

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: P1449911

Luminaire Tested: **TWC60_T4_24W_3000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449911
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_3000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T4 distribution, 24W
3000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3796 lumens
Efficiency: N/A
Efficacy: 152.4 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

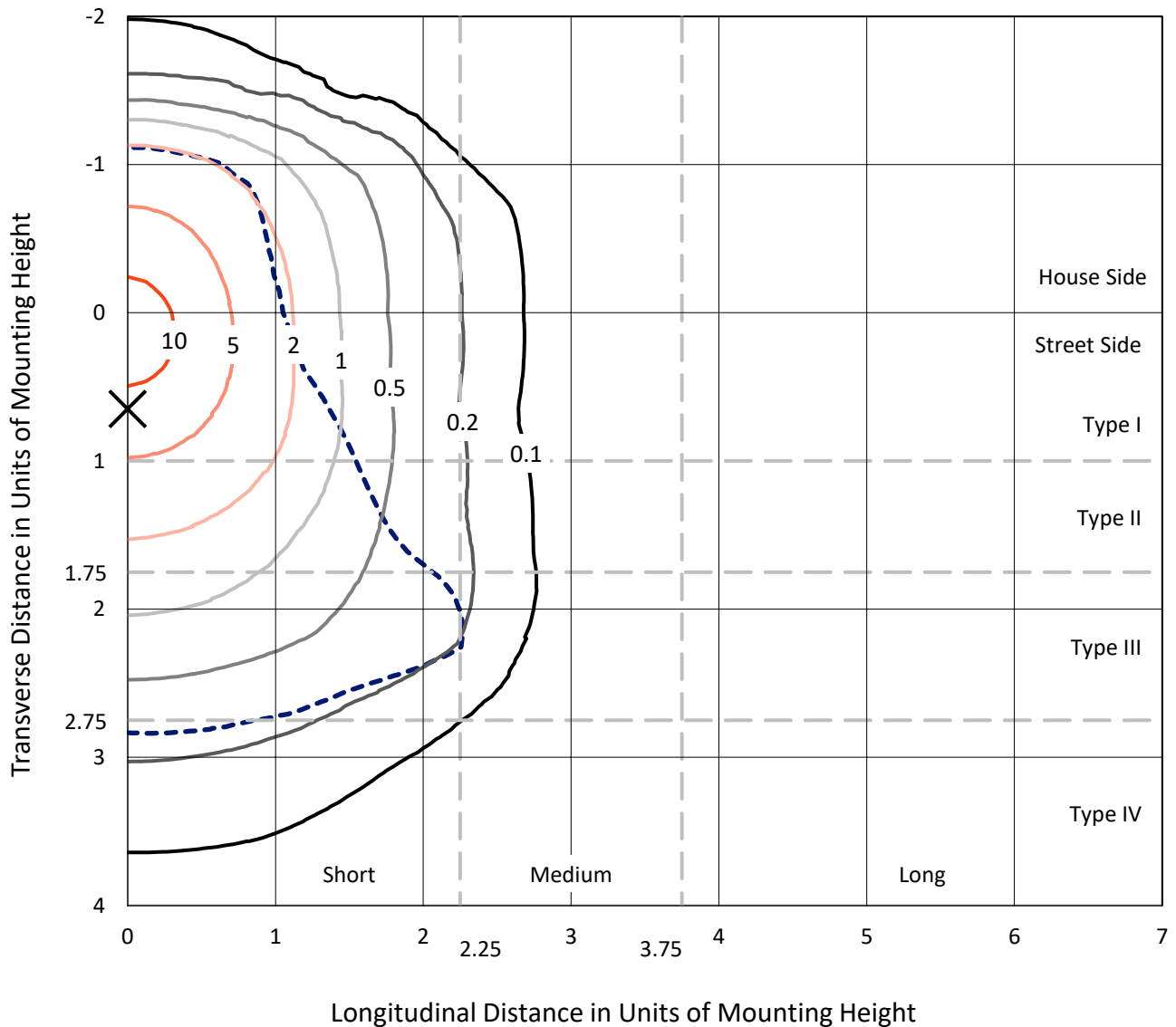
Input Watts (W): 24.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

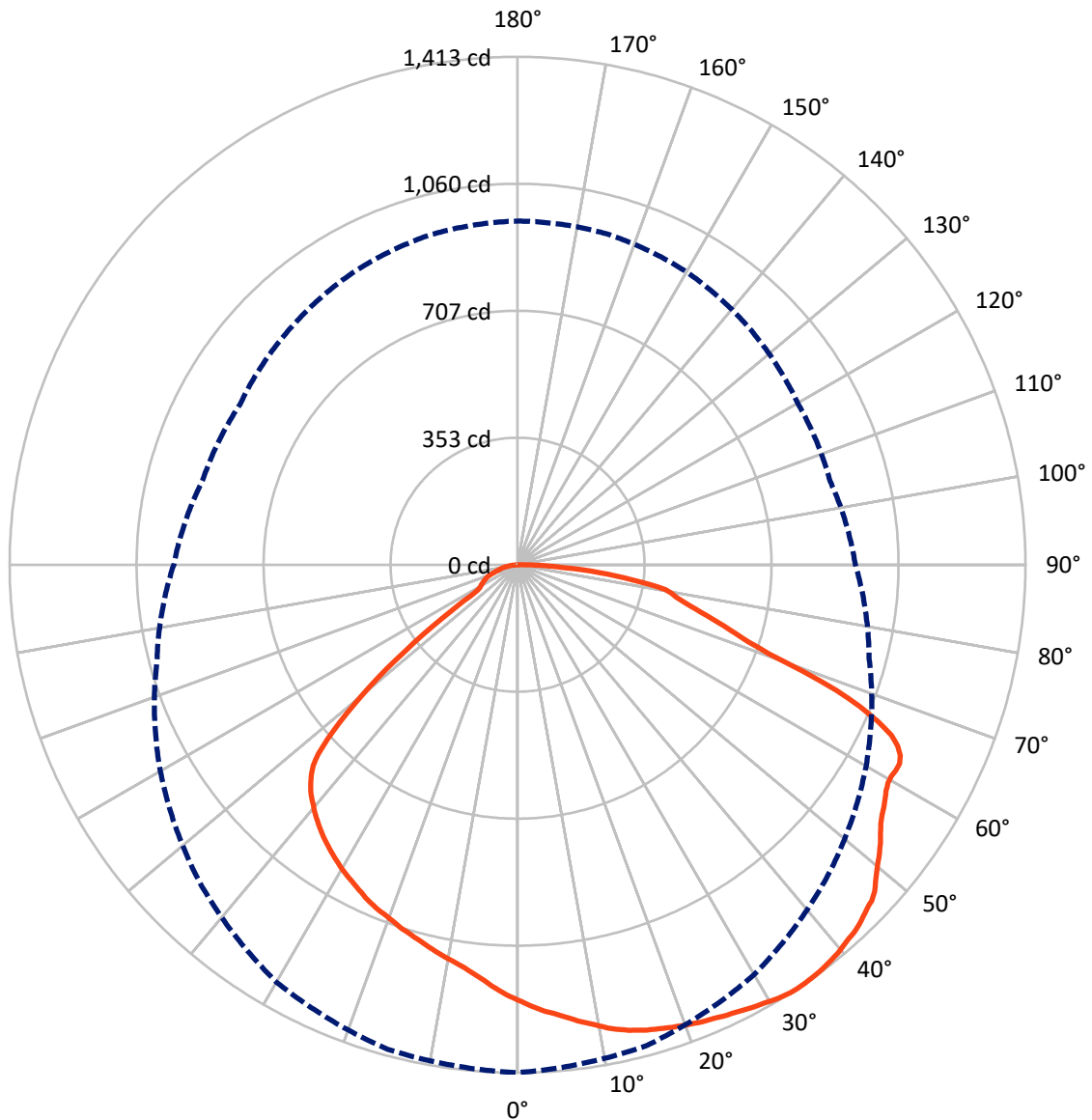
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.5 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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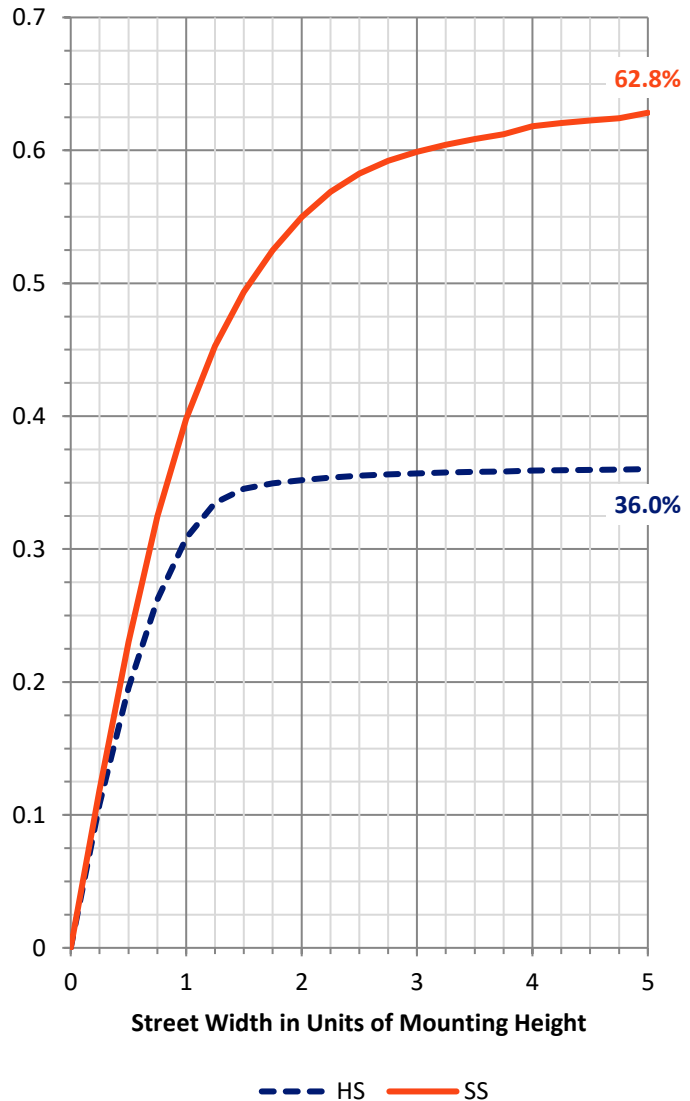
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1376.3	0.0	1376.3
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	2419.7	0.0	2419.7
	% Fixture	63.7	0.0	63.7
Total	Lumens	3796.0	0.0	3796.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.1	3.0
10°-20°	334.8	8.8
20°-30°	522.1	13.8
30°-40°	658.9	17.4
40°-50°	720.5	19.0
50°-60°	638.0	16.8
60°-70°	483.0	12.7
70°-80°	252.0	6.6
80°-90°	71.5	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°	3796.0	100.0
0°-180°	3796.0	100.0

