

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: P1449913

Luminaire Tested: **TWC60\_T4\_24W\_5000K**

Issue Date: 5/19/2026

**Test Information**

Test Method: LM-79-08  
Report Number: P1449913  
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\_T4\_24W\_5000K  
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T4 distribution, 24W  
5000K settings  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3986 lumens  
Efficiency: N/A  
Efficacy: 159.4 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.42' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

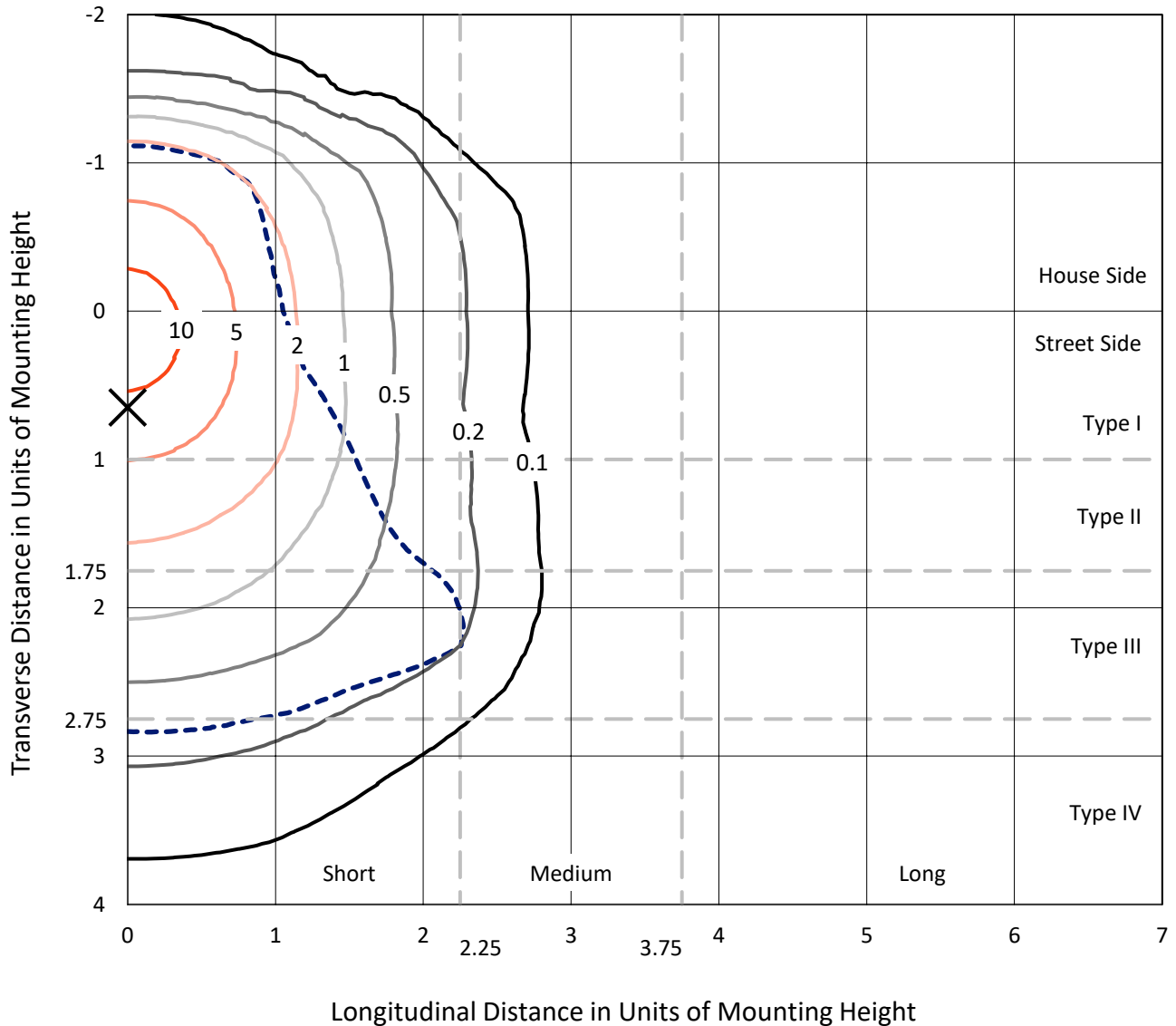
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

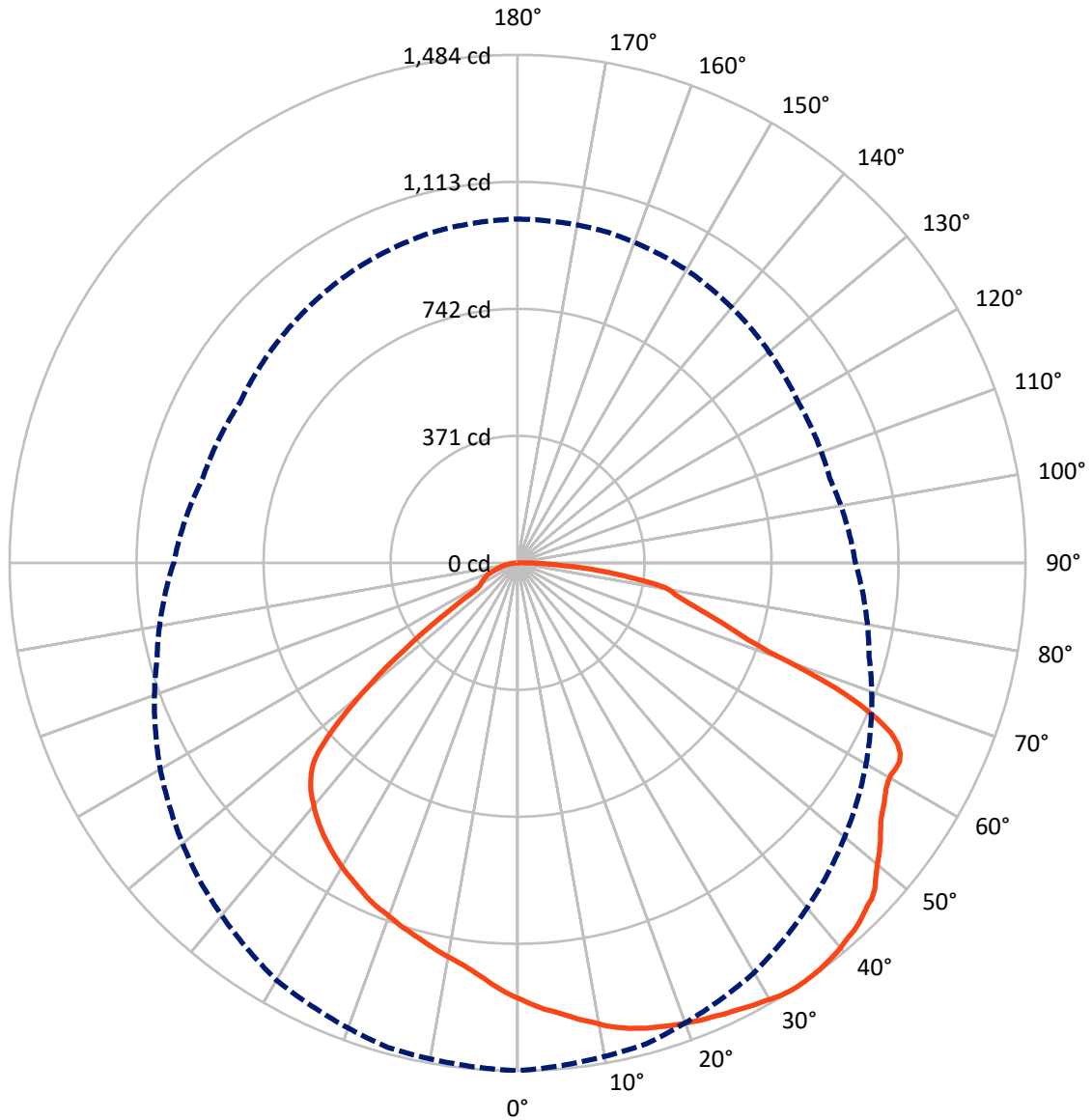
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 33-Deg Vertical

