

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: P1449900

Luminaire Tested: **TWC60_T3_24W_4000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449900
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_T3_24W_4000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T3 distribution, 24W
4000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4209 lumens
Efficiency: N/A
Efficacy: 179.1 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 0.42' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G1

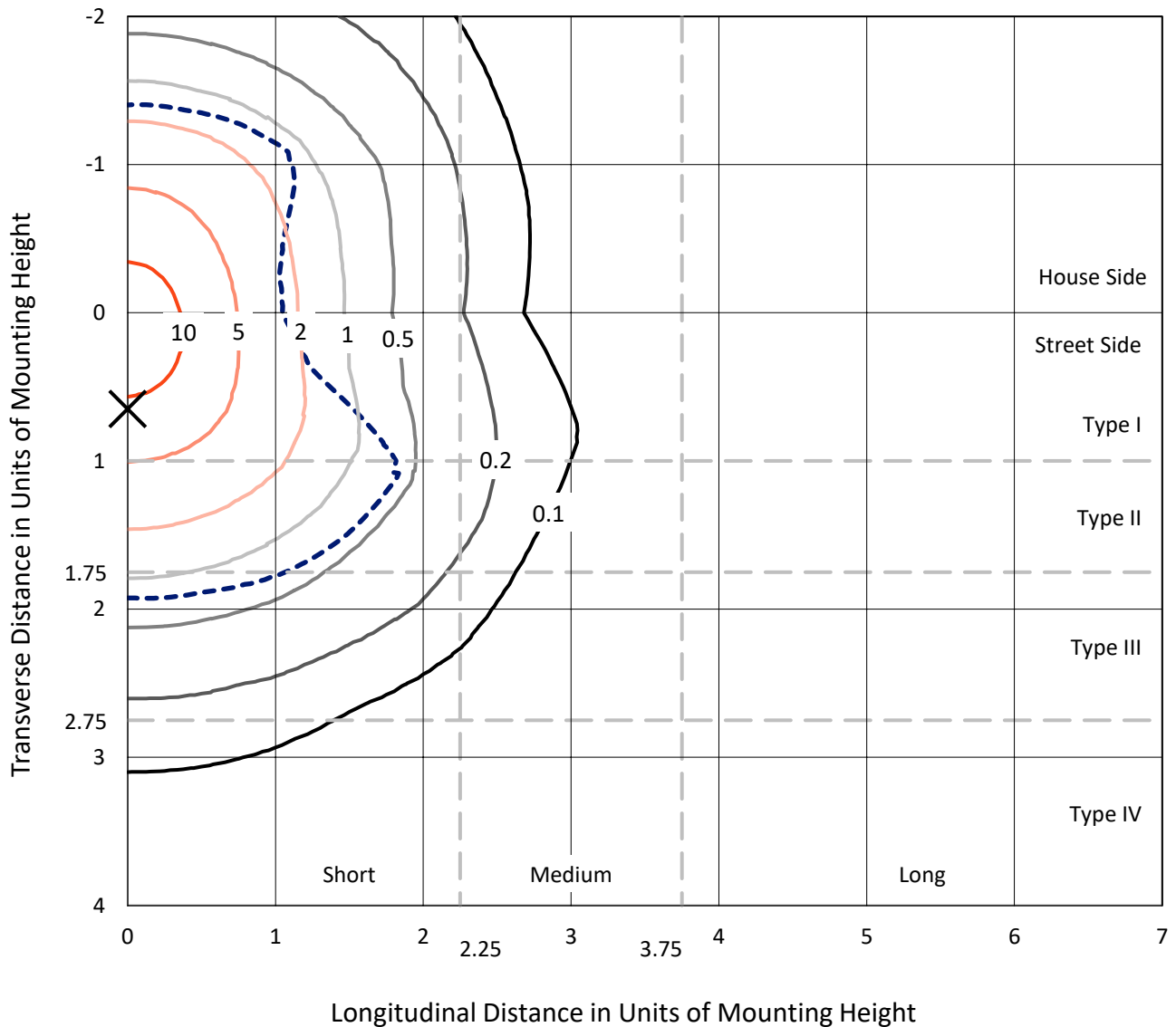
Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

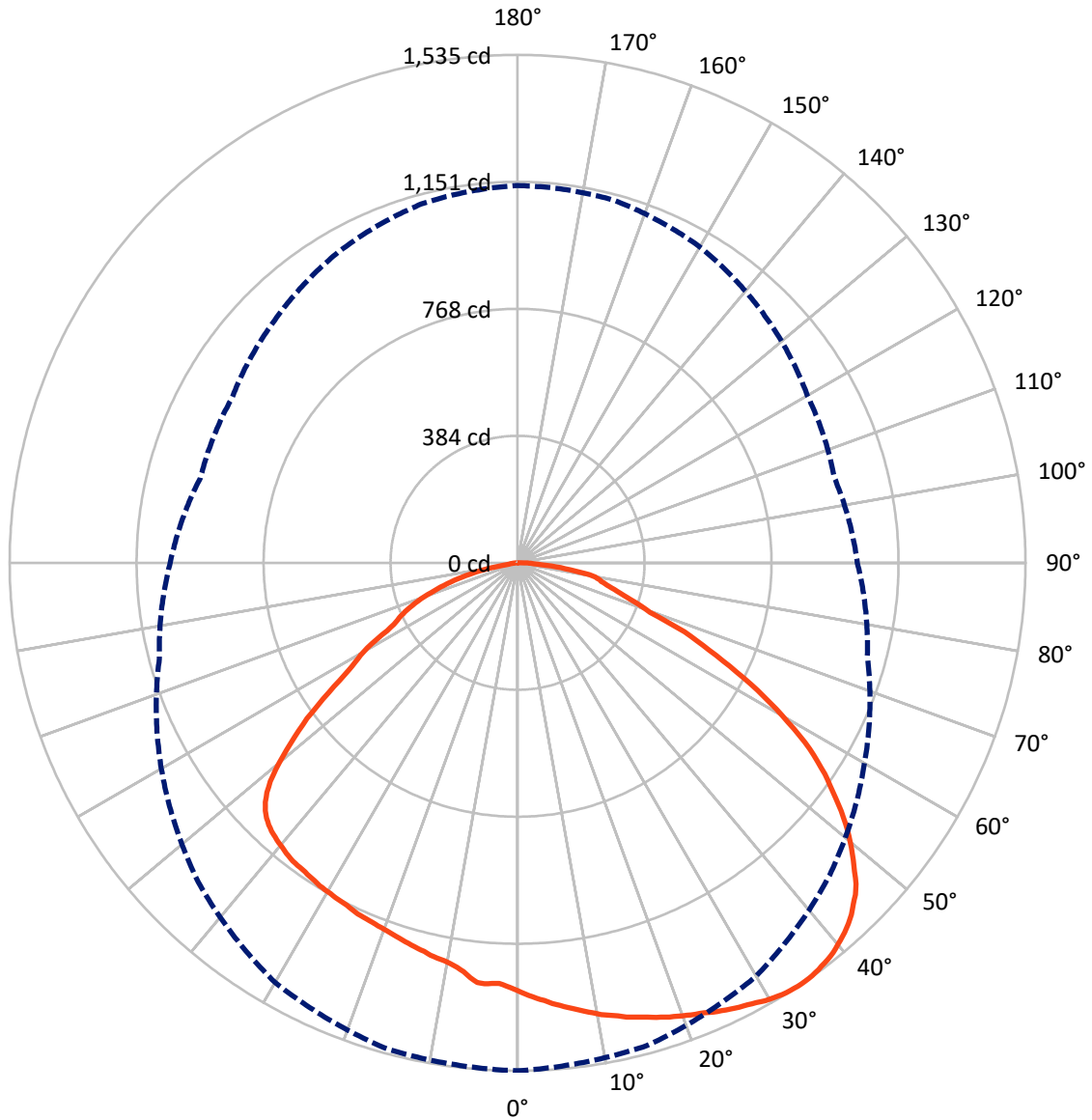
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type III - 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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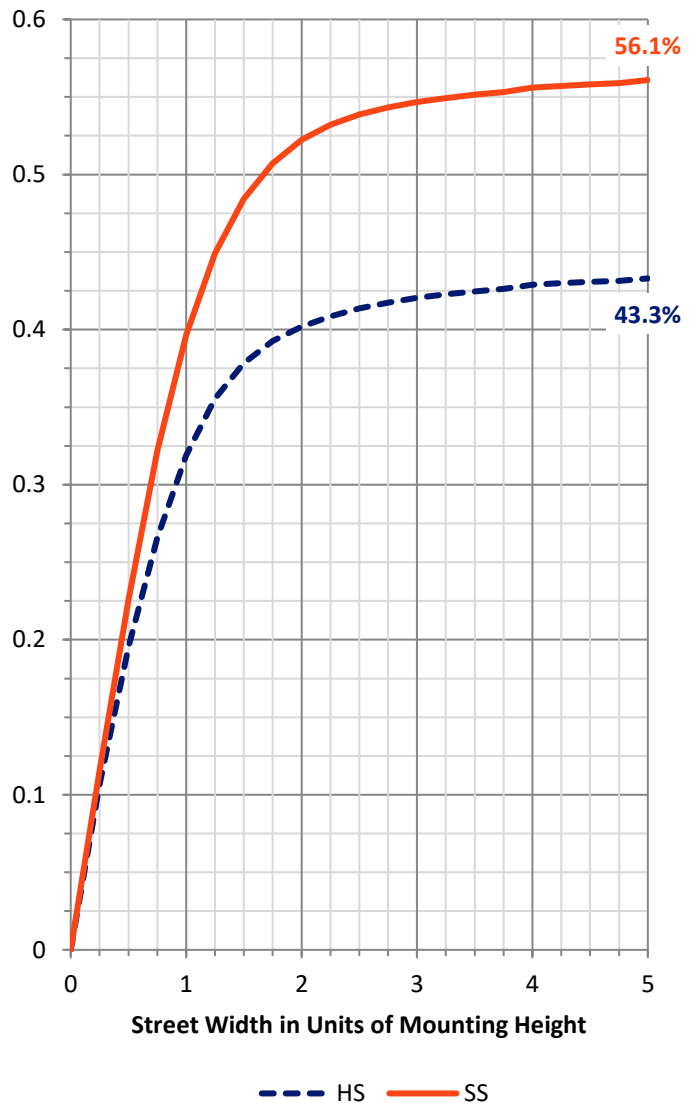
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1833.2	0.0	1833.2
	% Fixture	43.6	0.0	43.6
Street Side	Lumens	2375.8	0.0	2375.8
	% Fixture	56.4	0.0	56.4
Total	Lumens	4209.0	0.0	4209.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	2.9
10°-20°	362.3	8.6
20°-30°	572.7	13.6
30°-40°	735.8	17.5
40°-50°	821.6	19.5
50°-60°	760.9	18.1
60°-70°	525.7	12.5
70°-80°	249.1	5.9
80°-90°	57.0	1.4
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°	4209.0	100.0
0°-180°	4209.0	100.0

