

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: P1449856

Luminaire Tested: **TWC150_T2_150W_5000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449856
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_5000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 150W
5000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24191 lumens
Efficiency: N/A
Efficacy: 161.1 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

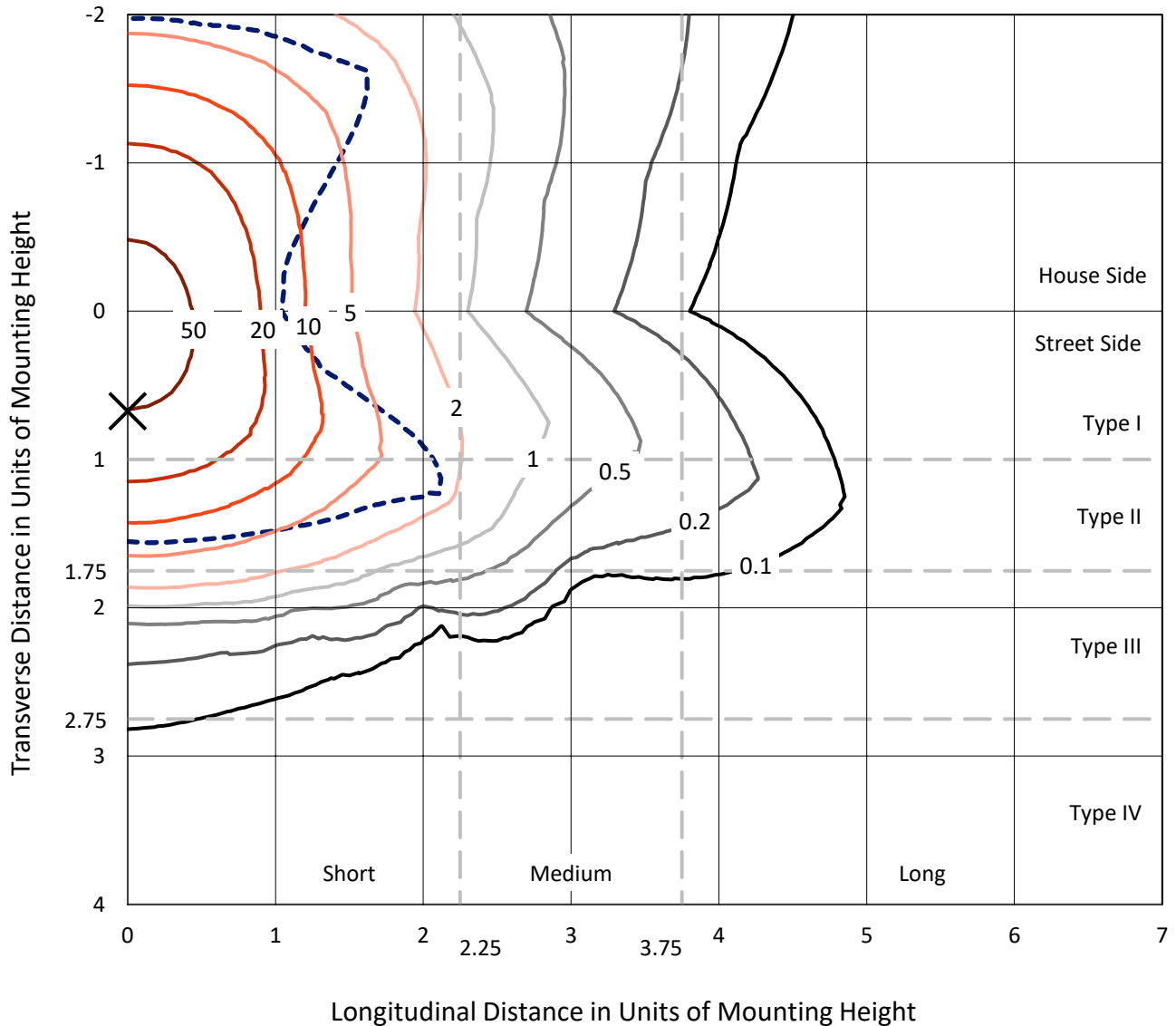
Input Watts (W): 150.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

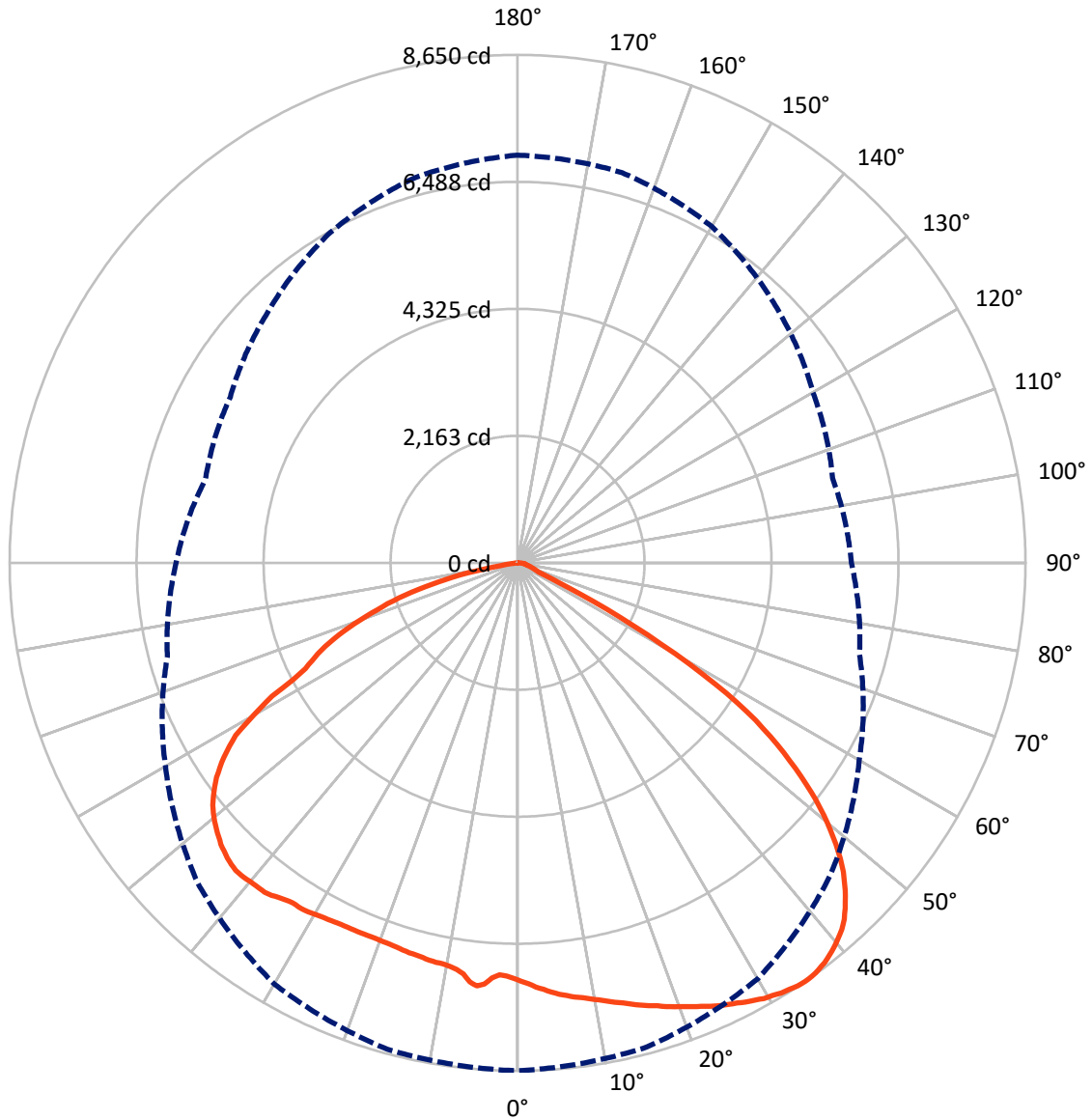
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 72.9 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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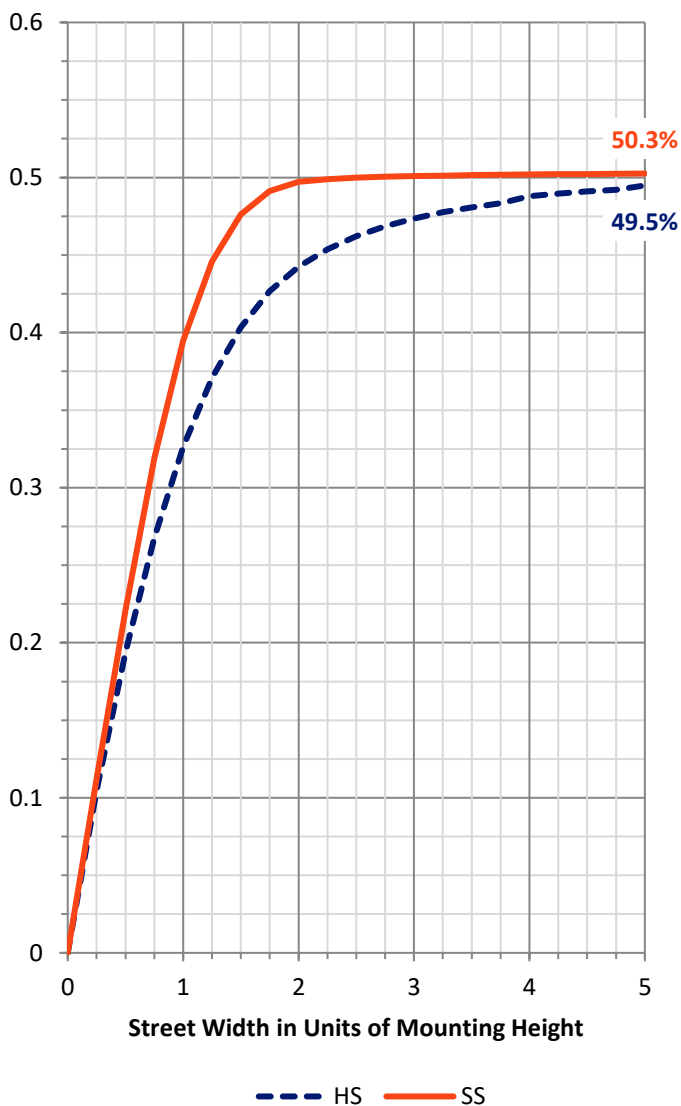
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12036.1	0.0	12036.1
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	12154.9	0.0	12154.9
	% Fixture	50.2	0.0	50.2
Total	Lumens	24191.0	0.0	24191.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	685.4	2.8
10°-20°	2020.0	8.4
20°-30°	3240.9	13.4
30°-40°	4241.3	17.5
40°-50°	4832.8	20.0
50°-60°	4602.0	19.0
60°-70°	2987.5	12.3
70°-80°	1324.1	5.5
80°-90°	256.9	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°	24191.0	100.0
0°-180°	24191.0	100.0

