

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: P1449887

Luminaire Tested: **TWC60\_T2\_24W\_3000K**

Issue Date: 5/19/2026

**Test Information**

Test Method: LM-79-08  
Report Number: P1449887  
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: TWC60\_T2\_24W\_3000K  
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 24W  
3000K settings  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3935 lumens  
Efficiency: N/A  
Efficacy: 157.4 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.42' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G1

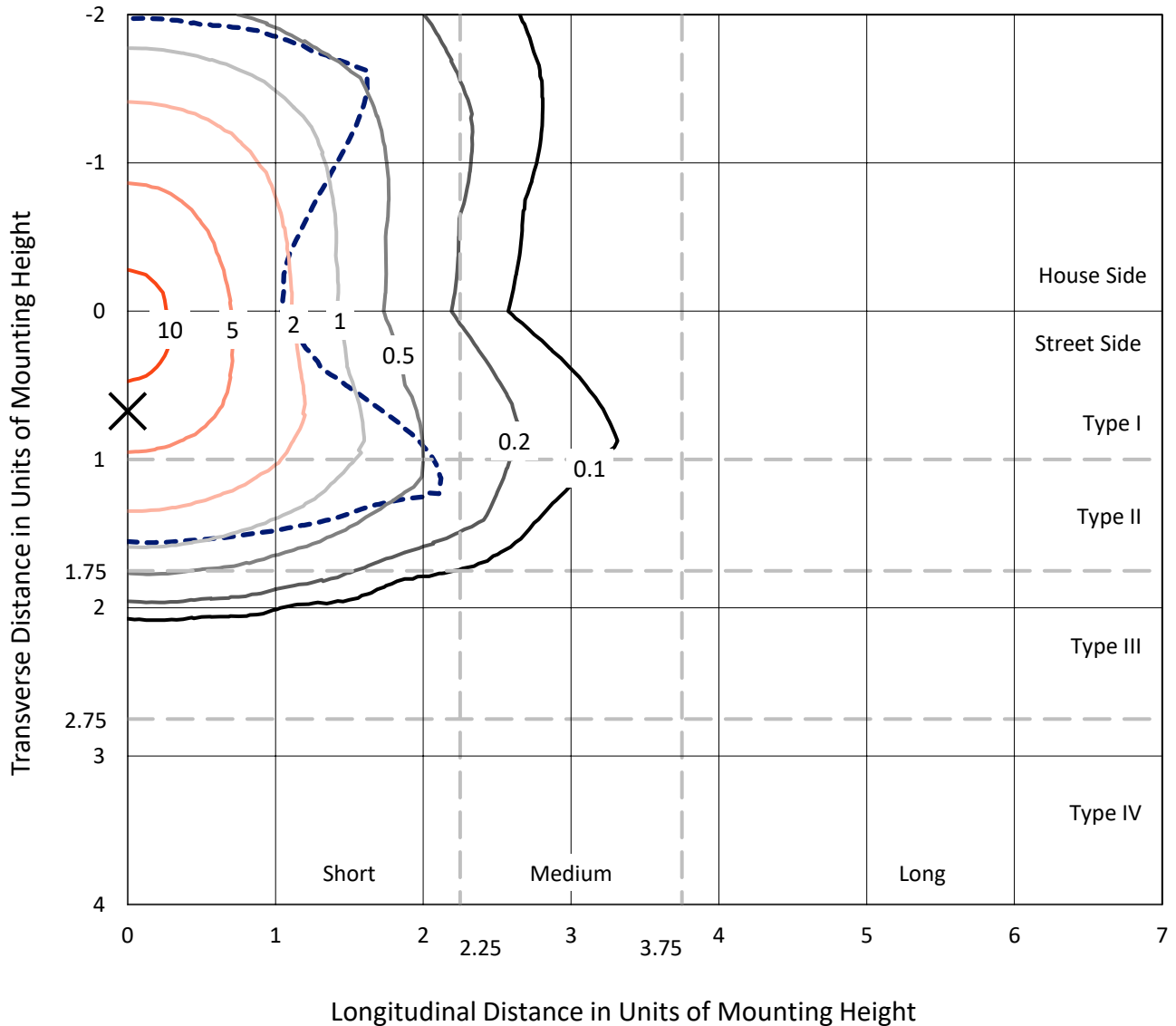
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

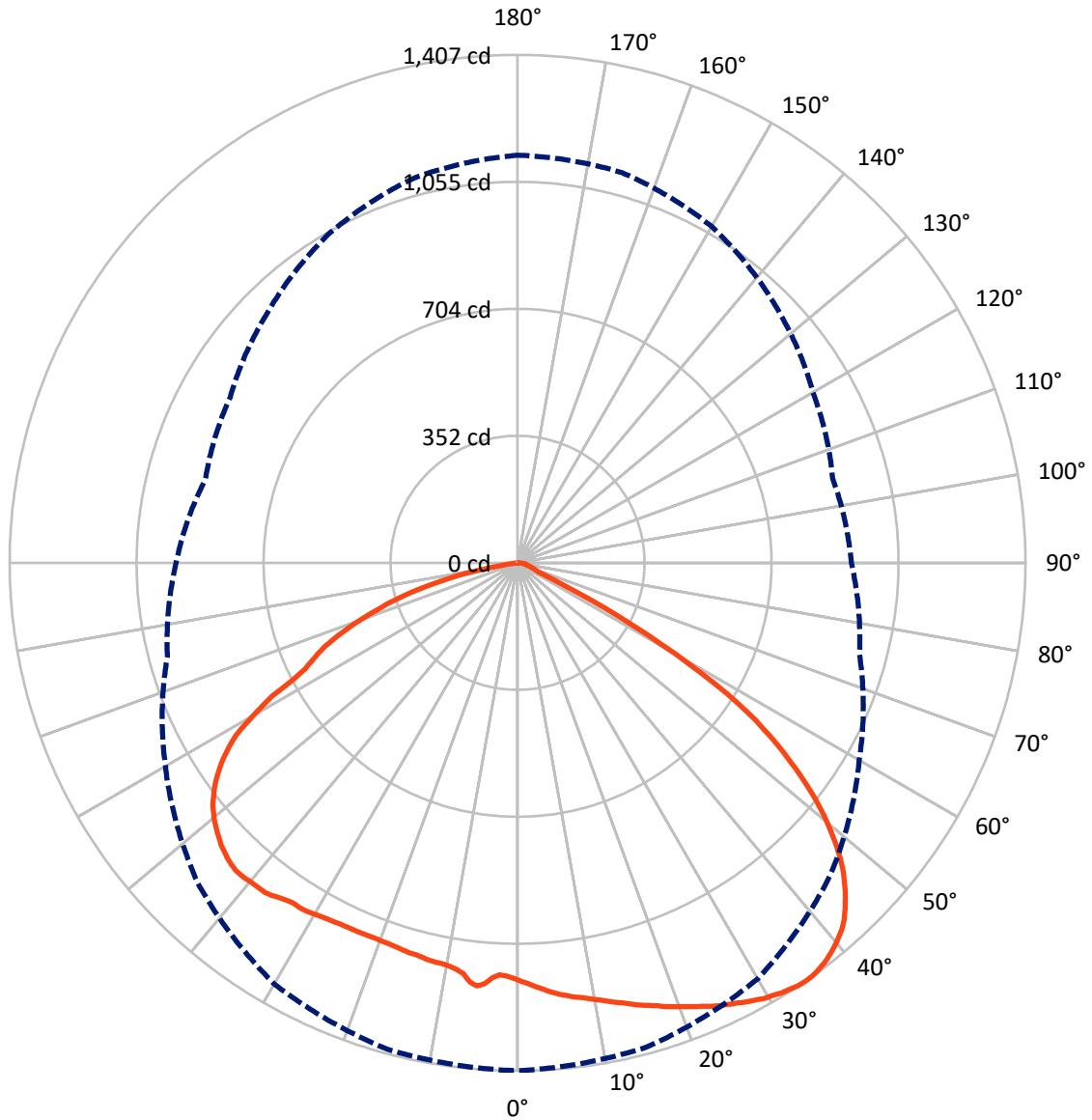
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.9 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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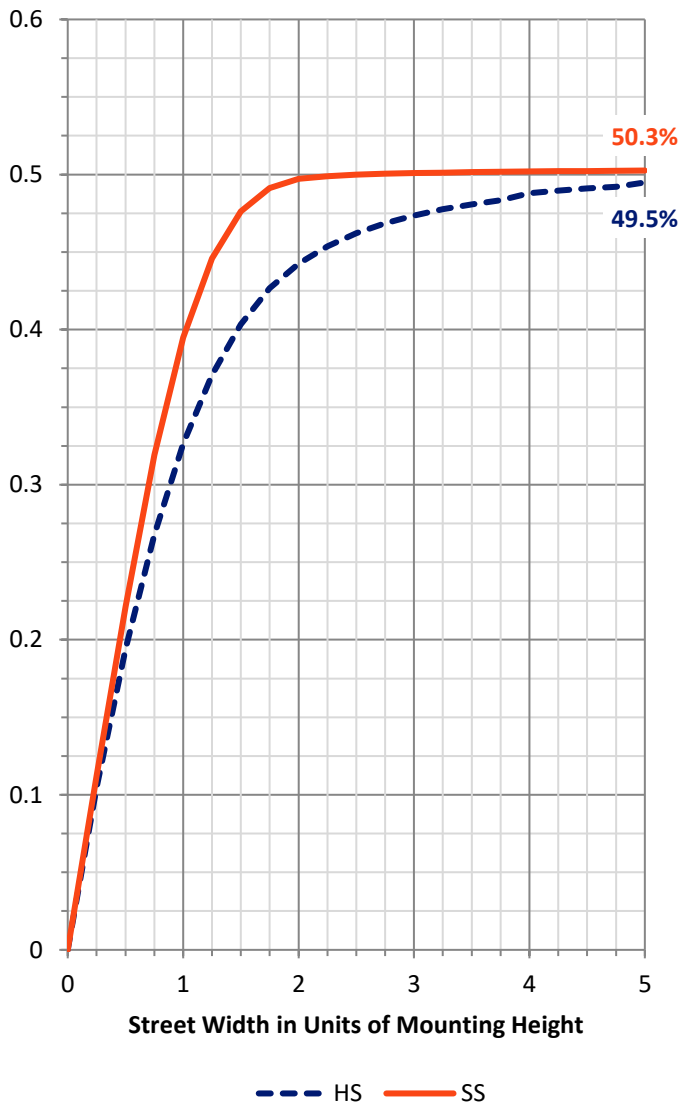
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1957.8	0.0	1957.8
	% Fixture	49.8	0.0	49.8
<b>Street Side</b>	Lumens	1977.2	0.0	1977.2
	% Fixture	50.2	0.0	50.2
<b>Total</b>	Lumens	3935.0	0.0	3935.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.5	2.8
10°-20°	328.6	8.4
20°-30°	527.2	13.4
30°-40°	689.9	17.5
40°-50°	786.1	20.0
50°-60°	748.6	19.0
60°-70°	486.0	12.3
70°-80°	215.4	5.5
80°-90°	41.8	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°	3935.0	100.0
0°-180°	3935.0	100.0

