

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: FAIL-SAFE

Report Number: P837760

Luminaire Tested: **ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD**

Issue Date: 5/21/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P837760
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

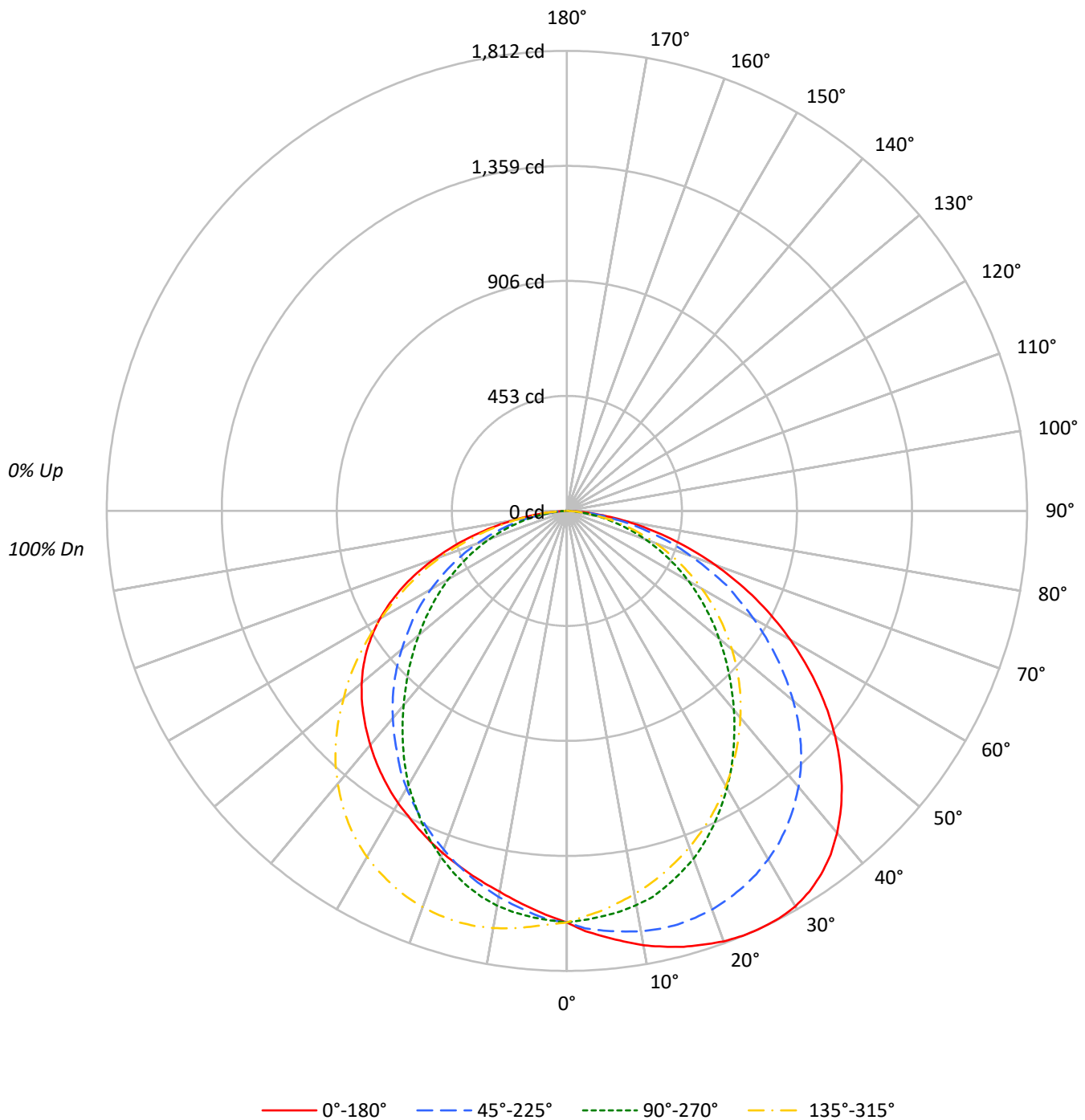
Lumens per Lamp: N/A
Luminaire Lumens: 4755.1 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
Input Voltage (V): 120
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

