

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: P837864

Luminaire Tested: **ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-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: P837864
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

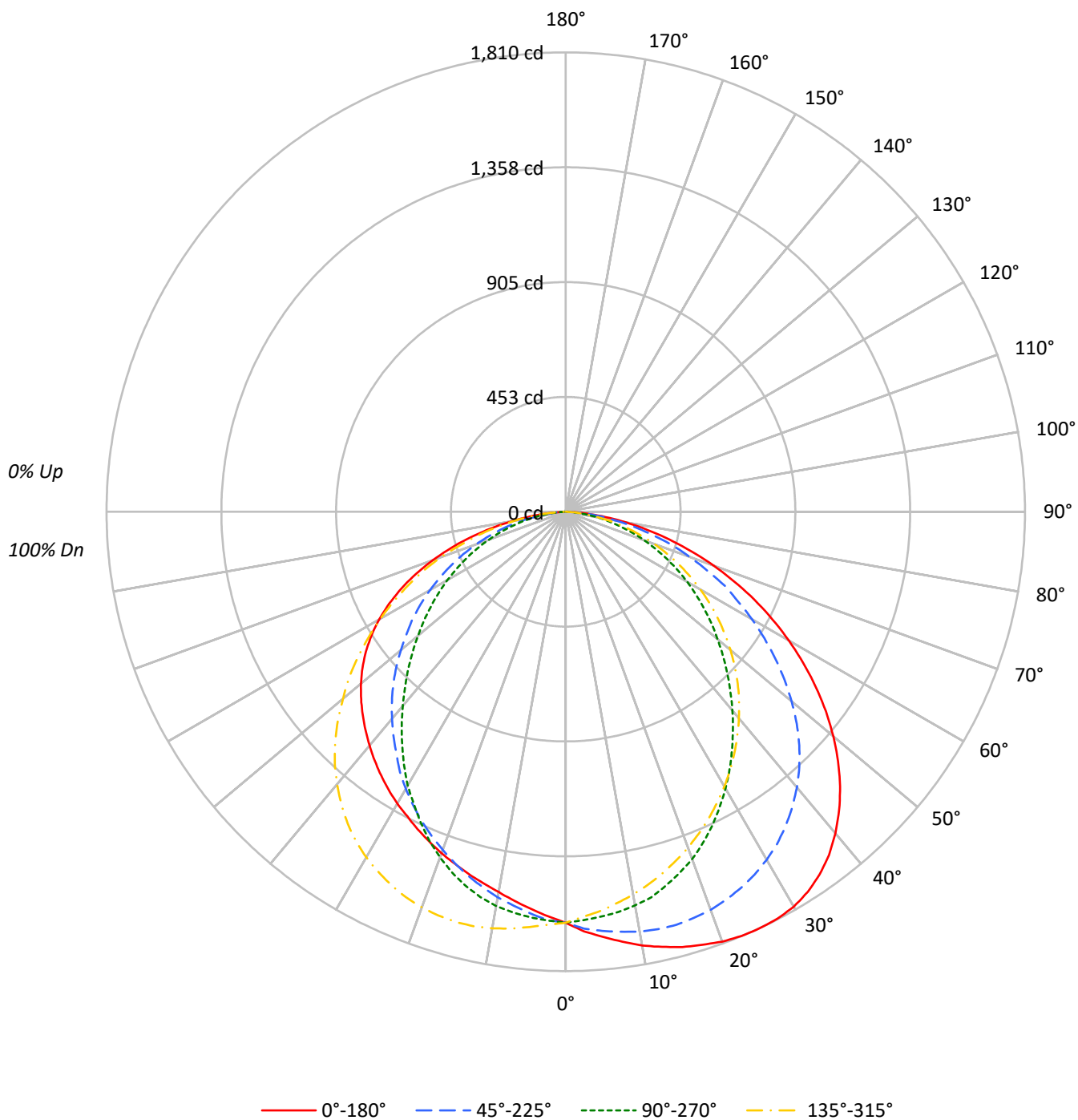
Lumens per Lamp: N/A
Luminaire Lumens: 4749.8 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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: P837864