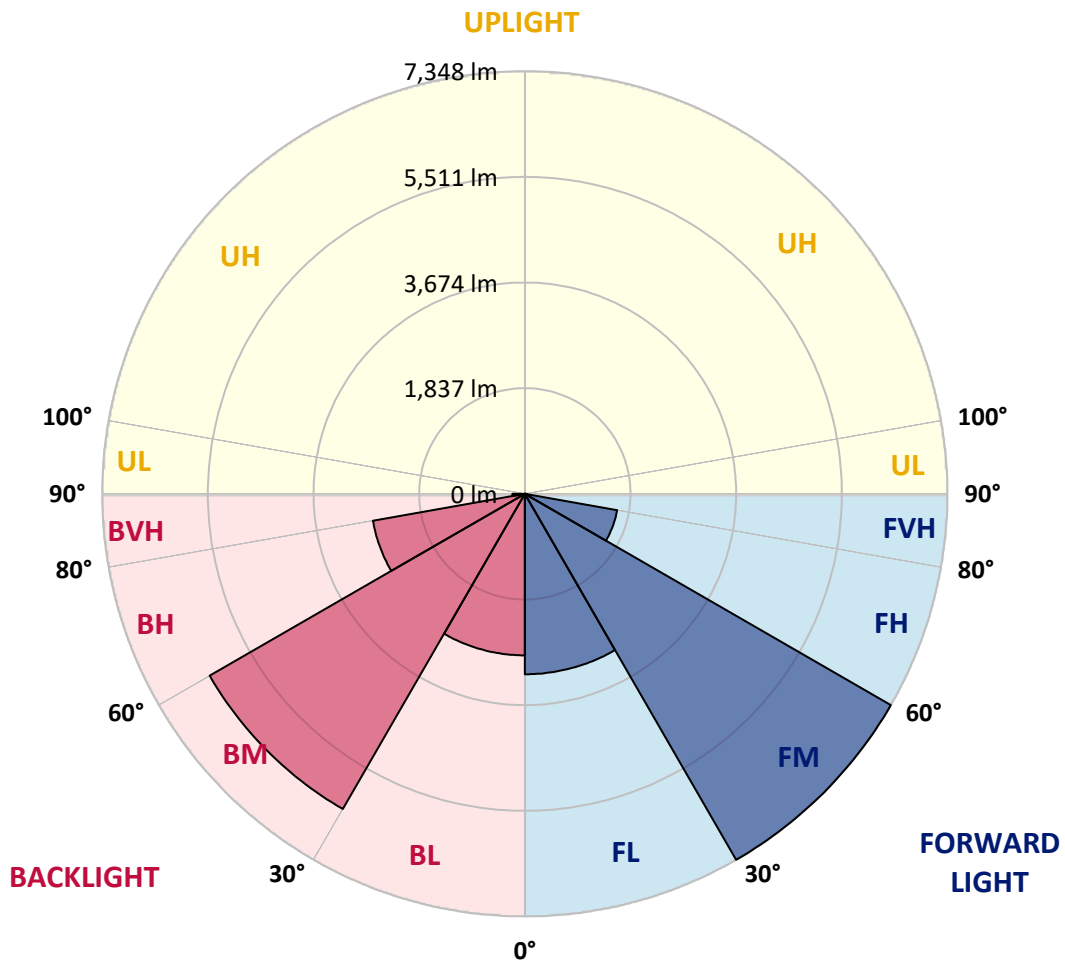


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3137.4	13.0			
FM (30°-60°)	7348.4	30.4			
FH (60°-80°)	1629.8	6.7			G1/1800
FVH (80°-90°)	39.4	0.2			G1/100
BL (0°-30°)	2809.0	11.6	B4/5000		
BM (30°-60°)	6327.7	26.2	B4/8500		
BH (60°-80°)	2681.9	11.1	B4/5000		G4/5000
BVH (80°-90°)	217.5	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4
1°	7169.8	7165.5	7168.2	7150.7	7137.6	7131.9	7125.7	7112.3	7100.5	7091.6	7084.6
2°	7230.9	7219.3	7206.7	7186.5	7162.0	7138.4	7119.3	7094.8	7074.6	7064.7	7052.1
3°	7279.0	7273.3	7250.5	7218.8	7186.0	7140.2	7111.2	7075.4	7046.9	7027.9	7018.2
4°	7333.8	7318.0	7293.0	7252.6	7197.8	7142.1	7097.0	7054.7	7022.2	7019.8	7047.8
5°	7379.3	7364.2	7329.8	7281.9	7212.8	7144.8	7088.6	7033.8	7003.7	7053.9	7140.0
6°	7418.5	7400.0	7365.3	7307.2	7227.4	7136.8	7058.5	6999.6	7010.7	7137.6	7218.8
7°	7457.0	7432.5	7384.9	7323.9	7233.5	7134.9	7043.7	6978.9	7052.3	7203.2	7229.2
8°	7490.0	7466.1	7416.6	7337.1	7243.5	7129.5	7022.5	6961.2	7107.4	7210.2	7137.0
9°	7530.9	7504.0	7436.0	7359.9	7241.1	7116.3	6995.3	6944.5	7159.1	7154.5	7029.7
10°	7569.9	7533.3	7469.1	7370.1	7247.3	7096.7	6969.0	6953.7	7156.6	7038.6	6980.5
11°	7615.6	7580.1	7489.8	7380.9	7238.4	7086.5	6944.0	6974.4	7126.0	6955.5	6944.8
12°	7664.0	7623.7	7520.4	7398.9	7240.0	7070.1	6903.4	6995.6	7026.8	6913.6	6919.0
13°	7706.7	7663.2	7553.2	7405.3	7237.3	7047.2	6867.1	7010.1	6930.5	6876.0	6901.0
14°	7762.1	7710.5	7587.6	7419.3	7232.2	7023.6	6832.9	7019.3	6855.5	6844.2	6888.9
15°	7817.8	7762.9	7620.2	7434.7	7218.8	6994.8	6793.4	6990.2	6800.4	6817.6	6857.7
16°	7863.8	7807.6	7664.5	7446.8	7220.1	6977.0	6755.0	6939.4	6758.2	6788.6	6838.0
17°	7910.8	7855.4	7694.6	7470.4	7216.9	6952.6	6717.9	6859.6	6708.4	6758.2	6821.1
18°	7968.6	7894.4	7728.0	7488.7	7212.3	6925.2	6685.6	6750.1	6670.8	6720.3	6804.2
19°	8020.8	7945.8	7765.1	7507.8	7200.7	6891.3	6651.2	6650.9	6631.6	6692.3	6776.7
20°	8068.4	7982.6	7790.6	7519.3	7200.5	6867.1	6625.9	6566.8	6583.4	6657.9	6749.3
21°	8122.7	8031.8	7829.3	7529.3	7181.4	6842.1	6612.2	6502.8	6528.6	6620.5	6734.5
22°	8177.8	8073.2	7850.6	7540.9	7163.1	6812.2	6597.1	6439.6	6474.0	6587.7	6717.9
23°	8234.5	8129.1	7878.3	7543.0	7142.1	6769.8	6580.7	6376.1	6428.0	6554.1	6690.4
24°	8289.1	8176.5	7907.9	7550.0	7124.7	6732.6	6556.0	6319.4	6376.7	6523.2	6674.6
25°	8334.0	8220.5	7939.9	7545.7	7098.0	6672.7	6523.7	6262.4	6325.9	6489.6	6667.6
26°	8377.3	8265.7	7969.7	7542.2	7062.5	6615.7	6469.4	6184.7	6264.0	6447.9	6654.7
27°	8431.3	8306.9	8010.8	7548.4	7034.6	6562.7	6403.8	6119.1	6208.6	6414.6	6638.5
28°	8473.0	8344.8	8031.0	7535.7	6994.8	6496.9	6313.8	6041.7	6154.6	6386.1	6634.2
29°	8524.6	8392.4	8061.1	7538.4	6949.9	6433.9	6219.7	5966.1	6104.8	6349.5	6631.0
30°	8551.8	8435.9	8078.3	7531.4	6911.2	6355.4	6102.4	5888.4	6046.5	6317.8	6618.1
31°	8591.0	8464.1	8111.9	7539.2	6865.5	6279.3	5992.7	5810.7	5983.1	6289.6	6617.0
32°	8614.7	8498.0	8129.4	7534.9	6814.9	6202.4	5884.4	5724.9	5929.3	6259.4	6610.0
33°	8640.8	8515.5	8157.9	7530.4	6766.8	6115.9	5777.6	5641.3	5863.7	6231.2	6614.3
34°	8650.2	8534.8	8178.9	7529.6	6719.2	6028.0	5683.3	5554.5	5808.3	6204.1	6612.5
35°	8644.8	8538.9	8200.4	7525.8	6672.2	5943.3	5580.6	5467.9	5738.9	6171.3	6606.0
36°	8617.4	8535.4	8200.1	7512.6	6623.2	5846.7	5476.5	5381.3	5679.0	6151.9	6576.7
37°	8587.8	8508.0	8213.3	7515.9	6575.6	5751.3	5369.8	5292.3	5617.4	6115.6	6574.0
38°	8537.3	8471.7	8203.9	7521.2	6536.4	5661.8	5263.3	5204.1	5560.4	6076.6	6576.2
39°	8476.5	8427.6	8181.8	7519.6	6493.9	5566.0	5152.8	5121.6	5499.4	6027.4	6590.4
40°	8410.1	8366.3	8162.5	7523.1	6454.6	5467.6	5042.0	5039.1	5439.4	5993.3	6606.3
41°	8336.4	8297.4	8122.1	7523.1	6417.8	5378.1	4931.3	4956.5	5376.2	5982.2	6600.1
42°	8234.5	8213.0	8074.3	7518.8	6381.0	5284.3	4822.6	4861.3	5305.0	5963.4	6597.4
43°	8104.1	8115.2	8008.7	7515.0	6351.1	5195.8	4700.8	4766.2	5221.1	5924.7	6596.6
44°	7964.9	7993.4	7933.7	7508.1	6321.6	5112.2	4575.8	4672.3	5161.7	5881.7	6600.9



