

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: P1449851

Luminaire Tested: **TWC150\_T2\_120W\_3000K**

Issue Date: 5/19/2026

**Test Information**

Test Method: LM-79-08  
Report Number: P1449851  
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\_T2\_120W\_3000K  
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 120W  
3000K settings  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18409 lumens  
Efficiency: N/A  
Efficacy: 154.1 lumens/watt  
Luminous Opening: Rectangular (W 1.33' x L: 0.42' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

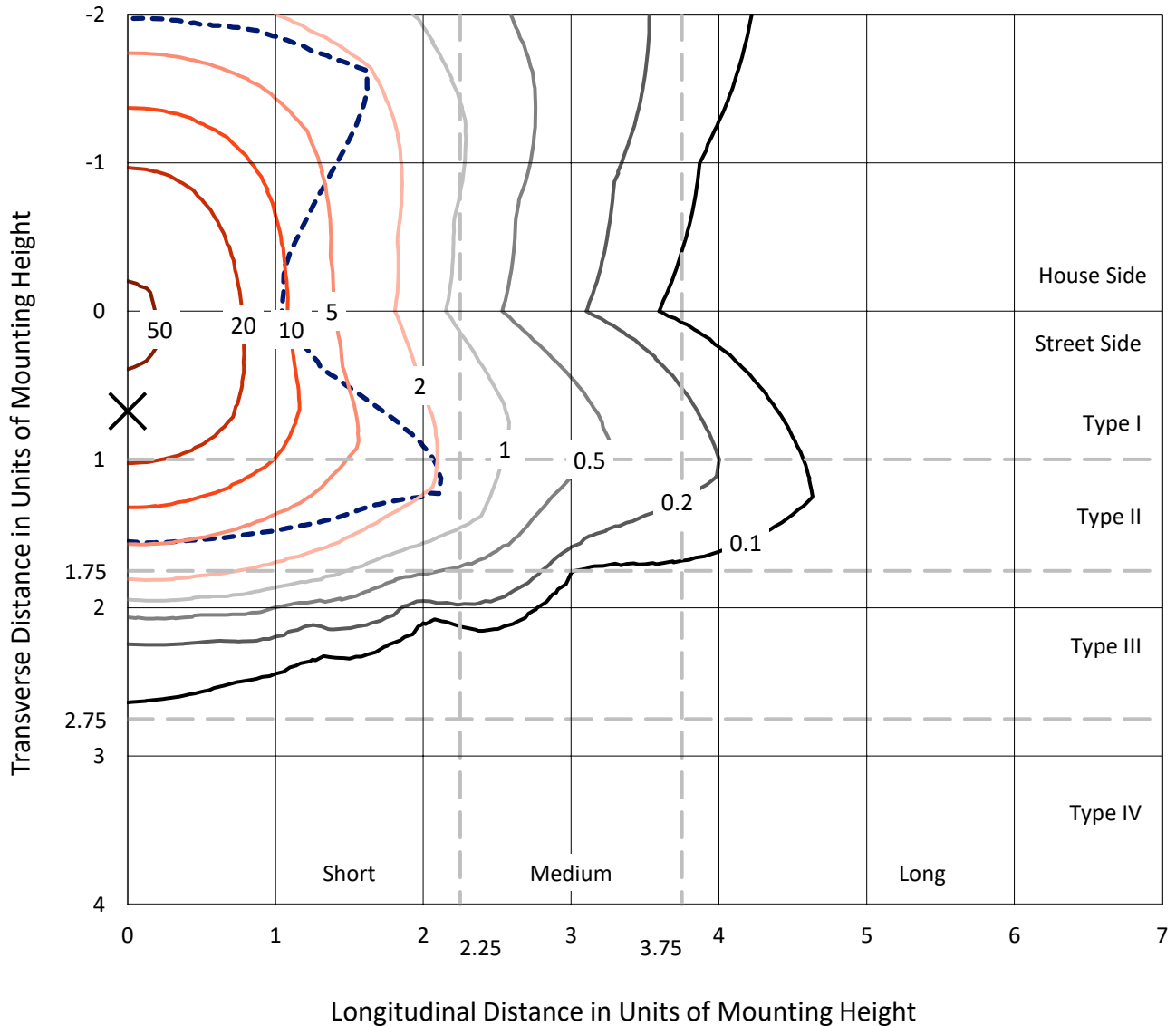
Input Watts (W): 119.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

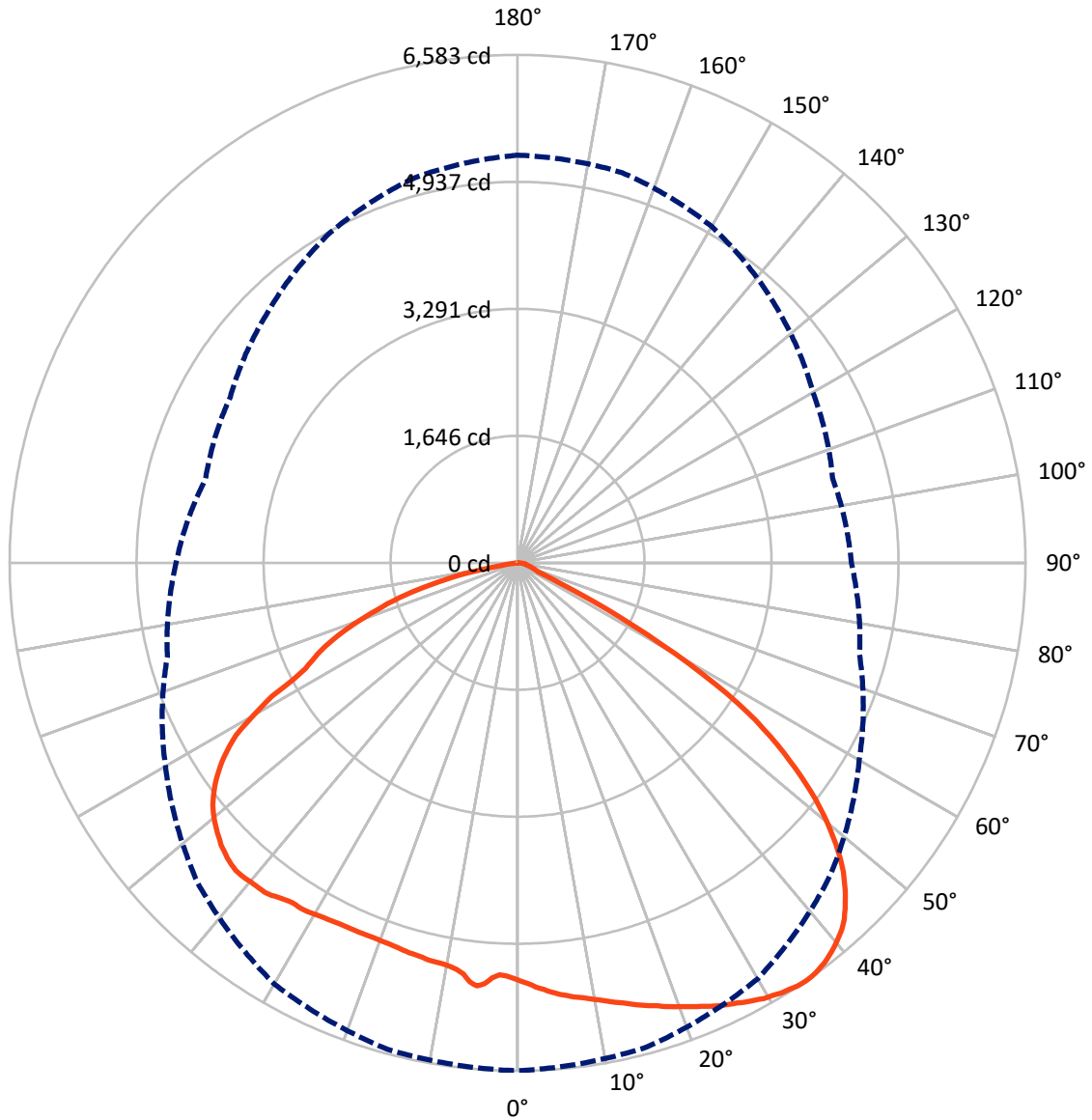
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 55.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 34-Deg Vertical

