

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: P1449854

Luminaire Tested: **TWC150_T2_150W_3000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449854
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_150W_3000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 150W
3000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22693 lumens
Efficiency: N/A
Efficacy: 150.8 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 0.42' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

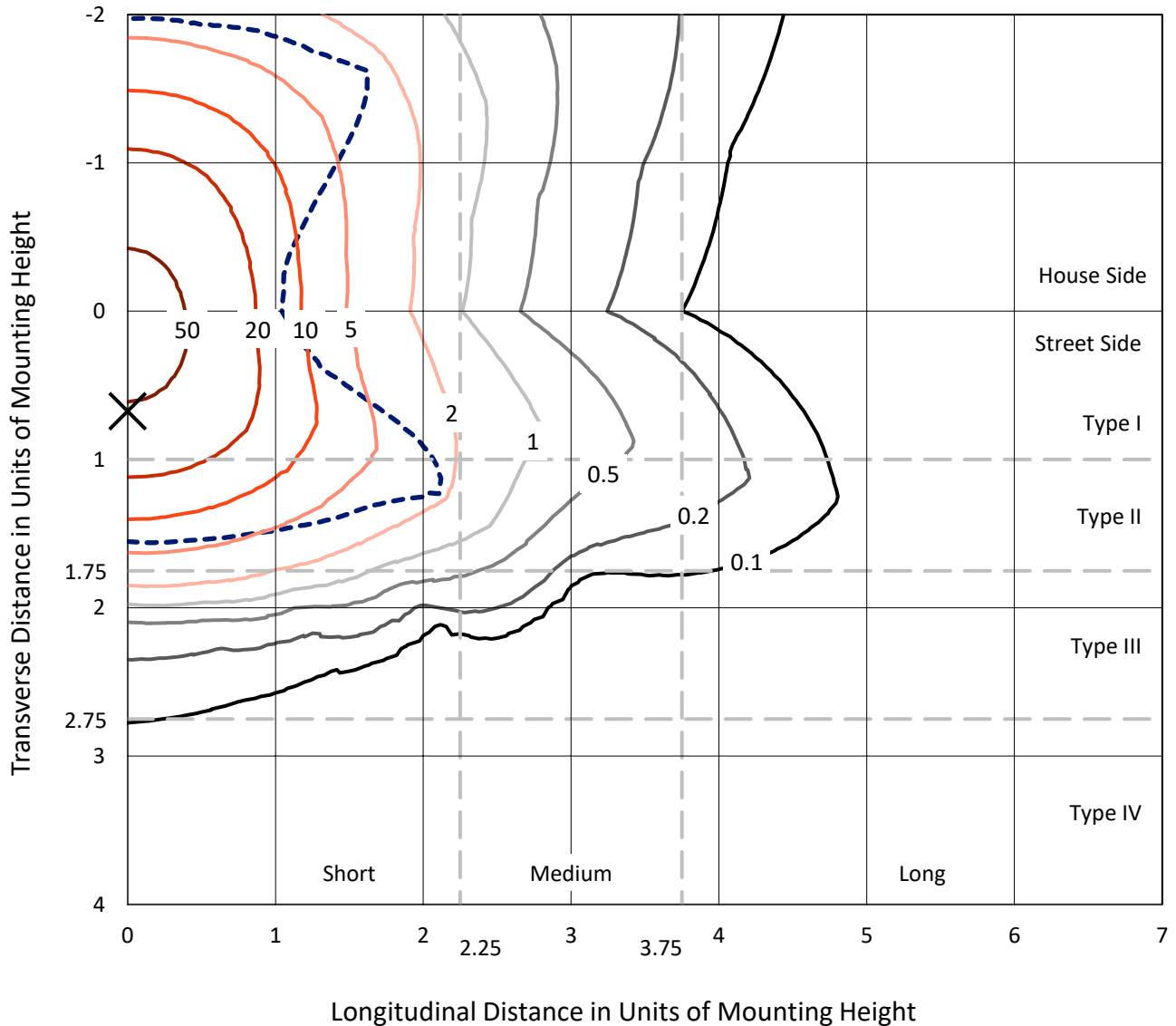
Input Watts (W): 150.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

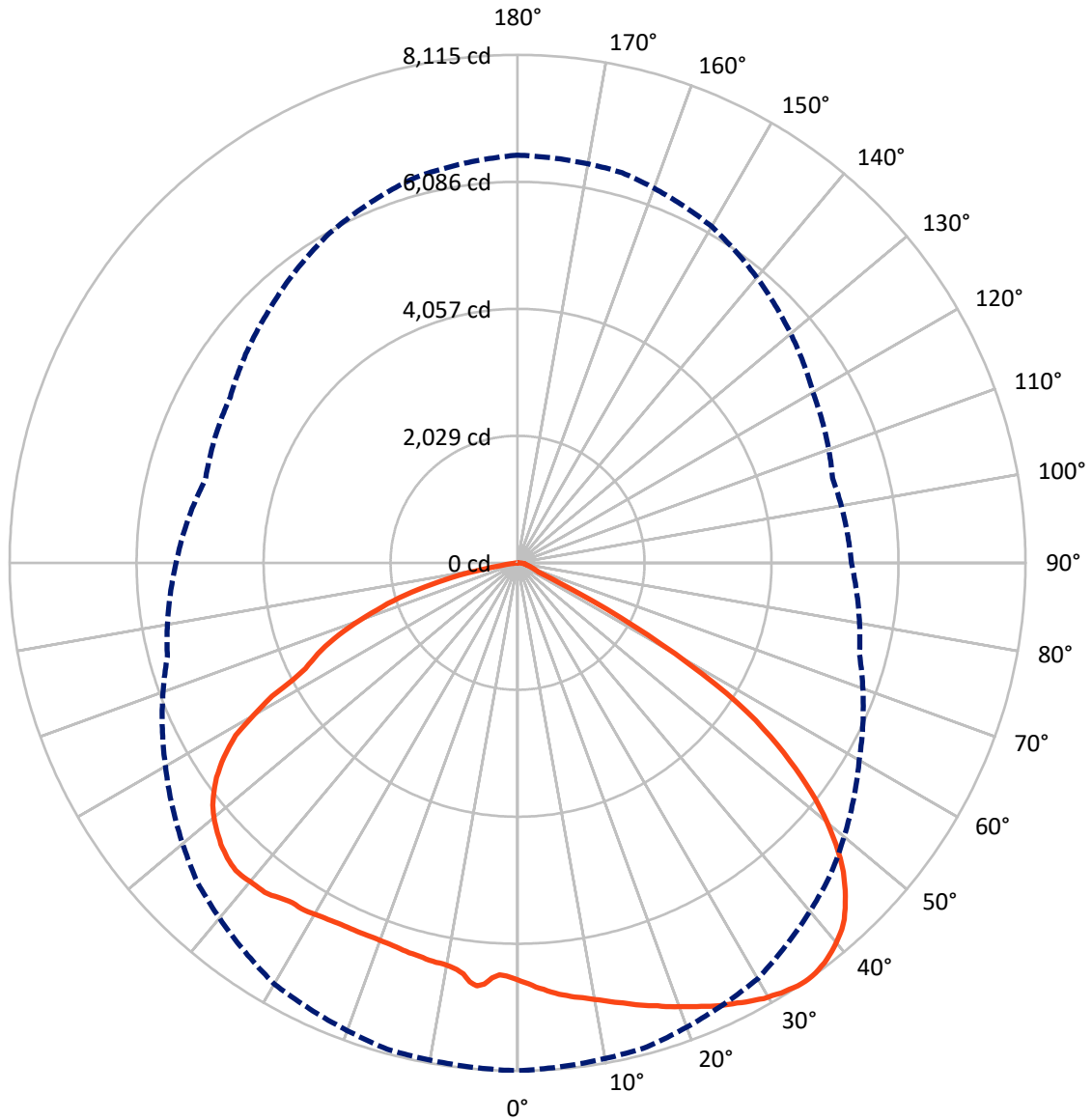
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 68.4 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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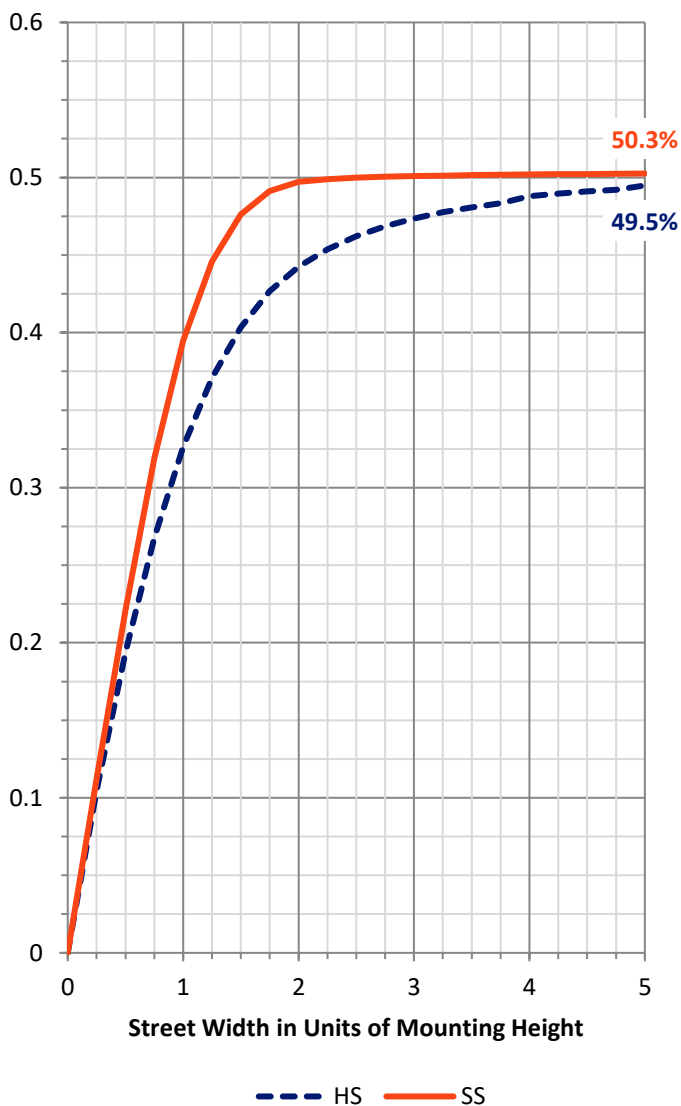
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11290.8	0.0	11290.8
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	11402.2	0.0	11402.2
	% Fixture	50.2	0.0	50.2
Total	Lumens	22693.0	0.0	22693.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	642.9	2.8
10°-20°	1894.9	8.4
20°-30°	3040.3	13.4
30°-40°	3978.7	17.5
40°-50°	4533.5	20.0
50°-60°	4317.0	19.0
60°-70°	2802.5	12.3
70°-80°	1242.1	5.5
80°-90°	241.0	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°	22693.0	100.0
0°-180°	22693.0	100.0