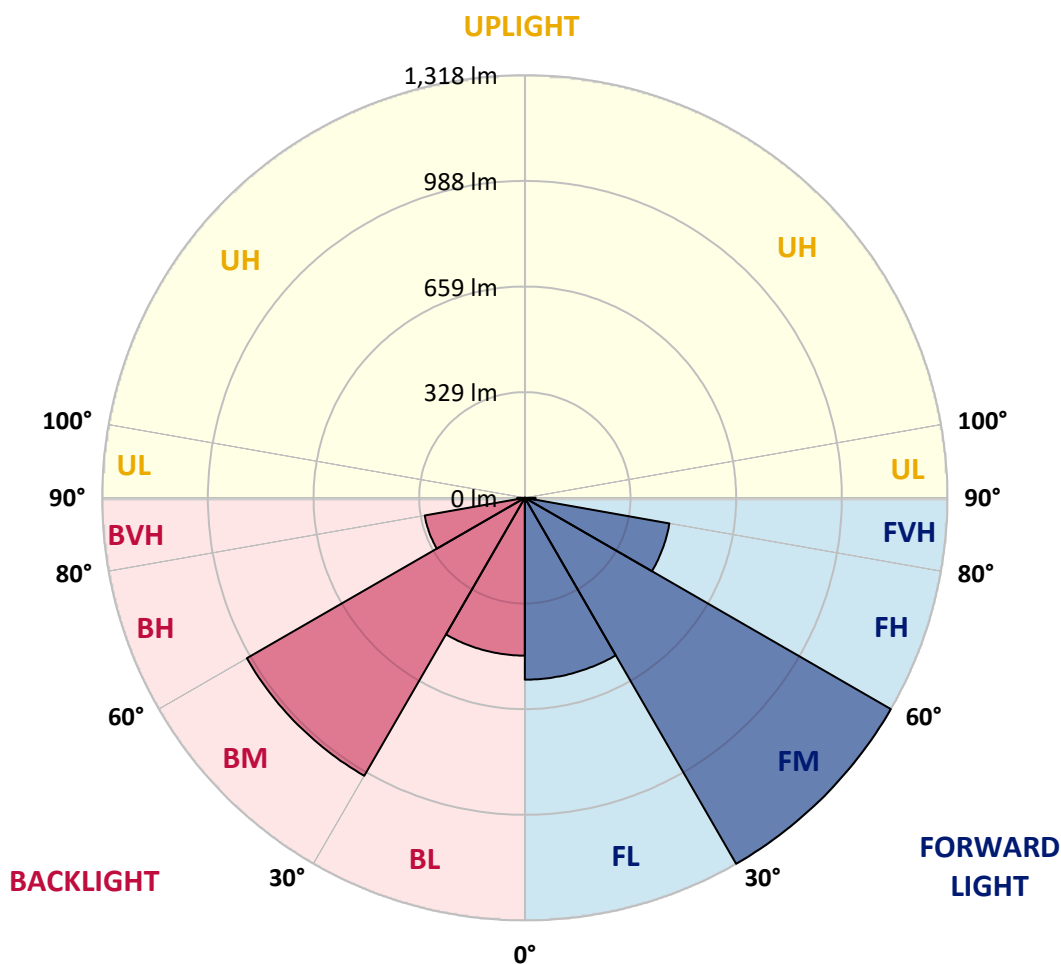


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	566.9	13.5			
FM (30°-60°)	1317.6	31.3			
FH (60°-80°)	457.8	10.9			G0/660
FVH (80°-90°)	33.5	0.8			G1/100
BL (0°-30°)	492.0	11.7	B1/500		
BM (30°-60°)	1000.8	23.8	B2/2500		
BH (60°-80°)	317.0	7.5	B1/500		G1/500
BVH (80°-90°)	23.4	0.6			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0
1°	1307.9	1308.0	1305.9	1304.4	1303.5	1300.8	1296.1	1294.4	1292.4	1291.7	1288.1
2°	1317.3	1316.8	1314.6	1309.9	1307.3	1302.2	1295.9	1290.5	1285.8	1283.0	1281.8
3°	1325.3	1326.6	1321.5	1317.2	1310.3	1304.1	1294.1	1286.6	1281.2	1275.8	1274.2
4°	1335.9	1335.5	1329.5	1321.1	1314.5	1302.0	1291.6	1281.1	1275.4	1270.1	1272.4
5°	1344.0	1342.2	1337.0	1326.0	1314.8	1302.1	1288.8	1278.5	1270.9	1270.6	1274.1
6°	1353.0	1349.2	1342.8	1331.8	1318.7	1301.8	1283.5	1272.5	1266.8	1273.6	1275.9
7°	1361.0	1357.4	1349.3	1335.7	1319.6	1299.8	1279.9	1266.4	1266.3	1273.7	1269.6
8°	1370.7	1366.5	1354.7	1338.3	1320.8	1299.3	1275.9	1261.4	1266.0	1266.7	1256.0
9°	1379.3	1374.7	1361.9	1343.4	1320.5	1296.4	1271.1	1258.1	1266.0	1257.4	1240.4
10°	1388.4	1382.2	1368.2	1347.6	1321.3	1294.2	1265.8	1254.2	1260.5	1240.6	1231.1
11°	1395.4	1389.9	1374.1	1351.3	1322.0	1292.1	1261.2	1251.2	1252.5	1228.9	1224.9
12°	1403.0	1396.4	1379.4	1352.7	1321.8	1287.1	1255.0	1248.6	1238.1	1219.7	1217.3
13°	1412.0	1404.4	1385.7	1356.5	1321.1	1284.2	1248.1	1244.3	1223.1	1211.5	1211.4
14°	1418.4	1410.7	1388.1	1358.8	1321.1	1280.8	1239.5	1240.2	1211.8	1205.0	1207.1
15°	1425.0	1417.1	1392.6	1360.1	1319.9	1275.7	1232.4	1231.6	1201.5	1197.0	1200.7
16°	1432.6	1421.8	1396.6	1361.3	1316.8	1271.9	1224.6	1224.0	1191.6	1190.6	1194.6
17°	1439.9	1427.7	1399.6	1361.4	1315.4	1264.8	1217.8	1209.8	1182.8	1183.5	1188.2
18°	1447.5	1433.4	1403.9	1359.4	1312.8	1260.3	1209.7	1195.0	1172.8	1175.5	1182.8
19°	1453.7	1439.9	1406.3	1360.5	1310.1	1253.2	1202.2	1180.4	1164.2	1168.0	1176.5
20°	1460.3	1445.8	1410.5	1361.1	1305.2	1246.3	1194.6	1166.7	1154.9	1161.5	1170.0
21°	1466.2	1451.8	1414.3	1360.5	1301.8	1238.2	1188.2	1154.2	1144.6	1152.4	1164.9
22°	1472.1	1455.6	1417.3	1360.3	1295.2	1230.0	1180.4	1142.7	1134.0	1144.9	1159.0
23°	1480.7	1462.1	1418.7	1358.4	1290.5	1222.8	1173.1	1130.0	1124.4	1137.2	1152.8
24°	1487.6	1468.0	1422.0	1357.5	1283.7	1212.5	1165.4	1117.5	1114.4	1128.7	1146.9
25°	1494.2	1473.1	1424.7	1356.3	1277.9	1200.8	1153.8	1105.1	1103.4	1120.7	1142.3
26°	1501.1	1478.2	1427.5	1353.9	1271.3	1190.1	1142.7	1093.0	1091.3	1112.4	1138.4
27°	1505.7	1484.0	1429.5	1351.6	1265.1	1179.2	1130.6	1079.4	1081.4	1104.3	1132.7
28°	1512.4	1489.1	1431.5	1348.6	1256.2	1166.3	1114.5	1065.1	1069.9	1097.7	1127.5
29°	1520.7	1493.9	1433.2	1346.1	1248.5	1153.1	1097.5	1051.6	1059.4	1090.1	1122.1
30°	1525.6	1498.5	1435.2	1342.4	1239.2	1139.2	1081.0	1036.4	1047.0	1080.5	1115.7
31°	1530.5	1503.8	1437.7	1339.6	1231.1	1125.8	1062.1	1021.4	1034.9	1073.6	1111.8
32°	1533.0	1507.5	1439.1	1337.1	1222.5	1109.8	1044.3	1007.3	1023.4	1065.4	1107.1
33°	1535.1	1510.7	1442.2	1334.0	1210.7	1094.3	1026.8	991.4	1011.4	1056.5	1102.0
34°	1534.5	1511.0	1444.1	1329.2	1201.3	1079.1	1008.1	974.5	998.4	1047.8	1096.1
35°	1533.2	1508.6	1442.9	1326.3	1191.2	1062.6	989.9	959.5	986.8	1038.6	1090.8
36°	1529.4	1508.4	1443.0	1323.0	1179.9	1044.7	972.2	944.2	973.8	1031.4	1084.1
37°	1524.3	1502.6	1441.3	1319.5	1169.7	1027.2	952.6	927.5	962.3	1020.8	1078.0
38°	1519.6	1499.1	1437.7	1316.0	1157.1	1010.4	933.4	910.6	948.0	1011.4	1071.8
39°	1510.9	1490.9	1434.8	1312.4	1147.4	992.8	913.4	893.2	935.1	1000.2	1066.9
40°	1501.7	1481.3	1429.8	1307.5	1136.4	974.6	893.8	876.4	923.3	990.5	1061.9