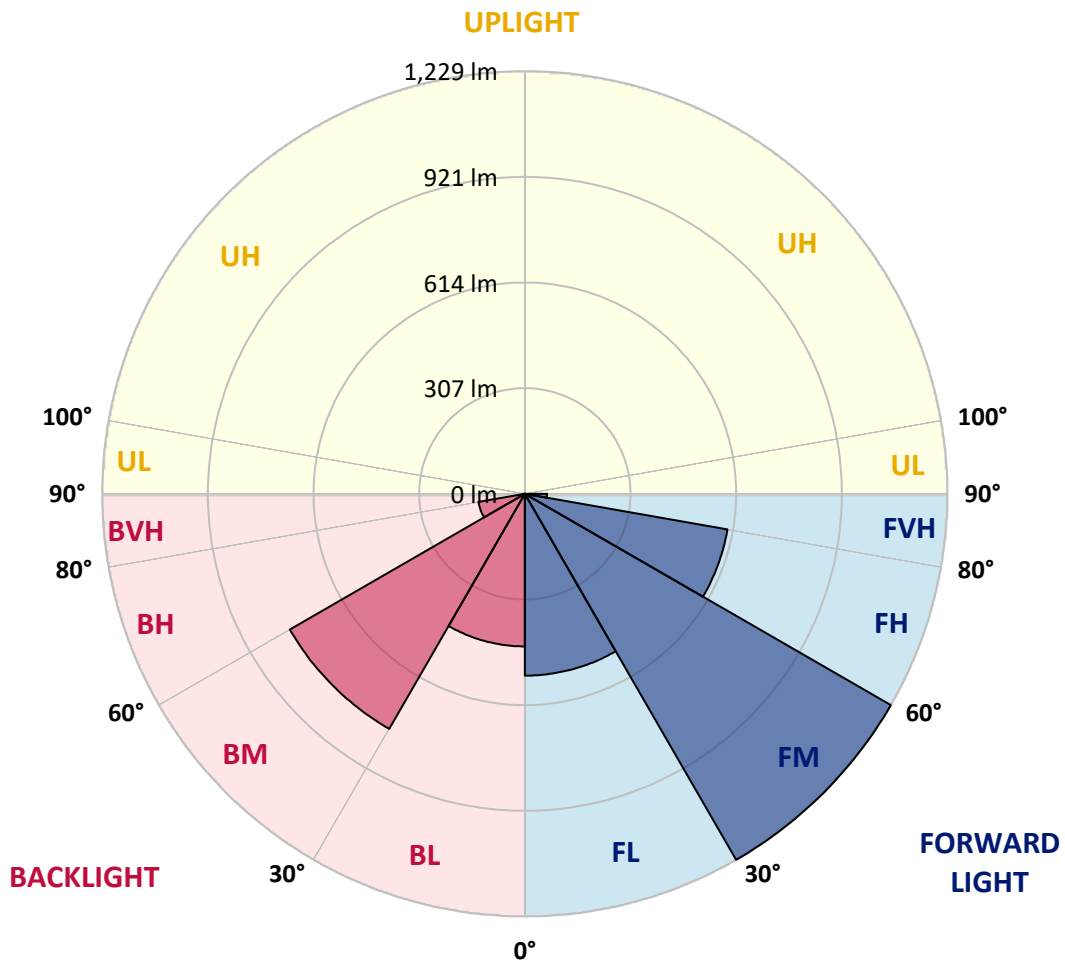


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	528.5	13.9			
FM (30°-60°)	1228.5	32.4			
FH (60°-80°)	598.0	15.8			G0/660
FVH (80°-90°)	64.6	1.7			G1/100
BL (0°-30°)	443.6	11.7	B1/500		
BM (30°-60°)	788.9	20.8	B1/1000		
BH (60°-80°)	136.9	3.6	B1/500		G1/500
BVH (80°-90°)	6.9	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°	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1
1°	1225.3	1224.2	1222.6	1220.9	1218.8	1216.5	1214.0	1211.4	1209.1	1207.2	1205.9
2°	1235.1	1234.1	1231.8	1228.0	1222.1	1217.6	1212.8	1208.0	1203.6	1199.9	1197.3
3°	1244.4	1242.6	1239.5	1234.5	1227.3	1218.6	1210.9	1204.2	1198.0	1192.5	1188.6
4°	1251.5	1250.5	1246.0	1239.4	1230.6	1218.8	1208.6	1200.0	1191.5	1184.0	1178.5
5°	1260.5	1258.4	1252.7	1244.1	1233.1	1219.1	1206.0	1195.0	1184.3	1174.3	1166.7
6°	1269.2	1266.4	1259.4	1248.4	1235.3	1218.6	1203.0	1189.7	1176.4	1163.9	1155.5
7°	1279.6	1274.8	1265.9	1252.3	1236.7	1217.8	1199.4	1183.7	1168.0	1153.6	1145.0
8°	1287.9	1282.7	1272.0	1256.6	1237.8	1215.8	1194.9	1177.0	1158.8	1143.6	1135.7
9°	1296.9	1291.2	1278.9	1261.1	1238.8	1213.7	1190.0	1169.7	1149.6	1134.4	1127.7
10°	1307.6	1301.1	1286.5	1265.4	1239.2	1211.4	1184.9	1162.2	1140.5	1125.5	1120.0
11°	1317.3	1310.0	1294.0	1269.3	1239.7	1208.7	1179.4	1154.4	1131.6	1117.5	1113.1
12°	1324.3	1317.3	1300.5	1273.3	1240.2	1205.2	1172.7	1145.9	1122.2	1109.5	1105.6
13°	1332.2	1323.3	1305.7	1277.0	1240.6	1201.5	1166.1	1137.0	1112.5	1101.4	1098.0
14°	1337.4	1328.8	1309.4	1279.2	1240.8	1198.2	1159.6	1127.9	1102.9	1093.6	1090.8
15°	1343.2	1333.2	1311.6	1280.0	1239.9	1194.3	1151.7	1118.4	1093.5	1085.7	1083.2
16°	1347.7	1336.6	1314.2	1280.5	1237.8	1189.9	1144.1	1109.1	1083.8	1077.4	1075.4
17°	1351.9	1339.9	1315.2	1279.5	1234.6	1184.3	1135.6	1099.0	1074.1	1068.8	1067.9
18°	1356.8	1343.5	1315.0	1276.7	1230.6	1178.6	1127.1	1088.6	1064.6	1060.0	1060.6
19°	1361.0	1347.2	1315.8	1274.4	1225.6	1172.0	1118.2	1078.0	1055.2	1051.5	1054.0
20°	1364.8	1350.9	1317.7	1271.9	1220.0	1164.3	1108.7	1067.3	1045.5	1043.5	1047.1
21°	1369.3	1354.0	1319.0	1269.2	1214.3	1155.5	1099.1	1056.3	1035.7	1035.1	1038.7
22°	1372.9	1357.2	1319.7	1266.6	1208.0	1146.1	1088.1	1044.9	1025.5	1026.3	1031.1
23°	1375.5	1359.3	1320.4	1264.3	1201.4	1136.0	1077.5	1033.1	1014.8	1017.3	1023.6
24°	1380.1	1362.0	1320.6	1262.1	1194.8	1125.5	1065.4	1021.1	1004.1	1008.1	1016.7
25°	1383.4	1364.1	1320.1	1259.0	1187.8	1115.0	1052.8	1009.0	993.5	999.2	1009.8
26°	1387.6	1366.1	1319.6	1255.5	1179.8	1103.9	1040.3	996.1	982.9	989.6	1002.1
27°	1392.2	1368.3	1319.9	1251.6	1171.8	1092.3	1027.6	983.7	972.0	980.0	993.7
28°	1396.2	1371.7	1319.5	1247.4	1164.1	1080.2	1014.4	970.5	960.4	970.8	984.9
29°	1399.8	1374.8	1318.1	1242.9	1155.7	1067.4	1000.5	957.1	948.5	962.2	975.8
30°	1405.2	1377.7	1317.6	1237.7	1147.5	1054.1	985.8	942.9	936.5	952.6	967.1
31°	1409.1	1380.1	1317.2	1232.4	1138.7	1040.5	970.6	929.1	924.0	942.0	959.1
32°	1411.6	1383.1	1316.8	1226.7	1129.4	1027.0	956.0	914.6	911.7	931.1	950.1
33°	1413.0	1385.1	1316.3	1221.4	1119.6	1012.5	939.6	899.9	899.6	920.3	940.6
34°	1412.2	1384.6	1315.9	1215.8	1108.9	998.2	924.2	885.2	887.1	909.2	931.0
35°	1411.1	1384.5	1315.7	1209.8	1097.7	982.9	907.9	870.3	874.3	897.8	921.3
36°	1410.1	1382.3	1313.9	1203.3	1086.0	967.4	890.5	855.7	861.4	886.2	911.1
37°	1406.7	1379.6	1310.7	1197.3	1073.8	950.4	873.9	840.9	848.6	874.4	900.9
38°	1404.2	1376.6	1307.1	1191.0	1060.7	934.5	857.2	826.7	835.8	862.5	890.8
39°	1400.3	1371.7	1302.5	1183.6	1047.0	918.2	840.9	811.6	823.0	850.9	879.2
40°	1395.0	1366.3	1297.2	1175.0	1033.2	900.8	824.4	795.9	810.2	840.3	868.0
41°	1389.4	1359.5	1291.3	1166.1	1019.3	883.0	807.8	780.2	796.1	829.9	856.5
42°	1386.5	1354.5	1286.0	1156.9	1004.8	864.3	789.1	764.0	781.1	818.6	845.4
43°	1380.2	1348.8	1278.6	1148.2	990.0	845.1	770.6	748.4	766.2	805.8	834.4
44°	1372.1	1342.1	1270.1	1139.8	975.2	825.5	751.3	732.3	751.1	792.1	823.1



