

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: P1449875

Luminaire Tested: **TWC150\_T4\_120W\_3000K**

Issue Date: 5/19/2026

**Test Information**

Test Method: LM-79-08  
Report Number: P1449875  
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\_T4\_120W\_3000K  
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T4 distribution, 120W  
3000K settings  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17389 lumens  
Efficiency: N/A  
Efficacy: 145.6 lumens/watt  
Luminous Opening: Rectangular (W 1.33' x L: 0.42' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

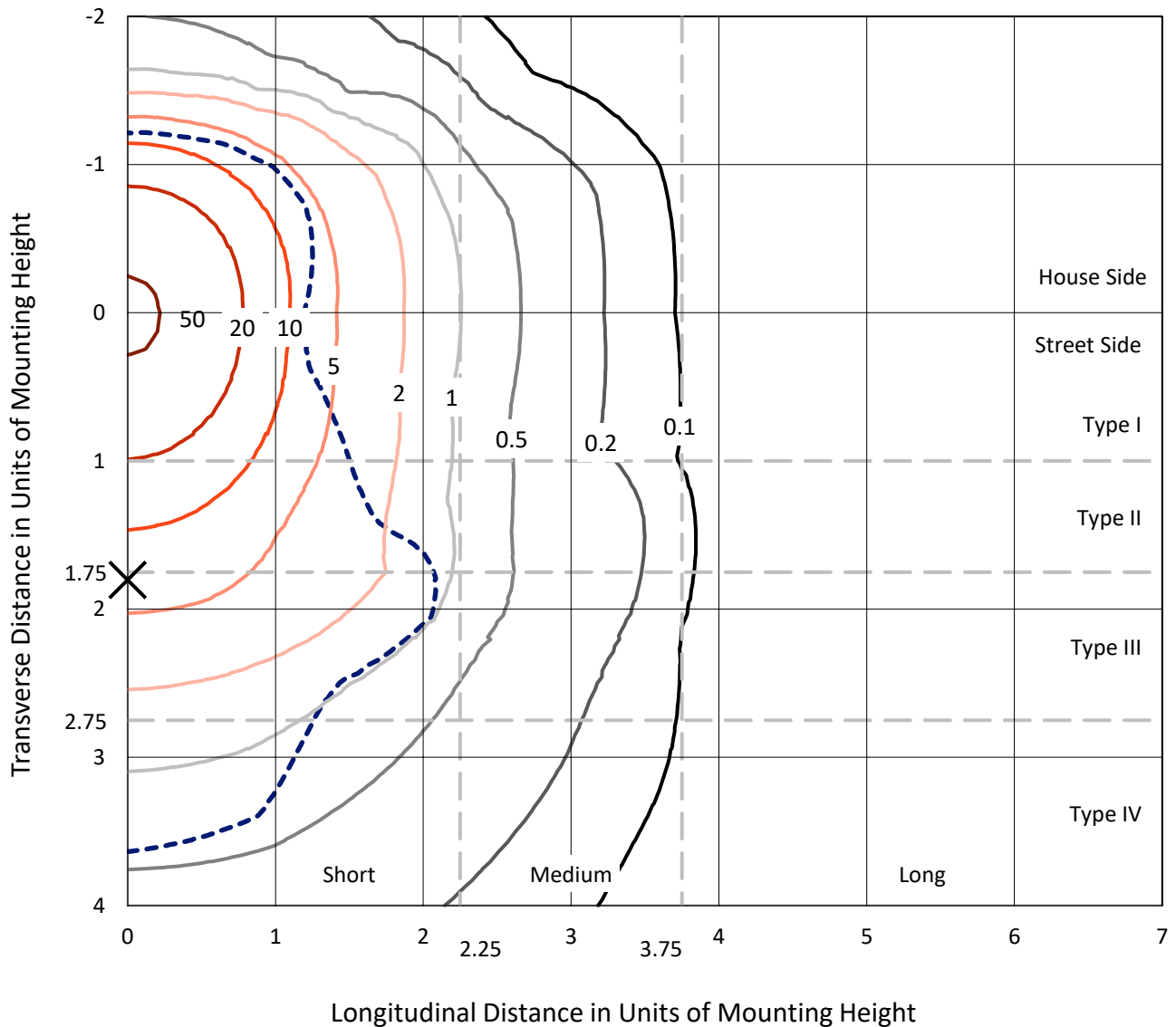
Input Watts (W): 119.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

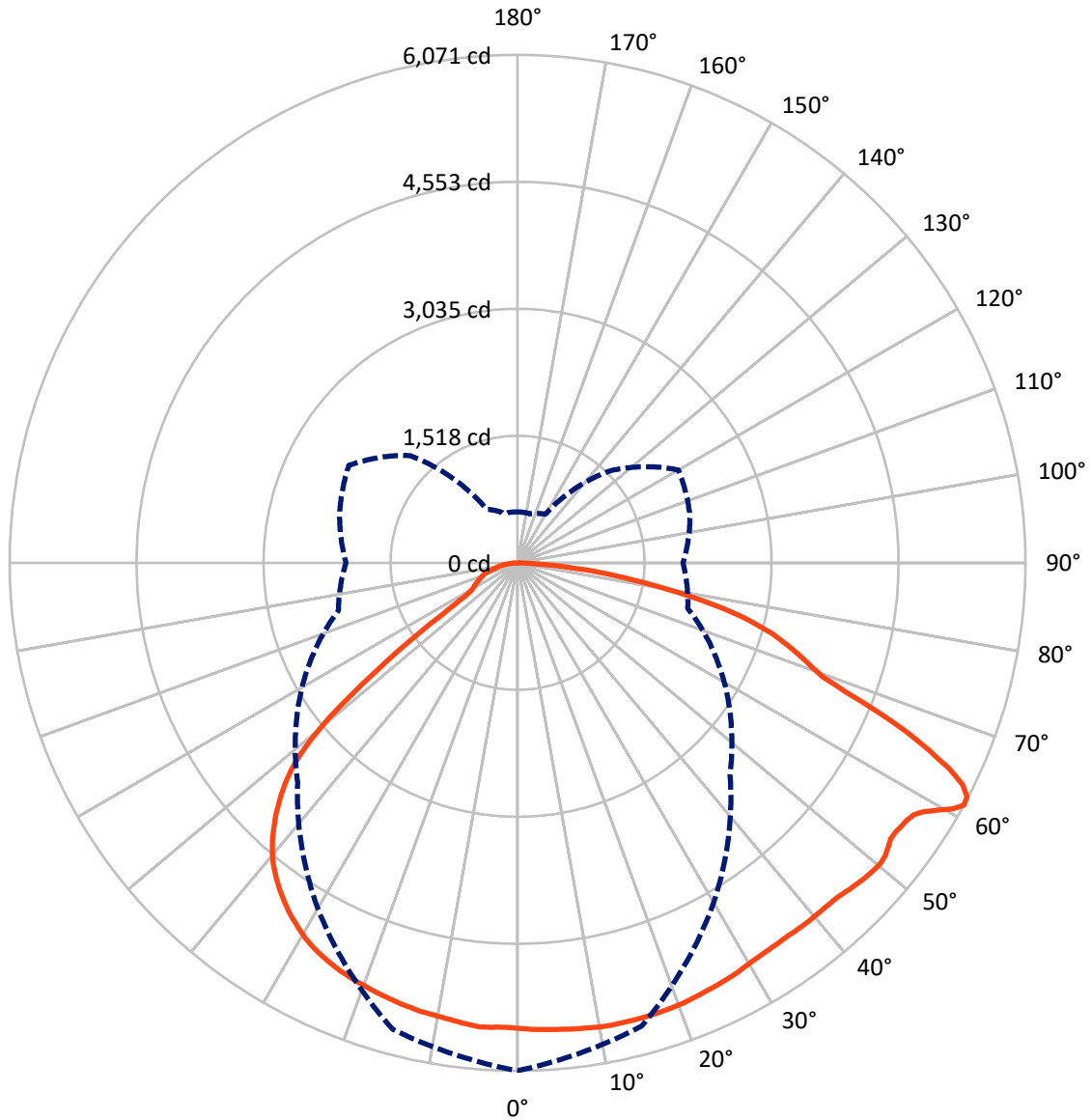
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 55.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 61-Deg Vertical