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CATALOG NUMBER: TWC150_T2_150W_5000K

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	7812.4	7863.5	7854.6	7487.9	6295.5	5031.5	4452.4	4570.4	5102.2	5836.8	6600.6
46°	7648.9	7711.9	7753.0	7462.6	6271.8	4954.9	4334.4	4470.7	5042.8	5823.1	6584.8
47°	7451.6	7545.2	7651.1	7422.3	6256.8	4873.7	4202.4	4370.4	4977.2	5802.6	6549.0
48°	7238.4	7357.8	7515.6	7382.8	6233.6	4782.0	4077.3	4261.2	4899.5	5773.3	6507.1
49°	7010.1	7144.8	7368.0	7314.5	6217.5	4685.5	3945.1	4142.7	4822.9	5736.2	6459.7
50°	6761.4	6902.8	7206.1	7243.5	6206.5	4580.9	3816.3	4013.6	4762.9	5695.4	6404.9
51°	6489.1	6662.2	7022.5	7167.1	6193.0	4473.6	3684.0	3888.6	4698.1	5643.5	6345.5
52°	6201.4	6385.3	6820.0	7081.9	6186.9	4361.3	3547.1	3781.9	4618.8	5597.5	6289.0
53°	5890.3	6097.1	6587.5	6970.6	6171.5	4230.1	3416.5	3680.8	4533.1	5554.7	6224.2
54°	5568.5	5786.2	6324.0	6841.3	6152.7	4116.9	3287.1	3556.8	4443.8	5503.9	6154.3
55°	5227.0	5456.1	6044.1	6688.0	6138.5	4000.7	3146.5	3429.9	4345.7	5446.4	6078.2
56°	4860.8	5107.1	5743.8	6522.9	6113.7	3887.5	3008.6	3313.0	4264.2	5379.7	5995.2
57°	4446.5	4728.8	5412.8	6332.8	6076.6	3778.4	2872.0	3197.1	4170.4	5311.4	5903.7
58°	3948.8	4316.1	5063.3	6102.2	6017.7	3669.7	2730.1	3076.1	4081.1	5241.8	5798.6
59°	3389.0	3826.8	4687.1	5844.6	5951.9	3562.5	2588.9	2945.1	3984.0	5171.6	5674.4
60°	2809.4	3263.5	4278.7	5545.3	5863.9	3455.2	2442.4	2811.3	3884.6	5101.2	5536.2
61°	2263.4	2682.6	3828.6	5210.3	5769.3	3355.7	2302.7	2677.2	3783.2	5030.5	5369.5
62°	1717.9	2138.3	3287.9	4815.6	5651.3	3269.4	2172.2	2551.4	3688.0	4933.9	5119.2
63°	1172.4	1594.2	2724.7	4391.6	5512.5	3192.2	2031.5	2417.5	3598.8	4828.8	4869.1
64°	760.1	1050.1	2162.6	3950.4	5346.4	3129.1	1893.2	2292.9	3504.1	4709.4	4613.7
65°	499.5	655.8	1600.5	3433.7	5153.3	3085.8	1760.9	2169.8	3407.1	4587.4	4180.3
66°	384.5	431.9	1038.4	2859.1	4922.1	3065.6	1630.2	2047.0	3302.7	4423.6	3865.5
67°	348.8	339.0	634.7	2269.1	4637.7	3054.6	1505.3	1924.1	3200.3	4160.4	3680.8
68°	324.3	308.2	401.9	1678.8	4286.0	3048.9	1379.3	1805.6	3079.6	3834.3	3526.4
69°	300.2	283.8	314.4	1088.4	3891.3	3039.2	1258.2	1689.8	2960.5	3581.3	3374.5
70°	276.5	260.6	283.0	634.2	3388.8	3037.1	1140.2	1578.9	2846.5	3422.1	3228.5
71°	254.4	240.9	259.9	374.3	2725.8	3053.0	1026.0	1466.8	2717.7	3267.8	3094.1
72°	236.7	221.3	236.7	271.4	2018.0	3055.9	922.9	1356.8	2512.1	3098.4	2952.7
73°	219.1	201.6	213.6	240.9	1309.5	2984.1	820.4	1243.7	2318.8	2922.8	2802.9
74°	201.5	184.3	190.5	211.6	600.9	2776.0	722.4	1133.9	2190.9	2757.2	2634.8
75°	183.4	165.6	168.8	182.3	333.4	2509.9	630.2	1030.8	2083.7	2600.7	2458.8
76°	168.2	148.8	144.0	162.4	280.9	2223.8	537.9	928.3	1965.8	2448.2	2246.9
77°	156.7	135.7	125.2	146.9	231.6	1937.4	446.1	831.6	1848.8	2306.2	2002.6
78°	149.2	124.6	109.5	129.2	182.4	1651.1	369.3	715.0	1740.8	2169.3	1781.8
79°	143.2	117.7	98.4	107.3	165.4	1259.6	300.1	623.5	1626.0	2038.0	1577.4
80°	135.3	111.8	89.6	87.4	165.2	951.9	238.1	532.0	1513.5	1868.0	1418.8
81°	126.2	104.5	82.7	74.1	153.5	665.6	186.1	440.7	1406.1	1689.8	1255.8
82°	115.3	96.2	76.4	64.7	131.4	433.1	141.3	370.0	1289.6	1508.1	895.1
83°	95.3	83.6	69.7	56.5	108.9	255.2	102.4	303.2	1174.1	1369.5	534.4
84°	75.4	68.4	59.0	49.1	74.8	190.5	78.3	237.9	1014.7	1244.0	180.3
85°	54.1	50.8	44.4	41.8	44.0	126.4	54.2	179.8	817.0	993.9	103.8
86°	37.8	38.3	32.3	31.1	28.3	62.3	30.3	125.4	653.8	743.8	28.5
87°	25.8	26.2	22.1	21.4	19.1	34.2	17.3	84.9	490.6	493.8	14.0
88°	13.8	14.1	12.0	11.7	10.1	22.8	7.9	44.4	327.4	243.7	4.8
89°	1.9	1.9	1.8	2.0	2.1	11.9	2.6	4.9	164.2	1.8	1.1



REPORT NUMBER: P1449856
 CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856
 CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856
CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856