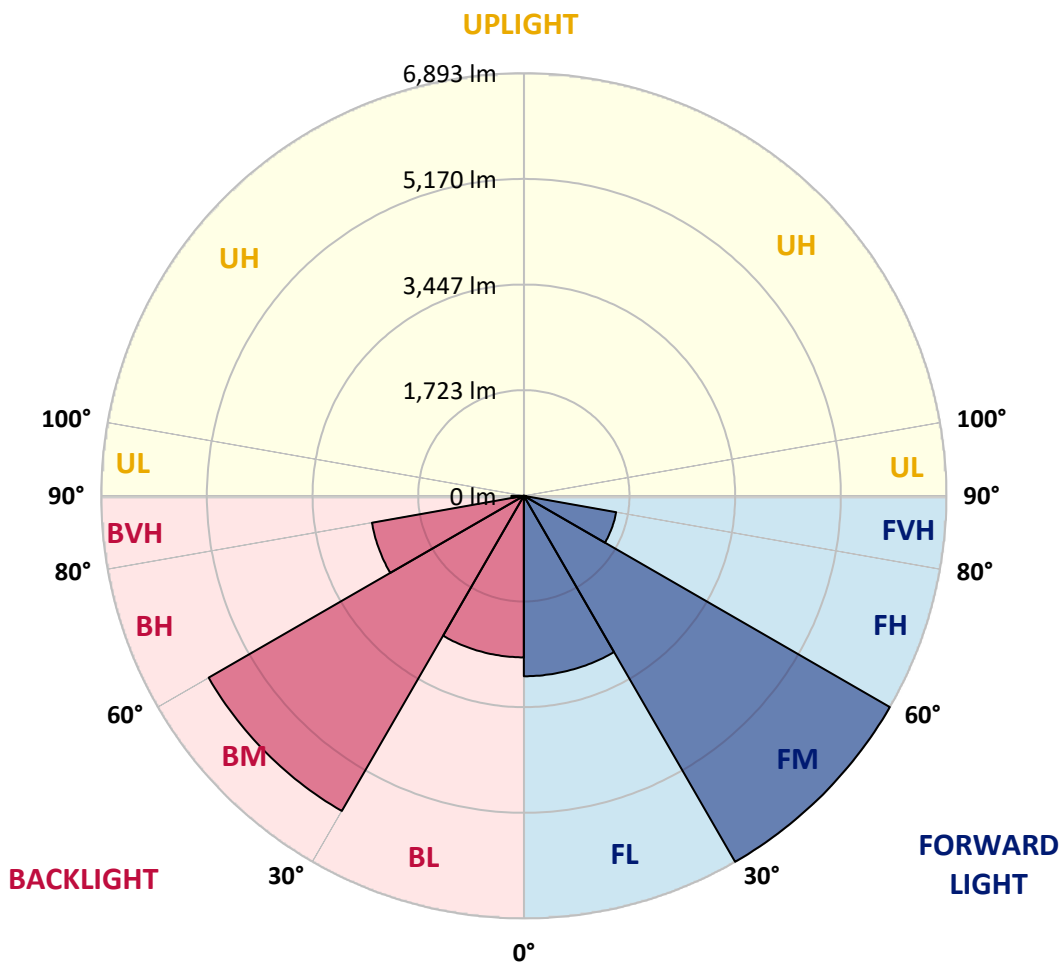


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2943.1	13.0			
FM (30°-60°)	6893.4	30.4			
FH (60°-80°)	1528.8	6.7			G1/1800
FVH (80°-90°)	37.0	0.2			G1/100
BL (0°-30°)	2635.0	11.6	B4/5000		
BM (30°-60°)	5935.9	26.2	B4/8500		
BH (60°-80°)	2515.8	11.1	B4/5000		G4/5000
BVH (80°-90°)	204.0	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2
1°	6725.8	6721.8	6724.3	6707.9	6695.6	6690.3	6684.5	6671.9	6660.8	6652.4	6645.9
2°	6783.1	6772.2	6760.4	6741.5	6718.5	6696.3	6678.4	6655.5	6636.6	6627.2	6615.4
3°	6828.2	6822.9	6801.5	6771.7	6741.0	6698.1	6670.9	6637.3	6610.6	6592.7	6583.6
4°	6879.7	6864.8	6841.4	6803.5	6752.1	6699.9	6657.5	6617.9	6587.4	6585.1	6611.3
5°	6922.3	6908.2	6875.9	6831.0	6766.2	6702.4	6649.7	6598.2	6570.0	6617.1	6697.8
6°	6959.1	6941.7	6909.2	6854.7	6779.8	6694.8	6621.4	6566.2	6576.5	6695.6	6771.7
7°	6995.2	6972.3	6927.6	6870.4	6785.6	6693.1	6607.5	6546.8	6615.6	6757.1	6781.6
8°	7026.2	7003.8	6957.4	6882.7	6794.9	6688.0	6587.6	6530.1	6667.3	6763.7	6695.1
9°	7064.6	7039.3	6975.5	6904.2	6792.7	6675.6	6562.2	6514.5	6715.7	6711.5	6594.4
10°	7101.1	7066.8	7006.6	6913.7	6798.5	6657.2	6537.4	6523.1	6713.5	6602.8	6548.3
11°	7144.0	7110.7	7026.0	6923.8	6790.2	6647.7	6514.0	6542.5	6684.7	6524.8	6514.7
12°	7189.4	7151.6	7054.7	6940.7	6791.7	6632.3	6475.9	6562.4	6591.7	6485.5	6490.5
13°	7229.5	7188.7	7085.5	6946.8	6789.1	6610.8	6441.8	6576.0	6501.4	6450.2	6473.6
14°	7281.5	7233.0	7117.8	6959.9	6784.4	6588.6	6409.8	6584.6	6431.0	6420.4	6462.3
15°	7333.7	7282.2	7148.3	6974.3	6771.7	6561.6	6372.7	6557.4	6379.3	6395.4	6433.0
16°	7376.8	7324.1	7189.9	6985.6	6773.0	6545.0	6336.7	6509.7	6339.7	6368.2	6414.6
17°	7420.9	7369.0	7218.2	7007.8	6770.0	6522.0	6301.9	6434.8	6293.0	6339.7	6398.7
18°	7475.2	7405.6	7249.4	7025.0	6765.7	6496.3	6271.6	6332.1	6257.7	6304.1	6382.8
19°	7524.1	7453.7	7284.2	7042.9	6754.8	6464.5	6239.3	6239.1	6220.9	6277.9	6357.1
20°	7568.7	7488.3	7308.2	7053.7	6754.6	6441.8	6215.6	6160.1	6175.8	6245.6	6331.4
21°	7619.7	7534.4	7344.5	7063.1	6736.7	6418.4	6202.7	6100.1	6124.3	6210.6	6317.5
22°	7671.4	7573.3	7364.4	7073.9	6719.5	6390.4	6188.6	6040.8	6073.1	6179.8	6301.9
23°	7724.6	7625.7	7390.4	7075.9	6699.9	6350.5	6173.2	5981.3	6030.0	6148.3	6276.1
24°	7775.8	7670.1	7418.2	7082.5	6683.5	6315.7	6150.0	5928.1	5981.8	6119.3	6261.3
25°	7817.9	7711.5	7448.2	7078.4	6658.5	6259.5	6119.8	5874.6	5934.1	6087.7	6254.7
26°	7858.5	7753.9	7476.2	7075.2	6625.2	6206.0	6068.8	5801.7	5876.1	6048.6	6242.6
27°	7909.2	7792.5	7514.8	7081.0	6599.0	6156.3	6007.3	5740.2	5824.2	6017.4	6227.5
28°	7948.3	7828.0	7533.7	7069.1	6561.6	6094.5	5922.8	5667.5	5773.5	5990.6	6223.4
29°	7996.8	7872.7	7561.9	7071.6	6519.5	6035.5	5834.5	5596.7	5726.8	5956.3	6220.4
30°	8022.2	7913.5	7578.1	7065.1	6483.2	5961.9	5724.5	5523.8	5672.1	5926.6	6208.3
31°	8059.1	7940.0	7609.6	7072.4	6440.3	5890.5	5621.6	5450.9	5612.6	5900.1	6207.3
32°	8081.2	7971.8	7626.0	7068.3	6392.9	5818.4	5520.0	5370.4	5562.1	5871.8	6200.7
33°	8105.7	7988.2	7652.7	7064.1	6347.8	5737.2	5419.9	5292.0	5500.6	5845.4	6204.8
34°	8114.5	8006.3	7672.4	7063.3	6303.1	5654.7	5331.3	5210.5	5448.6	5819.9	6203.0
35°	8109.5	8010.1	7692.6	7059.8	6259.0	5575.2	5235.0	5129.3	5383.5	5789.1	6196.9
36°	8083.8	8006.8	7692.3	7047.4	6213.1	5484.7	5137.4	5048.1	5327.3	5770.9	6169.5
37°	8056.0	7981.1	7704.7	7050.4	6168.4	5395.1	5037.3	4964.6	5269.5	5736.9	6166.9
38°	8008.6	7947.1	7695.9	7055.5	6131.6	5311.2	4937.4	4881.9	5216.1	5700.3	6168.9
39°	7951.6	7905.7	7675.2	7054.0	6091.8	5221.4	4833.7	4804.5	5158.8	5654.2	6182.3
40°	7889.3	7848.2	7657.0	7057.2	6054.9	5129.1	4729.8	4727.0	5102.6	5622.1	6197.2
41°	7820.2	7783.6	7619.2	7057.2	6020.4	5045.1	4625.9	4649.6	5043.3	5611.8	6191.4
42°	7724.6	7704.4	7574.3	7053.2	5985.8	4957.0	4524.0	4560.3	4976.5	5594.1	6188.9
43°	7602.3	7612.6	7512.8	7049.7	5957.8	4874.1	4409.7	4471.0	4897.8	5557.8	6188.1
44°	7471.6	7498.4	7442.4	7043.1	5930.1	4795.6	4292.5	4383.0	4842.0	5517.5	6192.1