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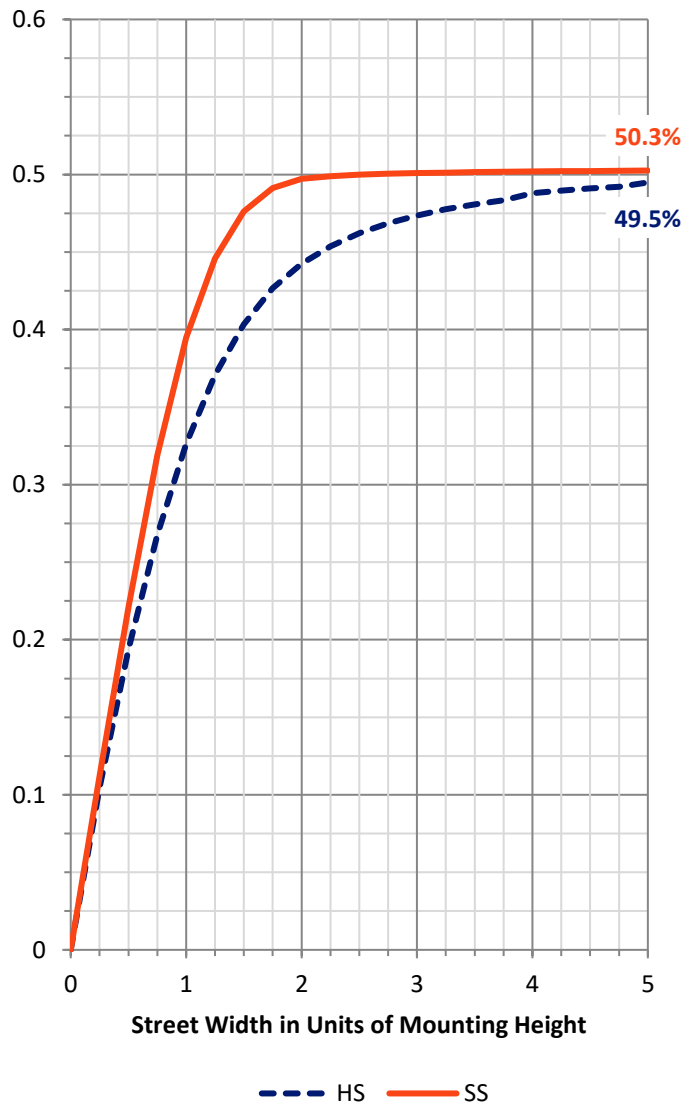
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9159.3	0.0	9159.3
	% Fixture	49.8	0.0	49.8
<b>Street Side</b>	Lumens	9249.7	0.0	9249.7
	% Fixture	50.2	0.0	50.2
<b>Total</b>	Lumens	18409.0	0.0	18409.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	521.6	2.8
10°-20°	1537.2	8.4
20°-30°	2466.3	13.4
30°-40°	3227.6	17.5
40°-50°	3677.7	20.0
50°-60°	3502.0	19.0
60°-70°	2273.4	12.3
70°-80°	1007.6	5.5
80°-90°	195.5	1.1
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°	18409.0	100.0
0°-180°	18409.0	100.0

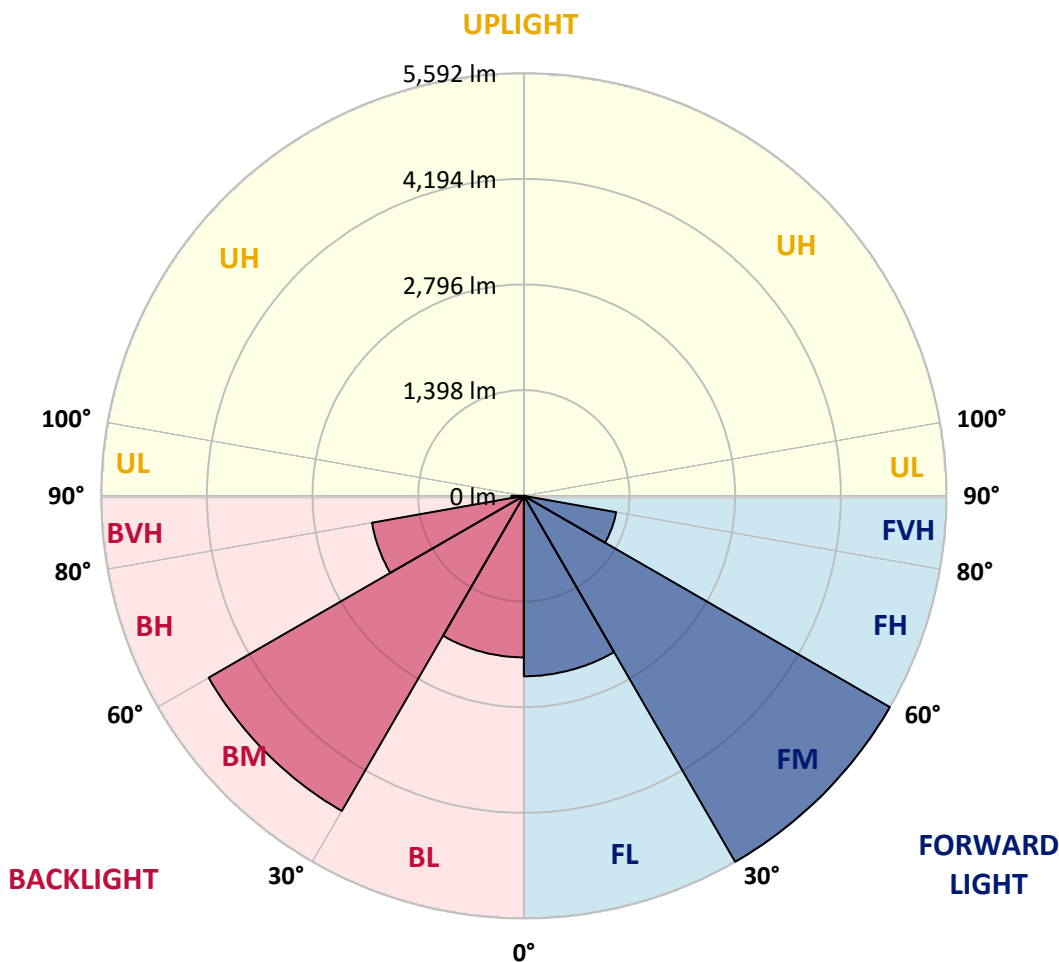


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2387.5	13.0			
FM	(30°-60°)	5592.0	30.4			
FH	(60°-80°)	1240.2	6.7			G1/1800
FVH	(80°-90°)	30.0	0.2			G1/100
BL	(0°-30°)	2137.6	11.6	B3/2500		
BM	(30°-60°)	4815.3	26.2	B3/5000		
BH	(60°-80°)	2040.9	11.1	B3/2500		G3/2500
BVH	(80°-90°)	165.5	0.9			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6
1°	5456.1	5452.9	5454.9	5441.6	5431.6	5427.3	5422.6	5412.3	5403.3	5396.6	5391.3
2°	5502.6	5493.8	5484.2	5468.8	5450.2	5432.2	5417.7	5399.0	5383.7	5376.1	5366.5
3°	5539.2	5534.9	5517.5	5493.4	5468.4	5433.6	5411.5	5384.3	5362.6	5348.1	5340.7
4°	5580.9	5568.9	5549.8	5519.1	5477.4	5435.1	5400.7	5368.6	5343.8	5342.0	5363.2
5°	5615.5	5604.1	5577.9	5541.4	5488.9	5437.1	5394.3	5352.6	5329.7	5367.9	5433.4
6°	5645.4	5631.3	5604.9	5560.7	5499.9	5431.0	5371.4	5326.6	5335.0	5431.6	5493.4
7°	5674.6	5656.0	5619.8	5573.4	5504.6	5429.5	5360.2	5310.9	5366.7	5481.5	5501.3
8°	5699.8	5681.6	5644.0	5583.4	5512.2	5425.4	5344.0	5297.4	5408.7	5486.8	5431.2
9°	5730.9	5710.5	5658.7	5600.8	5510.3	5415.4	5323.3	5284.7	5447.9	5444.5	5349.5
10°	5760.6	5732.8	5683.9	5608.6	5515.1	5400.5	5303.3	5291.6	5446.1	5356.3	5312.1
11°	5795.4	5768.4	5699.6	5616.7	5508.3	5392.7	5284.3	5307.4	5422.8	5293.1	5284.9
12°	5832.2	5801.5	5722.9	5630.5	5509.5	5380.2	5253.4	5323.5	5347.3	5261.1	5265.2
13°	5864.7	5831.6	5747.9	5635.4	5507.5	5362.8	5225.7	5334.6	5274.0	5232.5	5251.5
14°	5906.9	5867.6	5774.1	5646.0	5503.6	5344.8	5199.8	5341.6	5216.9	5208.4	5242.3
15°	5949.2	5907.5	5798.8	5657.7	5493.4	5322.9	5169.7	5319.5	5175.0	5188.1	5218.6
16°	5984.2	5941.4	5832.6	5666.9	5494.4	5309.4	5140.4	5280.8	5142.9	5166.0	5203.7
17°	6020.0	5977.9	5855.5	5684.9	5491.9	5290.8	5112.2	5220.0	5105.0	5142.9	5190.8
18°	6064.0	6007.5	5880.9	5698.8	5488.5	5269.9	5087.6	5136.7	5076.4	5114.0	5177.9
19°	6103.7	6046.6	5909.1	5713.3	5479.7	5244.2	5061.5	5061.2	5046.5	5092.8	5157.0
20°	6139.9	6074.6	5928.6	5722.1	5479.5	5225.7	5042.2	4997.2	5009.9	5066.6	5136.1
21°	6181.2	6112.1	5958.0	5729.7	5464.9	5206.7	5031.8	4948.5	4968.2	5038.1	5124.9
22°	6223.2	6143.6	5974.2	5738.5	5451.0	5184.0	5020.3	4900.4	4926.6	5013.2	5112.2
23°	6266.4	6186.2	5995.3	5740.1	5435.1	5151.7	5007.8	4852.1	4891.6	4987.6	5091.3
24°	6307.9	6222.2	6017.8	5745.4	5421.8	5123.4	4989.0	4809.0	4852.6	4964.1	5079.3
25°	6342.1	6255.7	6042.1	5742.2	5401.5	5077.8	4964.5	4765.6	4813.9	4938.5	5073.9
26°	6375.0	6290.1	6064.8	5739.5	5374.5	5034.4	4923.1	4706.5	4766.8	4906.8	5064.1
27°	6416.1	6321.4	6096.1	5744.2	5353.2	4994.1	4873.2	4656.5	4724.7	4881.4	5051.8
28°	6447.8	6350.2	6111.5	5734.6	5322.9	4944.0	4804.7	4597.6	4683.6	4859.7	5048.6
29°	6487.1	6386.5	6134.4	5736.6	5288.8	4896.1	4733.1	4540.1	4645.7	4831.9	5046.1
30°	6507.8	6419.6	6147.5	5731.3	5259.3	4836.4	4643.9	4481.0	4601.3	4807.7	5036.3
31°	6537.7	6441.1	6173.1	5737.3	5224.5	4778.5	4560.4	4421.9	4553.0	4786.3	5035.5
32°	6555.7	6466.9	6186.4	5734.0	5186.1	4720.0	4477.9	4356.6	4512.1	4763.3	5030.1
33°	6575.5	6480.2	6208.0	5730.5	5149.4	4654.1	4396.7	4293.0	4462.2	4741.9	5033.4
34°	6582.7	6494.9	6224.0	5729.9	5113.2	4587.2	4324.9	4226.9	4420.0	4721.2	5032.0
35°	6578.6	6498.0	6240.4	5727.0	5077.4	4522.7	4246.7	4161.0	4367.2	4696.2	5027.1
36°	6557.7	6495.3	6240.2	5717.0	5040.2	4449.3	4167.5	4095.1	4321.6	4681.5	5004.8
37°	6535.2	6474.4	6250.2	5719.5	5004.0	4376.6	4086.3	4027.4	4274.8	4653.9	5002.7
38°	6496.7	6446.8	6243.0	5723.5	4974.1	4308.5	4005.3	3960.3	4231.4	4624.2	5004.4
39°	6450.5	6413.3	6226.3	5722.3	4941.8	4235.7	3921.2	3897.5	4184.9	4586.8	5015.2
40°	6400.0	6366.6	6211.5	5725.0	4911.9	4160.8	3836.9	3834.7	4139.3	4560.8	5027.3
41°	6343.9	6314.2	6180.8	5725.0	4883.9	4092.7	3752.6	3771.8	4091.2	4552.4	5022.6
42°	6266.4	6250.0	6144.4	5721.7	4855.8	4021.3	3670.0	3699.4	4037.0	4538.1	5020.5
43°	6167.1	6175.5	6094.5	5718.8	4833.1	3953.9	3577.3	3627.0	3973.2	4508.6	5019.9
44°	6061.1	6082.8	6037.4	5713.5	4810.6	3890.3	3482.1	3555.6	3928.0	4475.9	5023.2