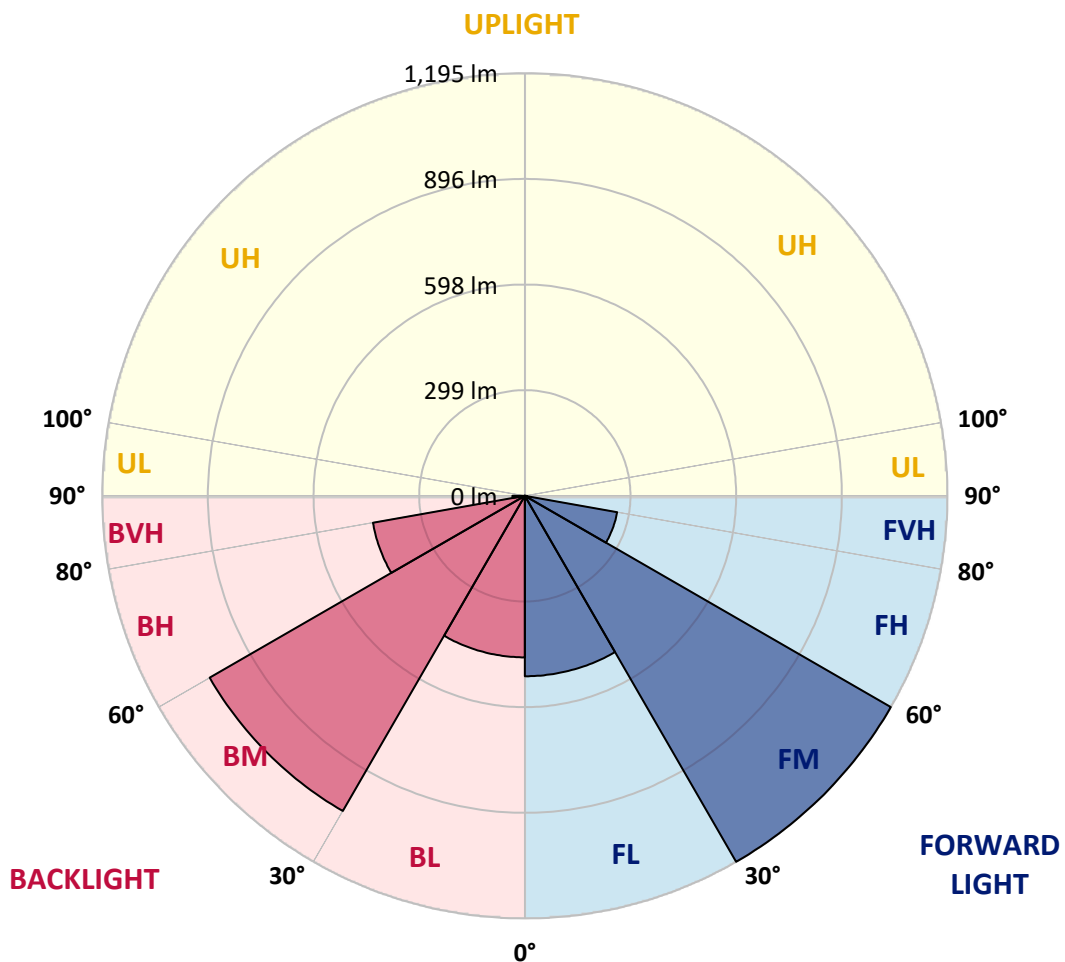


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	510.3	13.0			
FM (30°-60°)	1195.3	30.4			
FH (60°-80°)	265.1	6.7			G0/660
FVH (80°-90°)	6.4	0.2			G0/10
BL (0°-30°)	456.9	11.6	B1/500		
BM (30°-60°)	1029.3	26.2	B2/2500		
BH (60°-80°)	436.2	11.1	B1/500		G1/500
BVH (80°-90°)	35.4	0.9			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9
1°	1166.3	1165.6	1166.0	1163.2	1161.0	1160.1	1159.1	1156.9	1155.0	1153.5	1152.4
2°	1176.2	1174.3	1172.3	1169.0	1165.0	1161.2	1158.0	1154.1	1150.8	1149.2	1147.1
3°	1184.0	1183.1	1179.4	1174.2	1168.9	1161.5	1156.7	1150.9	1146.3	1143.2	1141.6
4°	1192.9	1190.4	1186.3	1179.7	1170.8	1161.8	1154.4	1147.6	1142.3	1141.9	1146.4
5°	1200.3	1197.9	1192.3	1184.5	1173.3	1162.2	1153.1	1144.1	1139.2	1147.4	1161.4
6°	1206.7	1203.7	1198.1	1188.6	1175.6	1160.9	1148.2	1138.6	1140.4	1161.0	1174.2
7°	1213.0	1209.0	1201.3	1191.3	1176.6	1160.6	1145.8	1135.2	1147.2	1171.7	1175.9
8°	1218.4	1214.5	1206.4	1193.5	1178.3	1159.7	1142.3	1132.3	1156.1	1172.8	1160.9
9°	1225.0	1220.6	1209.6	1197.2	1177.9	1157.6	1137.9	1129.6	1164.5	1163.8	1143.5
10°	1231.3	1225.4	1214.9	1198.9	1178.9	1154.4	1133.6	1131.1	1164.1	1144.9	1135.5
11°	1238.8	1233.0	1218.3	1200.6	1177.4	1152.7	1129.5	1134.5	1159.1	1131.4	1129.7
12°	1246.7	1240.1	1223.3	1203.5	1177.7	1150.0	1122.9	1137.9	1143.0	1124.6	1125.5
13°	1253.6	1246.5	1228.6	1204.6	1177.2	1146.3	1117.0	1140.3	1127.3	1118.5	1122.5
14°	1262.6	1254.2	1234.2	1206.9	1176.4	1142.5	1111.5	1141.8	1115.1	1113.3	1120.6
15°	1271.7	1262.7	1239.5	1209.3	1174.2	1137.8	1105.0	1137.1	1106.2	1109.0	1115.5
16°	1279.1	1270.0	1246.7	1211.3	1174.4	1134.9	1098.8	1128.8	1099.3	1104.3	1112.3
17°	1286.8	1277.8	1251.6	1215.2	1173.9	1130.9	1092.8	1115.8	1091.2	1099.3	1109.5
18°	1296.2	1284.1	1257.1	1218.1	1173.2	1126.5	1087.5	1098.0	1085.1	1093.1	1106.8
19°	1304.7	1292.5	1263.1	1221.2	1171.3	1121.0	1081.9	1081.9	1078.7	1088.6	1102.3
20°	1312.4	1298.5	1267.3	1223.1	1171.3	1117.0	1077.8	1068.2	1070.9	1083.0	1097.9
21°	1321.3	1306.5	1273.6	1224.7	1168.2	1113.0	1075.6	1057.8	1062.0	1076.9	1095.5
22°	1330.2	1313.2	1277.0	1226.6	1165.2	1108.1	1073.1	1047.5	1053.1	1071.6	1092.8
23°	1339.5	1322.3	1281.5	1227.0	1161.8	1101.2	1070.4	1037.2	1045.6	1066.1	1088.3
24°	1348.3	1330.0	1286.3	1228.1	1158.9	1095.2	1066.4	1027.9	1037.3	1061.1	1085.7
25°	1355.6	1337.2	1291.5	1227.4	1154.6	1085.4	1061.2	1018.7	1029.0	1055.6	1084.6
26°	1362.7	1344.5	1296.4	1226.8	1148.8	1076.1	1052.3	1006.0	1018.9	1048.8	1082.5
27°	1371.5	1351.2	1303.1	1227.8	1144.3	1067.5	1041.7	995.4	1009.9	1043.4	1079.9
28°	1378.3	1357.4	1306.4	1225.8	1137.8	1056.8	1027.0	982.8	1001.1	1038.8	1079.2
29°	1386.6	1365.1	1311.3	1226.2	1130.5	1046.6	1011.7	970.5	993.0	1032.8	1078.6
30°	1391.1	1372.2	1314.0	1225.1	1124.2	1033.8	992.6	957.8	983.5	1027.7	1076.5
31°	1397.5	1376.8	1319.5	1226.4	1116.8	1021.4	974.8	945.2	973.2	1023.1	1076.4
32°	1401.3	1382.3	1322.4	1225.7	1108.5	1008.9	957.2	931.2	964.5	1018.2	1075.2
33°	1405.5	1385.2	1327.0	1224.9	1100.7	994.8	939.8	917.6	953.8	1013.6	1075.9
34°	1407.1	1388.3	1330.4	1224.8	1093.0	980.5	924.5	903.5	944.8	1009.2	1075.6
35°	1406.2	1389.0	1333.9	1224.2	1085.3	966.8	907.8	889.4	933.5	1003.8	1074.6
36°	1401.7	1388.4	1333.9	1222.0	1077.4	951.1	890.8	875.3	923.8	1000.7	1069.8
37°	1396.9	1383.9	1336.0	1222.6	1069.6	935.5	873.5	860.9	913.7	994.8	1069.4
38°	1388.7	1378.0	1334.5	1223.4	1063.2	921.0	856.1	846.5	904.5	988.4	1069.7
39°	1378.8	1370.9	1330.9	1223.2	1056.3	905.4	838.2	833.1	894.5	980.4	1072.0
