

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: P1449901

Luminaire Tested: **TWC60_T3_24W_5000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449901
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_5000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T3 distribution, 24W
5000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4264 lumens
Efficiency: N/A
Efficacy: 176.2 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

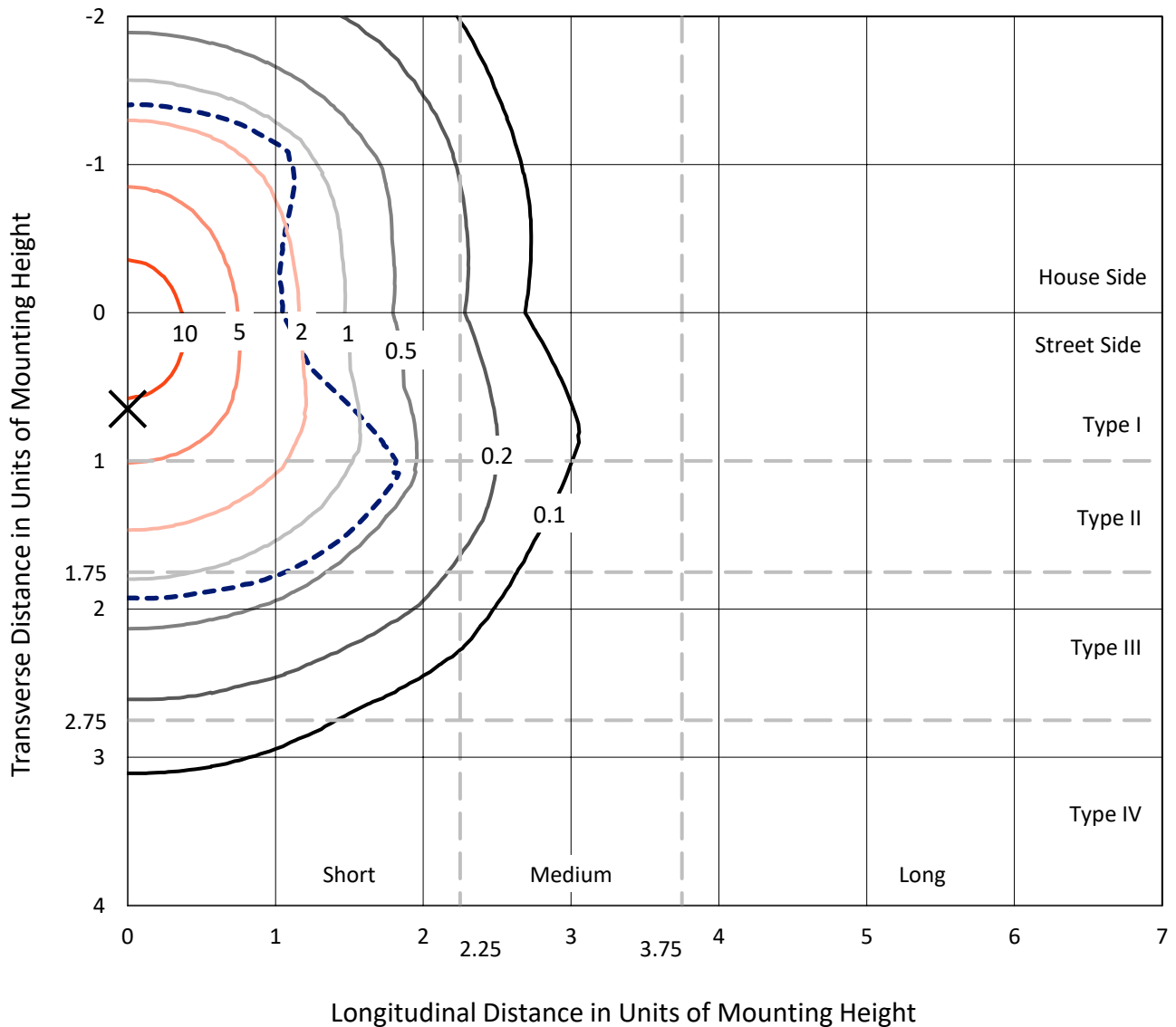
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

Iso-Footcandle Lines of Horizontal Illumination

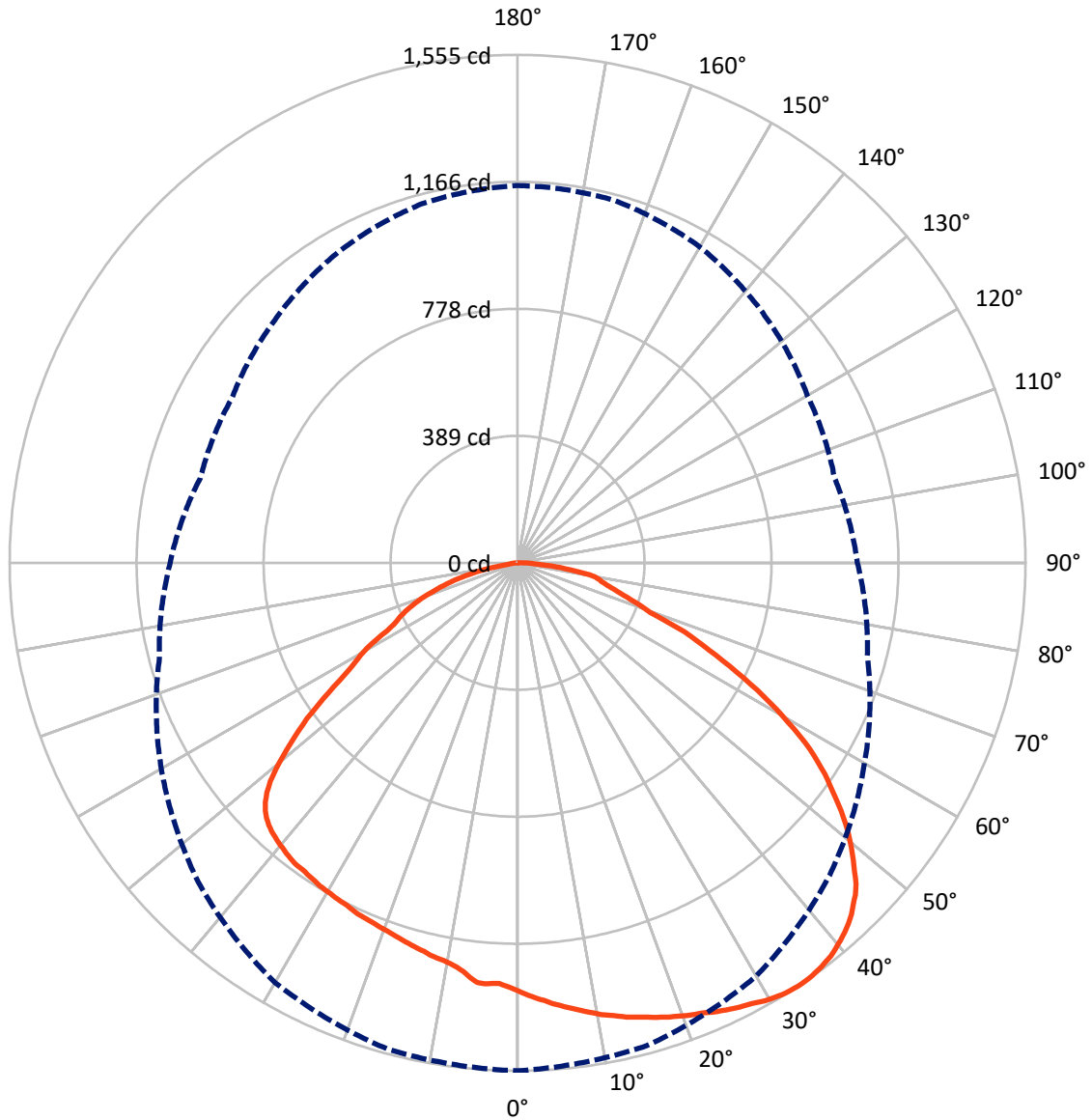
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.5 fc
 Type III - Short - N/A