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	5945.1	5984.0	5977.3	5698.2	4790.8	3828.9	3388.2	3478.0	3882.7	4441.7	5023.0
46°	5820.7	5868.6	5899.9	5678.9	4772.8	3770.6	3298.4	3402.1	3837.5	4431.3	5010.9
47°	5670.6	5741.8	5822.4	5648.3	4761.3	3708.8	3197.9	3325.8	3787.6	4415.7	4983.7
48°	5508.3	5599.1	5719.2	5618.2	4743.7	3639.1	3102.8	3242.7	3728.5	4393.4	4951.8
49°	5334.6	5437.1	5606.9	5566.2	4731.4	3565.6	3002.1	3152.5	3670.2	4365.2	4915.8
50°	5145.3	5253.0	5483.8	5512.2	4723.0	3486.0	2904.1	3054.3	3624.5	4334.1	4874.0
51°	4938.1	5069.8	5344.0	5454.1	4712.8	3404.4	2803.5	2959.2	3575.2	4294.6	4828.8
52°	4719.2	4859.1	5189.9	5389.2	4708.1	3318.9	2699.3	2877.9	3514.9	4259.6	4785.9
53°	4482.4	4639.8	5013.0	5304.5	4696.4	3219.0	2599.9	2801.0	3449.6	4227.1	4736.5
54°	4237.5	4403.2	4812.5	5206.1	4682.1	3132.9	2501.5	2706.7	3381.7	4188.4	4683.3
55°	3977.7	4152.0	4599.5	5089.5	4671.3	3044.5	2394.5	2610.1	3307.0	4144.6	4625.4
56°	3699.0	3886.4	4370.9	4963.9	4652.5	2958.3	2289.5	2521.1	3245.0	4093.9	4562.2
57°	3383.7	3598.5	4119.1	4819.2	4624.2	2875.3	2185.6	2432.9	3173.6	4041.9	4492.7
58°	3005.0	3284.5	3853.1	4643.7	4579.4	2792.6	2077.5	2340.9	3105.7	3988.9	4412.7
59°	2579.0	2912.1	3566.8	4447.6	4529.3	2711.0	1970.1	2241.2	3031.8	3935.5	4318.1
60°	2137.9	2483.5	3256.0	4219.9	4462.4	2629.3	1858.7	2139.3	2956.1	3881.9	4213.0
61°	1722.4	2041.4	2913.5	3965.0	4390.4	2553.6	1752.3	2037.3	2879.0	3828.1	4086.1
62°	1307.3	1627.2	2502.1	3664.6	4300.5	2488.0	1653.0	1941.6	2806.5	3754.7	3895.6
63°	892.1	1213.1	2073.4	3342.0	4195.0	2429.2	1546.0	1839.7	2738.6	3674.7	3705.3
64°	578.4	799.1	1645.7	3006.2	4068.5	2381.2	1440.7	1744.8	2666.6	3583.8	3511.0
65°	380.1	499.0	1218.0	2613.0	3921.6	2348.2	1340.0	1651.2	2592.7	3490.9	3181.2
66°	292.6	328.7	790.2	2175.7	3745.7	2332.9	1240.5	1557.7	2513.3	3366.3	2941.6
67°	265.5	258.0	483.0	1726.7	3529.2	2324.5	1145.5	1464.2	2435.4	3166.0	2801.0
68°	246.8	234.5	305.8	1277.5	3261.6	2320.2	1049.7	1374.0	2343.5	2917.8	2683.6
69°	228.4	216.0	239.3	828.3	2961.2	2312.8	957.5	1285.9	2252.9	2725.3	2568.0
70°	210.4	198.3	215.3	482.6	2578.8	2311.2	867.7	1201.5	2166.1	2604.2	2456.9
71°	193.6	183.3	197.7	284.9	2074.3	2323.3	780.8	1116.2	2068.1	2486.7	2354.6
72°	180.1	168.4	180.2	206.6	1535.7	2325.5	702.3	1032.5	1911.7	2357.8	2246.9
73°	166.7	153.4	162.6	183.3	996.5	2270.9	624.3	946.4	1764.6	2224.2	2133.0
74°	153.3	140.3	145.0	161.0	457.3	2112.5	549.7	862.9	1667.3	2098.2	2005.1
75°	139.6	126.1	128.5	138.7	253.7	1910.0	479.5	784.4	1585.7	1979.1	1871.1
76°	128.0	113.2	109.6	123.6	213.8	1692.3	409.4	706.4	1495.9	1863.0	1709.8
77°	119.2	103.2	95.3	111.8	176.3	1474.4	339.5	632.9	1406.9	1755.0	1524.0
78°	113.6	94.8	83.4	98.3	138.8	1256.5	281.0	544.1	1324.7	1650.8	1355.9
79°	109.0	89.6	74.9	81.7	125.8	958.6	228.4	474.5	1237.4	1550.9	1200.4
80°	102.9	85.1	68.2	66.5	125.7	724.4	181.2	404.8	1151.7	1421.5	1079.7
81°	96.0	79.5	63.0	56.4	116.8	506.5	141.6	335.4	1070.0	1285.9	955.6
82°	87.8	73.2	58.1	49.3	100.0	329.6	107.6	281.6	981.4	1147.7	681.1
83°	72.5	63.6	53.1	43.0	82.8	194.2	77.9	230.7	893.5	1042.2	406.7
84°	57.3	52.1	44.9	37.3	56.9	145.0	59.6	181.0	772.1	946.7	137.2
85°	41.2	38.6	33.8	31.8	33.5	96.2	41.3	136.8	621.7	756.4	79.0
86°	28.7	29.2	24.6	23.7	21.5	47.4	23.1	95.4	497.5	566.1	21.7
87°	19.6	19.9	16.8	16.3	14.6	26.0	13.2	64.6	373.3	375.8	10.6
88°	10.5	10.7	9.1	8.9	7.6	17.3	6.0	33.8	249.1	185.4	3.7
89°	1.4	1.5	1.4	1.5	1.6	9.0	2.0	3.7	125.0	1.3	0.9



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
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: P1449851  
 CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
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: P1449851  
CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
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: P1449851

CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6	5421.6
1°	5386.2	5385.7	5390.0	5386.4	5394.5	5400.7	5407.6	5423.4	5432.0	5437.5	5444.7
2°	5354.0	5356.9	5355.1	5358.7	5377.4	5386.6	5399.9	5418.7	5441.2	5453.7	5471.5
3°	5338.5	5344.8	5336.0	5337.3	5345.0	5368.6	5383.3	5411.1	5439.8	5468.8	5502.0
4°	5389.0	5387.8	5370.8	5342.8	5325.6	5344.8	5369.2	5407.6	5451.4	5485.2	5525.7
5°	5470.0	5474.1	5448.8	5403.3	5335.0	5322.3	5354.0	5396.2	5448.8	5503.0	5549.6
6°	5508.5	5509.5	5508.1	5461.4	5379.2	5309.2	5335.0	5383.3	5447.9	5515.5	5567.6
7°	5477.4	5467.0	5482.9	5488.7	5433.0	5314.3	5315.4	5373.5	5448.8	5524.5	5587.1
8°	5381.5	5371.2	5389.4	5453.1	5464.9	5335.2	5293.3	5360.8	5450.0	5531.2	5600.2
9°	5328.9	5328.9	5329.5	5359.8	5455.9	5373.5	5266.5	5339.3	5437.9	5533.5	5614.1
10°	5305.5	5303.9	5302.5	5301.5	5390.0	5399.7	5249.9	5323.1	5433.6	5539.0	5629.4
11°	5285.7	5287.7	5282.2	5273.8	5312.3	5404.0	5234.5	5303.7	5418.3	5536.3	5636.0
12°	5281.8	5283.0	5268.5	5245.2	5256.6	5380.2	5225.7	5275.1	5411.1	5536.1	5650.7
13°	5269.9	5275.3	5262.0	5229.0	5224.3	5321.5	5231.5	5248.7	5397.8	5535.5	5664.6
14°	5257.1	5261.6	5240.1	5215.9	5190.8	5245.4	5244.8	5227.2	5386.6	5536.1	5678.1
15°	5244.2	5248.3	5227.6	5198.3	5160.3	5179.5	5243.5	5204.5	5369.6	5541.4	5697.6
16°	5235.0	5244.0	5220.6	5173.0	5138.2	5129.0	5247.8	5167.4	5354.0	5545.7	5712.9
17°	5226.2	5233.7	5209.0	5157.4	5107.1	5093.0	5226.8	5139.6	5336.0	5543.7	5732.3
18°	5211.6	5219.4	5190.1	5135.9	5075.8	5051.0	5190.1	5105.0	5327.0	5543.7	5752.6
19°	5196.9	5214.1	5180.9	5121.0	5041.8	5012.8	5138.8	5078.0	5310.2	5540.4	5770.4
20°	5194.0	5210.0	5166.8	5096.0	5020.3	4975.7	5069.8	5038.1	5292.0	5538.4	5774.9
21°	5189.5	5204.5	5159.3	5074.5	4992.3	4939.3	4992.3	5006.4	5278.5	5539.0	5788.8
22°	5184.0	5203.2	5153.9	5057.2	4958.7	4894.5	4915.4	4972.0	5253.4	5527.5	5798.0
23°	5184.6	5208.6	5148.4	5043.7	4925.8	4840.5	4850.1	4943.0	5228.6	5520.0	5809.7
24°	5179.9	5208.6	5146.4	5019.1	4893.3	4795.5	4792.4	4912.9	5194.4	5504.2	5819.3
25°	5177.3	5210.6	5144.3	5009.1	4866.3	4756.4	4735.5	4895.7	5157.8	5487.4	5823.4
26°	5184.0	5214.1	5136.7	4993.1	4835.6	4706.3	4681.1	4879.4	5123.4	5468.8	5830.1
27°	5182.0	5217.8	5138.8	4983.3	4804.9	4654.5	4623.4	4855.6	5077.6	5455.5	5835.1
28°	5186.3	5228.0	5138.8	4967.1	4770.7	4601.7	4573.1	4832.1	5030.6	5426.1	5838.5
29°	5197.7	5238.0	5141.0	4949.1	4742.5	4558.3	4517.2	4798.9	4981.2	5405.2	5845.9
30°	5200.0	5249.3	5149.2	4937.7	4710.6	4504.9	4453.0	4745.8	4926.6	5375.7	5856.7
31°	5221.7	5267.1	5152.3	4933.4	4680.5	4458.1	4385.2	4685.8	4868.9	5351.4	5861.9
32°	5229.8	5281.8	5166.8	4919.9	4646.9	4403.7	4323.5	4611.3	4816.7	5329.1	5857.8
33°	5234.5	5285.7	5168.9	4916.4	4607.8	4351.7	4250.8	4521.1	4757.4	5297.4	5869.4
34°	5233.9	5282.4	5165.4	4910.9	4583.1	4299.1	4187.8	4424.7	4698.5	5270.4	5863.9
35°	5235.0	5301.7	5160.1	4902.1	4546.3	4249.2	4118.8	4326.7	4636.9	5242.7	5872.1
36°	5255.8	5327.2	5164.4	4884.7	4516.2	4195.6	4046.6	4227.1	4575.7	5226.6	5876.2
37°	5282.6	5360.0	5185.6	4860.9	4486.5	4142.0	3971.7	4142.0	4514.8	5196.3	5884.8
38°	5301.9	5380.4	5207.7	4855.6	4454.8	4085.5	3902.2	4051.7	4456.6	5181.6	5885.0
39°	5310.5	5383.7	5222.3	4852.1	4415.1	4026.2	3832.6	3966.2	4395.9	5159.5	5887.0
40°	5314.7	5388.8	5219.4	4844.0	4370.7	3971.9	3763.0	3876.4	4330.6	5139.2	5882.3
41°	5322.3	5397.4	5217.6	4836.0	4336.1	3919.4	3677.3	3793.1	4266.6	5116.1	5888.5
42°	5329.7	5407.6	5234.8	4823.5	4305.7	3866.8	3593.8	3706.2	4202.9	5104.0	5875.6
43°	5337.7	5406.4	5238.0	4822.9	4282.3	3814.0	3506.3	3614.1	4142.0	5096.6	5865.3
44°	5326.2	5388.4	5237.2	4822.7	4256.8	3745.2	3422.0	3522.0	4073.8	5093.0	5841.8



REPORT NUMBER: P1449851

CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	5304.5	5365.1	5219.6	4817.4	4211.1	3671.0	3337.3	3428.9	4005.9	5088.3	5812.8
46°	5272.2	5331.3	5189.7	4809.4	4171.4	3597.9	3253.0	3335.4	3944.1	5079.5	5773.9
47°	5239.0	5300.4	5153.9	4792.4	4135.8	3527.8	3169.5	3236.6	3878.2	5070.0	5725.8
48°	5202.2	5254.2	5118.9	4769.9	4104.3	3472.7	3083.8	3142.7	3818.3	5065.1	5666.3
49°	5158.4	5210.8	5075.6	4739.4	4065.7	3405.6	2997.0	3039.8	3755.7	5057.6	5609.2
50°	5111.6	5161.9	5036.3	4704.8	4023.9	3336.2	2907.4	2937.9	3690.8	5046.7	5539.2
51°	5059.4	5105.9	4989.8	4656.1	3976.0	3268.7	2816.4	2840.1	3632.1	5034.4	5458.8
52°	5008.1	5047.1	4936.2	4615.2	3932.3	3202.8	2716.9	2738.8	3571.1	5020.3	5354.2
53°	4938.5	4966.1	4877.7	4565.1	3897.9	3143.5	2615.8	2638.1	3515.9	4996.0	5243.5
54°	4864.2	4883.4	4816.7	4516.4	3863.7	3073.1	2514.8	2533.0	3467.8	4960.0	5111.2
55°	4779.3	4790.1	4735.9	4461.4	3829.5	2998.7	2424.5	2426.4	3422.2	4917.4	4965.1
56°	4682.3	4680.5	4648.6	4407.3	3783.7	2912.5	2328.8	2318.3	3386.8	4853.0	4802.4
57°	4571.4	4564.5	4546.1	4340.4	3733.4	2829.7	2227.1	2209.9	3363.0	4790.6	4607.4
58°	4447.4	4425.8	4431.5	4278.4	3686.1	2743.1	2125.4	2101.5	3333.8	4714.0	4398.7
59°	4314.2	4282.5	4307.9	4201.9	3641.1	2662.3	2027.1	1995.3	3310.1	4624.0	4154.9
60°	4168.0	4061.2	4171.8	4122.5	3581.2	2579.8	1929.8	1891.7	3280.4	4522.9	3889.1
61°	3903.4	3839.8	3939.6	4024.3	3519.0	2500.6	1833.1	1788.6	3251.7	4398.9	3598.3
62°	3639.1	3617.8	3707.6	3895.8	3453.3	2416.1	1732.7	1685.6	3239.7	4261.7	3279.4
63°	3374.7	3273.2	3474.8	3767.3	3372.1	2326.9	1627.9	1579.4	3226.6	4088.2	2932.2
64°	3105.5	3070.5	3156.8	3636.2	3293.1	2245.3	1523.7	1472.7	3220.4	3894.0	2548.5
65°	2961.4	2952.6	2968.0	3382.3	3202.0	2160.4	1420.0	1373.3	3206.5	3662.0	2115.0
66°	2852.8	2842.5	2842.5	3075.2	3109.5	2072.0	1319.7	1275.4	3198.3	3388.6	1677.4
67°	2743.9	2719.8	2741.1	2859.7	3002.5	1983.9	1221.8	1177.5	3192.4	3078.4	1239.8
68°	2617.5	2577.4	2633.6	2718.3	2869.5	1893.5	1125.1	1073.1	3156.6	2696.2	802.2
69°	2480.0	2418.4	2509.4	2581.9	2668.4	1799.3	1030.8	972.0	3078.4	2252.1	482.2
70°	2336.4	2260.4	2385.5	2453.8	2485.9	1709.5	939.9	874.4	2942.2	1738.5	294.3
71°	2173.7	2081.6	2241.4	2335.1	2375.8	1618.6	856.2	777.8	2744.1	1223.0	219.2
72°	2008.3	1919.4	2091.0	2235.1	2282.7	1530.8	778.2	688.3	2558.8	707.5	195.2
73°	1850.3	1767.9	1929.5	2141.4	2172.7	1435.4	697.9	602.9	2408.0	386.8	176.4
74°	1684.0	1599.2	1763.1	2045.3	2065.3	1297.2	624.5	527.0	2166.9	229.5	157.7
75°	1520.0	1427.4	1595.0	1945.3	1956.3	1184.2	554.1	452.6	1889.1	195.9	139.0
76°	1344.1	1233.6	1432.9	1834.6	1848.0	1100.9	492.9	385.2	1502.3	164.3	119.1
77°	1165.2	1048.7	1265.0	1694.7	1736.0	1020.7	431.7	329.2	1111.7	132.8	102.1
78°	1002.1	871.0	1113.8	1524.9	1615.7	936.9	370.7	282.4	721.1	121.4	86.2
79°	825.8	655.5	956.4	1342.7	1499.4	858.4	319.3	242.6	403.0	115.7	71.9
80°	596.5	440.0	786.6	1176.2	1376.2	784.7	262.1	202.1	217.8	105.8	61.2
81°	367.1	226.1	517.7	1059.0	1242.0	709.1	212.7	164.7	177.0	86.3	54.3
82°	142.6	74.0	250.0	966.3	1116.4	634.4	173.1	127.4	138.0	68.4	48.3
83°	104.3	58.4	176.3	678.6	976.4	557.2	135.8	90.0	99.0	49.5	43.1
84°	66.0	42.7	102.6	390.9	869.2	472.5	103.7	64.6	95.8	34.7	38.0
85°	28.2	27.2	29.6	103.5	767.8	387.8	75.5	44.9	83.2	26.9	31.4
86°	17.2	16.1	18.7	57.4	480.4	303.4	54.6	29.0	61.5	21.2	21.7
87°	8.3	7.9	8.6	11.3	196.4	226.3	33.8	19.7	36.5	14.1	13.4
88°	3.1	3.0	3.2	3.3	97.2	150.6	13.0	10.5	24.3	7.1	5.2
89°	0.7	0.6	0.7	0.8	1.3	74.8	1.8	1.3	12.4	1.4	1.5



