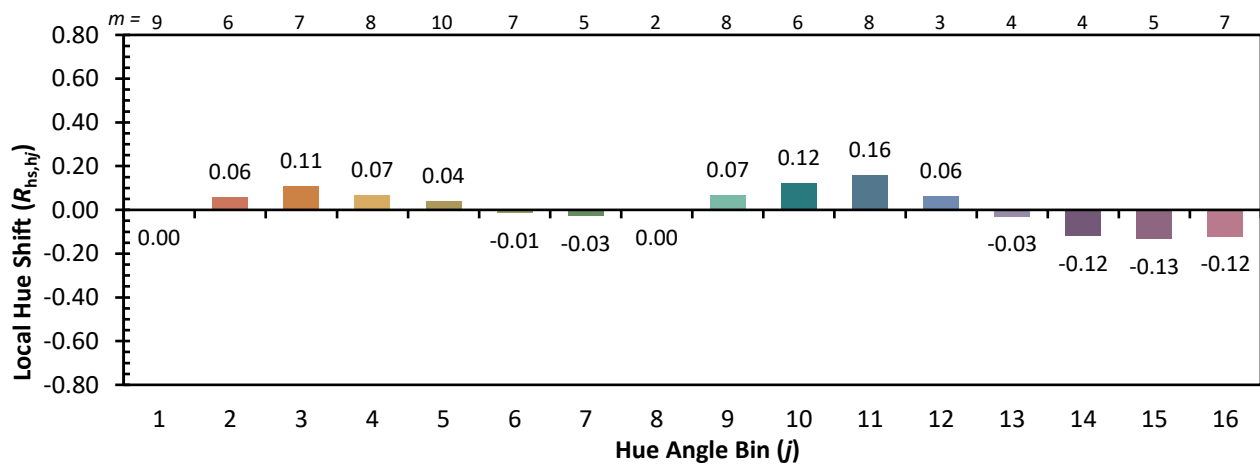
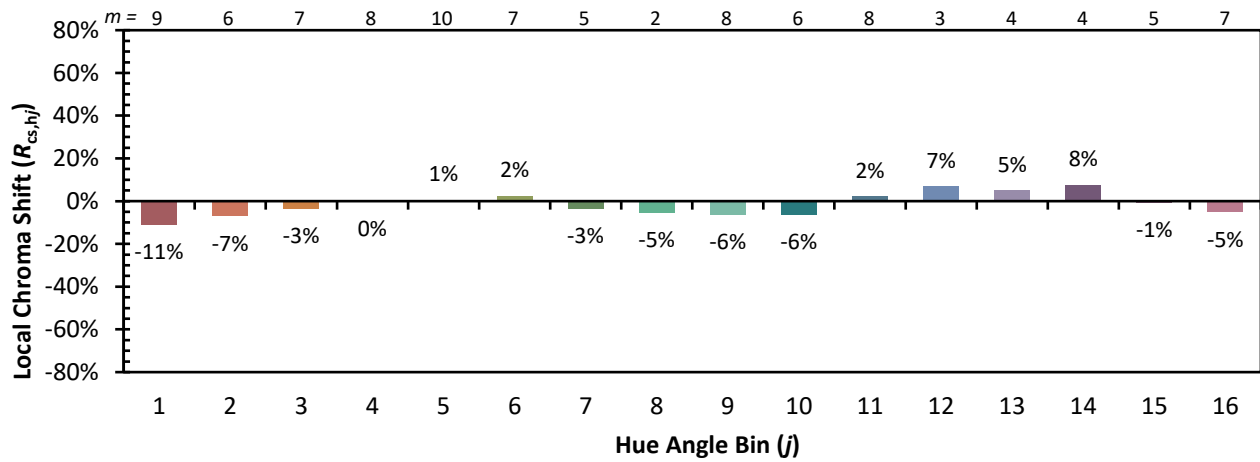


Individual Sample Fidelity Index ($R_{f,i}$)

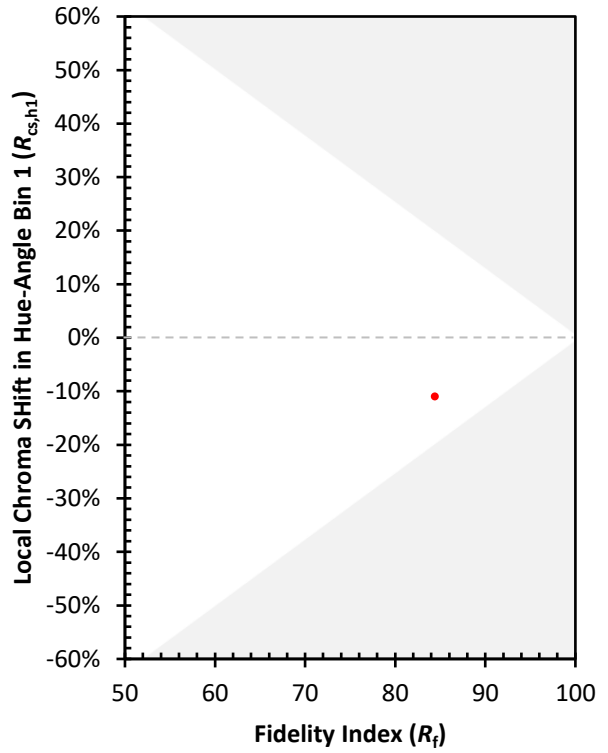
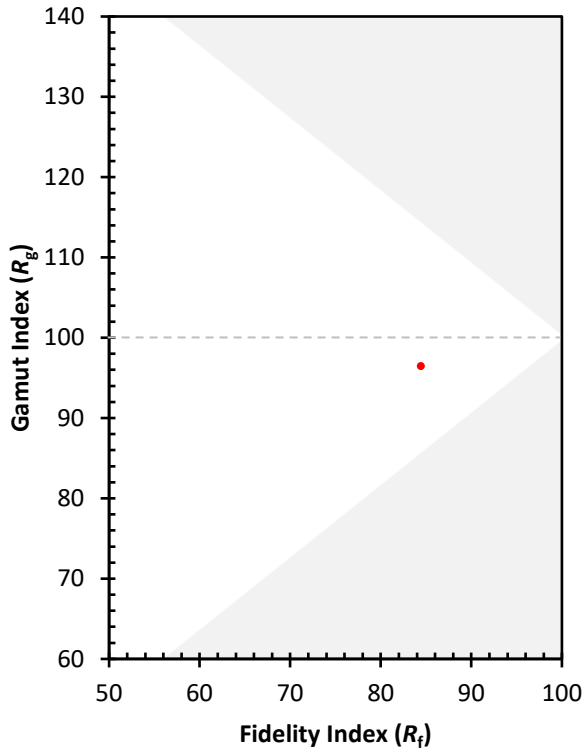
CES01 = 86	CES26 = 83	CES51 = 94	CES76 = 75
CES02 = 62	CES27 = 92	CES52 = 95	CES77 = 82
CES03 = 31	CES28 = 91	CES53 = 90	CES78 = 74
CES04 = 70	CES29 = 88	CES54 = 90	CES79 = 92
CES05 = 48	CES30 = 94	CES55 = 88	CES80 = 89
CES06 = 51	CES31 = 89	CES56 = 87	CES81 = 81
CES07 = 41	CES32 = 81	CES57 = 86	CES82 = 95
CES08 = 40	CES33 = 95	CES58 = 86	CES83 = 96
CES09 = 29	CES34 = 86	CES59 = 92	CES84 = 91
CES10 = 75	CES35 = 92	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 80	CES61 = 87	CES86 = 76
CES12 = 63	CES37 = 91	CES62 = 82	CES87 = 85
CES13 = 43	CES38 = 88	CES63 = 84	CES88 = 91
CES14 = 74	CES39 = 98	CES64 = 79	CES89 = 78
CES15 = 71	CES40 = 96	CES65 = 77	CES90 = 92
CES16 = 47	CES41 = 98	CES66 = 74	CES91 = 69
CES17 = 49	CES42 = 91	CES67 = 73	CES92 = 66
CES18 = 56	CES43 = 89	CES68 = 78	CES93 = 79
CES19 = 71	CES44 = 99	CES69 = 82	CES94 = 65
CES20 = 65	CES45 = 94	CES70 = 74	CES95 = 74
CES21 = 86	CES46 = 92	CES71 = 67	CES96 = 85
CES22 = 78	CES47 = 97	CES72 = 89	CES97 = 91
CES23 = 91	CES48 = 87	CES73 = 68	CES98 = 87
CES24 = 90	CES49 = 91	CES74 = 91	CES99 = 80
CES25 = 71	CES50 = 95	CES75 = 70	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)