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	1363.5	1333.0	1262.4	1130.9	960.6	805.0	732.2	715.2	736.0	778.5	810.5
46°	1358.1	1324.7	1254.4	1121.8	945.4	785.0	712.7	698.0	721.1	764.5	796.9
47°	1347.1	1316.8	1245.0	1111.9	929.5	764.4	692.7	680.2	706.3	750.2	781.9
48°	1330.0	1306.0	1233.6	1101.2	913.9	742.9	673.3	663.7	691.3	735.7	762.7
49°	1313.6	1289.0	1223.4	1090.1	898.8	721.5	653.9	647.0	676.1	720.2	738.3
50°	1299.9	1272.8	1211.3	1078.8	883.4	699.4	633.9	629.5	660.8	704.0	705.8
51°	1286.7	1258.7	1195.6	1067.2	868.1	678.0	614.3	611.7	645.6	686.9	663.3
52°	1272.0	1245.2	1178.9	1054.6	851.9	657.3	594.0	593.9	630.5	667.9	609.8
53°	1256.2	1231.0	1162.2	1042.1	835.5	635.9	572.9	575.7	614.2	646.6	550.8
54°	1241.0	1214.9	1147.0	1027.9	818.3	615.3	552.3	558.4	597.1	620.5	487.6
55°	1230.5	1200.7	1131.1	1011.0	798.5	595.2	531.4	540.8	579.5	586.1	424.8
56°	1221.9	1189.4	1114.0	992.7	778.1	573.7	510.7	522.6	561.2	542.9	359.8
57°	1211.8	1180.2	1096.3	973.7	758.2	551.7	487.1	504.3	542.3	490.9	293.8
58°	1202.6	1171.1	1081.4	955.6	738.7	529.1	464.1	485.1	521.8	434.5	231.8
59°	1196.1	1162.8	1069.6	935.7	718.6	506.8	441.9	465.8	501.2	377.4	177.9
60°	1194.8	1157.9	1060.3	913.8	697.5	483.2	420.7	445.8	477.8	317.6	139.6
61°	1198.0	1156.7	1053.1	892.6	674.7	459.3	399.1	425.2	452.1	257.9	119.0
62°	1198.0	1158.0	1045.6	872.1	650.6	436.1	378.8	404.0	421.5	201.6	111.8
63°	1189.8	1155.4	1043.4	853.1	626.5	411.8	359.3	382.6	384.7	150.9	107.0
64°	1171.9	1143.9	1046.3	836.0	603.2	386.9	341.1	360.7	339.2	116.1	102.9
65°	1142.6	1119.8	1053.9	821.2	577.9	361.5	322.8	338.6	293.3	103.1	98.7
66°	1093.7	1081.5	1051.6	809.1	548.5	336.2	304.2	316.3	244.3	96.9	94.4
67°	1030.9	1025.9	1035.7	801.6	517.4	310.3	284.9	295.1	195.3	90.3	90.0
68°	953.3	955.8	1000.2	804.1	485.0	284.9	264.8	274.5	155.8	84.8	85.7
69°	848.0	868.1	932.0	818.7	453.9	261.6	244.2	253.6	124.2	80.1	81.8
70°	741.8	768.1	843.8	837.1	423.2	239.8	222.4	231.7	93.8	75.6	78.0
71°	676.6	686.3	734.7	833.0	397.6	217.6	200.1	209.6	76.2	71.1	73.7
72°	636.1	634.4	626.8	772.4	374.6	196.3	177.7	185.1	70.2	67.1	68.5
73°	598.9	601.3	550.4	660.9	350.5	175.1	156.0	160.1	65.7	63.5	62.7
74°	561.0	570.2	508.2	534.7	347.5	156.2	136.0	133.5	60.6	59.6	56.9
75°	525.8	535.6	473.0	456.1	389.9	137.3	117.9	107.9	55.5	54.6	51.1
76°	495.8	497.8	441.3	420.9	420.0	120.1	102.2	82.0	50.8	49.2	45.4
77°	470.8	456.3	411.6	392.3	352.4	104.7	86.5	61.4	46.4	43.9	40.2
78°	449.9	418.3	379.4	362.3	248.3	89.2	71.1	52.0	42.4	38.8	36.6
79°	436.0	390.8	346.9	328.8	184.7	77.7	58.9	45.9	38.4	33.7	33.6
80°	417.4	365.4	315.6	282.5	159.6	67.7	47.7	40.3	33.9	27.6	30.5
81°	370.4	340.4	291.2	233.0	162.7	57.6	37.2	34.6	29.2	22.3	26.7
82°	323.1	315.5	268.1	198.4	144.8	48.4	27.9	29.0	24.4	18.7	22.6
83°	275.9	286.4	242.6	172.2	99.6	40.2	21.1	23.9	19.6	15.9	18.3
84°	228.0	255.4	208.3	149.8	67.1	32.7	15.9	19.1	15.0	12.6	13.8
85°	181.5	222.5	164.0	129.8	52.3	25.3	12.1	14.6	11.1	9.1	9.1
86°	127.4	179.2	125.8	105.0	41.7	18.5	8.3	10.4	7.6	5.6	4.7
87°	88.4	130.7	92.6	65.0	30.5	12.1	4.6	6.2	4.2	2.6	1.9
88°	48.0	77.8	60.9	29.0	19.6	6.4	2.1	2.5	1.5	1.0	0.8
89°	24.4	34.5	32.7	18.7	11.9	3.0	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: P1449911
 CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

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



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CATALOG NUMBER: TWC60_T4_24W_3000K

