

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: INVUE

Report Number: P142048

Luminaire Tested: **ECM-E04-LED-E1-T4-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P142048  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33685)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E04-LED-E1-T4-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (84) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9708.5 lumens  
Efficiency: N/A  
Efficacy: 99.9 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 97.2  
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

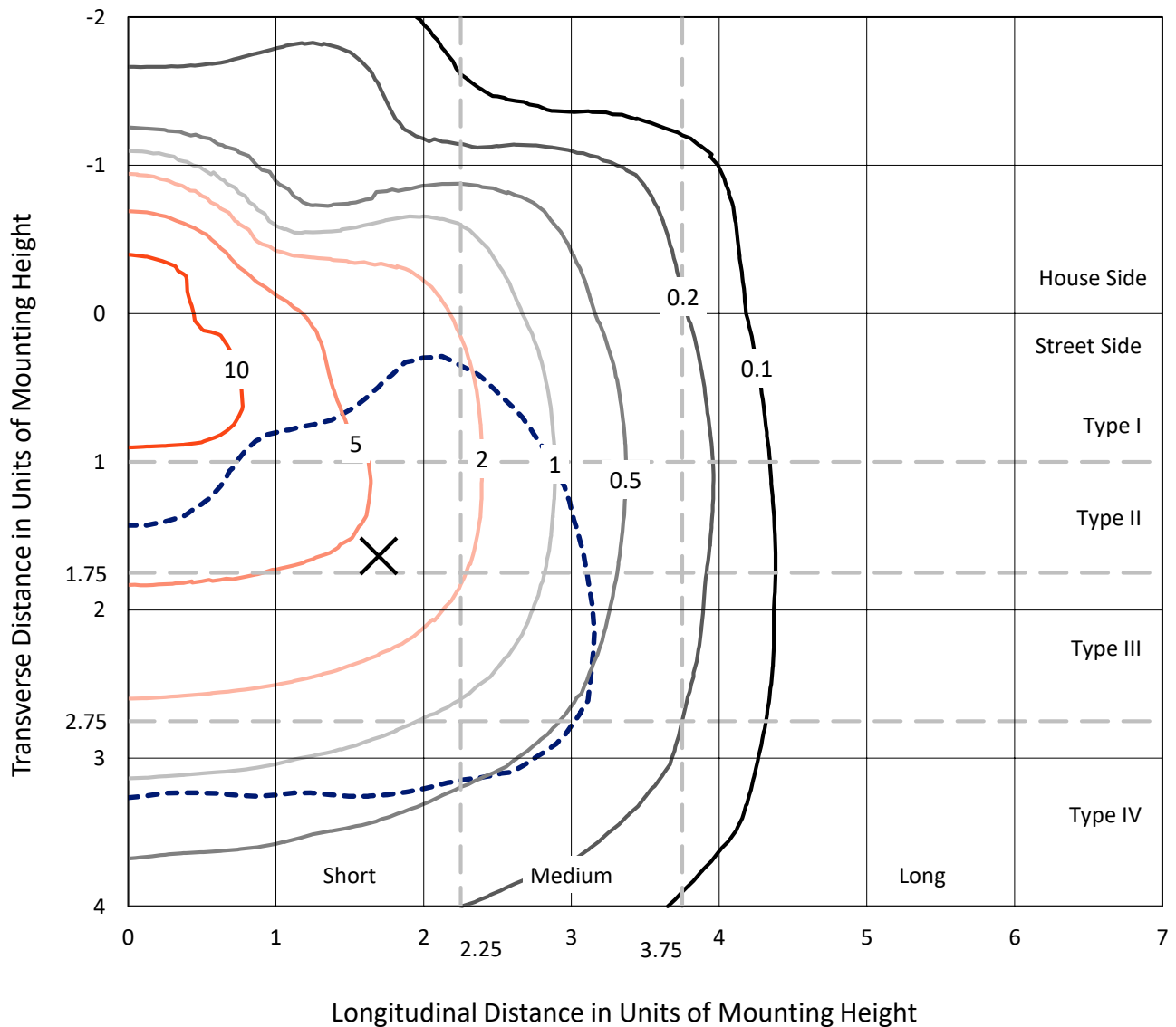


REPORT NUMBER: P142048

CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

### Iso-Footcandle Lines of Horizontal Illumination

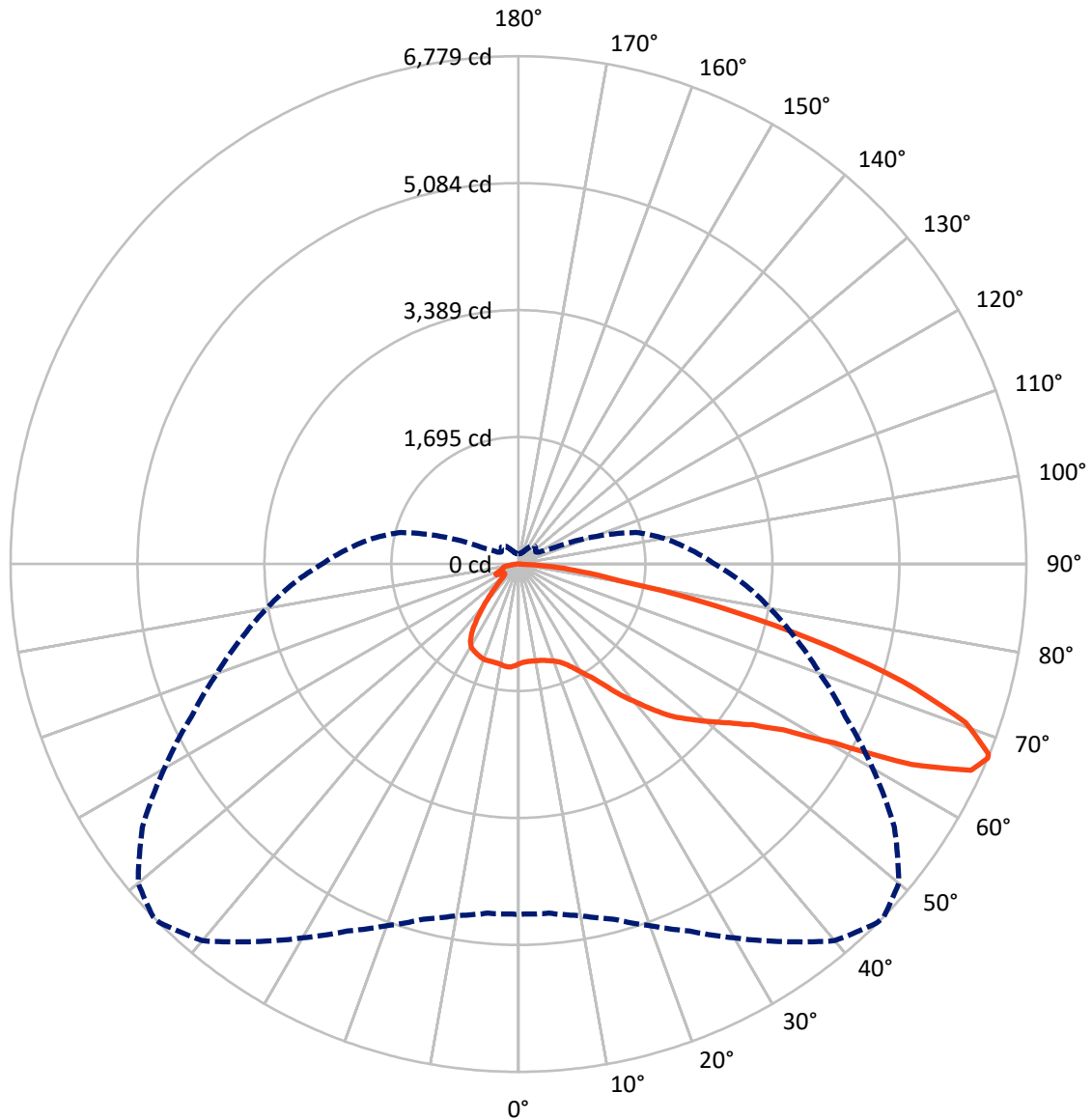
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.5 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P142048  
CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

### Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P142048

CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1929.3	0.0	1929.3
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	7779.2	0.0	7779.2
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	9708.5	0.0	9708.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.0	1.3
10°-20°	382.1	3.9
20°-30°	642.5	6.6
30°-40°	960.8	9.9
40°-50°	1251.5	12.9
50°-60°	1713.9	17.7
60°-70°	2709.5	27.9
70°-80°	1680.7	17.3
80°-90°	239.5	2.5
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°	9708.5	100.0
0°-180°	9708.5	100.0