REPORT NUMBER: P1449851  
 CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
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: P1449851  
 CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
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: P1449851  
CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
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: P1449851  
 CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	5421.6	5421.6	5421.6
1°	5453.3	5457.2	5456.1
2°	5487.4	5492.8	5502.6
3°	5516.9	5532.4	5539.2
4°	5553.9	5569.5	5580.9
5°	5582.4	5603.0	5615.5
6°	5607.3	5634.3	5645.4
7°	5631.5	5668.1	5674.6
8°	5655.8	5694.5	5699.8
9°	5676.7	5716.6	5730.9
10°	5695.9	5741.1	5760.6
11°	5719.0	5775.1	5795.4
12°	5743.8	5814.0	5832.2
13°	5775.3	5847.3	5864.7
14°	5802.9	5889.7	5906.9
15°	5835.1	5921.4	5949.2
16°	5864.9	5959.7	5984.2
17°	5889.9	5988.3	6020.0
18°	5917.5	6029.6	6064.0
19°	5945.7	6066.3	6103.7
20°	5975.0	6101.0	6139.9
21°	6005.5	6134.4	6181.2
22°	6029.0	6179.4	6223.2
23°	6051.1	6217.3	6266.4
24°	6085.1	6254.7	6307.9
25°	6108.4	6298.1	6342.1
26°	6138.7	6328.8	6375.0
27°	6166.5	6355.6	6416.1
28°	6190.2	6393.8	6447.8
29°	6205.4	6430.0	6487.1
30°	6237.9	6458.3	6507.8
31°	6259.0	6482.4	6537.7
32°	6278.8	6503.5	6555.7
33°	6297.9	6517.8	6575.5
34°	6303.0	6525.2	6582.7
35°	6320.8	6526.6	6578.6
36°	6327.5	6517.8	6557.7
37°	6318.3	6498.8	6535.2
38°	6313.2	6471.6	6496.7
39°	6293.8	6425.5	6450.5
40°	6264.1	6375.2	6400.0
41°	6221.1	6323.6	6343.9
42°	6176.1	6250.4	6266.4
43°	6119.2	6175.3	6167.1
44°	6055.2	6078.5	6061.1



REPORT NUMBER: P1449851  
 CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	5982.2	5963.5	5945.1
46°	5895.8	5841.6	5820.7
47°	5788.0	5709.8	5670.6
48°	5676.7	5555.6	5508.3
49°	5543.3	5380.2	5334.6
50°	5397.8	5199.8	5145.3
51°	5236.6	5008.9	4938.1
52°	5058.4	4794.2	4719.2
53°	4873.6	4562.4	4482.4
54°	4658.2	4324.3	4237.5
55°	4428.2	4069.9	3977.7
56°	4181.3	3791.3	3699.0
57°	3918.3	3498.9	3383.7
58°	3633.1	3157.2	3005.0
59°	3334.6	2755.2	2579.0
60°	2990.5	2320.0	2137.9
61°	2601.3	1862.8	1722.4
62°	2159.4	1445.7	1307.3
63°	1733.1	1029.1	892.1
64°	1307.0	682.9	578.4
65°	880.9	429.8	380.1
66°	555.5	303.5	292.6
67°	344.0	258.1	265.5
68°	252.9	237.8	246.8
69°	223.3	220.0	228.4
70°	204.3	202.6	210.4
71°	188.1	187.5	193.6
72°	171.2	172.4	180.1
73°	154.3	157.3	166.7
74°	141.1	144.3	153.3
75°	125.6	130.4	139.6
76°	108.7	117.9	128.0
77°	94.5	108.3	119.2
78°	84.5	101.3	113.6
79°	76.8	96.1	109.0
80°	70.9	91.3	102.9
81°	66.1	85.1	96.0
82°	60.8	78.1	87.8
83°	54.7	66.8	72.5
84°	44.0	54.3	57.3
85°	34.6	40.2	41.2
86°	22.5	29.0	28.7
87°	15.5	19.7	19.6
88°	8.5	10.5	10.5
89°	1.5	1.3	1.4



REPORT NUMBER: P1449851  
CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
90°	0.0	0.0	0.0
91°	0.0	0.0	0.0
92°	0.0	0.0	0.0
93°	0.0	0.0	0.0
94°	0.0	0.0	0.0
95°	0.0	0.0	0.0
96°	0.0	0.0	0.0
97°	0.0	0.0	0.0
98°	0.0	0.0	0.0
99°	0.0	0.0	0.0
100°	0.0	0.0	0.0
101°	0.0	0.0	0.0
102°	0.0	0.0	0.0
103°	0.0	0.0	0.0
104°	0.0	0.0	0.0
105°	0.0	0.0	0.0
106°	0.0	0.0	0.0
107°	0.0	0.0	0.0
108°	0.0	0.0	0.0
109°	0.0	0.0	0.0
110°	0.0	0.0	0.0
111°	0.0	0.0	0.0
112°	0.0	0.0	0.0
113°	0.0	0.0	0.0
114°	0.0	0.0	0.0
115°	0.0	0.0	0.0
116°	0.0	0.0	0.0
117°	0.0	0.0	0.0
118°	0.0	0.0	0.0
119°	0.0	0.0	0.0
120°	0.0	0.0	0.0
121°	0.0	0.0	0.0
122°	0.0	0.0	0.0
123°	0.0	0.0	0.0
124°	0.0	0.0	0.0
125°	0.0	0.0	0.0
126°	0.0	0.0	0.0
127°	0.0	0.0	0.0
128°	0.0	0.0	0.0
129°	0.0	0.0	0.0
130°	0.0	0.0	0.0
131°	0.0	0.0	0.0
132°	0.0	0.0	0.0
133°	0.0	0.0	0.0
134°	0.0	0.0	0.0



REPORT NUMBER: P1449851  
CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
135°	0.0	0.0	0.0
136°	0.0	0.0	0.0
137°	0.0	0.0	0.0
138°	0.0	0.0	0.0
139°	0.0	0.0	0.0
140°	0.0	0.0	0.0
141°	0.0	0.0	0.0
142°	0.0	0.0	0.0
143°	0.0	0.0	0.0
144°	0.0	0.0	0.0
145°	0.0	0.0	0.0
146°	0.0	0.0	0.0
147°	0.0	0.0	0.0
148°	0.0	0.0	0.0
149°	0.0	0.0	0.0
150°	0.0	0.0	0.0
151°	0.0	0.0	0.0
152°	0.0	0.0	0.0
153°	0.0	0.0	0.0
154°	0.0	0.0	0.0
155°	0.0	0.0	0.0
156°	0.0	0.0	0.0
157°	0.0	0.0	0.0
158°	0.0	0.0	0.0
159°	0.0	0.0	0.0
160°	0.0	0.0	0.0
161°	0.0	0.0	0.0
162°	0.0	0.0	0.0
163°	0.0	0.0	0.0
164°	0.0	0.0	0.0
165°	0.0	0.0	0.0
166°	0.0	0.0	0.0
167°	0.0	0.0	0.0
168°	0.0	0.0	0.0
169°	0.0	0.0	0.0
170°	0.0	0.0	0.0
171°	0.0	0.0	0.0
172°	0.0	0.0	0.0
173°	0.0	0.0	0.0
174°	0.0	0.0	0.0
175°	0.0	0.0	0.0
176°	0.0	0.0	0.0
177°	0.0	0.0	0.0
178°	0.0	0.0	0.0
179°	0.0	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: P1449851  
CATALOG NUMBER: TWC150\_T2\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
180°	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: SP1-2601-659-1

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-3000K

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

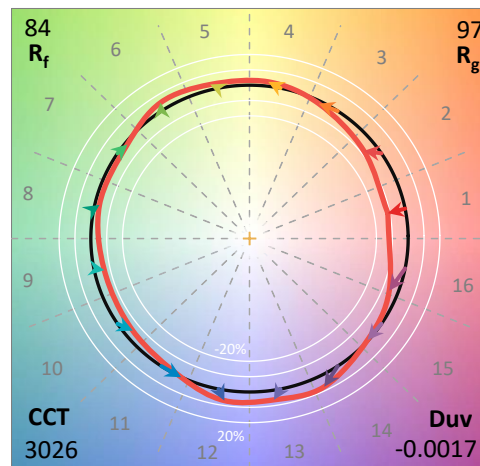
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2601-659-1  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 02/16/2026  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Lumark  
 Catalog Number: **MWP2460W34VDDKYYAD-T4-24W-3000K**  
 Description: Mester Wedge, at T4 beam setting, 24W output, 3000K