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: P1449911

CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1	1215.1
1°	1205.6	1205.8	1206.1	1207.0	1208.6	1210.6	1213.2	1215.9	1218.2	1220.3	1221.8
2°	1196.2	1196.4	1197.3	1198.9	1201.9	1206.0	1210.7	1215.6	1220.1	1223.7	1228.4
3°	1186.3	1185.2	1186.7	1190.0	1194.8	1200.9	1207.2	1214.5	1220.9	1228.1	1235.0
4°	1174.8	1173.9	1175.6	1179.9	1186.5	1194.5	1203.0	1212.5	1221.7	1231.9	1240.6
5°	1162.6	1161.0	1163.8	1169.2	1178.0	1188.1	1198.7	1210.5	1222.9	1235.5	1245.7
6°	1151.6	1150.6	1152.6	1158.1	1168.0	1180.8	1194.1	1207.6	1222.7	1238.2	1250.5
7°	1141.4	1140.1	1142.4	1147.6	1158.0	1172.9	1189.2	1205.4	1222.2	1240.2	1255.5
8°	1132.2	1130.7	1133.2	1137.5	1148.1	1164.8	1183.5	1202.3	1221.5	1242.1	1260.8
9°	1124.6	1122.9	1125.2	1128.8	1138.4	1156.3	1177.0	1197.7	1220.0	1243.7	1266.0
10°	1117.4	1116.0	1117.9	1120.8	1129.4	1147.5	1170.4	1193.5	1218.3	1245.3	1271.0
11°	1110.5	1109.8	1110.9	1113.4	1120.6	1138.4	1162.8	1188.3	1216.1	1246.8	1276.1
12°	1103.5	1102.8	1103.4	1105.8	1111.6	1128.8	1154.9	1182.3	1213.5	1248.5	1281.0
13°	1096.3	1095.6	1096.4	1098.1	1102.7	1119.0	1146.9	1176.2	1210.9	1250.3	1285.3
14°	1089.6	1088.5	1089.9	1090.4	1094.3	1109.3	1138.3	1170.1	1208.9	1251.0	1288.4
15°	1082.2	1081.2	1082.0	1082.3	1085.6	1099.2	1129.1	1163.1	1205.8	1250.7	1289.8
16°	1075.3	1075.5	1074.2	1074.5	1077.2	1088.8	1119.8	1156.2	1202.2	1249.5	1290.4
17°	1068.6	1068.3	1067.2	1066.9	1068.6	1078.4	1110.1	1149.0	1198.0	1247.2	1289.7
18°	1062.6	1063.2	1061.1	1058.9	1059.3	1068.0	1099.6	1140.8	1192.0	1243.4	1288.0
19°	1055.6	1056.0	1054.2	1051.2	1050.7	1057.7	1089.4	1131.6	1185.1	1239.2	1286.3
20°	1048.5	1048.8	1047.4	1043.3	1041.8	1047.1	1078.7	1123.7	1178.2	1234.5	1284.7
21°	1041.6	1042.6	1040.3	1035.1	1032.7	1036.8	1067.5	1114.7	1170.2	1229.2	1283.0
22°	1036.0	1037.5	1033.5	1027.1	1023.4	1025.8	1056.2	1104.2	1161.4	1223.7	1281.6
23°	1030.7	1032.0	1027.0	1019.0	1013.5	1014.5	1044.5	1093.1	1152.3	1218.3	1280.9
24°	1024.5	1025.7	1020.7	1011.2	1003.8	1003.4	1032.0	1081.5	1143.2	1212.9	1280.0
25°	1017.0	1018.5	1013.9	1003.4	994.1	992.4	1019.9	1069.7	1133.4	1207.4	1277.7
26°	1009.6	1009.9	1006.1	996.3	983.8	980.9	1007.4	1056.5	1123.0	1201.2	1274.9
27°	1001.1	1002.3	997.2	987.9	973.9	968.8	993.6	1042.9	1112.0	1194.6	1271.8
28°	993.3	995.0	989.0	979.1	963.9	956.7	980.3	1029.4	1100.9	1187.9	1269.0
29°	986.0	988.1	981.1	969.9	954.1	944.5	966.2	1015.8	1089.2	1180.9	1266.0
30°	978.7	980.7	973.4	960.2	944.0	931.5	951.5	1001.7	1076.8	1173.2	1262.3
31°	970.2	972.6	965.6	950.8	933.7	918.5	937.4	987.5	1064.6	1164.7	1257.8
32°	961.7	964.3	957.4	941.3	922.2	905.3	922.4	972.0	1052.0	1156.3	1254.1
33°	953.1	956.1	949.1	931.9	910.5	891.7	907.0	956.5	1038.6	1147.6	1250.3
34°	944.8	947.4	940.0	922.3	898.7	878.2	891.6	941.2	1025.1	1138.1	1246.0
35°	936.5	938.7	930.9	911.9	886.3	865.2	875.9	925.3	1011.4	1128.0	1241.9
36°	926.7	929.6	921.2	902.0	874.2	852.2	860.8	908.7	997.0	1117.8	1237.6
37°	916.8	919.8	911.4	891.7	862.5	839.3	845.6	892.0	982.2	1106.7	1233.2
38°	906.2	909.6	901.1	880.4	851.0	826.2	831.1	875.3	966.9	1095.5	1228.0
39°	895.7	899.0	889.7	868.8	839.6	812.1	815.6	856.4	951.1	1084.7	1221.7
40°	884.4	887.7	879.2	857.2	828.2	797.5	798.7	838.7	934.5	1072.7	1214.9
41°	873.3	875.9	867.4	846.4	815.8	782.9	781.5	819.6	917.1	1060.2	1207.1
42°	861.9	864.6	856.1	835.9	803.4	768.4	764.2	800.8	899.3	1048.1	1199.4
43°	850.0	851.7	844.5	825.1	790.8	753.4	747.4	780.7	881.1	1035.6	1191.9
44°	838.7	835.7	833.0	812.6	778.1	737.9	730.3	760.3	861.5	1022.6	1184.3



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 CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	826.9	818.2	821.3	799.5	764.6	722.5	713.4	739.9	841.2	1008.9	1175.5
46°	805.8	797.3	803.7	786.3	750.6	707.0	696.2	719.6	821.8	995.0	1165.6
47°	776.6	763.2	780.4	772.2	736.4	690.9	678.9	697.8	801.1	981.8	1155.6
48°	737.8	716.3	748.6	756.3	722.3	674.7	661.2	677.6	780.5	968.9	1145.1
49°	687.7	659.2	705.0	738.4	707.4	659.3	642.8	657.1	760.1	956.0	1134.7
50°	627.2	595.8	651.5	716.6	691.6	643.8	623.8	636.9	739.7	943.2	1122.9
51°	563.6	530.9	591.1	686.6	675.2	628.1	605.5	616.5	719.7	929.1	1110.0
52°	498.7	464.6	527.1	646.3	658.0	612.0	586.6	595.1	700.0	913.7	1096.3
53°	432.2	395.3	462.9	598.8	639.8	595.8	567.4	573.6	679.1	896.3	1081.4
54°	362.8	326.3	395.9	540.7	620.3	578.9	548.7	550.5	658.6	879.0	1064.0
55°	295.9	260.2	327.5	480.5	598.8	561.7	529.4	527.6	637.8	863.2	1046.0
56°	232.4	201.4	262.5	419.4	572.9	544.1	509.9	505.4	615.9	847.1	1028.6
57°	176.7	157.2	200.7	355.0	539.6	524.9	489.9	482.5	593.8	829.7	1010.4
58°	143.5	133.0	157.5	290.4	497.5	504.5	469.2	460.2	571.3	810.6	991.3
59°	127.0	124.1	132.2	229.0	447.1	483.7	448.9	439.1	549.3	789.8	971.7
60°	120.4	120.2	120.8	174.5	393.1	462.3	427.8	418.1	525.2	767.7	952.2
61°	117.0	116.9	116.2	133.8	337.9	440.9	407.1	397.9	500.0	745.0	935.4
62°	113.4	113.4	112.5	113.2	280.6	418.3	386.5	377.6	474.4	722.6	921.0
63°	109.7	109.8	108.8	105.1	224.1	395.4	365.6	357.3	447.3	697.9	908.6
64°	106.1	106.2	105.0	101.1	171.3	369.5	344.1	337.3	419.9	669.2	898.3
65°	102.4	102.9	101.0	96.0	129.2	341.0	322.5	316.7	393.3	639.7	889.4
66°	98.9	99.6	97.1	91.5	107.3	304.7	300.8	296.0	368.7	611.5	885.7
67°	95.3	95.9	93.3	86.9	94.5	264.5	279.6	274.1	343.3	584.2	892.5
68°	91.8	92.1	89.5	82.4	86.8	221.5	259.1	251.9	315.8	557.5	906.8
69°	87.9	88.2	85.7	78.2	82.2	179.0	238.7	229.1	289.6	534.3	911.2
70°	82.7	82.3	81.2	74.2	77.1	142.6	218.0	206.8	267.5	512.6	891.5
71°	76.6	76.3	75.6	70.6	72.1	113.6	198.4	184.6	245.9	496.4	829.7
72°	70.6	70.2	69.6	66.3	67.5	84.7	179.0	162.6	225.4	494.3	719.8
73°	64.4	64.0	63.6	61.1	62.8	68.3	161.0	142.1	204.3	527.5	599.6
74°	58.3	58.3	57.7	55.6	58.7	63.0	141.8	123.6	184.4	564.7	512.9
75°	53.0	53.8	52.1	50.0	54.8	57.7	121.9	106.0	162.5	523.4	464.2
76°	49.3	50.8	47.6	44.7	50.4	52.9	102.4	90.4	141.1	433.0	427.2
77°	46.6	48.5	44.5	39.4	45.2	48.1	82.9	76.1	124.1	352.6	393.2
78°	43.8	45.2	41.8	34.3	40.0	43.6	65.0	62.8	114.4	272.7	361.4
79°	39.4	40.0	38.3	30.6	34.7	39.2	51.7	51.7	103.4	229.3	324.6
80°	35.0	35.9	33.8	27.7	29.7	34.9	43.7	41.8	93.9	226.4	278.9
81°	30.5	31.1	29.3	24.7	24.2	30.6	37.2	34.5	89.0	201.5	238.2
82°	25.3	25.3	24.6	21.1	18.9	25.9	31.1	27.1	83.1	145.6	207.3
83°	19.0	18.1	19.1	17.2	15.1	20.9	25.2	19.8	69.9	104.4	183.7
84°	13.5	13.0	13.7	12.9	11.8	16.3	19.4	14.6	50.5	84.0	162.0
85°	8.5	8.2	8.6	8.7	8.5	12.2	14.4	10.4	36.0	69.7	135.2
86°	4.0	3.5	4.0	4.5	5.3	8.1	10.1	6.9	24.9	56.7	96.4
87°	1.6	1.4	1.6	1.7	2.5	4.4	5.9	4.0	14.4	44.8	59.7
88°	0.6	0.6	0.6	0.7	0.9	1.6	2.3	2.2	6.9	34.3	44.5
89°	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.4	3.1	24.6	32.4