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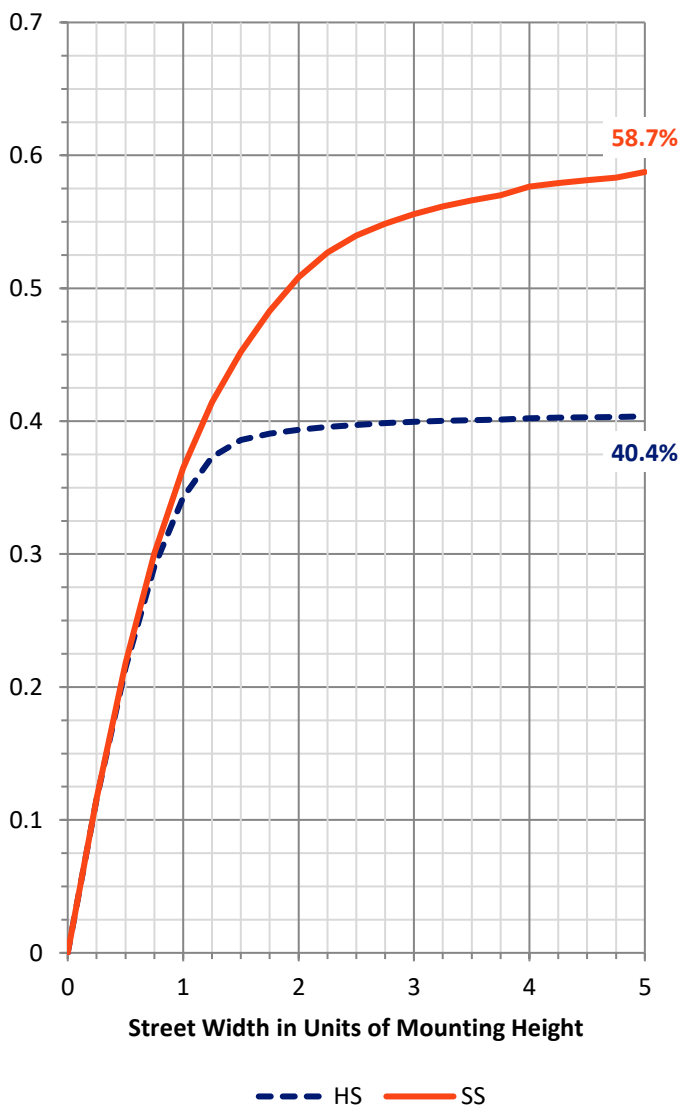
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7069.2	0.0	7069.2
	% Fixture	40.7	0.0	40.7
<b>Street Side</b>	Lumens	10319.8	0.0	10319.8
	% Fixture	59.3	0.0	59.3
<b>Total</b>	Lumens	17389.0	0.0	17389.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	529.5	3.0
10°-20°	1538.3	8.8
20°-30°	2391.7	13.8
30°-40°	2997.3	17.2
40°-50°	3263.7	18.8
50°-60°	2948.3	17.0
60°-70°	2244.6	12.9
70°-80°	1186.9	6.8
80°-90°	288.7	1.7
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°	17389.0	100.0
0°-180°	17389.0	100.0