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837864

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4357	4357	4357	4357
5°	4541	4325	4244	4333
10°	4743	4303	4157	4309
15°	4946	4248	4117	4249
20°	5162	4171	4099	4147
25°	5375	4055	4098	4013
30°	5583	3913	4126	3870
35°	5731	3753	4167	3693
40°	5808	3591	4225	3510
45°	5819	3428	4307	3341
50°	5764	3271	4412	3184
55°	5645	3126	4511	3039
60°	5468	2974	4571	2896
65°	5223	2799	4547	2734
70°	4879	2594	4386	2546
75°	4390	2312	4025	2301
80°	3722	1937	3383	1967
85°	2587	1281	2146	1318

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837864

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.7	3.2
10°-20°	445.1	9.4
20°-30°	682.1	14.4
30°-40°	829.4	17.5
40°-50°	862.3	18.2
50°-60°	778.9	16.4
60°-70°	592.1	12.5
70°-80°	330.1	7.0
80°-90°	76.0	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°	1281.0	27.0
0°-40°	2110.4	44.4
0°-60°	3751.5	79.0
0°-90°	4749.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4749.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1619	1619	1619	1619	1619	
5°	1681	1601	1571	1604	1681	162
15°	1775	1525	1478	1525	1775	503
25°	1810	1366	1380	1352	1810	836
35°	1745	1142	1268	1124	1745	1090
45°	1529	901	1132	878	1529	1177
55°	1203	666	962	648	1203	1074
65°	820	440	714	429	820	811
75°	422	222	387	221	422	448
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: P837864