REPORT NUMBER: P1449901
CATALOG NUMBER: TWC60_T3_24W_5000K

Luminous Intensity Polar Plot



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

REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

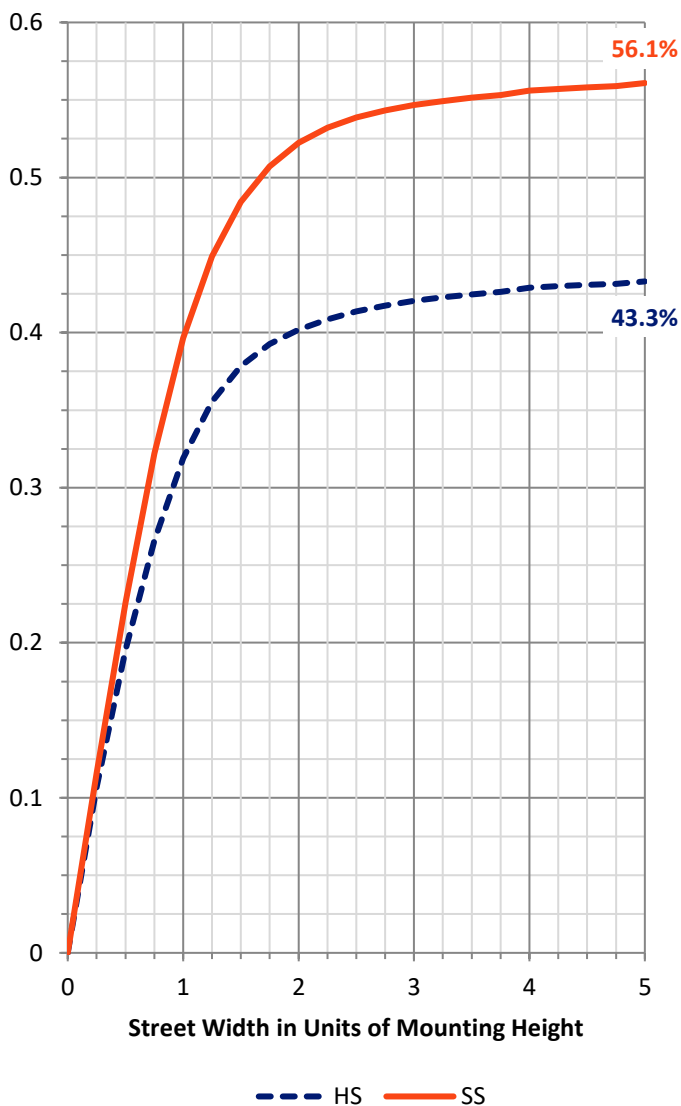
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1857.1	0.0	1857.1
	% Fixture	43.6	0.0	43.6
Street Side	Lumens	2406.9	0.0	2406.9
	% Fixture	56.4	0.0	56.4
Total	Lumens	4264.0	0.0	4264.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.5	2.9
10°-20°	367.1	8.6
20°-30°	580.2	13.6
30°-40°	745.4	17.5
40°-50°	832.4	19.5
50°-60°	770.9	18.1
60°-70°	532.6	12.5
70°-80°	252.3	5.9
80°-90°	57.7	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°	4264.0	100.0
0°-180°	4264.0	100.0

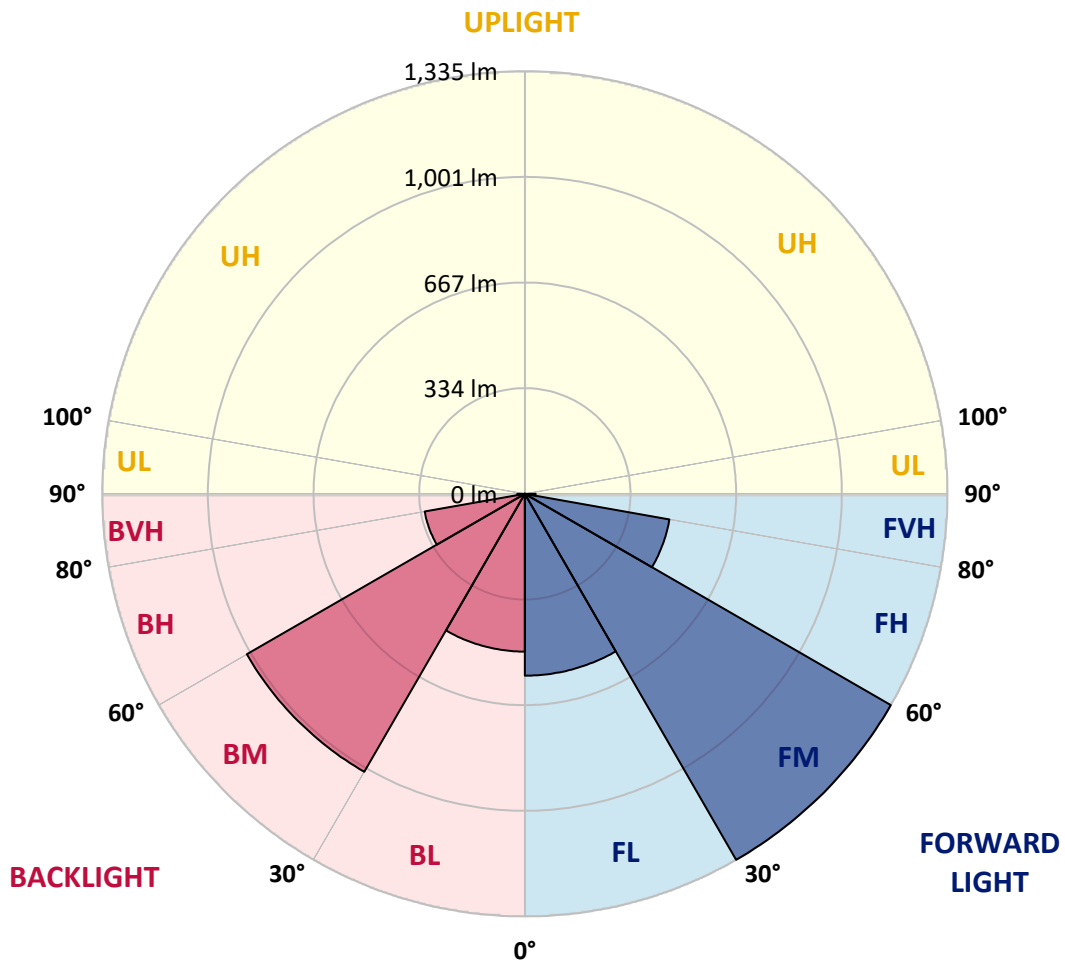


REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	574.3	13.5			
FM (30°-60°)	1334.8	31.3			
FH (60°-80°)	463.8	10.9			G0/660
FVH (80°-90°)	34.0	0.8			G1/100
BL (0°-30°)	498.4	11.7	B1/500		
BM (30°-60°)	1013.9	23.8	B2/2500		
BH (60°-80°)	321.1	7.5	B1/500		G1/500
BVH (80°-90°)	23.8	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





