

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: P141091

Luminaire Tested: **ECM-E04-LED-E1-SL3-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141091
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33691)
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-SL3-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11877.7 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

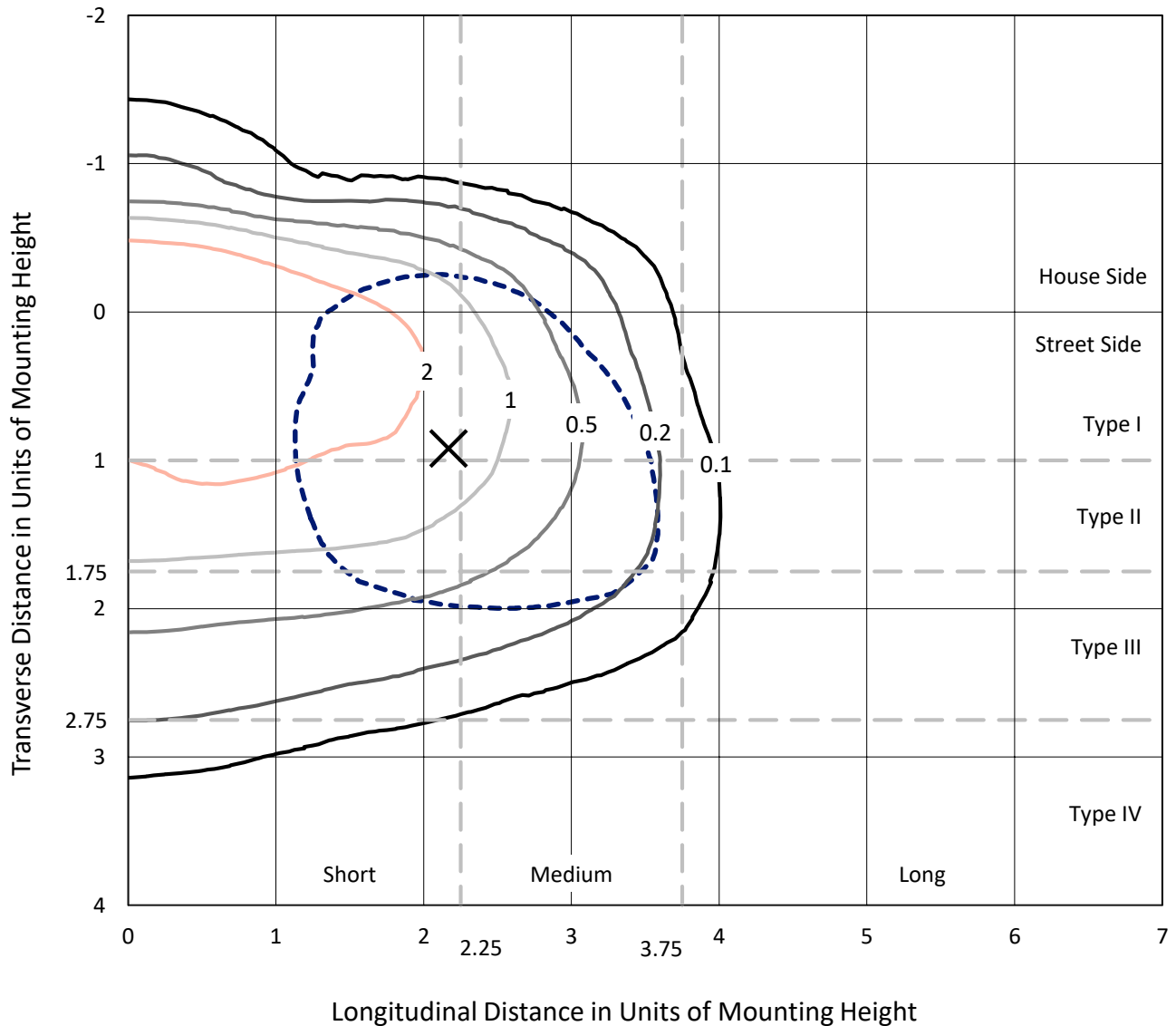
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P141091
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Iso-Footcandle Lines of Horizontal Illumination