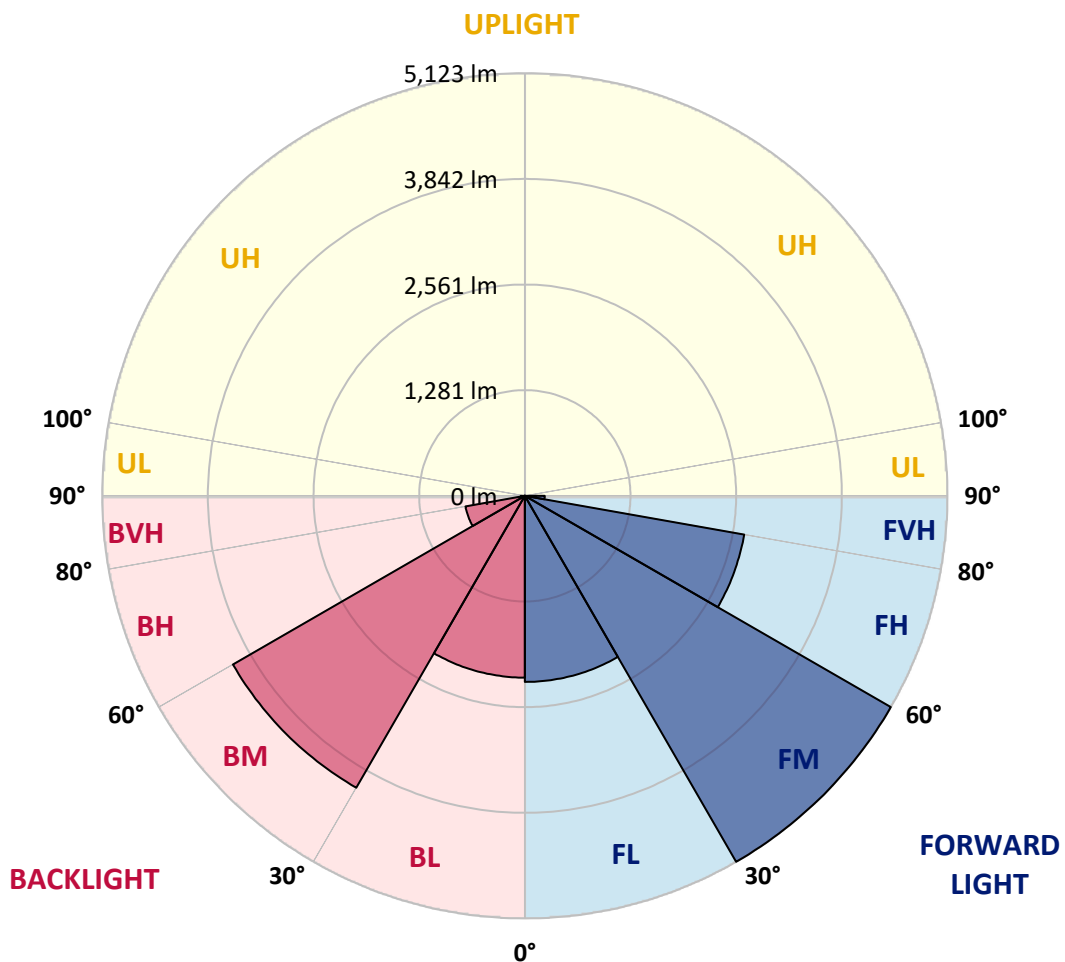


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2255.8	13.0			
FM (30°-60°)	5122.9	29.5			
FH (60°-80°)	2700.6	15.5			G2/5000
FVH (80°-90°)	240.5	1.4			G3/500
BL (0°-30°)	2203.8	12.7	B3/2500		
BM (30°-60°)	4086.4	23.5	B3/5000		
BH (60°-80°)	730.9	4.2	B2/1000		G2/1000
BVH (80°-90°)	48.2	0.3			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4
1°	5575.7	5575.0	5572.4	5568.5	5566.3	5564.0	5564.2	5560.2	5560.8	5558.5	5557.6
2°	5583.2	5580.6	5575.8	5571.2	5566.9	5560.8	5562.5	5553.7	5552.9	5553.2	5551.2
3°	5589.6	5585.8	5579.8	5573.5	5564.8	5557.3	5556.2	5546.1	5545.8	5546.6	5549.6
4°	5595.5	5590.5	5583.8	5572.9	5561.6	5549.3	5545.7	5537.0	5536.9	5543.6	5551.6
5°	5600.7	5594.2	5584.3	5572.3	5554.0	5540.9	5534.5	5525.1	5528.0	5543.3	5554.7
6°	5608.4	5599.9	5586.4	5569.4	5551.0	5529.8	5520.7	5511.3	5520.6	5541.3	5550.1
7°	5614.4	5604.8	5587.3	5564.3	5541.6	5516.9	5504.0	5495.9	5513.4	5533.2	5537.8
8°	5622.6	5610.1	5587.5	5559.4	5530.7	5501.5	5486.7	5479.5	5504.5	5518.7	5520.9
9°	5630.0	5615.9	5588.6	5553.0	5517.7	5485.2	5467.4	5462.0	5491.8	5499.7	5504.8
10°	5636.7	5620.4	5588.6	5548.3	5506.0	5467.5	5443.7	5444.5	5474.6	5478.4	5488.1
11°	5639.1	5624.1	5587.8	5541.8	5492.5	5449.6	5420.7	5426.5	5453.2	5458.7	5471.8
12°	5638.5	5624.2	5584.9	5531.5	5477.1	5425.8	5396.2	5406.4	5429.9	5438.7	5457.1
13°	5638.0	5620.7	5577.6	5518.0	5456.8	5402.5	5367.7	5382.4	5403.6	5415.0	5443.5
14°	5637.4	5619.6	5571.9	5502.4	5435.8	5379.8	5337.1	5355.5	5375.2	5395.0	5430.2
15°	5636.8	5616.9	5561.4	5487.8	5410.8	5350.7	5305.5	5327.0	5344.5	5372.6	5413.9
16°	5636.3	5610.4	5551.3	5468.2	5384.7	5321.9	5272.9	5295.5	5314.6	5351.2	5395.4
17°	5634.6	5605.6	5540.1	5446.9	5353.5	5287.2	5237.8	5262.9	5282.2	5328.0	5376.7
18°	5630.7	5599.4	5527.7	5424.3	5321.1	5250.6	5198.8	5225.5	5250.8	5302.8	5358.6
19°	5626.4	5591.6	5514.3	5402.0	5286.3	5208.6	5160.5	5187.9	5216.9	5275.2	5338.0
20°	5622.1	5583.8	5500.1	5379.1	5250.7	5166.3	5117.8	5148.5	5184.7	5247.1	5317.5
21°	5614.1	5576.9	5484.9	5354.1	5217.2	5118.9	5076.3	5108.9	5149.9	5221.8	5296.1
22°	5605.4	5565.9	5468.7	5329.7	5178.4	5073.1	5032.0	5064.5	5113.7	5192.3	5272.7
23°	5596.6	5554.3	5452.1	5302.6	5139.1	5022.3	4983.7	5022.8	5073.7	5162.6	5248.3
24°	5589.7	5545.3	5435.1	5277.6	5100.4	4970.8	4935.5	4977.1	5032.1	5127.5	5221.6
25°	5581.0	5531.4	5417.0	5246.1	5059.6	4917.8	4882.4	4932.5	4988.7	5095.2	5196.6
26°	5572.7	5520.9	5397.7	5218.7	5019.2	4863.3	4828.2	4882.9	4945.1	5060.9	5167.9
27°	5564.9	5507.8	5378.7	5188.2	4974.5	4809.4	4772.3	4832.6	4900.0	5025.3	5141.3
28°	5551.8	5494.5	5356.4	5155.8	4932.2	4752.2	4716.2	4780.3	4854.8	4987.6	5108.9
29°	5538.1	5477.9	5335.7	5122.4	4885.2	4696.1	4655.8	4726.3	4809.6	4951.7	5077.4
30°	5527.3	5462.1	5311.9	5087.5	4837.4	4636.6	4595.6	4668.8	4763.4	4912.7	5041.5
31°	5521.0	5448.9	5285.8	5053.3	4787.9	4576.7	4534.7	4609.6	4713.8	4870.4	5005.7
32°	5515.3	5437.6	5258.1	5016.7	4738.6	4513.7	4473.1	4548.2	4666.0	4827.9	4966.1
33°	5511.4	5426.6	5234.5	4977.8	4684.6	4450.9	4408.6	4484.1	4614.4	4783.2	4923.5
34°	5509.7	5417.5	5209.9	4938.2	4632.6	4387.6	4343.2	4421.4	4565.4	4738.3	4874.6
35°	5506.8	5411.7	5185.8	4897.2	4577.0	4321.1	4274.9	4353.6	4509.7	4688.5	4824.3
36°	5509.6	5404.0	5163.7	4854.3	4521.1	4253.3	4203.5	4288.7	4456.0	4638.4	4770.1
37°	5514.3	5402.1	5145.6	4812.7	4462.3	4182.9	4131.2	4220.0	4397.2	4583.8	4711.9
38°	5516.5	5400.2	5124.4	4772.2	4402.9	4112.3	4056.4	4150.7	4336.3	4527.4	4650.7
39°	5519.5	5395.4	5105.9	4728.1	4343.6	4036.1	3978.4	4080.8	4272.4	4465.0	4586.0
40°	5518.2	5388.0	5090.1	4689.4	4278.4	3959.0	3899.2	4011.1	4209.2	4402.1	4521.4
41°	5519.9	5380.1	5069.5	4649.9	4213.4	3881.1	3819.1	3941.5	4145.4	4336.7	4447.7
42°	5524.6	5375.4	5046.7	4615.8	4149.6	3801.2	3736.1	3868.3	4078.6	4266.6	4374.7
43°	5530.3	5371.0	5022.5	4574.9	4085.1	3720.7	3653.1	3794.4	4008.4	4194.2	4290.8
44°	5545.9	5371.4	5001.6	4536.0	4020.9	3636.3	3570.3	3720.8	3940.0	4116.3	4203.9



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	5566.3	5382.1	4977.9	4494.3	3961.1	3554.5	3481.0	3644.4	3865.8	4036.9	4107.1
46°	5581.8	5395.4	4955.0	4452.1	3902.6	3466.0	3394.7	3565.2	3790.9	3955.2	4003.5
47°	5601.6	5399.3	4940.2	4406.5	3845.1	3384.8	3306.2	3487.9	3714.7	3872.1	3891.9
48°	5613.9	5408.2	4937.9	4358.5	3790.5	3298.0	3216.8	3404.7	3634.1	3776.4	3772.5
49°	5627.3	5410.2	4923.8	4317.1	3735.7	3216.3	3123.6	3325.0	3550.7	3678.1	3644.5
50°	5632.0	5420.5	4905.9	4268.5	3682.4	3129.8	3029.7	3237.3	3465.2	3570.1	3509.6
51°	5617.6	5426.6	4885.4	4227.8	3626.5	3046.7	2937.1	3148.9	3374.8	3457.6	3367.7
52°	5581.8	5405.5	4860.7	4189.5	3573.4	2963.8	2840.6	3055.6	3280.4	3335.9	3203.1
53°	5547.4	5362.0	4839.5	4148.3	3510.1	2881.6	2743.4	2960.9	3184.3	3208.9	3001.8
54°	5545.3	5326.5	4803.2	4095.1	3439.5	2800.3	2645.0	2863.8	3085.5	3074.7	2747.3
55°	5563.7	5327.7	4751.1	4043.6	3364.1	2713.5	2546.0	2763.7	2980.0	2933.5	2426.8
56°	5577.8	5337.1	4701.1	3985.8	3282.0	2629.2	2448.9	2668.2	2868.2	2782.5	2063.2
57°	5608.7	5344.4	4682.0	3930.4	3197.2	2537.2	2349.7	2568.1	2748.3	2622.7	1715.0
58°	5692.6	5368.8	4680.0	3865.7	3115.0	2442.0	2253.7	2467.8	2621.6	2425.7	1367.0
59°	5825.1	5455.9	4671.3	3768.5	3033.8	2336.0	2159.3	2356.2	2486.5	2186.9	1021.7
60°	5972.6	5584.9	4661.8	3671.1	2944.1	2224.6	2067.8	2250.2	2356.6	1868.9	816.9
61°	6070.9	5731.6	4688.7	3590.0	2851.7	2106.0	1977.6	2133.6	2220.2	1551.0	671.2
62°	6057.2	5807.3	4782.6	3532.0	2747.3	1988.3	1888.1	2015.4	2083.9	1233.3	591.1
63°	5942.9	5763.1	4920.4	3479.4	2638.7	1867.5	1799.1	1897.3	1938.1	938.2	551.8
64°	5711.9	5609.7	5041.2	3434.1	2519.8	1747.1	1706.6	1776.1	1786.4	720.2	528.4
65°	5402.4	5329.5	5035.5	3414.1	2382.3	1629.1	1610.7	1662.3	1610.6	580.5	507.6
66°	5076.0	4984.4	4876.2	3446.5	2224.8	1509.4	1514.9	1549.4	1434.6	504.5	487.0
67°	4671.0	4643.1	4558.5	3587.9	2070.6	1402.7	1418.4	1436.4	1257.1	469.8	465.2
68°	4216.3	4174.0	4141.4	3794.6	1932.5	1294.4	1304.7	1316.9	1001.1	446.3	442.6
69°	3894.8	3796.6	3706.9	3840.3	1810.7	1194.7	1190.3	1211.8	744.1	423.7	420.0
70°	3732.1	3566.6	3268.2	3578.8	1692.8	1094.9	1072.1	1106.5	552.2	400.2	397.8
71°	3590.7	3444.4	2960.8	3018.9	1590.6	1005.0	957.6	1007.6	443.4	375.9	376.2
72°	3452.5	3311.7	2796.6	2459.8	1545.5	918.0	846.5	903.8	389.6	351.7	356.1
73°	3302.6	3176.9	2662.3	2085.1	1711.1	832.3	740.4	797.4	359.3	327.8	339.0
74°	3148.5	3039.0	2519.1	1932.8	2156.7	749.6	643.4	693.2	332.6	305.4	320.1
75°	2956.1	2891.1	2361.6	1794.7	1895.4	661.9	552.0	584.1	304.7	284.5	295.7
76°	2749.4	2722.5	2212.3	1682.4	1199.6	574.1	473.3	486.2	279.7	264.8	270.8
77°	2514.0	2548.1	2042.9	1575.6	853.0	486.4	398.5	384.8	255.1	245.4	244.7
78°	2244.3	2352.6	1881.3	1397.6	730.2	441.8	332.9	307.5	232.4	222.1	218.3
79°	1971.7	2120.9	1754.3	1124.6	790.3	388.9	274.1	259.0	209.4	197.3	195.4
80°	1684.7	1877.6	1612.4	945.5	837.8	335.1	224.6	226.7	188.7	172.4	172.5
81°	1411.4	1611.3	1450.0	849.2	660.6	305.9	183.2	197.7	168.0	147.5	149.8
82°	1170.7	1352.3	1267.9	769.0	482.8	267.5	141.8	168.7	147.3	119.4	136.1
83°	976.2	1149.9	1007.6	652.7	305.1	238.7	109.8	139.8	123.7	95.4	119.5
84°	695.8	886.0	826.9	535.5	256.2	192.4	82.0	112.5	99.7	81.6	100.0
85°	500.3	651.6	637.2	418.3	219.2	122.7	59.8	87.8	76.8	67.8	78.8
86°	305.7	418.1	447.4	180.6	179.4	80.6	41.1	64.9	54.6	50.5	55.8
87°	128.0	184.6	257.6	71.0	125.1	64.6	28.5	43.4	39.4	35.6	39.5
88°	63.9	91.8	130.3	51.6	39.5	48.6	16.0	29.1	26.7	20.8	23.3
89°	2.0	1.8	3.1	34.6	29.8	32.7	3.8	14.8	14.0	6.2	7.4