40°	1368.0	1360.9	1327.7	1223.7	1049.9	889.4	820.2	819.7	884.8	974.9	1074.6
41°	1356.0	1349.7	1321.2	1223.7	1043.9	874.8	802.1	806.2	874.5	973.1	1073.6
42°	1339.5	1336.0	1313.4	1223.0	1038.0	859.6	784.5	790.8	862.9	970.0	1073.2
43°	1318.2	1320.0	1302.7	1222.4	1033.1	845.2	764.7	775.3	849.3	963.7	1073.0
44°	1295.6	1300.2	1290.5	1221.3	1028.3	831.6	744.3	760.0	839.6	956.7	1073.7



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	1270.8	1279.1	1277.7	1218.0	1024.0	818.4	724.2	743.4	830.0	949.4	1073.7
46°	1244.2	1254.4	1261.1	1213.9	1020.2	806.0	705.0	727.2	820.3	947.2	1071.1
47°	1212.1	1227.3	1244.6	1207.3	1017.7	792.8	683.6	710.9	809.6	943.9	1065.3
48°	1177.4	1196.8	1222.5	1200.9	1014.0	777.9	663.2	693.1	797.0	939.1	1058.5
49°	1140.3	1162.2	1198.5	1189.8	1011.4	762.2	641.7	673.9	784.5	933.1	1050.8
50°	1099.8	1122.8	1172.2	1178.3	1009.6	745.1	620.8	652.9	774.8	926.4	1041.8
51°	1055.5	1083.7	1142.3	1165.8	1007.4	727.7	599.3	632.5	764.2	918.0	1032.2
52°	1008.7	1038.7	1109.4	1152.0	1006.4	709.4	577.0	615.2	751.3	910.5	1023.0
53°	958.1	991.8	1071.5	1133.9	1003.9	688.1	555.7	598.7	737.4	903.6	1012.5
54°	905.8	941.2	1028.7	1112.8	1000.8	669.7	534.7	578.6	722.8	895.3	1001.1
55°	850.2	887.5	983.2	1087.9	998.5	650.8	511.8	557.9	706.9	885.9	988.7
56°	790.7	830.7	934.3	1061.0	994.5	632.4	489.4	538.9	693.6	875.1	975.2
57°	723.3	769.2	880.5	1030.1	988.4	614.6	467.2	520.0	678.4	864.0	960.3
58°	642.3	702.1	823.6	992.6	978.9	596.9	444.1	500.4	663.8	852.6	943.2
59°	551.3	622.5	762.4	950.7	968.2	579.5	421.1	479.1	648.1	841.2	923.0
60°	457.0	530.9	696.0	902.0	953.9	562.0	397.3	457.3	631.9	829.8	900.5
61°	368.2	436.4	622.8	847.5	938.5	545.9	374.6	435.5	615.4	818.3	873.4
62°	279.4	347.8	534.8	783.3	919.3	531.8	353.3	415.0	599.9	802.6	832.7
63°	190.7	259.3	443.2	714.4	896.7	519.3	330.5	393.2	585.4	785.5	792.0
64°	123.6	170.8	351.8	642.6	869.7	509.0	308.0	373.0	570.0	766.1	750.5
65°	81.3	106.7	260.3	558.5	838.3	501.9	286.4	352.9	554.2	746.2	680.0
66°	62.5	70.3	168.9	465.1	800.6	498.7	265.2	333.0	537.2	719.6	628.8
67°	56.7	55.1	103.2	369.1	754.4	496.9	244.9	313.0	520.6	676.7	598.7
68°	52.7	50.1	65.4	273.1	697.2	496.0	224.4	293.7	500.9	623.7	573.6
69°	48.8	46.2	51.1	177.1	633.0	494.4	204.7	274.9	481.6	582.5	548.9
70°	45.0	42.4	46.0	103.2	551.2	494.0	185.5	256.8	463.0	556.7	525.2
71°	41.4	39.2	42.3	60.9	443.4	496.6	166.9	238.6	442.1	531.6	503.3
72°	38.5	36.0	38.5	44.2	328.3	497.1	150.1	220.7	408.6	504.0	480.3
73°	35.6	32.8	34.8	39.2	213.0	485.4	133.4	202.3	377.2	475.4	455.9
74°	32.8	30.0	31.0	34.4	97.7	451.6	117.5	184.4	356.4	448.5	428.6
75°	29.8	26.9	27.5	29.6	54.2	408.3	102.5	167.7	338.9	423.0	400.0
76°	27.4	24.2	23.4	26.4	45.7	361.7	87.5	151.0	319.8	398.2	365.5
77°	25.5	22.1	20.4	23.9	37.7	315.2	72.6	135.3	300.7	375.1	325.8
78°	24.3	20.3	17.8	21.0	29.7	268.6	60.1	116.3	283.2	352.9	289.8
79°	23.3	19.1	16.0	17.5	26.9	204.9	48.8	101.4	264.5	331.5	256.6
80°	22.0	18.2	14.6	14.2	26.9	154.8	38.7	86.5	246.2	303.9	230.8
81°	20.5	17.0	13.5	12.1	25.0	108.3	30.3	71.7	228.7	274.9	204.3
82°	18.8	15.7	12.4	10.5	21.4	70.4	23.0	60.2	209.8	245.3	145.6
83°	15.5	13.6	11.3	9.2	17.7	41.5	16.6	49.3	191.0	222.8	86.9
84°	12.3	11.1	9.6	8.0	12.2	31.0	12.7	38.7	165.0	202.4	29.3
85°	8.8	8.3	7.2	6.8	7.2	20.6	8.8	29.2	132.9	161.7	16.9
86°	6.1	6.2	5.3	5.1	4.6	10.1	4.9	20.4	106.3	121.0	4.6
87°	4.2	4.3	3.6	3.5	3.1	5.6	2.8	13.8	79.8	80.3	2.3
88°	2.2	2.3	1.9	1.9	1.6	3.7	1.3	7.2	53.3	39.6	0.8
89°	0.3	0.3	0.3	0.3	0.3	1.9	0.4	0.8	26.7	0.3	0.2