**Spectral Parameters**

CCT (K): 3026  
 CIE u': 0.2503  
 CIE v': 0.5184  
 Duv: -0.0017  
 CIE x: 0.4326  
 CIE y: 0.3983  
 CIE z: 0.1691  
 Peak Wavelength (nm): 604  
 Dominant Wavelength (nm): 583  
 Purity: 49.3886  
 Rf: 84  
 Rg: 97.4

CRI (Ra):	82.7		
R1:	81.4	R9:	7.5
R2:	90.7	R10:	78.8
R3:	96.3	R11:	80.8
R4:	81.1	R12:	70.7
R5:	81.6	R13:	83.7
R6:	88.6	R14:	98.6
R7:	82.6	R15:	74.2
R8:	59.3		



**Test Conditions**

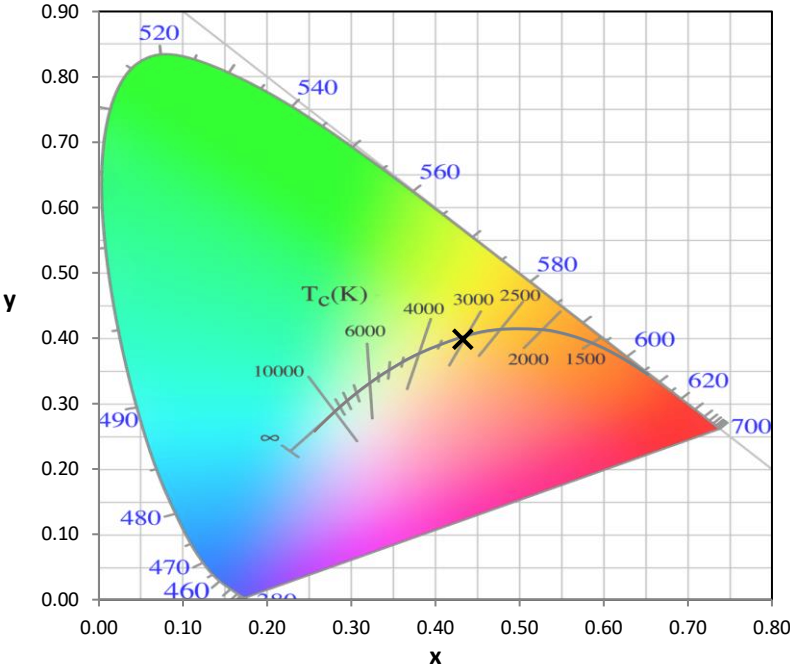
Stabilization Time: 64M  
 Operation Time: 2H 4M  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-1

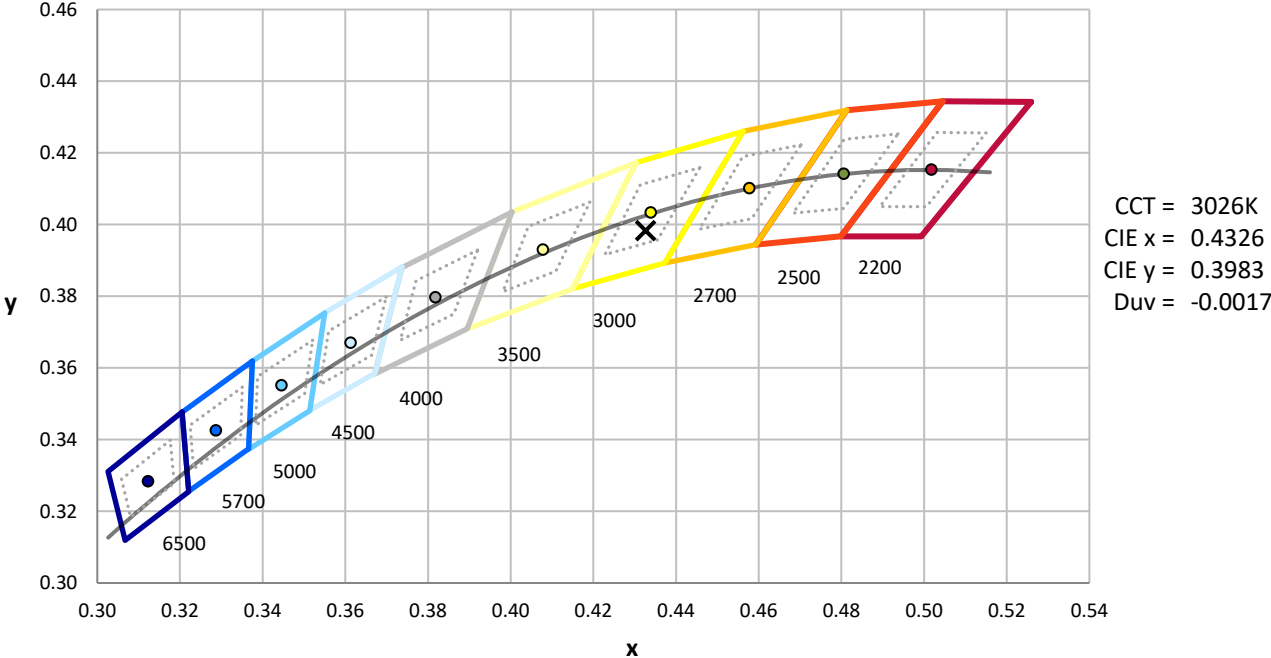
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2601-659-1

CIE 1931 Chromaticity Diagram



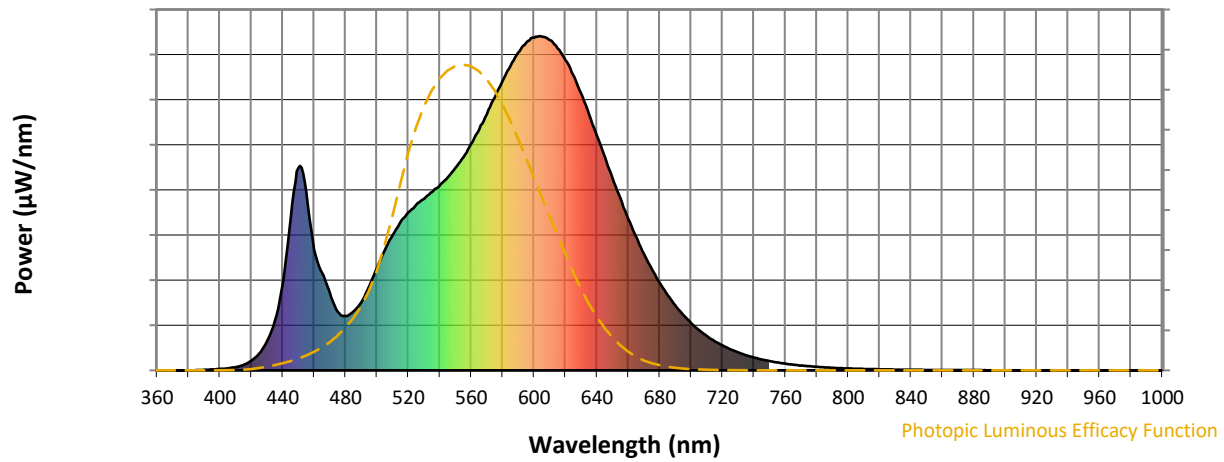
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-1