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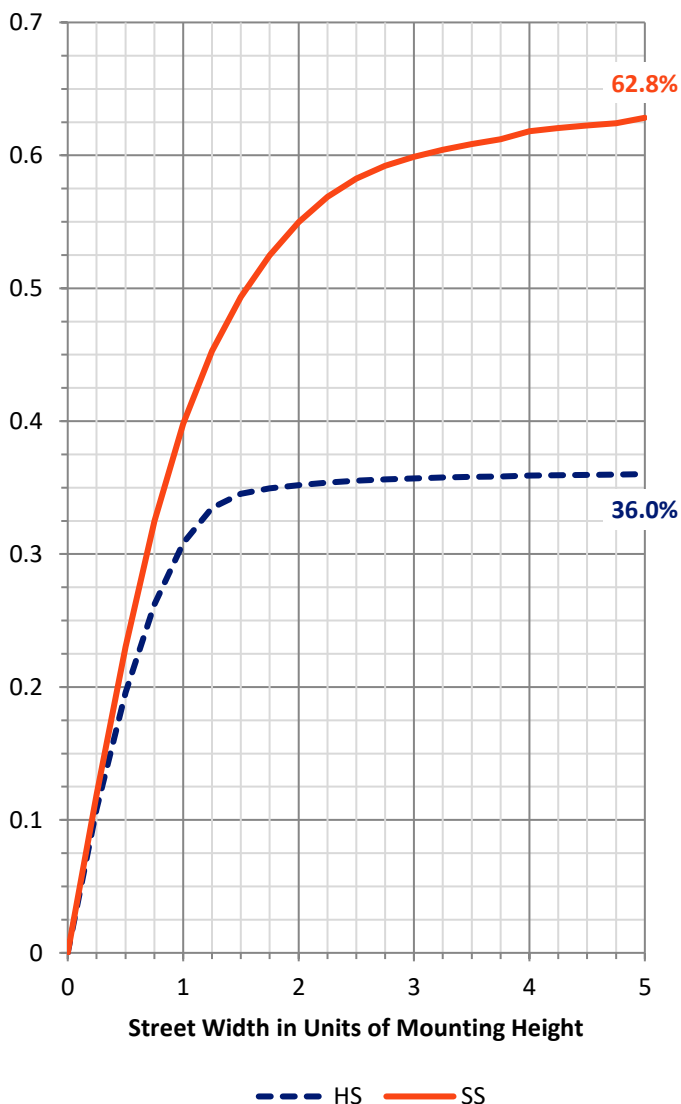
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1445.2	0.0	1445.2
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	2540.8	0.0	2540.8
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	3986.0	0.0	3986.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.9	3.0
10°-20°	351.6	8.8
20°-30°	548.2	13.8
30°-40°	691.9	17.4
40°-50°	756.5	19.0
50°-60°	670.0	16.8
60°-70°	507.1	12.7
70°-80°	264.6	6.6
80°-90°	75.1	1.9
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°	3986.0	100.0
0°-180°	3986.0	100.0