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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: P1449887  
 CATALOG NUMBER: TWC60\_T2\_24W\_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



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**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: P1449887

CATALOG NUMBER: TWC60\_T2\_24W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9	1158.9
1°	1151.3	1151.2	1152.1	1151.4	1153.1	1154.4	1155.9	1159.3	1161.1	1162.3	1163.8
2°	1144.4	1145.1	1144.7	1145.5	1149.4	1151.4	1154.2	1158.3	1163.1	1165.7	1169.6
3°	1141.1	1142.5	1140.6	1140.9	1142.5	1147.6	1150.7	1156.6	1162.8	1169.0	1176.1
4°	1151.9	1151.7	1148.0	1142.0	1138.4	1142.5	1147.7	1155.9	1165.3	1172.5	1181.1
5°	1169.2	1170.1	1164.7	1155.0	1140.4	1137.7	1144.4	1153.5	1164.7	1176.3	1186.3
6°	1177.5	1177.7	1177.4	1167.4	1149.8	1134.9	1140.4	1150.7	1164.5	1179.0	1190.1
7°	1170.8	1168.6	1172.0	1173.2	1161.3	1136.0	1136.2	1148.6	1164.7	1180.9	1194.3
8°	1150.3	1148.1	1152.0	1165.6	1168.2	1140.4	1131.5	1145.9	1165.0	1182.3	1197.1
9°	1139.1	1139.1	1139.2	1145.7	1166.2	1148.6	1125.7	1141.3	1162.4	1182.8	1200.0
10°	1134.1	1133.7	1133.4	1133.2	1152.1	1154.2	1122.2	1137.8	1161.5	1184.0	1203.3
11°	1129.8	1130.3	1129.1	1127.3	1135.5	1155.1	1118.9	1133.7	1158.2	1183.4	1204.7
12°	1129.0	1129.3	1126.2	1121.2	1123.6	1150.0	1117.0	1127.6	1156.6	1183.4	1207.9
13°	1126.5	1127.6	1124.8	1117.7	1116.7	1137.5	1118.2	1121.9	1153.8	1183.2	1210.8
14°	1123.7	1124.7	1120.1	1114.9	1109.5	1121.2	1121.1	1117.3	1151.4	1183.4	1213.7
15°	1121.0	1121.8	1117.4	1111.2	1103.0	1107.1	1120.8	1112.5	1147.8	1184.5	1217.9
16°	1119.0	1120.9	1115.9	1105.7	1098.3	1096.3	1121.7	1104.6	1144.4	1185.4	1221.2
17°	1117.1	1118.7	1113.4	1102.4	1091.7	1088.6	1117.2	1098.6	1140.6	1185.0	1225.3
18°	1114.0	1115.7	1109.4	1097.8	1085.0	1079.7	1109.4	1091.2	1138.7	1185.0	1229.6
19°	1110.9	1114.5	1107.4	1094.6	1077.7	1071.5	1098.4	1085.4	1135.1	1184.3	1233.4
20°	1110.2	1113.7	1104.4	1089.3	1073.1	1063.6	1083.7	1076.9	1131.2	1183.9	1234.4
21°	1109.3	1112.5	1102.8	1084.7	1067.1	1055.8	1067.1	1070.1	1128.3	1184.0	1237.4
22°	1108.1	1112.2	1101.7	1081.0	1060.0	1046.2	1050.7	1062.8	1122.9	1181.5	1239.4
23°	1108.2	1113.4	1100.5	1078.1	1052.9	1034.7	1036.7	1056.6	1117.6	1179.9	1241.8
24°	1107.2	1113.4	1100.1	1072.9	1046.0	1025.1	1024.4	1050.2	1110.3	1176.5	1243.9
25°	1106.7	1113.8	1099.6	1070.7	1040.2	1016.7	1012.2	1046.5	1102.5	1173.0	1244.8
26°	1108.1	1114.5	1098.0	1067.3	1033.6	1006.0	1000.6	1043.0	1095.2	1169.0	1246.2
27°	1107.7	1115.3	1098.4	1065.2	1027.1	994.9	988.3	1037.9	1085.4	1166.1	1247.3
28°	1108.6	1117.5	1098.4	1061.7	1019.8	983.6	977.5	1032.9	1075.3	1159.8	1248.0
29°	1111.0	1119.6	1098.9	1057.9	1013.7	974.4	965.6	1025.8	1064.8	1155.4	1249.6
30°	1111.5	1122.1	1100.7	1055.4	1006.9	962.9	951.8	1014.4	1053.1	1149.1	1251.9
31°	1116.2	1125.9	1101.3	1054.5	1000.5	952.9	937.4	1001.6	1040.8	1143.9	1253.0
32°	1117.9	1129.0	1104.4	1051.6	993.3	941.3	924.2	985.7	1029.6	1139.1	1252.1
33°	1118.9	1129.8	1104.9	1050.9	984.9	930.2	908.6	966.4	1016.9	1132.3	1254.6
34°	1118.8	1129.1	1104.1	1049.7	979.7	919.0	895.2	945.8	1004.3	1126.6	1253.4
35°	1119.0	1133.3	1103.0	1047.8	971.8	908.3	880.4	924.9	991.2	1120.7	1255.2
36°	1123.5	1138.7	1103.9	1044.1	965.4	896.8	865.0	903.6	978.1	1117.2	1256.1
37°	1129.2	1145.7	1108.5	1039.0	959.0	885.4	849.0	885.4	965.0	1110.7	1257.9
38°	1133.3	1150.1	1113.2	1037.9	952.2	873.3	834.1	866.1	952.6	1107.6	1257.9
39°	1135.1	1150.8	1116.3	1037.2	943.7	860.6	819.2	847.8	939.6	1102.9	1258.4
40°	1136.0	1151.9	1115.7	1035.4	934.3	849.0	804.4	828.6	925.7	1098.5	1257.4
41°	1137.7	1153.7	1115.3	1033.7	926.9	837.8	786.0	810.8	912.0	1093.6	1258.7
42°	1139.2	1155.9	1118.9	1031.0	920.4	826.5	768.2	792.2	898.4	1091.0	1255.9
43°	1140.9	1155.6	1119.6	1030.9	915.4	815.3	749.5	772.5	885.4	1089.4	1253.7
44°	1138.5	1151.8	1119.5	1030.9	909.9	800.6	731.5	752.8	870.8	1088.6	1248.7