41°	1492.1	1472.7	1423.8	1302.6	1123.7	957.6	874.7	861.3	908.7	982.6	1056.1
42°	1479.9	1463.8	1413.8	1297.7	1113.7	938.0	855.6	846.3	894.7	974.6	1048.0
43°	1466.0	1450.3	1404.0	1291.6	1104.1	919.3	836.4	830.6	880.2	965.7	1042.0
44°	1447.4	1434.8	1392.6	1286.3	1092.2	900.6	815.7	813.3	867.5	953.9	1036.0



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	1431.3	1419.2	1381.5	1280.3	1081.4	882.5	794.1	795.4	854.7	943.0	1029.2
46°	1410.2	1399.6	1367.8	1272.9	1071.4	864.9	772.6	777.8	842.0	933.6	1021.6
47°	1381.7	1378.7	1351.6	1264.7	1060.8	845.5	750.0	759.6	828.6	925.2	1010.6
48°	1355.0	1354.3	1334.3	1254.0	1051.0	825.4	727.9	740.8	812.6	914.6	998.2
49°	1326.4	1325.0	1315.2	1241.7	1041.4	805.3	706.0	721.3	797.8	903.1	986.1
50°	1298.1	1298.2	1292.3	1228.8	1031.5	784.1	683.4	700.4	784.4	891.2	967.6
51°	1267.2	1268.0	1266.7	1215.8	1022.5	762.8	661.0	679.4	770.6	879.1	944.9
52°	1232.8	1236.9	1239.2	1200.3	1011.6	740.9	637.5	660.0	755.8	867.0	916.6
53°	1195.8	1201.1	1211.5	1184.3	1001.6	719.1	615.2	640.5	740.0	854.8	879.8
54°	1160.3	1164.8	1178.0	1163.7	991.8	696.9	591.5	620.5	722.5	842.6	843.2
55°	1126.9	1129.6	1143.1	1139.2	977.2	675.2	568.5	600.2	705.5	824.2	806.5
56°	1087.1	1093.9	1107.6	1113.7	963.9	653.3	544.9	579.7	688.6	798.7	765.9
57°	1046.6	1055.7	1068.8	1086.5	949.7	631.9	520.1	559.5	671.5	768.3	722.3
58°	999.8	1014.3	1032.7	1055.6	934.4	609.8	494.1	538.5	653.6	731.8	674.4
59°	949.3	968.3	992.5	1022.2	917.9	587.3	470.5	517.0	634.4	693.9	630.3
60°	898.4	917.0	953.5	983.1	898.0	565.0	445.0	494.0	614.4	655.2	587.5
61°	847.7	867.9	909.1	941.6	875.3	544.4	421.2	470.5	594.5	613.1	550.8
62°	794.5	814.7	858.9	896.5	851.8	523.4	398.9	448.4	571.5	572.1	526.7
63°	738.9	760.2	809.9	847.9	826.7	503.0	375.7	426.2	544.9	530.9	502.1
64°	687.7	703.3	763.2	799.2	798.9	483.9	353.3	403.2	514.2	491.6	467.0
65°	636.1	648.0	714.2	746.7	765.5	465.7	332.1	381.4	480.3	464.4	427.1
66°	592.6	595.7	662.1	691.6	727.5	449.1	310.4	358.6	444.8	444.5	396.7
67°	546.1	550.8	607.7	637.1	685.1	433.9	288.3	336.6	406.7	419.0	377.1
68°	486.5	498.9	550.7	591.4	635.3	419.8	266.6	315.1	368.4	387.4	361.8
69°	427.3	438.5	494.2	558.5	582.6	408.7	244.7	293.2	332.3	363.4	346.0
70°	399.7	407.7	428.0	524.6	521.9	397.6	222.5	272.3	302.9	346.3	330.6
71°	373.2	377.9	383.5	478.2	448.3	386.5	200.4	250.9	283.5	330.0	316.6
72°	346.6	348.2	339.4	406.6	382.3	374.2	179.1	228.0	262.4	312.5	302.0
73°	324.1	329.4	295.2	353.8	316.4	356.1	158.3	204.0	242.4	295.2	285.4
74°	303.5	308.9	276.1	301.5	250.6	327.5	138.7	179.4	228.4	278.6	267.4
75°	286.2	286.1	256.6	249.3	269.7	294.4	120.1	153.3	216.6	263.1	248.4
76°	271.0	261.8	239.0	224.7	247.7	263.6	104.2	129.2	203.5	246.0	226.8
77°	259.2	237.8	220.9	211.4	174.4	232.0	88.2	112.7	190.7	230.6	202.3
78°	250.9	218.8	199.7	198.3	126.5	191.3	72.3	96.2	179.0	215.9	179.6
79°	239.5	205.3	180.9	172.1	100.7	152.2	59.3	79.6	166.6	201.6	159.4
80°	220.0	194.4	167.1	138.9	102.6	119.2	47.6	69.3	154.7	183.5	143.9
81°	190.5	181.7	154.2	117.0	106.2	88.0	37.2	59.0	142.1	164.1	127.8
82°	159.4	164.0	140.9	102.2	76.5	62.5	28.1	49.7	129.4	145.2	97.4
83°	130.9	145.9	122.2	89.1	49.8	42.3	20.9	40.8	116.6	131.1	66.9
84°	104.2	129.3	95.1	78.3	40.5	32.9	15.2	32.5	98.0	105.2	25.7
85°	72.2	101.5	73.4	66.6	31.2	23.7	11.5	24.8	79.5	79.4	18.3
86°	49.9	74.9	54.2	45.8	21.8	14.5	7.8	17.5	66.4	53.5	10.9
87°	39.9	43.7	36.1	25.6	15.5	8.4	4.1	11.9	44.1	27.6	3.5
88°	30.0	32.6	27.1	5.4	8.2	3.4	1.9	6.3	29.4	1.8	1.3
89°	20.1	21.8	18.2	3.3	5.5	1.8	0.6	0.8	14.7	0.5	0.4



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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: P1449900
 CATALOG NUMBER: TWC60_T3_24W_4000K