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1654.8	1630.7	1631.0	1652.2	1636.0	1643.9	1621.2	1629.9	1627.3	1629.2	1610.6
5°	1680.9	1654.8	1654.5	1672.6	1654.5	1657.9	1629.2	1634.8	1626.5	1621.2	1601.2
7.5°	1708.5	1682.4	1679.8	1695.6	1671.8	1669.2	1637.5	1637.5	1622.4	1609.1	1590.3
10°	1735.6	1708.8	1705.4	1717.5	1688.1	1679.4	1640.9	1634.8	1614.8	1595.2	1574.8
12.5°	1756.0	1728.9	1726.2	1733.8	1700.5	1684.7	1640.9	1629.2	1599.7	1572.1	1556.3
15°	1775.3	1747.4	1740.2	1744.0	1705.8	1684.7	1635.6	1617.4	1579.7	1543.4	1524.9
17.5°	1788.9	1762.1	1754.9	1754.5	1708.5	1678.2	1624.2	1599.3	1554.0	1510.2	1491.7
20°	1802.5	1775.7	1766.6	1759.8	1707.7	1669.6	1607.6	1574.0	1521.1	1472.1	1456.6
22.5°	1809.3	1781.7	1771.9	1761.7	1702.8	1653.7	1587.2	1544.6	1484.1	1425.6	1412.8
25°	1810.4	1782.1	1771.5	1756.8	1693.0	1634.8	1560.8	1509.1	1441.5	1376.5	1365.6
27.5°	1807.4	1776.4	1765.9	1748.1	1678.2	1611.8	1529.5	1468.7	1396.1	1324.4	1312.7
30°	1796.8	1765.5	1755.3	1732.3	1657.5	1583.5	1495.1	1423.7	1345.9	1269.6	1259.4
32.5°	1775.7	1745.1	1736.8	1713.7	1634.8	1550.6	1455.1	1375.4	1290.4	1217.5	1202.4
35°	1744.7	1714.1	1708.8	1684.7	1603.1	1511.3	1411.3	1322.5	1231.5	1157.1	1142.4
37.5°	1704.3	1678.6	1670.7	1646.9	1565.7	1466.8	1361.0	1265.1	1171.5	1091.4	1082.3
40°	1653.3	1629.2	1623.1	1602.0	1522.3	1417.3	1306.6	1205.8	1109.5	1035.1	1022.3
42.5°	1595.2	1572.5	1569.1	1547.2	1468.7	1362.5	1247.7	1144.3	1044.9	973.2	960.3
45°	1529.1	1507.2	1506.4	1485.6	1410.1	1301.7	1185.8	1081.9	981.9	907.5	900.7
47.5°	1456.2	1436.6	1436.6	1417.3	1344.8	1234.9	1122.0	1017.0	918.4	852.7	840.6
50°	1376.9	1358.4	1352.7	1343.3	1272.7	1162.0	1054.8	953.5	855.7	793.1	781.3
52.5°	1292.3	1276.4	1280.2	1262.8	1194.5	1086.1	986.8	882.2	792.7	735.6	723.9
55°	1203.2	1180.5	1183.9	1177.5	1112.9	1007.9	910.5	823.3	730.7	677.1	666.2
57.5°	1110.6	1081.2	1093.3	1089.5	1026.1	927.9	840.6	756.4	669.2	619.7	609.1
60°	1015.9	987.5	1000.0	996.6	936.9	847.8	768.5	690.3	608.0	563.1	552.5
62.5°	918.4	892.4	903.7	901.1	846.3	765.9	696.8	625.0	546.5	506.0	496.2
65°	820.2	795.3	805.5	803.6	753.0	691.8	623.1	557.4	484.5	449.4	439.6
67.5°	719.8	696.8	706.2	706.2	659.7	601.2	549.1	489.0	423.7	393.5	384.4
70°	620.1	598.6	606.9	606.1	566.8	519.3	474.3	420.7	362.2	337.2	329.7
72.5°	519.6	500.8	508.3	507.6	474.7	444.1	399.5	353.1	302.1	282.1	275.3
75°	422.2	404.5	411.6	410.9	384.1	355.4	325.5	287.0	243.2	229.2	222.4
77.5°	329.3	311.2	317.2	317.2	297.6	276.8	253.0	223.2	192.2	177.1	172.2
80°	240.2	231.5	228.5	228.9	215.6	202.0	190.0	161.3	138.6	128.4	125.0
82.5°	157.9	150.7	147.7	148.4	140.9	132.6	125.0	105.0	89.9	83.8	81.9
85°	83.8	78.5	75.9	77.8	76.3	71.8	68.0	54.4	44.9	42.7	41.5
87.5°	26.4	23.0	21.1	27.9	23.8	21.1	20.4	16.2	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: P837864

