

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: P1449888

Luminaire Tested: **TWC60_T2_24W_4000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449888
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_4000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 24W
4000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4078 lumens
Efficiency: N/A
Efficacy: 166.4 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

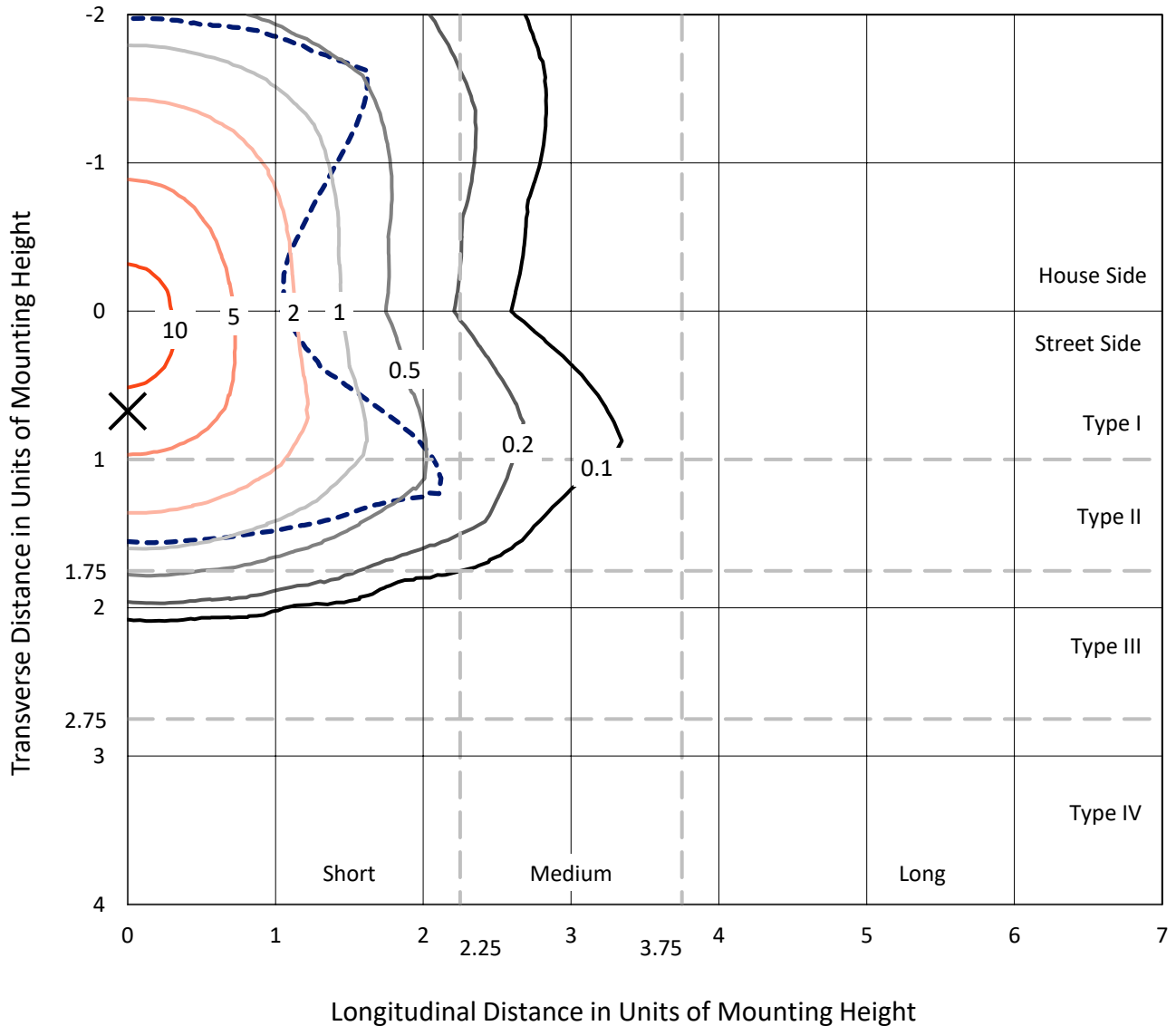
Input Watts (W): 24.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

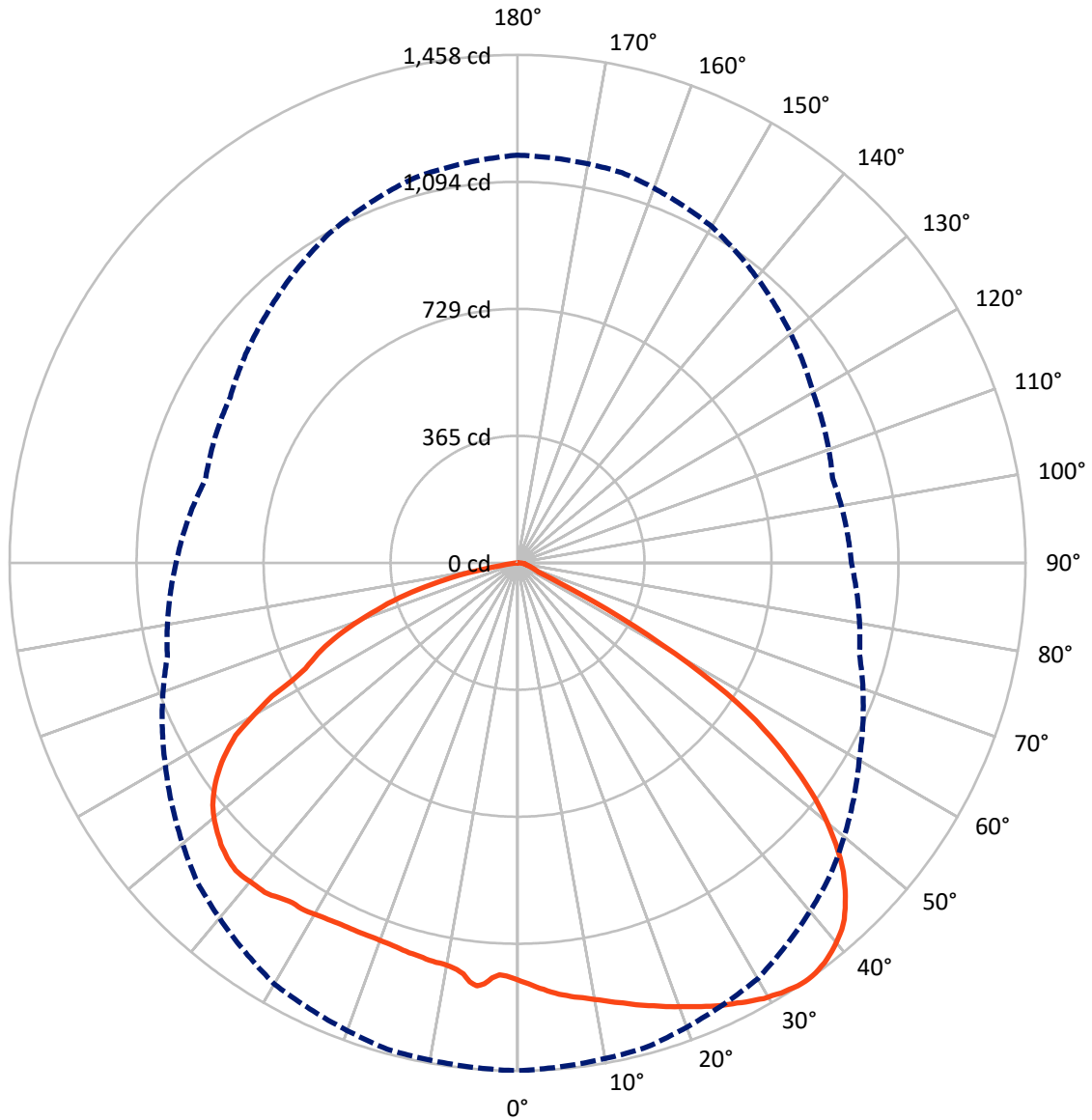
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.3 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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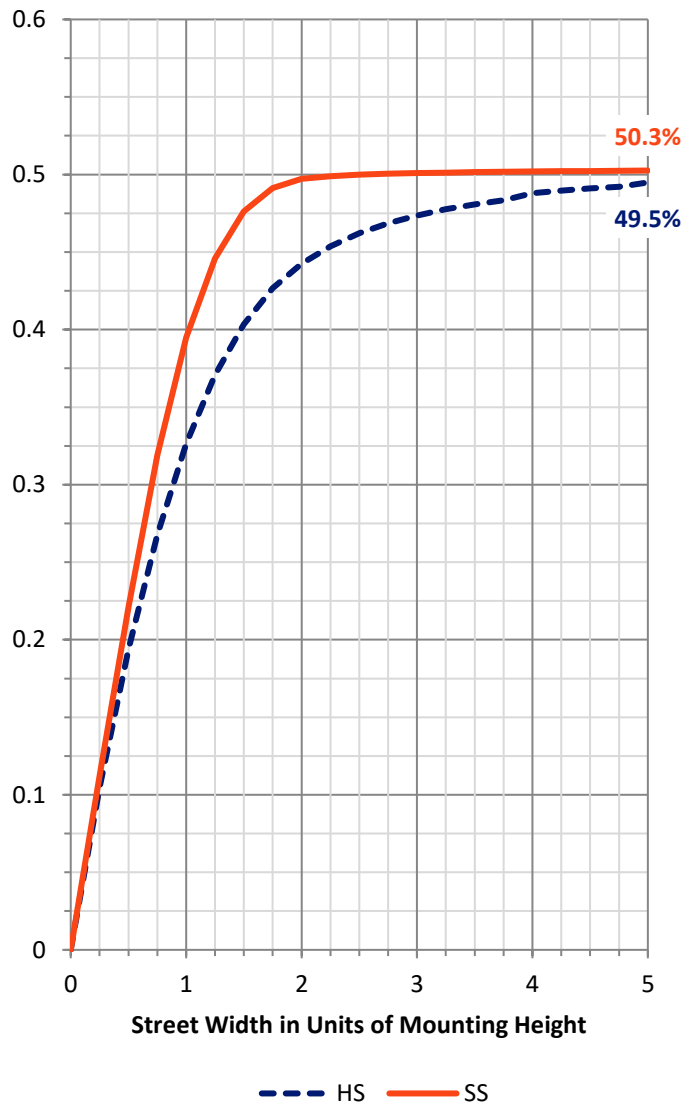
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2029.0	0.0	2029.0
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	2049.0	0.0	2049.0
	% Fixture	50.2	0.0	50.2
Total	Lumens	4078.0	0.0	4078.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.5	2.8
10°-20°	340.5	8.4
20°-30°	546.3	13.4
30°-40°	715.0	17.5
40°-50°	814.7	20.0
50°-60°	775.8	19.0
60°-70°	503.6	12.3
70°-80°	223.2	5.5
80°-90°	43.3	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°	4078.0	100.0
0°-180°	4078.0	100.0