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449900
CATALOG NUMBER: TWC60_T3_24W_4000K

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: P1449900

CATALOG NUMBER: TWC60_T3_24W_4000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0	1298.0
1°	1288.3	1287.8	1288.2	1290.5	1292.1	1293.1	1295.8	1297.4	1300.6	1302.7	1304.6
2°	1279.7	1279.8	1281.7	1282.4	1284.9	1288.3	1293.7	1295.6	1301.5	1305.5	1311.2
3°	1273.0	1272.5	1273.7	1275.3	1277.8	1285.0	1289.9	1294.7	1303.3	1309.6	1318.0
4°	1272.9	1273.7	1273.6	1271.4	1272.5	1277.3	1285.1	1294.2	1303.6	1313.6	1322.7
5°	1275.8	1276.5	1275.1	1273.0	1269.6	1273.0	1281.1	1291.9	1304.4	1317.0	1327.6
6°	1274.3	1274.3	1275.5	1273.8	1270.1	1266.8	1276.4	1288.5	1304.4	1319.1	1333.2
7°	1264.9	1262.0	1266.7	1271.0	1270.6	1264.1	1272.3	1284.1	1302.7	1322.2	1338.2
8°	1246.8	1246.4	1249.5	1261.1	1268.5	1262.3	1267.3	1281.8	1303.6	1324.0	1343.0
9°	1236.9	1236.3	1236.5	1245.4	1260.8	1261.5	1260.4	1276.0	1302.1	1326.9	1348.3
10°	1230.0	1228.2	1228.9	1233.2	1247.8	1259.4	1255.1	1271.6	1300.2	1327.5	1352.5
11°	1223.1	1223.0	1223.2	1225.0	1233.0	1255.7	1248.7	1267.3	1297.8	1327.7	1356.2
12°	1218.2	1218.9	1218.0	1216.6	1221.6	1248.2	1244.4	1261.4	1295.7	1330.1	1359.5
13°	1213.5	1214.7	1213.9	1210.8	1212.7	1235.6	1239.9	1256.2	1291.5	1330.4	1363.8
14°	1208.5	1207.9	1208.2	1205.5	1204.9	1220.6	1236.5	1247.8	1290.0	1330.1	1365.6
15°	1203.5	1203.7	1202.8	1198.8	1196.3	1206.8	1231.7	1242.5	1286.1	1328.4	1367.5
16°	1199.1	1198.8	1196.0	1190.6	1188.6	1194.9	1226.2	1234.6	1282.7	1328.1	1369.8
17°	1194.5	1194.0	1192.3	1185.1	1179.9	1184.2	1218.2	1226.0	1277.4	1326.3	1371.9
18°	1188.6	1189.3	1185.1	1178.2	1172.8	1174.0	1209.1	1219.2	1273.0	1325.2	1372.1
19°	1183.7	1185.0	1180.6	1171.9	1163.3	1163.4	1197.7	1209.7	1267.3	1322.6	1373.3
20°	1179.5	1180.4	1175.9	1165.0	1154.7	1153.7	1181.8	1201.3	1261.2	1320.4	1374.5
21°	1175.2	1177.2	1170.6	1158.4	1146.7	1144.0	1168.0	1191.7	1255.1	1315.6	1374.6
22°	1170.0	1173.4	1165.5	1152.6	1137.8	1131.7	1151.6	1183.4	1246.5	1312.3	1375.6
23°	1168.1	1170.6	1161.6	1145.5	1129.3	1120.5	1138.1	1172.8	1238.3	1307.6	1375.9
24°	1164.7	1168.0	1158.9	1138.8	1119.5	1108.2	1125.8	1163.4	1229.0	1302.2	1375.4
25°	1159.6	1165.7	1155.0	1133.0	1110.7	1097.1	1111.5	1153.7	1219.8	1298.7	1374.3
26°	1157.6	1161.0	1151.5	1127.5	1101.6	1085.9	1097.5	1144.6	1209.4	1293.7	1375.9
27°	1152.2	1156.5	1146.2	1121.8	1092.3	1073.5	1084.2	1135.2	1199.0	1287.4	1373.2
28°	1149.2	1154.5	1142.2	1116.3	1082.8	1061.3	1070.3	1126.7	1187.7	1281.1	1372.7
29°	1144.7	1152.0	1136.4	1108.5	1073.8	1048.0	1055.2	1113.2	1174.6	1274.4	1371.4
30°	1142.1	1148.6	1132.7	1103.2	1065.9	1035.9	1041.1	1099.5	1161.7	1267.4	1370.5
31°	1141.5	1146.6	1130.3	1095.9	1057.2	1021.7	1024.3	1085.4	1148.6	1259.6	1368.9
32°	1137.8	1144.5	1126.8	1089.7	1047.5	1008.9	1010.2	1068.9	1134.4	1251.2	1367.2
33°	1133.7	1140.2	1122.7	1084.0	1037.5	996.6	992.2	1049.8	1120.7	1243.2	1364.7
34°	1127.8	1137.4	1118.0	1077.7	1025.7	983.5	976.7	1028.6	1105.4	1234.0	1363.7
35°	1123.1	1133.4	1113.3	1071.3	1016.4	969.1	959.3	1008.9	1091.4	1226.4	1363.3
36°	1120.7	1131.9	1108.1	1065.1	1005.8	955.0	942.8	989.0	1076.6	1217.4	1360.0
37°	1119.3	1130.1	1105.2	1056.6	995.7	941.3	924.8	969.0	1060.7	1208.6	1359.5
38°	1117.4	1126.6	1102.9	1049.9	984.6	927.3	907.6	949.4	1046.0	1200.4	1355.0
39°	1112.1	1122.0	1099.2	1042.9	974.3	912.1	890.1	928.8	1030.1	1190.6	1350.9
40°	1106.0	1116.4	1092.8	1036.5	961.5	897.3	872.3	909.2	1012.6	1182.4	1347.7
41°	1102.4	1111.8	1086.6	1028.8	950.4	881.8	854.5	887.5	996.4	1173.5	1343.0
42°	1095.8	1105.8	1081.0	1020.2	941.2	868.6	836.7	868.0	977.9	1164.7	1338.5
43°	1090.6	1100.4	1075.7	1013.7	930.7	855.3	818.8	847.0	960.1	1157.0	1332.4
44°	1082.6	1092.1	1068.4	1007.4	920.9	841.9	799.2	824.5	942.6	1149.5	1325.6