CATALOG NUMBER: TWC150_T2_150W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4	7124.4
1°	7077.9	7077.3	7083.0	7078.1	7088.9	7097.0	7106.1	7126.8	7138.1	7145.4	7154.8
2°	7035.7	7039.4	7037.0	7041.8	7066.3	7078.4	7095.9	7120.6	7150.2	7166.6	7190.0
3°	7015.2	7023.6	7012.0	7013.6	7023.8	7054.7	7074.1	7110.7	7148.3	7186.5	7230.0
4°	7081.6	7080.0	7057.7	7020.9	6998.3	7023.6	7055.6	7106.1	7163.6	7208.0	7261.2
5°	7188.1	7193.5	7160.1	7100.5	7010.7	6994.0	7035.7	7091.0	7160.1	7231.4	7292.7
6°	7238.7	7240.0	7238.1	7176.8	7068.7	6976.8	7010.7	7074.1	7159.1	7247.8	7316.4
7°	7197.8	7184.1	7205.0	7212.6	7139.4	6983.5	6984.8	7061.2	7160.1	7259.6	7341.9
8°	7071.7	7058.2	7082.2	7165.8	7181.4	7010.9	6955.8	7044.5	7161.8	7268.5	7359.1
9°	7002.6	7002.6	7003.4	7043.2	7169.6	7061.2	6920.6	7016.3	7145.9	7271.5	7377.4
10°	6971.9	6969.8	6967.9	6966.6	7083.0	7095.6	6898.8	6995.1	7140.2	7278.7	7397.5
11°	6945.9	6948.5	6941.3	6930.3	6980.8	7101.3	6878.6	6969.5	7120.1	7275.2	7406.2
12°	6940.7	6942.4	6923.3	6892.6	6907.7	7070.1	6867.1	6931.9	7110.7	7274.9	7425.5
13°	6925.2	6932.1	6914.7	6871.4	6865.2	6992.9	6874.6	6897.2	7093.2	7274.1	7443.8
14°	6908.2	6914.1	6885.9	6854.2	6821.1	6892.9	6892.1	6869.0	7078.4	7274.9	7461.5
15°	6891.3	6896.7	6869.5	6831.1	6781.0	6806.3	6890.5	6839.1	7056.1	7281.9	7487.1
16°	6879.2	6891.0	6860.4	6797.7	6752.0	6739.9	6896.1	6790.5	7035.7	7287.6	7507.2
17°	6867.6	6877.6	6845.0	6777.3	6711.1	6692.6	6868.4	6753.9	7012.0	7284.9	7532.8
18°	6848.5	6858.7	6820.3	6749.0	6670.0	6637.5	6820.3	6708.4	7000.2	7284.9	7559.4
19°	6829.2	6851.8	6808.2	6729.4	6625.4	6587.2	6752.8	6673.0	6978.1	7280.6	7582.8
20°	6825.4	6846.4	6789.6	6696.6	6597.1	6538.5	6662.2	6620.5	6954.2	7277.9	7588.7
21°	6819.5	6839.1	6779.7	6668.4	6560.3	6490.7	6560.3	6578.9	6936.4	7278.7	7607.0
22°	6812.2	6837.5	6772.7	6645.5	6516.2	6431.8	6459.2	6533.7	6903.4	7263.7	7619.1
23°	6813.0	6844.5	6765.4	6627.8	6472.9	6360.8	6373.4	6495.5	6870.8	7253.7	7634.4
24°	6806.9	6844.5	6762.8	6595.5	6430.2	6301.7	6297.6	6456.0	6825.9	7233.0	7647.1
25°	6803.4	6847.2	6760.1	6582.4	6394.7	6250.3	6222.9	6433.4	6777.8	7211.0	7652.4
26°	6812.2	6851.8	6750.1	6561.4	6354.4	6184.4	6151.4	6411.9	6732.6	7186.5	7661.3
27°	6809.5	6856.6	6752.8	6548.5	6314.0	6116.4	6075.5	6380.7	6672.4	7169.0	7667.8
28°	6815.2	6870.0	6752.8	6527.2	6269.1	6047.0	6009.4	6349.8	6610.6	7130.3	7672.3
29°	6830.2	6883.2	6755.8	6503.6	6232.0	5990.0	5936.0	6306.2	6545.8	7102.9	7682.0
30°	6833.2	6898.0	6766.5	6488.5	6190.1	5919.9	5851.6	6236.3	6474.0	7064.2	7696.3
31°	6861.7	6921.4	6770.6	6482.9	6150.6	5858.3	5762.6	6157.5	6398.2	7032.2	7703.0
32°	6872.5	6940.7	6789.6	6465.1	6106.5	5786.8	5681.4	6059.7	6329.6	7002.9	7697.6
33°	6878.6	6945.9	6792.3	6460.6	6055.1	5718.5	5585.9	5941.1	6251.6	6961.2	7712.9
34°	6877.8	6941.6	6787.8	6453.3	6022.6	5649.4	5503.1	5814.5	6174.2	6925.7	7705.7
35°	6879.2	6966.8	6780.8	6441.7	5974.2	5583.8	5412.5	5685.7	6093.3	6889.4	7716.4
36°	6906.6	7000.4	6786.4	6418.9	5934.7	5513.3	5317.6	5554.7	6012.9	6868.2	7721.8
37°	6941.8	7043.5	6814.4	6387.7	5895.7	5442.9	5219.2	5442.9	5932.8	6828.4	7733.1
38°	6967.1	7070.3	6843.4	6380.7	5854.0	5368.7	5127.8	5324.3	5856.4	6809.0	7733.4
39°	6978.4	7074.6	6862.5	6376.1	5801.8	5290.7	5036.4	5211.9	5776.6	6780.0	7736.1
40°	6984.0	7081.4	6858.7	6365.4	5743.5	5219.5	4945.0	5093.9	5690.8	6753.3	7729.9
41°	6994.0	7092.7	6856.3	6354.9	5698.1	5150.4	4832.3	4984.5	5606.6	6723.0	7737.9
42°	7003.7	7106.1	6878.9	6338.5	5658.0	5081.3	4722.6	4870.2	5523.0	6707.1	7721.0
43°	7014.1	7104.5	6883.2	6337.7	5627.3	5011.9	4607.5	4749.2	5442.9	6697.4	7707.6
44°	6999.1	7080.8	6882.1	6337.4	5593.7	4921.6	4496.8	4628.2	5353.4	6692.6	7676.6



REPORT NUMBER: P1449856

CATALOG NUMBER: TWC150_T2_150W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	6970.6	7050.2	6859.0	6330.4	5533.8	4824.0	4385.5	4505.9	5264.1	6686.4	7638.5
46°	6928.1	7005.8	6819.8	6319.9	5481.6	4728.0	4274.7	4383.0	5182.9	6674.8	7587.4
47°	6884.6	6965.2	6772.7	6297.6	5434.8	4635.8	4165.0	4253.2	5096.3	6662.5	7524.2
48°	6836.2	6904.5	6726.7	6268.0	5393.4	4563.4	4052.3	4129.8	5017.6	6656.0	7445.9
49°	6778.6	6847.5	6669.7	6228.0	5342.6	4475.3	3938.3	3994.5	4935.3	6646.1	7370.9
50°	6717.1	6783.2	6618.1	6182.5	5287.8	4384.1	3820.6	3860.6	4850.1	6631.8	7279.0
51°	6648.5	6709.5	6557.1	6118.6	5224.9	4295.4	3700.9	3732.1	4772.9	6615.7	7173.3
52°	6581.0	6632.4	6486.6	6064.8	5167.3	4208.8	3570.3	3599.0	4692.8	6597.1	7035.9
53°	6489.6	6525.9	6409.7	5998.9	5122.1	4130.8	3437.4	3466.7	4620.2	6565.1	6890.5
54°	6392.0	6417.3	6329.6	5934.9	5077.2	4038.4	3304.6	3328.5	4557.0	6517.8	6716.5
55°	6280.4	6294.7	6223.4	5862.6	5032.3	3940.5	3186.0	3188.5	4497.0	6461.9	6524.5
56°	6153.0	6150.6	6108.6	5791.6	4972.1	3827.3	3060.2	3046.5	4450.5	6377.2	6310.8
57°	6007.2	5998.1	5973.9	5703.7	4906.0	3718.4	2926.6	2904.0	4419.3	6295.2	6054.6
58°	5844.3	5815.8	5823.3	5622.2	4843.9	3604.7	2793.0	2761.5	4380.9	6194.6	5780.3
59°	5669.3	5627.6	5661.0	5521.7	4784.7	3498.5	2663.8	2622.0	4349.7	6076.3	5459.8
60°	5477.0	5336.7	5482.2	5417.4	4705.9	3390.1	2536.0	2485.9	4310.7	5943.5	5110.6
61°	5129.4	5045.8	5177.0	5288.3	4624.2	3286.1	2408.8	2350.4	4273.1	5780.6	4728.5
62°	4782.0	4754.1	4872.1	5119.5	4537.9	3175.0	2276.9	2215.0	4257.2	5600.2	4309.4
63°	4434.7	4301.3	4566.1	4950.6	4431.2	3057.8	2139.2	2075.5	4240.0	5372.2	3853.1
64°	4080.8	4034.9	4148.3	4778.3	4327.4	2950.5	2002.3	1935.2	4231.9	5117.0	3349.0
65°	3891.6	3880.0	3900.2	4444.6	4207.7	2838.9	1865.9	1804.6	4213.7	4812.1	2779.3
66°	3748.8	3735.3	3735.3	4041.0	4086.2	2722.8	1734.2	1676.0	4202.9	4452.9	2204.3
67°	3605.7	3574.0	3602.0	3757.9	3945.6	2607.0	1605.5	1547.4	4195.1	4045.3	1629.2
68°	3439.6	3386.9	3460.8	3572.1	3770.8	2488.2	1478.5	1410.1	4148.0	3543.1	1054.1
69°	3258.9	3178.0	3297.6	3392.8	3506.5	2364.5	1354.6	1277.3	4045.3	2959.4	633.7
70°	3070.2	2970.4	3134.7	3224.5	3266.7	2246.5	1235.1	1149.1	3866.3	2284.6	386.8
71°	2856.4	2735.4	2945.4	3068.6	3122.1	2127.0	1125.1	1022.1	3606.0	1607.1	288.0
72°	2639.1	2522.2	2747.8	2937.1	2999.7	2011.6	1022.7	904.5	3362.4	929.7	256.5
73°	2431.5	2323.2	2535.6	2813.9	2855.1	1886.2	917.0	792.3	3164.3	508.2	231.8
74°	2212.9	2101.5	2316.8	2687.7	2713.9	1704.7	820.7	692.5	2847.5	301.6	207.2
75°	1997.5	1875.7	2096.0	2556.3	2570.8	1556.1	728.2	594.8	2482.4	257.4	182.7
76°	1766.3	1621.1	1883.0	2410.8	2428.5	1446.7	647.7	506.2	1974.1	216.0	156.5
77°	1531.1	1378.1	1662.3	2227.0	2281.2	1341.3	567.3	432.6	1460.9	174.6	134.2
78°	1316.8	1144.5	1463.6	2003.8	2123.1	1231.2	487.1	371.0	947.6	159.5	113.3
79°	1085.2	861.4	1256.8	1764.4	1970.3	1128.0	419.6	318.8	529.6	152.1	94.5
80°	783.8	578.2	1033.6	1545.6	1808.4	1031.2	344.4	265.6	286.3	139.0	80.4
81°	482.4	297.2	680.3	1391.6	1632.1	931.8	279.6	216.5	232.5	113.4	71.3
82°	187.4	97.2	328.5	1269.8	1467.0	833.6	227.5	167.4	181.3	89.9	63.5
83°	137.0	76.7	231.7	891.7	1283.1	732.1	178.4	118.3	130.1	65.0	56.6
84°	86.7	56.2	134.9	513.6	1142.2	620.9	136.2	84.9	125.8	45.5	49.9
85°	37.0	35.7	38.9	136.0	1009.0	509.7	99.2	59.0	109.4	35.4	41.3
86°	22.6	21.2	24.5	75.4	631.3	398.7	71.8	38.1	80.8	27.8	28.5
87°	10.8	10.4	11.3	14.9	258.1	297.4	44.4	25.9	47.9	18.6	17.6
88°	4.0	4.0	4.2	4.3	127.8	197.9	17.0	13.8	31.9	9.3	6.8
89°	0.9	0.8	0.9	1.1	1.7	98.3	2.4	1.8	16.3	1.8	2.0