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**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1133.9	1146.8	1115.7	1029.7	900.1	784.7	713.4	732.9	856.3	1087.6	1242.5
46°	1127.0	1139.6	1109.3	1028.0	891.7	769.1	695.3	713.0	843.1	1085.8	1234.2
47°	1119.9	1133.0	1101.7	1024.4	884.1	754.1	677.5	691.8	829.0	1083.7	1223.9
48°	1112.0	1123.1	1094.2	1019.6	877.3	742.3	659.2	671.8	816.2	1082.7	1211.2
49°	1102.6	1113.8	1084.9	1013.1	869.1	728.0	640.6	649.8	802.8	1081.1	1199.0
50°	1092.6	1103.4	1076.5	1005.7	860.1	713.1	621.5	628.0	788.9	1078.8	1184.0
51°	1081.5	1091.4	1066.6	995.3	849.9	698.7	602.0	607.1	776.4	1076.1	1166.8
52°	1070.5	1078.8	1055.1	986.5	840.5	684.6	580.8	585.4	763.3	1073.1	1144.5
53°	1055.6	1061.5	1042.6	975.8	833.2	671.9	559.1	563.9	751.5	1067.9	1120.8
54°	1039.7	1043.9	1029.6	965.4	825.9	656.9	537.5	541.4	741.3	1060.2	1092.5
55°	1021.6	1023.9	1012.3	953.6	818.6	641.0	518.3	518.6	731.5	1051.1	1061.3
56°	1000.9	1000.5	993.6	942.1	808.8	622.6	497.8	495.6	723.9	1037.3	1026.5
57°	977.2	975.7	971.7	927.8	798.0	604.8	476.1	472.4	718.9	1024.0	984.9
58°	950.7	946.0	947.2	914.5	787.9	586.3	454.3	449.2	712.6	1007.6	940.2
59°	922.2	915.4	920.8	898.2	778.3	569.1	433.3	426.5	707.5	988.4	888.1
60°	890.9	868.1	891.7	881.2	765.5	551.4	412.5	404.4	701.2	966.8	831.3
61°	834.4	820.8	842.1	860.2	752.2	534.5	391.8	382.3	695.1	940.3	769.2
62°	777.9	773.3	792.5	832.8	738.2	516.5	370.4	360.3	692.5	910.9	701.0
63°	721.4	699.7	742.7	805.3	720.8	497.4	348.0	337.6	689.7	873.9	626.8
64°	663.8	656.3	674.8	777.3	703.9	479.9	325.7	314.8	688.4	832.4	544.8
65°	633.0	631.1	634.4	723.0	684.4	461.8	303.5	293.6	685.4	782.8	452.1
66°	609.8	607.6	607.6	657.3	664.7	442.9	282.1	272.6	683.7	724.3	358.6
67°	586.5	581.4	585.9	611.3	641.8	424.1	261.2	251.7	682.4	658.0	265.0
68°	559.5	550.9	563.0	581.1	613.4	404.7	240.5	229.4	674.7	576.3	171.5
69°	530.1	516.9	536.4	551.9	570.4	384.6	220.3	207.8	658.0	481.4	103.1
70°	499.4	483.2	509.9	524.5	531.4	365.4	200.9	186.9	628.9	371.6	62.9
71°	464.6	445.0	479.1	499.1	507.8	346.0	183.0	166.3	586.6	261.4	46.8
72°	429.3	410.3	447.0	477.8	487.9	327.2	166.4	147.1	546.9	151.2	41.7
73°	395.5	377.9	412.4	457.7	464.4	306.8	149.2	128.9	514.7	82.7	37.7
74°	360.0	341.8	376.9	437.2	441.5	277.3	133.5	112.6	463.2	49.1	33.7
75°	324.9	305.1	340.9	415.8	418.2	253.1	118.4	96.8	403.8	41.9	29.7
76°	287.3	263.7	306.3	392.1	395.0	235.3	105.4	82.3	321.1	35.1	25.5
77°	249.1	224.2	270.4	362.3	371.1	218.2	92.3	70.4	237.6	28.4	21.8
78°	214.2	186.2	238.1	325.9	345.4	200.3	79.2	60.4	154.1	25.9	18.4
79°	176.5	140.1	204.4	287.0	320.5	183.5	68.3	51.9	86.1	24.7	15.4
80°	127.5	94.1	168.1	251.4	294.2	167.7	56.0	43.2	46.6	22.6	13.1
81°	78.5	48.3	110.7	226.4	265.5	151.6	45.5	35.2	37.8	18.5	11.6
82°	30.5	15.8	53.4	206.5	238.6	135.6	37.0	27.2	29.5	14.6	10.3
83°	22.3	12.5	37.7	145.1	208.7	119.1	29.0	19.2	21.2	10.6	9.2
84°	14.1	9.1	21.9	83.6	185.8	101.0	22.2	13.8	20.5	7.4	8.1
85°	6.0	5.8	6.3	22.1	164.1	82.9	16.1	9.6	17.8	5.8	6.7
86°	3.7	3.4	4.0	12.3	102.7	64.9	11.7	6.2	13.1	4.5	4.6
87°	1.8	1.7	1.8	2.4	42.0	48.4	7.2	4.2	7.8	3.0	2.9
88°	0.7	0.7	0.7	0.7	20.8	32.2	2.8	2.3	5.2	1.5	1.1
89°	0.1	0.1	0.1	0.2	0.3	16.0	0.4	0.3	2.7	0.3	0.3



REPORT NUMBER: P1449887  
 CATALOG NUMBER: TWC60\_T2\_24W\_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: P1449887  
 CATALOG NUMBER: TWC60\_T2\_24W\_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: P1449887  
CATALOG NUMBER: TWC60\_T2\_24W\_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: P1449887  
 CATALOG NUMBER: TWC60\_T2\_24W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	1158.9	1158.9	1158.9
1°	1165.7	1166.5	1166.3
2°	1173.0	1174.1	1176.2
3°	1179.3	1182.6	1184.0
4°	1187.2	1190.5	1192.9
5°	1193.3	1197.7	1200.3
6°	1198.6	1204.4	1206.7
7°	1203.8	1211.6	1213.0
8°	1209.0	1217.2	1218.4
9°	1213.4	1221.9	1225.0
10°	1217.5	1227.2	1231.3
11°	1222.5	1234.5	1238.8
12°	1227.8	1242.8	1246.7
13°	1234.5	1249.9	1253.6
14°	1240.4	1258.9	1262.6
15°	1247.3	1265.7	1271.7
16°	1253.7	1273.9	1279.1
17°	1259.0	1280.0	1286.8
18°	1264.9	1288.9	1296.2
19°	1270.9	1296.7	1304.7
20°	1277.2	1304.1	1312.4
21°	1283.7	1311.3	1321.3
22°	1288.7	1320.9	1330.2
23°	1293.5	1329.0	1339.5
24°	1300.7	1337.0	1348.3
25°	1305.7	1346.2	1355.6
26°	1312.2	1352.8	1362.7
27°	1318.1	1358.5	1371.5
28°	1323.2	1366.7	1378.3
29°	1326.4	1374.4	1386.6
30°	1333.4	1380.5	1391.1
31°	1337.9	1385.6	1397.5
32°	1342.1	1390.1	1401.3
33°	1346.2	1393.2	1405.5
34°	<i>1347.3</i>	<i>1394.8</i>	<i>1407.1</i>
35°	1351.1	1395.1	1406.2
36°	1352.5	1393.2	1401.7
37°	1350.6	1389.1	1396.9
38°	1349.5	1383.3	1388.7
39°	1345.3	1373.5	1378.8
40°	1339.0	1362.7	1368.0
41°	1329.8	1351.7	1356.0
42°	1320.2	1336.0	1339.5
43°	1308.0	1320.0	1318.2
44°	1294.3	1299.3	1295.6



REPORT NUMBER: P1449887  
CATALOG NUMBER: TWC60\_T2\_24W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	1278.7	1274.7	1270.8
46°	1260.3	1248.7	1244.2
47°	1237.2	1220.5	1212.1
48°	1213.4	1187.5	1177.4
49°	1184.9	1150.0	1140.3
50°	1153.8	1111.5	1099.8
51°	1119.3	1070.7	1055.5
52°	1081.3	1024.8	1008.7
53°	1041.8	975.2	958.1
54°	995.7	924.3	905.8
55°	946.5	870.0	850.2
56°	893.8	810.4	790.7
57°	837.6	747.9	723.3
58°	776.6	674.9	642.3
59°	712.8	588.9	551.3
60°	639.2	495.9	457.0
61°	556.0	398.2	368.2
62°	461.6	309.0	279.4
63°	370.5	220.0	190.7
64°	279.4	146.0	123.6
65°	188.3	91.9	81.3
66°	118.7	64.9	62.5
67°	73.5	55.2	56.7
68°	54.1	50.8	52.7
69°	47.7	47.0	48.8
70°	43.7	43.3	45.0
71°	40.2	40.1	41.4
72°	36.6	36.8	38.5
73°	33.0	33.6	35.6
74°	30.2	30.8	32.8
75°	26.8	27.9	29.8
76°	23.2	25.2	27.4
77°	20.2	23.2	25.5
78°	18.1	21.6	24.3
79°	16.4	20.5	23.3
80°	15.2	19.5	22.0
81°	14.1	18.2	20.5
82°	13.0	16.7	18.8
83°	11.7	14.3	15.5
84°	9.4	11.6	12.3
85°	7.4	8.6	8.8
86°	4.8	6.2	6.1
87°	3.3	4.2	4.2
88°	1.8	2.3	2.2
89°	0.3	0.3	0.3



REPORT NUMBER: P1449887  
CATALOG NUMBER: TWC60\_T2\_24W\_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: P1449887  
CATALOG NUMBER: TWC60\_T2\_24W\_3000K

**CANDELA DISTRIBUTION (continued):**

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



REPORT NUMBER: P1449887  
CATALOG NUMBER: TWC60\_T2\_24W\_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