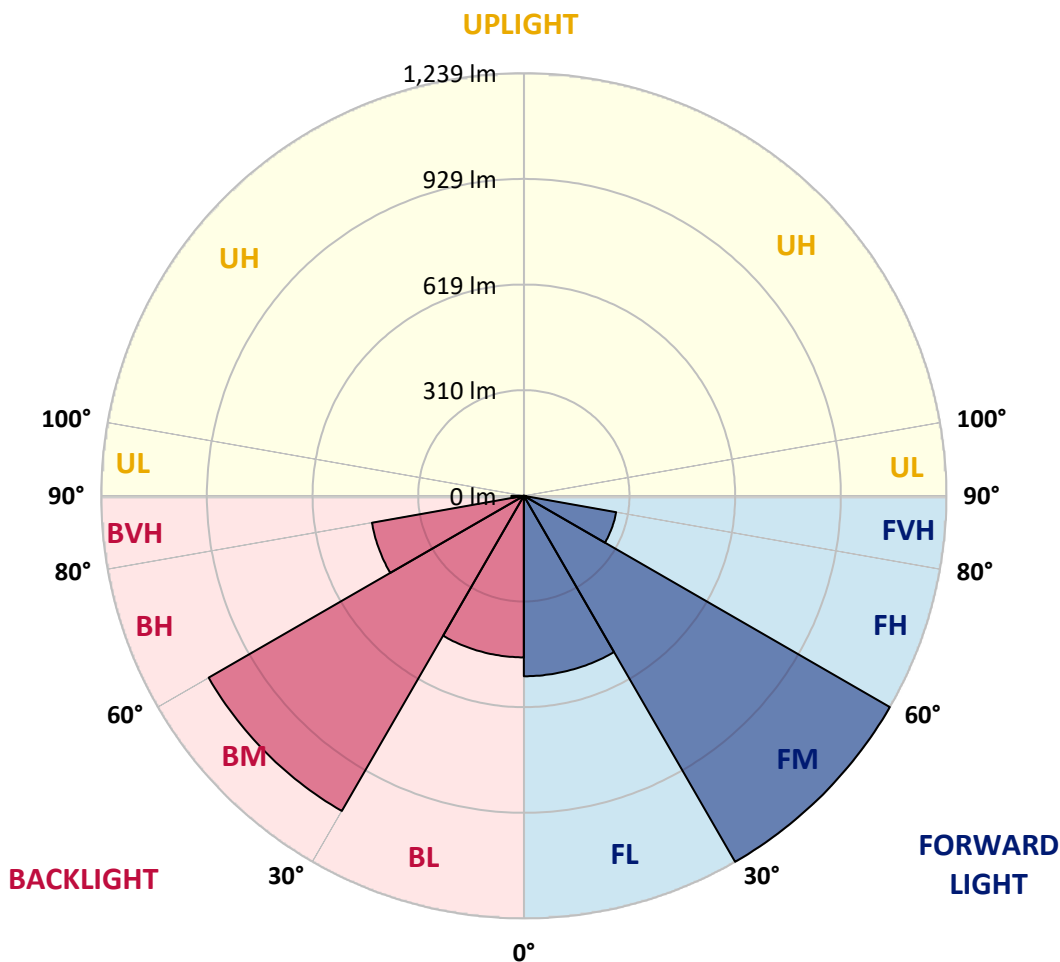


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	528.9	13.0			
FM (30°-60°)	1238.8	30.4			
FH (60°-80°)	274.7	6.7			G0/660
FVH (80°-90°)	6.6	0.2			G0/10
BL (0°-30°)	473.5	11.6	B1/500		
BM (30°-60°)	1066.7	26.2	B2/2500		
BH (60°-80°)	452.1	11.1	B1/500		G1/500
BVH (80°-90°)	36.7	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°	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0
1°	1208.7	1207.9	1208.4	1205.4	1203.2	1202.3	1201.2	1199.0	1197.0	1195.5	1194.3
2°	1218.9	1217.0	1214.9	1211.5	1207.3	1203.4	1200.1	1196.0	1192.6	1190.9	1188.8
3°	1227.1	1226.1	1222.3	1216.9	1211.4	1203.7	1198.8	1192.7	1187.9	1184.7	1183.1
4°	1236.3	1233.6	1229.4	1222.6	1213.4	1204.0	1196.4	1189.3	1183.8	1183.4	1188.1
5°	1244.0	1241.4	1235.6	1227.6	1215.9	1204.4	1195.0	1185.7	1180.6	1189.1	1203.6
6°	1250.6	1247.5	1241.6	1231.8	1218.4	1203.1	1189.9	1180.0	1181.8	1203.2	1216.9
7°	1257.1	1252.9	1244.9	1234.6	1219.4	1202.8	1187.4	1176.5	1188.8	1214.3	1218.7
8°	1262.6	1258.6	1250.3	1236.8	1221.1	1201.9	1183.8	1173.5	1198.1	1215.5	1203.1
9°	1269.5	1265.0	1253.5	1240.7	1220.7	1199.6	1179.2	1170.7	1206.8	1206.1	1185.0
10°	1276.1	1269.9	1259.1	1242.4	1221.7	1196.3	1174.8	1172.2	1206.4	1186.5	1176.7
11°	1283.8	1277.8	1262.6	1244.2	1220.2	1194.6	1170.6	1175.7	1201.3	1172.5	1170.7
12°	1292.0	1285.2	1267.8	1247.3	1220.5	1191.8	1163.7	1179.3	1184.5	1165.5	1166.4
13°	1299.2	1291.8	1273.3	1248.4	1220.0	1188.0	1157.6	1181.7	1168.3	1159.1	1163.3
14°	1308.5	1299.8	1279.1	1250.7	1219.2	1184.0	1151.9	1183.3	1155.7	1153.8	1161.3
15°	1317.9	1308.6	1284.6	1253.3	1216.9	1179.1	1145.2	1178.4	1146.4	1149.3	1156.0
16°	1325.6	1316.2	1292.0	1255.3	1217.1	1176.2	1138.7	1169.8	1139.3	1144.4	1152.7
17°	1333.6	1324.2	1297.1	1259.3	1216.6	1172.0	1132.5	1156.3	1130.9	1139.3	1149.9
18°	1343.3	1330.8	1302.7	1262.4	1215.8	1167.4	1127.0	1137.9	1124.5	1132.9	1147.0
19°	1352.1	1339.5	1309.0	1265.6	1213.9	1161.7	1121.2	1121.2	1117.9	1128.2	1142.4
20°	1360.1	1345.7	1313.3	1267.6	1213.8	1157.6	1117.0	1107.0	1109.8	1122.4	1137.8
21°	1369.3	1354.0	1319.8	1269.3	1210.6	1153.4	1114.7	1096.2	1100.6	1116.1	1135.3
22°	1378.6	1360.9	1323.4	1271.2	1207.5	1148.4	1112.1	1085.6	1091.4	1110.5	1132.5
23°	1388.1	1370.4	1328.1	1271.6	1204.0	1141.2	1109.3	1074.9	1083.6	1104.9	1127.8
24°	1397.3	1378.3	1333.1	1272.7	1201.0	1135.0	1105.2	1065.3	1074.9	1099.6	1125.2
25°	1404.9	1385.8	1338.5	1272.0	1196.6	1124.8	1099.7	1055.7	1066.4	1094.0	1124.0
26°	1412.2	1393.4	1343.5	1271.4	1190.6	1115.2	1090.6	1042.6	1056.0	1087.0	1121.8
27°	1421.3	1400.3	1350.4	1272.5	1185.9	1106.3	1079.5	1031.5	1046.6	1081.3	1119.1
28°	1428.3	1406.7	1353.8	1270.3	1179.1	1095.2	1064.3	1018.5	1037.5	1076.5	1118.4
29°	1437.0	1414.7	1358.9	1270.8	1171.6	1084.6	1048.5	1005.7	1029.1	1070.4	1117.8
30°	1441.6	1422.1	1361.8	1269.6	1165.1	1071.4	1028.7	992.6	1019.3	1065.0	1115.6
31°	1448.2	1426.8	1367.5	1270.9	1157.3	1058.5	1010.2	979.5	1008.6	1060.3	1115.5
32°	1452.2	1432.6	1370.4	1270.2	1148.8	1045.6	992.0	965.1	999.5	1055.2	1114.3
33°	1456.6	1435.5	1375.2	1269.4	1140.7	1031.0	974.0	951.0	988.5	1050.4	1115.0
34°	1458.2	1438.8	1378.8	1269.3	1132.7	1016.2	958.1	936.3	979.1	1045.8	1114.7
35°	1457.3	1439.4	1382.4	1268.7	1124.8	1001.9	940.7	921.8	967.4	1040.3	1113.6
36°	1452.7	1438.9	1382.3	1266.4	1116.5	985.6	923.2	907.2	957.3	1037.1	1108.7
37°	1447.7	1434.2	1384.6	1267.0	1108.5	969.5	905.2	892.2	947.0	1030.9	1108.2
38°	1439.2	1428.1	1383.0	1267.9	1101.9	954.4	887.3	877.3	937.3	1024.4	1108.6
39°	1428.9	1420.7	1379.3	1267.6	1094.7	938.3	868.6	863.4	927.1	1016.1	1111.0
40°	1417.7	1410.3	1376.0	1268.2	1088.1	921.7	850.0	849.5	916.9	1010.3	1113.7
41°	1405.3	1398.7	1369.2	1268.2	1081.9	906.6	831.3	835.5	906.3	1008.5	1112.6
42°	1388.1	1384.5	1361.1	1267.5	1075.7	890.8	813.0	819.5	894.3	1005.3	1112.2
43°	1366.2	1368.0	1350.1	1266.8	1070.6	875.9	792.4	803.5	880.1	998.8	1112.0
44°	1342.7	1347.5	1337.4	1265.7	1065.7	861.8	771.4	787.6	870.1	991.5	1112.7