REPORT NUMBER: P142048

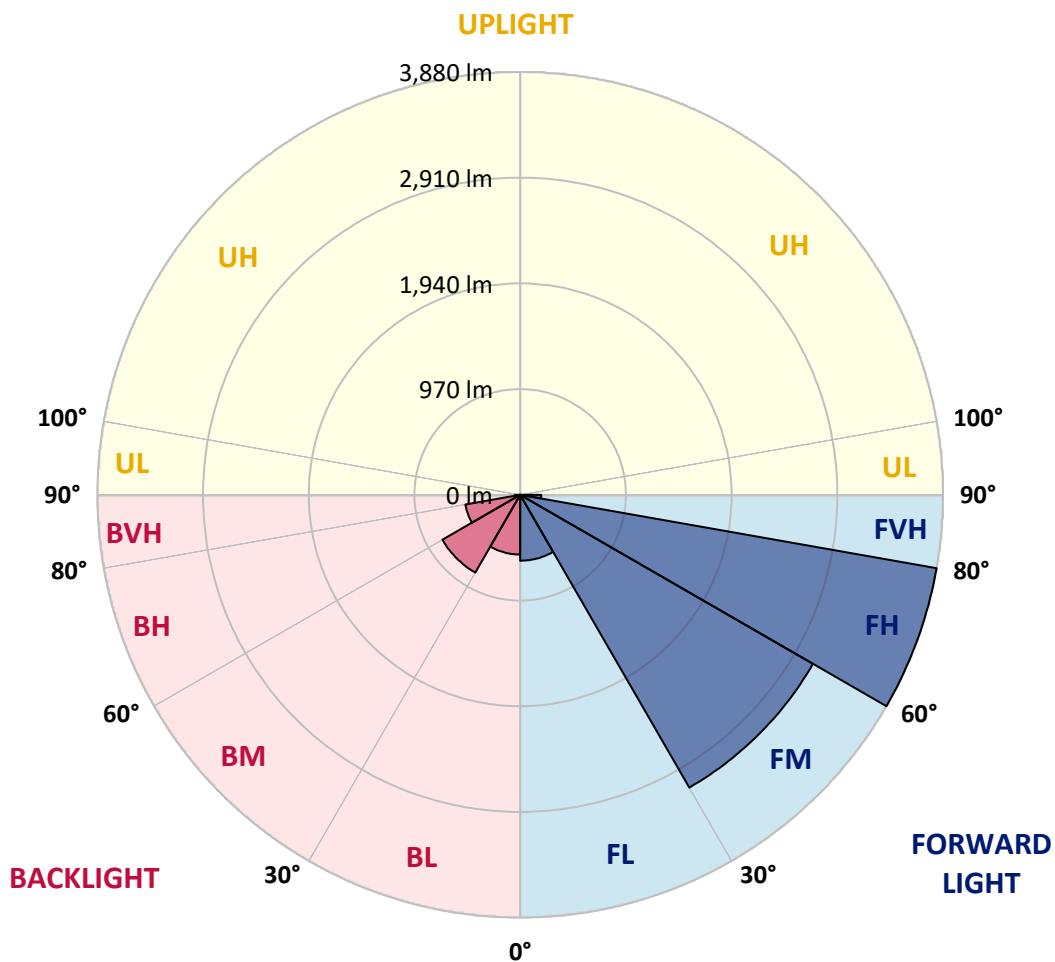
CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	604.6	6.2			
FM (30°-60°)	3102.2	32.0			
FH (60°-80°)	3879.5	40.0			G2/5000
FVH (80°-90°)	192.9	2.0			G2/225
BL (0°-30°)	548.0	5.6	B2/1000		
BM (30°-60°)	823.9	8.5	B1/1000		
BH (60°-80°)	510.7	5.3	B2/1000		G2/1000
BVH (80°-90°)	46.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Short