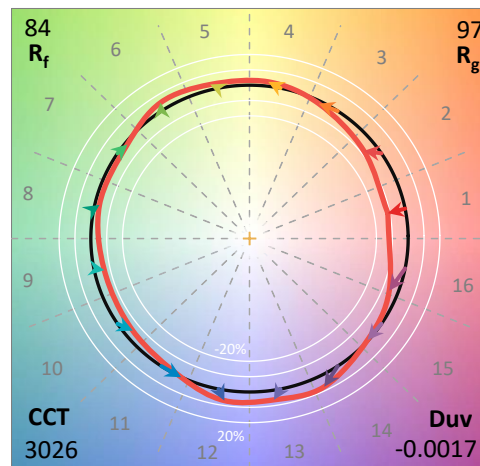
**Test Information**

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**

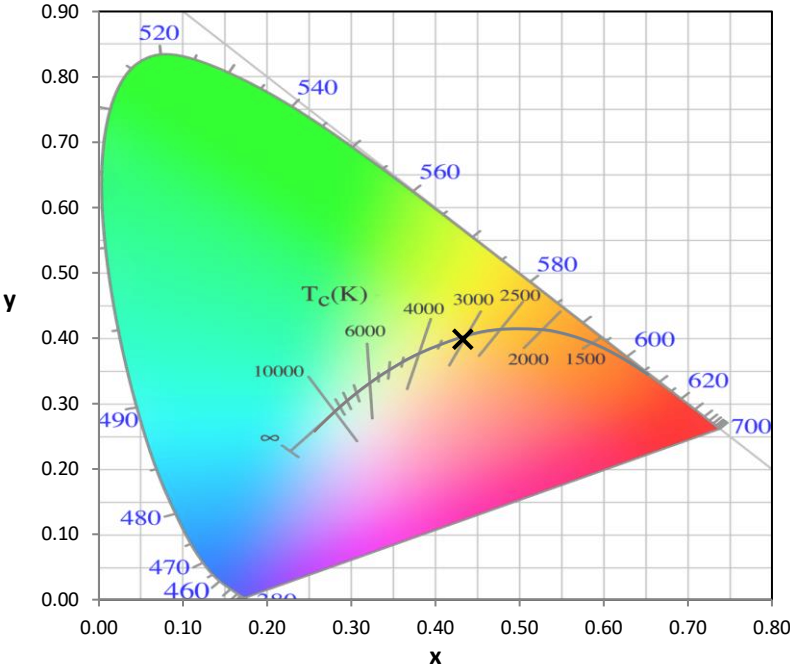
Stabilization Time: 64M  
 Operation Time: 2H 4M  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-1

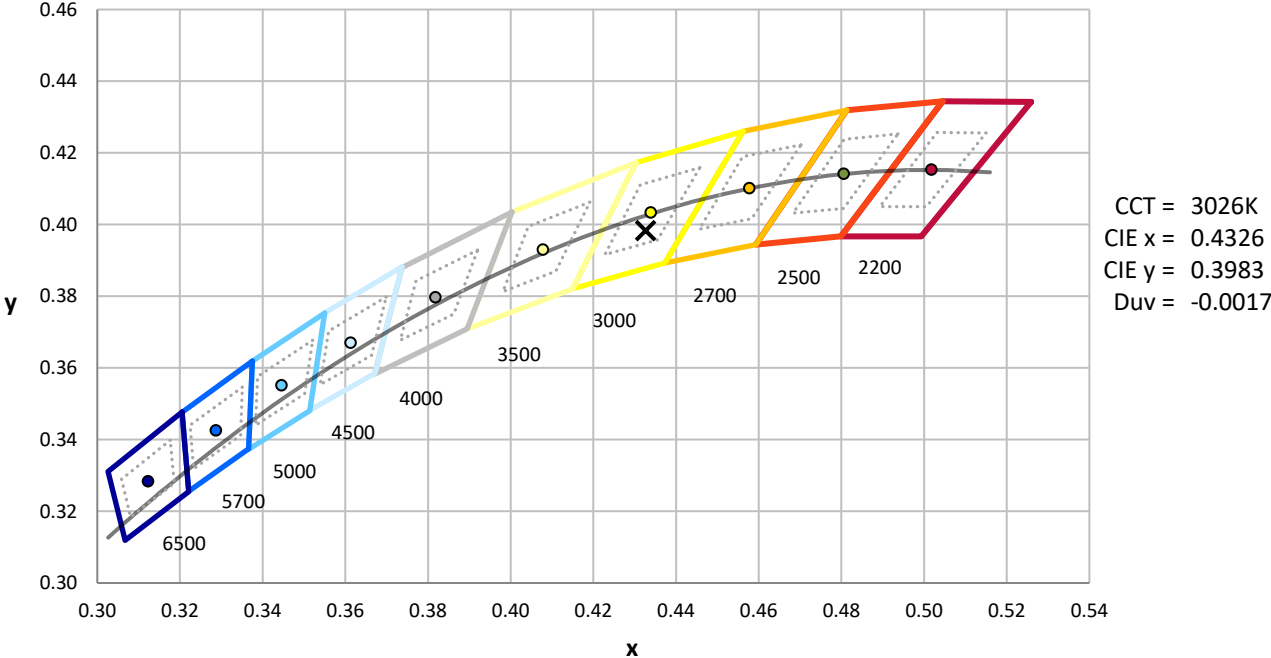
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



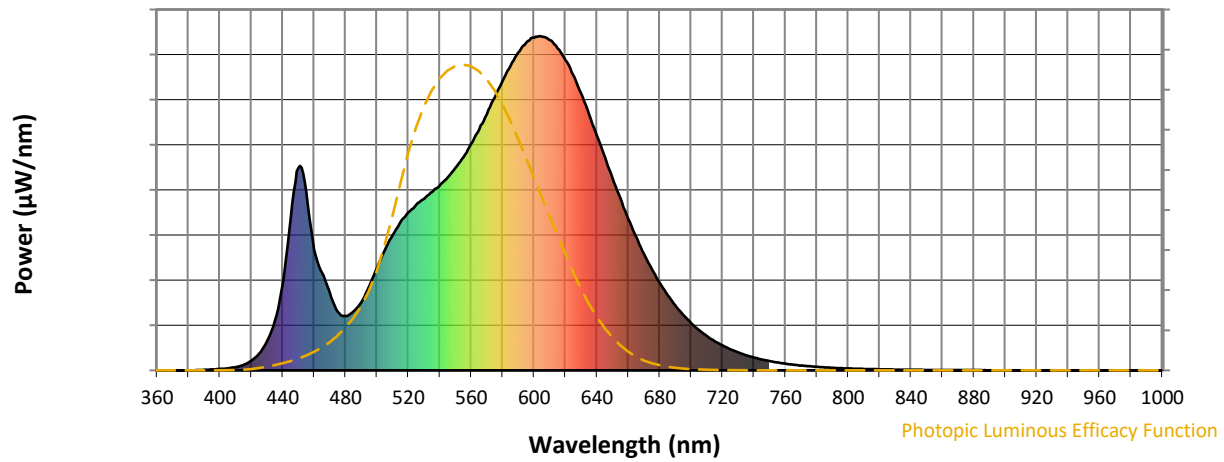
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-1