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	1317.0	1325.6	1324.1	1262.3	1061.3	848.2	750.6	770.5	860.1	983.9	1112.7
46°	1289.4	1300.0	1307.0	1258.0	1057.3	835.3	730.7	753.6	850.1	981.6	1110.0
47°	1256.2	1271.9	1289.8	1251.2	1054.7	821.6	708.4	736.7	839.0	978.2	1104.0
48°	1220.2	1240.3	1266.9	1244.5	1050.8	806.1	687.3	718.3	825.9	973.2	1096.9
49°	1181.7	1204.4	1242.1	1233.0	1048.1	789.9	665.0	698.4	813.0	967.0	1089.0
50°	1139.8	1163.6	1214.8	1221.1	1046.3	772.2	643.3	676.6	802.9	960.1	1079.7
51°	1093.9	1123.1	1183.8	1208.2	1044.0	754.1	621.0	655.5	792.0	951.3	1069.7
52°	1045.4	1076.4	1149.7	1193.8	1042.9	735.2	598.0	637.5	778.6	943.6	1060.2
53°	993.0	1027.8	1110.5	1175.1	1040.4	713.1	575.9	620.5	764.2	936.4	1049.2
54°	938.7	975.4	1066.1	1153.3	1037.2	694.0	554.1	599.6	749.1	927.8	1037.5
55°	881.1	919.8	1018.9	1127.4	1034.8	674.4	530.4	578.2	732.6	918.1	1024.6
56°	819.4	860.9	968.3	1099.6	1030.6	655.3	507.2	558.5	718.8	906.9	1010.6
57°	749.6	797.2	912.5	1067.6	1024.4	636.9	484.2	538.9	703.0	895.4	995.2
58°	665.7	727.6	853.5	1028.7	1014.4	618.6	460.2	518.6	688.0	883.6	977.5
59°	571.3	645.1	790.1	985.3	1003.3	600.5	436.4	496.5	671.6	871.8	956.6
60°	473.6	550.1	721.3	934.8	988.5	582.5	411.7	473.9	654.8	859.9	933.3
61°	381.6	452.2	645.4	878.3	972.6	565.7	388.2	451.3	637.8	848.0	905.2
62°	289.6	360.5	554.3	811.8	952.7	551.1	366.2	430.1	621.7	831.7	863.0
63°	197.6	268.7	459.3	740.3	929.3	538.1	342.5	407.5	606.7	814.0	820.8
64°	128.1	177.0	364.6	665.9	901.3	527.5	319.1	386.5	590.7	793.9	777.8
65°	84.2	110.5	269.8	578.8	868.7	520.2	296.8	365.8	574.3	773.3	704.7
66°	64.8	72.8	175.1	482.0	829.7	516.8	274.8	345.1	556.8	745.7	651.6
67°	58.8	57.1	107.0	382.5	781.8	514.9	253.8	324.4	539.5	701.3	620.5
68°	54.7	52.0	67.7	283.0	722.5	514.0	232.5	304.4	519.1	646.4	594.5
69°	50.6	47.8	53.0	183.5	656.0	512.3	212.1	284.9	499.1	603.7	568.9
70°	46.6	43.9	47.7	106.9	571.3	512.0	192.2	266.2	479.8	576.9	544.2
71°	42.9	40.6	43.8	63.1	459.5	514.7	173.0	247.3	458.1	550.9	521.6
72°	39.9	37.3	39.9	45.8	340.2	515.2	155.6	228.7	423.5	522.3	497.7
73°	36.9	34.0	36.0	40.6	220.7	503.1	138.3	209.7	390.9	492.7	472.5
74°	34.0	31.1	32.1	35.7	101.3	468.0	121.8	191.1	369.3	464.8	444.2
75°	30.9	27.9	28.5	30.7	56.2	423.1	106.2	173.8	351.3	438.4	414.5
76°	28.4	25.1	24.3	27.4	47.4	374.9	90.7	156.5	331.4	412.7	378.8
77°	26.4	22.9	21.1	24.8	39.0	326.6	75.2	140.2	311.7	388.8	337.6
78°	25.2	21.0	18.5	21.8	30.7	278.3	62.3	120.5	293.5	365.7	300.4
79°	24.1	19.8	16.6	18.1	27.9	212.3	50.6	105.1	274.1	343.6	265.9
80°	22.8	18.9	15.1	14.7	27.8	160.5	40.1	89.7	255.1	314.9	239.2
81°	21.3	17.6	13.9	12.5	25.9	112.2	31.4	74.3	237.0	284.9	211.7
82°	19.4	16.2	12.9	10.9	22.2	73.0	23.8	62.4	217.4	254.2	150.9
83°	16.1	14.1	11.8	9.5	18.4	43.0	17.3	51.1	197.9	230.9	90.1
84°	12.7	11.5	9.9	8.3	12.6	32.1	13.2	40.1	171.0	209.7	30.4
85°	9.1	8.6	7.5	7.1	7.4	21.3	9.1	30.3	137.7	167.5	17.5
86°	6.4	6.5	5.4	5.2	4.8	10.5	5.1	21.1	110.2	125.4	4.8
87°	4.3	4.4	3.7	3.6	3.2	5.8	2.9	14.3	82.7	83.2	2.4
88°	2.3	2.4	2.0	2.0	1.7	3.8	1.3	7.5	55.2	41.1	0.8
89°	0.3	0.3	0.3	0.3	0.4	2.0	0.4	0.8	27.7	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



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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: P1449888

CATALOG NUMBER: TWC60_T2_24W_4000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0	1201.0
1°	1193.2	1193.1	1194.0	1193.2	1195.0	1196.4	1197.9	1201.4	1203.3	1204.5	1206.1
2°	1186.0	1186.7	1186.3	1187.1	1191.2	1193.2	1196.2	1200.4	1205.3	1208.1	1212.1
3°	1182.6	1184.0	1182.0	1182.3	1184.0	1189.3	1192.5	1198.7	1205.0	1211.5	1218.8
4°	1193.8	1193.5	1189.8	1183.5	1179.7	1184.0	1189.4	1197.9	1207.6	1215.1	1224.1
5°	1211.7	1212.6	1207.0	1197.0	1181.8	1179.0	1186.0	1195.4	1207.0	1219.0	1229.4
6°	1220.3	1220.5	1220.2	1209.8	1191.6	1176.1	1181.8	1192.5	1206.8	1221.8	1233.4
7°	1213.4	1211.1	1214.6	1215.9	1203.5	1177.2	1177.5	1190.3	1207.0	1223.8	1237.7
8°	1192.1	1189.8	1193.9	1208.0	1210.6	1181.9	1172.6	1187.5	1207.3	1225.3	1240.6
9°	1180.5	1180.5	1180.6	1187.3	1208.6	1190.3	1166.6	1182.8	1204.6	1225.8	1243.6
10°	1175.3	1174.9	1174.6	1174.4	1194.0	1196.1	1163.0	1179.2	1203.7	1227.0	1247.0
11°	1170.9	1171.4	1170.1	1168.3	1176.8	1197.1	1159.6	1174.9	1200.3	1226.4	1248.5
12°	1170.0	1170.3	1167.1	1161.9	1164.5	1191.8	1157.6	1168.5	1198.7	1226.4	1251.8
13°	1167.4	1168.6	1165.6	1158.3	1157.3	1178.8	1158.9	1162.7	1195.7	1226.2	1254.8
14°	1164.6	1165.6	1160.8	1155.4	1149.9	1162.0	1161.8	1157.9	1193.2	1226.4	1257.8
15°	1161.7	1162.6	1158.0	1151.5	1143.1	1147.4	1161.6	1152.9	1189.5	1227.6	1262.1
16°	1159.7	1161.7	1156.5	1145.9	1138.2	1136.2	1162.5	1144.7	1186.0	1228.5	1265.5
17°	1157.7	1159.4	1153.9	1142.5	1131.3	1128.2	1157.8	1138.5	1182.0	1228.1	1269.8
18°	1154.5	1156.2	1149.7	1137.7	1124.4	1118.9	1149.7	1130.9	1180.1	1228.1	1274.3
19°	1151.2	1155.0	1147.7	1134.4	1116.9	1110.4	1138.4	1124.9	1176.3	1227.3	1278.3
20°	1150.6	1154.1	1144.6	1128.9	1112.1	1102.2	1123.1	1116.1	1172.3	1226.9	1279.3
21°	1149.6	1152.9	1142.9	1124.1	1105.9	1094.2	1105.9	1109.0	1169.3	1227.0	1282.3
22°	1148.4	1152.6	1141.7	1120.3	1098.5	1084.2	1088.9	1101.4	1163.7	1224.5	1284.4
23°	1148.5	1153.8	1140.5	1117.3	1091.2	1072.3	1074.4	1095.0	1158.3	1222.8	1287.0
24°	1147.5	1153.8	1140.0	1111.8	1084.0	1062.3	1061.6	1088.3	1150.7	1219.3	1289.1
25°	1146.9	1154.3	1139.6	1109.6	1078.0	1053.6	1049.0	1084.5	1142.6	1215.6	1290.0
26°	1148.4	1155.0	1137.9	1106.1	1071.2	1042.5	1037.0	1080.9	1135.0	1211.5	1291.5
27°	1147.9	1155.9	1138.4	1103.9	1064.4	1031.1	1024.2	1075.6	1124.8	1208.5	1292.6
28°	1148.9	1158.1	1138.4	1100.3	1056.8	1019.4	1013.0	1070.4	1114.4	1202.0	1293.4
29°	1151.4	1160.3	1138.9	1096.3	1050.6	1009.8	1000.7	1063.1	1103.5	1197.4	1295.0
30°	1151.9	1162.8	1140.7	1093.8	1043.5	997.9	986.4	1051.3	1091.4	1190.8	1297.4
31°	1156.7	1166.8	1141.3	1092.9	1036.8	987.6	971.4	1038.0	1078.6	1185.4	1298.5
32°	1158.5	1170.0	1144.6	1089.9	1029.4	975.5	957.7	1021.5	1067.0	1180.5	1297.6
33°	1159.6	1170.9	1145.0	1089.1	1020.7	964.0	941.6	1001.5	1053.9	1173.5	1300.2
34°	1159.4	1170.2	1144.2	1087.9	1015.3	952.3	927.7	980.2	1040.8	1167.5	1299.0
35°	1159.7	1174.4	1143.1	1085.9	1007.1	941.3	912.4	958.5	1027.2	1161.4	1300.8
36°	1164.3	1180.1	1144.0	1082.1	1000.4	929.4	896.4	936.4	1013.6	1157.8	1301.7
37°	1170.2	1187.4	1148.7	1076.8	993.9	917.5	879.8	917.5	1000.1	1151.1	1303.6
38°	1174.5	1191.9	1153.6	1075.6	986.8	905.0	864.4	897.5	987.2	1147.8	1303.7
39°	1176.4	1192.6	1156.8	1074.9	978.0	891.9	849.0	878.6	973.8	1142.9	1304.1
40°	1177.3	1193.7	1156.2	1073.0	968.2	879.9	833.6	858.7	959.3	1138.4	1303.1
41°	1179.0	1195.6	1155.8	1071.3	960.6	868.2	814.6	840.3	945.1	1133.3	1304.4
42°	1180.6	1197.9	1159.6	1068.5	953.8	856.6	796.1	821.0	931.0	1130.7	1301.6
43°	1182.4	1197.6	1160.3	1068.4	948.6	844.9	776.7	800.6	917.5	1129.0	1299.3
44°	1179.9	1193.7	1160.2	1068.3	943.0	829.7	758.0	780.2	902.4	1128.2	1294.1