**Photopic Flux vs. Wavelength**

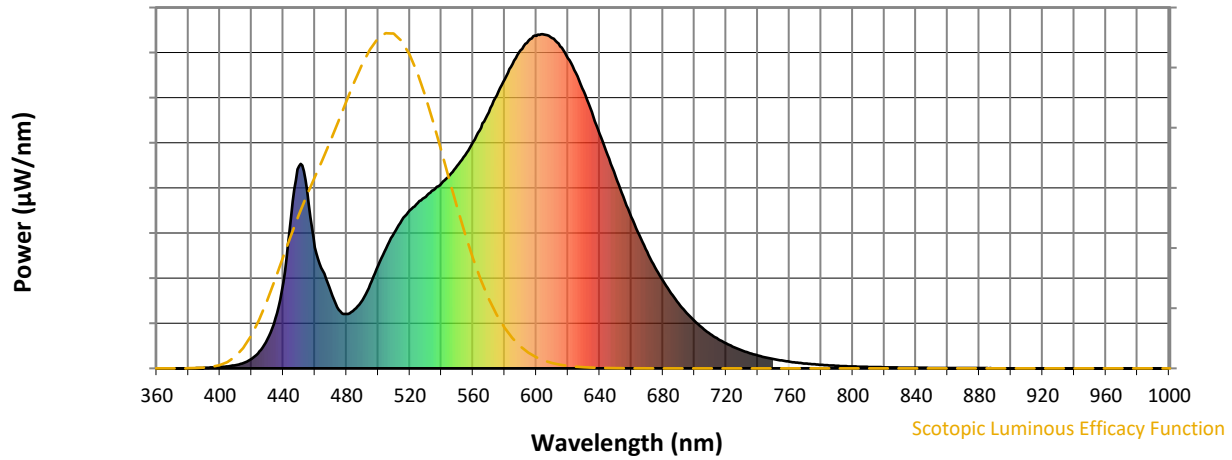


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-1

**Scotopic Flux vs. Wavelength**



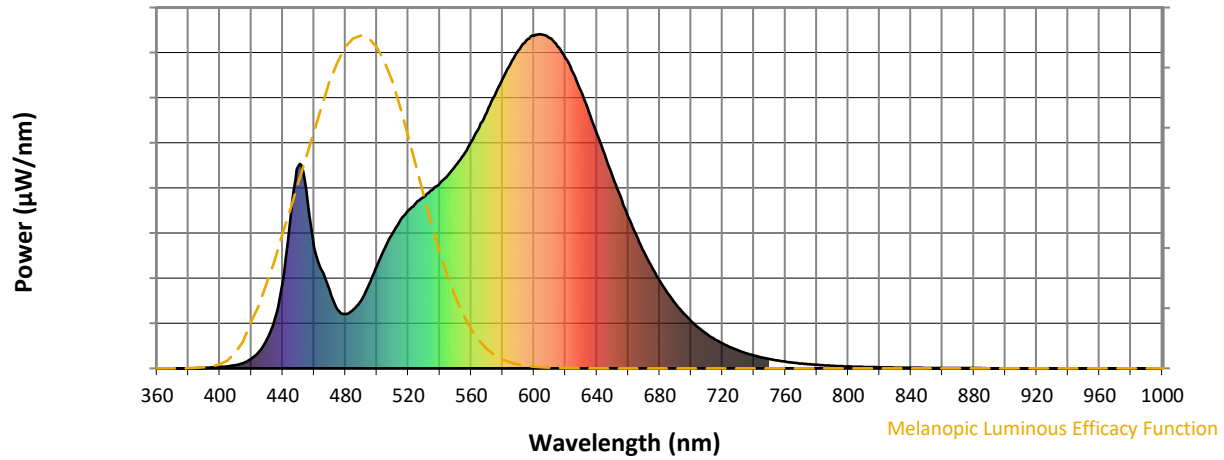
**Scotopic Lumens: NR**

**S/P: 1.35**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-1

**Melanopic Flux vs. Wavelength**



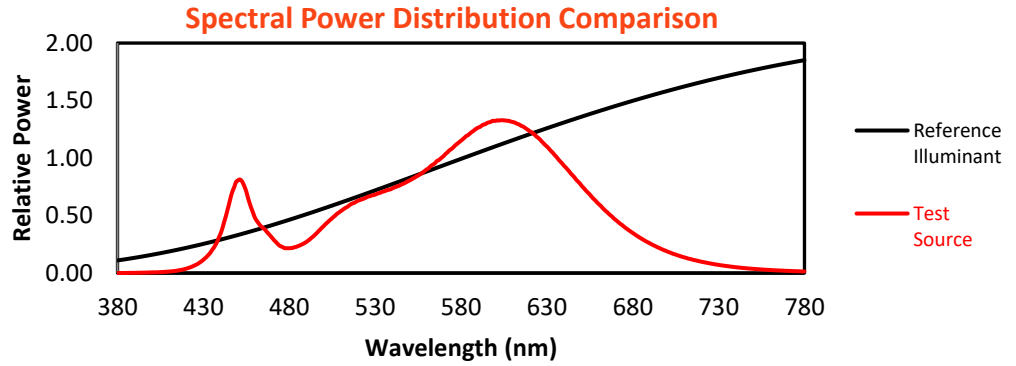
**Melanopic Lumens: NR**

**M/P: 2.61**

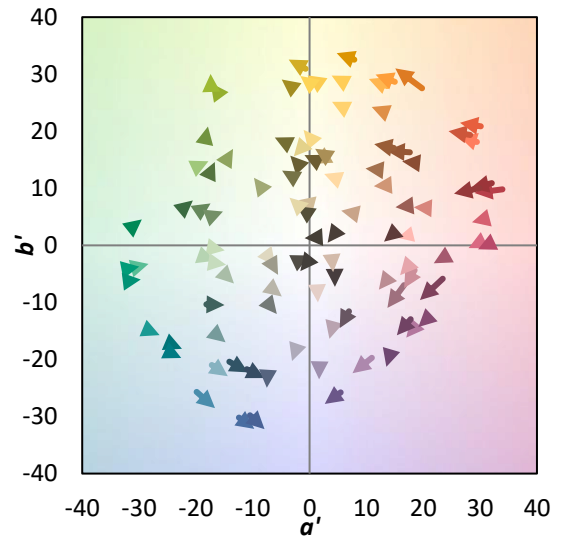
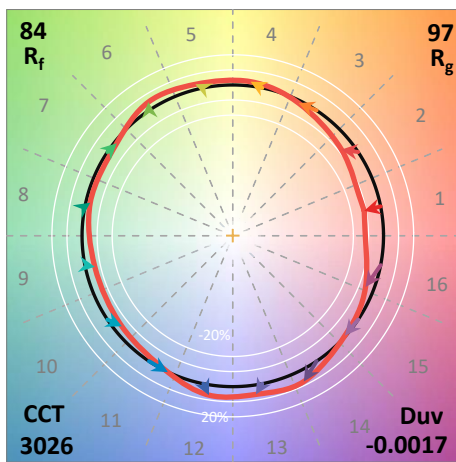
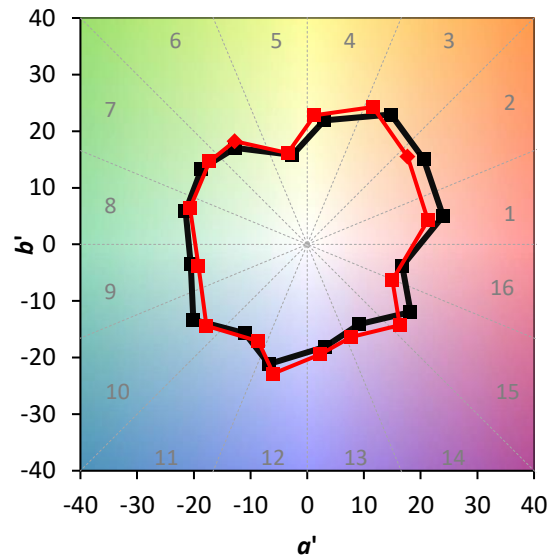
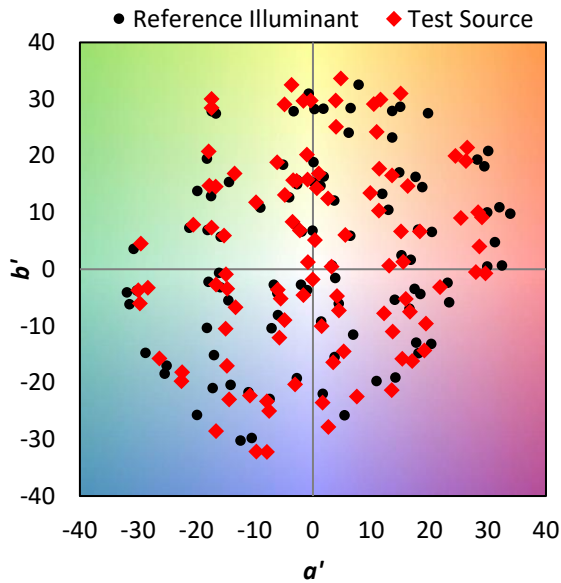
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