**Photopic Flux vs. Wavelength**

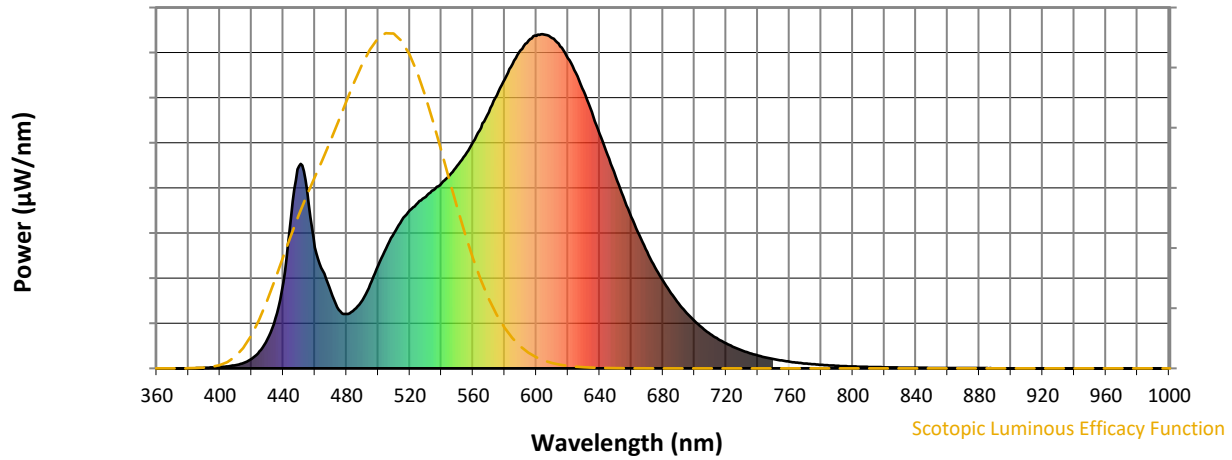


**Photopic Lumens: NR**

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

REPORT NUMBER: SP1-2601-659-1

**Scotopic Flux vs. Wavelength**



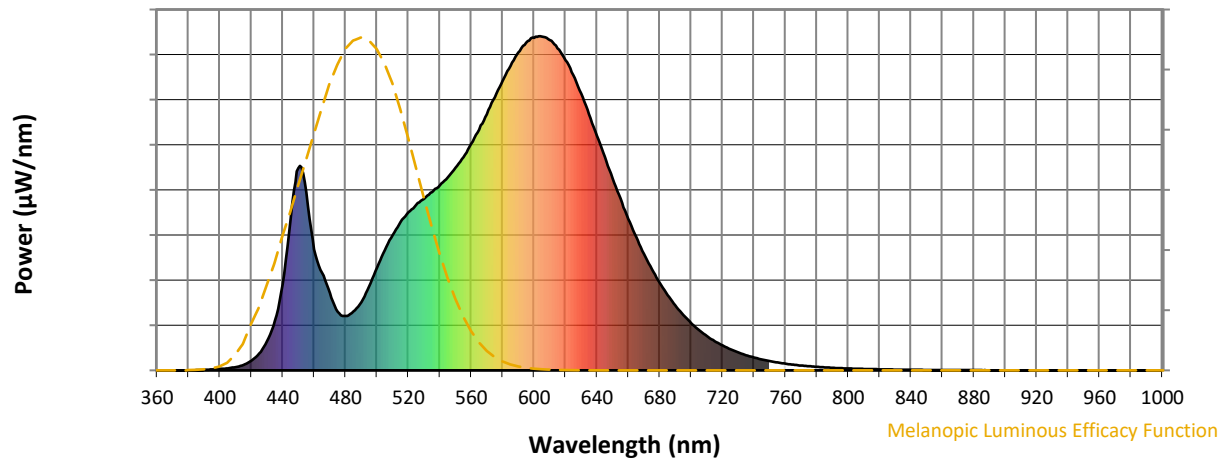
**Scotopic Lumens: NR**

**S/P: 1.35**

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

REPORT NUMBER: SP1-2601-659-1

**Melanopic Flux vs. Wavelength**



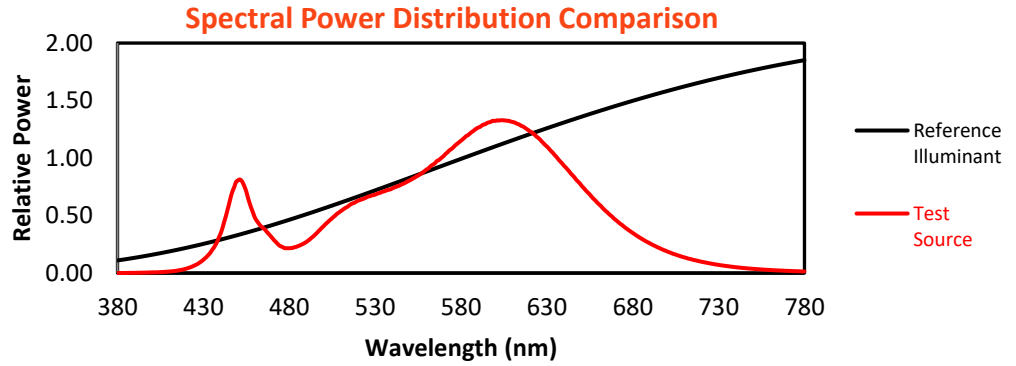
**Melanopic Lumens: NR**

**M/P: 2.61**

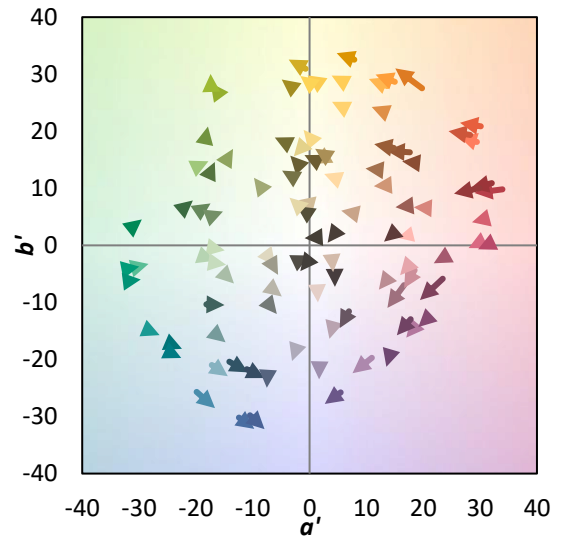
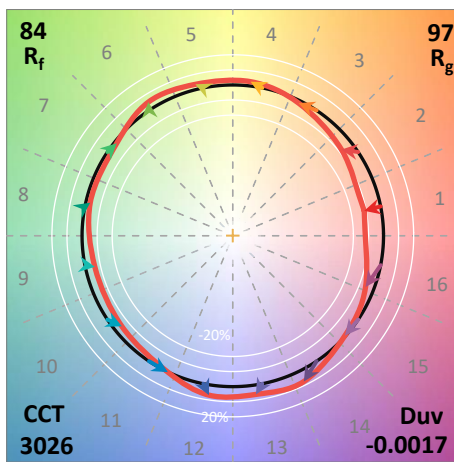
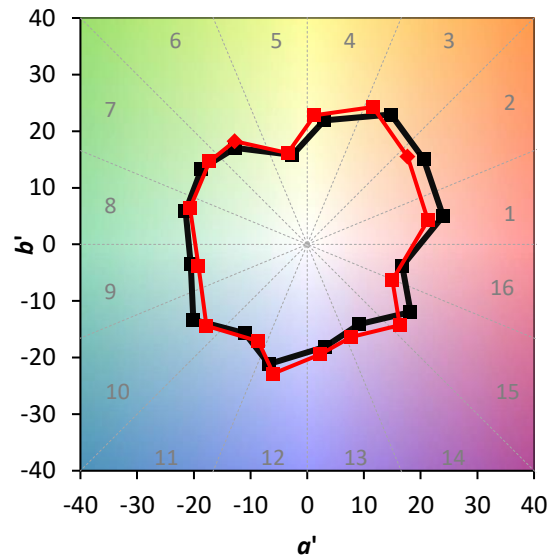
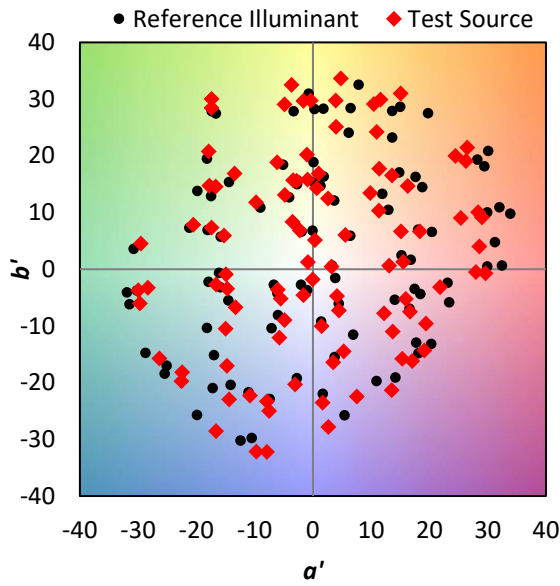
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625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