REPORT NUMBER: P1449856
 CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856
 CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856
CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856
 CATALOG NUMBER: TWC150_T2_150W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	7124.4	7124.4	7124.4
1°	7166.1	7171.2	7169.8
2°	7211.0	7217.9	7230.9
3°	7249.7	7270.1	7279.0
4°	7298.3	7318.8	7333.8
5°	7335.7	7362.9	7379.3
6°	7368.5	7404.0	7418.5
7°	7400.2	7448.4	7457.0
8°	7432.2	7483.0	7490.0
9°	7459.7	7512.1	7530.9
10°	7484.9	7544.4	7569.9
11°	7515.3	7589.0	7615.6
12°	7547.8	7640.1	7664.0
13°	7589.3	7683.9	7706.7
14°	7625.5	7739.5	7762.1
15°	7667.8	7781.2	7817.8
16°	7707.0	7831.5	7863.8
17°	7739.8	7869.1	7910.8
18°	7776.1	7923.4	7968.6
19°	7813.2	7971.6	8020.8
20°	7851.7	8017.3	8068.4
21°	7891.7	8061.1	8122.7
22°	7922.6	8120.3	8177.8
23°	7951.7	8170.0	8234.5
24°	7996.3	8219.2	8289.1
25°	8027.0	8276.2	8334.0
26°	8066.8	8316.5	8377.3
27°	8103.3	8351.8	8431.3
28°	8134.5	8402.0	8473.0
29°	8154.4	8449.6	8524.6
30°	8197.2	8486.7	8551.8
31°	8224.8	8518.4	8591.0
32°	8250.9	8546.1	8614.7
33°	8275.9	8565.0	8640.8
34°	8282.7	8574.6	8650.2
35°	8306.0	8576.5	8644.8
36°	8314.9	8565.0	8617.4
37°	8302.8	8540.0	8587.8
38°	8296.1	8504.2	8537.3
39°	8270.6	8443.7	8476.5
40°	8231.6	8377.6	8410.1
41°	8175.1	8309.8	8336.4
42°	8116.0	8213.6	8234.5
43°	8041.2	8114.9	8104.1
44°	7957.1	7987.7	7964.9



REPORT NUMBER: P1449856
 CATALOG NUMBER: TWC150_T2_150W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	7861.1	7836.6	7812.4
46°	7747.6	7676.4	7648.9
47°	7605.9	7503.2	7451.6
48°	7459.7	7300.5	7238.4
49°	7284.4	7070.1	7010.1
50°	7093.2	6832.9	6761.4
51°	6881.3	6582.1	6489.1
52°	6647.1	6300.0	6201.4
53°	6404.4	5995.4	5890.3
54°	6121.2	5682.5	5568.5
55°	5819.0	5348.3	5227.0
56°	5494.5	4982.1	4860.8
57°	5149.0	4597.9	4446.5
58°	4774.2	4148.9	3948.8
59°	4382.0	3620.5	3389.0
60°	3929.7	3048.7	2809.4
61°	3418.3	2447.9	2263.4
62°	2837.6	1899.8	1717.9
63°	2277.5	1352.3	1172.4
64°	1717.5	897.4	760.1
65°	1157.5	564.8	499.5
66°	730.0	398.9	384.5
67°	452.0	339.1	348.8
68°	332.4	312.4	324.3
69°	293.5	289.1	300.2
70°	268.5	266.2	276.5
71°	247.2	246.3	254.4
72°	225.0	226.5	236.7
73°	202.8	206.7	219.1
74°	185.5	189.6	201.5
75°	165.0	171.4	183.4
76°	142.8	154.9	168.2
77°	124.2	142.3	156.7
78°	111.0	133.1	149.2
79°	100.9	126.3	143.2
80°	93.2	120.0	135.3
81°	86.9	111.9	126.2
82°	79.9	102.7	115.3
83°	71.8	87.8	95.3
84°	57.9	71.3	75.4
85°	45.4	52.8	54.1
86°	29.6	38.1	37.8
87°	20.3	25.9	25.8
88°	11.1	13.9	13.8
89°	1.9	1.8	1.9



REPORT NUMBER: P1449856
CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856
CATALOG NUMBER: TWC150_T2_150W_5000K

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: P1449856
CATALOG NUMBER: TWC150_T2_150W_5000K

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: SP1-2601-659-3

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-5000K

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

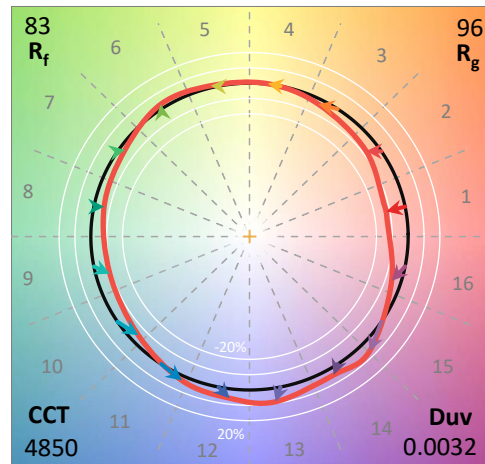
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-3
 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-5000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 5000K

Spectral Parameters

CCT (K): 4850
 CIE u': 0.2108
 CIE v': 0.4905
 Duv: 0.0032
 CIE x: 0.3503
 CIE y: 0.3623
 CIE z: 0.2875
 Peak Wavelength (nm): 452
 Dominant Wavelength (nm): 571
 Purity: 13.81051
 Rf: 83.1
 Rg: 95.8

CRI (Ra):	82.6		
R1:	80.9	R9:	8.5
R2:	87.6	R10:	69.7
R3:	92.0	R11:	80.6
R4:	81.9	R12:	52.2
R5:	80.4	R13:	82.7
R6:	82.0	R14:	95.7
R7:	88.2	R15:	74.9
R8:	67.7		