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	7328.6	7376.6	7368.2	7024.2	5905.6	4720.0	4176.7	4287.4	4786.3	5475.4	6191.9
46°	7175.3	7234.3	7272.9	7000.5	5883.4	4648.1	4066.0	4193.8	4730.6	5462.5	6177.0
47°	6990.2	7077.9	7177.3	6962.7	5869.3	4571.9	3942.1	4099.8	4669.0	5443.3	6143.5
48°	6790.2	6902.1	7050.2	6925.6	5847.6	4485.9	3824.9	3997.4	4596.1	5415.8	6104.1
49°	6576.0	6702.4	6911.7	6861.5	5832.5	4395.4	3700.8	3886.1	4524.2	5381.0	6059.7
50°	6342.7	6475.4	6759.9	6794.9	5822.1	4297.3	3580.0	3765.1	4468.0	5342.7	6008.3
51°	6087.2	6249.7	6587.6	6723.3	5809.5	4196.6	3455.9	3647.8	4407.2	5294.0	5952.5
52°	5817.4	5989.9	6397.7	6643.4	5803.7	4091.2	3327.5	3547.7	4332.8	5250.9	5899.6
53°	5525.5	5719.5	6179.5	6538.9	5789.4	3968.1	3204.9	3452.8	4252.4	5210.8	5838.8
54°	5223.6	5427.9	5932.4	6417.6	5771.7	3861.9	3083.6	3336.6	4168.6	5163.1	5773.2
55°	4903.3	5118.2	5669.8	6273.9	5758.3	3753.0	2951.7	3217.5	4076.6	5109.1	5701.8
56°	4559.8	4790.8	5388.1	6119.0	5735.1	3646.8	2822.3	3107.8	4000.1	5046.6	5623.9
57°	4171.1	4436.0	5077.6	5940.7	5700.3	3544.4	2694.2	2999.1	3912.1	4982.5	5538.2
58°	3704.3	4048.8	4749.7	5724.3	5645.1	3442.5	2561.0	2885.6	3828.4	4917.2	5439.5
59°	3179.2	3589.8	4396.9	5482.7	5583.3	3341.9	2428.6	2762.8	3737.3	4851.4	5323.0
60°	2635.4	3061.4	4013.8	5202.0	5500.8	3241.2	2291.2	2637.2	3644.0	4785.3	5193.4
61°	2123.3	2516.5	3591.6	4887.7	5412.0	3147.9	2160.1	2511.4	3548.9	4719.0	5037.0
62°	1611.5	2005.8	3084.3	4517.4	5301.3	3066.9	2037.7	2393.5	3459.6	4628.4	4802.2
63°	1099.8	1495.4	2556.0	4119.7	5171.2	2994.6	1905.7	2267.8	3375.9	4529.8	4567.6
64°	713.0	985.0	2028.7	3705.8	5015.3	2935.3	1776.0	2150.9	3287.1	4417.8	4328.0
65°	468.6	615.2	1501.4	3221.0	4834.2	2894.7	1651.9	2035.4	3196.1	4303.3	3921.5
66°	360.7	405.2	974.1	2682.1	4617.3	2875.8	1529.2	1920.2	3098.2	4149.7	3626.1
67°	327.2	318.0	595.4	2128.6	4350.5	2865.4	1412.1	1805.0	3002.1	3902.8	3452.8
68°	304.2	289.1	377.0	1574.8	4020.6	2860.1	1293.9	1693.8	2888.9	3596.8	3308.1
69°	281.6	266.2	294.9	1021.0	3650.3	2851.0	1180.3	1585.2	2777.1	3359.5	3165.6
70°	259.4	244.5	265.5	594.9	3178.9	2849.0	1069.6	1481.1	2670.2	3210.2	3028.6
71°	238.6	226.0	243.8	351.2	2557.0	2863.9	962.5	1376.0	2549.4	3065.4	2902.5
72°	222.0	207.6	222.1	254.6	1893.0	2866.7	865.7	1272.8	2356.5	2906.5	2769.8
73°	205.5	189.2	200.4	225.9	1228.4	2799.3	769.6	1166.7	2175.2	2741.8	2629.3
74°	189.0	172.9	178.7	198.5	563.7	2604.1	677.7	1063.7	2055.3	2586.5	2471.7
75°	172.0	155.4	158.4	171.0	312.7	2354.4	591.1	967.0	1954.7	2439.6	2306.6
76°	157.8	139.6	135.1	152.3	263.5	2086.1	504.6	870.8	1844.1	2296.6	2107.7
77°	147.0	127.3	117.4	137.8	217.3	1817.5	418.5	780.1	1734.3	2163.4	1878.6
78°	140.0	116.9	102.8	121.2	171.1	1548.9	346.4	670.7	1633.0	2035.0	1671.5
79°	134.3	110.4	92.3	100.7	155.1	1181.6	281.5	584.9	1525.3	1911.8	1479.7
80°	126.9	104.9	84.1	82.0	154.9	892.9	223.3	499.1	1419.7	1752.3	1330.9
81°	118.4	98.0	77.6	69.5	144.0	624.4	174.6	413.4	1319.0	1585.2	1178.0
82°	108.2	90.3	71.7	60.7	123.3	406.2	132.6	347.1	1209.8	1414.7	839.7
83°	89.4	78.4	65.4	53.0	102.1	239.4	96.0	284.4	1101.4	1284.7	501.3
84°	70.7	64.2	55.4	46.0	70.2	178.7	73.4	223.1	951.8	1167.0	169.1
85°	50.8	47.6	41.6	39.3	41.3	118.6	50.9	168.6	766.4	932.4	97.3
86°	35.4	36.0	30.3	29.2	26.6	58.5	28.5	117.6	613.3	697.8	26.8
87°	24.2	24.6	20.8	20.0	18.0	32.1	16.3	79.6	460.2	463.2	13.1
88°	13.0	13.2	11.2	10.9	9.4	21.3	7.4	41.6	307.1	228.6	4.5
89°	1.8	1.8	1.7	1.8	2.0	11.1	2.4	4.6	154.0	1.7	1.1