REPORT NUMBER: P1449911
 CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449911
 CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449911
CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449911
 CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	1215.1	1215.1	1215.1
1°	1223.2	1224.5	1225.3
2°	1231.5	1233.7	1235.1
3°	1239.8	1242.5	1244.4
4°	1247.0	1250.9	1251.5
5°	1253.9	1259.1	1260.5
6°	1260.8	1267.3	1269.2
7°	1267.7	1275.5	1279.6
8°	1275.5	1284.2	1287.9
9°	1283.4	1293.7	1296.9
10°	1290.9	1303.7	1307.6
11°	1298.9	1313.0	1317.3
12°	1306.1	1320.8	1324.3
13°	1311.6	1326.8	1332.2
14°	1315.5	1332.4	1337.4
15°	1318.0	1336.2	1343.2
16°	1320.5	1339.9	1347.7
17°	1322.5	1343.7	1351.9
18°	1324.1	1348.2	1356.8
19°	1325.6	1352.1	1361.0
20°	1327.6	1355.8	1364.8
21°	1329.4	1359.0	1369.3
22°	1331.3	1362.0	1372.9
23°	1332.8	1365.1	1375.5
24°	1334.0	1368.9	1380.1
25°	1334.2	1371.7	1383.4
26°	1335.3	1374.9	1387.6
27°	1335.3	1378.4	1392.2
28°	1336.3	1382.3	1396.2
29°	1337.7	1385.4	1399.8
30°	1338.0	1389.2	1405.2
31°	1338.7	1393.1	1409.1
32°	1339.8	1394.5	1411.6
33°	1340.8	1395.5	1413.0
34°	1340.7	1395.5	1412.2
35°	1339.1	1395.1	1411.1
36°	1336.8	1392.8	1410.1
37°	1334.6	1390.8	1406.7
38°	1331.1	1387.3	1404.2
39°	1326.9	1383.0	1400.3
40°	1322.4	1378.4	1395.0
41°	1316.0	1371.5	1389.4
42°	1309.5	1367.5	1386.5
43°	1302.6	1361.6	1380.2
44°	1295.4	1354.3	1372.1



REPORT NUMBER: P1449911
 CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	1288.1	1346.0	1363.5
46°	1279.8	1337.4	1358.1
47°	1270.3	1329.2	1347.1
48°	1260.3	1315.6	1330.0
49°	1249.5	1297.3	1313.6
50°	1234.7	1283.1	1299.9
51°	1217.9	1269.2	1286.7
52°	1202.0	1255.4	1272.0
53°	1187.9	1240.3	1256.2
54°	1171.1	1224.5	1241.0
55°	1153.9	1211.6	1230.5
56°	1137.0	1202.4	1221.9
57°	1122.0	1194.4	1211.8
58°	1111.0	1184.4	1202.6
59°	1102.1	1176.9	1196.1
60°	1093.8	1173.0	1194.8
61°	1086.5	1173.3	1198.0
62°	1082.9	1173.7	1198.0
63°	1085.2	1168.4	1189.8
64°	1090.6	1153.7	1171.9
65°	1087.8	1126.6	1142.6
66°	1071.2	1084.3	1093.7
67°	1037.9	1025.4	1030.9
68°	979.7	949.9	953.3
69°	897.2	856.3	848.0
70°	797.6	758.1	741.8
71°	691.7	684.0	676.6
72°	606.0	636.2	636.1
73°	553.3	600.4	598.9
74°	522.6	565.4	561.0
75°	495.2	528.0	525.8
76°	468.6	490.1	495.8
77°	439.6	454.1	470.8
78°	406.2	423.6	449.9
79°	374.3	403.7	436.0
80°	342.5	385.9	417.4
81°	311.4	365.1	370.4
82°	281.1	333.6	323.1
83°	244.7	294.0	275.9
84°	202.2	254.2	228.0
85°	162.7	211.6	181.5
86°	133.9	161.4	127.4
87°	100.2	112.1	88.4
88°	65.5	64.8	48.0
89°	37.4	31.0	24.4



REPORT NUMBER: P1449911
CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
90°	0.0	0.0	0.0
91°	0.0	0.0	0.0
92°	0.0	0.0	0.0
93°	0.0	0.0	0.0
94°	0.0	0.0	0.0
95°	0.0	0.0	0.0
96°	0.0	0.0	0.0
97°	0.0	0.0	0.0
98°	0.0	0.0	0.0
99°	0.0	0.0	0.0
100°	0.0	0.0	0.0
101°	0.0	0.0	0.0
102°	0.0	0.0	0.0
103°	0.0	0.0	0.0
104°	0.0	0.0	0.0
105°	0.0	0.0	0.0
106°	0.0	0.0	0.0
107°	0.0	0.0	0.0
108°	0.0	0.0	0.0
109°	0.0	0.0	0.0
110°	0.0	0.0	0.0
111°	0.0	0.0	0.0
112°	0.0	0.0	0.0
113°	0.0	0.0	0.0
114°	0.0	0.0	0.0
115°	0.0	0.0	0.0
116°	0.0	0.0	0.0
117°	0.0	0.0	0.0
118°	0.0	0.0	0.0
119°	0.0	0.0	0.0
120°	0.0	0.0	0.0
121°	0.0	0.0	0.0
122°	0.0	0.0	0.0
123°	0.0	0.0	0.0
124°	0.0	0.0	0.0
125°	0.0	0.0	0.0
126°	0.0	0.0	0.0
127°	0.0	0.0	0.0
128°	0.0	0.0	0.0
129°	0.0	0.0	0.0
130°	0.0	0.0	0.0
131°	0.0	0.0	0.0
132°	0.0	0.0	0.0
133°	0.0	0.0	0.0
134°	0.0	0.0	0.0



REPORT NUMBER: P1449911
CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

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

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



REPORT NUMBER: P1449911
CATALOG NUMBER: TWC60_T4_24W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2601-659-1

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-3000K

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

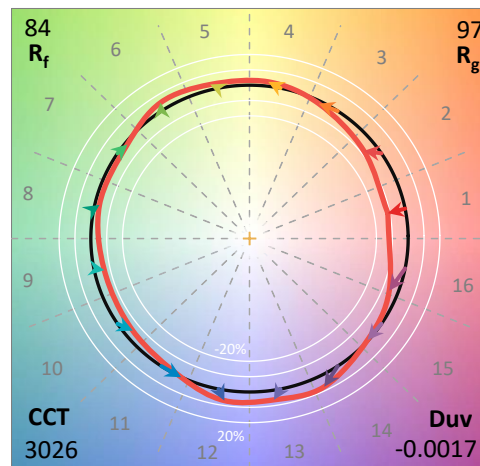
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-1
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 02/16/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **MWP2460W34VDDKYYAD-T4-24W-3000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 3000K

Spectral Parameters

CCT (K): 3026
 CIE u': 0.2503
 CIE v': 0.5184
 Duv: -0.0017
 CIE x: 0.4326
 CIE y: 0.3983
 CIE z: 0.1691
 Peak Wavelength (nm): 604
 Dominant Wavelength (nm): 583
 Purity: 49.3886
 Rf: 84
 Rg: 97.4

CRI (Ra):	82.7		
R1:	81.4	R9:	7.5
R2:	90.7	R10:	78.8
R3:	96.3	R11:	80.8
R4:	81.1	R12:	70.7
R5:	81.6	R13:	83.7
R6:	88.6	R14:	98.6
R7:	82.6	R15:	74.2
R8:	59.3		