REPORT NUMBER: P1449901

CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9
1°	1324.9	1325.1	1323.0	1321.4	1320.5	1317.8	1313.0	1311.3	1309.3	1308.6	1305.0
2°	1334.5	1334.0	1331.7	1327.0	1324.4	1319.2	1312.8	1307.3	1302.6	1299.8	1298.5
3°	1342.6	1344.0	1338.8	1334.4	1327.4	1321.1	1311.0	1303.4	1297.9	1292.4	1290.8
4°	1353.3	1352.9	1346.9	1338.4	1331.7	1319.0	1308.5	1297.9	1292.1	1286.7	1289.0
5°	1361.5	1359.8	1354.5	1343.4	1332.0	1319.1	1305.6	1295.2	1287.5	1287.2	1290.8
6°	1370.7	1366.8	1360.4	1349.2	1336.0	1318.8	1300.2	1289.1	1283.3	1290.2	1292.6
7°	1378.8	1375.2	1367.0	1353.2	1336.8	1316.8	1296.7	1283.0	1282.8	1290.4	1286.1
8°	1388.6	1384.3	1372.4	1355.8	1338.0	1316.3	1292.6	1277.9	1282.6	1283.3	1272.4
9°	1397.3	1392.6	1379.7	1361.0	1337.8	1313.4	1287.7	1274.5	1282.5	1273.8	1256.6
10°	1406.5	1400.3	1386.1	1365.2	1338.5	1311.1	1282.3	1270.6	1277.0	1256.9	1247.2
11°	1413.6	1408.1	1392.0	1368.9	1339.3	1309.0	1277.7	1267.6	1268.8	1245.0	1240.9
12°	1421.3	1414.7	1397.5	1370.4	1339.0	1304.0	1271.4	1264.9	1254.3	1235.6	1233.2
13°	1430.4	1422.8	1403.8	1374.2	1338.4	1301.0	1264.4	1260.5	1239.1	1227.3	1227.2
14°	1436.9	1429.1	1406.3	1376.5	1338.4	1297.5	1255.7	1256.4	1227.6	1220.7	1222.9
15°	1443.6	1435.7	1410.8	1377.9	1337.2	1292.3	1248.5	1247.7	1217.2	1212.7	1216.4
16°	1451.3	1440.3	1414.9	1379.0	1334.0	1288.5	1240.6	1240.0	1207.2	1206.1	1210.2
17°	1458.7	1446.4	1417.8	1379.2	1332.6	1281.3	1233.7	1225.6	1198.3	1199.0	1203.8
18°	1466.4	1452.1	1422.3	1377.2	1330.0	1276.8	1225.5	1210.6	1188.1	1190.9	1198.3
19°	1472.7	1458.7	1424.7	1378.3	1327.2	1269.6	1217.9	1195.9	1179.4	1183.3	1191.9
20°	1479.4	1464.7	1428.9	1378.9	1322.3	1262.5	1210.2	1181.9	1170.0	1176.7	1185.3
21°	1485.4	1470.8	1432.8	1378.3	1318.8	1254.4	1203.7	1169.3	1159.6	1167.5	1180.1
22°	1491.4	1474.6	1435.8	1378.1	1312.1	1246.1	1195.8	1157.6	1148.8	1159.8	1174.1
23°	1500.0	1481.2	1437.2	1376.1	1307.4	1238.8	1188.4	1144.8	1139.1	1152.1	1167.9
24°	1507.0	1487.1	1440.6	1375.3	1300.5	1228.4	1180.7	1132.1	1128.9	1143.4	1161.9
25°	1513.8	1492.4	1443.3	1374.0	1294.6	1216.5	1168.9	1119.5	1117.9	1135.3	1157.2
26°	1520.7	1497.5	1446.1	1371.6	1287.9	1205.6	1157.7	1107.3	1105.6	1126.9	1153.3
27°	1525.3	1503.4	1448.1	1369.2	1281.6	1194.6	1145.4	1093.5	1095.5	1118.7	1147.5
28°	1532.1	1508.6	1450.2	1366.2	1272.6	1181.6	1129.1	1079.1	1083.9	1112.0	1142.2
29°	1540.5	1513.4	1452.0	1363.7	1264.8	1168.1	1111.8	1065.4	1073.3	1104.4	1136.8
30°	1545.5	1518.1	1454.0	1359.9	1255.4	1154.1	1095.1	1050.0	1060.7	1094.7	1130.3
31°	1550.5	1523.4	1456.5	1357.1	1247.2	1140.5	1076.0	1034.8	1048.4	1087.6	1126.3
32°	1553.0	1527.2	1457.9	1354.6	1238.5	1124.3	1057.9	1020.4	1036.8	1079.3	1121.5
33°	1555.1	1530.4	1461.1	1351.4	1226.5	1108.6	1040.3	1004.4	1024.6	1070.3	1116.4
34°	1554.6	1530.8	1463.0	1346.6	1217.0	1093.2	1021.3	987.3	1011.5	1061.5	1110.4
35°	1553.2	1528.3	1461.7	1343.6	1206.8	1076.5	1002.8	972.1	999.7	1052.1	1105.0
36°	1549.4	1528.1	1461.9	1340.2	1195.3	1058.4	984.9	956.5	986.6	1044.9	1098.2
37°	1544.2	1522.3	1460.2	1336.7	1184.9	1040.6	965.1	939.6	974.9	1034.1	1092.1
38°	1539.5	1518.7	1456.5	1333.2	1172.2	1023.6	945.6	922.5	960.4	1024.6	1085.8
39°	1530.6	1510.4	1453.6	1329.6	1162.3	1005.8	925.4	904.8	947.3	1013.3	1080.9
40°	1521.3	1500.6	1448.5	1324.5	1151.2	987.3	905.5	887.9	935.3	1003.5	1075.8
41°	1511.6	1492.0	1442.4	1319.7	1138.4	970.1	886.1	872.6	920.5	995.4	1069.9
42°	1499.3	1483.0	1432.3	1314.6	1128.2	950.3	866.8	857.3	906.4	987.4	1061.7
43°	1485.2	1469.2	1422.3	1308.5	1118.5	931.3	847.3	841.5	891.7	978.4	1055.6
44°	1466.3	1453.6	1410.8	1303.1	1106.5	912.3	826.3	823.9	878.8	966.4	1049.5



REPORT NUMBER: P1449901

CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	1450.0	1437.7	1399.5	1297.0	1095.5	894.0	804.5	805.8	865.9	955.3	1042.6
46°	1428.6	1417.9	1385.7	1289.5	1085.4	876.2	782.7	788.0	853.0	945.8	1035.0
47°	1399.8	1396.7	1369.3	1281.2	1074.6	856.6	759.8	769.5	839.4	937.3	1023.8
48°	1372.7	1372.0	1351.7	1270.4	1064.7	836.2	737.4	750.5	823.2	926.6	1011.3
49°	1343.8	1342.4	1332.4	1258.0	1055.0	815.8	715.2	730.7	808.2	914.9	999.0
50°	1315.1	1315.1	1309.2	1244.8	1045.0	794.4	692.3	709.5	794.7	902.9	980.3
51°	1283.7	1284.5	1283.3	1231.7	1035.9	772.8	669.7	688.3	780.7	890.6	957.3
52°	1248.9	1253.0	1255.4	1216.0	1024.8	750.5	645.8	668.6	765.7	878.3	928.5
53°	1211.4	1216.8	1227.3	1199.8	1014.7	728.5	623.2	648.8	749.6	866.0	891.3
54°	1175.4	1180.0	1193.4	1178.9	1004.8	706.1	599.2	628.6	731.9	853.6	854.2
55°	1141.6	1144.3	1158.1	1154.1	989.9	684.0	576.0	608.1	714.7	834.9	817.0
56°	1101.3	1108.2	1122.1	1128.2	976.5	661.8	552.0	587.3	697.6	809.2	775.9
57°	1060.3	1069.5	1082.7	1100.7	962.1	640.1	526.9	566.8	680.2	778.3	731.7
58°	1012.8	1027.6	1046.2	1069.4	946.6	617.7	500.5	545.5	662.1	741.4	683.2
59°	961.7	981.0	1005.5	1035.6	929.9	595.0	476.6	523.8	642.7	703.0	638.5
60°	910.1	929.0	966.0	996.0	909.7	572.4	450.9	500.5	622.4	663.7	595.2
61°	858.7	879.2	921.0	953.9	886.7	551.5	426.7	476.6	602.3	621.1	558.0
62°	804.9	825.3	870.2	908.2	862.9	530.2	404.1	454.3	578.9	579.6	533.6
63°	748.6	770.2	820.5	859.0	837.5	509.6	380.6	431.7	552.0	537.9	508.7
64°	696.6	712.5	773.2	809.7	809.3	490.2	357.9	408.4	520.9	498.0	473.2
65°	644.4	656.5	723.5	756.4	775.5	471.8	336.4	386.4	486.6	470.4	432.7
66°	600.3	603.5	670.8	700.7	737.0	455.0	314.4	363.3	450.6	450.3	401.9
67°	553.2	558.0	615.6	645.4	694.0	439.6	292.1	341.0	412.0	424.5	382.0
68°	492.8	505.4	557.9	599.2	643.6	425.3	270.1	319.3	373.2	392.5	366.5
69°	432.9	444.3	500.6	565.8	590.2	414.0	247.9	297.1	336.6	368.1	350.5
70°	404.9	413.0	433.5	531.4	528.8	402.8	225.4	275.8	306.8	350.9	334.9
71°	378.1	382.9	388.6	484.5	454.1	391.6	203.0	254.1	287.2	334.3	320.7
72°	351.2	352.7	343.8	412.0	387.3	379.1	181.5	231.0	265.8	316.6	306.0
73°	328.3	333.8	299.0	358.4	320.6	360.7	160.4	206.7	245.5	299.1	289.1
74°	307.5	312.9	279.7	305.5	253.8	331.8	140.5	181.7	231.4	282.3	270.9
75°	290.0	289.8	259.9	252.5	273.2	298.3	121.7	155.3	219.4	266.5	251.6
76°	274.5	265.2	242.2	227.6	250.9	267.1	105.5	130.9	206.1	249.2	229.7
77°	262.6	240.9	223.8	214.2	176.7	235.0	89.3	114.1	193.2	233.6	204.9
78°	254.1	221.6	202.3	200.9	128.2	193.8	73.2	97.4	181.3	218.7	181.9
79°	242.7	208.0	183.3	174.3	102.0	154.2	60.0	80.7	168.7	204.2	161.4
80°	222.8	196.9	169.3	140.7	104.0	120.7	48.2	70.2	156.7	185.9	145.8
81°	193.0	184.1	156.2	118.6	107.6	89.2	37.7	59.8	144.0	166.3	129.4
82°	161.5	166.1	142.8	103.6	77.5	63.3	28.5	50.3	131.1	147.1	98.7
83°	132.6	147.8	123.8	90.2	50.5	42.8	21.1	41.3	118.2	132.8	67.7
84°	105.6	130.9	96.3	79.3	41.0	33.3	15.4	32.9	99.3	106.6	26.0
85°	73.2	102.8	74.4	67.4	31.6	24.0	11.7	25.1	80.5	80.4	18.5
86°	50.5	75.9	54.9	46.4	22.1	14.7	7.9	17.7	67.3	54.2	11.0
87°	40.4	44.3	36.5	25.9	15.7	8.5	4.2	12.0	44.7	28.0	3.6
88°	30.4	33.1	27.5	5.4	8.3	3.5	2.0	6.4	29.8	1.8	1.3
89°	20.3	22.1	18.4	3.3	5.5	1.8	0.6	0.8	14.9	0.5	0.5



REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

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: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