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CATALOG NUMBER: TWC60_T2_24W_4000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1175.1	1188.5	1156.3	1067.2	932.9	813.2	739.3	759.6	887.4	1127.2	1287.7
46°	1167.9	1181.0	1149.6	1065.4	924.1	797.0	720.6	738.9	873.7	1125.2	1279.0
47°	1160.6	1174.2	1141.7	1061.6	916.2	781.5	702.1	717.0	859.1	1123.1	1268.4
48°	1152.4	1163.9	1134.0	1056.6	909.2	769.3	683.1	696.2	845.8	1122.0	1255.2
49°	1142.7	1154.3	1124.4	1049.9	900.6	754.4	663.9	673.4	832.0	1120.4	1242.6
50°	1132.3	1143.5	1115.6	1042.2	891.4	739.1	644.1	650.8	817.6	1118.0	1227.1
51°	1120.8	1131.1	1105.4	1031.4	880.8	724.1	623.9	629.1	804.6	1115.2	1209.2
52°	1109.4	1118.1	1093.5	1022.4	871.1	709.5	601.9	606.7	791.1	1112.1	1186.1
53°	1094.0	1100.1	1080.5	1011.3	863.5	696.4	579.5	584.4	778.8	1106.7	1161.6
54°	1077.5	1081.8	1067.0	1000.5	855.9	680.8	557.1	561.1	768.2	1098.7	1132.2
55°	1058.7	1061.1	1049.1	988.3	848.3	664.3	537.1	537.5	758.1	1089.3	1099.9
56°	1037.2	1036.8	1029.8	976.3	838.2	645.2	515.9	513.6	750.2	1075.0	1063.8
57°	1012.7	1011.1	1007.1	961.5	827.0	626.8	493.4	489.5	745.0	1061.2	1020.6
58°	985.2	980.4	981.7	947.8	816.6	607.7	470.8	465.5	738.5	1044.3	974.4
59°	955.7	948.7	954.3	930.8	806.6	589.8	449.1	442.0	733.3	1024.3	920.4
60°	923.3	899.6	924.2	913.2	793.3	571.5	427.5	419.1	726.7	1001.9	861.5
61°	864.7	850.6	872.7	891.5	779.5	553.9	406.1	396.2	720.3	974.5	797.1
62°	806.1	801.4	821.3	863.0	765.0	535.2	383.8	373.4	717.7	944.1	726.5
63°	747.6	725.1	769.7	834.5	747.0	515.5	360.6	349.9	714.8	905.6	649.5
64°	687.9	680.2	699.3	805.5	729.5	497.4	337.5	326.2	713.4	862.6	564.6
65°	656.0	654.1	657.5	749.2	709.3	478.6	314.6	304.2	710.3	811.2	468.5
66°	632.0	629.7	629.7	681.2	688.8	459.0	292.3	282.5	708.5	750.7	371.6
67°	607.8	602.5	607.2	633.5	665.1	439.5	270.6	260.8	707.2	681.9	274.6
68°	579.8	570.9	583.4	602.2	635.7	419.4	249.2	237.7	699.3	597.3	177.7
69°	549.4	535.7	555.9	571.9	591.1	398.6	228.3	215.3	681.9	498.9	106.8
70°	517.6	500.7	528.4	543.6	550.7	378.7	208.2	193.7	651.8	385.1	65.2
71°	481.5	461.1	496.5	517.3	526.3	358.6	189.7	172.3	607.9	270.9	48.6
72°	444.9	425.2	463.2	495.1	505.7	339.1	172.4	152.5	566.8	156.7	43.2
73°	409.9	391.6	427.4	474.4	481.3	318.0	154.6	133.6	533.4	85.7	39.1
74°	373.0	354.3	390.6	453.1	457.5	287.4	138.4	116.7	480.0	50.8	34.9
75°	336.7	316.2	353.3	430.9	433.4	262.3	122.8	100.3	418.5	43.4	30.8
76°	297.7	273.3	317.4	406.4	409.4	243.9	109.2	85.3	332.8	36.4	26.4
77°	258.1	232.3	280.2	375.4	384.6	226.1	95.6	72.9	246.3	29.4	22.6
78°	222.0	192.9	246.7	337.8	357.9	207.5	82.1	62.5	159.7	26.9	19.1
79°	182.9	145.2	211.9	297.4	332.2	190.2	70.7	53.7	89.3	25.6	15.9
80°	132.1	97.5	174.2	260.5	304.9	173.8	58.1	44.8	48.3	23.4	13.6
81°	81.3	50.1	114.7	234.6	275.1	157.1	47.1	36.5	39.2	19.1	12.0
82°	31.6	16.4	55.4	214.1	247.3	140.5	38.4	28.2	30.6	15.1	10.7
83°	23.1	12.9	39.1	150.3	216.3	123.4	30.1	19.9	21.9	11.0	9.5
84°	14.6	9.5	22.7	86.6	192.5	104.7	23.0	14.3	21.2	7.7	8.4
85°	6.2	6.0	6.6	22.9	170.1	85.9	16.7	9.9	18.4	6.0	7.0
86°	3.8	3.6	4.1	12.7	106.4	67.2	12.1	6.4	13.6	4.7	4.8
87°	1.8	1.8	1.9	2.5	43.5	50.1	7.5	4.4	8.1	3.1	3.0
88°	0.7	0.7	0.7	0.7	21.5	33.4	2.9	2.3	5.4	1.6	1.2
89°	0.1	0.1	0.2	0.2	0.3	16.6	0.4	0.3	2.8	0.3	0.3



REPORT NUMBER: P1449888
 CATALOG NUMBER: TWC60_T2_24W_4000K

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: P1449888
 CATALOG NUMBER: TWC60_T2_24W_4000K

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: P1449888
CATALOG NUMBER: TWC60_T2_24W_4000K

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: P1449888
 CATALOG NUMBER: TWC60_T2_24W_4000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	1201.0	1201.0	1201.0
1°	1208.0	1208.9	1208.7
2°	1215.6	1216.8	1218.9
3°	1222.1	1225.6	1227.1
4°	1230.3	1233.8	1236.3
5°	1236.6	1241.2	1244.0
6°	1242.1	1248.1	1250.6
7°	1247.5	1255.6	1257.1
8°	1252.9	1261.5	1262.6
9°	1257.5	1266.4	1269.5
10°	1261.8	1271.8	1276.1
11°	1266.9	1279.3	1283.8
12°	1272.4	1287.9	1292.0
13°	1279.4	1295.3	1299.2
14°	1285.5	1304.7	1308.5
15°	1292.6	1311.7	1317.9
16°	1299.2	1320.2	1325.6
17°	1304.7	1326.5	1333.6
18°	1310.9	1335.7	1343.3
19°	1317.1	1343.8	1352.1
20°	1323.6	1351.5	1360.1
21°	1330.3	1358.9	1369.3
22°	1335.6	1368.9	1378.6
23°	1340.5	1377.3	1388.1
24°	1348.0	1385.6	1397.3
25°	1353.1	1395.2	1404.9
26°	1359.9	1402.0	1412.2
27°	1366.0	1407.9	1421.3
28°	1371.3	1416.4	1428.3
29°	1374.6	1424.4	1437.0
30°	1381.8	1430.6	1441.6
31°	1386.5	1436.0	1448.2
32°	1390.9	1440.7	1452.2
33°	1395.1	1443.8	1456.6
34°	1396.2	1445.5	1458.2
35°	1400.2	1445.8	1457.3
36°	1401.7	1443.8	1452.7
37°	1399.6	1439.6	1447.7
38°	1398.5	1433.6	1439.2
39°	1394.2	1423.4	1428.9
40°	1387.6	1412.2	1417.7
41°	1378.1	1400.8	1405.3
42°	1368.1	1384.6	1388.1
43°	1355.5	1368.0	1366.2
44°	1341.4	1346.5	1342.7