Test Conditions

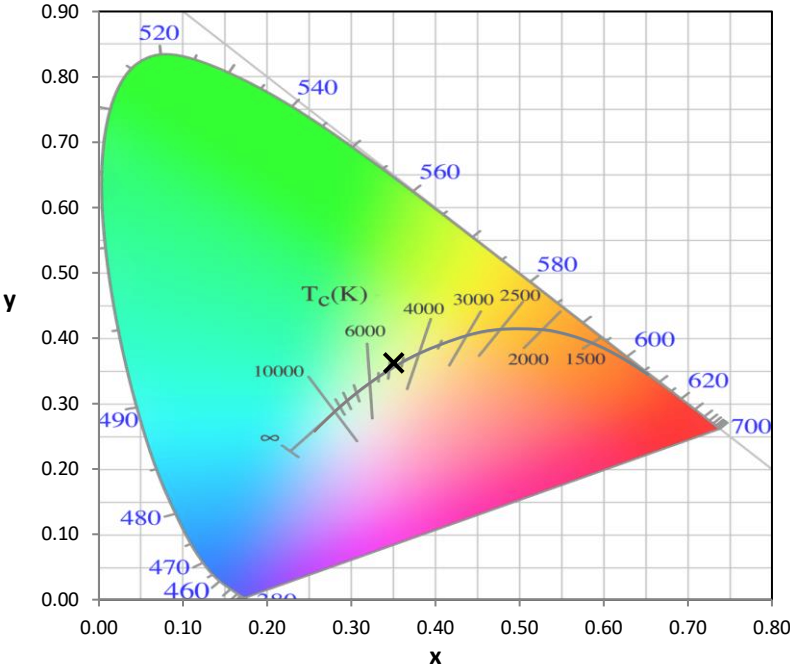
Stabilization Time: 25M
 Operation Time: 1H 25M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-3

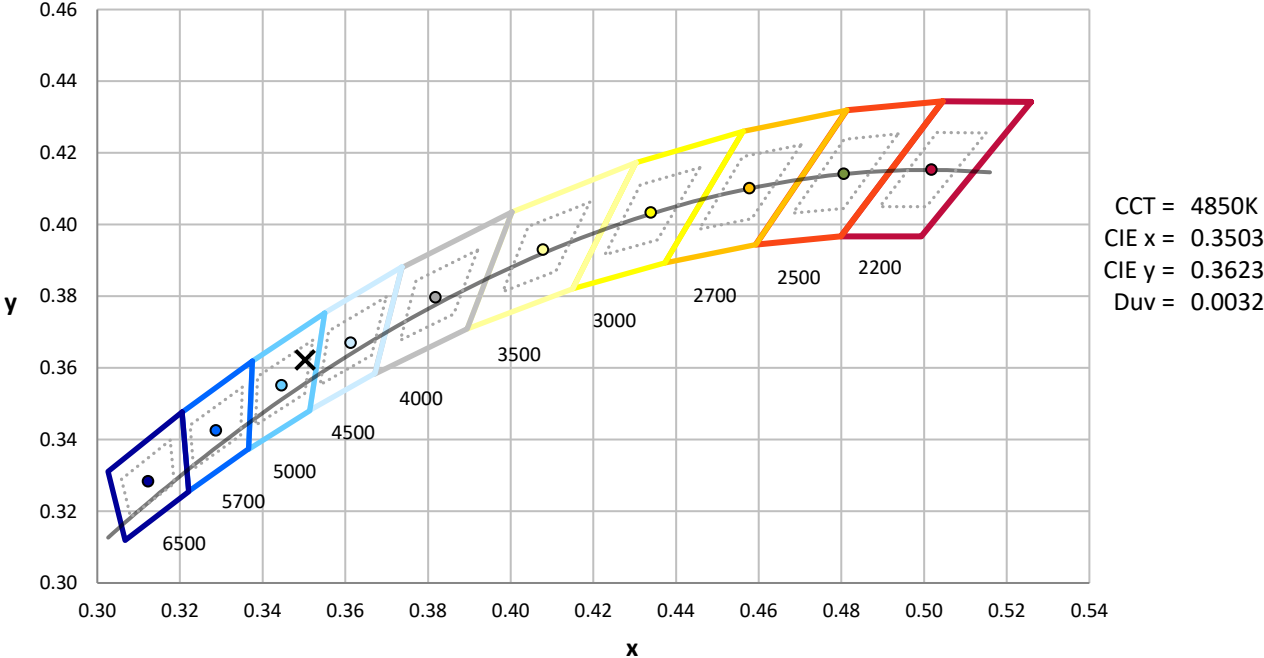
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2601-659-3

CIE 1931 Chromaticity Diagram



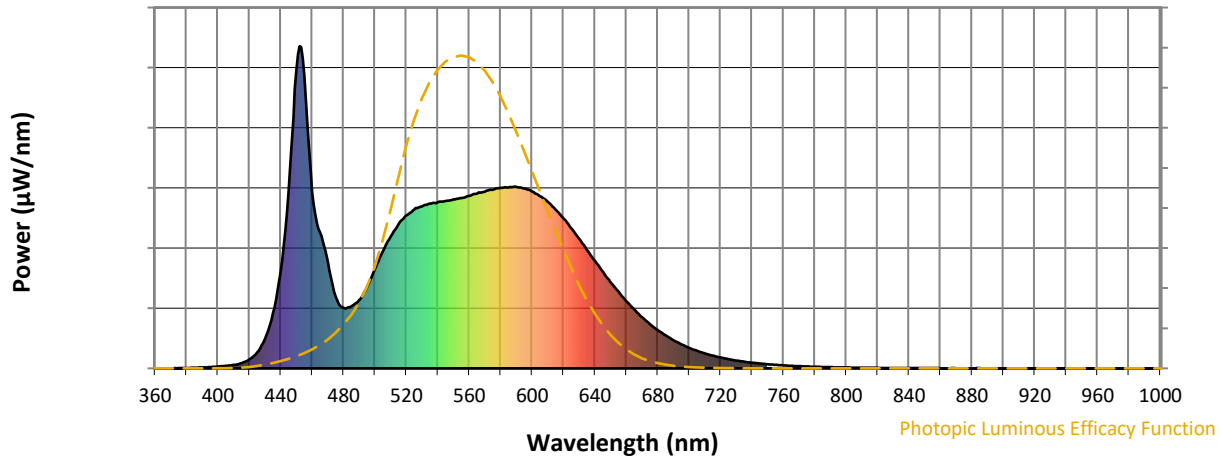
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

Photopic Flux vs. Wavelength

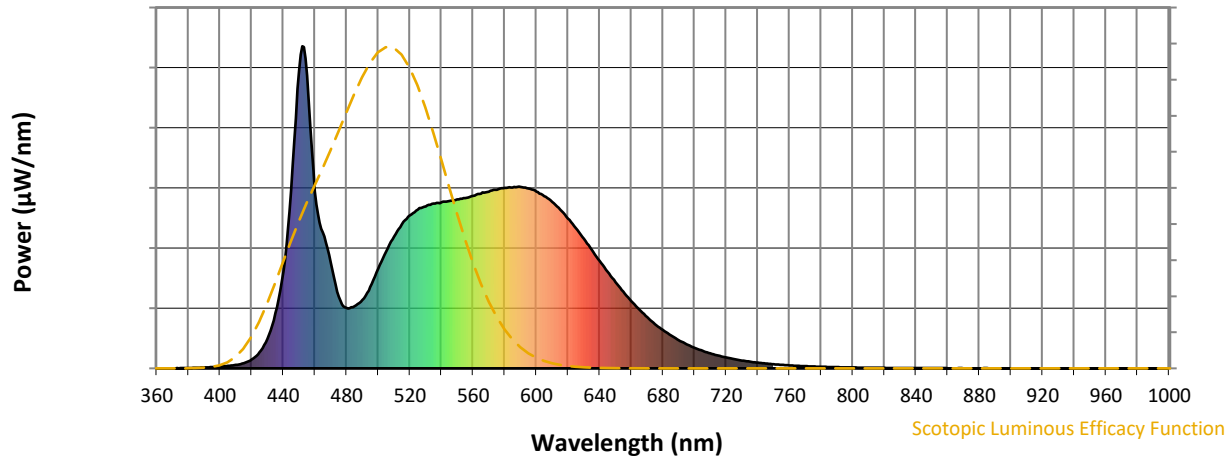


Photopic Lumens: NR

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	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Scotopic Flux vs. Wavelength



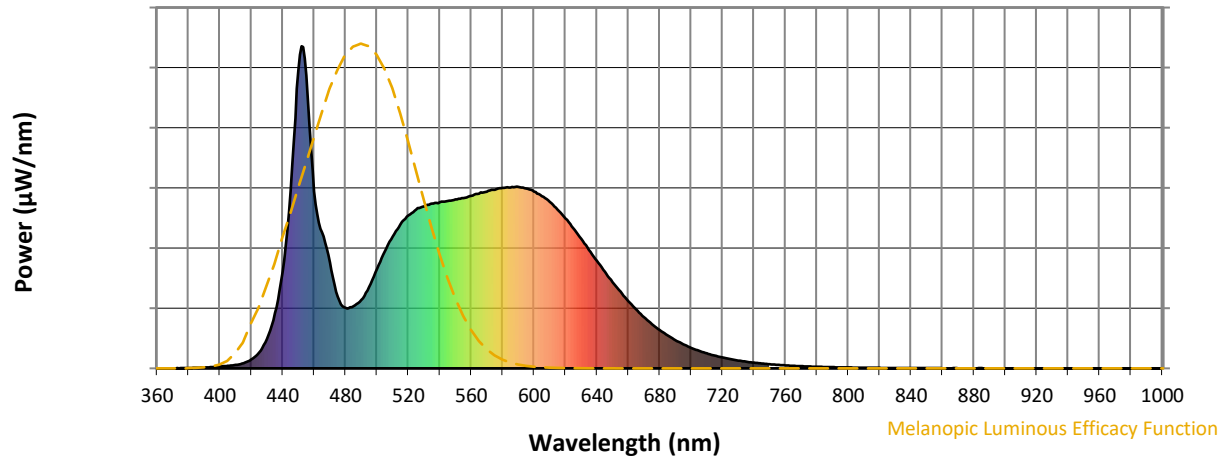
Scotopic Lumens: NR

S/P: 1.9

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	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Melanopic Flux vs. Wavelength