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



REPORT NUMBER: P1449901
CATALOG NUMBER: TWC60_T3_24W_5000K

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: P1449901

CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9	1314.9
1°	1305.2	1304.7	1305.0	1307.4	1309.0	1310.0	1312.8	1314.4	1317.6	1319.8	1321.6
2°	1296.4	1296.5	1298.5	1299.1	1301.7	1305.1	1310.6	1312.6	1318.5	1322.6	1328.3
3°	1289.6	1289.2	1290.4	1291.9	1294.5	1301.8	1306.8	1311.6	1320.4	1326.7	1335.2
4°	1289.5	1290.3	1290.3	1288.0	1289.1	1294.0	1301.9	1311.1	1320.7	1330.8	1340.0
5°	1292.4	1293.2	1291.8	1289.6	1286.1	1289.6	1297.8	1308.7	1321.5	1334.2	1344.9
6°	1290.9	1291.0	1292.1	1290.5	1286.7	1283.4	1293.1	1305.3	1321.5	1336.3	1350.6
7°	1281.4	1278.5	1283.3	1287.6	1287.2	1280.6	1288.9	1300.9	1319.8	1339.5	1355.7
8°	1263.0	1262.7	1265.9	1277.6	1285.0	1278.8	1283.9	1298.5	1320.7	1341.3	1360.6
9°	1253.1	1252.5	1252.6	1261.7	1277.3	1278.0	1276.9	1292.7	1319.1	1344.2	1365.9
10°	1246.1	1244.2	1245.0	1249.3	1264.2	1275.9	1271.5	1288.2	1317.2	1344.8	1370.2
11°	1239.1	1239.0	1239.2	1241.0	1249.1	1272.1	1265.0	1283.9	1314.7	1345.0	1373.9
12°	1234.1	1234.9	1233.9	1232.5	1237.6	1264.5	1260.7	1277.9	1312.6	1347.4	1377.3
13°	1229.4	1230.5	1229.8	1226.6	1228.5	1251.7	1256.1	1272.6	1308.4	1347.8	1381.6
14°	1224.3	1223.7	1224.0	1221.3	1220.7	1236.5	1252.6	1264.2	1306.9	1347.5	1383.4
15°	1219.2	1219.5	1218.5	1214.5	1211.9	1222.6	1247.8	1258.8	1302.9	1345.8	1385.3
16°	1214.8	1214.5	1211.6	1206.2	1204.1	1210.6	1242.2	1250.7	1299.5	1345.5	1387.7
17°	1210.1	1209.6	1207.9	1200.6	1195.3	1199.6	1234.2	1242.1	1294.1	1343.6	1389.8
18°	1204.1	1204.8	1200.6	1193.6	1188.2	1189.3	1224.9	1235.2	1289.7	1342.5	1390.0
19°	1199.1	1200.5	1196.1	1187.2	1178.5	1178.7	1213.4	1225.5	1283.9	1339.9	1391.3
20°	1195.0	1195.8	1191.3	1180.2	1169.7	1168.8	1197.2	1216.9	1277.7	1337.7	1392.5
21°	1190.6	1192.6	1185.9	1173.5	1161.7	1159.0	1183.3	1207.3	1271.5	1332.8	1392.5
22°	1185.3	1188.7	1180.8	1167.7	1152.7	1146.5	1166.7	1198.9	1262.8	1329.5	1393.6
23°	1183.4	1185.9	1176.8	1160.5	1144.1	1135.2	1152.9	1188.2	1254.5	1324.7	1393.9
24°	1179.9	1183.2	1174.1	1153.7	1134.1	1122.7	1140.5	1178.6	1245.0	1319.2	1393.3
25°	1174.7	1180.9	1170.1	1147.8	1125.2	1111.5	1126.0	1168.7	1235.8	1315.6	1392.3
26°	1172.7	1176.2	1166.5	1142.2	1116.0	1100.1	1111.9	1159.5	1225.2	1310.6	1393.9
27°	1167.2	1171.6	1161.2	1136.5	1106.6	1087.5	1098.4	1150.0	1214.7	1304.2	1391.1
28°	1164.2	1169.6	1157.2	1130.9	1097.0	1075.1	1084.2	1141.4	1203.2	1297.9	1390.7
29°	1159.6	1167.0	1151.3	1123.0	1087.9	1061.7	1069.0	1127.8	1189.9	1291.1	1389.3
30°	1157.0	1163.6	1147.5	1117.6	1079.8	1049.4	1054.7	1113.9	1176.9	1284.0	1388.5
31°	1156.4	1161.6	1145.0	1110.2	1071.1	1035.0	1037.7	1099.6	1163.6	1276.1	1386.8
32°	1152.7	1159.4	1141.5	1103.9	1061.2	1022.1	1023.4	1082.9	1149.3	1267.6	1385.1
33°	1148.5	1155.1	1137.3	1098.2	1051.1	1009.6	1005.1	1063.5	1135.4	1259.5	1382.5
34°	1142.5	1152.2	1132.6	1091.8	1039.1	996.3	989.4	1042.0	1119.9	1250.1	1381.6
35°	1137.7	1148.3	1127.8	1085.3	1029.6	981.7	971.9	1022.1	1105.6	1242.4	1381.1
36°	1135.3	1146.7	1122.6	1079.0	1018.9	967.5	955.1	1002.0	1090.7	1233.3	1377.8
37°	1133.9	1144.9	1119.6	1070.4	1008.7	953.6	936.9	981.7	1074.6	1224.4	1377.3
38°	1132.0	1141.3	1117.3	1063.6	997.5	939.4	919.4	961.8	1059.7	1216.1	1372.7
39°	1126.6	1136.7	1113.6	1056.6	987.0	924.0	901.8	940.9	1043.5	1206.2	1368.6
40°	1120.5	1131.0	1107.1	1050.0	974.1	909.0	883.7	921.0	1025.8	1197.9	1365.3
41°	1116.8	1126.3	1100.8	1042.3	962.8	893.4	865.7	899.1	1009.4	1188.8	1360.6
42°	1110.1	1120.3	1095.2	1033.5	953.5	879.9	847.7	879.3	990.7	1179.9	1356.0
43°	1104.9	1114.7	1089.8	1027.0	942.9	866.4	829.5	858.0	972.6	1172.1	1349.8
44°	1096.8	1106.4	1082.3	1020.6	933.0	852.9	809.7	835.3	954.9	1164.5	1342.9



REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1086.7	1096.5	1074.0	1012.5	921.0	834.7	789.3	812.3	936.1	1157.2	1333.8
46°	1075.5	1082.4	1063.0	1003.8	908.4	817.2	770.8	789.6	916.7	1148.5	1322.8
47°	1061.1	1064.4	1050.8	995.5	896.6	800.6	750.5	766.4	897.3	1140.8	1312.5
48°	1040.0	1040.7	1032.2	985.2	886.0	785.2	731.4	743.2	879.3	1132.9	1299.1
49°	1014.2	1010.5	1010.0	974.6	874.4	769.1	710.4	720.1	859.1	1123.9	1286.5
50°	980.6	973.9	982.5	960.2	862.8	752.2	689.6	696.5	840.5	1116.3	1271.1
51°	942.0	931.0	947.7	944.5	851.2	735.2	668.4	674.0	823.5	1107.4	1254.3
52°	900.7	887.8	907.9	921.8	836.6	718.5	646.4	650.1	805.4	1096.3	1233.7
53°	859.3	844.5	868.1	890.8	822.5	703.3	624.0	625.3	787.2	1082.5	1210.2
54°	817.8	801.3	828.3	859.8	808.8	686.3	601.7	601.4	770.2	1069.0	1184.3
55°	769.5	751.2	783.5	828.7	793.5	667.3	580.3	575.9	753.5	1055.6	1158.4
56°	719.9	702.1	733.8	788.0	777.5	648.6	559.1	550.3	737.5	1039.1	1128.4
57°	670.8	654.1	685.4	747.3	757.8	628.4	535.6	525.1	721.4	1020.1	1094.5
58°	624.9	612.4	637.8	703.8	733.1	607.8	512.2	500.2	705.3	1001.4	1059.0
59°	590.1	582.7	597.3	657.9	703.5	588.5	489.3	475.9	689.2	977.6	1018.8
60°	563.6	557.9	566.4	613.6	667.9	567.5	466.4	452.2	674.1	953.3	976.5
61°	537.1	528.5	541.9	569.4	630.8	547.3	444.0	427.7	656.1	926.7	933.9
62°	504.6	491.8	513.1	535.0	590.9	526.5	420.7	404.4	639.7	897.5	889.7
63°	461.9	449.7	473.8	510.8	547.8	503.3	396.2	381.2	622.4	862.6	843.3
64°	427.1	423.0	433.2	486.5	506.2	480.9	372.3	357.9	606.0	822.5	792.7
65°	408.4	407.5	408.6	453.6	465.8	457.5	348.8	335.5	590.6	778.4	738.3
66°	393.1	392.0	391.8	415.0	430.8	430.1	324.9	312.1	575.8	729.9	686.6
67°	378.4	375.4	377.9	388.4	407.6	397.4	302.0	288.3	559.7	677.9	643.8
68°	361.5	356.9	362.2	368.2	388.6	362.2	279.3	264.3	541.2	618.9	603.6
69°	343.2	336.6	345.8	350.3	362.0	327.2	257.7	239.6	517.0	553.1	562.7
70°	324.1	315.5	329.1	332.9	338.4	290.5	236.3	215.7	489.1	477.9	512.3
71°	302.4	291.4	309.8	316.5	322.5	256.4	215.3	192.0	454.3	413.1	446.5
72°	279.3	268.6	288.6	302.7	308.9	228.1	195.8	169.2	419.4	386.9	390.2
73°	257.3	247.7	266.1	288.9	293.5	208.5	176.0	148.5	381.8	361.7	334.0
74°	234.3	224.5	243.6	275.0	278.0	189.2	157.1	129.2	344.3	355.2	277.8
75°	211.9	200.9	220.1	260.3	263.4	173.0	137.1	110.8	306.7	279.7	255.9
76°	187.5	175.4	198.0	243.8	248.2	160.7	118.2	94.5	258.6	204.4	236.3
77°	164.3	151.5	175.6	224.8	232.3	148.7	100.5	79.9	195.2	166.2	219.8
78°	143.6	129.0	155.5	201.6	215.5	136.2	82.9	67.5	146.0	141.5	196.9
79°	117.0	101.5	135.8	176.7	198.4	124.7	67.8	56.5	100.9	138.6	167.8
80°	90.3	73.9	106.0	155.9	181.0	113.6	56.3	46.5	75.3	139.6	141.5
81°	63.7	46.4	76.2	140.0	162.8	102.0	46.9	38.0	65.2	104.8	123.4
82°	33.6	26.2	46.6	127.2	144.2	90.4	38.8	29.6	58.2	69.5	109.6
83°	20.8	20.2	22.2	92.0	125.0	78.8	31.1	21.2	47.7	55.2	98.1
84°	15.1	14.6	15.4	57.2	104.1	66.9	24.0	15.4	37.5	45.4	84.5
85°	11.0	10.7	11.3	39.2	83.2	54.4	17.7	10.9	27.4	37.9	64.1
86°	6.9	6.8	7.1	21.2	62.2	41.1	12.9	7.1	17.2	30.5	34.6
87°	2.9	2.9	3.0	3.6	41.5	30.6	8.0	4.0	10.1	23.1	21.1
88°	1.2	1.2	1.2	1.2	20.8	20.5	3.2	2.1	3.9	9.7	7.7
89°	0.4	0.4	0.4	0.4	0.5	10.3	0.5	0.3	2.0	6.3	5.0



REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

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



REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

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



REPORT NUMBER: P1449901
CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

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



REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	1314.9	1314.9	1314.9
1°	1322.1	1323.8	1324.9
2°	1331.6	1334.2	1334.5
3°	1338.8	1343.7	1342.6
4°	1346.8	1350.6	1353.3
5°	1354.2	1359.9	1361.5
6°	1360.6	1369.5	1370.7
7°	1368.2	1376.1	1378.8
8°	1376.0	1385.6	1388.6
9°	1382.8	1395.0	1397.3
10°	1390.2	1402.7	1406.5
11°	1396.3	1410.4	1413.6
12°	1402.1	1416.8	1421.3
13°	1408.7	1423.7	1430.4
14°	1411.9	1431.5	1436.9
15°	1417.5	1437.6	1443.6
16°	1422.3	1444.9	1451.3
17°	1425.7	1449.9	1458.7
18°	1431.3	1457.9	1466.4
19°	1436.0	1463.3	1472.7
20°	1438.8	1469.6	1479.4
21°	1443.2	1475.7	1485.4
22°	1447.2	1483.2	1491.4
23°	1450.1	1489.2	1500.0
24°	1453.8	1496.3	1507.0
25°	1457.5	1501.3	1513.8
26°	1462.2	1507.5	1520.7
27°	1464.7	1513.6	1525.3
28°	1467.9	1519.8	1532.1
29°	1471.9	1523.5	1540.5
30°	1474.6	1530.0	1545.5
31°	1478.9	1534.6	1550.5
32°	1481.7	1538.1	1553.0
33°	1484.4	1541.0	1555.1
34°	1485.8	1540.6	1554.6
35°	1485.6	1538.7	1553.2
36°	1484.2	1537.5	1549.4
37°	1483.0	1532.0	1544.2
38°	1478.7	1525.3	1539.5
39°	1475.6	1517.0	1530.6
40°	1467.7	1509.1	1521.3
41°	1458.2	1498.6	1511.6
42°	1448.7	1488.1	1499.3
43°	1437.3	1475.9	1485.2
44°	1426.7	1458.6	1466.3



REPORT NUMBER: P1449901
 CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	1415.2	1440.4	1450.0
46°	1398.7	1421.7	1428.6
47°	1379.5	1397.9	1399.8
48°	1360.8	1369.9	1372.7
49°	1336.5	1341.0	1343.8
50°	1311.6	1312.9	1315.1
51°	1282.6	1281.1	1283.7
52°	1252.9	1248.7	1248.9
53°	1221.9	1212.6	1211.4
54°	1186.7	1177.1	1175.4
55°	1150.7	1140.9	1141.6
56°	1112.6	1104.2	1101.3
57°	1074.7	1064.5	1060.3
58°	1037.3	1019.6	1012.8
59°	996.6	968.9	961.7
60°	952.5	918.0	910.1
61°	902.7	866.3	858.7
62°	851.6	813.8	804.9
63°	803.5	757.7	748.6
64°	753.7	703.3	696.6
65°	698.2	648.8	644.4
66°	643.2	600.4	600.3
67°	586.9	555.1	553.2
68°	529.2	499.6	492.8
69°	471.0	437.6	432.9
70°	408.8	409.2	404.9
71°	367.0	381.1	378.1
72°	325.7	353.0	351.2
73°	307.9	331.4	328.3
74°	291.6	308.8	307.5
75°	275.3	286.0	290.0
76°	257.6	263.9	274.5
77°	236.8	245.3	262.6
78°	214.8	232.3	254.1
79°	196.8	223.3	242.7
80°	181.2	213.2	222.8
81°	165.4	194.5	193.0
82°	144.7	170.4	161.5
83°	119.5	148.0	132.6
84°	94.0	124.8	105.6
85°	80.4	92.7	73.2
86°	59.9	64.2	50.5
87°	39.1	51.1	40.4
88°	29.4	38.4	30.4
89°	19.7	25.7	20.3



REPORT NUMBER: P1449901
CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

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



REPORT NUMBER: P1449901
CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

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



REPORT NUMBER: P1449901
CATALOG NUMBER: TWC60_T3_24W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

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

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2601-659-3

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-5000K

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

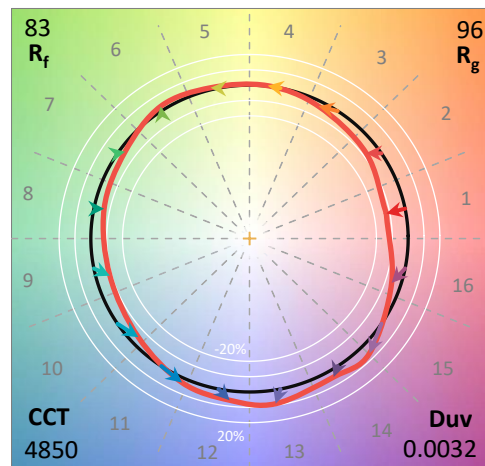
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 02/16/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **MWP2460W34VDDKYYAD-T4-24W-5000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 5000K

Spectral Parameters

CCT (K): 4850
 CIE u': 0.2108
 CIE v': 0.4905
 Duv: 0.0032
 CIE x: 0.3503
 CIE y: 0.3623
 CIE z: 0.2875
 Peak Wavelength (nm): 452
 Dominant Wavelength (nm): 571
 Purity: 13.81051
 R_f: 83.1
 R_g: 95.8

CRI (Ra):	82.6		
R1:	80.9	R9:	8.5
R2:	87.6	R10:	69.7
R3:	92.0	R11:	80.6
R4:	81.9	R12:	52.2
R5:	80.4	R13:	82.7
R6:	82.0	R14:	95.7
R7:	88.2	R15:	74.9
R8:	67.7		



Test Conditions

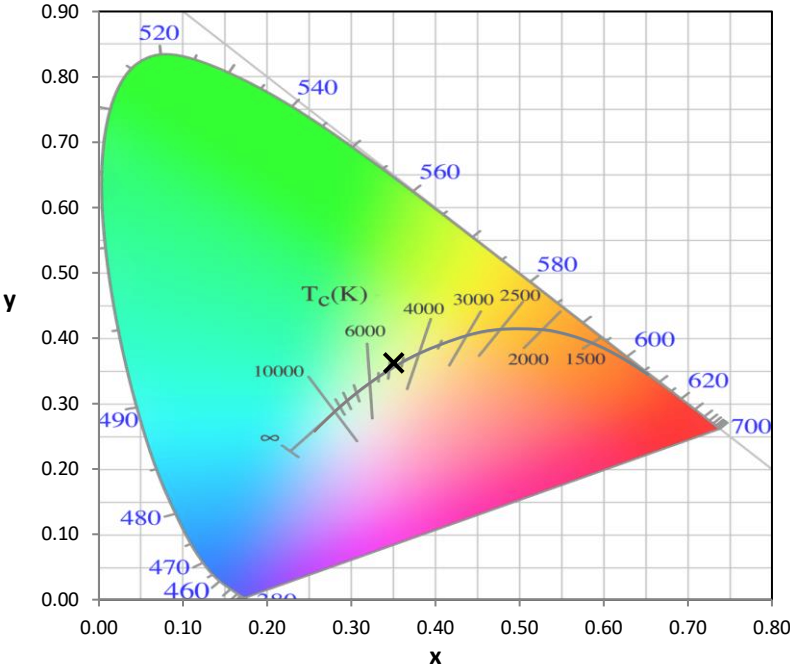
Stabilization Time: 25M
 Operation Time: 1H 25M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-3