REPORT NUMBER: P1449888
CATALOG NUMBER: TWC60_T2_24W_4000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	1325.2	1321.1	1317.0
46°	1306.1	1294.0	1289.4
47°	1282.2	1264.9	1256.2
48°	1257.5	1230.7	1220.2
49°	1228.0	1191.8	1181.7
50°	1195.7	1151.9	1139.8
51°	1160.0	1109.6	1093.9
52°	1120.5	1062.0	1045.4
53°	1079.6	1010.7	993.0
54°	1031.9	957.9	938.7
55°	980.9	901.6	881.1
56°	926.2	839.9	819.4
57°	868.0	775.1	749.6
58°	804.8	699.4	665.7
59°	738.7	610.3	571.3
60°	662.5	513.9	473.6
61°	576.2	412.7	381.6
62°	478.3	320.3	289.6
63°	383.9	228.0	197.6
64°	289.5	151.3	128.1
65°	195.1	95.2	84.2
66°	123.1	67.2	64.8
67°	76.2	57.2	58.8
68°	56.0	52.7	54.7
69°	49.5	48.7	50.6
70°	45.3	44.9	46.6
71°	41.7	41.5	42.9
72°	37.9	38.2	39.9
73°	34.2	34.8	36.9
74°	31.3	32.0	34.0
75°	27.8	28.9	30.9
76°	24.1	26.1	28.4
77°	20.9	24.0	26.4
78°	18.7	22.4	25.2
79°	17.0	21.3	24.1
80°	15.7	20.2	22.8
81°	14.6	18.9	21.3
82°	13.5	17.3	19.4
83°	12.1	14.8	16.1
84°	9.8	12.0	12.7
85°	7.7	8.9	9.1
86°	5.0	6.4	6.4
87°	3.4	4.4	4.3
88°	1.9	2.3	2.3
89°	0.3	0.3	0.3



REPORT NUMBER: P1449888
CATALOG NUMBER: TWC60_T2_24W_4000K

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: P1449888
CATALOG NUMBER: TWC60_T2_24W_4000K

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: P1449888
CATALOG NUMBER: TWC60_T2_24W_4000K

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: SP1-2601-659-2

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-4000K

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

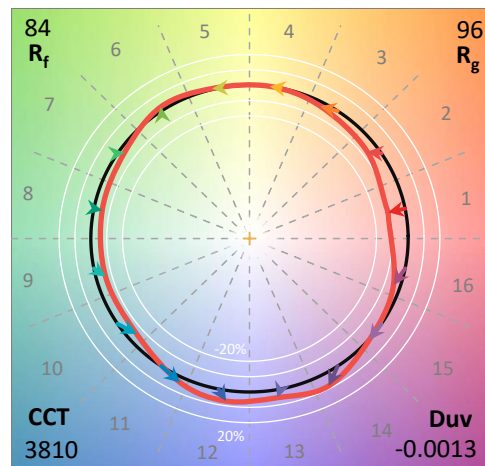
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-2
 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-4000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 4000K

Spectral Parameters

CCT (K): 3810
 CIE u': 0.2295
 CIE v': 0.5035
 Duv: -0.0013
 CIE x: 0.3881
 CIE y: 0.3785
 CIE z: 0.2334
 Peak Wavelength (nm): 453
 Dominant Wavelength (nm): 580
 Purity: 30.07368
 Rf: 84.4
 Rg: 96.5

CRI (Ra):	84.5		
R1:	83.7	R9:	15.9
R2:	90.7	R10:	77.2
R3:	95.1	R11:	83.0
R4:	83.6	R12:	62.4
R5:	83.4	R13:	85.6
R6:	86.7	R14:	97.4
R7:	86.3	R15:	77.9
R8:	66.5		



Test Conditions

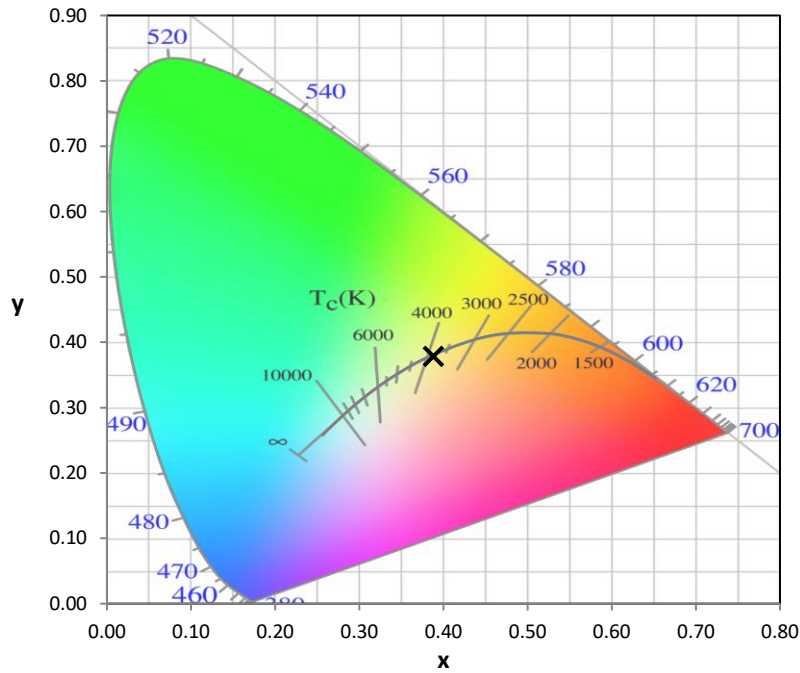
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-2

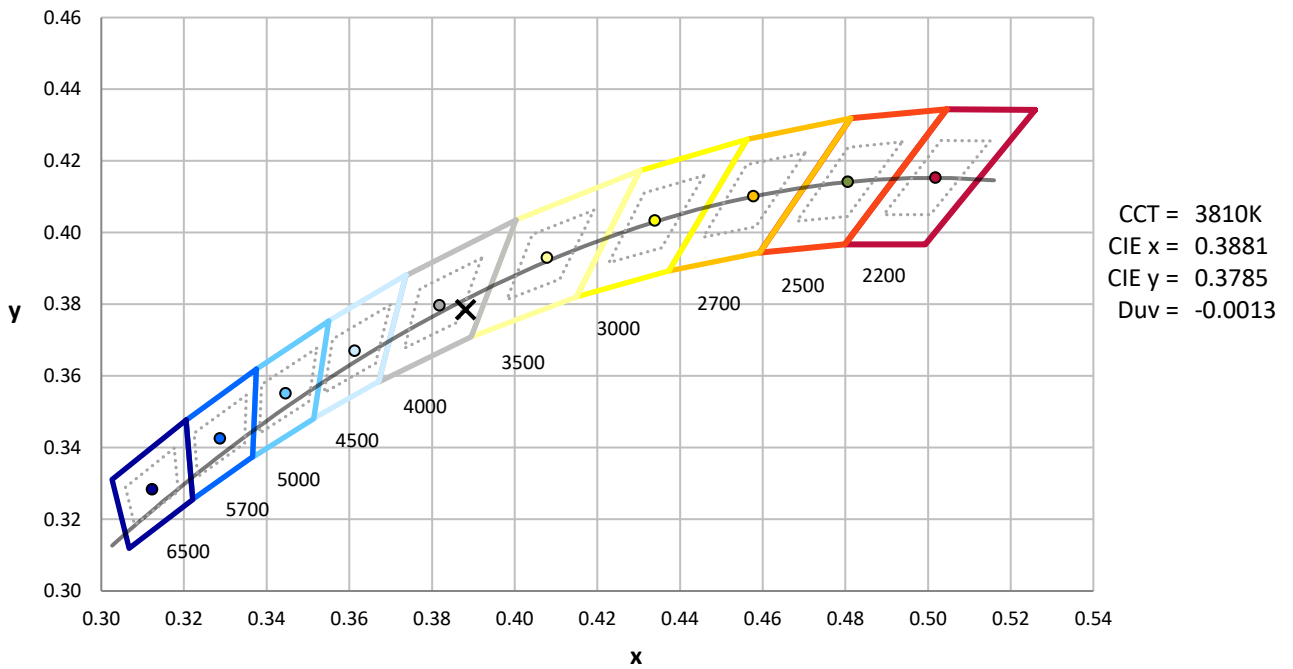
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2601-659-2