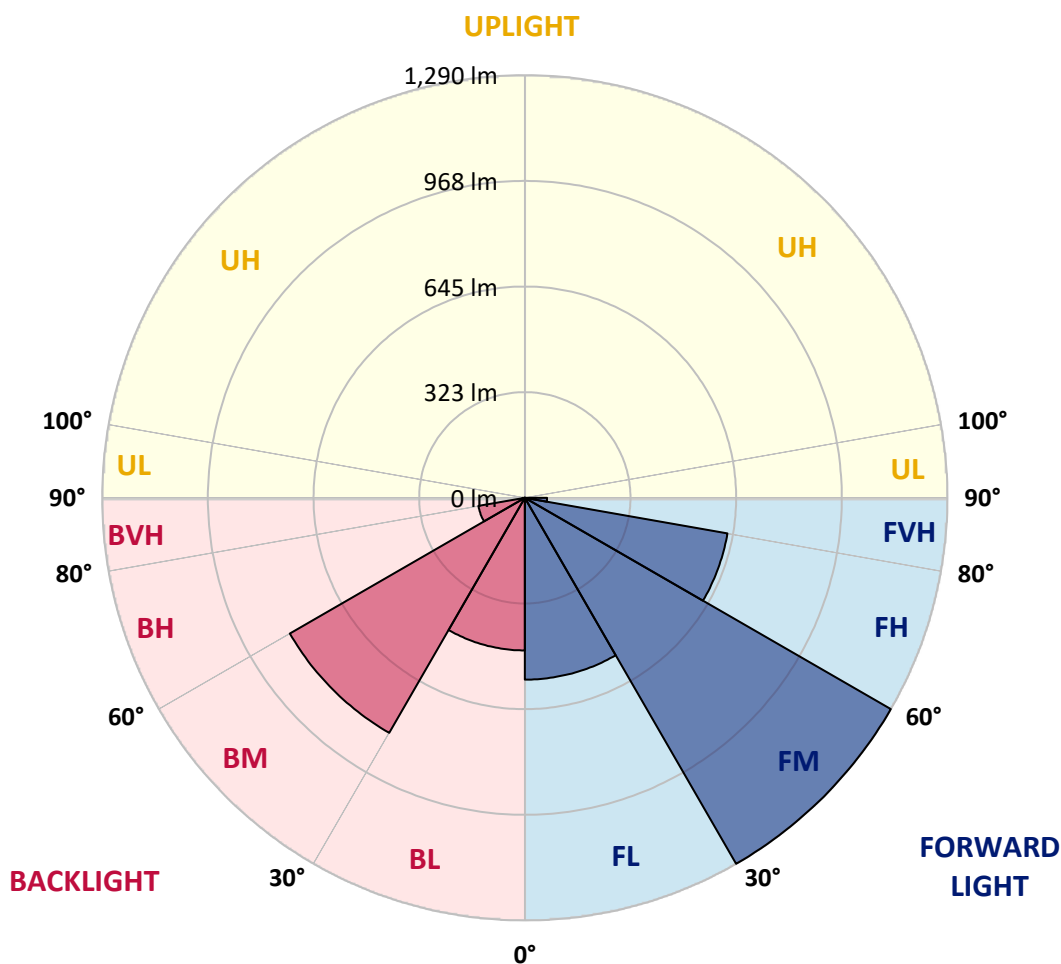


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	554.9	13.9			
FM (30°-60°)	1290.0	32.4			
FH (60°-80°)	628.0	15.8			G0/660
FVH (80°-90°)	67.9	1.7			G1/100
BL (0°-30°)	465.8	11.7	B1/500		
BM (30°-60°)	828.4	20.8	B1/1000		
BH (60°-80°)	143.8	3.6	B1/500		G1/500
BVH (80°-90°)	7.2	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9
1°	1286.6	1285.5	1283.8	1282.0	1279.8	1277.3	1274.8	1272.0	1269.6	1267.7	1266.3
2°	1296.9	1295.9	1293.5	1289.5	1283.2	1278.5	1273.5	1268.4	1263.8	1259.9	1257.3
3°	1306.7	1304.8	1301.5	1296.3	1288.7	1279.6	1271.6	1264.4	1257.9	1252.2	1248.1
4°	1314.2	1313.1	1308.3	1301.4	1292.2	1279.8	1269.1	1260.0	1251.2	1243.3	1237.5
5°	1323.6	1321.4	1315.4	1306.3	1294.8	1280.1	1266.3	1254.8	1243.5	1233.1	1225.1
6°	1332.8	1329.8	1322.5	1310.9	1297.1	1279.6	1263.2	1249.2	1235.3	1222.2	1213.3
7°	1343.7	1338.6	1329.3	1315.0	1298.6	1278.7	1259.5	1242.9	1226.4	1211.4	1202.4
8°	1352.3	1346.9	1335.7	1319.5	1299.7	1276.7	1254.8	1235.9	1216.8	1200.9	1192.6
9°	1361.8	1355.9	1342.9	1324.2	1300.8	1274.4	1249.5	1228.3	1207.2	1191.2	1184.2
10°	1373.1	1366.2	1350.9	1328.7	1301.3	1272.1	1244.2	1220.4	1197.6	1181.8	1176.0
11°	1383.2	1375.6	1358.8	1332.9	1301.7	1269.2	1238.4	1212.2	1188.3	1173.4	1168.8
12°	1390.6	1383.2	1365.6	1337.0	1302.3	1265.5	1231.4	1203.3	1178.4	1165.0	1160.9
13°	1398.8	1389.5	1371.1	1340.9	1302.7	1261.6	1224.4	1193.9	1168.1	1156.5	1153.0
14°	1404.4	1395.3	1374.9	1343.2	1302.9	1258.1	1217.6	1184.4	1158.1	1148.3	1145.4
15°	1410.5	1399.9	1377.3	1344.1	1302.0	1254.1	1209.4	1174.3	1148.2	1140.0	1137.4
16°	1415.1	1403.5	1379.9	1344.6	1299.8	1249.5	1201.4	1164.7	1138.0	1131.4	1129.3
17°	1419.6	1407.0	1381.0	1343.5	1296.4	1243.6	1192.4	1154.0	1127.8	1122.3	1121.4
18°	1424.7	1410.7	1380.8	1340.6	1292.2	1237.6	1183.5	1143.1	1117.9	1113.0	1113.7
19°	1429.2	1414.6	1381.7	1338.2	1287.0	1230.6	1174.1	1132.0	1108.0	1104.1	1106.8
20°	1433.1	1418.5	1383.6	1335.5	1281.1	1222.6	1164.2	1120.7	1097.8	1095.8	1099.5
21°	1437.8	1421.8	1385.0	1332.8	1275.0	1213.3	1154.1	1109.2	1087.5	1086.9	1090.7
22°	1441.6	1425.2	1385.8	1330.0	1268.4	1203.4	1142.5	1097.2	1076.9	1077.6	1082.7
23°	1444.4	1427.3	1386.4	1327.6	1261.5	1192.9	1131.4	1084.8	1065.6	1068.2	1074.9
24°	1449.1	1430.2	1386.7	1325.2	1254.6	1181.9	1118.7	1072.2	1054.3	1058.6	1067.6
25°	1452.7	1432.4	1386.2	1322.0	1247.2	1170.8	1105.5	1059.5	1043.2	1049.2	1060.4
26°	1457.0	1434.5	1385.7	1318.3	1238.8	1159.2	1092.4	1046.0	1032.1	1039.1	1052.3
27°	1461.9	1436.8	1385.9	1314.3	1230.5	1146.9	1079.1	1033.0	1020.7	1029.1	1043.4
28°	1466.1	1440.3	1385.6	1309.9	1222.4	1134.3	1065.2	1019.1	1008.5	1019.4	1034.2
29°	1469.9	1443.6	1384.1	1305.1	1213.6	1120.9	1050.6	1005.0	996.0	1010.4	1024.6
30°	1475.5	1446.6	1383.6	1299.7	1204.9	1106.8	1035.2	990.1	983.4	1000.3	1015.6
31°	1479.7	1449.2	1383.1	1294.1	1195.7	1092.6	1019.1	975.6	970.2	989.1	1007.2
32°	1482.3	1452.3	1382.7	1288.1	1185.9	1078.4	1003.8	960.4	957.3	977.7	997.7
33°	1483.7	1454.5	1382.2	1282.5	1175.6	1063.2	986.7	944.9	944.6	966.3	987.7
34°	1482.8	1454.0	1381.8	1276.7	1164.4	1048.1	970.5	929.5	931.5	954.7	977.6
35°	1481.7	1453.8	1381.5	1270.3	1152.6	1032.1	953.3	913.9	918.1	942.8	967.4
36°	1480.7	1451.5	1379.7	1263.6	1140.4	1015.8	935.1	898.5	904.5	930.6	956.7
37°	1477.1	1448.6	1376.3	1257.2	1127.5	998.0	917.7	883.0	891.1	918.2	946.0
38°	1474.5	1445.5	1372.5	1250.6	1113.8	981.3	900.1	868.1	877.7	905.7	935.3
39°	1470.3	1440.3	1367.7	1242.9	1099.4	964.2	882.9	852.3	864.2	893.5	923.3
40°	1464.8	1434.7	1362.2	1233.8	1084.9	945.9	865.6	835.7	850.8	882.3	911.4
41°	1459.0	1427.6	1356.0	1224.5	1070.3	927.2	848.3	819.3	836.0	871.5	899.3
42°	1455.9	1422.3	1350.4	1214.8	1055.1	907.6	828.6	802.3	820.2	859.5	887.7
43°	1449.3	1416.3	1342.6	1205.7	1039.6	887.4	809.1	785.9	804.6	846.2	876.1
44°	1440.8	1409.2	1333.7	1196.8	1024.0	866.8	788.9	769.0	788.7	831.7	864.3



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	1431.7	1399.8	1325.6	1187.5	1008.7	845.3	768.9	751.0	772.8	817.5	851.1
46°	1426.1	1391.0	1317.2	1178.0	992.7	824.3	748.4	732.9	757.2	802.8	836.8
47°	1414.5	1382.7	1307.3	1167.5	976.0	802.6	727.4	714.3	741.6	787.8	821.0
48°	1396.6	1371.3	1295.4	1156.3	959.7	780.1	707.0	696.9	725.9	772.5	800.8
49°	1379.3	1353.5	1284.6	1144.6	943.8	757.6	686.6	679.3	709.9	756.3	775.2
50°	1364.9	1336.5	1272.0	1132.8	927.6	734.4	665.6	661.0	693.9	739.3	741.1
51°	1351.1	1321.7	1255.4	1120.6	911.5	712.0	645.0	642.3	678.0	721.3	696.5
52°	1335.7	1307.6	1237.9	1107.4	894.5	690.2	623.7	623.6	662.1	701.3	640.3
53°	1319.1	1292.6	1220.4	1094.2	877.3	667.7	601.5	604.5	644.9	678.9	578.4
54°	1303.2	1275.7	1204.4	1079.4	859.3	646.1	580.0	586.3	626.9	651.5	512.0
55°	1292.1	1260.8	1187.8	1061.6	838.4	625.0	558.0	567.8	608.5	615.5	446.1
56°	1283.0	1249.0	1169.8	1042.4	817.1	602.4	536.2	548.7	589.3	570.1	377.8
57°	1272.4	1239.3	1151.2	1022.4	796.2	579.3	511.5	529.5	569.4	515.4	308.5
58°	1262.8	1229.7	1135.5	1003.4	775.6	555.6	487.3	509.4	547.9	456.3	243.4
59°	1256.0	1221.0	1123.1	982.5	754.6	532.2	464.1	489.1	526.3	396.3	186.8
60°	1254.6	1215.9	1113.3	959.5	732.4	507.4	441.7	468.1	501.7	333.5	146.6
61°	1258.0	1214.6	1105.8	937.3	708.4	482.3	419.1	446.5	474.8	270.8	124.9
62°	1258.0	1215.9	1097.9	915.8	683.2	457.9	397.8	424.2	442.6	211.7	117.4
63°	1249.3	1213.2	1095.6	895.8	657.9	432.5	377.3	401.7	403.9	158.4	112.4
64°	1230.6	1201.2	1098.6	877.8	633.4	406.3	358.2	378.8	356.2	121.9	108.1
65°	1199.8	1175.9	1106.6	862.3	606.9	379.6	339.0	355.5	308.0	108.2	103.6
66°	1148.4	1135.7	1104.2	849.6	575.9	353.0	319.4	332.1	256.5	101.7	99.1
67°	1082.5	1077.2	1087.5	841.8	543.3	325.8	299.2	309.9	205.0	94.8	94.5
68°	1001.0	1003.7	1050.3	844.4	509.2	299.2	278.1	288.2	163.6	89.0	90.0
69°	890.4	911.5	978.7	859.7	476.6	274.7	256.5	266.3	130.4	84.1	85.9
70°	779.0	806.6	886.0	879.0	444.4	251.8	233.5	243.3	98.5	79.4	81.9
71°	710.4	720.6	771.5	874.7	417.5	228.5	210.1	220.1	80.0	74.7	77.4
72°	667.9	666.2	658.2	811.1	393.4	206.2	186.6	194.3	73.7	70.5	71.9
73°	628.9	631.3	577.9	693.9	368.1	183.8	163.9	168.2	68.9	66.6	65.8
74°	589.1	598.7	533.7	561.4	364.8	164.0	142.8	140.2	63.6	62.6	59.7
75°	552.1	562.4	496.7	478.9	409.5	144.2	123.8	113.3	58.3	57.4	53.7
76°	520.6	522.7	463.4	442.0	441.0	126.1	107.3	86.1	53.3	51.7	47.6
77°	494.4	479.2	432.2	411.9	370.1	110.0	90.8	64.5	48.7	46.1	42.2
78°	472.5	439.2	398.4	380.4	260.7	93.7	74.7	54.6	44.5	40.7	38.4
79°	457.9	410.4	364.3	345.2	194.0	81.6	61.8	48.2	40.3	35.4	35.3
80°	438.3	383.7	331.4	296.6	167.6	71.1	50.1	42.3	35.6	28.9	32.0
81°	389.0	357.4	305.8	244.7	170.9	60.5	39.1	36.4	30.6	23.4	28.0
82°	339.3	331.3	281.5	208.3	152.0	50.8	29.3	30.5	25.6	19.6	23.7
83°	289.7	300.7	254.7	180.8	104.6	42.3	22.2	25.1	20.6	16.7	19.3
84°	239.4	268.2	218.7	157.3	70.4	34.3	16.7	20.1	15.8	13.2	14.5
85°	190.6	233.7	172.2	136.3	54.9	26.5	12.7	15.3	11.6	9.5	9.6
86°	133.7	188.1	132.1	110.2	43.8	19.4	8.7	11.0	8.0	5.8	4.9
87°	92.8	137.2	97.3	68.3	32.0	12.7	4.8	6.5	4.4	2.8	2.0
88°	50.5	81.7	64.0	30.4	20.6	6.7	2.2	2.7	1.6	1.0	0.8
89°	25.6	36.2	34.4	19.7	12.5	3.2	0.6	0.5	0.3	0.2	0.1