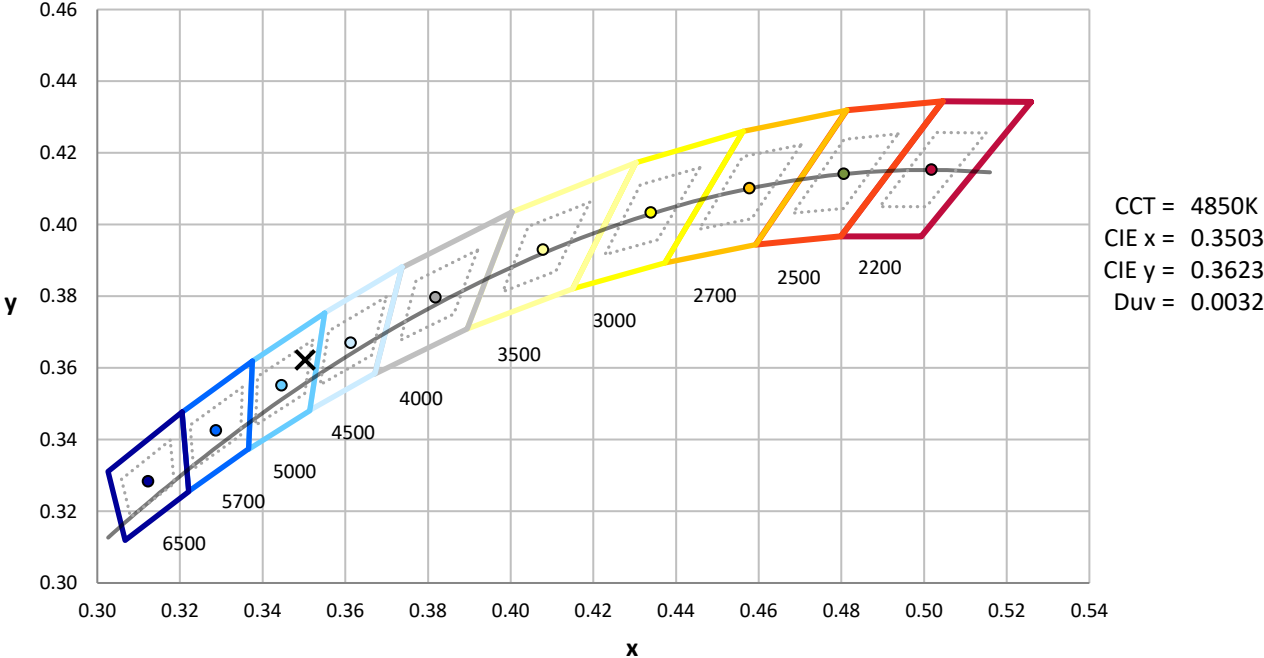
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

REPORT NUMBER: SP1-2601-659-3

CIE 1931 Chromaticity Diagram



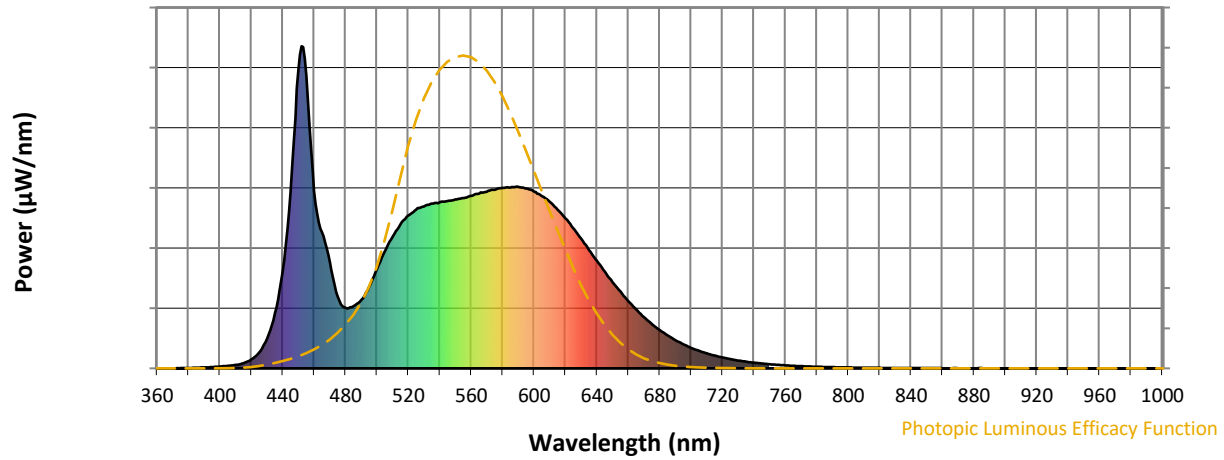
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

Photopic Flux vs. Wavelength

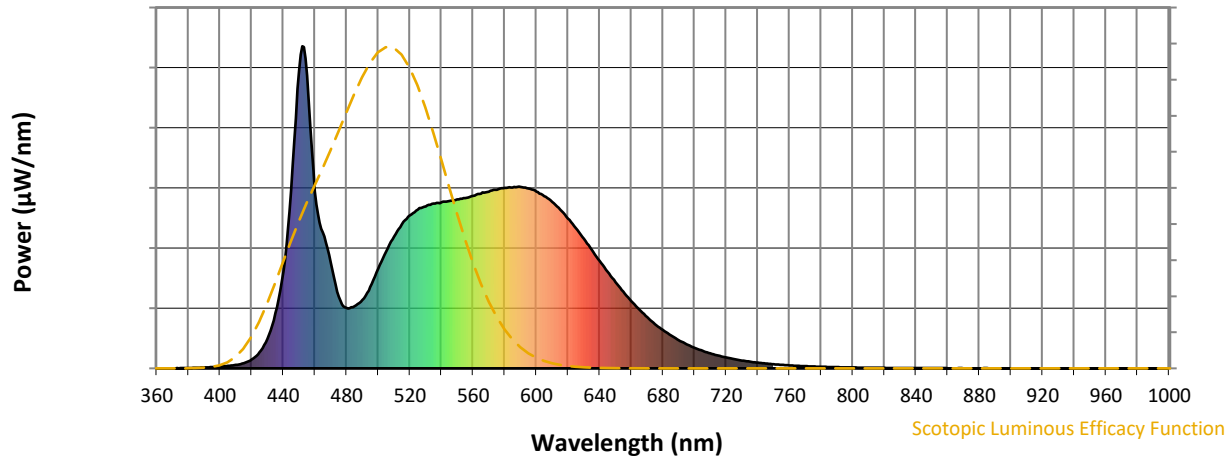


Photopic Lumens: NR

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	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Scotopic Flux vs. Wavelength



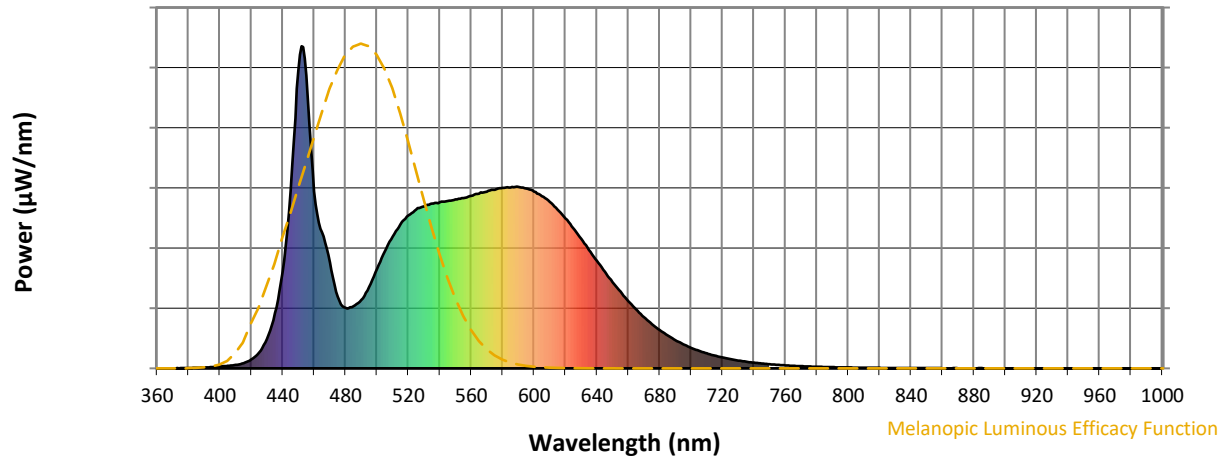
Scotopic Lumens: NR

S/P: 1.9

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Melanopic Flux vs. Wavelength