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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: P1449854
 CATALOG NUMBER: TWC150_T2_150W_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: P1449854
CATALOG NUMBER: TWC150_T2_150W_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: P1449854

CATALOG NUMBER: TWC150_T2_150W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2	6683.2
1°	6639.6	6639.1	6644.4	6639.8	6649.9	6657.5	6666.1	6685.5	6696.1	6702.9	6711.7
2°	6600.0	6603.5	6601.2	6605.8	6628.7	6640.1	6656.5	6679.7	6707.4	6722.8	6744.8
3°	6580.8	6588.6	6577.8	6579.3	6588.9	6617.9	6636.0	6670.4	6705.7	6741.5	6782.3
4°	6643.1	6641.6	6620.7	6586.1	6564.9	6588.6	6618.6	6666.1	6720.0	6761.7	6811.6
5°	6743.0	6748.0	6716.8	6660.8	6576.5	6560.9	6600.0	6651.9	6716.8	6783.6	6841.1
6°	6790.4	6791.7	6789.9	6732.4	6631.0	6544.7	6576.5	6636.0	6715.7	6799.0	6863.3
7°	6752.1	6739.2	6758.9	6765.9	6697.3	6551.1	6552.3	6623.9	6716.8	6810.1	6887.3
8°	6633.8	6621.2	6643.6	6722.1	6736.7	6576.8	6525.1	6608.3	6718.3	6818.4	6903.4
9°	6569.0	6569.0	6569.7	6607.0	6725.6	6623.9	6492.0	6581.8	6703.4	6821.2	6920.5
10°	6540.2	6538.2	6536.4	6535.2	6644.4	6656.2	6471.6	6561.9	6698.1	6828.0	6939.5
11°	6515.7	6518.3	6511.5	6501.1	6548.5	6661.5	6452.7	6537.9	6679.2	6824.7	6947.5
12°	6511.0	6512.5	6494.6	6465.8	6479.9	6632.3	6441.8	6502.6	6670.4	6824.5	6965.7
13°	6496.3	6502.9	6486.5	6445.9	6440.1	6559.9	6448.9	6470.1	6654.0	6823.7	6982.8
14°	6480.4	6486.0	6459.5	6429.7	6398.7	6466.1	6465.3	6443.6	6640.1	6824.5	6999.5
15°	6464.5	6469.6	6444.1	6408.0	6361.1	6384.8	6463.8	6415.6	6619.2	6831.0	7023.5
16°	6453.2	6464.3	6435.5	6376.8	6333.9	6322.5	6469.1	6370.0	6600.0	6836.3	7042.4
17°	6442.3	6451.7	6421.2	6357.6	6295.6	6278.2	6443.1	6335.7	6577.8	6833.8	7066.3
18°	6424.4	6434.0	6398.0	6331.1	6257.0	6226.5	6398.0	6293.0	6566.7	6833.8	7091.3
19°	6406.3	6427.5	6386.6	6312.7	6215.1	6179.3	6334.7	6259.7	6546.0	6829.8	7113.2
20°	6402.7	6422.4	6369.2	6281.9	6188.6	6133.6	6249.7	6210.6	6523.6	6827.2	7118.8
21°	6397.2	6415.6	6359.9	6255.5	6154.1	6088.7	6154.1	6171.5	6506.9	6828.0	7135.9
22°	6390.4	6414.1	6353.3	6234.0	6112.7	6033.5	6059.2	6129.1	6475.9	6813.9	7147.3
23°	6391.1	6420.7	6346.5	6217.4	6072.1	5966.9	5978.8	6093.3	6445.4	6804.5	7161.7
24°	6385.3	6420.7	6344.0	6187.1	6032.0	5911.4	5907.7	6056.2	6403.3	6785.1	7173.5
25°	6382.1	6423.2	6341.5	6174.7	5998.7	5863.3	5837.5	6035.0	6358.1	6764.4	7178.6
26°	6390.4	6427.5	6332.1	6155.1	5960.9	5801.5	5770.4	6014.8	6315.7	6741.5	7186.9
27°	6387.9	6432.0	6334.7	6143.0	5923.0	5737.7	5699.3	5985.6	6259.2	6725.1	7192.9
28°	6393.2	6444.6	6334.7	6123.0	5880.9	5672.6	5637.3	5956.6	6201.2	6688.8	7197.2
29°	6407.3	6457.0	6337.4	6100.8	5846.1	5619.1	5568.4	5915.7	6140.4	6663.0	7206.3
30°	6410.1	6470.8	6347.5	6086.7	5806.8	5553.3	5489.2	5850.1	6073.1	6626.7	7219.7
31°	6436.8	6492.8	6351.3	6081.4	5769.7	5495.5	5405.7	5776.2	6002.0	6596.7	7226.0
32°	6446.9	6511.0	6369.2	6064.8	5728.3	5428.4	5329.6	5684.4	5937.7	6569.2	7220.9
33°	6452.7	6515.7	6371.7	6060.5	5680.2	5364.4	5240.0	5573.2	5864.5	6530.1	7235.3
34°	6451.9	6511.7	6367.4	6053.7	5649.6	5299.6	5162.4	5454.4	5791.9	6496.8	7228.5
35°	6453.2	6535.4	6360.9	6042.8	5604.2	5238.0	5077.4	5333.6	5716.0	6462.8	7238.6
36°	6478.9	6566.9	6366.2	6021.4	5567.2	5171.9	4988.3	5210.8	5640.6	6442.9	7243.6
37°	6512.0	6607.3	6392.4	5992.1	5530.6	5105.9	4896.0	5105.9	5565.4	6405.5	7254.2
38°	6535.7	6632.5	6419.6	5985.6	5491.5	5036.2	4810.3	4994.6	5493.8	6387.4	7254.5
39°	6546.3	6636.6	6437.6	5981.3	5442.6	4963.1	4724.5	4889.2	5418.9	6360.1	7257.0
40°	6551.6	6642.9	6434.0	5971.2	5387.8	4896.3	4638.8	4778.5	5338.4	6335.2	7251.2
41°	6560.9	6653.5	6431.8	5961.4	5345.2	4831.4	4533.1	4675.8	5259.5	6306.7	7258.8
42°	6570.0	6666.1	6452.9	5946.0	5307.6	4766.6	4430.2	4568.6	5181.0	6291.8	7242.9
43°	6579.8	6664.5	6457.0	5945.2	5278.9	4701.6	4322.2	4455.1	5105.9	6282.7	7230.3
44°	6565.7	6642.4	6456.0	5945.0	5247.3	4616.8	4218.3	4341.6	5021.9	6278.2	7201.3