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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: P1449875  
 CATALOG NUMBER: TWC150\_T4\_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: P1449875  
CATALOG NUMBER: TWC150\_T4\_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: P1449875

CATALOG NUMBER: TWC150\_T4\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4	5565.4
1°	5558.0	5558.5	5559.5	5560.7	5558.2	5559.3	5562.3	5568.3	5569.8	5572.6	5574.2
2°	5553.1	5554.7	5553.9	5554.4	5553.6	5554.4	5557.4	5567.8	5568.4	5574.8	5578.5
3°	5551.1	5554.0	5552.6	5550.9	5548.7	5548.7	5552.3	5564.1	5567.8	5576.4	5582.6
4°	5558.3	5561.8	5558.6	5552.7	5545.3	5541.0	5543.4	5556.0	5564.6	5573.5	5584.6
5°	5561.1	5564.3	5562.3	5556.4	5545.5	5534.4	5534.6	5549.2	5558.6	5574.0	5586.7
6°	5554.9	5556.3	5557.4	5555.1	5545.7	5526.2	5521.7	5538.1	5551.3	5570.3	5586.5
7°	5542.1	5543.9	5545.1	5546.1	5539.4	5521.3	5510.3	5524.9	5541.5	5565.2	5584.9
8°	5525.4	5529.7	5530.0	5530.5	5528.9	5516.2	5495.4	5509.0	5530.9	5558.6	5584.3
9°	5513.6	5517.4	5519.5	5514.3	5514.3	5507.6	5478.7	5493.7	5518.4	5550.2	5579.7
10°	5499.7	5504.9	5505.3	5499.0	5495.0	5493.7	5462.7	5475.3	5502.3	5540.4	5572.4
11°	5489.4	5496.7	5493.6	5483.6	5475.2	5474.0	5444.0	5453.6	5486.2	5526.8	5566.0
12°	5478.4	5490.0	5484.5	5470.1	5455.7	5453.4	5427.2	5431.6	5468.7	5509.9	5557.9
13°	5470.4	5480.7	5472.8	5455.3	5434.1	5427.6	5406.0	5408.3	5447.4	5491.8	5549.8
14°	5457.0	5467.4	5461.9	5442.7	5415.3	5400.3	5383.3	5382.3	5423.6	5473.1	5536.1
15°	5444.3	5456.6	5450.1	5428.8	5393.4	5372.7	5357.4	5352.4	5398.2	5450.5	5519.6
16°	5428.0	5442.7	5434.9	5409.8	5373.9	5342.7	5329.7	5322.3	5368.0	5426.0	5498.9
17°	5410.0	5427.2	5419.1	5392.6	5352.1	5312.3	5299.3	5287.8	5335.1	5396.1	5479.1
18°	5395.8	5414.7	5404.9	5374.8	5327.8	5280.2	5264.7	5254.8	5299.1	5363.8	5460.5
19°	5380.0	5400.4	5390.0	5354.5	5302.3	5252.3	5229.9	5215.9	5259.6	5330.8	5437.9
20°	5362.3	5382.8	5371.8	5334.9	5275.6	5219.3	5190.1	5175.3	5215.9	5300.0	5419.6
21°	5344.9	5367.1	5352.2	5315.1	5248.1	5186.0	5152.1	5133.7	5171.1	5267.2	5398.5
22°	5323.4	5352.1	5334.3	5290.8	5220.8	5150.9	5111.3	5089.0	5127.3	5233.1	5374.7
23°	5306.5	5333.5	5317.3	5266.3	5191.8	5114.1	5069.7	5039.3	5079.8	5196.2	5350.2
24°	5289.0	5315.4	5298.5	5239.4	5161.7	5073.8	5026.7	4993.2	5031.3	5159.4	5324.6
25°	5266.0	5294.9	5277.6	5213.6	5128.7	5033.4	4982.7	4940.0	4981.2	5120.7	5299.9
26°	5243.6	5272.1	5254.1	5188.1	5095.9	4986.5	4934.8	4886.8	4928.6	5080.6	5272.2
27°	5218.3	5244.9	5228.2	5161.8	5060.5	4944.1	4885.2	4831.8	4877.5	5041.4	5243.6
28°	5187.6	5218.6	5199.7	5132.9	5024.9	4899.7	4833.2	4777.6	4825.9	4998.1	5213.1
29°	5156.6	5187.8	5168.7	5102.0	4985.9	4853.0	4778.8	4718.8	4767.1	4954.8	5179.8
30°	5123.6	5151.5	5136.5	5069.9	4947.9	4807.9	4723.8	4661.9	4709.6	4907.8	5148.4
31°	5084.2	5111.5	5097.6	5031.5	4908.3	4759.9	4664.7	4600.9	4651.9	4862.1	5115.9
32°	5042.5	5066.6	5054.7	4993.1	4865.8	4713.0	4605.7	4541.4	4592.5	4814.1	5085.0
33°	4994.3	5021.9	5008.8	4947.6	4820.7	4662.7	4540.3	4478.0	4531.2	4765.7	5046.6
34°	4945.7	4971.5	4959.8	4903.7	4775.7	4610.4	4479.4	4414.6	4471.2	4713.3	5011.4
35°	4892.5	4918.8	4908.2	4851.6	4729.3	4555.4	4409.8	4346.1	4406.2	4660.2	4970.2
36°	4837.8	4862.7	4851.7	4800.2	4678.6	4500.4	4344.8	4279.0	4338.9	4607.4	4930.3
37°	4777.0	4804.7	4794.3	4740.5	4626.2	4442.0	4275.2	4206.0	4274.0	4549.6	4888.6
38°	4716.8	4741.9	4734.2	4681.2	4572.7	4383.0	4209.0	4135.4	4201.0	4495.3	4851.8
39°	4649.3	4672.2	4668.4	4615.6	4512.6	4320.8	4138.7	4058.1	4130.1	4434.5	4812.4
40°	4581.1	4598.8	4599.3	4552.7	4449.6	4258.2	4071.4	3980.5	4052.0	4374.1	4772.4
41°	4499.8	4512.2	4521.0	4485.4	4383.3	4195.8	3999.7	3900.9	3980.4	4308.9	4733.7
42°	4409.5	4420.5	4434.7	4412.3	4315.5	4130.3	3926.6	3822.3	3899.2	4246.0	4697.7
43°	4314.3	4315.0	4337.0	4335.1	4243.2	4062.4	3853.0	3738.0	3819.7	4182.7	4663.1
44°	4207.9	4206.7	4238.9	4248.6	4169.7	3994.2	3777.8	3655.4	3737.3	4122.1	4623.8