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-EDD

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1616.7	1616.7	1602.0	1598.6	1597.1	1598.9	1584.2	1581.6	1602.7	1595.5	1579.3
5°	1603.9	1603.1	1582.3	1578.5	1578.5	1576.3	1559.7	1555.9	1577.0	1571.0	1553.2
7.5°	1588.0	1585.7	1561.2	1558.5	1554.8	1553.2	1534.7	1532.1	1550.2	1546.5	1529.8
10°	1568.7	1566.5	1537.4	1535.5	1531.3	1528.3	1511.0	1509.1	1527.6	1521.5	1508.3
12.5°	1543.4	1539.3	1509.4	1507.6	1504.2	1503.0	1486.0	1485.3	1505.7	1499.6	1485.6
15°	1510.2	1506.8	1473.6	1474.3	1474.7	1474.7	1461.1	1460.3	1480.4	1477.7	1462.6
17.5°	1473.6	1469.0	1437.3	1439.6	1442.2	1445.2	1434.7	1436.6	1457.7	1454.3	1440.7
20°	1432.0	1427.5	1396.5	1402.9	1408.6	1414.7	1407.9	1413.1	1432.8	1431.3	1421.1
22.5°	1385.6	1381.0	1352.3	1362.2	1371.6	1382.9	1379.9	1386.0	1406.7	1406.3	1397.3
25°	1328.9	1330.1	1304.8	1316.8	1332.7	1348.6	1349.7	1359.5	1382.6	1380.3	1372.0
27.5°	1276.1	1277.6	1250.8	1271.1	1292.3	1312.7	1317.6	1331.2	1354.6	1352.7	1345.5
30°	1220.5	1222.4	1196.4	1224.3	1250.0	1274.9	1285.5	1304.0	1327.8	1327.8	1320.2
32.5°	1162.8	1166.2	1139.0	1176.4	1206.2	1235.3	1253.8	1273.0	1300.2	1299.5	1293.1
35°	1103.5	1107.3	1082.3	1129.9	1159.7	1195.2	1218.3	1244.0	1268.1	1268.5	1263.6
37.5°	1043.1	1047.6	1024.9	1077.0	1111.0	1152.9	1182.4	1208.1	1234.9	1236.4	1231.9
40°	983.0	987.9	968.3	1018.5	1061.6	1108.4	1142.4	1172.6	1202.0	1202.8	1199.8
42.5°	923.0	928.2	913.5	962.6	1011.3	1061.6	1101.6	1136.0	1166.2	1168.1	1164.7
45°	864.4	869.0	858.4	912.0	958.8	1013.6	1059.7	1098.6	1129.2	1131.8	1130.7
47.5°	806.3	810.4	801.0	850.1	904.1	962.2	1015.5	1058.5	1091.0	1094.0	1093.3
50°	749.2	752.6	742.4	793.8	847.4	909.4	964.9	1014.7	1051.0	1054.0	1053.6
52.5°	692.6	696.0	687.3	741.3	790.0	855.4	915.8	969.8	1005.7	1010.2	1011.0
55°	637.8	639.4	632.6	684.3	731.5	799.8	869.3	921.8	957.7	961.5	963.7
57.5°	583.1	583.5	577.8	627.3	672.6	742.4	815.3	870.5	904.5	908.2	911.6
60°	528.7	528.3	521.9	569.9	613.3	682.4	758.3	813.1	845.9	849.3	853.9
62.5°	474.7	473.6	467.9	512.1	552.9	621.2	697.5	750.4	781.7	784.0	790.0
65°	421.1	419.9	414.7	455.4	492.4	557.8	632.6	682.8	711.1	714.1	713.0
67.5°	368.2	365.9	361.8	398.4	432.0	492.4	564.2	612.2	635.6	638.2	645.4
70°	315.3	312.7	303.2	342.1	371.6	425.6	492.4	535.1	554.8	557.4	556.3
72.5°	263.2	260.6	250.4	286.3	311.2	358.4	418.1	453.5	470.5	472.8	472.8
75°	212.6	211.1	204.7	231.9	252.6	291.2	341.8	371.2	384.4	387.1	386.3
77.5°	163.9	162.8	156.3	179.8	196.0	224.7	265.5	288.5	298.3	301.4	307.8
80°	117.4	117.1	106.9	129.9	137.1	161.3	191.1	208.8	214.1	218.3	222.8
82.5°	75.2	75.5	65.3	85.0	88.0	103.5	122.0	132.9	136.7	140.1	143.5
85°	36.6	38.1	32.5	44.9	45.3	53.2	61.2	65.3	66.8	69.5	72.5
87.5°	9.4	11.0	6.0	12.8	11.3	14.7	17.0	18.1	17.7	19.6	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: P837864