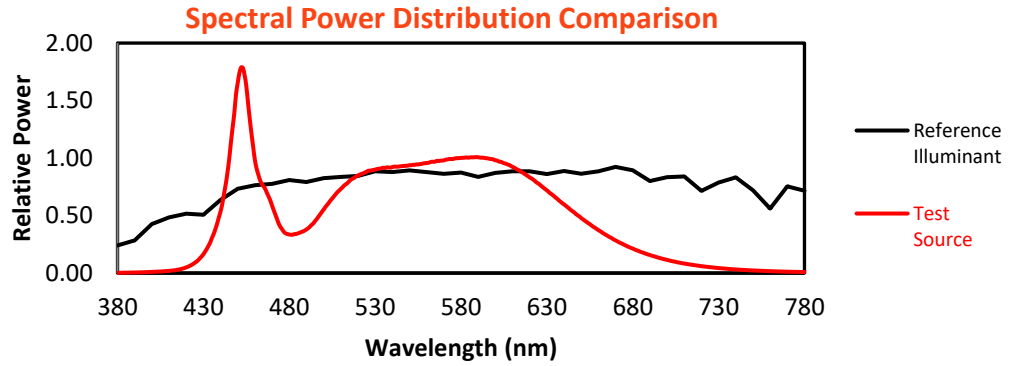
Melanopic Lumens: NR

M/P: 4

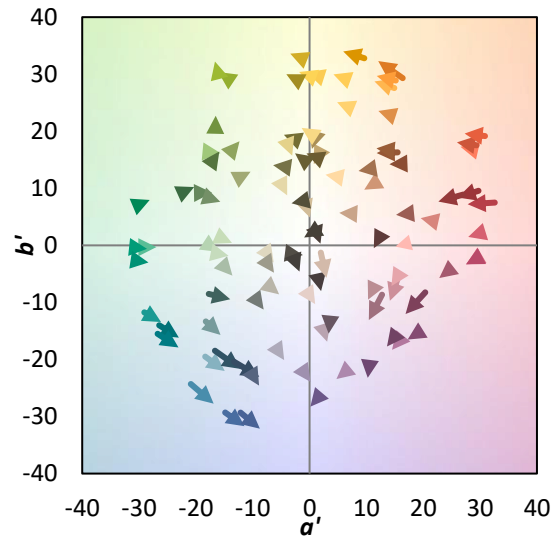
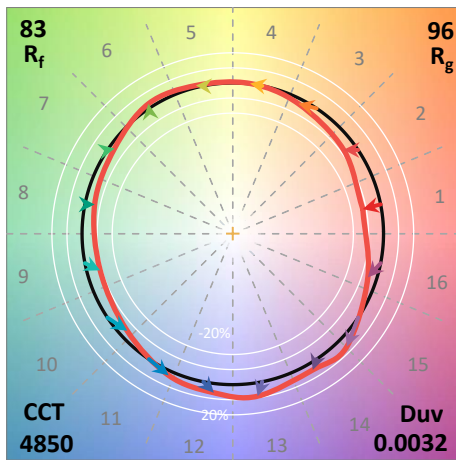
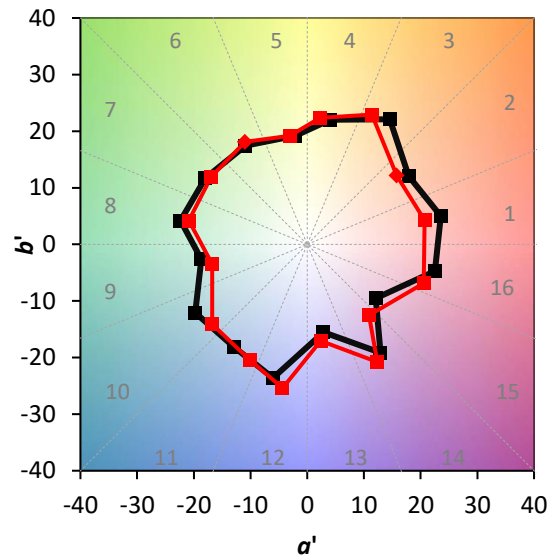
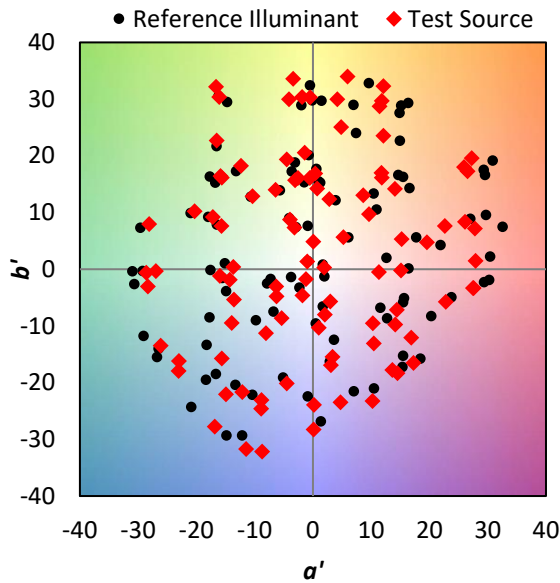
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