TEST NUMBER: P837760

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837760

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4362	4362	4362	4362
5°	4546	4330	4249	4337
10°	4748	4308	4162	4314
15°	4951	4253	4121	4254
20°	5168	4176	4103	4152
25°	5382	4059	4103	4018
30°	5590	3918	4131	3874
35°	5738	3757	4172	3697
40°	5814	3595	4230	3514
45°	5826	3432	4312	3345
50°	5771	3275	4418	3188
55°	5651	3129	4516	3042
60°	5473	2977	4576	2899
65°	5229	2802	4552	2737
70°	4884	2597	4390	2549
75°	4395	2315	4029	2303
80°	3727	1939	3386	1968
85°	2590	1284	2149	1318

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837760

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	3.2
10°-20°	445.6	9.4
20°-30°	682.9	14.4
30°-40°	830.4	17.5
40°-50°	863.2	18.2
50°-60°	779.8	16.4
60°-70°	592.8	12.5
70°-80°	330.5	7.0
80°-90°	76.1	1.6
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°-30°	1282.4	27.0
0°-40°	2112.8	44.4
0°-60°	3755.8	79.0
0°-90°	4755.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4755.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1621	1621	1621	1621	1621	
5°	1683	1603	1573	1606	1683	162
15°	1777	1527	1479	1527	1777	504
25°	1812	1367	1382	1353	1812	837
35°	1747	1144	1270	1126	1747	1091
45°	1531	902	1133	879	1531	1179
55°	1204	667	963	648	1204	1075
65°	821	440	715	430	821	811
75°	423	223	388	222	423	449
85°	84	42	70	43	84	106
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837760