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 CATALOG NUMBER: TWC60_T3_24W_4000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1072.7	1082.4	1060.1	999.4	909.2	824.0	779.1	801.8	924.0	1142.2	1316.6
46°	1061.6	1068.4	1049.3	990.9	896.7	806.6	760.8	779.4	904.9	1133.7	1305.7
47°	1047.4	1050.7	1037.2	982.6	885.0	790.3	740.9	756.5	885.7	1126.1	1295.6
48°	1026.6	1027.2	1018.9	972.5	874.6	775.0	722.0	733.7	867.9	1118.3	1282.3
49°	1001.1	997.5	997.0	962.0	863.1	759.1	701.3	710.9	848.0	1109.4	1269.9
50°	968.0	961.3	969.8	947.8	851.6	742.5	680.7	687.5	829.6	1101.9	1254.7
51°	929.8	919.0	935.5	932.3	840.2	725.7	659.7	665.3	812.8	1093.1	1238.1
52°	889.0	876.3	896.2	909.9	825.8	709.2	638.1	641.7	795.0	1082.1	1217.8
53°	848.2	833.6	856.9	879.3	811.8	694.2	615.9	617.2	777.0	1068.5	1194.6
54°	807.3	791.0	817.6	848.7	798.3	677.5	593.9	593.6	760.2	1055.3	1169.1
55°	759.5	741.5	773.4	818.0	783.2	658.7	572.8	568.5	743.8	1042.0	1143.5
56°	710.6	693.0	724.4	777.8	767.4	640.2	551.9	543.2	728.0	1025.7	1113.9
57°	662.2	645.7	676.6	737.7	748.0	620.3	528.7	518.3	712.1	1007.0	1080.4
58°	616.9	604.5	629.6	694.7	723.6	600.0	505.6	493.7	696.2	988.5	1045.4
59°	582.5	575.2	589.6	649.4	694.5	580.9	483.0	469.8	680.4	965.0	1005.6
60°	556.3	550.7	559.1	605.7	659.3	560.2	460.4	446.4	665.4	941.0	963.9
61°	530.1	521.7	534.9	562.1	622.7	540.2	438.3	422.2	647.7	914.7	921.9
62°	498.1	485.4	506.4	528.1	583.3	519.7	415.3	399.2	631.5	886.0	878.3
63°	455.9	443.9	467.7	504.2	540.7	496.8	391.1	376.3	614.4	851.5	832.4
64°	421.6	417.5	427.6	480.2	499.7	474.7	367.5	353.3	598.2	811.8	782.5
65°	403.1	402.2	403.3	447.7	459.7	451.6	344.3	331.2	583.0	768.4	728.8
66°	388.0	387.0	386.7	409.7	425.2	424.5	320.7	308.1	568.4	720.5	677.8
67°	373.6	370.6	373.0	383.4	402.3	392.2	298.1	284.6	552.5	669.2	635.5
68°	356.9	352.3	357.5	363.4	383.6	357.5	275.7	260.9	534.2	611.0	595.8
69°	338.8	332.2	341.3	345.8	357.3	322.9	254.4	236.5	510.4	546.0	555.5
70°	320.0	311.4	324.8	328.6	334.0	286.7	233.2	212.9	482.8	471.8	505.7
71°	298.5	287.6	305.8	312.4	318.3	253.0	212.5	189.5	448.4	407.7	440.7
72°	275.7	265.2	284.9	298.8	305.0	225.1	193.3	167.0	414.0	381.9	385.2
73°	254.0	244.5	262.6	285.2	289.7	205.8	173.7	146.5	376.9	357.1	329.7
74°	231.3	221.6	240.5	271.5	274.5	186.8	155.1	127.5	339.8	350.7	274.2
75°	209.1	198.3	217.3	257.0	260.0	170.8	135.3	109.4	302.7	276.1	252.6
76°	185.0	173.1	195.4	240.7	245.0	158.6	116.7	93.3	255.2	201.8	233.2
77°	162.2	149.6	173.3	221.9	229.3	146.7	99.2	78.9	192.6	164.0	216.9
78°	141.8	127.4	153.5	199.0	212.7	134.5	81.8	66.7	144.1	139.7	194.4
79°	115.5	100.2	134.1	174.4	195.9	123.1	67.0	55.8	99.6	136.8	165.7
80°	89.2	72.9	104.7	153.8	178.7	112.2	55.6	45.9	74.4	137.8	139.7
81°	62.9	45.8	75.2	138.2	160.7	100.7	46.3	37.5	64.3	103.4	121.8
82°	33.2	25.9	46.0	125.6	142.3	89.2	38.3	29.2	57.4	68.6	108.2
83°	20.6	19.9	21.9	90.8	123.4	77.7	30.7	20.9	47.0	54.5	96.8
84°	14.9	14.4	15.2	56.4	102.7	66.0	23.7	15.2	37.0	44.8	83.4
85°	10.9	10.5	11.1	38.7	82.1	53.7	17.5	10.7	27.0	37.4	63.3
86°	6.9	6.7	7.0	21.0	61.4	40.6	12.7	7.0	17.0	30.1	34.2
87°	2.9	2.8	3.0	3.5	41.0	30.2	7.9	3.9	9.9	22.8	20.8
88°	1.2	1.1	1.2	1.2	20.5	20.2	3.2	2.1	3.8	9.5	7.6
89°	0.4	0.4	0.4	0.4	0.5	10.2	0.5	0.3	2.0	6.2	4.9



REPORT NUMBER: P1449900
 CATALOG NUMBER: TWC60_T3_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: P1449900
 CATALOG NUMBER: TWC60_T3_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: P1449900
CATALOG NUMBER: TWC60_T3_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: P1449900
 CATALOG NUMBER: TWC60_T3_24W_4000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	1298.0	1298.0	1298.0
1°	1305.0	1306.7	1307.9
2°	1314.4	1317.0	1317.3
3°	1321.5	1326.4	1325.3
4°	1329.4	1333.2	1335.9
5°	1336.8	1342.4	1344.0
6°	1343.1	1351.8	1353.0
7°	1350.5	1358.3	1361.0
8°	1358.3	1367.7	1370.7
9°	1365.0	1377.0	1379.3
10°	1372.2	1384.6	1388.4
11°	1378.3	1392.2	1395.4
12°	1384.1	1398.6	1403.0
13°	1390.5	1405.3	1412.0
14°	1393.7	1413.0	1418.4
15°	1399.2	1419.1	1425.0
16°	1404.0	1426.3	1432.6
17°	1407.3	1431.2	1439.9
18°	1412.8	1439.1	1447.5
19°	1417.5	1444.5	1453.7
20°	1420.2	1450.7	1460.3
21°	1424.6	1456.7	1466.2
22°	1428.6	1464.1	1472.1
23°	1431.4	1470.0	1480.7
24°	1435.0	1477.0	1487.6
25°	1438.7	1481.9	1494.2
26°	1443.3	1488.0	1501.1
27°	1445.8	1494.1	1505.7
28°	1449.0	1500.2	1512.4
29°	1452.9	1503.9	1520.7
30°	1455.6	1510.2	1525.6
31°	1459.8	1514.8	1530.5
32°	1462.6	1518.2	1533.0
33°	1465.2	1521.2	1535.1
34°	1466.7	1520.8	1534.5
35°	1466.4	1518.9	1533.2
36°	1465.1	1517.7	1529.4
37°	1463.9	1512.2	1524.3
38°	1459.6	1505.7	1519.6
39°	1456.6	1497.4	1510.9
40°	1448.7	1489.6	1501.7
41°	1439.4	1479.2	1492.1
42°	1430.1	1469.0	1479.9
43°	1418.7	1456.8	1466.0
44°	1408.3	1439.8	1447.4



REPORT NUMBER: P1449900
CATALOG NUMBER: TWC60_T3_24W_4000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	1397.0	1421.8	1431.3
46°	1380.7	1403.4	1410.2
47°	1361.8	1379.8	1381.7
48°	1343.2	1352.2	1355.0
49°	1319.2	1323.7	1326.4
50°	1294.7	1295.9	1298.1
51°	1266.1	1264.6	1267.2
52°	1236.8	1232.6	1232.8
53°	1206.1	1197.0	1195.8
54°	1171.4	1162.0	1160.3
55°	1135.9	1126.1	1126.9
56°	1098.3	1089.9	1087.1
57°	1060.8	1050.8	1046.6
58°	1023.9	1006.4	999.8
59°	983.8	956.4	949.3
60°	940.2	906.2	898.4
61°	891.1	855.1	847.7
62°	840.6	803.3	794.5
63°	793.2	747.9	738.9
64°	743.9	694.3	687.7
65°	689.1	640.5	636.1
66°	634.9	592.6	592.6
67°	579.3	547.9	546.1
68°	522.3	493.2	486.5
69°	464.9	431.9	427.3
70°	403.5	403.9	399.7
71°	362.2	376.2	373.2
72°	321.5	348.4	346.6
73°	303.9	327.1	324.1
74°	287.8	304.8	303.5
75°	271.7	282.3	286.2
76°	254.3	260.5	271.0
77°	233.8	242.1	259.2
78°	212.0	229.3	250.9
79°	194.3	220.4	239.5
80°	178.9	210.4	220.0
81°	163.3	192.0	190.5
82°	142.8	168.2	159.4
83°	117.9	146.1	130.9
84°	92.7	123.2	104.2
85°	79.4	91.5	72.2
86°	59.1	63.4	49.9
87°	38.6	50.5	39.9
88°	29.0	37.9	30.0
89°	19.5	25.4	20.1



REPORT NUMBER: P1449900
CATALOG NUMBER: TWC60_T3_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: P1449900
CATALOG NUMBER: TWC60_T3_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: P1449900
CATALOG NUMBER: TWC60_T3_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

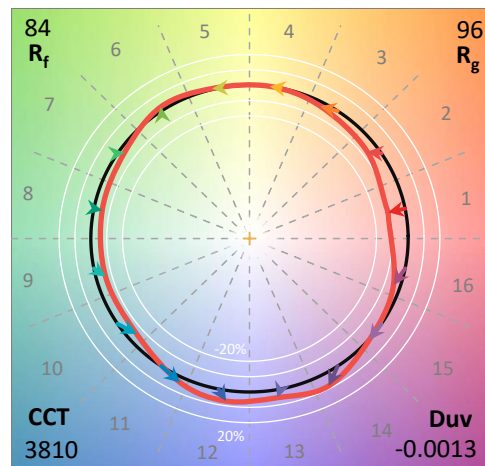
Test Information

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

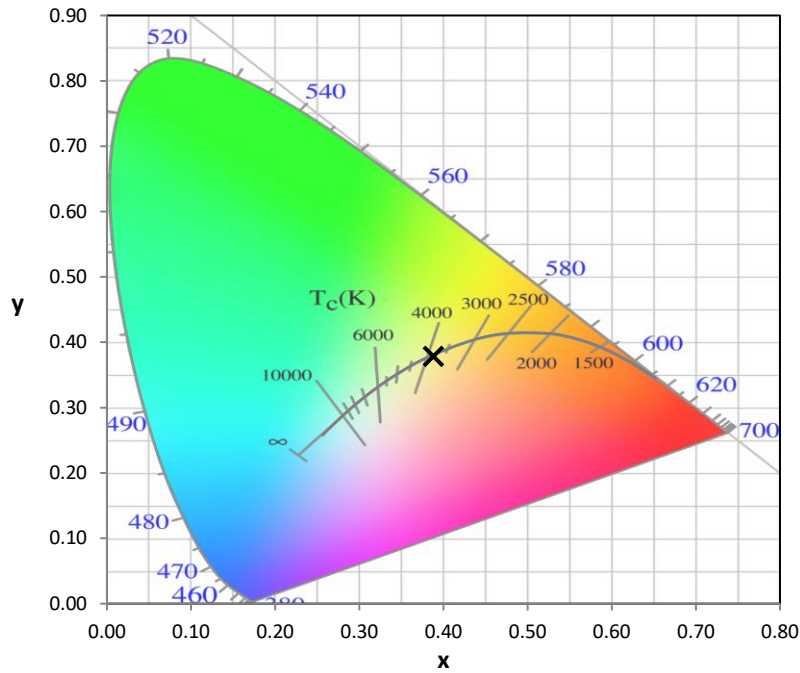
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.8