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CATALOG NUMBER: TWC150_T2_150W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	6538.9	6613.6	6434.3	5938.4	5191.1	4525.3	4113.9	4226.9	4938.1	6272.4	7165.5
46°	6499.1	6572.0	6397.5	5928.6	5142.2	4435.2	4010.0	4111.6	4862.0	6261.5	7117.5
47°	6458.2	6533.9	6353.3	5907.7	5098.3	4348.7	3907.1	3989.8	4780.8	6249.9	7058.3
48°	6412.8	6476.9	6310.2	5879.9	5059.4	4280.9	3801.4	3874.0	4706.9	6243.9	6984.9
49°	6358.9	6423.4	6256.7	5842.3	5011.8	4198.1	3694.5	3747.2	4629.7	6234.5	6914.5
50°	6301.1	6363.2	6208.3	5799.7	4960.3	4112.6	3584.0	3621.6	4549.7	6221.2	6828.2
51°	6236.8	6294.0	6151.0	5739.7	4901.3	4029.4	3471.8	3501.0	4477.3	6206.0	6729.1
52°	6173.5	6221.7	6085.0	5689.2	4847.3	3948.2	3349.2	3376.2	4402.2	6188.6	6600.2
53°	6087.7	6121.8	6012.8	5627.4	4805.0	3875.0	3224.6	3252.1	4334.1	6158.6	6463.8
54°	5996.2	6019.9	5937.7	5567.4	4762.8	3788.3	3100.0	3122.4	4274.8	6114.2	6300.6
55°	5891.5	5904.9	5838.0	5499.6	4720.7	3696.5	2988.8	2991.0	4218.6	6061.8	6120.5
56°	5772.0	5769.7	5730.3	5433.0	4664.2	3590.3	2870.7	2857.9	4174.9	5982.3	5920.0
57°	5635.3	5626.7	5604.0	5350.5	4602.2	3488.1	2745.4	2724.2	4145.7	5905.4	5679.6
58°	5482.4	5455.7	5462.7	5274.1	4543.9	3381.5	2620.0	2590.5	4109.6	5811.1	5422.4
59°	5318.2	5279.1	5310.4	5179.8	4488.4	3281.8	2498.9	2459.6	4080.3	5700.1	5121.7
60°	5137.9	5006.2	5142.7	5081.9	4414.5	3180.2	2378.9	2331.9	4043.8	5575.5	4794.1
61°	4811.8	4733.3	4856.4	4960.8	4337.9	3082.6	2259.7	2204.9	4008.5	5422.6	4435.7
62°	4485.9	4459.7	4570.4	4802.4	4256.9	2978.4	2135.9	2077.8	3993.6	5253.4	4042.5
63°	4160.0	4034.9	4283.4	4644.0	4156.8	2868.5	2006.7	1947.0	3977.4	5039.5	3614.5
64°	3828.1	3785.0	3891.4	4482.4	4059.4	2767.8	1878.3	1815.4	3969.9	4800.2	3141.6
65°	3650.6	3639.7	3658.6	4169.4	3947.2	2663.1	1750.4	1692.9	3952.7	4514.2	2607.2
66°	3516.6	3504.0	3504.0	3790.8	3833.2	2554.2	1626.8	1572.2	3942.6	4177.2	2067.8
67°	3382.5	3352.7	3378.9	3525.2	3701.3	2445.5	1506.1	1451.6	3935.3	3794.8	1528.3
68°	3226.6	3177.2	3246.5	3350.9	3537.3	2334.1	1386.9	1322.8	3891.2	3323.7	988.9
69°	3057.1	2981.2	3093.4	3182.7	3289.4	2218.1	1270.7	1198.2	3794.8	2776.1	594.4
70°	2880.1	2786.5	2940.6	3024.8	3064.4	2107.4	1158.6	1077.9	3626.9	2143.1	362.8
71°	2679.5	2566.0	2763.0	2878.5	2928.7	1995.3	1055.4	958.8	3382.7	1507.6	270.2
72°	2475.7	2366.1	2577.6	2755.2	2814.0	1887.0	959.4	848.5	3154.2	872.1	240.6
73°	2280.9	2179.3	2378.6	2639.7	2678.3	1769.4	860.3	743.3	2968.3	476.8	217.4
74°	2075.9	1971.3	2173.4	2521.2	2545.9	1599.1	769.9	649.6	2671.2	283.0	194.4
75°	1873.8	1759.5	1966.2	2398.0	2411.6	1459.7	683.1	558.0	2328.7	241.4	171.3
76°	1656.9	1520.7	1766.4	2261.5	2278.1	1357.1	607.6	474.8	1851.9	202.6	146.8
77°	1436.3	1292.8	1559.3	2089.1	2140.0	1258.3	532.1	405.8	1370.4	163.7	125.9
78°	1235.3	1073.7	1373.0	1879.7	1991.6	1154.9	456.9	348.1	889.0	149.6	106.3
79°	1018.0	808.0	1178.9	1655.1	1848.3	1058.2	393.6	299.1	496.8	142.7	88.7
80°	735.3	542.4	969.6	1449.9	1696.4	967.3	323.1	249.1	268.5	130.4	75.5
81°	452.5	278.8	638.1	1305.4	1531.1	874.1	262.3	203.0	218.1	106.4	66.9
82°	175.8	91.2	308.2	1191.2	1376.2	782.0	213.4	157.0	170.1	84.3	59.6
83°	128.6	72.0	217.3	836.5	1203.7	686.8	167.3	111.0	122.1	61.0	53.1
84°	81.4	52.7	126.5	481.8	1071.5	582.4	127.8	79.6	118.0	42.7	46.9
85°	34.7	33.5	36.5	127.6	946.5	478.1	93.1	55.3	102.6	33.2	38.8
86°	21.2	19.9	23.0	70.8	592.2	374.0	67.4	35.7	75.8	26.1	26.7
87°	10.2	9.8	10.6	14.0	242.1	279.0	41.6	24.3	45.0	17.4	16.5
88°	3.8	3.8	4.0	4.0	119.9	185.6	16.0	13.0	29.9	8.7	6.4
89°	0.8	0.8	0.8	1.0	1.6	92.2	2.3	1.7	15.3	1.7	1.9



REPORT NUMBER: P1449854
 CATALOG NUMBER: TWC150_T2_150W_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: P1449854
 CATALOG NUMBER: TWC150_T2_150W_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: P1449854
CATALOG NUMBER: TWC150_T2_150W_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: P1449854
 CATALOG NUMBER: TWC150_T2_150W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	6683.2	6683.2	6683.2
1°	6722.3	6727.1	6725.8
2°	6764.4	6771.0	6783.1
3°	6800.7	6819.9	6828.2
4°	6846.4	6865.6	6879.7
5°	6881.5	6906.9	6922.3
6°	6912.2	6945.5	6959.1
7°	6942.0	6987.1	6995.2
8°	6972.0	7019.7	7026.2
9°	6997.7	7046.9	7064.6
10°	7021.4	7077.2	7101.1
11°	7049.9	7119.0	7144.0
12°	7080.5	7167.0	7189.4
13°	7119.3	7208.1	7229.5
14°	7153.3	7260.3	7281.5
15°	7192.9	7299.4	7333.7
16°	7229.8	7346.5	7376.8
17°	7260.5	7381.9	7420.9
18°	7294.6	7432.8	7475.2
19°	7329.4	7477.9	7524.1
20°	7365.5	7520.8	7568.7
21°	7403.0	7561.9	7619.7
22°	7432.0	7617.4	7671.4
23°	7459.3	7664.1	7724.6
24°	7501.1	7710.2	7775.8
25°	7529.9	7763.7	7817.9
26°	7567.2	7801.5	7858.5
27°	7601.5	7834.6	7909.2
28°	7630.8	7881.7	7948.3
29°	7649.5	7926.4	7996.8
30°	7689.6	7961.2	8022.2
31°	7715.5	7991.0	8059.1
32°	7740.0	8016.9	8081.2
33°	7763.5	8034.6	8105.7
34°	7769.8	8043.7	8114.5
35°	7791.7	8045.4	8109.5
36°	7800.0	8034.6	8083.8
37°	7788.7	8011.1	8056.0
38°	7782.4	7977.6	8008.6
39°	7758.4	7920.8	7951.6
40°	7721.8	7858.8	7889.3
41°	7668.9	7795.2	7820.2
42°	7613.4	7704.9	7724.6
43°	7543.3	7612.4	7602.3
44°	7464.3	7493.1	7471.6



REPORT NUMBER: P1449854
 CATALOG NUMBER: TWC150_T2_150W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	7374.3	7351.3	7328.6
46°	7267.8	7201.0	7175.3
47°	7134.9	7038.6	6990.2
48°	6997.7	6848.4	6790.2
49°	6833.3	6632.3	6576.0
50°	6654.0	6409.8	6342.7
51°	6455.2	6174.5	6087.2
52°	6235.5	5909.9	5817.4
53°	6007.8	5624.2	5525.5
54°	5742.2	5330.6	5223.6
55°	5458.7	5017.1	4903.3
56°	5154.3	4673.6	4559.8
57°	4830.2	4313.1	4171.1
58°	4478.6	3891.9	3704.3
59°	4110.6	3396.3	3179.2
60°	3686.4	2859.9	2635.4
61°	3206.7	2296.3	2123.3
62°	2661.9	1782.1	1611.5
63°	2136.4	1268.6	1099.8
64°	1611.1	841.8	713.0
65°	1085.8	529.9	468.6
66°	684.8	374.2	360.7
67°	424.0	318.1	327.2
68°	311.8	293.1	304.2
69°	275.3	271.2	281.6
70°	251.8	249.7	259.4
71°	231.9	231.1	238.6
72°	211.1	212.5	222.0
73°	190.3	193.9	205.5
74°	174.0	177.8	189.0
75°	154.8	160.8	172.0
76°	134.0	145.3	157.8
77°	116.5	133.5	147.0
78°	104.1	124.8	140.0
79°	94.7	118.5	134.3
80°	87.5	112.5	126.9
81°	81.5	104.9	118.4
82°	75.0	96.3	108.2
83°	67.4	82.3	89.4
84°	54.3	66.9	70.7
85°	42.6	49.5	50.8
86°	27.7	35.7	35.4
87°	19.1	24.3	24.2
88°	10.4	13.0	13.0
89°	1.8	1.7	1.8



REPORT NUMBER: P1449854
CATALOG NUMBER: TWC150_T2_150W_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: P1449854
CATALOG NUMBER: TWC150_T2_150W_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
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165°	0.0	0.0	0.0
166°	0.0	0.0	0.0
167°	0.0	0.0	0.0
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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



REPORT NUMBER: P1449854
CATALOG NUMBER: TWC150_T2_150W_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

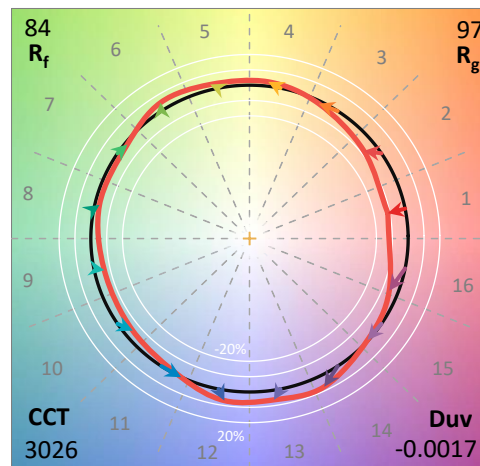
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-1
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 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		