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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: P1449913  
 CATALOG NUMBER: TWC60\_T4\_24W\_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



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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: P1449913

CATALOG NUMBER: TWC60\_T4\_24W\_5000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9	1275.9
1°	1265.9	1266.2	1266.5	1267.4	1269.1	1271.2	1273.9	1276.8	1279.1	1281.3	1283.0
2°	1256.1	1256.3	1257.2	1258.9	1262.1	1266.4	1271.3	1276.5	1281.2	1284.9	1289.8
3°	1245.7	1244.5	1246.1	1249.5	1254.6	1261.0	1267.7	1275.3	1282.0	1289.6	1296.8
4°	1233.6	1232.6	1234.5	1239.0	1245.8	1254.3	1263.2	1273.2	1282.9	1293.6	1302.6
5°	1220.8	1219.1	1222.1	1227.8	1237.0	1247.6	1258.7	1271.1	1284.1	1297.4	1308.0
6°	1209.2	1208.2	1210.3	1216.1	1226.5	1239.9	1253.8	1268.0	1283.9	1300.2	1313.1
7°	1198.5	1197.1	1199.6	1205.1	1216.0	1231.6	1248.7	1265.8	1283.4	1302.3	1318.4
8°	1188.9	1187.3	1189.9	1194.5	1205.6	1223.1	1242.8	1262.5	1282.7	1304.3	1323.9
9°	1180.9	1179.1	1181.6	1185.3	1195.4	1214.2	1235.9	1257.6	1281.1	1306.0	1329.3
10°	1173.3	1171.9	1173.9	1176.9	1185.9	1204.9	1228.9	1253.2	1279.3	1307.6	1334.7
11°	1166.0	1165.3	1166.5	1169.1	1176.6	1195.4	1221.0	1247.7	1277.0	1309.2	1339.9
12°	1158.7	1158.0	1158.6	1161.1	1167.3	1185.3	1212.7	1241.5	1274.2	1311.0	1345.2
13°	1151.2	1150.5	1151.2	1153.1	1157.9	1175.0	1204.3	1235.1	1271.5	1312.8	1349.6
14°	1144.1	1143.0	1144.5	1145.0	1149.0	1164.8	1195.2	1228.7	1269.4	1313.6	1352.9
15°	1136.4	1135.3	1136.2	1136.5	1139.9	1154.2	1185.6	1221.3	1266.2	1313.3	1354.3
16°	1129.1	1129.3	1128.0	1128.3	1131.1	1143.3	1175.9	1214.1	1262.4	1312.0	1355.0
17°	1122.0	1121.8	1120.6	1120.3	1122.1	1132.3	1165.7	1206.5	1257.9	1309.6	1354.3
18°	1115.8	1116.4	1114.2	1111.9	1112.4	1121.4	1154.6	1197.9	1251.6	1305.7	1352.4
19°	1108.5	1108.8	1107.0	1103.8	1103.3	1110.7	1143.9	1188.3	1244.4	1301.2	1350.7
20°	1101.0	1101.3	1099.8	1095.5	1093.9	1099.5	1132.7	1179.9	1237.2	1296.3	1349.0
21°	1093.8	1094.8	1092.3	1086.9	1084.4	1088.7	1120.9	1170.5	1228.8	1290.7	1347.2
22°	1087.8	1089.4	1085.3	1078.5	1074.7	1077.1	1109.0	1159.4	1219.5	1285.0	1345.8
23°	1082.3	1083.7	1078.4	1070.0	1064.2	1065.2	1096.7	1147.8	1210.0	1279.2	1345.0
24°	1075.8	1077.1	1071.8	1061.8	1054.0	1053.6	1083.7	1135.7	1200.4	1273.6	1344.1
25°	1067.9	1069.5	1064.7	1053.6	1043.8	1042.1	1070.9	1123.3	1190.1	1267.8	1341.6
26°	1060.1	1060.5	1056.4	1046.2	1033.1	1030.0	1057.8	1109.4	1179.2	1261.4	1338.7
27°	1051.2	1052.5	1047.1	1037.3	1022.6	1017.3	1043.4	1095.1	1167.7	1254.4	1335.5
28°	1043.1	1044.8	1038.5	1028.1	1012.2	1004.5	1029.4	1080.9	1156.0	1247.3	1332.5
29°	1035.3	1037.5	1030.3	1018.4	1001.8	991.8	1014.6	1066.6	1143.7	1240.1	1329.3
30°	1027.7	1029.8	1022.2	1008.2	991.3	978.1	999.1	1051.8	1130.7	1231.9	1325.5
31°	1018.8	1021.3	1013.9	998.4	980.4	964.4	984.3	1036.9	1117.9	1223.0	1320.7
32°	1009.9	1012.5	1005.3	988.4	968.4	950.6	968.5	1020.7	1104.7	1214.2	1316.9
33°	1000.8	1004.0	996.6	978.6	956.0	936.3	952.4	1004.4	1090.5	1205.1	1312.9
34°	992.0	994.8	987.1	968.4	943.6	922.2	936.2	988.3	1076.4	1195.1	1308.4
35°	983.4	985.7	977.5	957.6	930.7	908.5	919.8	971.6	1062.1	1184.5	1304.0
36°	973.1	976.1	967.3	947.1	918.0	894.9	903.8	954.2	1046.9	1173.7	1299.6
37°	962.7	965.9	957.0	936.3	905.6	881.3	887.9	936.7	1031.4	1162.1	1294.9
38°	951.6	955.2	946.2	924.5	893.5	867.6	872.7	919.1	1015.3	1150.3	1289.4
39°	940.5	944.0	934.2	912.3	881.7	852.7	856.4	899.2	998.7	1138.9	1282.9
40°	928.7	932.1	923.2	900.1	869.6	837.4	838.7	880.7	981.3	1126.4	1275.7
41°	917.0	919.7	910.8	888.7	856.7	822.1	820.6	860.6	963.0	1113.2	1267.5
42°	905.0	907.8	898.9	877.7	843.6	806.9	802.4	840.8	944.3	1100.6	1259.4
43°	892.6	894.3	886.8	866.4	830.4	791.1	784.8	819.8	925.2	1087.5	1251.6
44°	880.6	877.5	874.7	853.3	817.0	774.8	766.9	798.4	904.7	1073.8	1243.6