REPORT NUMBER: P1449875

CATALOG NUMBER: TWC150\_T4\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	4095.9	4087.0	4125.4	4155.8	4093.1	3921.9	3704.2	3569.2	3656.6	4066.2	4590.2
46°	3972.1	3960.6	4006.6	4055.3	4013.6	3849.9	3625.2	3479.7	3571.7	4004.2	4545.6
47°	3843.6	3823.2	3878.9	3949.0	3931.8	3775.3	3547.8	3391.5	3487.8	3950.9	4502.6
48°	3704.6	3673.3	3743.0	3832.4	3844.8	3696.5	3465.9	3298.8	3402.1	3892.3	4456.4
49°	3548.5	3477.5	3590.8	3708.5	3749.2	3614.7	3382.1	3211.1	3316.1	3843.7	4419.4
50°	3348.6	3238.6	3407.0	3580.5	3647.0	3532.3	3296.9	3115.2	3230.7	3789.5	4372.5
51°	3099.1	2924.5	3169.1	3439.2	3538.3	3444.5	3207.5	3022.1	3145.5	3740.8	4330.3
52°	2772.2	2550.3	2862.0	3288.2	3422.5	3355.2	3118.2	2924.0	3063.9	3681.3	4293.4
53°	2405.1	2148.9	2502.0	3111.1	3301.6	3258.1	3024.8	2829.4	2978.4	3620.0	4251.5
54°	2026.8	1797.1	2097.0	2884.8	3174.1	3162.0	2934.0	2731.7	2900.3	3553.8	4206.3
55°	1648.6	1445.3	1752.2	2593.2	3036.7	3058.3	2835.0	2630.9	2814.8	3481.9	4151.7
56°	1272.7	1096.7	1407.5	2251.4	2894.1	2951.6	2737.3	2532.4	2731.9	3403.2	4100.7
57°	1005.2	892.2	1064.4	1886.5	2743.3	2835.9	2635.0	2428.6	2641.3	3316.3	4046.2
58°	825.6	755.4	865.2	1521.6	2579.2	2713.2	2532.5	2331.9	2546.4	3238.1	3986.6
59°	704.7	670.3	731.4	1159.9	2383.1	2587.2	2424.6	2232.5	2443.8	3153.6	3898.0
60°	636.4	629.3	651.4	910.5	2138.2	2461.4	2316.1	2142.6	2330.5	3068.2	3804.0
61°	604.9	608.5	611.3	737.7	1811.4	2328.6	2202.2	2049.5	2217.5	2973.9	3716.4
62°	584.0	589.8	589.7	628.1	1484.7	2194.4	2086.6	1960.1	2093.1	2875.8	3657.4
63°	565.3	572.9	570.3	569.8	1159.3	2058.2	1972.4	1869.4	1975.0	2770.6	3609.0
64°	546.8	554.7	552.1	539.5	880.8	1920.4	1853.7	1779.5	1847.7	2658.5	3563.3
65°	527.2	534.4	533.0	517.9	682.6	1779.0	1738.6	1683.4	1729.6	2531.7	3539.2
66°	506.4	515.6	511.3	497.4	563.7	1611.0	1624.7	1580.6	1606.1	2374.2	3565.0
67°	487.7	498.7	491.8	475.6	498.2	1442.8	1510.7	1473.4	1495.8	2217.0	3688.9
68°	468.7	481.4	473.4	452.9	464.6	1274.8	1396.8	1357.3	1386.8	2069.3	3906.2
69°	450.0	463.8	453.8	429.3	440.9	1019.3	1288.1	1244.1	1280.1	1949.1	4006.2
70°	431.6	449.3	435.9	406.5	417.5	754.8	1185.5	1128.2	1178.6	1824.4	3819.3
71°	416.8	434.1	420.4	384.3	393.5	555.9	1086.3	1012.3	1080.7	1716.3	3312.7
72°	399.1	412.7	404.2	363.8	370.4	442.8	987.4	897.8	988.9	1649.5	2730.8
73°	375.0	387.7	381.1	345.0	345.9	385.0	886.6	790.6	900.9	1720.0	2281.5
74°	348.8	360.1	356.5	328.7	322.7	353.2	788.1	696.7	819.9	2160.3	2032.9
75°	321.1	331.6	328.4	305.7	298.6	325.1	683.8	603.2	730.1	2239.5	1893.9
76°	293.6	303.2	300.2	281.3	278.0	298.2	581.9	509.8	647.5	1526.6	1790.2
77°	264.1	274.5	269.3	254.5	256.6	272.2	480.9	433.3	565.1	951.3	1665.9
78°	238.5	253.5	241.2	228.5	236.4	248.4	387.3	362.0	482.8	801.9	1520.1
79°	220.4	235.8	221.6	202.6	211.3	224.5	308.9	300.7	436.3	738.0	1238.6
80°	205.1	219.4	204.8	176.6	185.9	201.6	255.9	246.5	382.6	928.0	1034.3
81°	182.4	193.4	183.6	151.0	160.5	180.2	220.9	199.0	337.0	691.2	915.4
82°	159.7	167.5	162.3	136.8	135.0	158.9	190.9	158.9	304.1	510.5	829.4
83°	136.9	141.5	141.0	122.5	104.3	137.5	160.9	122.6	273.1	331.2	749.5
84°	109.9	113.1	113.7	103.8	85.4	112.9	130.9	93.2	242.9	274.7	578.0
85°	80.0	82.7	86.0	84.9	71.8	89.1	103.9	72.2	168.8	237.2	404.2
86°	59.2	62.3	62.9	61.5	56.5	65.9	77.8	51.4	93.0	198.1	230.5
87°	42.0	44.2	44.7	41.7	39.2	46.9	55.5	30.6	64.7	137.4	96.6
88°	24.9	26.1	26.6	28.9	27.2	32.0	37.5	16.3	36.6	77.4	48.4
89°	7.9	8.1	8.7	16.1	15.1	17.0	19.4	6.0	8.5	58.2	1.2



REPORT NUMBER: P1449875  
 CATALOG NUMBER: TWC150\_T4\_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: P1449875  
 CATALOG NUMBER: TWC150\_T4\_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: P1449875  
CATALOG NUMBER: TWC150\_T4\_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: P1449875  
 CATALOG NUMBER: TWC150\_T4\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	5565.4	5565.4	5565.4
1°	5574.0	5575.2	5575.7
2°	5581.3	5582.6	5583.2
3°	5587.7	5588.8	5589.6
4°	5591.0	5595.5	5595.5
5°	5593.2	5600.2	5600.7
6°	5597.5	5607.0	5608.4
7°	5601.5	5610.5	5614.4
8°	5603.8	5616.7	5622.6
9°	5605.4	5621.7	5630.0
10°	5605.7	5627.9	5636.7
11°	5606.2	5631.2	5639.1
12°	5603.1	5630.7	5638.5
13°	5597.9	5629.6	5638.0
14°	5591.2	5629.6	5637.4
15°	5581.9	5626.2	5636.8
16°	5570.2	5619.7	5636.3
17°	5562.3	5617.0	5634.6
18°	5549.2	5611.2	5630.7
19°	5540.1	5606.6	5626.4
20°	5529.1	5600.1	5622.1
21°	5517.0	5591.9	5614.1
22°	5500.6	5582.9	5605.4
23°	5485.0	5571.4	5596.6
24°	5468.4	5561.6	5589.7
25°	5449.9	5551.7	5581.0
26°	5433.9	5539.9	5572.7
27°	5413.2	5526.7	5564.9
28°	5396.2	5517.6	5551.8
29°	5374.3	5500.6	5538.1
30°	5353.7	5485.9	5527.3
31°	5330.1	5471.8	5521.0
32°	5304.6	5462.3	5515.3
33°	5281.6	5452.9	5511.4
34°	5259.8	5447.4	5509.7
35°	5237.1	5437.6	5506.8
36°	5216.4	5434.4	5509.6
37°	5198.1	5432.2	5514.3
38°	5179.2	5430.6	5516.5
39°	5166.9	5429.7	5519.5
40°	5149.4	5423.6	5518.2
41°	5133.1	5416.1	5519.9
42°	5111.0	5412.7	5524.6
43°	5090.2	5411.1	5530.3
44°	5068.6	5410.8	5545.9



REPORT NUMBER: P1449875  
 CATALOG NUMBER: TWC150\_T4\_120W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	5049.5	5422.1	5566.3
46°	5026.8	5433.4	5581.8
47°	5016.8	5442.2	5601.6
48°	5012.3	5451.6	5613.9
49°	4999.4	5458.9	5627.3
50°	4984.6	5467.1	5632.0
51°	4965.3	5468.0	5617.6
52°	4947.7	5448.3	5581.8
53°	4928.6	5403.7	5547.4
54°	4900.4	5372.0	5545.3
55°	4850.3	5369.6	5563.7
56°	4795.5	5384.8	5577.8
57°	4765.8	5391.4	5608.7
58°	4761.3	5416.6	5692.6
59°	4753.8	5498.8	5825.1
60°	4748.6	5624.9	5972.6
61°	4774.0	5771.3	6070.9
62°	4860.9	5853.3	6057.2
63°	4999.4	5816.0	5942.9
64°	5135.6	5670.8	5711.9
65°	5143.9	5410.0	5402.4
66°	5013.9	5064.2	5076.0
67°	4727.6	4718.6	4671.0
68°	4329.6	4256.0	4216.3
69°	3888.1	3847.5	3894.8
70°	3443.9	3601.0	3732.1
71°	3084.8	3469.6	3590.7
72°	2889.4	3344.8	3452.5
73°	2747.7	3198.8	3302.6
74°	2608.3	3065.5	3148.5
75°	2447.8	2907.2	2956.1
76°	2287.0	2741.6	2749.4
77°	2111.0	2561.1	2514.0
78°	1944.2	2376.4	2244.3
79°	1808.0	2146.0	1971.7
80°	1675.4	1900.6	1684.7
81°	1521.5	1628.3	1411.4
82°	1337.6	1364.2	1170.7
83°	1095.2	1175.6	976.2
84°	872.6	924.4	695.8
85°	685.3	688.0	500.3
86°	500.2	452.0	305.7
87°	315.2	216.0	128.0
88°	25.4	107.9	63.9
89°	13.1	1.6	2.0



REPORT NUMBER: P1449875  
CATALOG NUMBER: TWC150\_T4\_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: P1449875  
CATALOG NUMBER: TWC150\_T4\_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
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161°	0.0	0.0	0.0
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163°	0.0	0.0	0.0
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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: P1449875  
CATALOG NUMBER: TWC150\_T4\_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