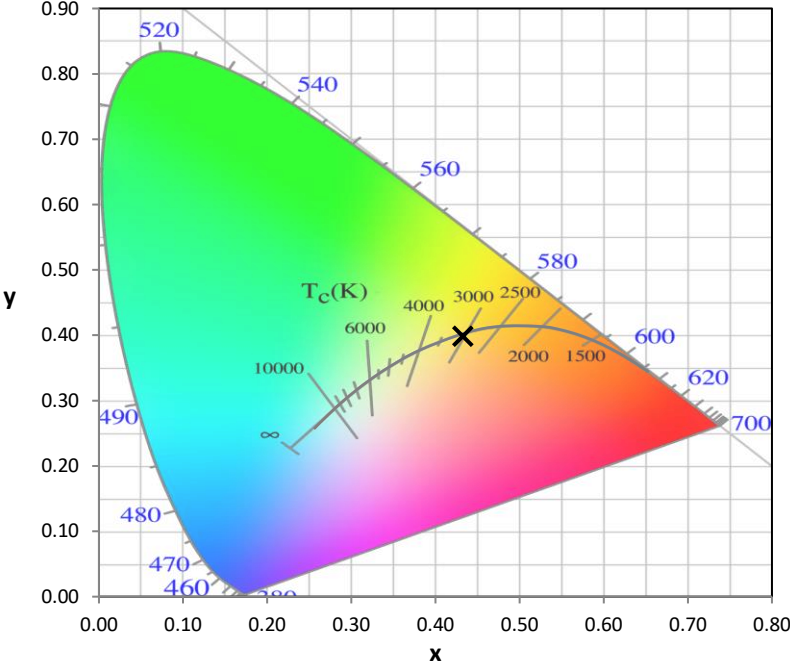
Test Conditions
 Stabilization Time: 64M
 Operation Time: 2H 4M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-1

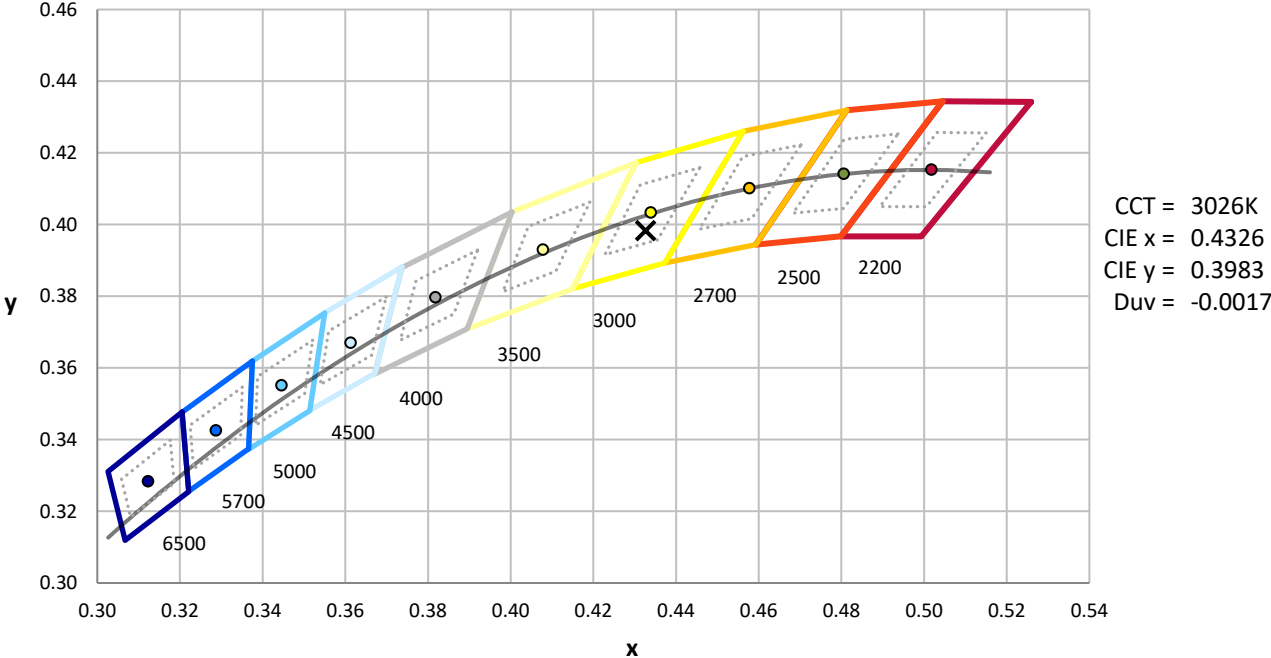
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



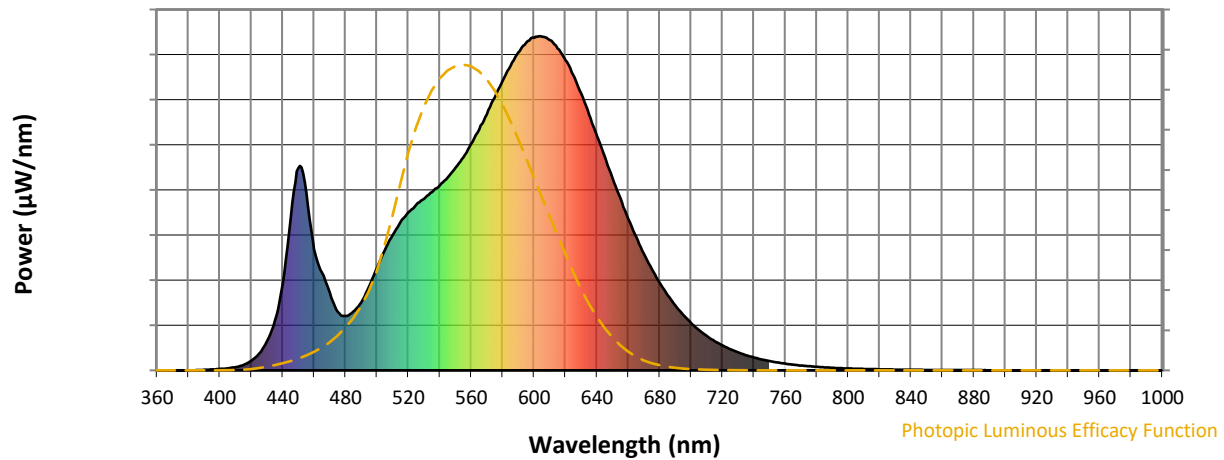
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-1

Photopic Flux vs. Wavelength

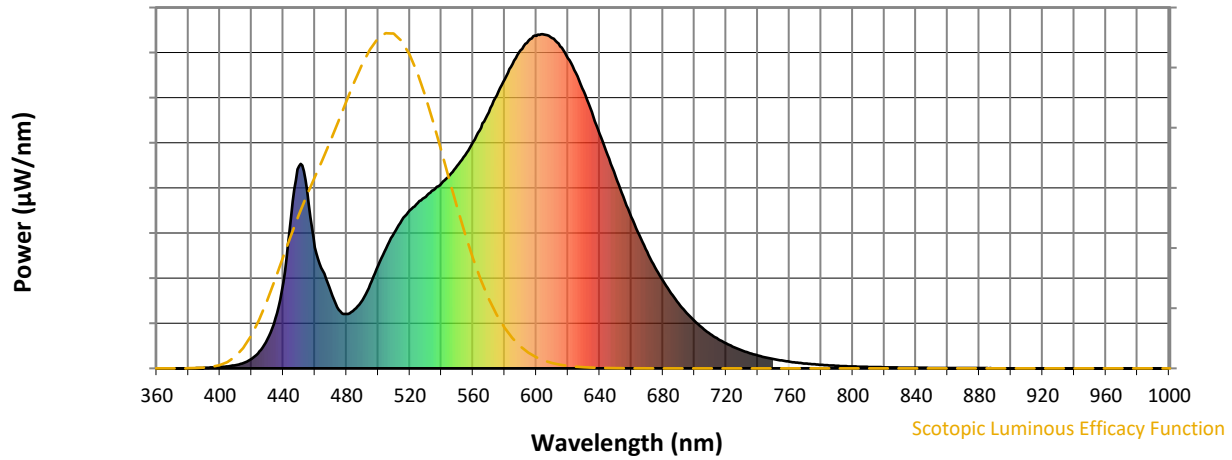


Photopic Lumens: NR

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	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