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-EDD

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1584.6	1596.7	1590.6	1610.3	1617.8	1605.7	1626.9	1627.3	1612.2	1629.9	1639.7
5°	1560.0	1572.5	1568.7	1589.1	1598.6	1588.0	1613.7	1618.6	1603.9	1623.9	1639.7
7.5°	1535.1	1549.8	1544.9	1565.7	1577.0	1568.7	1596.3	1604.2	1592.9	1614.8	1636.0
10°	1513.6	1526.1	1520.8	1542.7	1552.5	1545.7	1572.9	1587.6	1577.0	1603.9	1629.2
12.5°	1492.4	1502.6	1496.6	1514.7	1524.2	1515.5	1548.7	1562.3	1554.8	1582.7	1615.2
15°	1465.3	1476.6	1468.3	1484.5	1491.7	1484.1	1511.3	1534.7	1525.3	1555.9	1591.8
17.5°	1444.5	1450.9	1439.6	1452.4	1456.6	1446.4	1473.9	1497.0	1490.2	1523.4	1565.0
20°	1421.5	1426.7	1410.9	1418.1	1417.7	1404.8	1430.1	1452.8	1448.3	1484.9	1532.1
22.5°	1395.8	1398.4	1379.9	1381.4	1380.7	1359.5	1382.2	1405.2	1403.3	1440.3	1493.2
25°	1368.6	1369.0	1345.2	1344.4	1336.1	1311.2	1331.2	1357.3	1351.6	1391.6	1447.1
27.5°	1341.8	1338.0	1309.3	1302.5	1289.3	1259.4	1277.2	1300.6	1297.2	1336.5	1398.0
30°	1313.1	1308.2	1273.0	1260.6	1241.3	1206.9	1221.7	1243.6	1245.5	1279.8	1344.4
32.5°	1285.9	1273.4	1234.5	1216.4	1192.2	1152.2	1160.1	1182.4	1185.4	1220.2	1286.6
35°	1250.8	1242.4	1194.5	1163.5	1139.7	1095.9	1104.2	1119.7	1124.2	1158.2	1225.8
37.5°	1217.5	1204.3	1153.3	1115.6	1085.0	1038.9	1041.2	1057.0	1061.6	1095.9	1162.8
40°	1183.2	1164.3	1109.5	1065.3	1030.2	981.9	979.2	995.8	999.2	1032.9	1093.3
42.5°	1146.5	1123.9	1062.3	1014.0	973.6	924.5	919.2	933.5	937.3	970.2	1029.5
45°	1109.5	1082.3	1014.0	961.1	916.9	866.7	861.4	872.4	878.0	909.0	966.0
47.5°	1070.2	1038.5	964.1	905.2	859.5	809.3	802.9	813.8	818.4	848.9	902.9
50°	1029.1	990.6	912.8	847.8	802.5	753.0	743.6	756.4	760.6	789.3	842.1
52.5°	983.8	941.1	858.0	790.0	744.7	697.5	686.2	698.6	703.5	731.5	780.2
55°	935.8	889.7	802.9	736.8	687.7	641.6	632.2	637.1	647.7	674.1	719.4
57.5°	881.8	836.1	744.7	677.5	630.3	586.1	578.2	582.7	592.5	618.2	659.0
60°	824.4	776.1	685.4	618.2	572.5	530.6	523.4	527.6	538.1	561.6	599.3
62.5°	767.7	713.4	624.2	557.4	515.9	477.0	475.1	473.6	483.4	506.0	539.3
65°	699.0	646.9	560.4	497.0	459.2	424.1	416.5	419.9	429.4	450.2	484.9
67.5°	625.4	578.2	495.1	436.6	402.9	371.6	365.2	366.7	376.5	394.6	424.8
70°	547.2	505.7	428.2	375.8	347.4	318.0	313.8	314.2	323.6	339.5	365.9
72.5°	465.3	427.9	360.6	315.7	292.3	271.1	267.4	262.8	271.5	285.1	307.8
75°	381.8	348.9	293.4	256.8	238.3	220.5	217.1	212.6	221.3	233.0	250.8
77.5°	297.6	271.1	228.1	199.8	185.4	172.2	169.2	164.3	173.0	181.6	195.6
80°	215.3	196.0	170.3	140.5	135.6	126.9	123.9	118.6	126.9	132.6	143.1
82.5°	139.0	126.1	111.4	90.6	89.9	83.5	81.9	75.9	83.5	86.9	94.8
85°	70.2	64.2	60.4	46.1	47.6	43.4	43.1	36.6	42.7	44.2	48.7
87.5°	20.0	21.1	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: P837864