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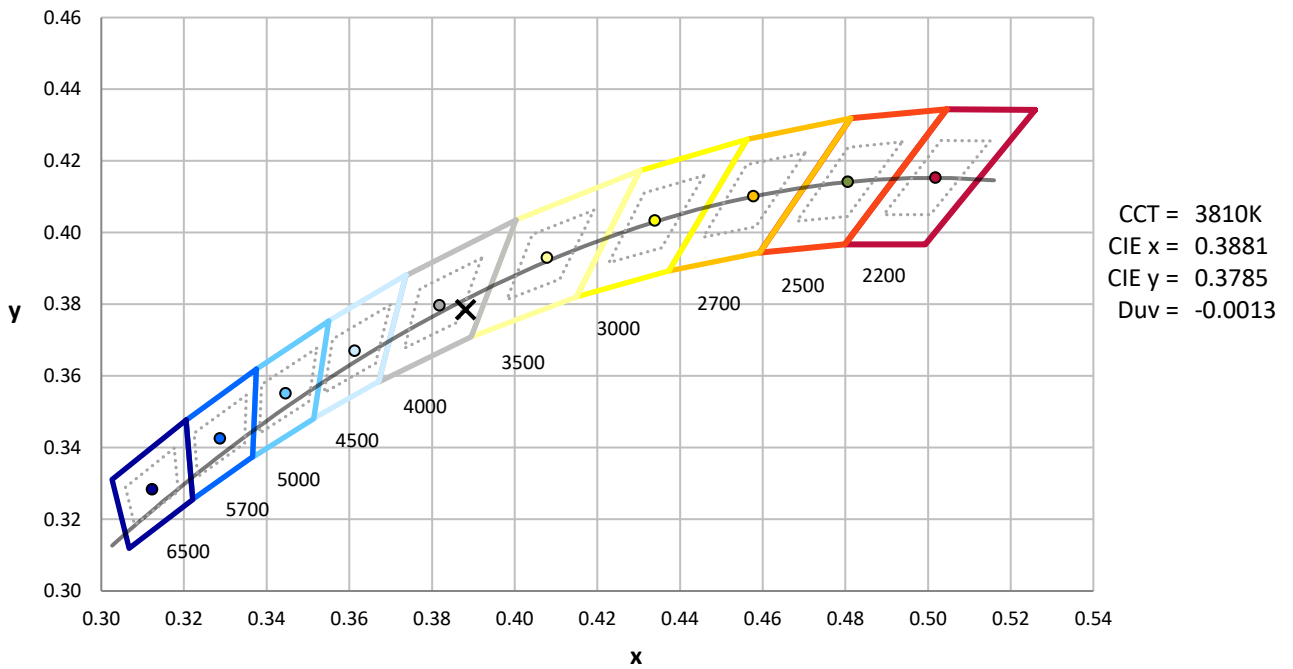
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

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CIE 1931 Chromaticity Diagram



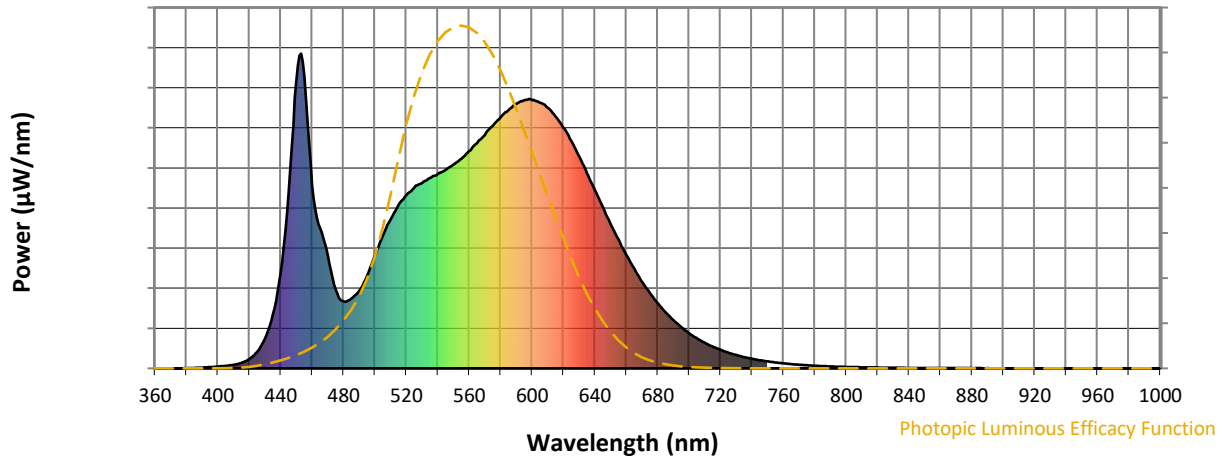
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

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Photopic Flux vs. Wavelength

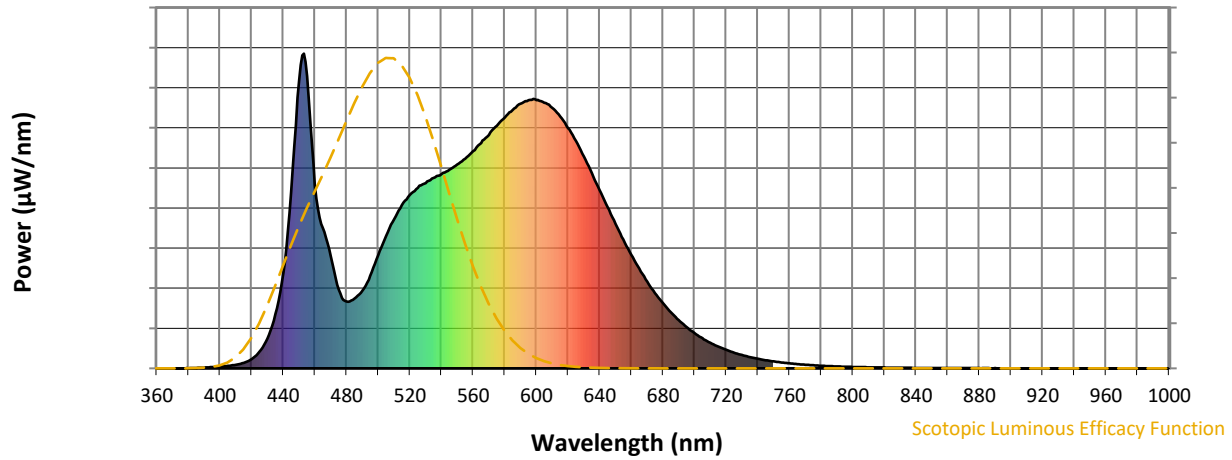


Photopic Lumens: NR

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			

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Scotopic Flux vs. Wavelength



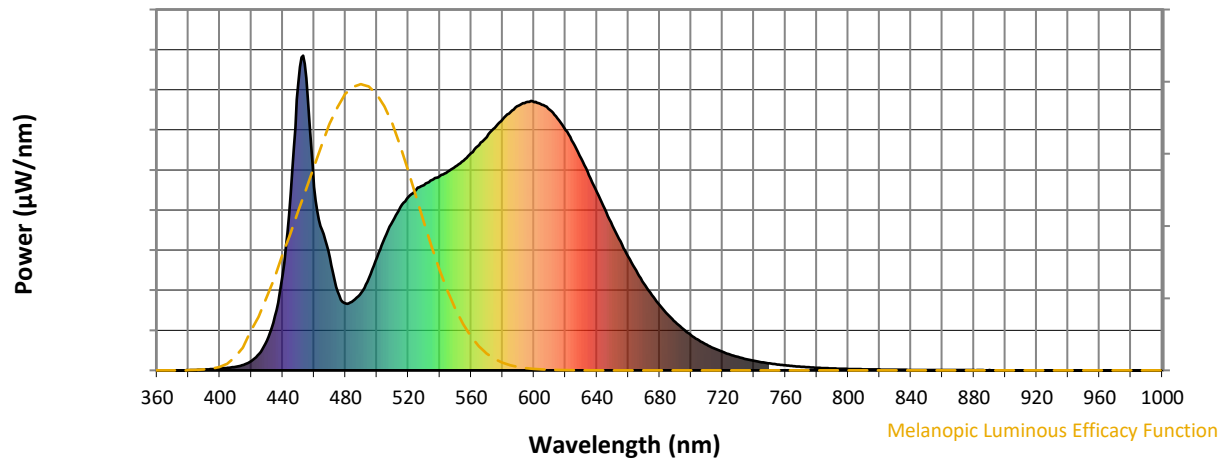
Scotopic Lumens: NR

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			

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Melanopic Flux vs. Wavelength