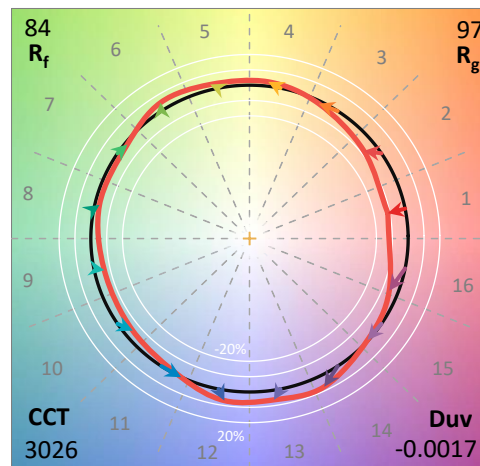
**Test Information**

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**

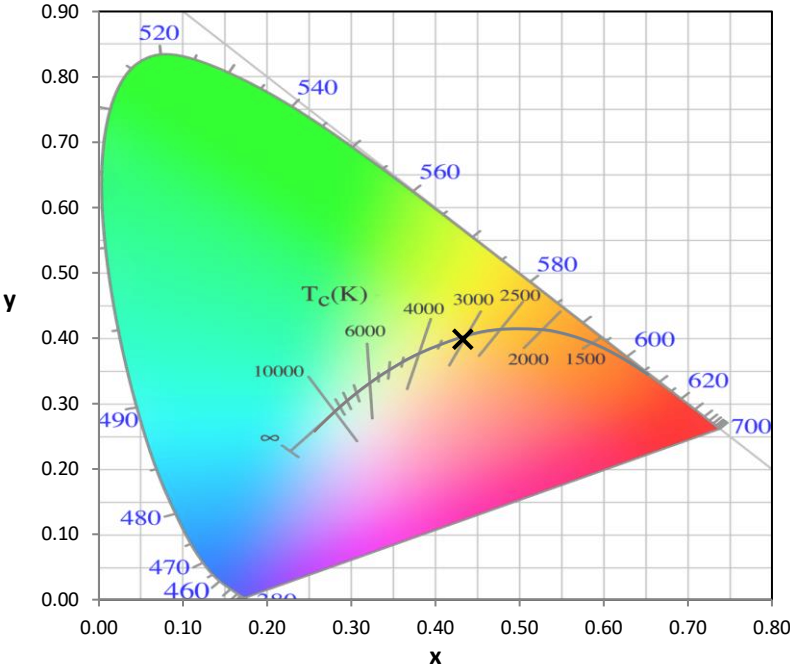
Stabilization Time: 64M  
 Operation Time: 2H 4M  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-1

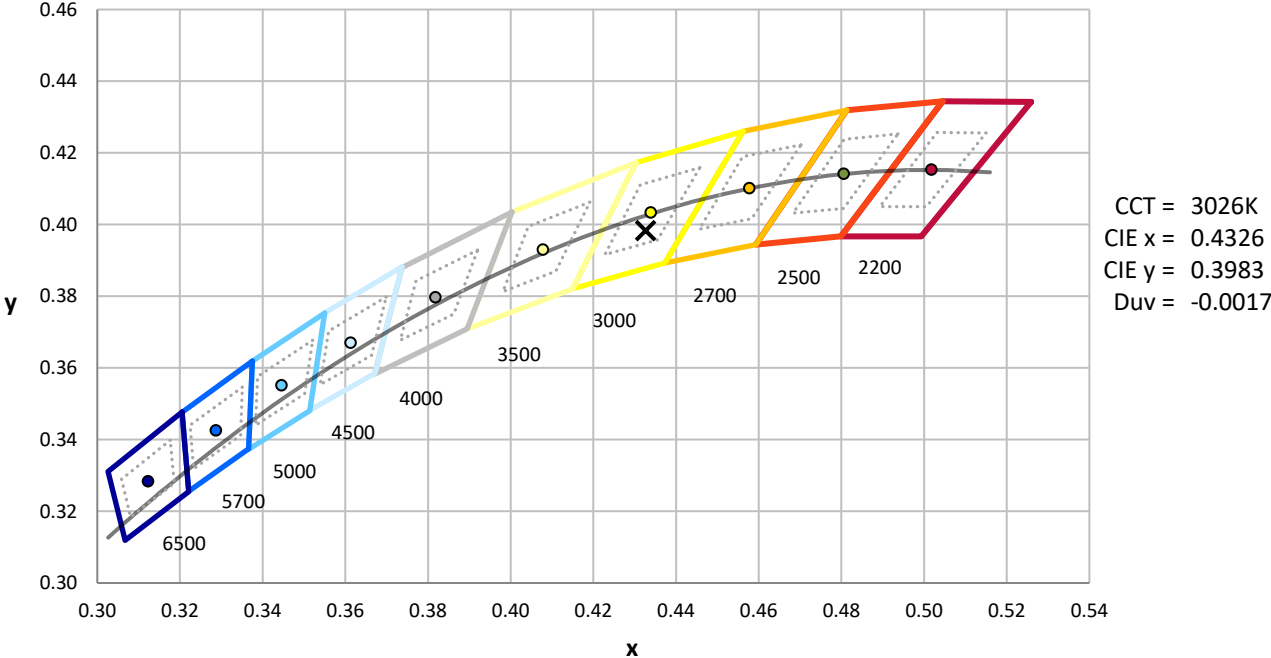
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