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-3STD-30-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1620.5	1626.9	1628.4	1628.0	1632.2	1654.8	1647.3	1654.8
5°	1624.2	1638.6	1642.4	1647.7	1654.5	1680.1	1671.8	1680.9
7.5°	1626.5	1648.0	1656.3	1666.5	1677.5	1706.2	1699.4	1708.5
10°	1626.5	1654.5	1666.5	1683.5	1698.3	1731.5	1725.1	1735.6
12.5°	1619.7	1655.6	1672.6	1696.4	1715.3	1751.1	1748.5	1756.0
15°	1605.7	1649.9	1673.3	1703.9	1727.3	1767.4	1766.2	1775.3
17.5°	1586.9	1640.1	1668.4	1706.9	1736.4	1781.3	1784.0	1788.9
20°	1563.1	1621.6	1658.6	1705.8	1742.8	1792.3	1795.7	1802.5
22.5°	1531.7	1599.3	1643.9	1700.9	1743.6	1796.8	1802.9	1809.3
25°	1494.7	1572.5	1624.6	1691.5	1739.8	1796.5	1804.8	1810.4
27.5°	1452.4	1537.8	1600.1	1676.4	1729.2	1790.4	1800.6	1807.4
30°	1403.3	1500.8	1572.1	1656.7	1714.9	1779.1	1790.0	1796.8
32.5°	1352.7	1460.0	1538.9	1631.4	1694.1	1761.0	1770.4	1775.7
35°	1297.6	1410.5	1498.9	1598.9	1667.3	1731.9	1739.0	1744.7
37.5°	1237.5	1356.9	1453.2	1562.3	1629.5	1691.5	1697.9	1704.3
40°	1175.6	1300.6	1401.8	1517.4	1584.6	1642.0	1648.8	1653.3
42.5°	1113.3	1238.3	1347.1	1464.5	1531.3	1586.5	1590.6	1595.2
45°	1050.2	1173.7	1285.5	1406.0	1472.1	1523.8	1525.3	1529.1
47.5°	986.0	1106.9	1217.9	1339.1	1404.5	1451.7	1453.2	1456.2
50°	921.5	1040.0	1145.8	1267.0	1330.8	1380.7	1373.9	1376.9
52.5°	858.0	969.8	1077.8	1189.2	1252.3	1296.5	1298.3	1292.3
55°	795.7	901.1	1000.4	1107.6	1167.7	1202.0	1200.9	1203.2
57.5°	732.6	831.6	922.6	1020.8	1079.3	1111.8	1118.6	1110.6
60°	668.4	761.3	842.9	931.6	988.3	1015.5	1023.4	1015.9
62.5°	604.6	690.0	764.0	841.4	893.9	927.5	926.7	918.4
65°	540.8	618.2	684.3	750.0	795.7	829.3	827.8	820.2
67.5°	481.9	545.7	605.0	658.2	697.9	720.9	728.9	719.8
70°	416.9	472.1	524.2	566.8	599.7	620.5	628.0	620.1
72.5°	352.0	398.8	435.4	476.6	501.9	519.3	527.2	519.6
75°	287.8	326.3	356.1	388.2	406.0	420.7	429.8	422.2
77.5°	225.5	255.3	279.1	302.5	322.9	326.3	334.2	329.3
80°	166.2	187.7	205.1	220.5	235.3	236.8	243.2	240.2
82.5°	110.6	125.0	129.5	145.8	155.2	153.7	160.1	157.9
85°	58.5	67.2	75.2	80.1	85.3	80.4	86.1	83.8
87.5°	19.6	20.8	18.1	25.7	28.3	24.2	27.6	26.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)