**Summary**

$R_f = 84$   
 $R_g = 97.4$   
 $CIE R_a = 82.7$   
 $R_9 = 7.5$

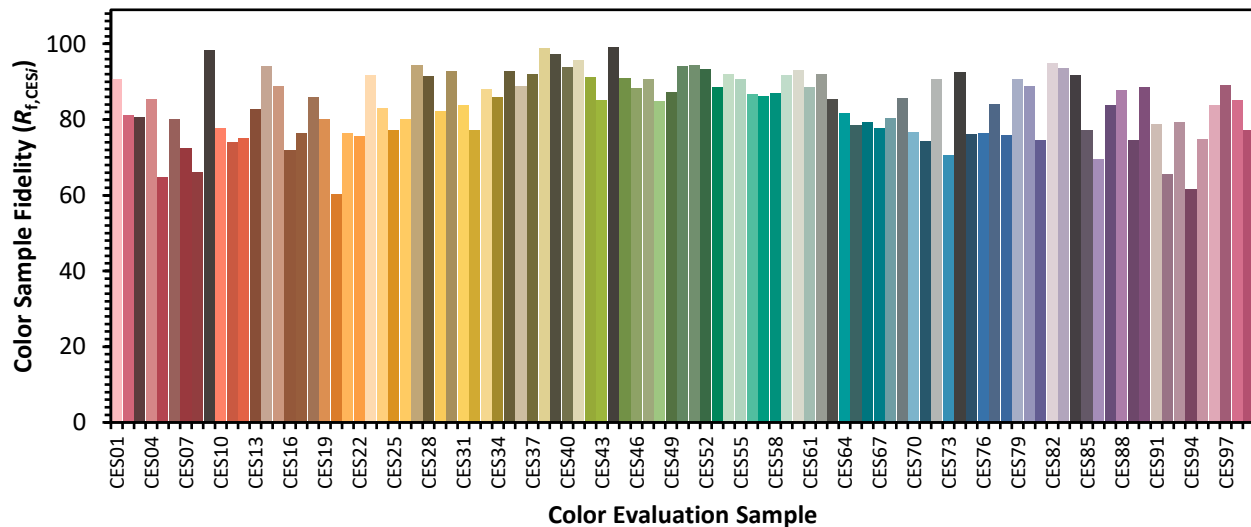


**Color Vector Graphics**

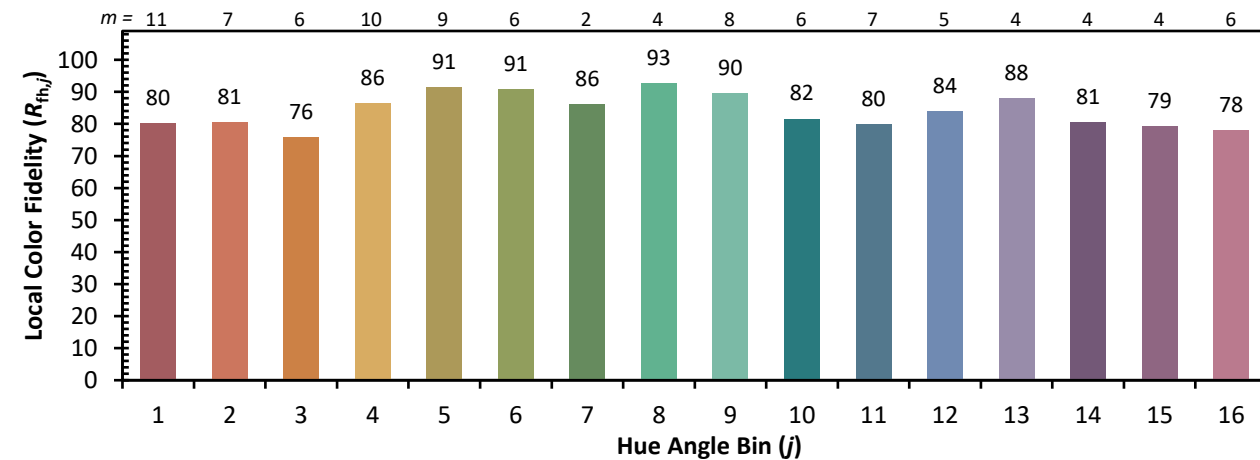
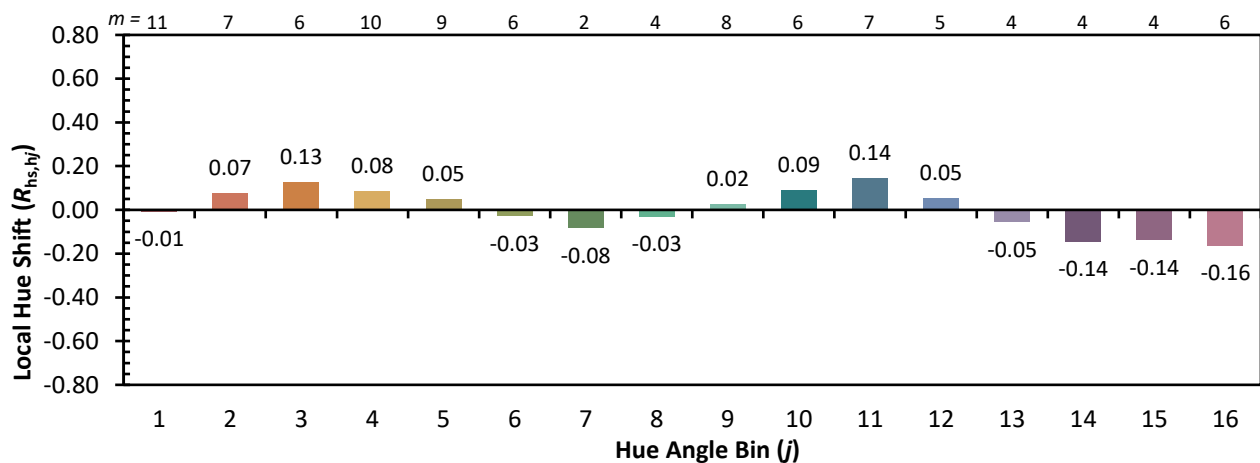
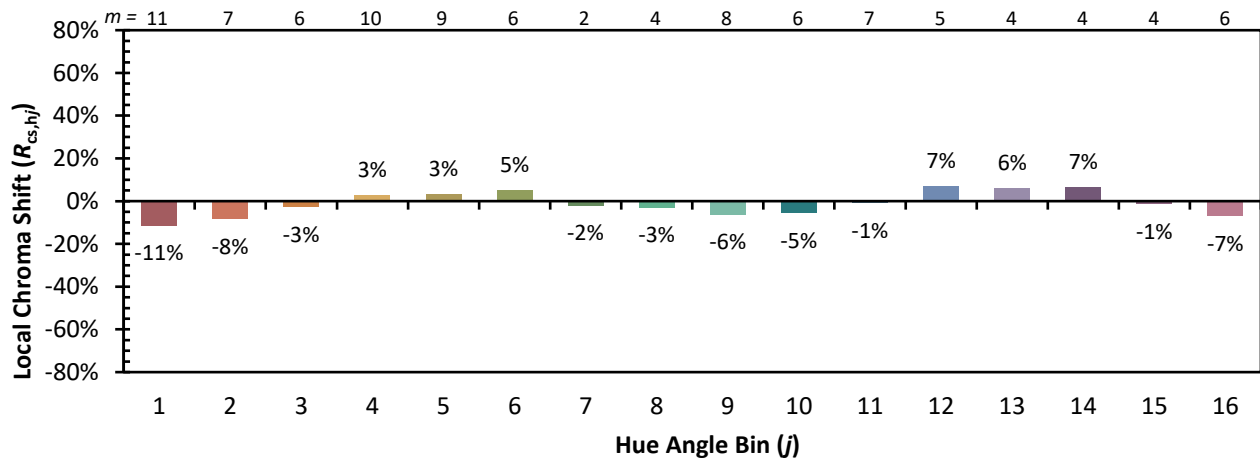


Individual Sample Fidelity Index ( $R_{f,i}$ )

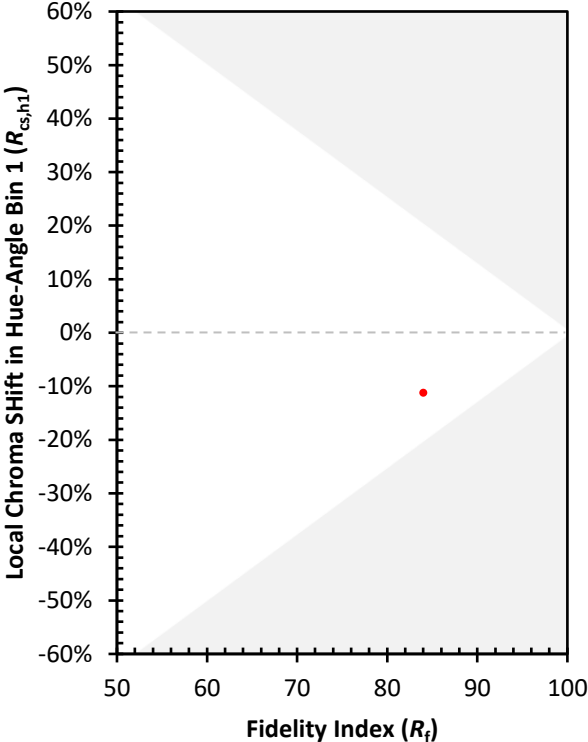
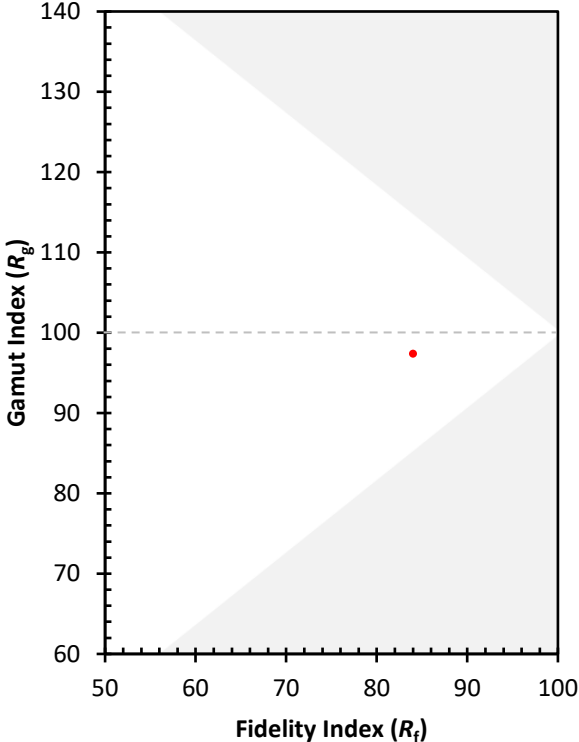
CES01 = 86	CES26 = 80	CES51 = 94	CES76 = 76
CES02 = 63	CES27 = 94	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 76
CES04 = 70	CES29 = 82	CES54 = 92	CES79 = 91
CES05 = 50	CES30 = 93	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 75
CES07 = 42	CES32 = 77	CES57 = 86	CES82 = 95
CES08 = 41	CES33 = 88	CES58 = 87	CES83 = 93
CES09 = 29	CES34 = 86	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 93	CES60 = 93	CES85 = 77
CES11 = 59	CES36 = 89	CES61 = 89	CES86 = 69
CES12 = 65	CES37 = 92	CES62 = 92	CES87 = 84
CES13 = 43	CES38 = 99	CES63 = 85	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 82	CES89 = 75
CES15 = 72	CES40 = 94	CES65 = 79	CES90 = 89
CES16 = 48	CES41 = 96	CES66 = 79	CES91 = 79
CES17 = 50	CES42 = 91	CES67 = 78	CES92 = 66
CES18 = 57	CES43 = 85	CES68 = 80	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 86	CES94 = 62
CES20 = 67	CES45 = 91	CES70 = 77	CES95 = 75
CES21 = 87	CES46 = 88	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 91	CES72 = 91	CES97 = 89
CES23 = 92	CES48 = 85	CES73 = 71	CES98 = 85
CES24 = 91	CES49 = 87	CES74 = 93	CES99 = 77
CES25 = 72	CES50 = 94	CES75 = 76	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)