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

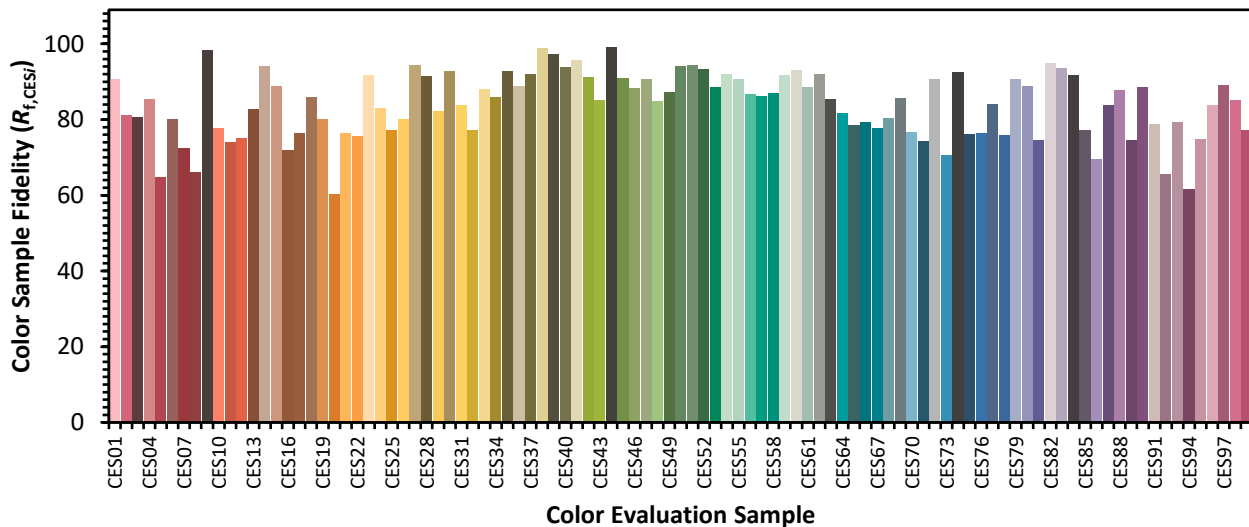


**Color Vector Graphics**

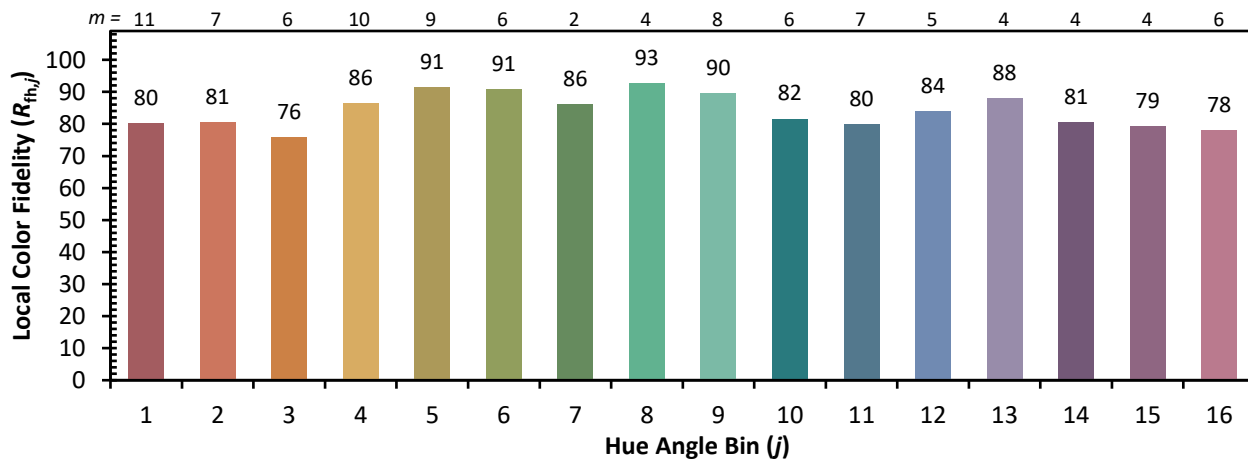
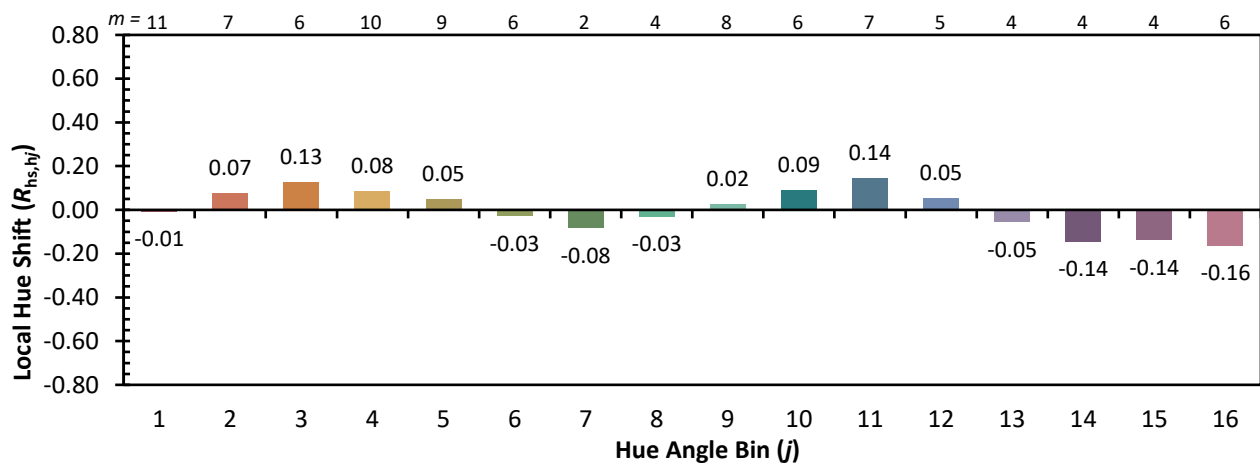
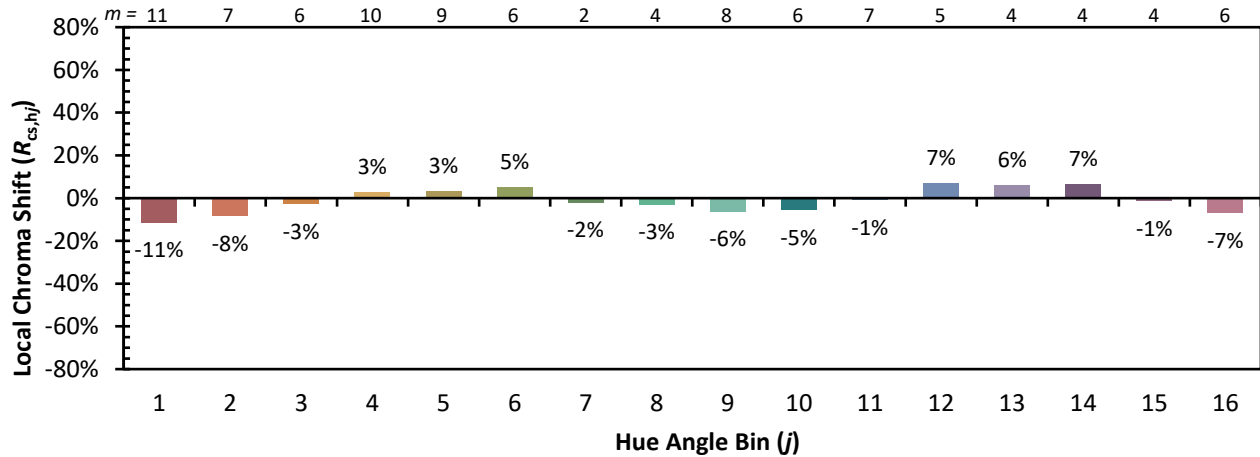


Individual Sample Fidelity Index ( $R_{f,i}$ )

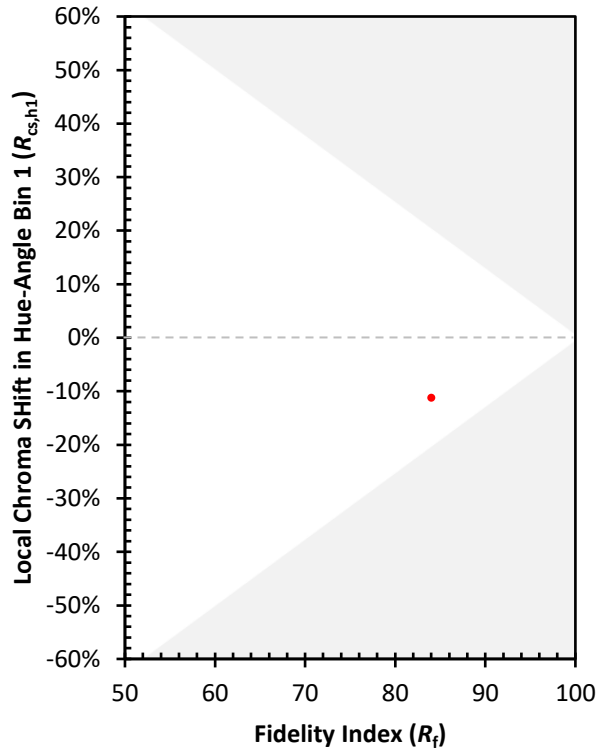
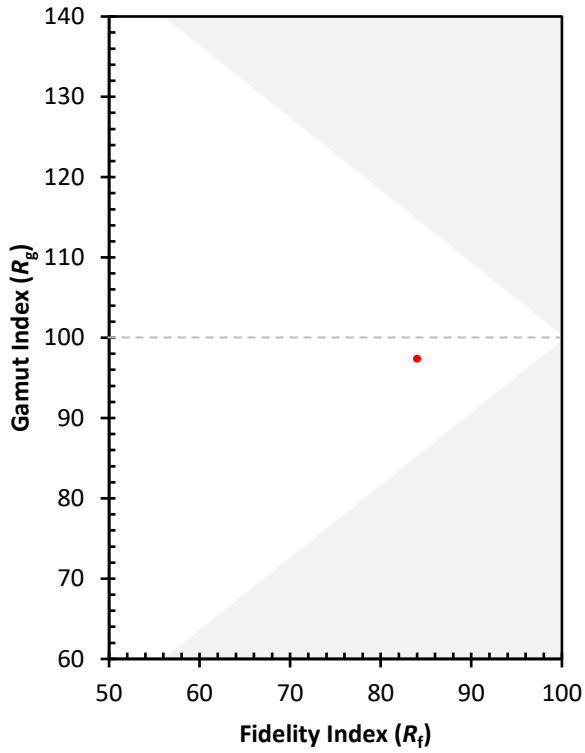
CES01 = 86	CES26 = 80	CES51 = 94	CES76 = 76
CES02 = 63	CES27 = 94	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 76
CES04 = 70	CES29 = 82	CES54 = 92	CES79 = 91
CES05 = 50	CES30 = 93	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 75
CES07 = 42	CES32 = 77	CES57 = 86	CES82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