REPORT NUMBER: P142048

CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	46°	
0°	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1
2.5°	1300.9	1304.2	1303.1	1302.0	1303.1	1304.2	1305.4	1308.7	1309.9	1311.0	1311.0	1312.1
5°	1277.2	1280.6	1279.5	1281.7	1282.9	1287.4	1290.7	1296.4	1299.7	1304.2	1304.2	1306.5
7.5°	1270.5	1272.7	1272.7	1275.0	1276.1	1280.6	1286.2	1293.0	1299.7	1306.5	1306.5	1308.7
10°	1288.5	1289.6	1289.6	1288.5	1289.6	1291.9	1294.1	1299.7	1305.4	1311.0	1311.0	1313.2
12.5°	1331.3	1327.9	1326.8	1323.4	1324.5	1320.0	1320.0	1318.9	1318.9	1320.0	1320.0	1320.0
15°	1376.3	1374.0	1371.8	1366.1	1366.1	1359.4	1357.1	1352.6	1341.4	1336.9	1336.9	1335.8
17.5°	1416.8	1414.5	1410.0	1405.5	1403.3	1394.3	1392.0	1384.1	1370.6	1360.5	1360.5	1357.1
20°	1465.2	1459.5	1449.4	1447.2	1441.5	1431.4	1428.0	1417.9	1399.9	1385.3	1385.3	1384.1
22.5°	1539.4	1530.4	1520.3	1512.4	1497.8	1487.7	1478.7	1465.2	1443.8	1426.9	1426.9	1422.4
25°	1613.7	1610.3	1601.3	1590.1	1580.0	1568.7	1557.4	1537.2	1509.1	1487.7	1487.7	1483.2
27.5°	1718.4	1710.5	1699.2	1681.2	1675.6	1656.5	1647.5	1630.6	1602.5	1575.4	1575.4	1570.9
30°	1827.5	1819.6	1801.6	1785.9	1782.5	1762.3	1756.6	1738.6	1713.9	1686.9	1686.9	1683.5
32.5°	1952.4	1944.6	1931.1	1922.0	1909.7	1898.4	1884.9	1868.0	1836.5	1814.0	1814.0	1809.5
35°	2112.2	2105.5	2089.7	2096.5	2085.2	2081.8	2074.0	2045.8	2010.9	1983.9	1983.9	1988.4
37.5°	2238.3	2237.1	2240.5	2237.1	2251.8	2266.4	2266.4	2268.6	2251.8	2222.5	2222.5	2216.9
40°	2356.4	2355.3	2364.3	2374.4	2413.8	2437.4	2464.5	2474.6	2456.6	2434.1	2434.1	2426.2
42.5°	2466.7	2464.5	2476.8	2514.0	2562.4	2606.2	2652.4	2691.8	2700.8	2676.0	2676.0	2670.4
45°	2575.9	2579.2	2595.0	2636.6	2700.8	2758.2	2836.9	2883.1	2912.3	2898.8	2898.8	2907.8
47.5°	2707.5	2710.9	2727.8	2777.3	2833.6	2905.6	2997.9	3076.6	3111.5	3111.5	3111.5	3100.3
50°	2863.9	2879.7	2897.7	2931.5	2996.7	3067.6	3180.2	3258.9	3315.2	3312.9	3312.9	3303.9
52.5°	3072.1	3075.5	3104.8	3131.8	3188.0	3260.1	3361.3	3469.4	3540.3	3533.5	3533.5	3523.4
55°	3352.3	3338.8	3358.0	3383.8	3444.6	3507.6	3617.9	3742.8	3814.8	3793.5	3793.5	3786.7
57.5°	3705.7	3694.4	3707.9	3739.4	3816.0	3867.7	3956.6	4071.4	4172.7	4190.7	4190.7	4174.9
60°	4215.5	4215.5	4242.5	4310.0	4387.6	4465.3	4578.9	4717.3	4822.0	4847.9	4847.9	4846.8
62.5°	4819.8	4858.0	4863.6	4951.4	5100.0	5233.9	5410.5	5654.7	5811.2	5922.6	5922.6	5893.3
65°	4916.5	4928.9	4978.4	5114.6	5316.0	5553.5	5828.0	6148.8	6474.0	6634.9	6634.9	6639.4
67°	4673.5	4678.0	4764.6	4907.5	5138.2	5406.0	5761.6	6152.1	6564.0	6772.2	6772.2	6778.9
67.5°	4598.1	4589.1	4666.7	4816.4	5068.4	5370.0	5704.3	6115.0	6540.4	6763.2	6763.2	6766.6
70°	4092.8	4097.3	4158.1	4324.6	4591.3	4873.8	5247.4	5669.4	6117.2	6320.9	6320.9	6331.1
72.5°	3529.0	3499.7	3554.9	3732.7	3859.9	4135.6	4478.8	4797.2	5191.1	5383.5	5383.5	5379.0
75°	2691.8	2610.7	2707.5	2811.1	2881.9	3155.4	3369.2	3588.6	3952.1	4098.4	4098.4	4090.5
77.5°	1450.5	1447.2	1552.9	1634.0	1739.7	1986.2	2174.1	2312.5	2618.6	2690.6	2690.6	2699.6
80°	787.7	817.0	880.0	970.0	1055.6	1173.7	1282.9	1369.5	1469.7	1423.5	1423.5	1413.4
82.5°	474.9	523.3	620.1	688.7	722.5	775.3	853.0	902.5	941.9	856.4	856.4	839.5
85°	75.4	136.2	350.0	418.6	454.6	479.4	496.3	528.9	482.8	452.4	452.4	460.3
87.5°	24.8	28.1	54.0	119.3	104.7	72.0	94.5	137.3	65.3	34.9	34.9	33.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P142048

CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1
2.5°	1313.2	1314.4	1317.8	1322.3	1324.5	1330.1	1330.1	1334.6	1334.6	1338.0	1341.4
5°	1309.9	1315.5	1320.0	1326.8	1330.1	1338.0	1341.4	1348.1	1351.5	1356.0	1360.5
7.5°	1315.5	1323.4	1329.0	1336.9	1342.5	1350.4	1353.8	1359.4	1362.8	1368.4	1370.6
10°	1320.0	1327.9	1334.6	1343.6	1348.1	1353.8	1357.1	1361.6	1362.8	1366.1	1368.4
12.5°	1325.6	1329.0	1334.6	1342.5	1347.0	1350.4	1353.8	1357.1	1360.5	1360.5	1360.5
15°	1333.5	1330.1	1331.3	1338.0	1342.5	1344.8	1348.1	1350.4	1351.5	1351.5	1349.3
17.5°	1350.4	1341.4	1335.8	1335.8	1338.0	1340.3	1340.3	1336.9	1334.6	1331.3	1326.8
20°	1375.1	1360.5	1349.3	1343.6	1339.1	1333.5	1324.5	1313.2	1303.1	1294.1	1288.5
22.5°	1410.0	1395.4	1381.9	1369.5	1354.9	1335.8	1316.6	1293.0	1273.9	1259.2	1253.6
25°	1475.3	1453.9	1443.8	1424.7	1402.2	1371.8	1342.5	1309.9	1287.4	1267.1	1258.1
27.5°	1563.1	1546.2	1523.7	1513.6	1484.3	1449.4	1416.8	1377.4	1345.9	1321.1	1304.2
30°	1674.5	1663.2	1644.1	1627.2	1599.1	1567.6	1519.2	1475.3	1420.2	1376.3	1351.5
32.5°	1802.8	1785.9	1769.0	1747.6	1727.4	1685.7	1640.7	1574.3	1497.8	1422.4	1376.3
35°	1963.7	1946.8	1935.6	1901.8	1868.0	1823.0	1762.3	1683.5	1576.6	1475.3	1396.5
37.5°	2185.4	2149.4	2094.2	2045.8	1985.1	1916.4	1847.8	1753.3	1634.0	1502.3	1394.3
40°	2377.8	2324.9	2263.0	2179.7	2094.2	2004.2	1923.2	1820.8	1681.2	1524.8	1378.5
42.5°	2627.6	2536.5	2431.8	2321.5	2204.5	2096.5	1996.3	1879.3	1716.1	1525.9	1341.4
45°	2852.7	2740.2	2601.7	2452.1	2309.2	2177.5	2062.7	1933.3	1745.4	1521.4	1298.6
47.5°	3053.0	2921.3	2752.5	2572.5	2403.7	2255.1	2129.1	1992.9	1783.6	1536.1	1282.9
50°	3246.6	3095.8	2905.6	2687.3	2499.3	2337.3	2205.6	2059.3	1847.8	1585.6	1307.6
52.5°	3453.6	3270.2	3055.2	2808.8	2604.0	2436.3	2288.9	2139.2	1924.3	1652.0	1352.6
55°	3706.8	3498.6	3253.3	2981.0	2745.8	2559.0	2392.4	2234.9	2015.5	1734.1	1405.5
57.5°	4044.4	3834.0	3551.5	3237.5	2991.1	2769.4	2569.1	2391.3	2153.9	1847.8	1484.3
60°	4694.8	4434.9	4059.0	3718.1	3451.4	3190.3	2948.3	2705.3	2419.4	2077.3	1686.9
62.5°	5739.1	5376.8	4910.9	4436.0	4075.9	3730.4	3410.8	3094.6	2737.9	2354.2	1927.7
65°	6461.6	6013.7	5428.5	4833.3	4346.0	3924.0	3542.5	3166.7	2769.4	2403.7	2032.3
67°	6627.0	6126.2	5460.1	4814.1	4284.1	3826.1	3410.8	3019.2	2619.7	2287.8	1970.4
67.5°	6620.3	6120.6	5435.3	4773.6	4242.5	3791.2	3372.6	2960.7	2568.0	2242.8	1940.1
70°	6219.7	5717.8	5029.1	4370.7	3858.7	3409.7	2987.7	2628.8	2228.1	1964.8	1737.5
72.5°	5269.9	4833.3	4277.3	3685.4	3246.6	2844.8	2507.2	2155.0	1807.3	1631.7	1452.8
75°	4007.3	3620.2	3110.4	2677.1	2342.9	2063.8	1725.1	1493.3	1249.1	1128.7	1064.6
77.5°	2647.9	2203.4	1851.2	1438.2	1192.8	973.4	767.5	608.8	508.6	534.5	584.0
80°	1401.0	1111.8	822.6	636.9	491.8	382.6	303.8	227.3	165.4	193.6	243.1
82.5°	763.0	650.4	480.5	382.6	312.8	258.8	199.2	139.5	103.5	114.8	165.4
85°	435.5	382.6	297.1	231.8	202.6	165.4	113.7	76.5	74.3	79.9	102.4
87.5°	72.0	96.8	78.8	54.0	60.8	59.6	52.9	40.5	30.4	42.8	55.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P142048

CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1	1330.1
2.5°	1343.6	1347.0	1351.5	1352.6	1351.5	1354.9	1360.5	1365.0	1361.6	1359.4	1365.0
5°	1365.0	1367.3	1372.9	1372.9	1374.0	1376.3	1379.6	1383.0	1378.5	1378.5	1380.8
7.5°	1374.0	1374.0	1379.6	1377.4	1377.4	1376.3	1379.6	1380.8	1374.0	1372.9	1374.0
10°	1368.4	1368.4	1370.6	1366.1	1365.0	1363.9	1363.9	1365.0	1358.3	1356.0	1359.4
12.5°	1360.5	1360.5	1358.3	1356.0	1353.8	1351.5	1353.8	1354.9	1350.4	1350.4	1351.5
15°	1347.0	1343.6	1342.5	1342.5	1343.6	1344.8	1349.3	1352.6	1349.3	1347.0	1347.0
17.5°	1324.5	1322.3	1325.6	1332.4	1340.3	1345.9	1352.6	1354.9	1347.0	1338.0	1331.3
20°	1290.7	1296.4	1308.7	1327.9	1344.8	1353.8	1353.8	1345.9	1327.9	1309.9	1300.9
22.5°	1255.9	1271.6	1298.6	1327.9	1348.1	1351.5	1339.1	1322.3	1297.5	1278.4	1261.5
25°	1260.4	1279.5	1306.5	1331.3	1344.8	1339.1	1316.6	1295.2	1266.0	1245.7	1221.0
27.5°	1307.6	1325.6	1339.1	1347.0	1342.5	1324.5	1298.6	1269.4	1236.7	1208.6	1179.3
30°	1345.9	1353.8	1352.6	1345.9	1329.0	1300.9	1270.5	1235.6	1196.2	1165.8	1127.6
32.5°	1352.6	1338.0	1315.5	1290.7	1268.2	1236.7	1201.8	1161.3	1117.4	1078.1	1039.8
35°	1340.3	1285.1	1235.6	1186.1	1152.3	1112.9	1082.6	1035.3	986.9	953.1	925.0
37.5°	1294.1	1198.5	1119.7	1049.9	1000.4	955.4	909.3	863.1	822.6	806.9	799.0
40°	1235.6	1091.6	971.2	874.4	821.5	777.6	730.3	693.2	674.1	659.4	653.8
42.5°	1150.1	970.0	820.4	716.8	649.3	608.8	562.7	542.4	533.4	536.8	532.3
45°	1070.2	842.9	654.9	540.2	494.0	455.8	433.2	424.2	419.7	417.5	420.9
47.5°	1013.9	745.0	527.8	410.7	372.5	345.5	336.5	333.1	332.0	327.5	326.3
50°	1000.4	687.6	432.1	319.6	290.3	275.7	271.2	267.8	265.6	262.2	254.3
52.5°	1016.2	671.8	384.9	274.6	249.8	238.6	235.2	229.6	227.3	218.3	208.2
55°	1043.2	677.4	370.2	262.2	237.4	225.1	220.6	218.3	210.4	200.3	187.9
57.5°	1099.4	712.3	377.0	265.6	239.7	228.4	226.2	223.9	213.8	199.2	183.4
60°	1262.6	813.6	411.9	289.2	257.7	249.8	250.9	246.4	231.8	212.7	189.1
62.5°	1514.7	971.2	476.0	318.5	287.0	287.0	293.7	290.3	267.8	236.3	202.6
65°	1645.2	1065.7	503.0	327.5	296.0	310.6	332.0	328.6	296.0	248.7	203.7
67°	1625.0	1047.7	487.3	314.0	279.1	298.2	319.6	320.7	284.7	237.4	194.7
67.5°	1605.8	1035.3	479.4	308.3	274.6	293.7	314.0	310.6	280.2	232.9	192.4
70°	1442.7	909.3	427.6	288.1	254.3	259.9	265.6	261.1	237.4	205.9	177.8
72.5°	1245.7	755.1	377.0	275.7	243.1	234.1	234.1	226.2	210.4	189.1	168.8
75°	949.8	587.4	330.8	262.2	229.6	216.1	213.8	208.2	194.7	178.9	160.9
77.5°	579.5	420.9	287.0	241.9	212.7	201.4	202.6	199.2	185.7	171.0	154.2
80°	290.3	272.3	240.8	210.4	192.4	181.2	182.3	175.6	164.3	153.0	139.5
82.5°	177.8	187.9	168.8	159.8	148.5	136.2	105.8	123.8	120.4	110.3	104.7
85°	118.2	117.0	105.8	93.4	85.5	74.3	66.4	67.5	74.3	76.5	76.5
87.5°	57.4	55.1	50.6	47.3	45.0	37.1	34.9	39.4	39.4	41.6	40.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P142048