Test Conditions

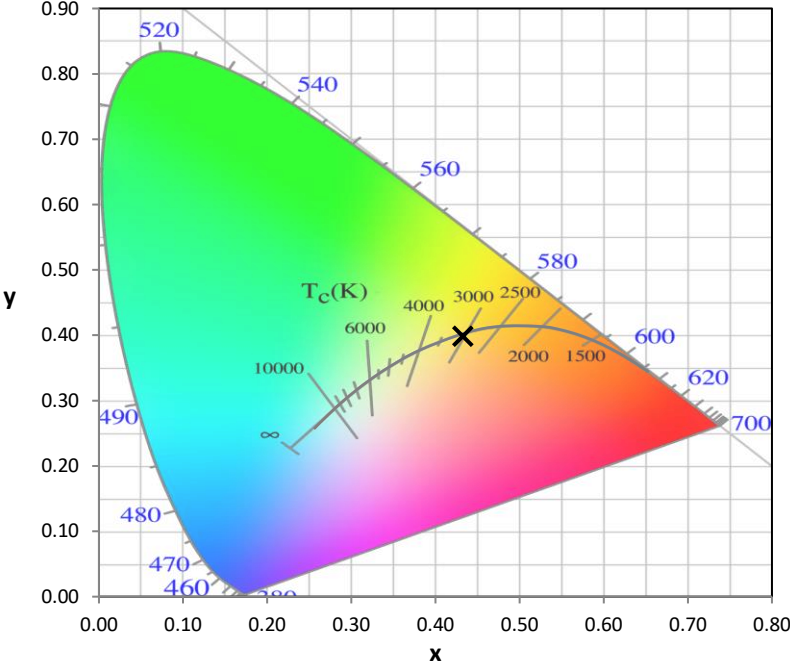
Stabilization Time: 64M
 Operation Time: 2H 4M
 Sphere Temperature (°C): 24.8

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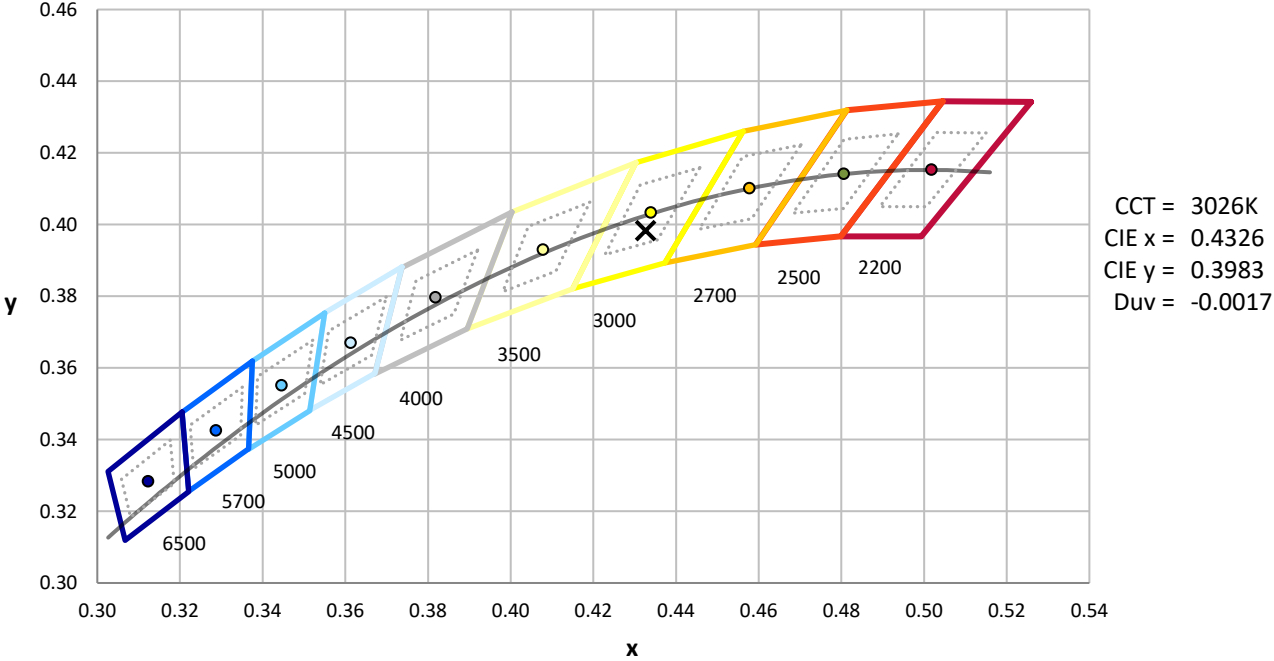
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



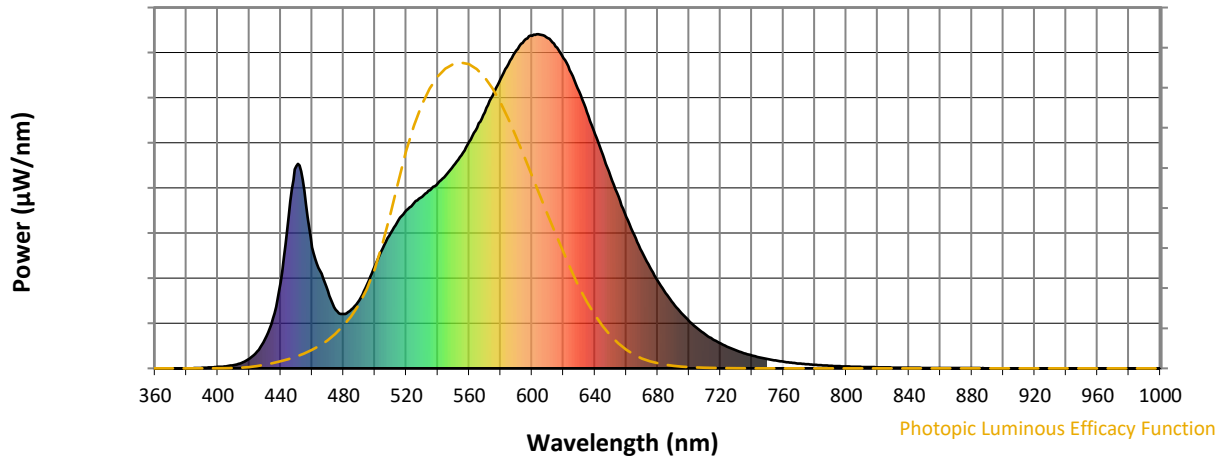
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

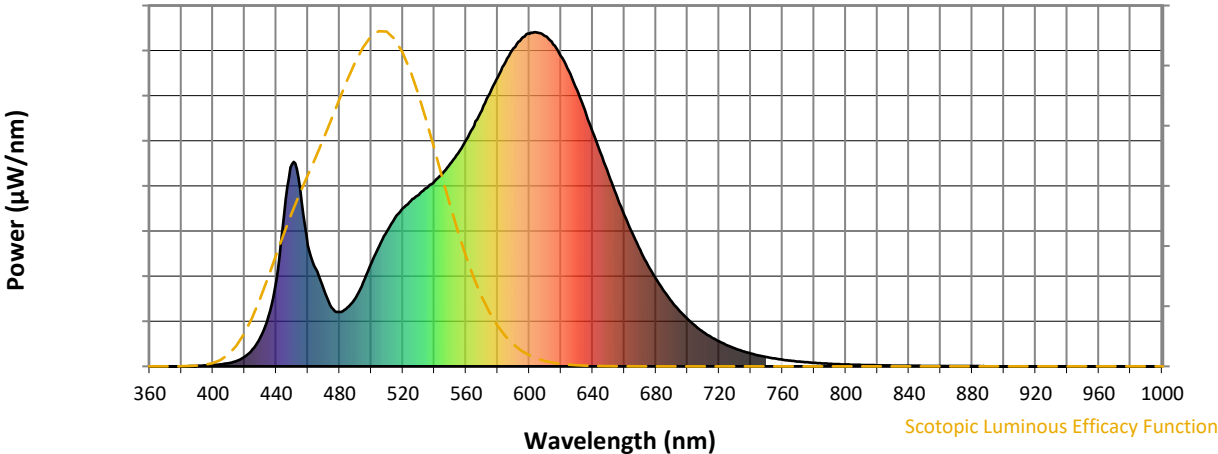


Photopic Lumens: NR

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

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Scotopic Flux vs. Wavelength

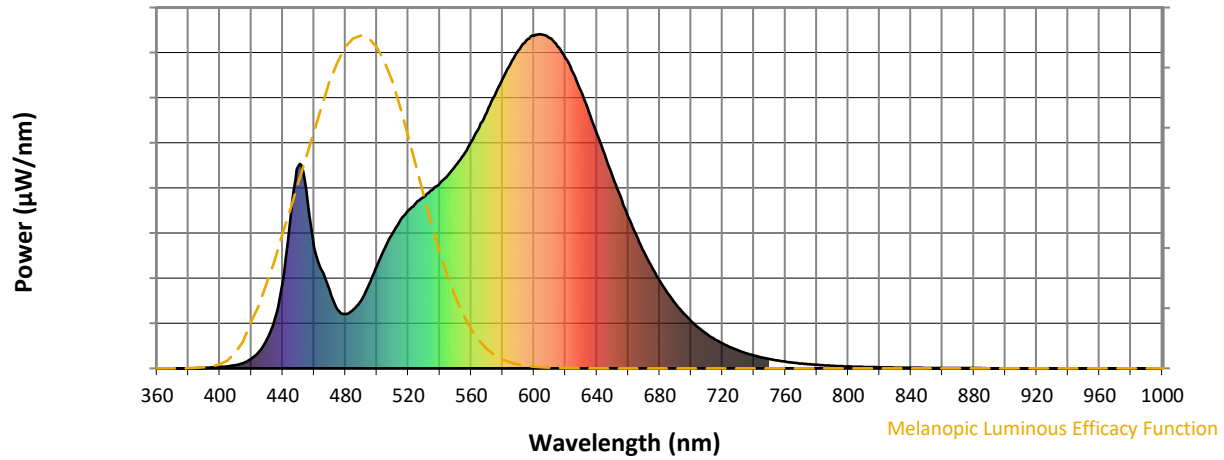


Scotopic Lumens: NR S/P: 1.35

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

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Melanopic Flux vs. Wavelength