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8
2.5°	1656.7	1632.5	1632.9	1654.0	1637.8	1645.7	1623.0	1631.7	1629.1	1631.0	1612.5
5°	1682.8	1656.7	1656.3	1674.5	1656.3	1659.7	1631.0	1636.7	1628.3	1623.0	1603.0
7.5°	1710.4	1684.3	1681.6	1697.5	1673.7	1671.1	1639.3	1639.3	1624.2	1611.0	1592.0
10°	1737.6	1710.8	1707.4	1719.5	1690.0	1681.3	1642.7	1636.7	1616.6	1597.0	1576.5
12.5°	1758.0	1730.8	1728.2	1735.7	1702.4	1686.6	1642.7	1631.0	1601.5	1573.9	1558.0
15°	1777.3	1749.3	1742.1	1745.9	1707.7	1686.6	1637.4	1619.3	1581.5	1545.2	1526.6
17.5°	1790.9	1764.1	1756.9	1756.5	1710.4	1680.1	1626.1	1601.1	1555.8	1511.9	1493.4
20°	1804.5	1777.7	1768.6	1761.8	1709.6	1671.4	1609.4	1575.8	1522.9	1473.7	1458.2
22.5°	1811.3	1783.7	1773.9	1763.7	1704.7	1655.6	1589.0	1546.3	1485.8	1427.2	1414.4
25°	1812.5	1784.1	1773.5	1758.8	1694.9	1636.7	1562.6	1510.8	1443.1	1378.1	1367.1
27.5°	1809.4	1778.4	1767.8	1750.1	1680.1	1613.6	1531.2	1470.3	1397.7	1325.9	1314.2
30°	1798.9	1767.5	1757.3	1734.2	1659.3	1585.2	1496.8	1425.3	1347.4	1271.1	1260.9
32.5°	1777.7	1747.1	1738.7	1715.7	1636.7	1552.3	1456.7	1376.9	1291.9	1218.9	1203.8
35°	1746.7	1716.1	1710.8	1686.6	1604.9	1513.0	1412.8	1324.0	1232.9	1158.4	1143.7
37.5°	1706.2	1680.5	1672.6	1648.8	1567.5	1468.4	1362.6	1266.5	1172.8	1092.6	1083.5
40°	1655.2	1631.0	1624.9	1603.8	1524.0	1418.9	1308.1	1207.2	1110.8	1036.3	1023.4
42.5°	1597.0	1574.3	1570.9	1548.9	1470.3	1364.1	1249.1	1145.5	1046.1	974.3	961.4
45°	1530.8	1508.9	1508.1	1487.3	1411.7	1303.2	1187.1	1083.2	983.0	908.5	901.7
47.5°	1457.8	1438.2	1438.2	1418.9	1346.3	1236.3	1123.2	1018.1	919.5	853.7	841.6
50°	1378.4	1359.9	1354.2	1344.8	1274.1	1163.3	1055.9	954.6	856.7	793.9	782.2
52.5°	1293.8	1277.9	1281.7	1264.3	1195.8	1087.3	987.9	883.2	793.6	736.5	724.8
55°	1204.5	1181.8	1185.2	1178.8	1114.2	1009.1	911.5	824.2	731.6	677.9	666.9
57.5°	1111.9	1082.4	1094.5	1090.7	1027.2	928.9	841.6	757.3	669.9	620.4	609.8
60°	1017.0	988.6	1001.1	997.7	938.0	848.8	769.4	691.1	608.7	563.7	553.1
62.5°	919.5	893.4	904.7	902.1	847.3	766.7	697.5	625.7	547.1	506.6	496.8
65°	821.2	796.2	806.4	804.5	753.9	692.6	623.8	558.0	485.1	449.9	440.1
67.5°	720.6	697.5	707.0	707.0	660.5	601.9	549.7	489.6	424.2	393.9	384.9
70°	620.8	599.2	607.6	606.8	567.5	519.8	474.9	421.2	362.6	337.6	330.1
72.5°	520.2	501.3	508.9	508.1	475.2	444.6	400.0	353.5	302.5	282.4	275.6
75°	422.7	404.9	412.1	411.3	384.5	355.8	325.9	287.3	243.5	229.5	222.7
77.5°	329.7	311.5	317.6	317.6	297.9	277.1	253.3	223.4	192.4	177.3	172.4
80°	240.5	231.8	228.7	229.1	215.9	202.3	190.2	161.4	138.8	128.5	125.1
82.5°	158.0	150.8	147.8	148.6	141.0	132.7	125.1	105.1	90.0	83.9	82.0
85°	83.9	78.6	76.0	77.9	76.4	71.8	68.1	54.4	45.0	42.7	41.6
87.5°	26.5	23.1	21.2	28.0	23.8	21.2	20.4	16.3	12.5	12.5	12.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837760