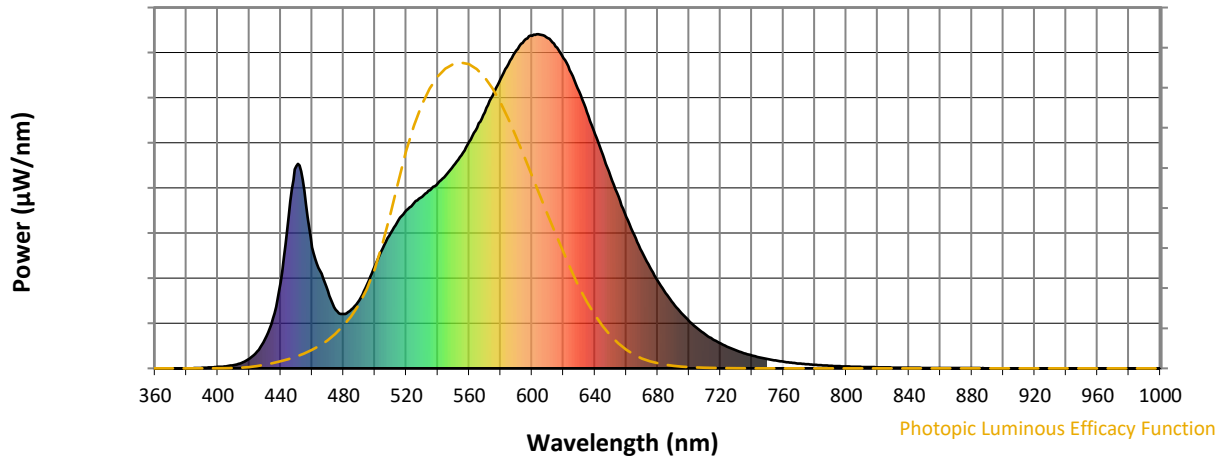


CCT = 3026K  
 CIE x = 0.4326  
 CIE y = 0.3983  
 Duv = -0.0017

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-1

**Photopic Flux vs. Wavelength**

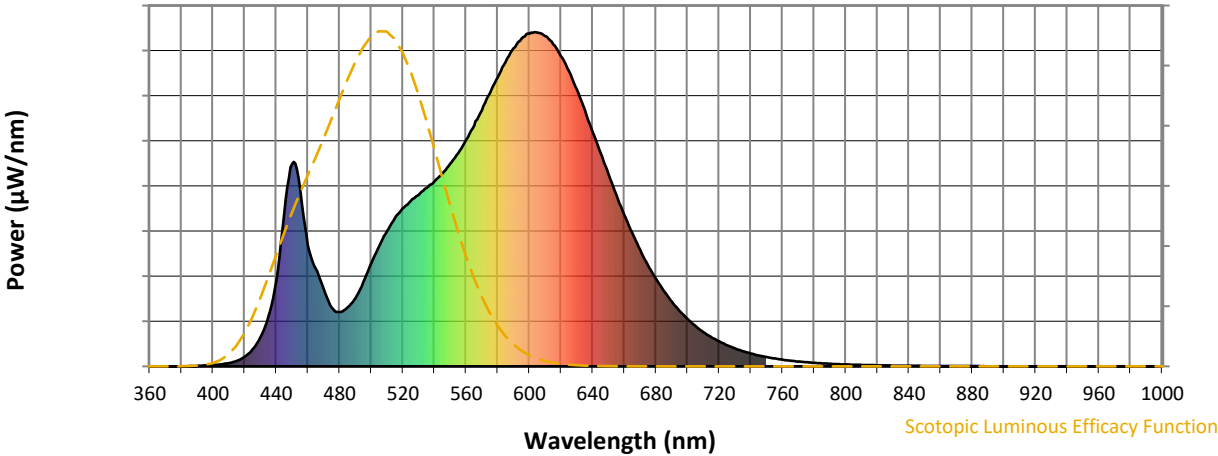


**Photopic Lumens: NR**

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

Scotopic Flux vs. Wavelength

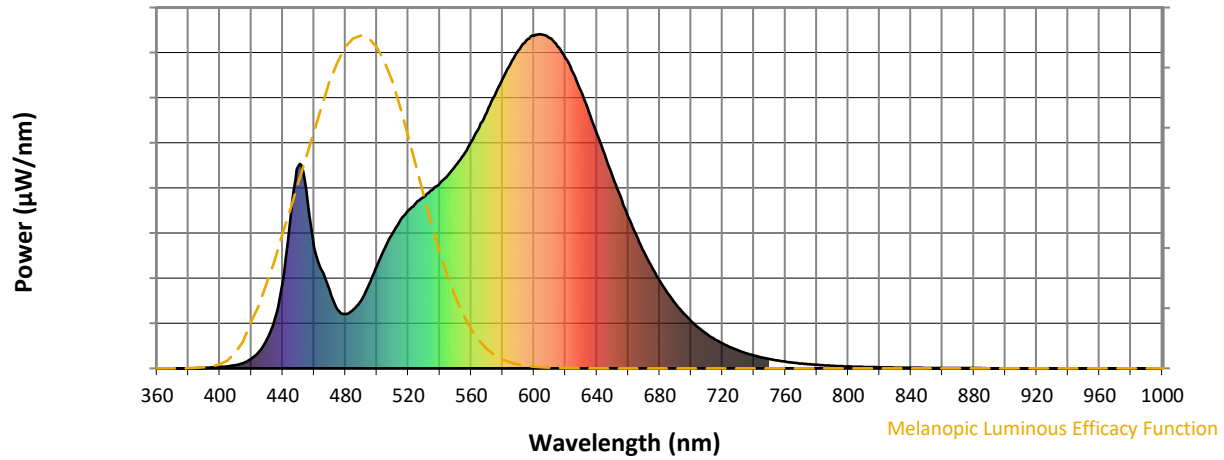


Scotopic Lumens: NR S/P: 1.35

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



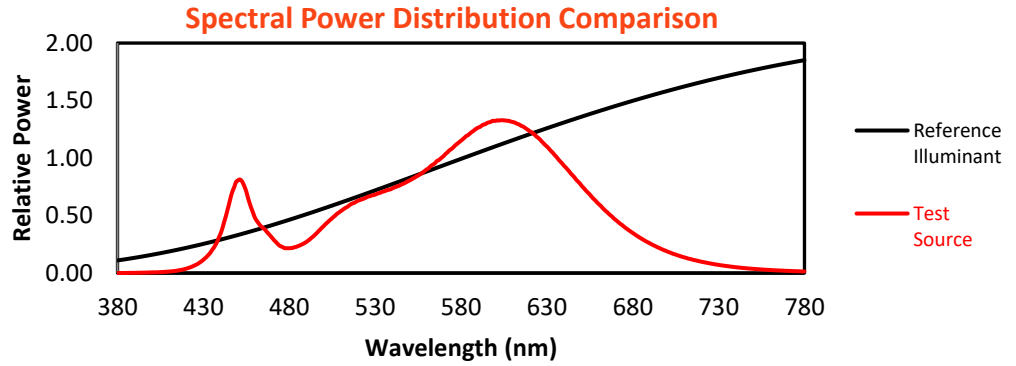
Melanopic Lumens: NR

M/P: 2.61

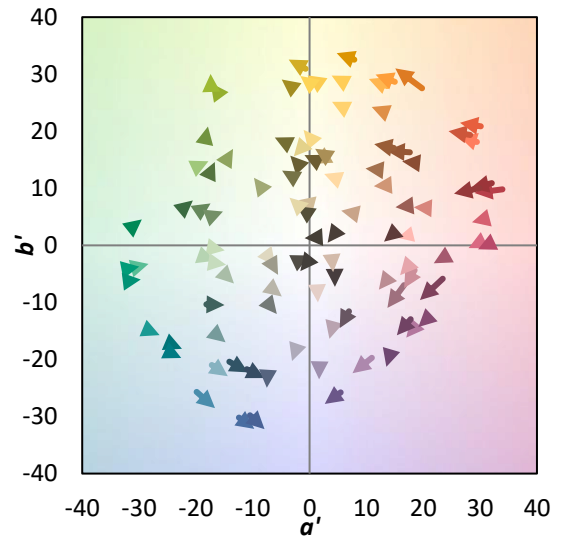
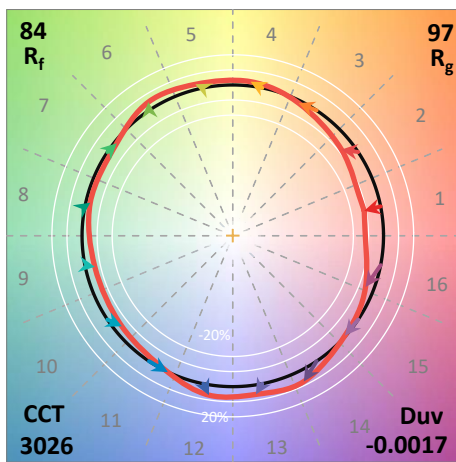
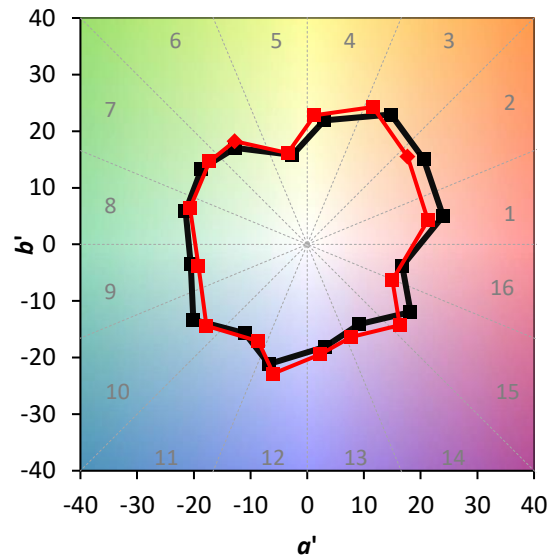
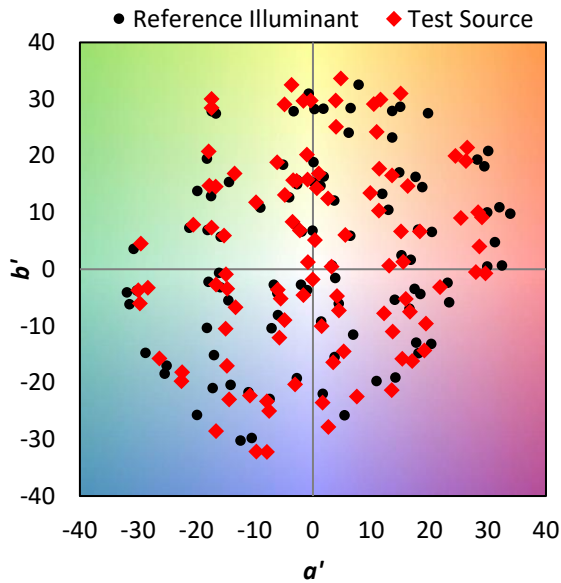
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	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**