REPORT NUMBER: P1449913  
 CATALOG NUMBER: TWC60\_T4\_24W\_5000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	868.3	859.2	862.4	839.5	802.9	758.7	749.1	776.9	883.3	1059.4	1234.4
46°	846.1	837.2	843.9	825.7	788.2	742.3	731.1	755.6	863.0	1044.9	1224.0
47°	815.4	801.4	819.5	810.8	773.2	725.5	712.9	732.7	841.2	1030.9	1213.5
48°	774.7	752.2	786.1	794.1	758.5	708.5	694.3	711.5	819.6	1017.4	1202.4
49°	722.1	692.2	740.3	775.4	742.8	692.3	675.0	689.9	798.2	1003.9	1191.5
50°	658.6	625.7	684.1	752.5	726.2	676.0	655.0	668.8	776.7	990.4	1179.1
51°	591.8	557.5	620.7	721.0	709.0	659.5	635.8	647.4	755.7	975.7	1165.5
52°	523.7	487.8	553.5	678.6	691.0	642.6	616.0	624.9	735.0	959.4	1151.2
53°	453.9	415.1	486.1	628.8	671.8	625.6	595.9	602.3	713.0	941.1	1135.5
54°	381.0	342.7	415.7	567.7	651.3	607.8	576.2	578.1	691.5	923.0	1117.3
55°	310.7	273.2	343.9	504.6	628.8	589.8	555.9	554.0	669.7	906.4	1098.4
56°	244.0	211.5	275.6	440.4	601.5	571.3	535.4	530.7	646.8	889.5	1080.1
57°	185.5	165.0	210.8	372.7	566.6	551.1	514.4	506.7	623.5	871.2	1061.0
58°	150.7	139.7	165.4	304.9	522.4	529.7	492.7	483.3	599.8	851.2	1040.9
59°	133.3	130.3	138.8	240.5	469.5	508.0	471.4	461.1	576.8	829.4	1020.3
60°	126.4	126.2	126.8	183.3	412.7	485.5	449.3	439.1	551.5	806.1	999.9
61°	122.8	122.7	122.0	140.5	354.9	463.0	427.5	417.8	525.0	782.3	982.2
62°	119.1	119.1	118.2	118.9	294.6	439.2	405.9	396.5	498.2	758.7	967.1
63°	115.2	115.3	114.2	110.4	235.3	415.2	383.9	375.2	469.7	732.8	954.1
64°	111.4	111.5	110.3	106.1	179.9	388.0	361.4	354.2	440.9	702.7	943.3
65°	107.6	108.0	106.1	100.8	135.6	358.1	338.6	332.6	413.0	671.8	934.0
66°	103.8	104.5	102.0	96.1	112.7	320.0	315.8	310.8	387.1	642.1	930.1
67°	100.1	100.7	97.9	91.2	99.2	277.7	293.6	287.8	360.5	613.4	937.1
68°	96.4	96.8	93.9	86.6	91.1	232.6	272.1	264.5	331.6	585.4	952.2
69°	92.3	92.6	90.0	82.1	86.3	188.0	250.6	240.6	304.1	561.1	956.8
70°	86.8	86.5	85.3	77.9	81.0	149.7	228.9	217.1	280.9	538.3	936.1
71°	80.5	80.1	79.3	74.1	75.7	119.3	208.3	193.8	258.2	521.3	871.3
72°	74.1	73.7	73.1	69.6	70.9	89.0	187.9	170.8	236.7	519.1	755.8
73°	67.6	67.2	66.8	64.2	65.9	71.7	169.1	149.2	214.6	553.9	629.6
74°	61.2	61.3	60.6	58.4	61.6	66.1	148.9	129.7	193.7	593.0	538.5
75°	55.7	56.5	54.7	52.5	57.6	60.6	128.0	111.3	170.6	549.6	487.4
76°	51.8	53.3	50.0	46.9	52.9	55.5	107.5	94.9	148.1	454.7	448.6
77°	49.0	50.9	46.8	41.4	47.5	50.5	87.1	79.9	130.3	370.2	412.8
78°	46.0	47.5	43.9	36.1	42.0	45.8	68.3	66.0	120.1	286.4	379.4
79°	41.4	42.0	40.2	32.1	36.5	41.2	54.3	54.3	108.5	240.7	340.8
80°	36.8	37.7	35.5	29.1	31.2	36.7	45.9	43.9	98.6	237.8	292.8
81°	32.0	32.7	30.8	25.9	25.4	32.1	39.1	36.2	93.4	211.6	250.1
82°	26.6	26.6	25.9	22.2	19.8	27.2	32.7	28.5	87.3	152.9	217.7
83°	19.9	19.0	20.0	18.0	15.8	21.9	26.5	20.8	73.4	109.6	192.9
84°	14.2	13.7	14.4	13.6	12.4	17.1	20.4	15.3	53.1	88.2	170.1
85°	8.9	8.6	9.1	9.1	9.0	12.8	15.1	10.9	37.8	73.2	142.0
86°	4.2	3.6	4.2	4.7	5.6	8.5	10.6	7.3	26.1	59.5	101.2
87°	1.7	1.4	1.7	1.8	2.7	4.6	6.2	4.2	15.2	47.0	62.7
88°	0.7	0.6	0.7	0.7	0.9	1.7	2.4	2.3	7.2	36.0	46.7
89°	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.4	3.3	25.9	34.1



REPORT NUMBER: P1449913  
 CATALOG NUMBER: TWC60\_T4\_24W\_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: P1449913  
 CATALOG NUMBER: TWC60\_T4\_24W\_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: P1449913  
CATALOG NUMBER: TWC60\_T4\_24W\_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: P1449913  
 CATALOG NUMBER: TWC60\_T4\_24W\_5000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	1275.9	1275.9	1275.9
1°	1284.4	1285.7	1286.6
2°	1293.1	1295.4	1296.9
3°	1301.8	1304.7	1306.7
4°	1309.4	1313.5	1314.2
5°	1316.7	1322.1	1323.6
6°	1323.9	1330.7	1332.8
7°	1331.2	1339.3	1343.7
8°	1339.4	1348.5	1352.3
9°	1347.6	1358.4	1361.8
10°	1355.5	1368.9	1373.1
11°	1363.9	1378.7	1383.2
12°	1371.4	1386.9	1390.6
13°	1377.2	1393.2	1398.8
14°	1381.3	1399.1	1404.4
15°	1384.0	1403.1	1410.5
16°	1386.6	1406.9	1415.1
17°	1388.7	1410.9	1419.6
18°	1390.4	1415.7	1424.7
19°	1391.9	1419.7	1429.2
20°	1394.1	1423.6	1433.1
21°	1396.0	1427.0	1437.8
22°	1397.9	1430.2	1441.6
23°	1399.5	1433.4	1444.4
24°	1400.7	1437.5	1449.1
25°	1401.0	1440.4	1452.7
26°	1402.1	1443.7	1457.0
27°	1402.1	1447.4	1461.9
28°	1403.2	1451.5	1466.1
29°	1404.6	1454.7	1469.9
30°	1405.0	1458.7	1475.5
31°	1405.7	1462.9	1479.7
32°	1406.9	1464.3	1482.3
33°	1407.9	1465.3	1483.7
34°	1407.8	1465.4	1482.8
35°	1406.1	1465.0	1481.7
36°	1403.7	1462.5	1480.7
37°	1401.4	1460.4	1477.1
38°	1397.7	1456.8	1474.5
39°	1393.3	1452.3	1470.3
40°	1388.6	1447.4	1464.8
41°	1381.9	1440.1	1459.0
42°	1375.1	1436.0	1455.9
43°	1367.8	1429.8	1449.3
44°	1360.2	1422.0	1440.8



REPORT NUMBER: P1449913  
CATALOG NUMBER: TWC60\_T4\_24W\_5000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	1352.6	1413.4	1431.7
46°	1343.8	1404.4	1426.1
47°	1333.9	1395.7	1414.5
48°	1323.4	1381.4	1396.6
49°	1312.0	1362.2	1379.3
50°	1296.5	1347.4	1364.9
51°	1278.9	1332.8	1351.1
52°	1262.1	1318.2	1335.7
53°	1247.3	1302.4	1319.1
54°	1229.7	1285.8	1303.2
55°	1211.6	1272.2	1292.1
56°	1194.0	1262.6	1283.0
57°	1178.2	1254.2	1272.4
58°	1166.6	1243.7	1262.8
59°	1157.3	1235.8	1256.0
60°	1148.6	1231.7	1254.6
61°	1140.9	1232.0	1258.0
62°	1137.2	1232.4	1258.0
63°	1139.5	1226.9	1249.3
64°	1145.2	1211.4	1230.6
65°	1142.3	1183.0	1199.8
66°	1124.8	1138.6	1148.4
67°	1089.9	1076.8	1082.5
68°	1028.8	997.5	1001.0
69°	942.1	899.2	890.4
70°	837.5	796.0	779.0
71°	726.3	718.3	710.4
72°	636.3	668.0	667.9
73°	581.0	630.5	628.9
74°	548.8	593.7	589.1
75°	519.9	554.4	552.1
76°	492.0	514.7	520.6
77°	461.6	476.9	494.4
78°	426.6	444.8	472.5
79°	393.0	423.9	457.9
80°	359.6	405.2	438.3
81°	327.0	383.3	389.0
82°	295.1	350.3	339.3
83°	256.9	308.7	289.7
84°	212.3	266.9	239.4
85°	170.9	222.2	190.6
86°	140.6	169.5	133.7
87°	105.2	117.7	92.8
88°	68.8	68.0	50.5
89°	39.3	32.5	25.6



REPORT NUMBER: P1449913  
CATALOG NUMBER: TWC60\_T4\_24W\_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: P1449913  
CATALOG NUMBER: TWC60\_T4\_24W\_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: P1449913  
CATALOG NUMBER: TWC60\_T4\_24W\_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