Summary

$R_f = 83.1$
 $R_g = 95.8$
 CIE $R_a = 82.6$
 $R_9 = 8.5$

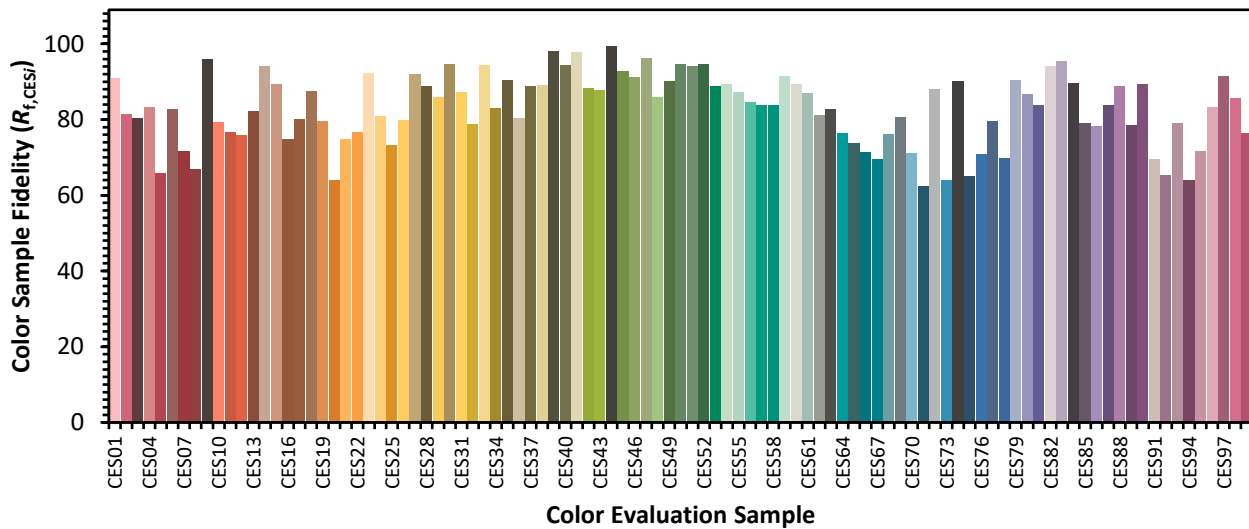


Color Vector Graphics

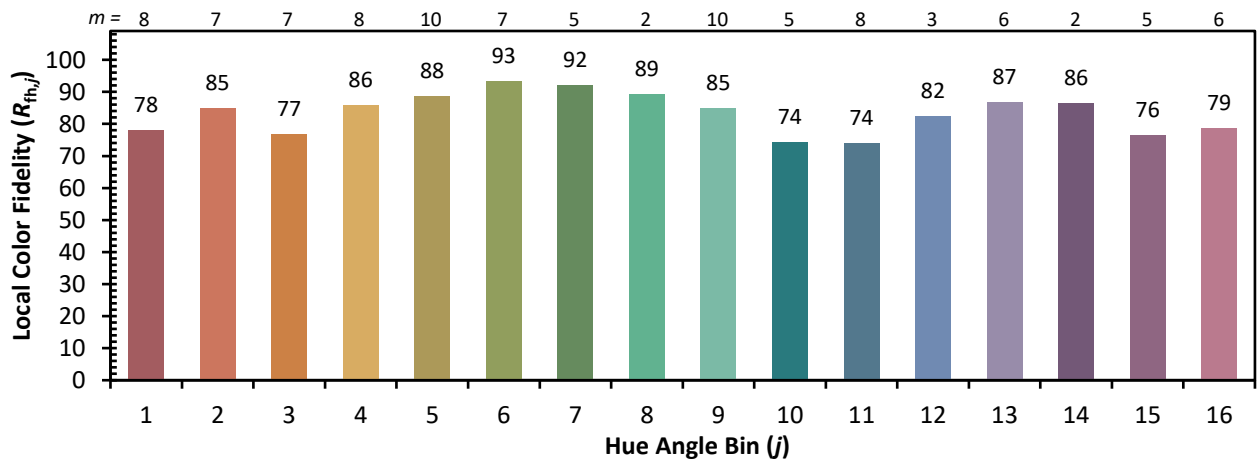
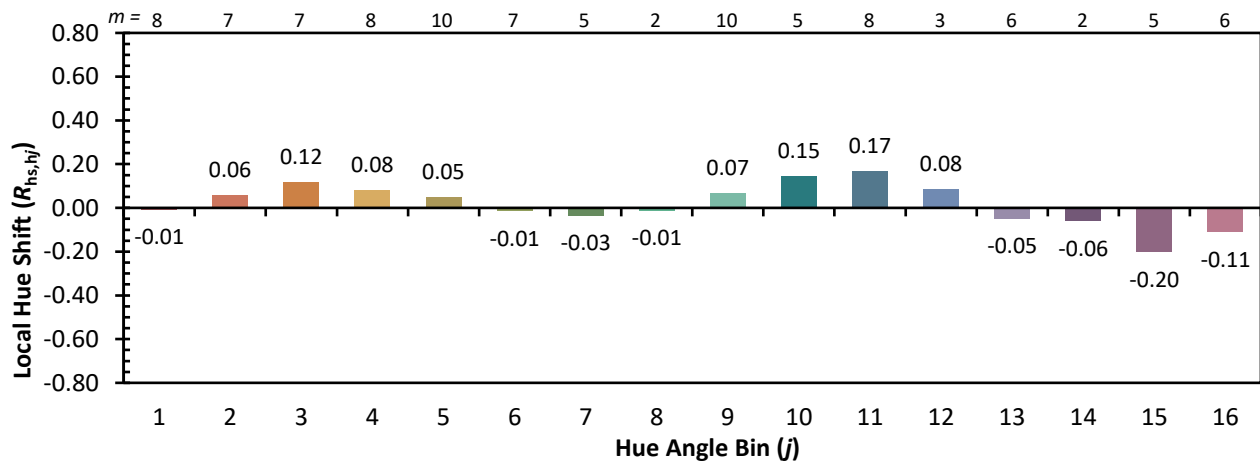
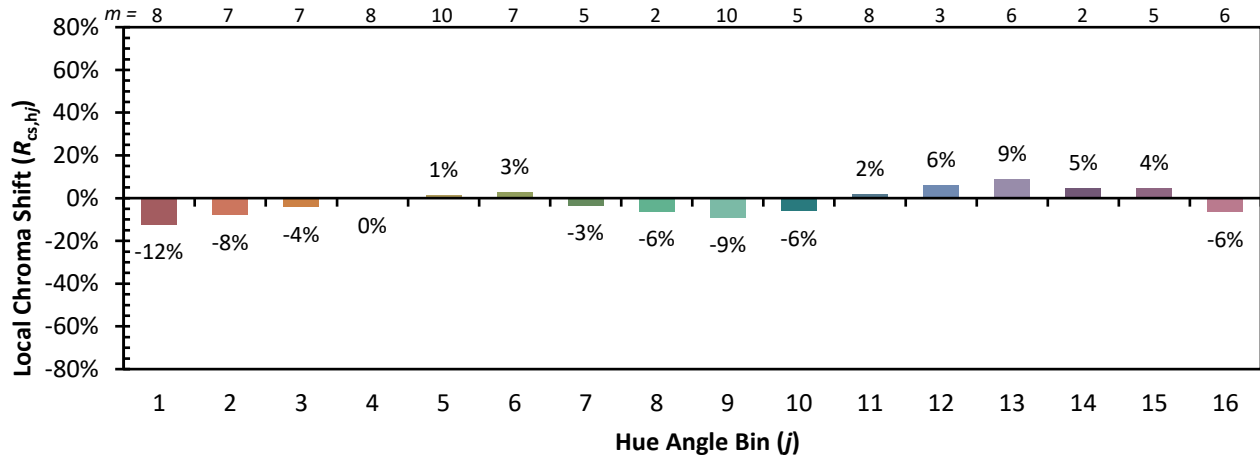


Individual Sample Fidelity Index ($R_{f,i}$)

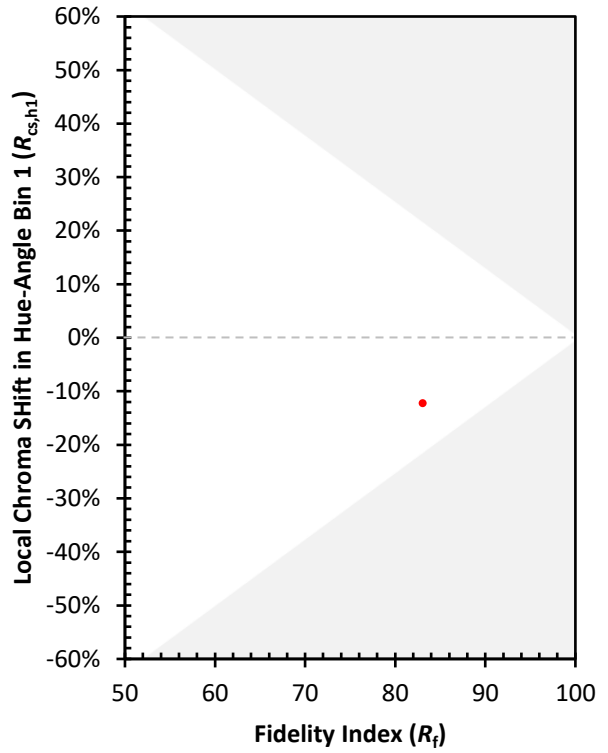
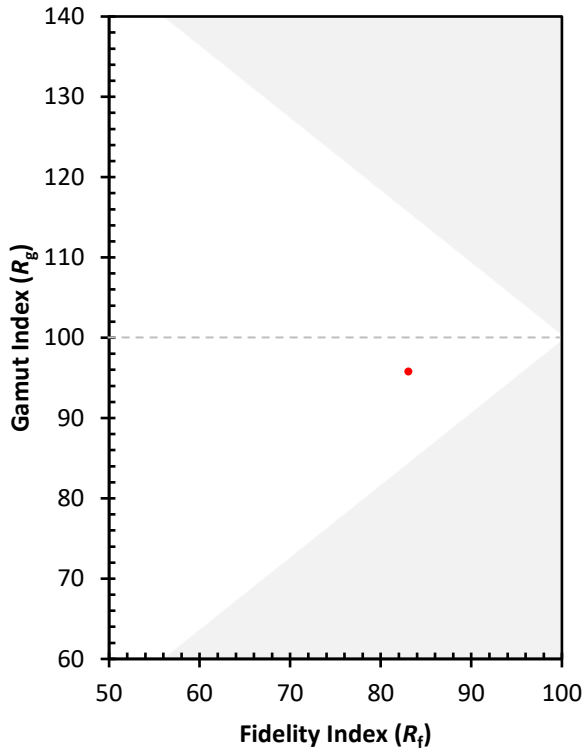
CES01 = 85	CES26 = 80	CES51 = 94	CES76 = 71
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 80
CES03 = 30	CES28 = 89	CES53 = 89	CES78 = 70
CES04 = 69	CES29 = 86	CES54 = 89	CES79 = 90
CES05 = 47	CES30 = 95	CES55 = 87	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 85	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 84	CES82 = 94
CES08 = 39	CES33 = 94	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 83	CES59 = 91	CES84 = 90
CES10 = 73	CES35 = 90	CES60 = 89	CES85 = 79
CES11 = 56	CES36 = 80	CES61 = 87	CES86 = 78
CES12 = 62	CES37 = 89	CES62 = 81	CES87 = 84
CES13 = 42	CES38 = 89	CES63 = 83	CES88 = 89
CES14 = 74	CES39 = 98	CES64 = 77	CES89 = 79
CES15 = 71	CES40 = 94	CES65 = 74	CES90 = 89
CES16 = 46	CES41 = 98	CES66 = 71	CES91 = 70
CES17 = 49	CES42 = 88	CES67 = 70	CES92 = 65
CES18 = 56	CES43 = 88	CES68 = 76	CES93 = 79
CES19 = 71	CES44 = 99	CES69 = 81	CES94 = 64
CES20 = 64	CES45 = 93	CES70 = 71	CES95 = 72
CES21 = 85	CES46 = 91	CES71 = 62	CES96 = 83
CES22 = 77	CES47 = 96	CES72 = 88	CES97 = 91
CES23 = 91	CES48 = 86	CES73 = 64	CES98 = 86
CES24 = 90	CES49 = 90	CES74 = 90	CES99 = 76
CES25 = 71	CES50 = 95	CES75 = 65	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)