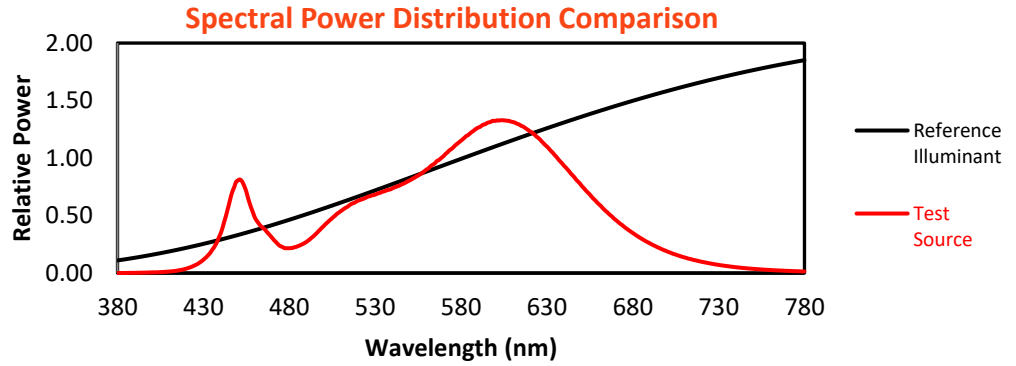
Melanopic Lumens: NR

M/P: 2.61

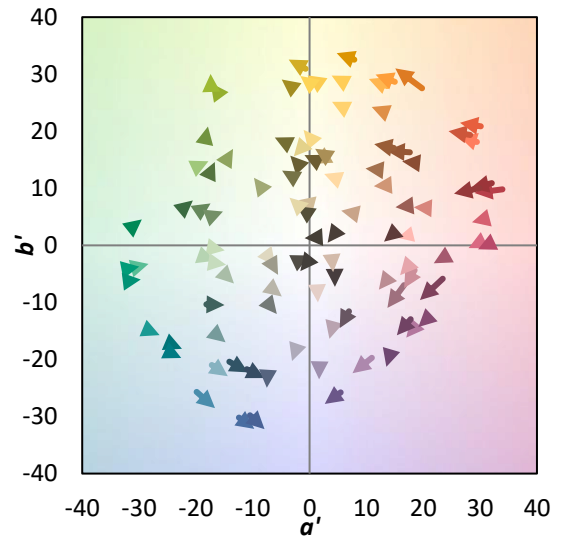
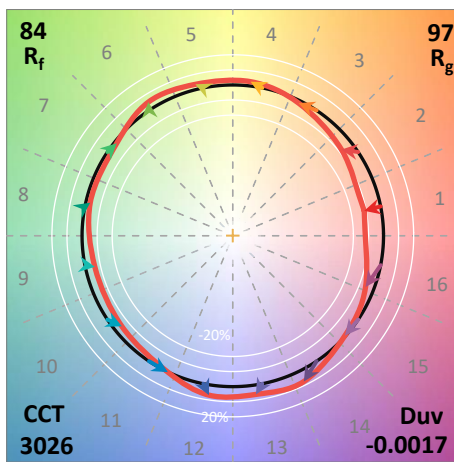
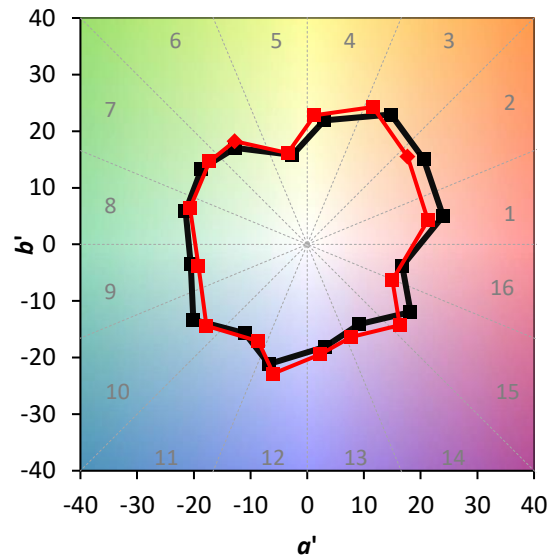
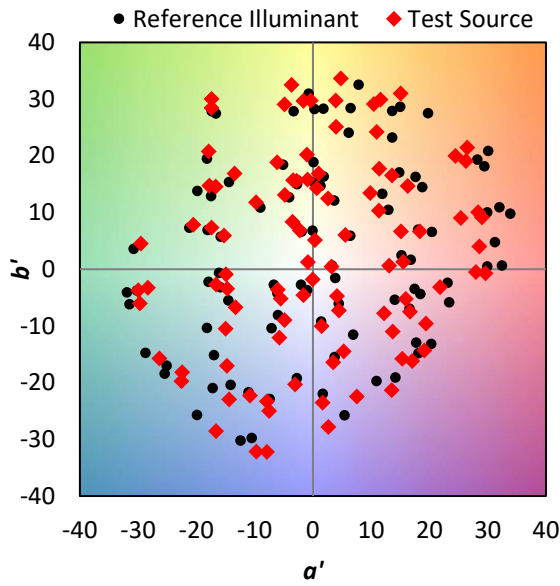
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307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