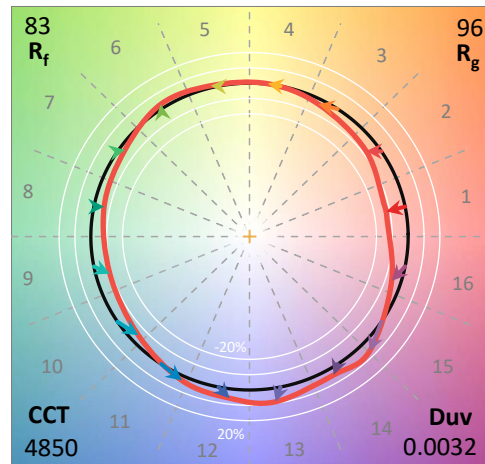
**Test Information**

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**

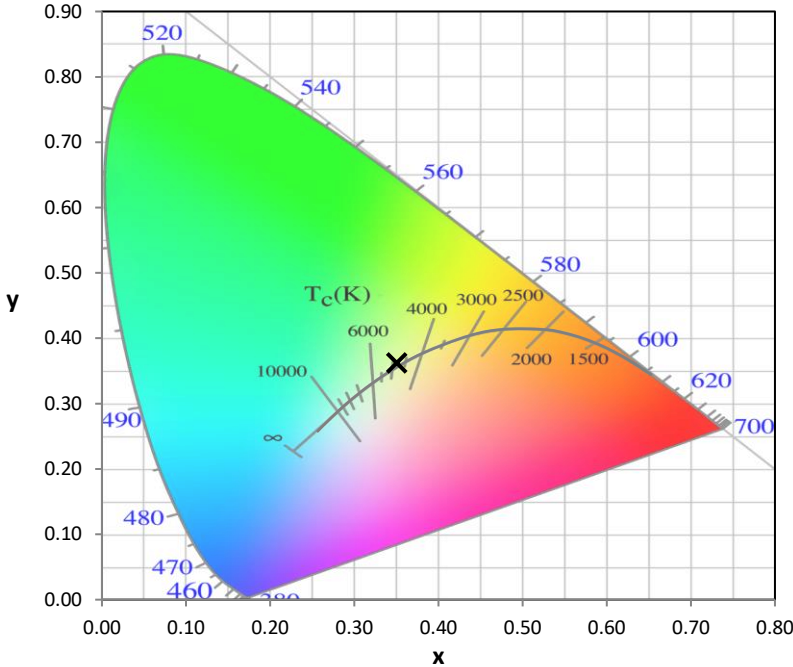
Stabilization Time: 25M  
 Operation Time: 1H 25M  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-3

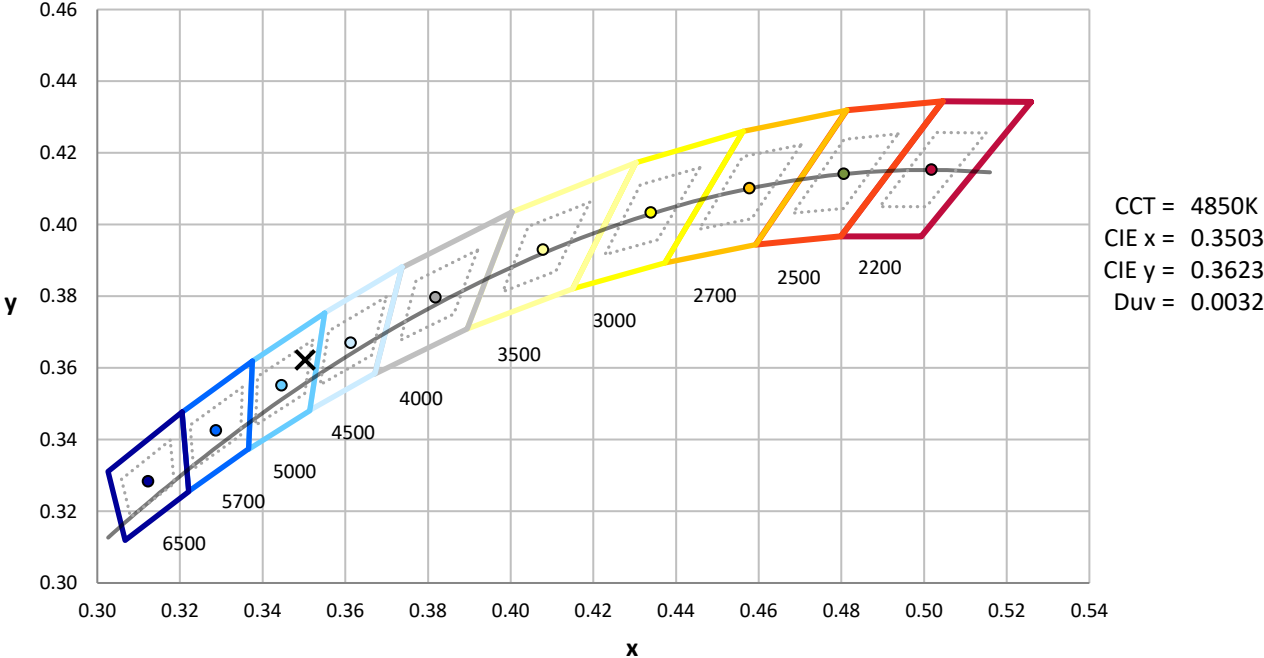
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

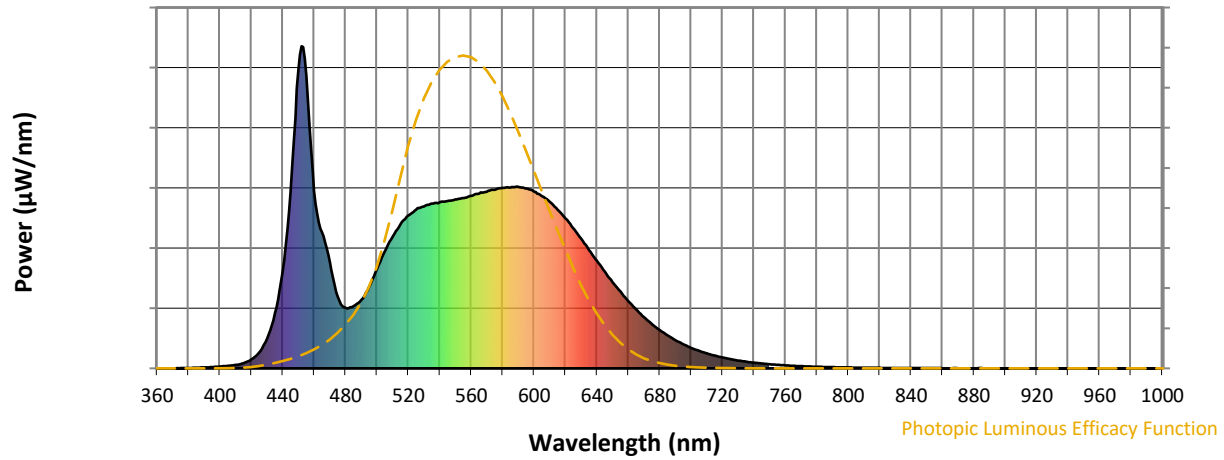


CCT = 4850K  
 CIE x = 0.3503  
 CIE y = 0.3623  
 Duv = 0.0032

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

**Photopic Flux vs. Wavelength**

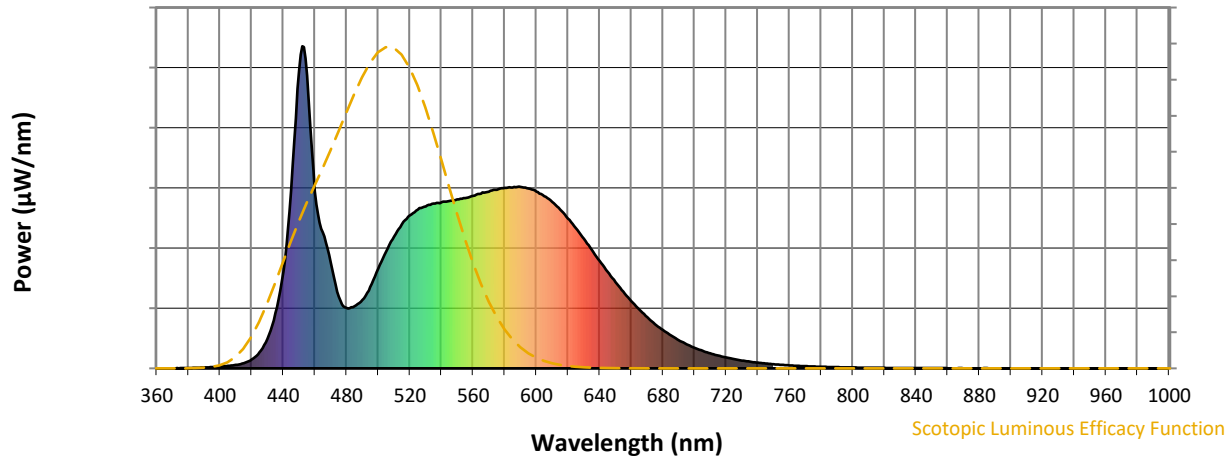


**Photopic Lumens: NR**

$\lambda$ (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	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**