CIE 1931 Chromaticity Diagram



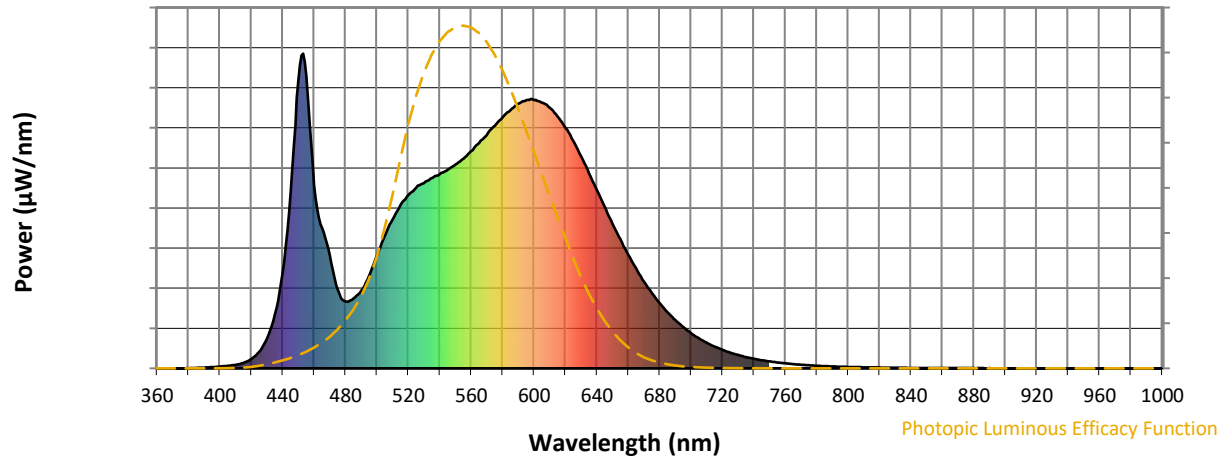
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2601-659-2

Photopic Flux vs. Wavelength

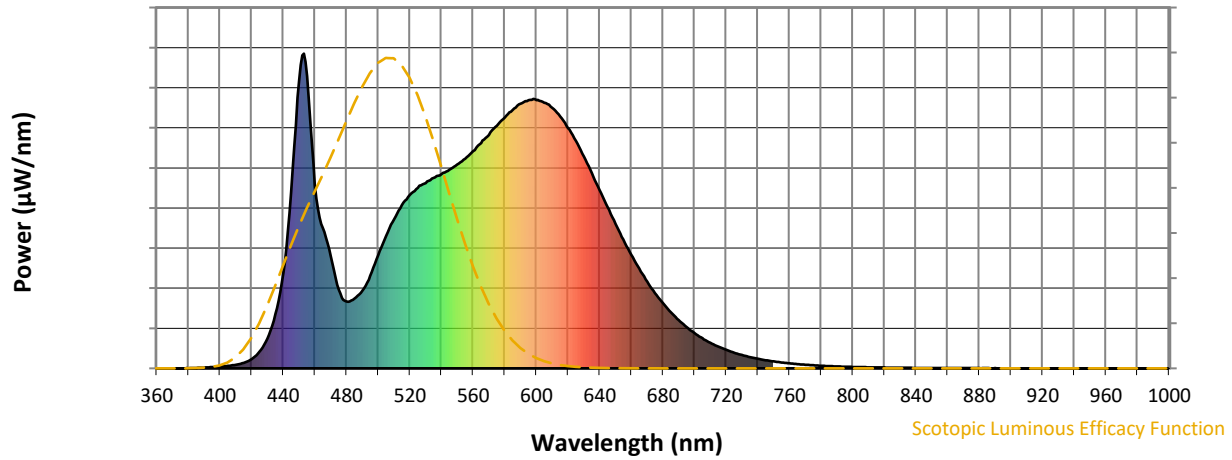


Photopic Lumens: NR

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	247	NR	620	764	NR	750	22	NR	880	1	NR
365	0	NR	495	294	NR	625	723	NR	755	19	NR	885	1	NR
370	0	NR	500	359	NR	630	674	NR	760	16	NR	890	1	NR
375	0	NR	505	421	NR	635	620	NR	765	14	NR	895	0	NR
380	1	NR	510	474	NR	640	566	NR	770	12	NR	900	0	NR
385	1	NR	515	518	NR	645	512	NR	775	10	NR	905	0	NR
390	3	NR	520	552	NR	650	459	NR	780	8	NR	910	0	NR
395	4	NR	525	574	NR	655	410	NR	785	7	NR	915	0	NR
400	6	NR	530	589	NR	660	361	NR	790	6	NR	920	0	NR
405	8	NR	535	605	NR	665	317	NR	795	5	NR	925	0	NR
410	11	NR	540	617	NR	670	276	NR	800	5	NR	930	0	NR
415	18	NR	545	632	NR	675	239	NR	805	4	NR	935	0	NR
420	30	NR	550	648	NR	680	207	NR	810	3	NR	940	0	NR
425	53	NR	555	666	NR	685	178	NR	815	3	NR	945	0	NR
430	95	NR	560	690	NR	690	153	NR	820	3	NR	950	0	NR
435	173	NR	565	716	NR	695	131	NR	825	2	NR	955	0	NR
440	304	NR	570	742	NR	700	112	NR	830	2	NR	960	0	NR
445	559	NR	575	771	NR	705	95	NR	835	2	NR	965	0	NR
450	915	NR	580	798	NR	710	81	NR	840	1	NR	970	0	NR
455	929	NR	585	820	NR	715	69	NR	845	1	NR	975	0	NR
460	582	NR	590	841	NR	720	59	NR	850	1	NR	980	0	NR
465	446	NR	595	852	NR	725	50	NR	855	1	NR	985	0	NR
470	356	NR	600	852	NR	730	42	NR	860	1	NR	990	0	NR
475	250	NR	605	845	NR	735	36	NR	865	1	NR	995	0	NR
480	212	NR	610	827	NR	740	30	NR	870	1	NR	1000	0	NR
485	221	NR	615	801	NR	745	26	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-2

Scotopic Flux vs. Wavelength



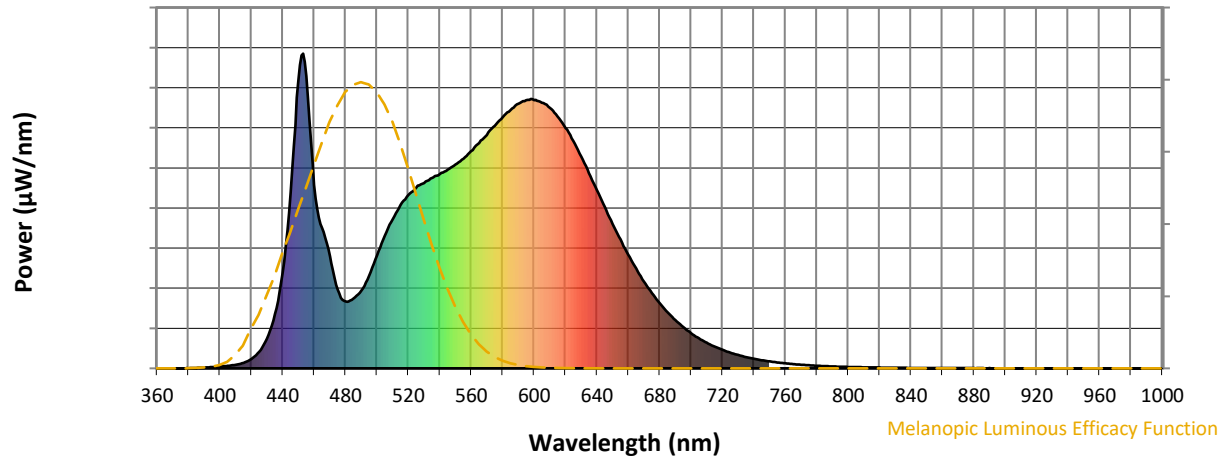
Scotopic Lumens: NR

S/P: 1.64

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	247	NR	620	764	NR	750	22	NR	880	1	NR
365	0	NR	495	294	NR	625	723	NR	755	19	NR	885	1	NR
370	0	NR	500	359	NR	630	674	NR	760	16	NR	890	1	NR
375	0	NR	505	421	NR	635	620	NR	765	14	NR	895	0	NR
380	1	NR	510	474	NR	640	566	NR	770	12	NR	900	0	NR
385	1	NR	515	518	NR	645	512	NR	775	10	NR	905	0	NR
390	3	NR	520	552	NR	650	459	NR	780	8	NR	910	0	NR
395	4	NR	525	574	NR	655	410	NR	785	7	NR	915	0	NR
400	6	NR	530	589	NR	660	361	NR	790	6	NR	920	0	NR
405	8	NR	535	605	NR	665	317	NR	795	5	NR	925	0	NR
410	11	NR	540	617	NR	670	276	NR	800	5	NR	930	0	NR
415	18	NR	545	632	NR	675	239	NR	805	4	NR	935	0	NR
420	30	NR	550	648	NR	680	207	NR	810	3	NR	940	0	NR
425	53	NR	555	666	NR	685	178	NR	815	3	NR	945	0	NR
430	95	NR	560	690	NR	690	153	NR	820	3	NR	950	0	NR
435	173	NR	565	716	NR	695	131	NR	825	2	NR	955	0	NR
440	304	NR	570	742	NR	700	112	NR	830	2	NR	960	0	NR
445	559	NR	575	771	NR	705	95	NR	835	2	NR	965	0	NR
450	915	NR	580	798	NR	710	81	NR	840	1	NR	970	0	NR
455	929	NR	585	820	NR	715	69	NR	845	1	NR	975	0	NR
460	582	NR	590	841	NR	720	59	NR	850	1	NR	980	0	NR
465	446	NR	595	852	NR	725	50	NR	855	1	NR	985	0	NR
470	356	NR	600	852	NR	730	42	NR	860	1	NR	990	0	NR
475	250	NR	605	845	NR	735	36	NR	865	1	NR	995	0	NR
480	212	NR	610	827	NR	740	30	NR	870	1	NR	1000	0	NR
485	221	NR	615	801	NR	745	26	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-2