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8
2.5°	1618.5	1618.5	1603.8	1600.4	1598.9	1600.7	1586.0	1583.4	1604.5	1597.3	1581.1
5°	1605.7	1604.9	1584.1	1580.3	1580.3	1578.1	1561.4	1557.6	1578.8	1572.8	1555.0
7.5°	1589.8	1587.5	1562.9	1560.3	1556.5	1555.0	1536.5	1533.8	1552.0	1548.2	1531.6
10°	1570.5	1568.2	1539.1	1537.2	1533.1	1530.0	1512.7	1510.8	1529.3	1523.2	1510.0
12.5°	1545.2	1541.0	1511.1	1509.2	1505.8	1504.7	1487.7	1486.9	1507.4	1501.3	1487.3
15°	1511.9	1508.5	1475.2	1476.0	1476.4	1476.4	1462.7	1462.0	1482.0	1479.4	1464.3
17.5°	1475.2	1470.7	1438.9	1441.2	1443.8	1446.9	1436.3	1438.2	1459.3	1455.9	1442.3
20°	1433.6	1429.1	1398.1	1404.5	1410.2	1416.2	1409.4	1414.7	1434.4	1432.9	1422.7
22.5°	1387.1	1382.6	1353.9	1363.7	1373.1	1384.5	1381.5	1387.5	1408.3	1407.9	1398.9
25°	1330.4	1331.6	1306.2	1318.3	1334.2	1350.1	1351.2	1361.0	1384.1	1381.8	1373.5
27.5°	1277.5	1279.0	1252.2	1272.6	1293.8	1314.2	1319.1	1332.7	1356.1	1354.2	1347.1
30°	1221.9	1223.8	1197.7	1225.7	1251.4	1276.4	1286.9	1305.5	1329.3	1329.3	1321.7
32.5°	1164.1	1167.5	1140.3	1177.7	1207.6	1236.7	1255.2	1274.5	1301.7	1300.9	1294.5
35°	1104.7	1108.5	1083.5	1131.2	1161.0	1196.6	1219.6	1245.4	1269.6	1269.9	1265.0
37.5°	1044.2	1048.8	1026.1	1078.3	1112.3	1154.2	1183.7	1209.4	1236.3	1237.8	1233.3
40°	984.1	989.0	969.4	1019.7	1062.8	1109.6	1143.7	1173.9	1203.4	1204.1	1201.1
42.5°	924.0	929.3	914.5	963.7	1012.5	1062.8	1102.8	1137.2	1167.5	1169.4	1166.0
45°	865.4	869.9	859.3	913.0	959.9	1014.7	1060.9	1099.8	1130.4	1133.1	1131.9
47.5°	807.2	811.3	801.9	851.0	905.1	963.3	1016.6	1059.7	1092.2	1095.3	1094.5
50°	750.1	753.5	743.3	794.7	848.4	910.4	966.0	1015.9	1052.2	1055.2	1054.8
52.5°	693.4	696.8	688.1	742.1	790.9	856.3	916.8	970.9	1006.8	1011.3	1012.1
55°	638.6	640.1	633.3	685.1	732.3	800.7	870.3	922.9	958.8	962.6	964.8
57.5°	583.7	584.1	578.4	628.0	673.3	743.3	816.3	871.4	905.5	909.3	912.7
60°	529.3	528.9	522.5	570.5	614.0	683.2	759.2	814.0	846.9	850.3	854.8
62.5°	475.2	474.1	468.4	512.7	553.5	621.9	698.3	751.2	782.6	784.9	790.9
65°	421.5	420.4	415.1	456.0	493.0	558.4	633.3	683.5	711.9	714.9	713.8
67.5°	368.6	366.3	362.2	398.9	432.5	493.0	564.8	612.8	636.3	638.9	646.1
70°	315.7	313.0	303.6	342.5	372.0	426.1	493.0	535.7	555.4	558.0	556.9
72.5°	263.5	260.9	250.7	286.6	311.5	358.8	418.5	454.1	471.1	473.3	473.3
75°	212.9	211.3	204.9	232.1	252.9	291.5	342.2	371.6	384.9	387.5	386.8
77.5°	164.1	162.9	156.5	180.0	196.2	225.0	265.8	288.8	298.7	301.7	308.1
80°	117.6	117.2	107.0	130.1	137.2	161.4	191.3	209.1	214.4	218.5	223.1
82.5°	75.2	75.6	65.4	85.1	88.1	103.6	122.1	133.1	136.9	140.3	143.7
85°	36.7	38.2	32.5	45.0	45.4	53.3	61.2	65.4	66.9	69.6	72.6
87.5°	9.5	11.0	6.0	12.9	11.3	14.7	17.0	18.1	17.8	19.7	20.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837760