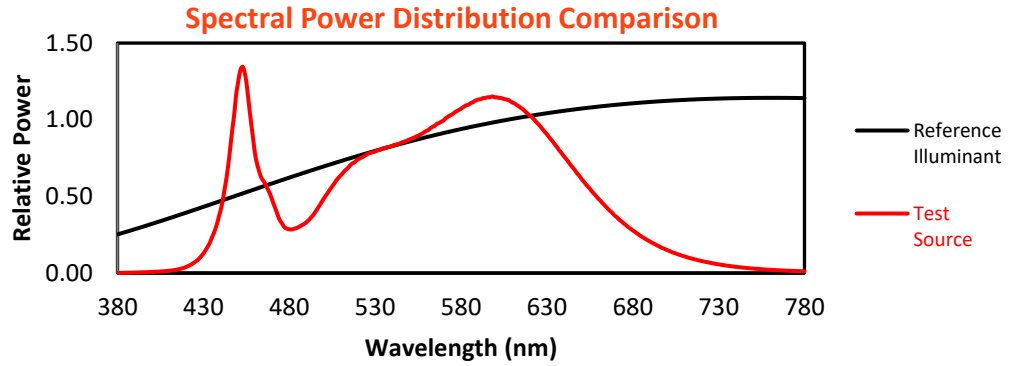
Melanopic Lumens: NR

M/P: 3.35

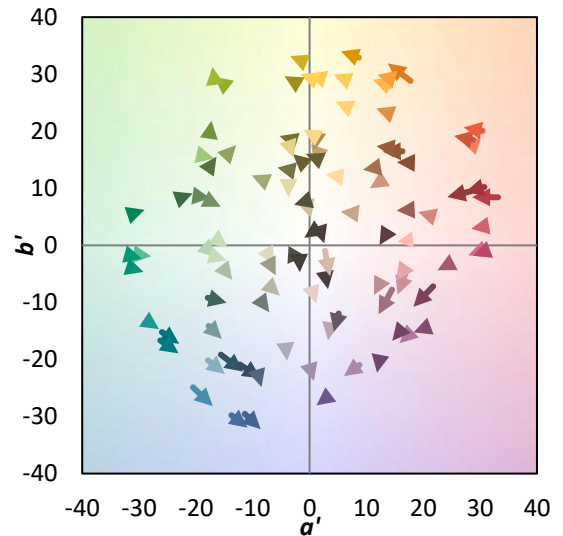
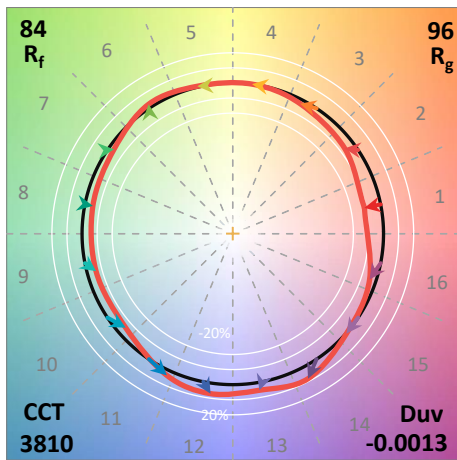
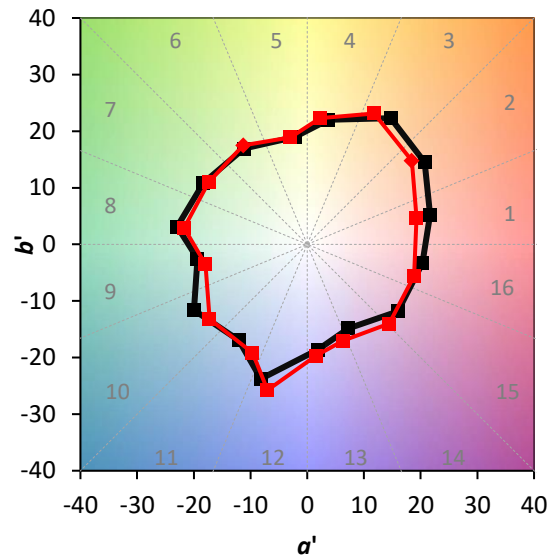
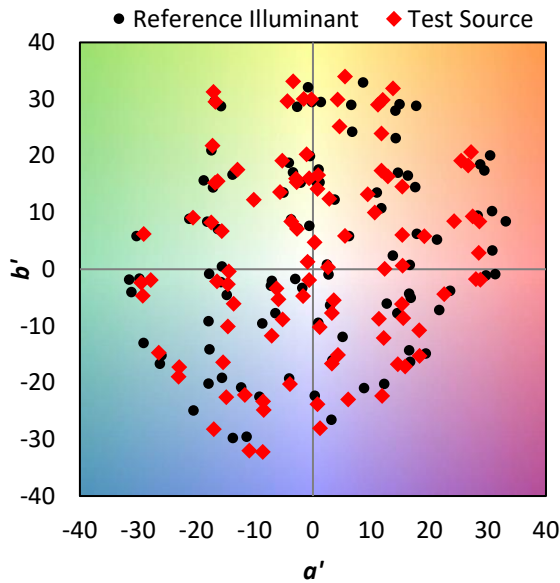
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	247	NR	620	764	NR	750	22	NR	880	1	NR
365	0	NR	495	294	NR	625	723	NR	755	19	NR	885	1	NR
370	0	NR	500	359	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 $R_a = 84.5$
 $R_9 = 15.9$