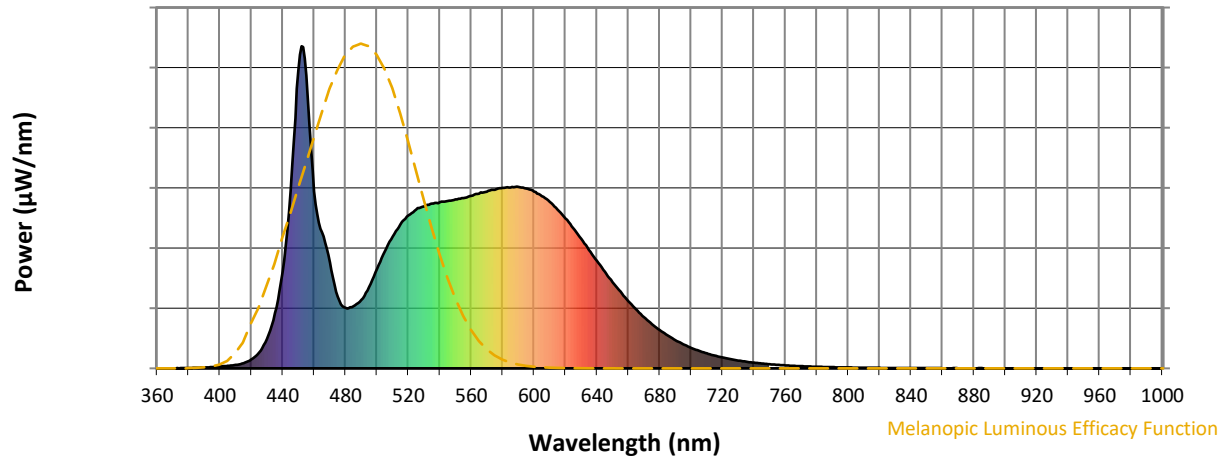
**Scotopic Lumens: NR**

**S/P: 1.9**

$\lambda$ (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	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**



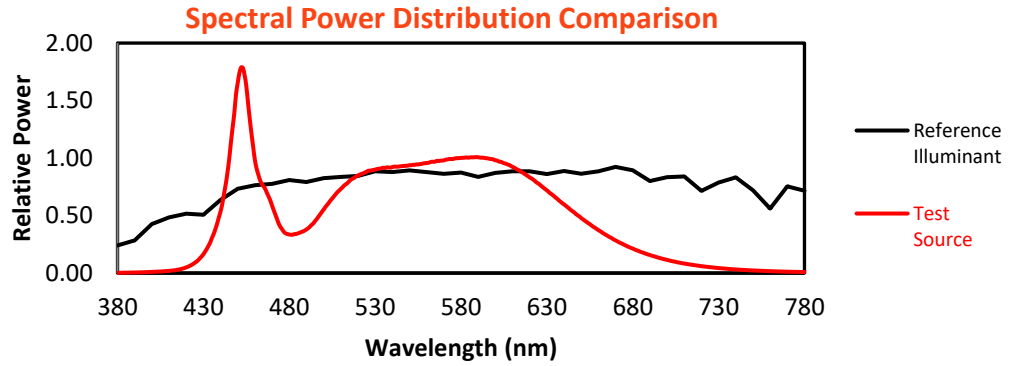
**Melanopic Lumens: NR**

**M/P: 4**

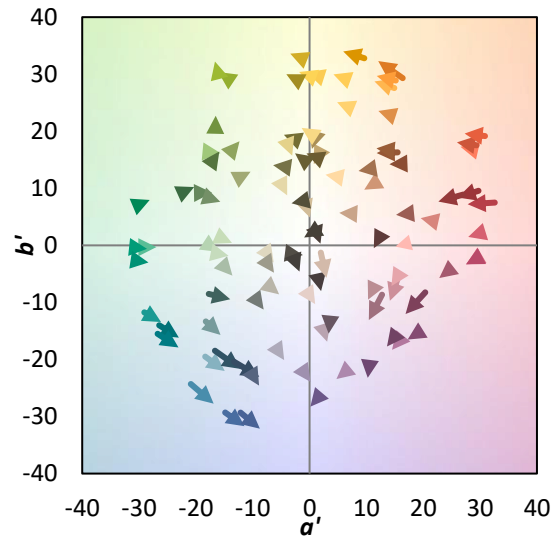
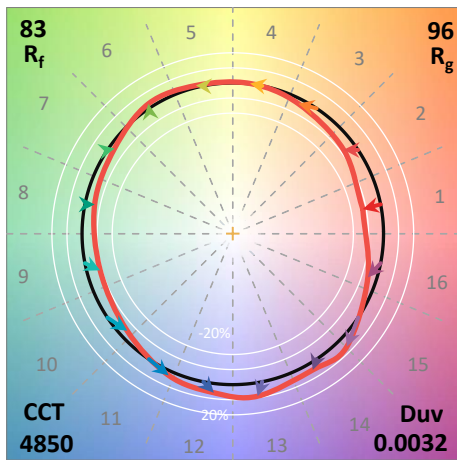
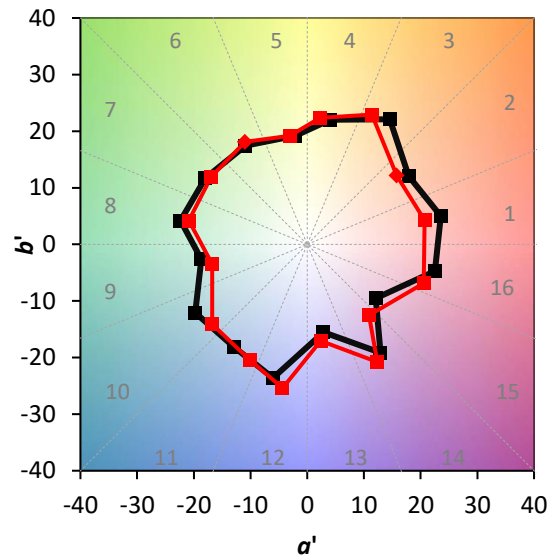
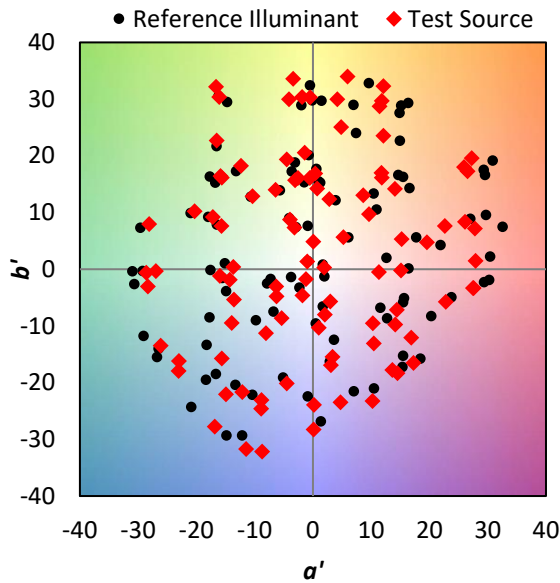
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	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  $R_a = 82.6$   
 $R_9 = 8.5$