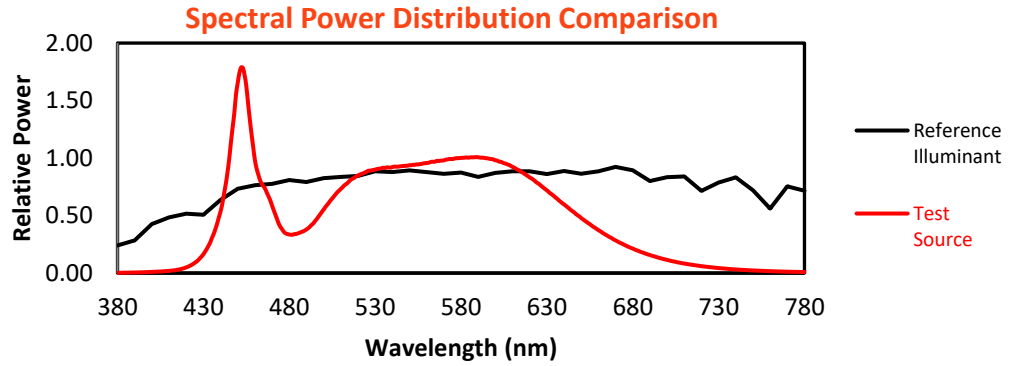
Melanopic Lumens: NR

M/P: 4

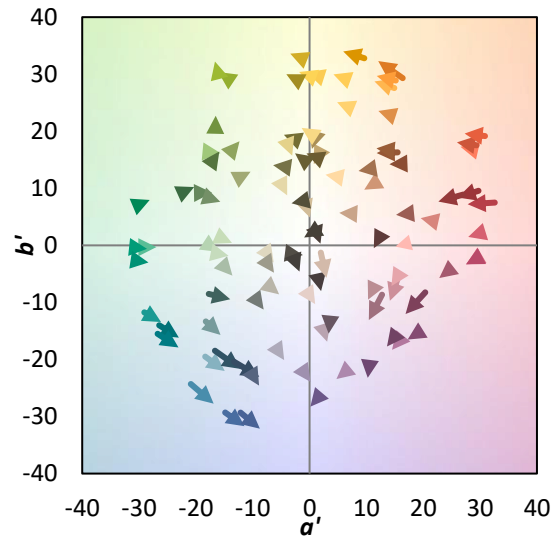
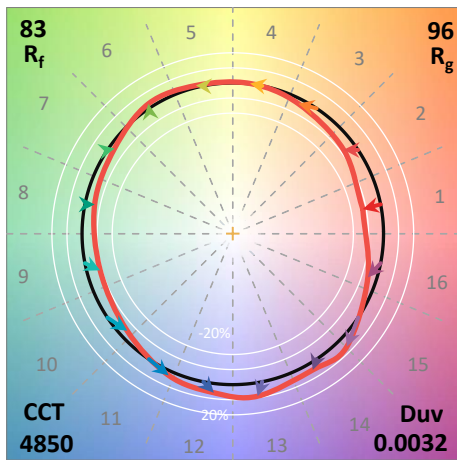
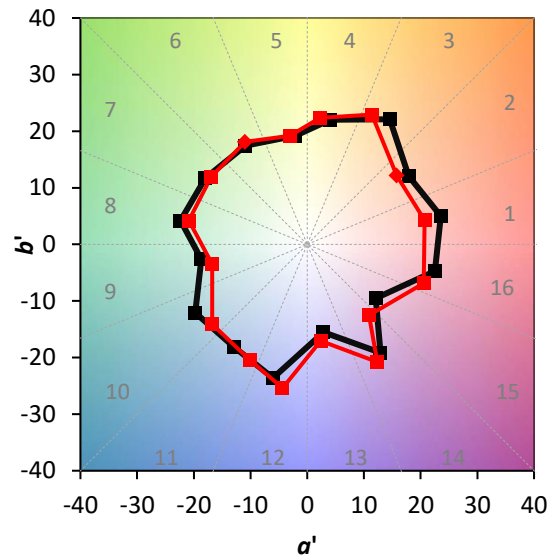
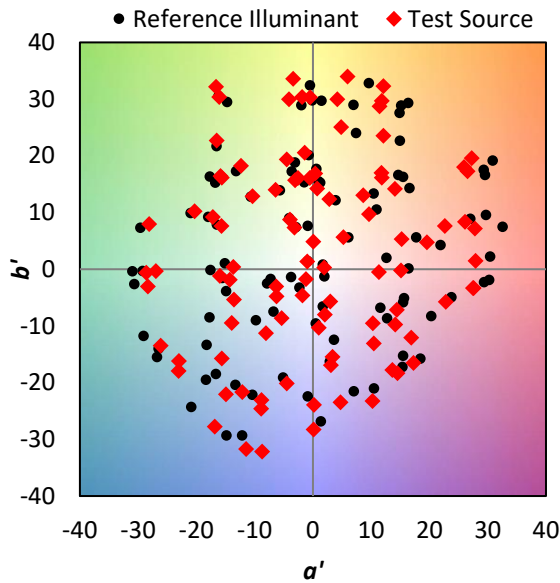
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