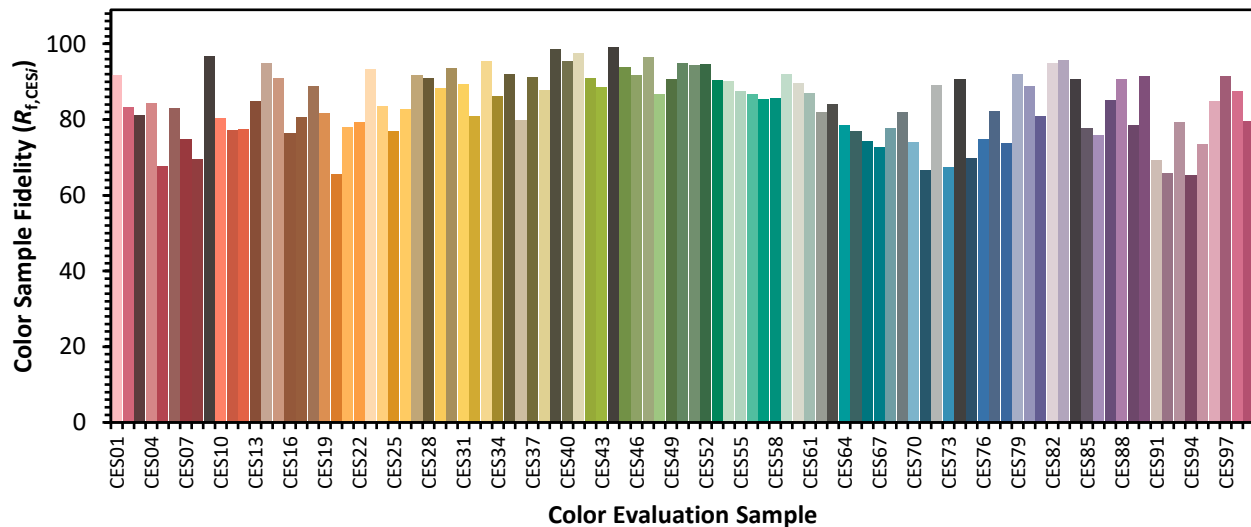


Color Vector Graphics

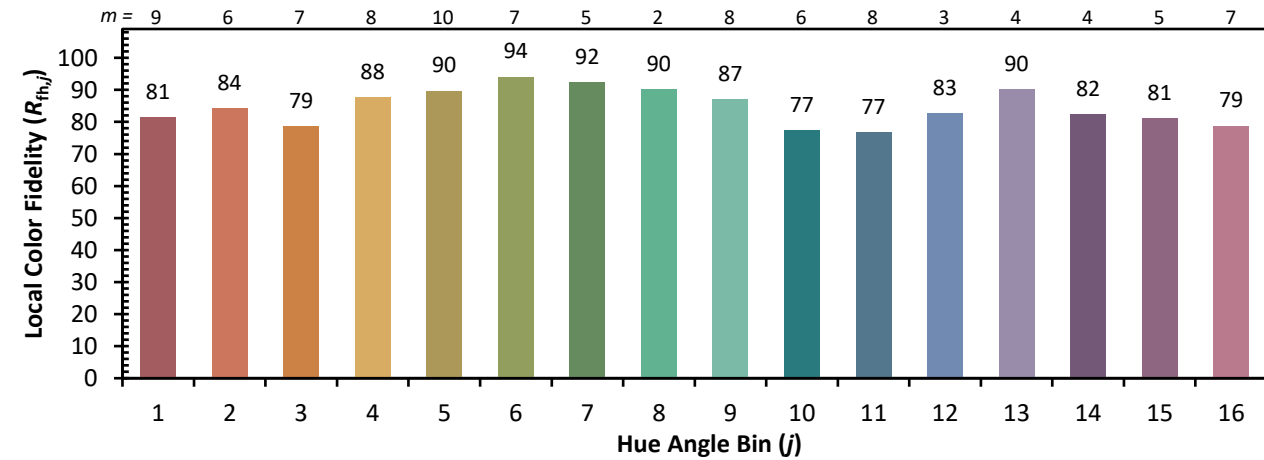
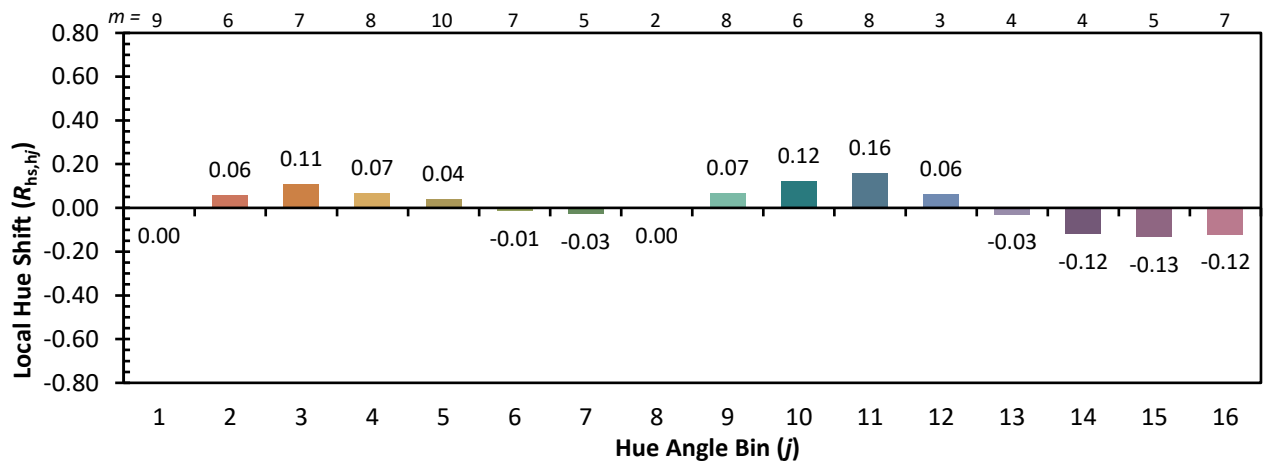
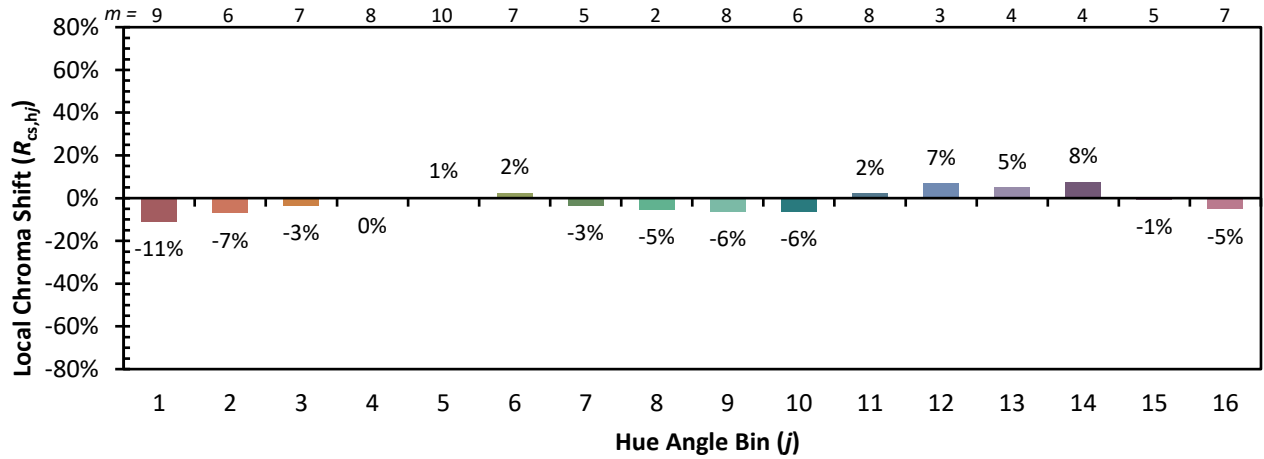


Individual Sample Fidelity Index ($R_{f,i}$)

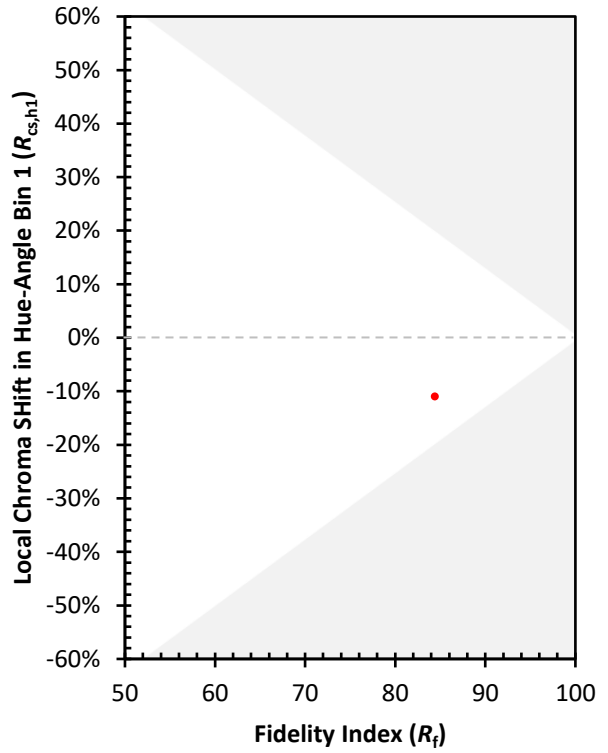
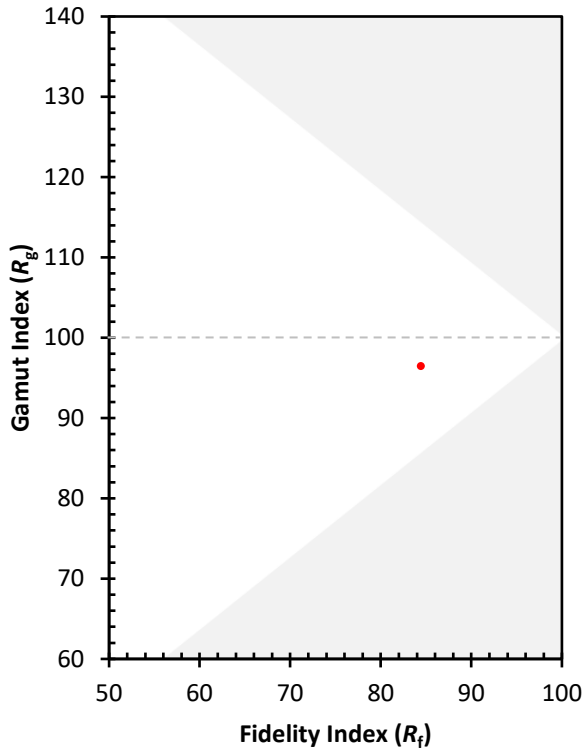
CES01 = 86	CES26 = 83	CES51 = 94	CES76 = 75
CES02 = 62	CES27 = 92	CES52 = 95	CES77 = 82
CES03 = 31	CES28 = 91	CES53 = 90	CES78 = 74
CES04 = 70	CES29 = 88	CES54 = 90	CES79 = 92
CES05 = 48	CES30 = 94	CES55 = 88	CES80 = 89
CES06 = 51	CES31 = 89	CES56 = 87	CES81 = 81
CES07 = 41	CES32 = 81	CES57 = 86	CES82 = 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)