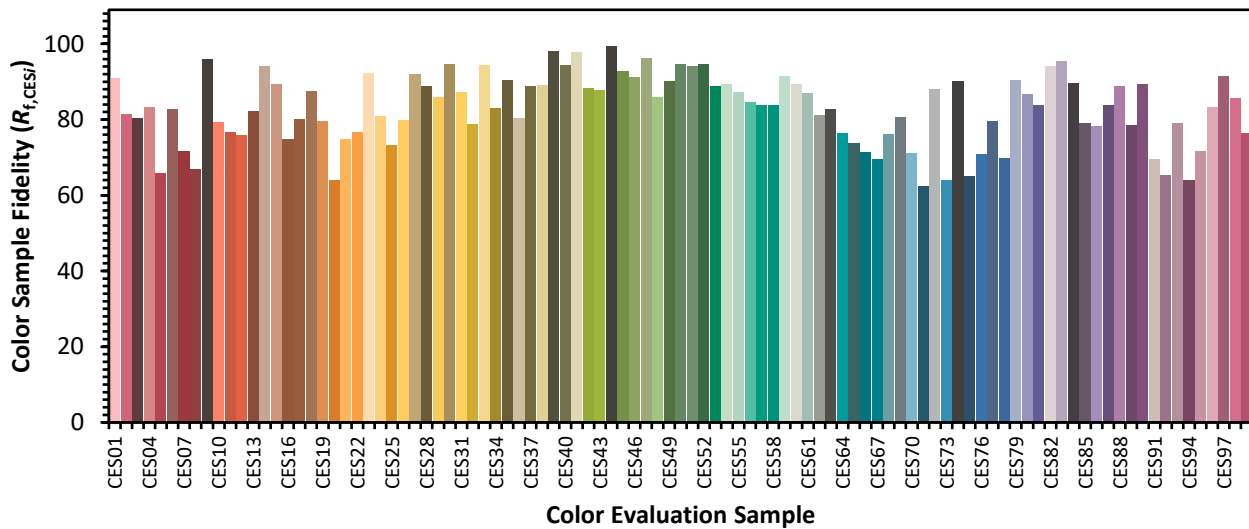


**Color Vector Graphics**

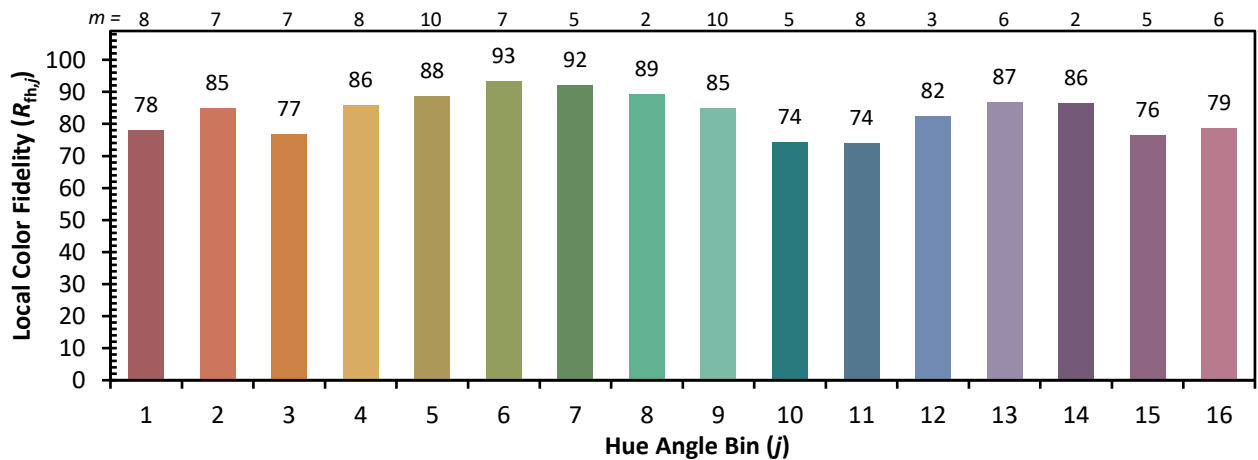
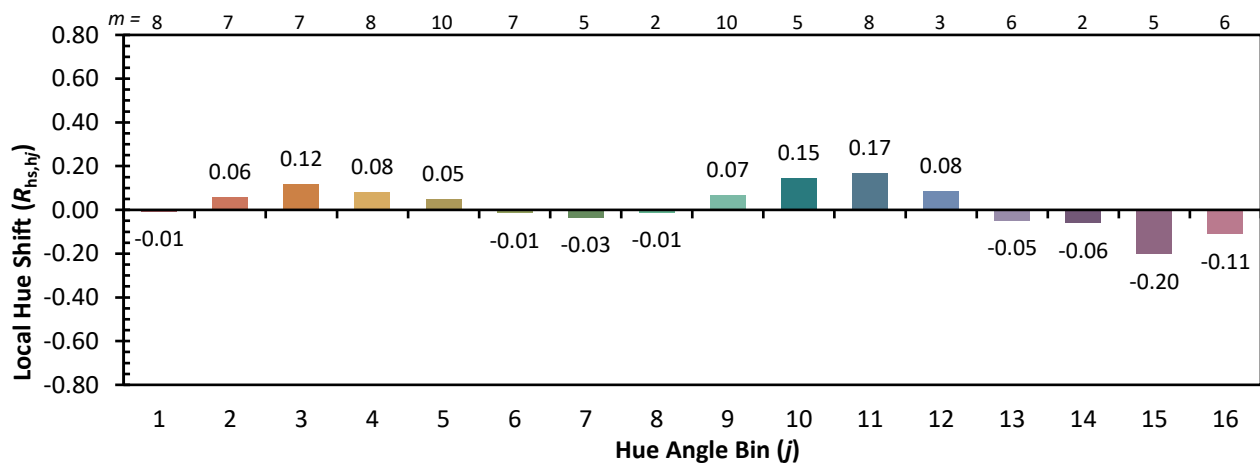
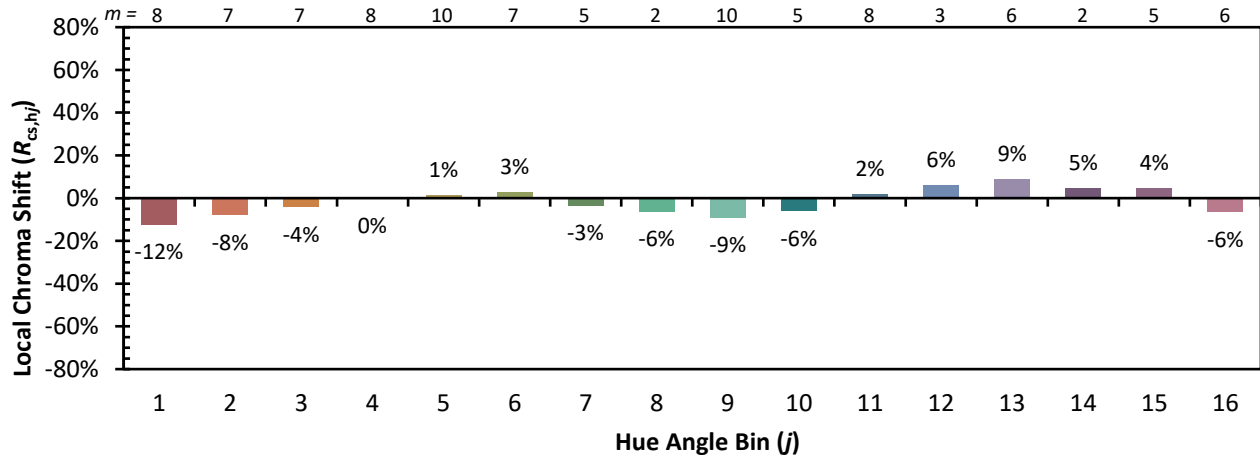


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

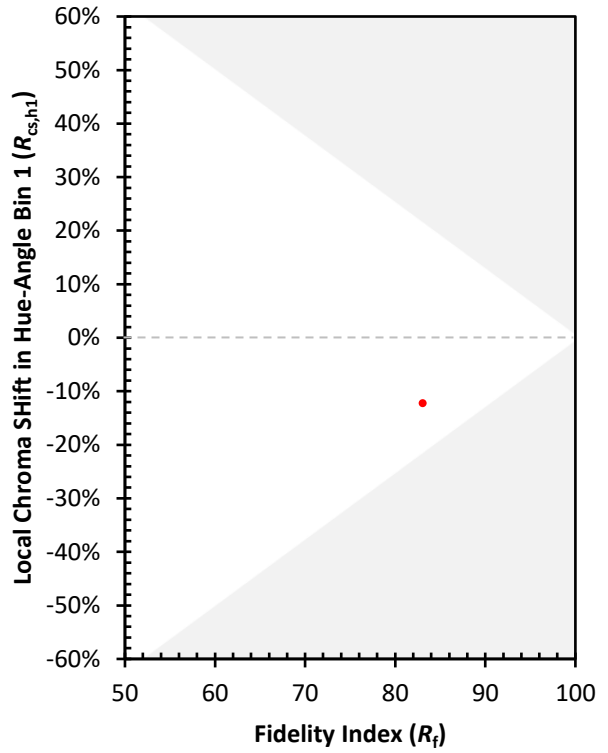
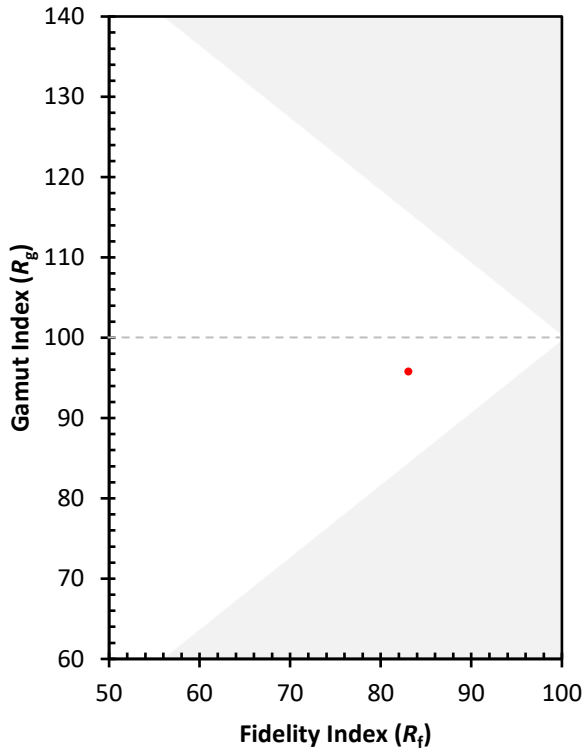
CES01 = 85	CES26 = 80	CES51 = 94	CES76 = 71
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 80
CES03 = 30	CES28 = 89	CES53 = 89	CES78 = 70
CES04 = 69	CES29 = 86	CES54 = 89	CES79 = 90
CES05 = 47	CES30 = 95	CES55 = 87	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 85	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 84	CES82 = 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)