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

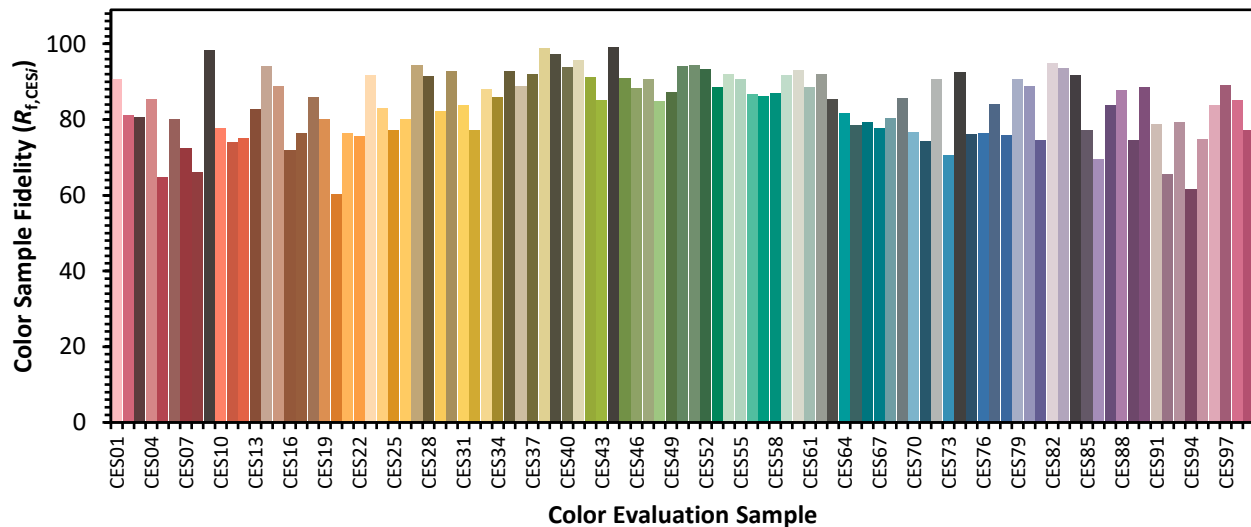


**Color Vector Graphics**

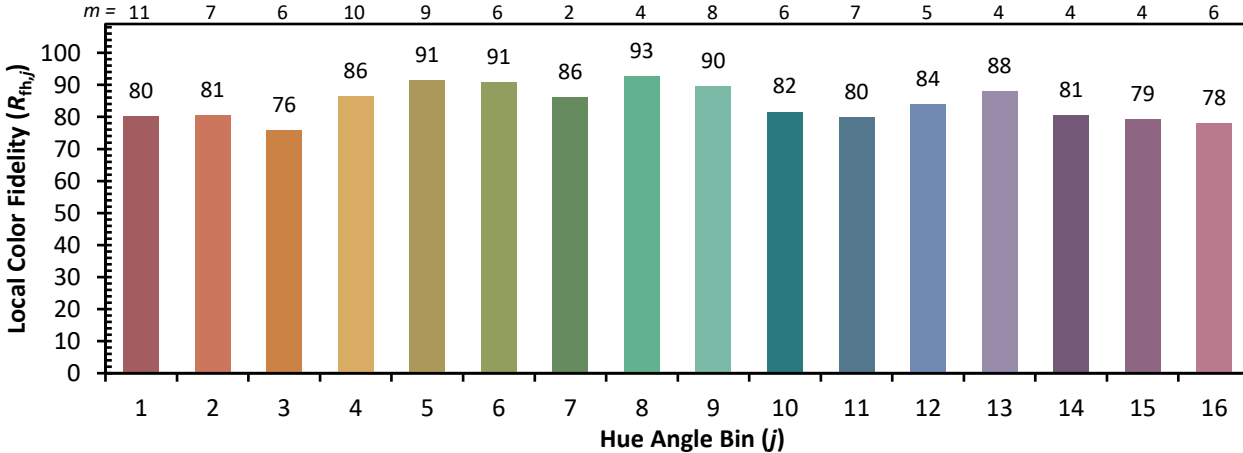
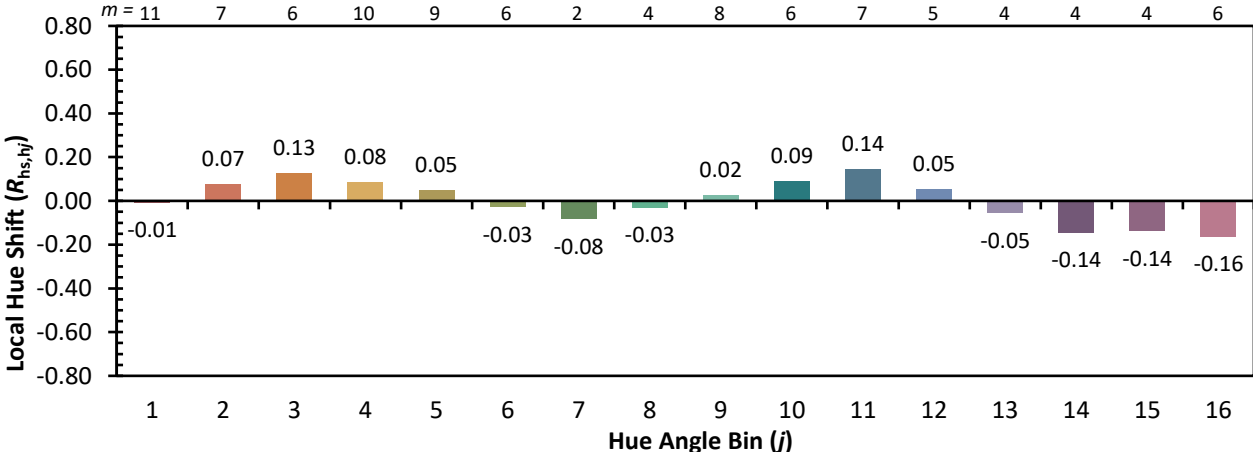
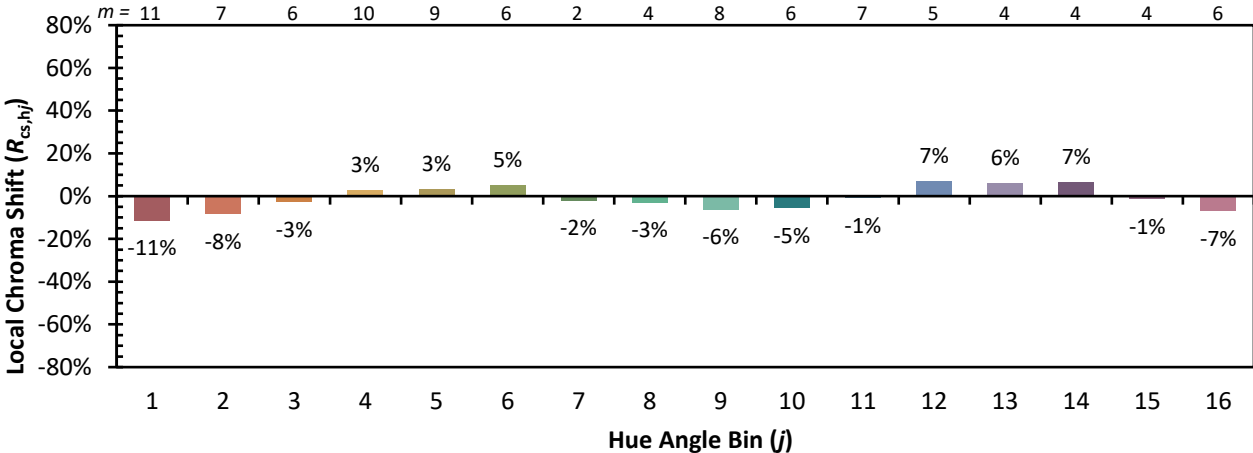


Individual Sample Fidelity Index ( $R_{f,i}$ )

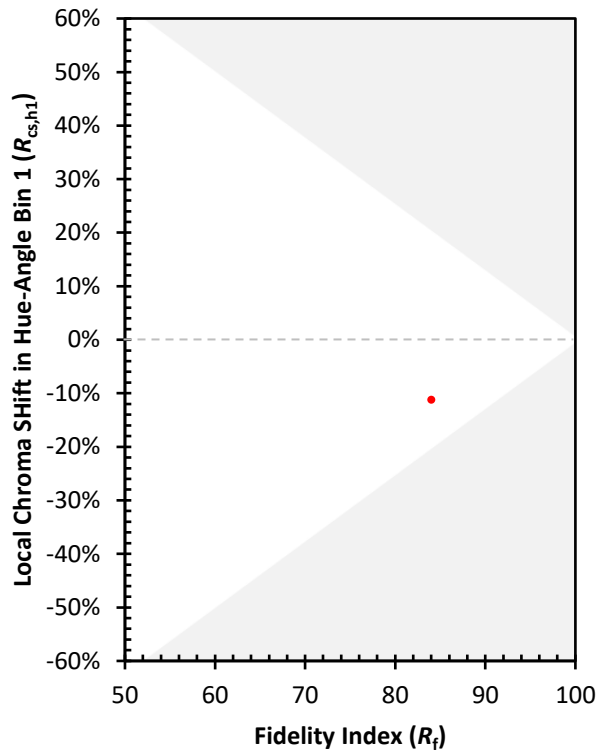
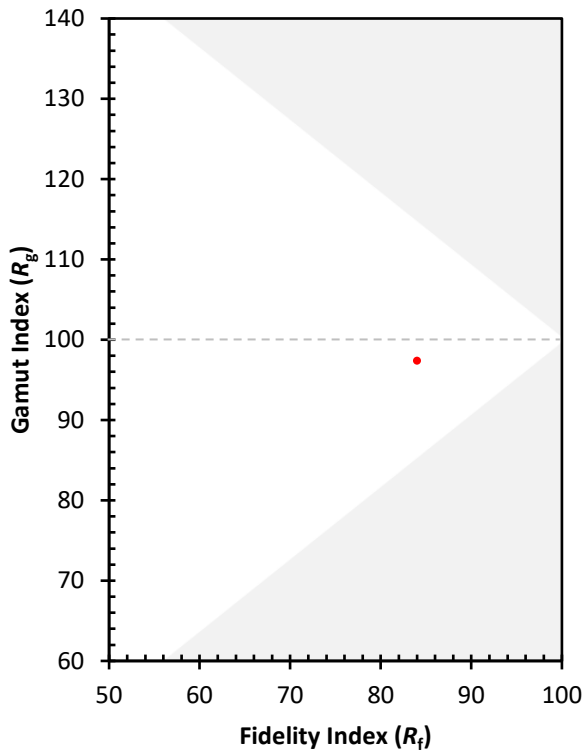
CES01 = 86	CES26 = 80	CES51 = 94	CES76 = 76
CES02 = 63	CES27 = 94	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 76
CES04 = 70	CES29 = 82	CES54 = 92	CES79 = 91
CES05 = 50	CES30 = 93	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 75
CES07 = 42	CES32 = 77	CES57 = 86	CES82 = 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)