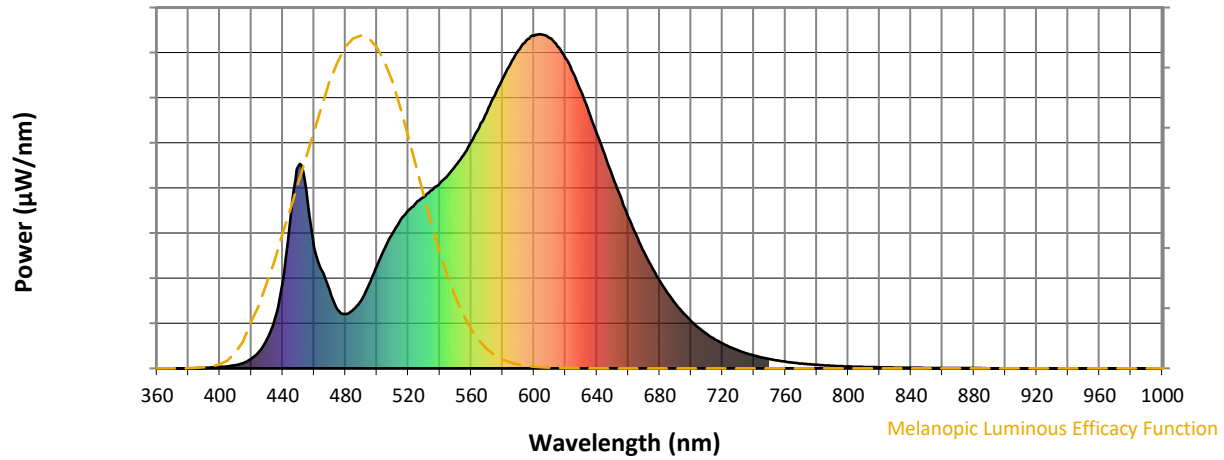
Scotopic Lumens: NR

S/P: 1.35

λ (nm)	Power W [^] /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	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



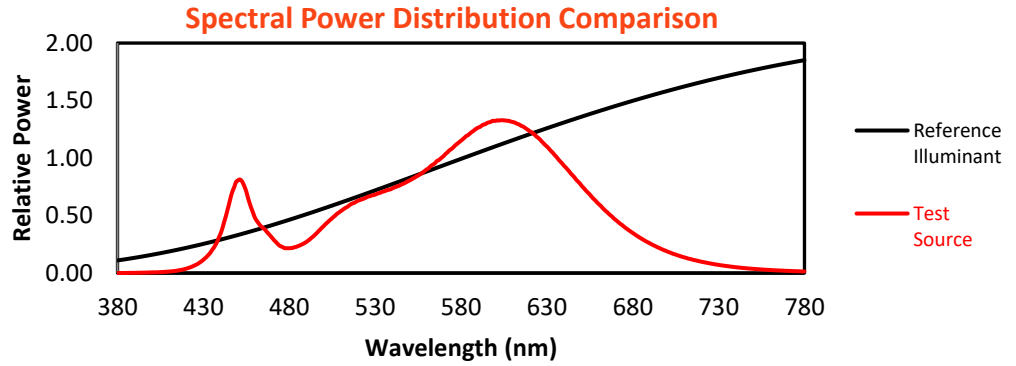
Melanopic Lumens: NR

M/P: 2.61

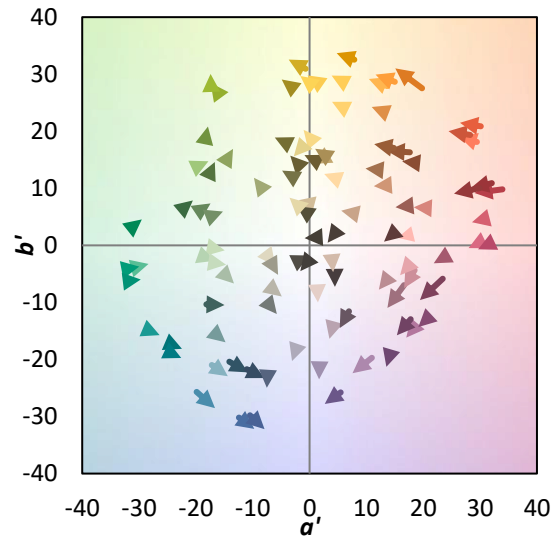
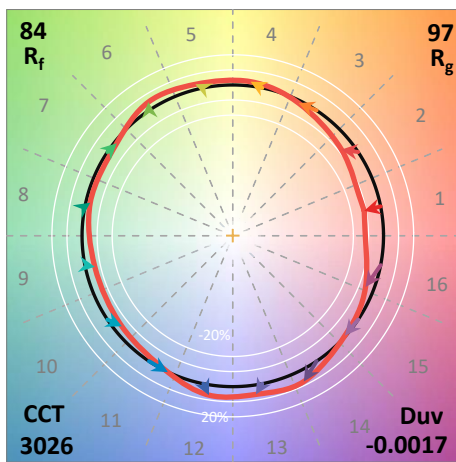
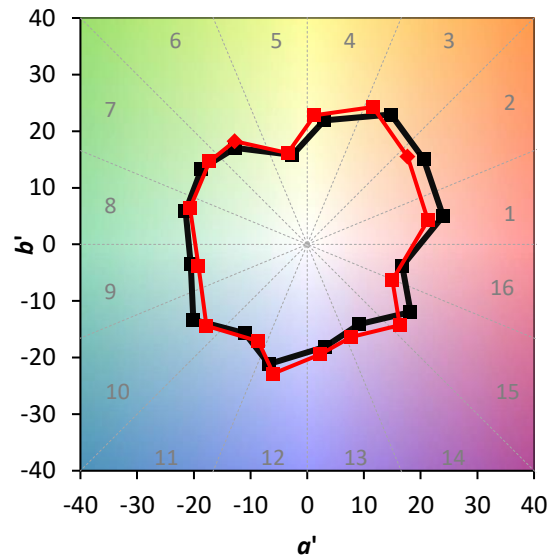
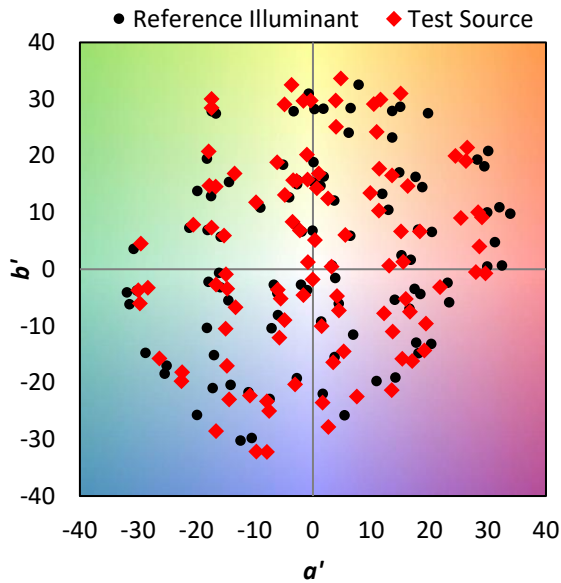
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	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