Summary

$R_f = 83.1$
 $R_g = 95.8$
 CIE $R_a = 82.6$
 $R_9 = 8.5$

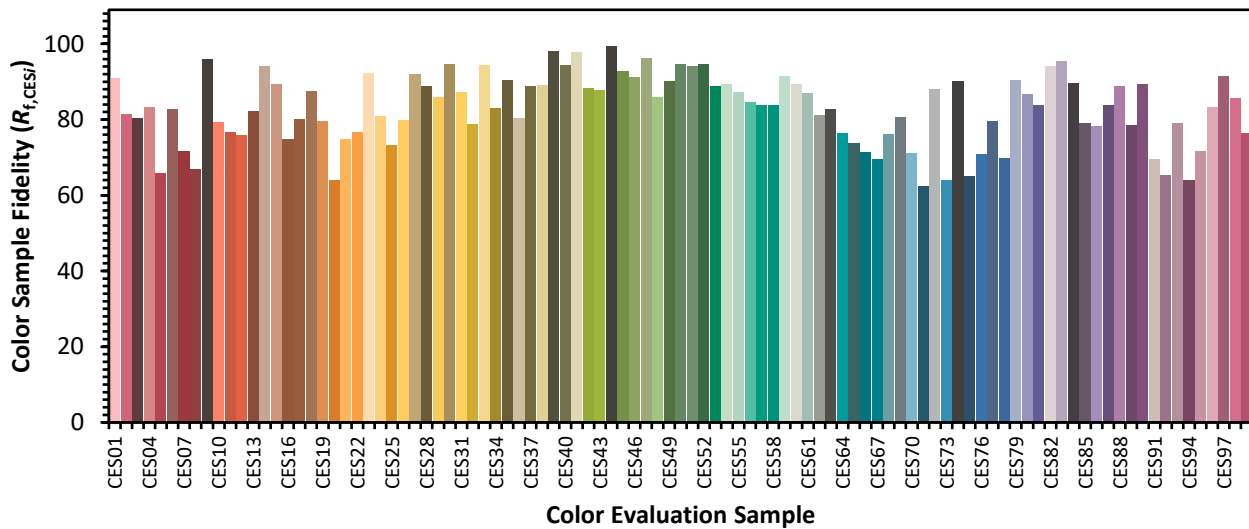


Color Vector Graphics

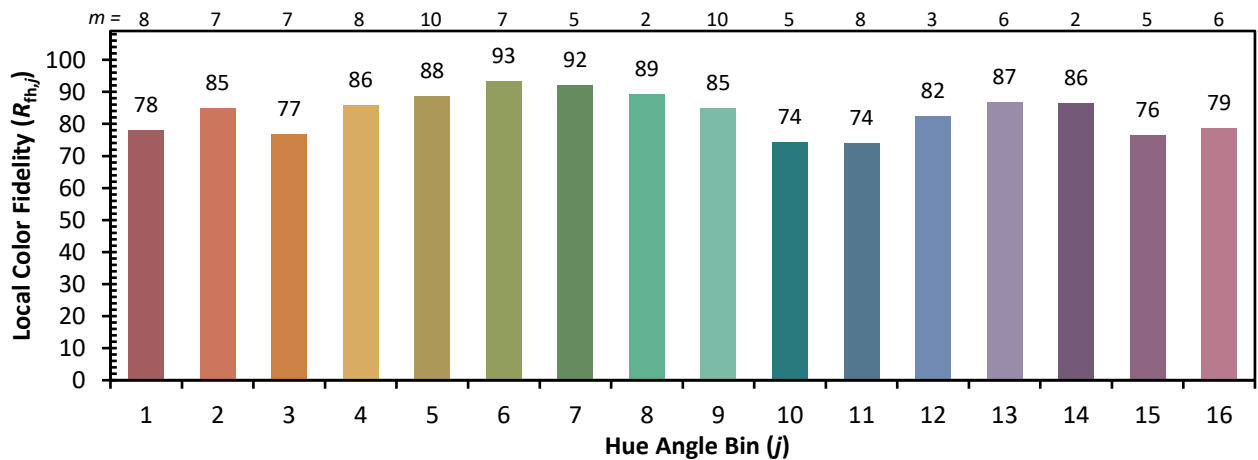
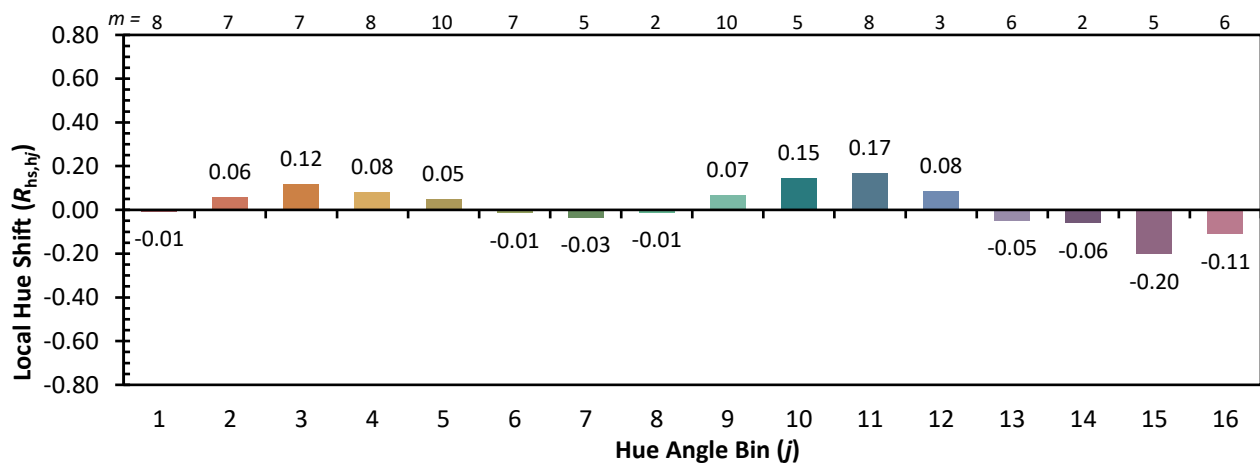
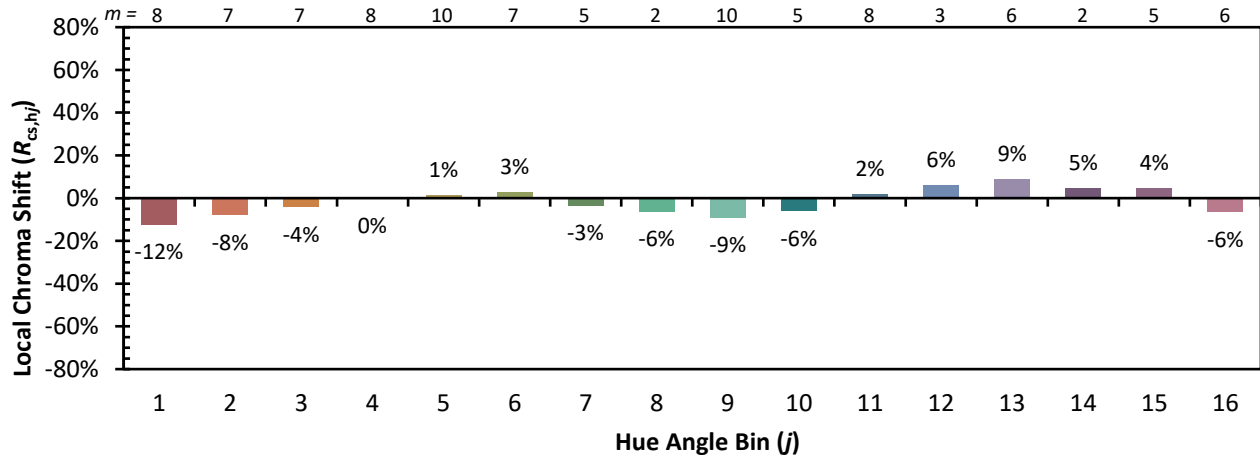


Individual Sample Fidelity Index ($R_{f,i}$)

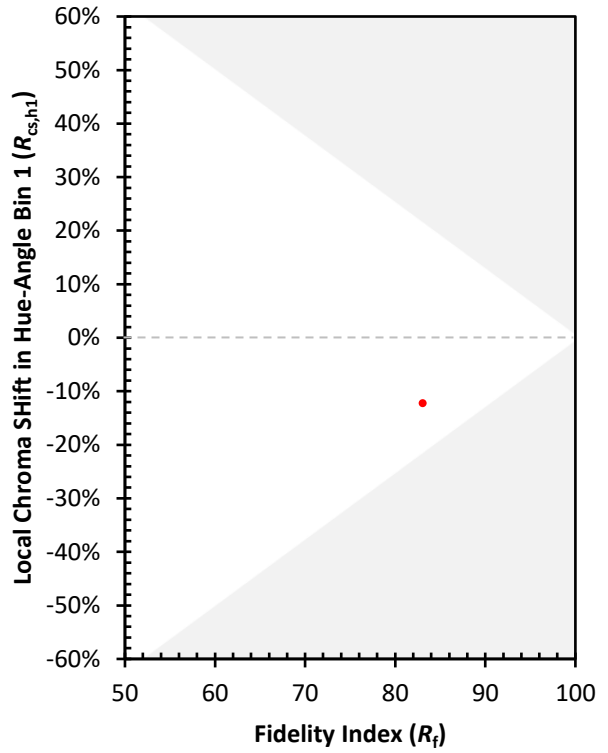
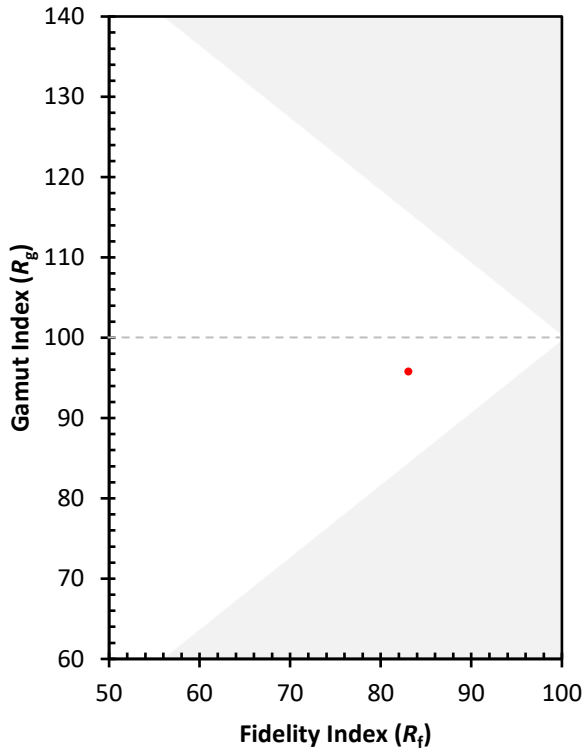
CES01 = 85	CES26 = 80	CES51 = 94	CES76 = 71
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 80
CES03 = 30	CES28 = 89	CES53 = 89	CES78 = 70
CES04 = 69	CES29 = 86	CES54 = 89	CES79 = 90
CES05 = 47	CES30 = 95	CES55 = 87	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 85	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 84	CES82 = 94
CES08 = 39	CES33 = 94	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 83	CES59 = 91	CES84 = 90
CES10 = 73	CES35 = 90	CES60 = 89	CES85 = 79
CES11 = 56	CES36 = 80	CES61 = 87	CES86 = 78
CES12 = 62	CES37 = 89	CES62 = 81	CES87 = 84
CES13 = 42	CES38 = 89	CES63 = 83	CES88 = 89
CES14 = 74	CES39 = 98	CES64 = 77	CES89 = 79
CES15 = 71	CES40 = 94	CES65 = 74	CES90 = 89
CES16 = 46	CES41 = 98	CES66 = 71	CES91 = 70
CES17 = 49	CES42 = 88	CES67 = 70	CES92 = 65
CES18 = 56	CES43 = 88	CES68 = 76	CES93 = 79
CES19 = 71	CES44 = 99	CES69 = 81	CES94 = 64
CES20 = 64	CES45 = 93	CES70 = 71	CES95 = 72
CES21 = 85	CES46 = 91	CES71 = 62	CES96 = 83
CES22 = 77	CES47 = 96	CES72 = 88	CES97 = 91
CES23 = 91	CES48 = 86	CES73 = 64	CES98 = 86
CES24 = 90	CES49 = 90	CES74 = 90	CES99 = 76
CES25 = 71	CES50 = 95	CES75 = 65	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)