CATALOG NUMBER: ECM-E04-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1330.1	1330.1	1330.1	1330.1	1330.1
2.5°	1366.1	1368.4	1367.3	1370.6	1367.3
5°	1381.9	1381.9	1383.0	1384.1	1383.0
7.5°	1374.0	1372.9	1375.1	1377.4	1376.3
10°	1359.4	1360.5	1362.8	1366.1	1366.1
12.5°	1353.8	1354.9	1359.4	1362.8	1362.8
15°	1349.3	1350.4	1352.6	1357.1	1353.8
17.5°	1329.0	1324.5	1324.5	1327.9	1324.5
20°	1293.0	1286.2	1286.2	1285.1	1284.0
22.5°	1250.2	1233.4	1228.9	1223.2	1224.3
25°	1197.3	1174.8	1162.5	1155.7	1153.5
27.5°	1154.6	1128.7	1116.3	1106.2	1102.8
30°	1100.6	1071.3	1061.2	1055.6	1053.3
32.5°	1021.8	995.9	982.4	979.0	972.3
35°	902.5	891.3	885.6	877.8	878.9
37.5°	783.2	779.8	766.3	770.8	766.3
40°	654.9	653.8	656.1	652.7	660.6
42.5°	534.5	531.2	536.8	533.4	536.8
45°	414.1	420.9	428.7	425.4	429.9
47.5°	317.3	318.5	316.2	318.5	320.7
50°	244.2	241.9	239.7	235.2	237.4
52.5°	201.4	193.6	187.9	184.6	183.4
55°	177.8	169.9	165.4	160.9	160.9
57.5°	171.0	160.9	154.2	150.8	149.7
60°	172.2	158.7	149.7	144.0	142.9
62.5°	176.7	158.7	146.3	140.7	138.4
65°	175.6	156.4	144.0	138.4	136.2
67°	169.9	153.0	142.9	137.3	136.2
67.5°	167.7	151.9	142.9	137.3	135.0
70°	159.8	148.5	140.7	135.0	132.8
72.5°	153.0	144.0	135.0	130.5	128.3
75°	146.3	137.3	129.4	124.9	123.8
77.5°	139.5	129.4	123.8	118.2	113.7
80°	127.2	115.9	108.0	99.0	96.8
82.5°	104.7	95.7	87.8	79.9	78.8
85°	77.6	74.3	67.5	60.8	60.8
87.5°	42.8	47.3	41.6	38.3	36.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)