Melanopic Flux vs. Wavelength



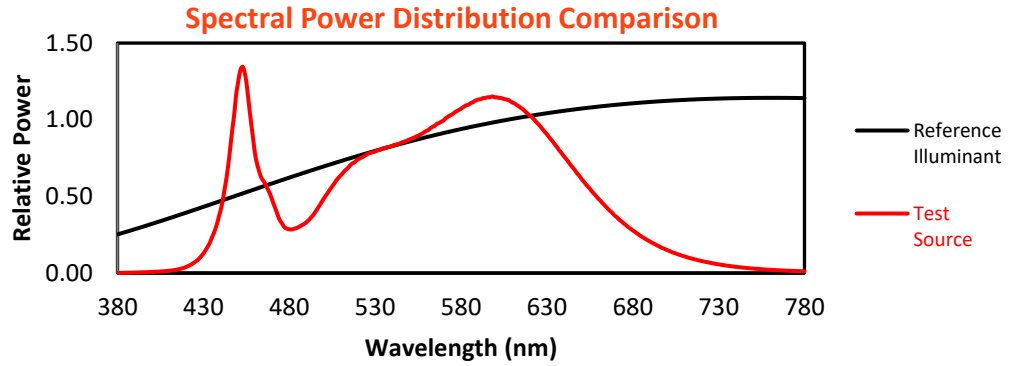
Melanopic Lumens: NR

M/P: 3.35

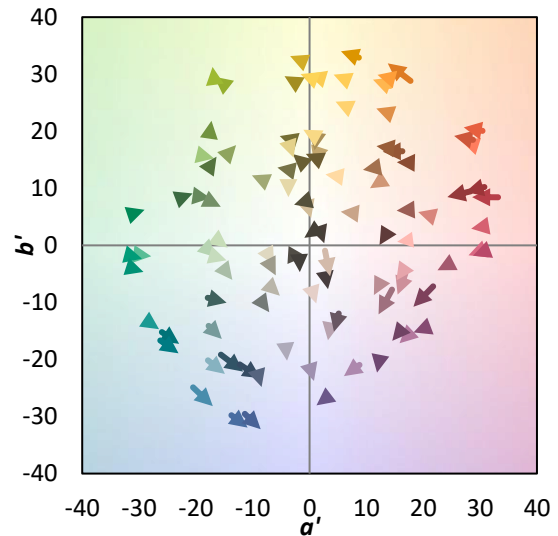
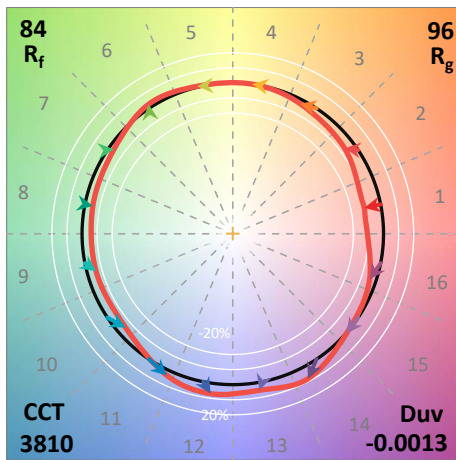
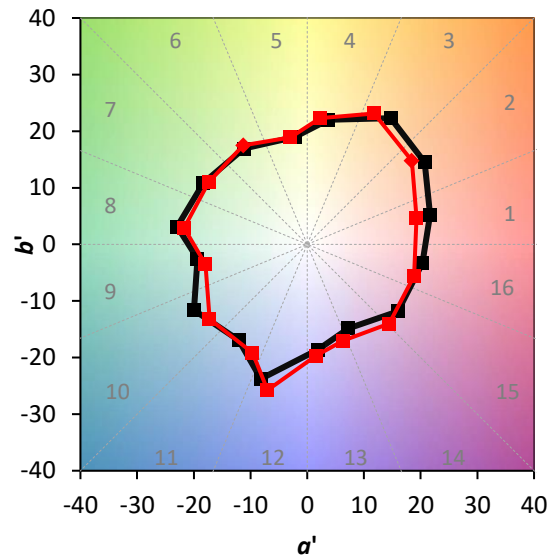
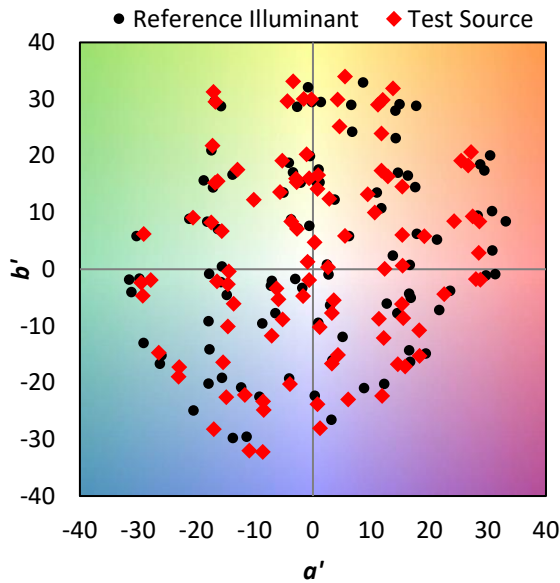
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	247	NR	620	764	NR	750	22	NR	880	1	NR
365	0	NR	495	294	NR	625	723	NR	755	19	NR	885	1	NR
370	0	NR	500	359	NR	630	674	NR	760	16	NR	890	1	NR
375	0	NR	505	421	NR	635	620	NR	765	14	NR	895	0	NR
380	1	NR	510	474	NR	640	566	NR	770	12	NR	900	0	NR
385	1	NR	515	518	NR	645	512	NR	775	10	NR	905	0	NR
390	3	NR	520	552	NR	650	459	NR	780	8	NR	910	0	NR
395	4	NR	525	574	NR	655	410	NR	785	7	NR	915	0	NR
400	6	NR	530	589	NR	660	361	NR	790	6	NR	920	0	NR
405	8	NR	535	605	NR	665	317	NR	795	5	NR	925	0	NR
410	11	NR	540	617	NR	670	276	NR	800	5	NR	930	0	NR
415	18	NR	545	632	NR	675	239	NR	805	4	NR	935	0	NR
420	30	NR	550	648	NR	680	207	NR	810	3	NR	940	0	NR
425	53	NR	555	666	NR	685	178	NR	815	3	NR	945	0	NR
430	95	NR	560	690	NR	690	153	NR	820	3	NR	950	0	NR
435	173	NR	565	716	NR	695	131	NR	825	2	NR	955	0	NR
440	304	NR	570	742	NR	700	112	NR	830	2	NR	960	0	NR
445	559	NR	575	771	NR	705	95	NR	835	2	NR	965	0	NR
450	915	NR	580	798	NR	710	81	NR	840	1	NR	970	0	NR
455	929	NR	585	820	NR	715	69	NR	845	1	NR	975	0	NR
460	582	NR	590	841	NR	720	59	NR	850	1	NR	980	0	NR
465	446	NR	595	852	NR	725	50	NR	855	1	NR	985	0	NR
470	356	NR	600	852	NR	730	42	NR	860	1	NR	990	0	NR
475	250	NR	605	845	NR	735	36	NR	865	1	NR	995	0	NR
480	212	NR	610	827	NR	740	30	NR	870	1	NR	1000	0	NR
485	221	NR	615	801	NR	745	26	NR	875	1	NR			