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8
2.5°	1586.4	1598.5	1592.4	1612.1	1619.6	1607.5	1628.7	1629.1	1614.0	1631.7	1641.6
5°	1561.8	1574.3	1570.5	1590.9	1600.4	1589.8	1615.5	1620.4	1605.7	1625.7	1641.6
7.5°	1536.8	1551.6	1546.7	1567.5	1578.8	1570.5	1598.1	1606.0	1594.7	1616.6	1637.8
10°	1515.3	1527.8	1522.5	1544.4	1554.2	1547.4	1574.7	1589.4	1578.8	1605.7	1631.0
12.5°	1494.1	1504.3	1498.3	1516.4	1525.9	1517.2	1550.5	1564.1	1556.5	1584.5	1617.0
15°	1466.9	1478.2	1469.9	1486.2	1493.4	1485.8	1513.0	1536.5	1527.0	1557.6	1593.6
17.5°	1446.1	1452.5	1441.2	1454.1	1458.2	1448.0	1475.6	1498.7	1491.9	1525.1	1566.7
20°	1423.1	1428.3	1412.5	1419.6	1419.3	1406.4	1431.7	1454.4	1449.9	1486.6	1533.8
22.5°	1397.3	1400.0	1381.5	1383.0	1382.2	1361.0	1383.7	1406.8	1404.9	1442.0	1494.9
25°	1370.1	1370.5	1346.7	1345.9	1337.6	1312.7	1332.7	1358.8	1353.1	1393.2	1448.8
27.5°	1343.3	1339.5	1310.8	1304.0	1290.7	1260.9	1278.6	1302.1	1298.7	1338.0	1399.6
30°	1314.5	1309.6	1274.5	1262.0	1242.7	1208.3	1223.1	1245.0	1246.9	1281.3	1345.9
32.5°	1287.3	1274.8	1235.9	1217.8	1193.6	1153.5	1161.4	1183.7	1186.8	1221.5	1288.1
35°	1252.2	1243.8	1195.8	1164.8	1141.0	1097.2	1105.5	1121.0	1125.5	1159.5	1227.2
37.5°	1218.9	1205.7	1154.6	1116.8	1086.2	1040.1	1042.3	1058.2	1062.8	1097.2	1164.1
40°	1184.5	1165.6	1110.8	1066.5	1031.4	983.0	980.3	997.0	1000.4	1034.0	1094.5
42.5°	1147.8	1125.1	1063.5	1015.1	974.7	925.5	920.2	934.6	938.4	971.3	1030.6
45°	1110.8	1083.5	1015.1	962.2	918.0	867.7	862.4	873.3	879.0	910.0	967.1
47.5°	1071.4	1039.7	965.2	906.2	860.5	810.2	803.8	814.7	819.3	849.9	904.0
50°	1030.2	991.7	913.8	848.8	803.4	753.9	744.4	757.3	761.4	790.2	843.1
52.5°	984.9	942.1	859.0	790.9	745.6	698.3	687.0	699.4	704.3	732.3	781.1
55°	936.9	890.7	803.8	737.6	688.5	642.3	632.9	637.8	648.4	674.9	720.2
57.5°	882.8	837.0	745.6	678.3	631.0	586.8	578.8	583.4	593.2	618.9	659.7
60°	825.3	776.9	686.2	618.9	573.2	531.2	524.0	528.2	538.7	562.2	600.0
62.5°	768.6	714.2	624.9	558.0	516.4	477.5	475.6	474.1	483.9	506.6	539.9
65°	699.8	647.6	561.1	497.5	459.7	424.6	417.0	420.4	429.9	450.7	485.4
67.5°	626.1	578.8	495.6	437.0	403.4	372.0	365.6	367.1	376.9	395.1	425.3
70°	547.8	506.2	428.7	376.2	347.8	318.3	314.2	314.6	324.0	339.9	366.3
72.5°	465.8	428.4	361.1	316.1	292.6	271.5	267.7	263.1	271.8	285.4	308.1
75°	382.2	349.3	293.8	257.1	238.6	220.8	217.4	212.9	221.5	233.3	251.0
77.5°	297.9	271.5	228.4	200.0	185.6	172.4	169.4	164.5	173.2	181.9	195.8
80°	215.5	196.2	170.5	140.6	135.7	127.0	124.0	118.7	127.0	132.7	143.3
82.5°	139.1	126.3	111.5	90.7	90.0	83.6	82.0	76.0	83.6	87.0	94.9
85°	70.3	64.3	60.5	46.1	47.6	43.5	43.1	36.7	42.7	44.2	48.8
87.5°	20.0	21.2	18.9	11.3	14.4	13.6	13.6	9.8	13.6	13.6	15.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837760