Summary

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

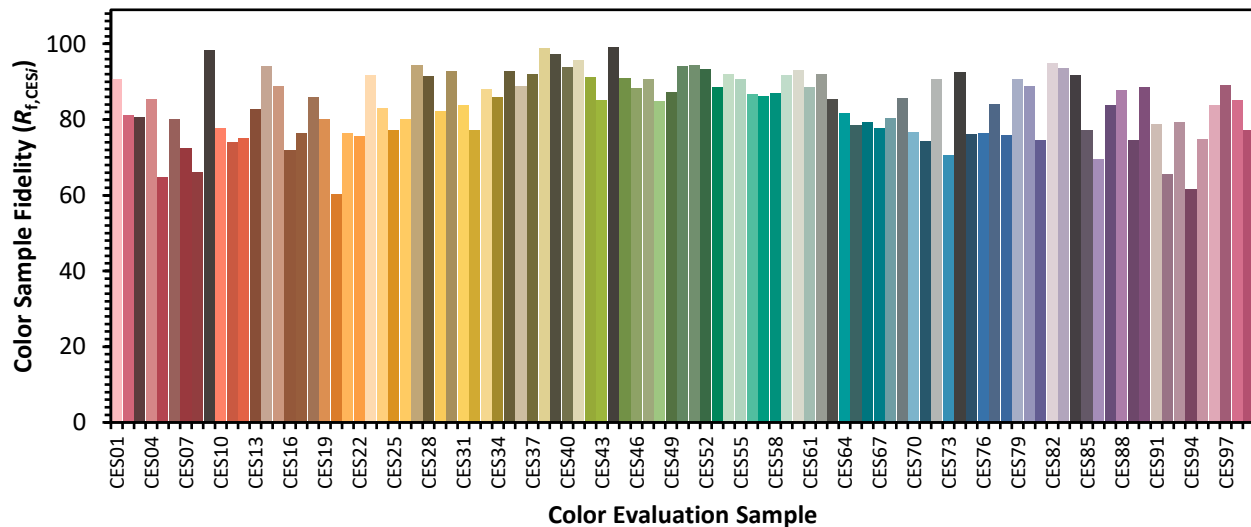


Color Vector Graphics

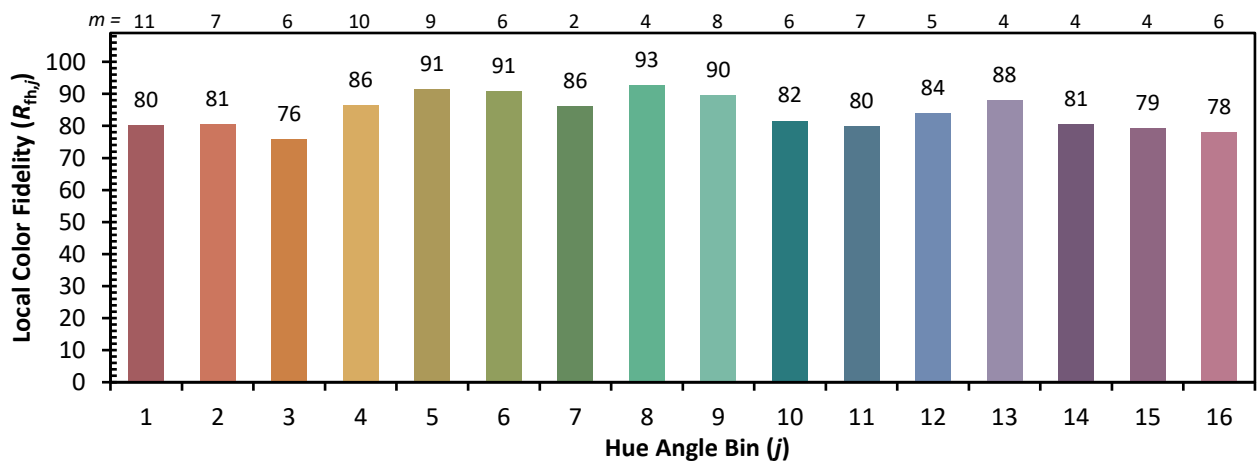
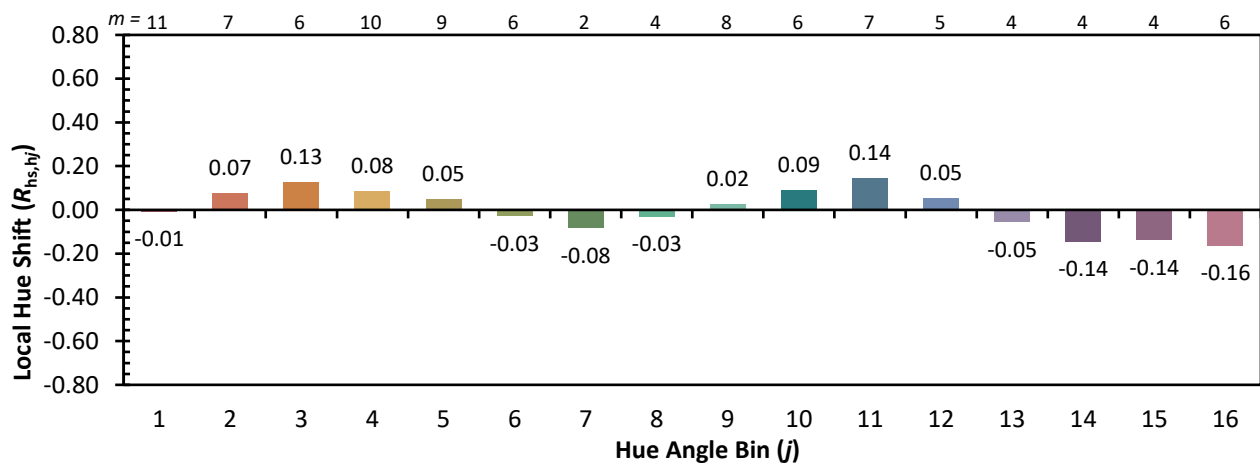
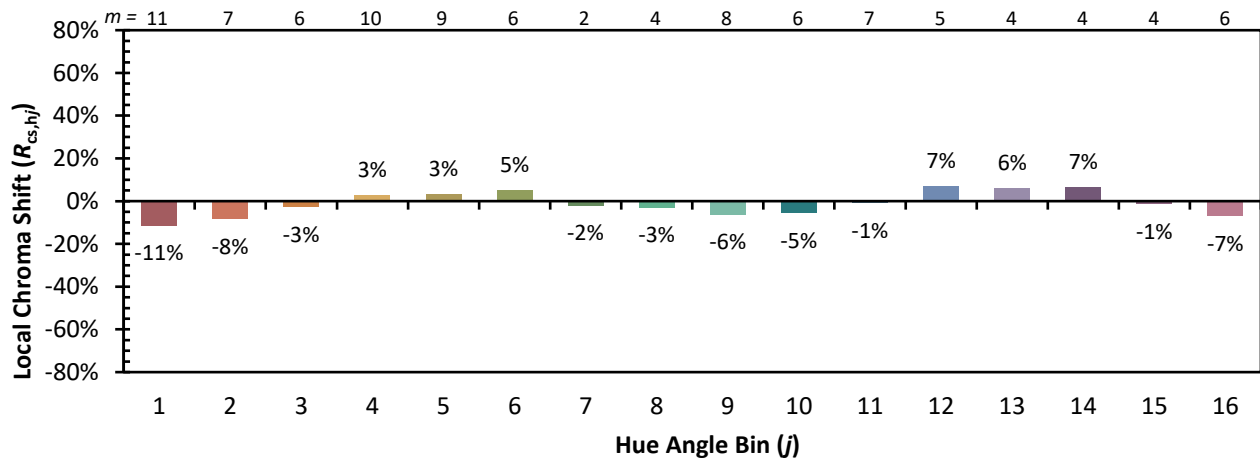


Individual Sample Fidelity Index ($R_{f,i}$)

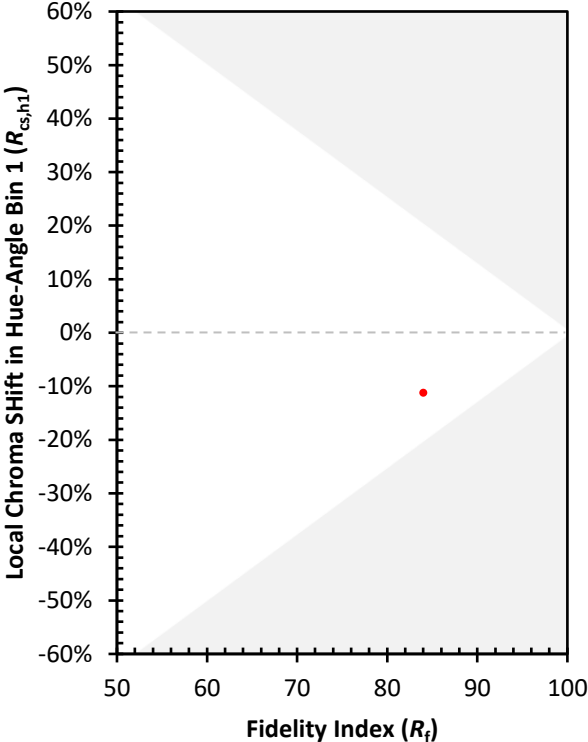
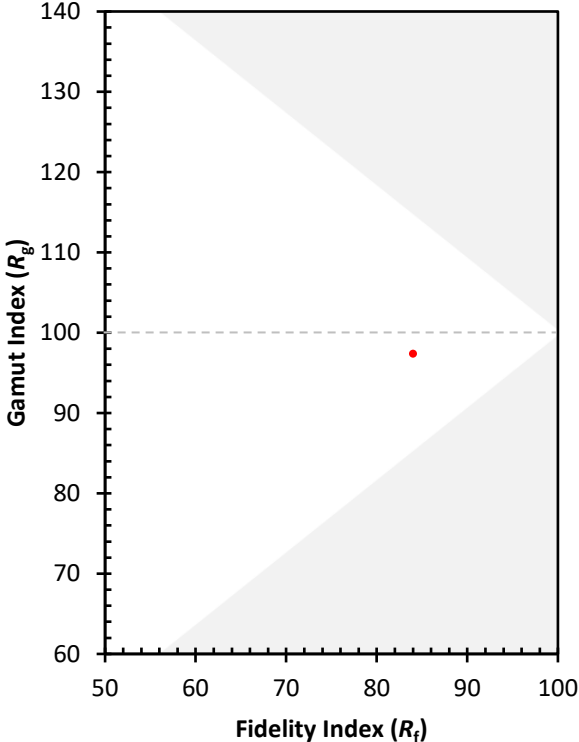
CES01 = 86	CES26 = 80	CES51 = 94	CES76 = 76
CES02 = 63	CES27 = 94	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 76
CES04 = 70	CES29 = 82	CES54 = 92	CES79 = 91
CES05 = 50	CES30 = 93	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 75
CES07 = 42	CES32 = 77	CES57 = 86	CES82 = 95
CES08 = 41	CES33 = 88	CES58 = 87	CES83 = 93
CES09 = 29	CES34 = 86	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 93	CES60 = 93	CES85 = 77
CES11 = 59	CES36 = 89	CES61 = 89	CES86 = 69
CES12 = 65	CES37 = 92	CES62 = 92	CES87 = 84
CES13 = 43	CES38 = 99	CES63 = 85	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 82	CES89 = 75
CES15 = 72	CES40 = 94	CES65 = 79	CES90 = 89
CES16 = 48	CES41 = 96	CES66 = 79	CES91 = 79
CES17 = 50	CES42 = 91	CES67 = 78	CES92 = 66
CES18 = 57	CES43 = 85	CES68 = 80	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 86	CES94 = 62
CES20 = 67	CES45 = 91	CES70 = 77	CES95 = 75
CES21 = 87	CES46 = 88	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 91	CES72 = 91	CES97 = 89
CES23 = 92	CES48 = 85	CES73 = 71	CES98 = 85
CES24 = 91	CES49 = 87	CES74 = 93	CES99 = 77
CES25 = 72	CES50 = 94	CES75 = 76	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)