Summary

$R_f = 84.4$
 $R_g = 96.5$
 $CIE R_a = 84.5$
 $R_9 = 15.9$

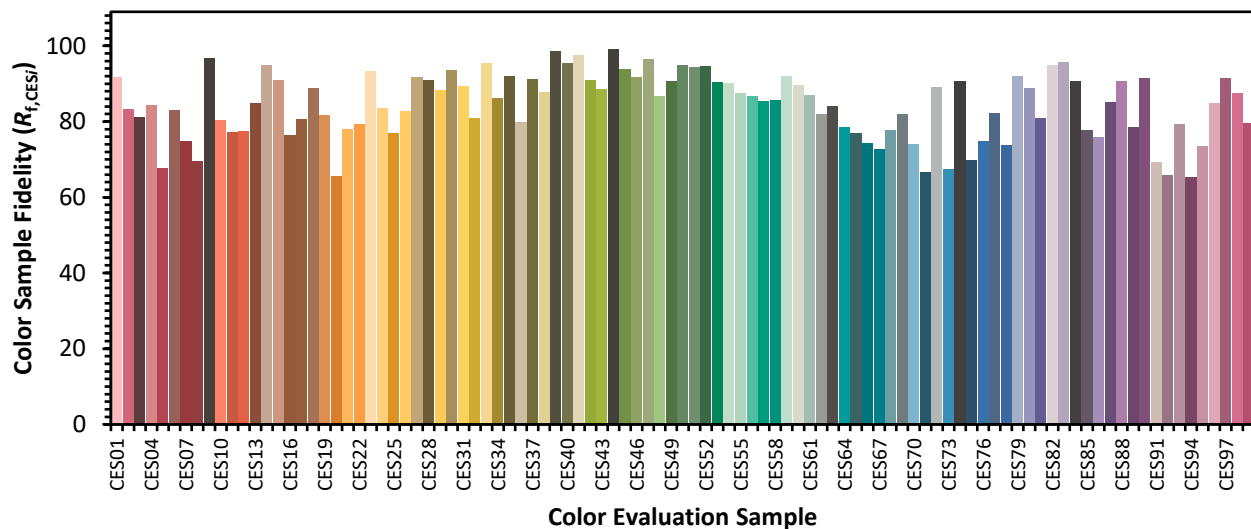


Color Vector Graphics

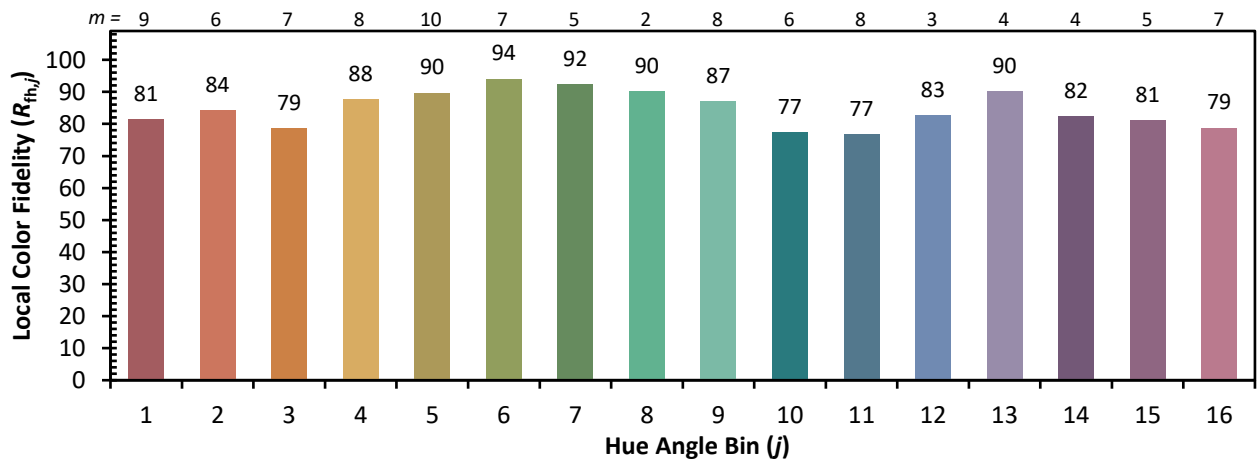
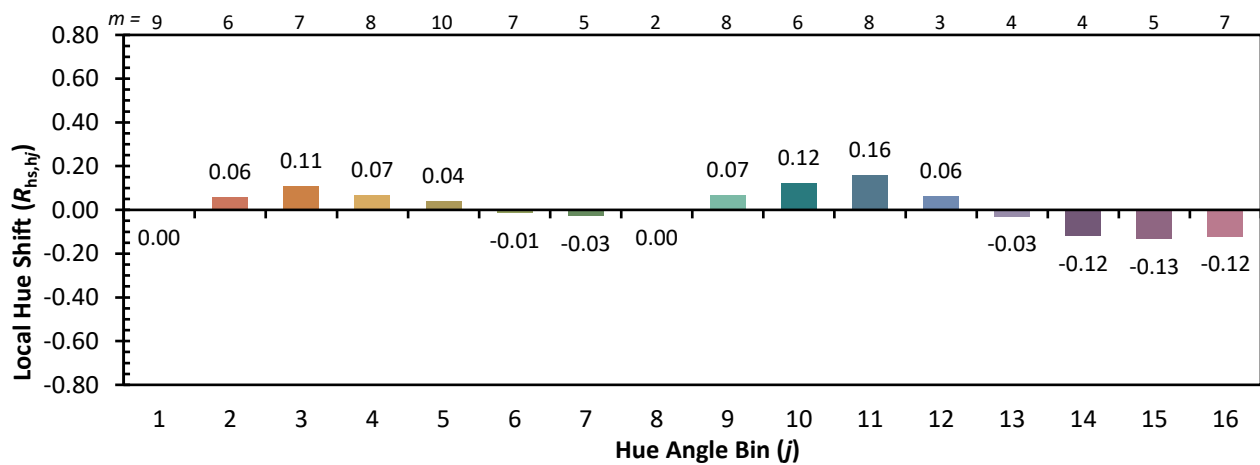
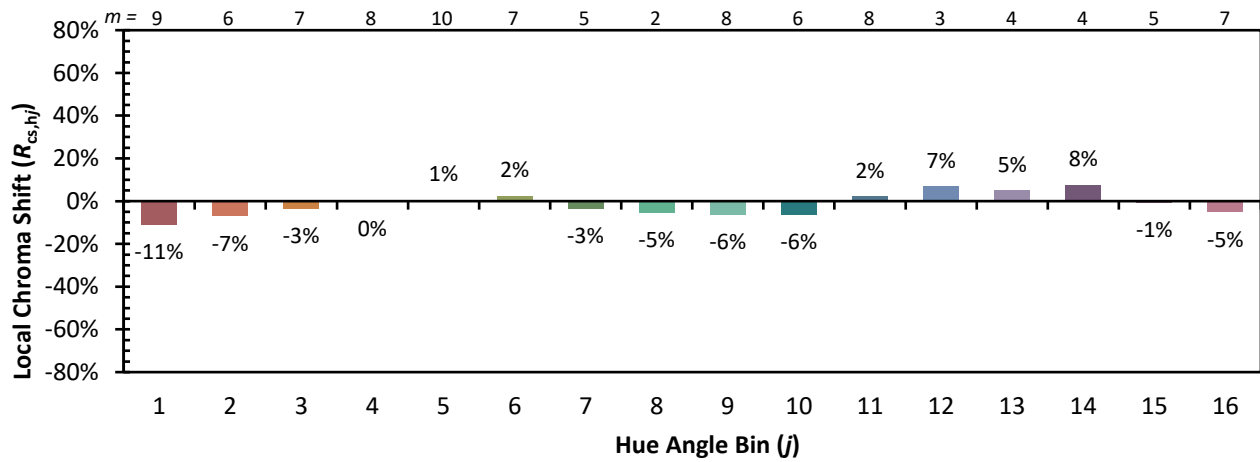


Individual Sample Fidelity Index ($R_{f,i}$)

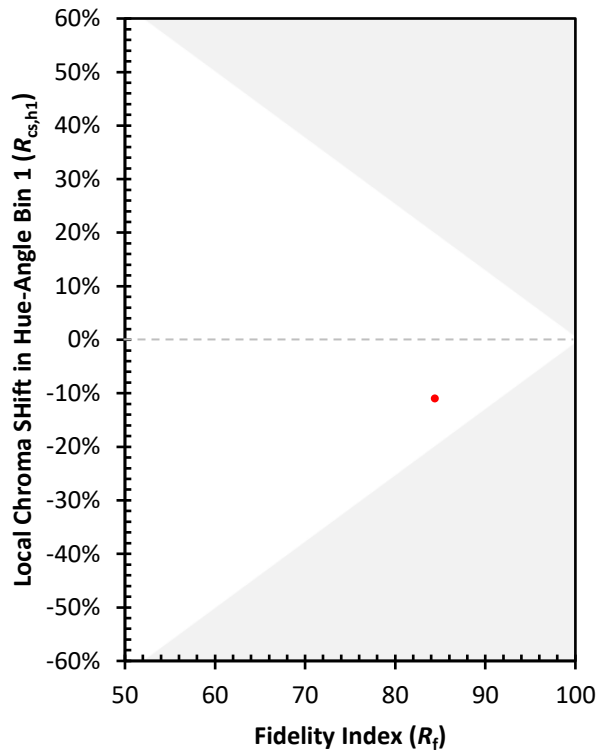
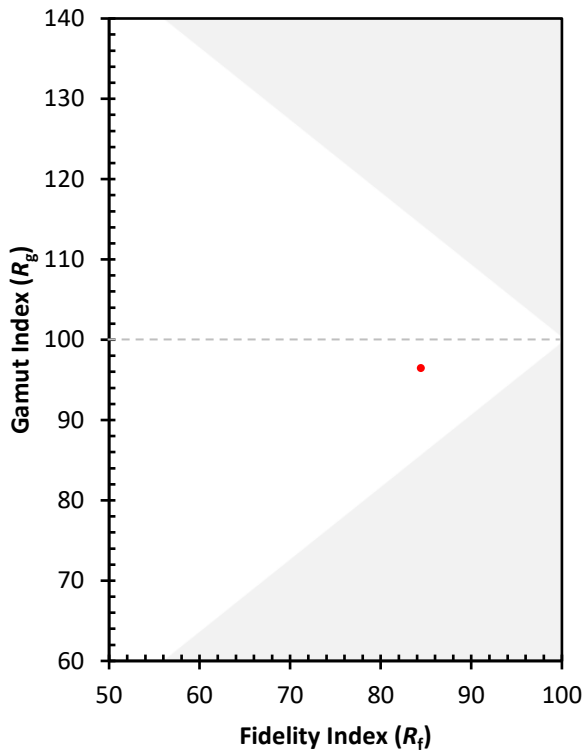
CES01 = 86	CES26 = 83	CES51 = 94	CES76 = 75
CES02 = 62	CES27 = 92	CES52 = 95	CES77 = 82
CES03 = 31	CES28 = 91	CES53 = 90	CES78 = 74
CES04 = 70	CES29 = 88	CES54 = 90	CES79 = 92
CES05 = 48	CES30 = 94	CES55 = 88	CES80 = 89
CES06 = 51	CES31 = 89	CES56 = 87	CES81 = 81
CES07 = 41	CES32 = 81	CES57 = 86	CES82 = 95
CES08 = 40	CES33 = 95	CES58 = 86	CES83 = 96
CES09 = 29	CES34 = 86	CES59 = 92	CES84 = 91
CES10 = 75	CES35 = 92	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 80	CES61 = 87	CES86 = 76
CES12 = 63	CES37 = 91	CES62 = 82	CES87 = 85
CES13 = 43	CES38 = 88	CES63 = 84	CES88 = 91
CES14 = 74	CES39 = 98	CES64 = 79	CES89 = 78
CES15 = 71	CES40 = 96	CES65 = 77	CES90 = 92
CES16 = 47	CES41 = 98	CES66 = 74	CES91 = 69
CES17 = 49	CES42 = 91	CES67 = 73	CES92 = 66
CES18 = 56	CES43 = 89	CES68 = 78	CES93 = 79
CES19 = 71	CES44 = 99	CES69 = 82	CES94 = 65
CES20 = 65	CES45 = 94	CES70 = 74	CES95 = 74
CES21 = 86	CES46 = 92	CES71 = 67	CES96 = 85
CES22 = 78	CES47 = 97	CES72 = 89	CES97 = 91
CES23 = 91	CES48 = 87	CES73 = 68	CES98 = 87
CES24 = 90	CES49 = 91	CES74 = 91	CES99 = 80
CES25 = 71	CES50 = 95	CES75 = 70	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)