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-1HI-50-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8
2.5°	1622.3	1628.7	1630.2	1629.9	1634.0	1656.7	1649.1	1656.7
5°	1626.1	1640.4	1644.2	1649.5	1656.3	1682.0	1673.7	1682.8
7.5°	1628.3	1649.9	1658.2	1668.4	1679.4	1708.1	1701.3	1710.4
10°	1628.3	1656.3	1668.4	1685.4	1700.2	1733.4	1727.0	1737.6
12.5°	1621.5	1657.5	1674.5	1698.3	1717.2	1753.1	1750.5	1758.0
15°	1607.5	1651.8	1675.2	1705.8	1729.3	1769.4	1768.2	1777.3
17.5°	1588.6	1642.0	1670.3	1708.9	1738.4	1783.3	1786.0	1790.9
20°	1564.8	1623.4	1660.5	1707.7	1744.8	1794.3	1797.7	1804.5
22.5°	1533.4	1601.1	1645.7	1702.8	1745.5	1798.9	1804.9	1811.3
25°	1496.4	1574.3	1626.5	1693.4	1741.8	1798.5	1806.8	1812.5
27.5°	1454.1	1539.5	1601.9	1678.2	1731.2	1792.4	1802.6	1809.4
30°	1404.9	1502.4	1573.9	1658.6	1716.8	1781.1	1792.0	1798.9
32.5°	1354.2	1461.6	1540.6	1633.3	1696.0	1762.9	1772.4	1777.7
35°	1299.0	1412.1	1500.6	1600.7	1669.2	1733.8	1741.0	1746.7
37.5°	1238.9	1358.4	1454.8	1564.1	1631.4	1693.4	1699.8	1706.2
40°	1176.9	1302.1	1403.4	1519.1	1586.4	1643.8	1650.6	1655.2
42.5°	1114.5	1239.7	1348.6	1466.1	1533.1	1588.3	1592.4	1597.0
45°	1051.4	1175.0	1286.9	1407.5	1473.7	1525.5	1527.0	1530.8
47.5°	987.1	1108.1	1219.3	1340.6	1406.0	1453.3	1454.8	1457.8
50°	922.5	1041.2	1147.1	1268.4	1332.3	1382.2	1375.4	1378.4
52.5°	859.0	970.9	1079.0	1190.5	1253.7	1297.9	1299.8	1293.8
55°	796.6	902.1	1001.5	1108.9	1169.0	1203.4	1202.3	1204.5
57.5°	733.5	832.5	923.6	1021.9	1080.5	1113.0	1119.8	1111.9
60°	669.2	762.2	843.8	932.7	989.4	1016.6	1024.6	1017.0
62.5°	605.3	690.7	764.8	842.3	894.9	928.5	927.8	919.5
65°	541.4	618.9	685.1	750.8	796.6	830.2	828.7	821.2
67.5°	482.4	546.3	605.7	659.0	698.7	721.7	729.7	720.6
70°	417.4	472.6	524.8	567.5	600.4	621.2	628.7	620.8
72.5°	352.4	399.2	435.9	477.1	502.5	519.8	527.8	520.2
75°	288.1	326.7	356.5	388.7	406.4	421.2	430.2	422.7
77.5°	225.7	255.6	279.4	302.8	323.2	326.7	334.6	329.7
80°	166.4	187.9	205.3	220.8	235.5	237.0	243.5	240.5
82.5°	110.8	125.1	129.7	145.9	155.4	153.9	160.3	158.0
85°	58.6	67.3	75.2	80.2	85.4	80.5	86.2	83.9
87.5°	19.7	20.8	18.1	25.7	28.4	24.2	27.6	26.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)