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

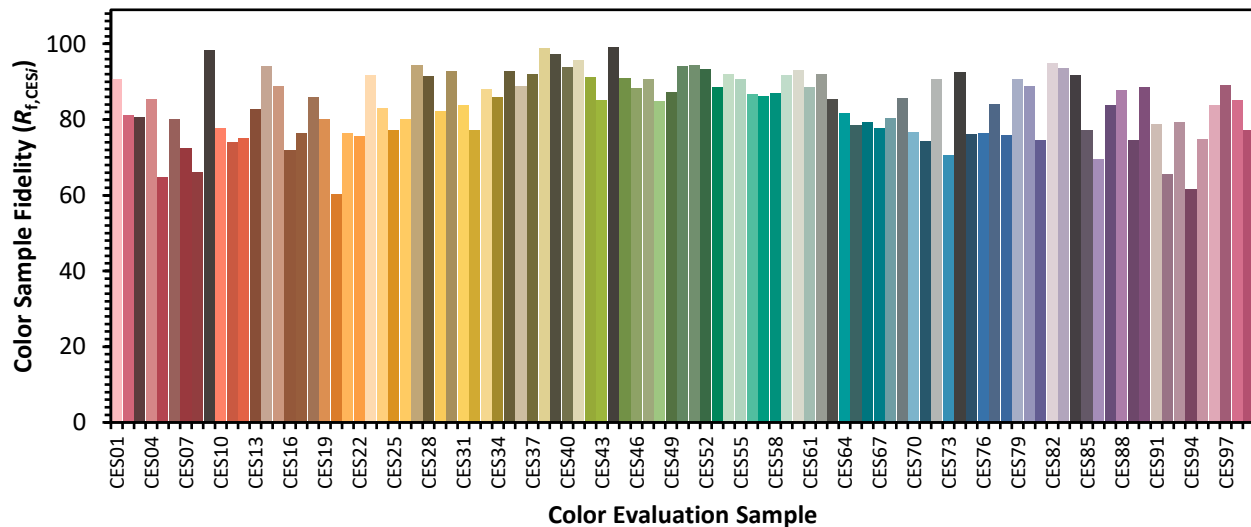


Color Vector Graphics

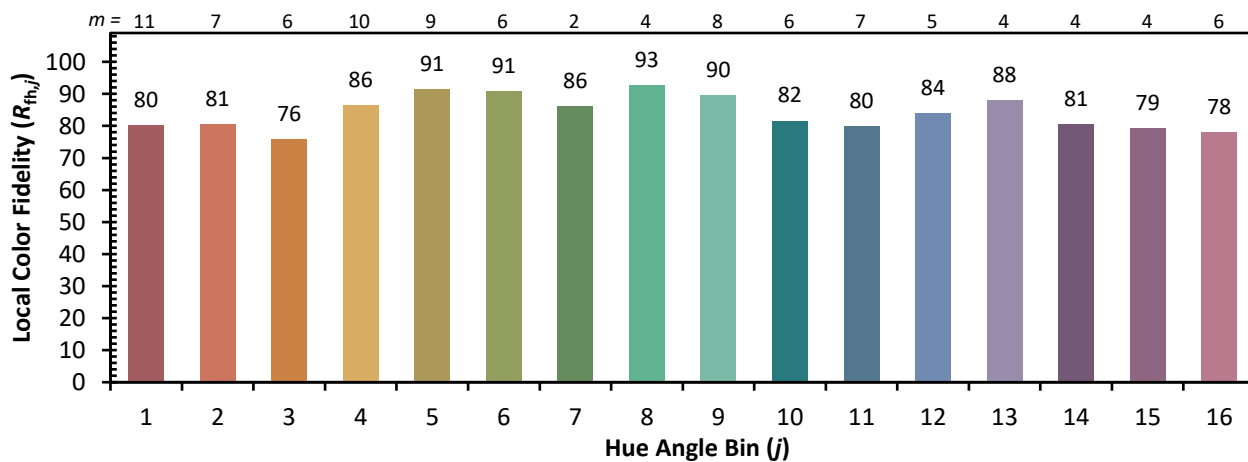
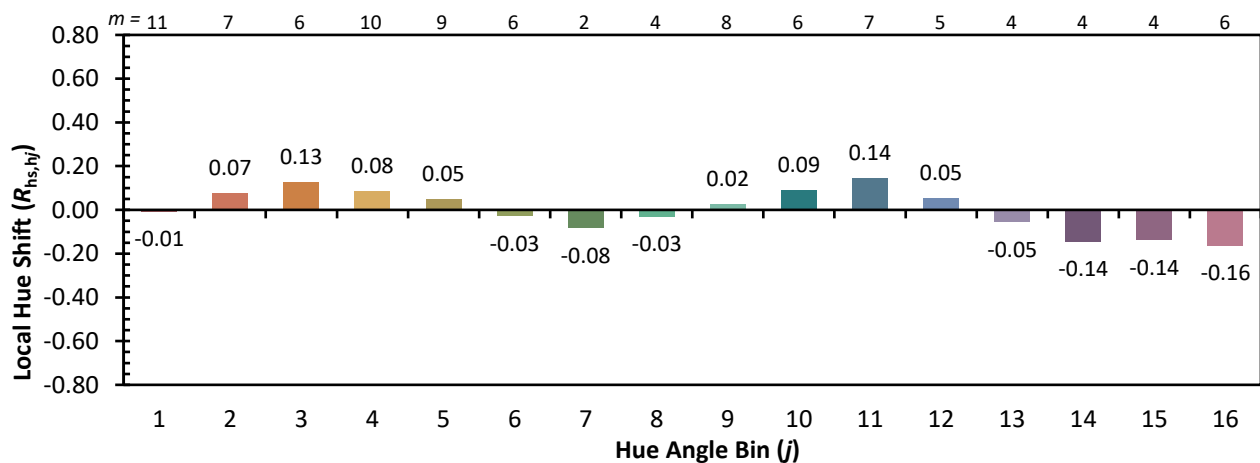
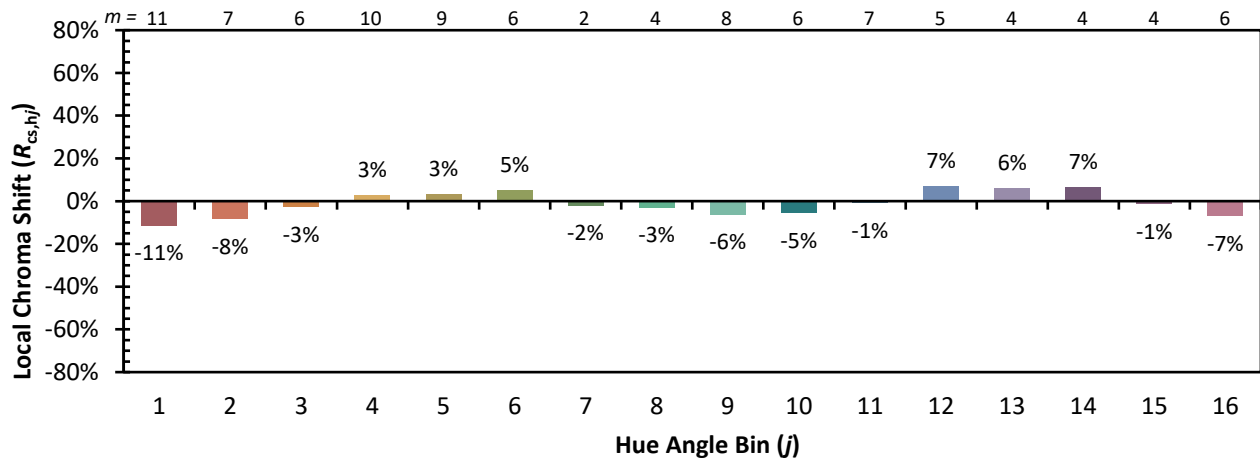


Individual Sample Fidelity Index ($R_{f,i}$)

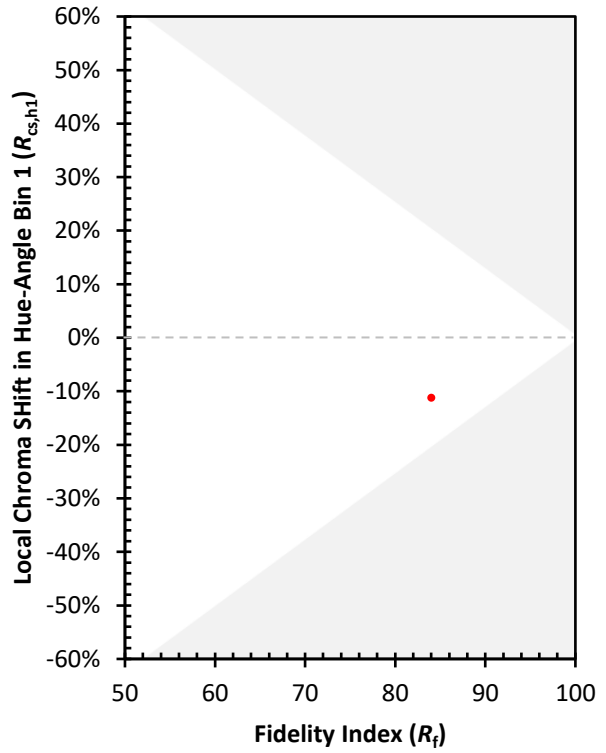
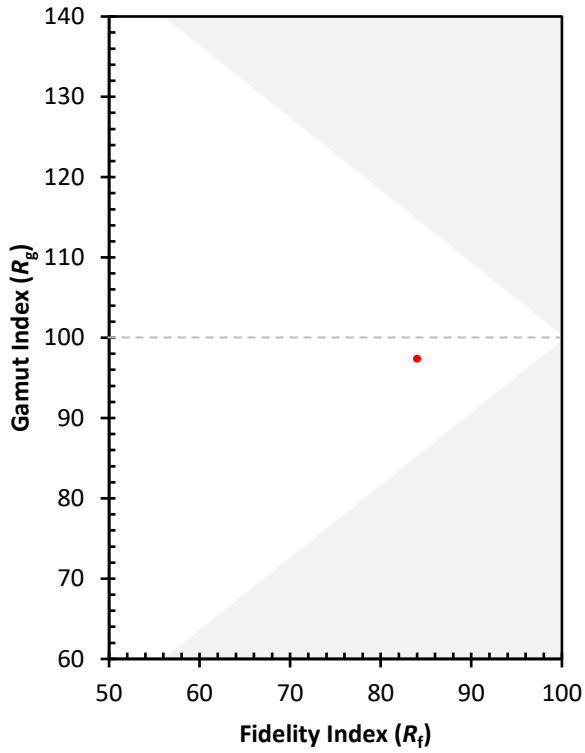
CES01 = 86	CES26 = 80	CES51 = 94	CES76 = 76
CES02 = 63	CES27 = 94	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 76
CES04 = 70	CES29 = 82	CES54 = 92	CES79 = 91
CES05 = 50	CES30 = 93	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 75
CES07 = 42	CES32 = 77	CES57 = 86	CES82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