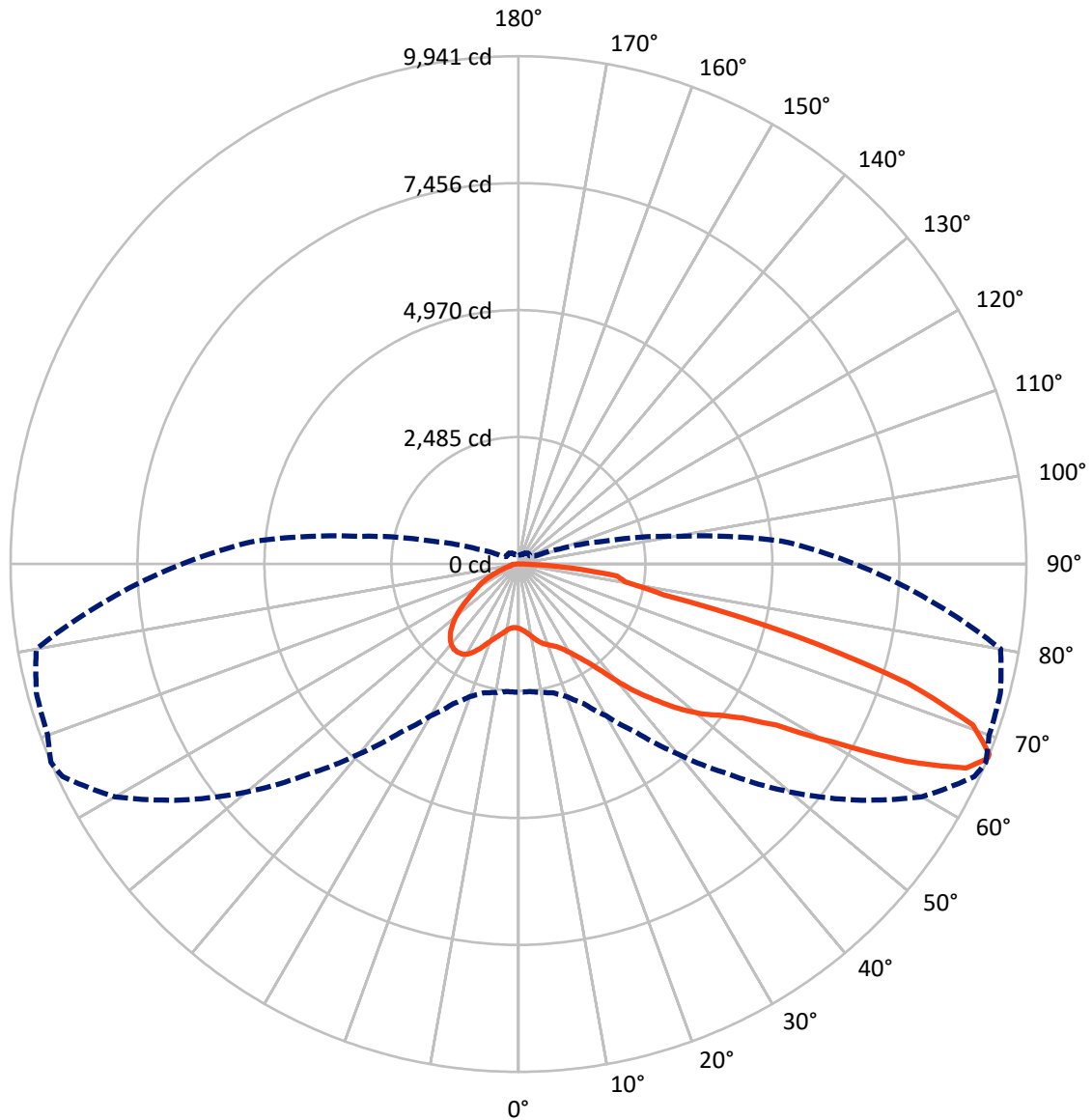
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P141091
CATALOG NUMBER: ECM-E04-LED-E1-SL3-7050

Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2732.5	0.0	2732.5
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	9145.2	0.0	9145.2
	% Fixture	77.0	0.0	77.0
Total	Lumens	11877.7	0.0	11877.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	1.1
10°-20°	436.7	3.7
20°-30°	777.4	6.5
30°-40°	1117.7	9.4
40°-50°	1703.4	14.3
50°-60°	2488.3	20.9
60°-70°	3352.8	28.2
70°-80°	1646.1	13.9
80°-90°	228.9	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°	11877.7	100.0
0°-180°	11877.7	100.0



REPORT NUMBER: P141091

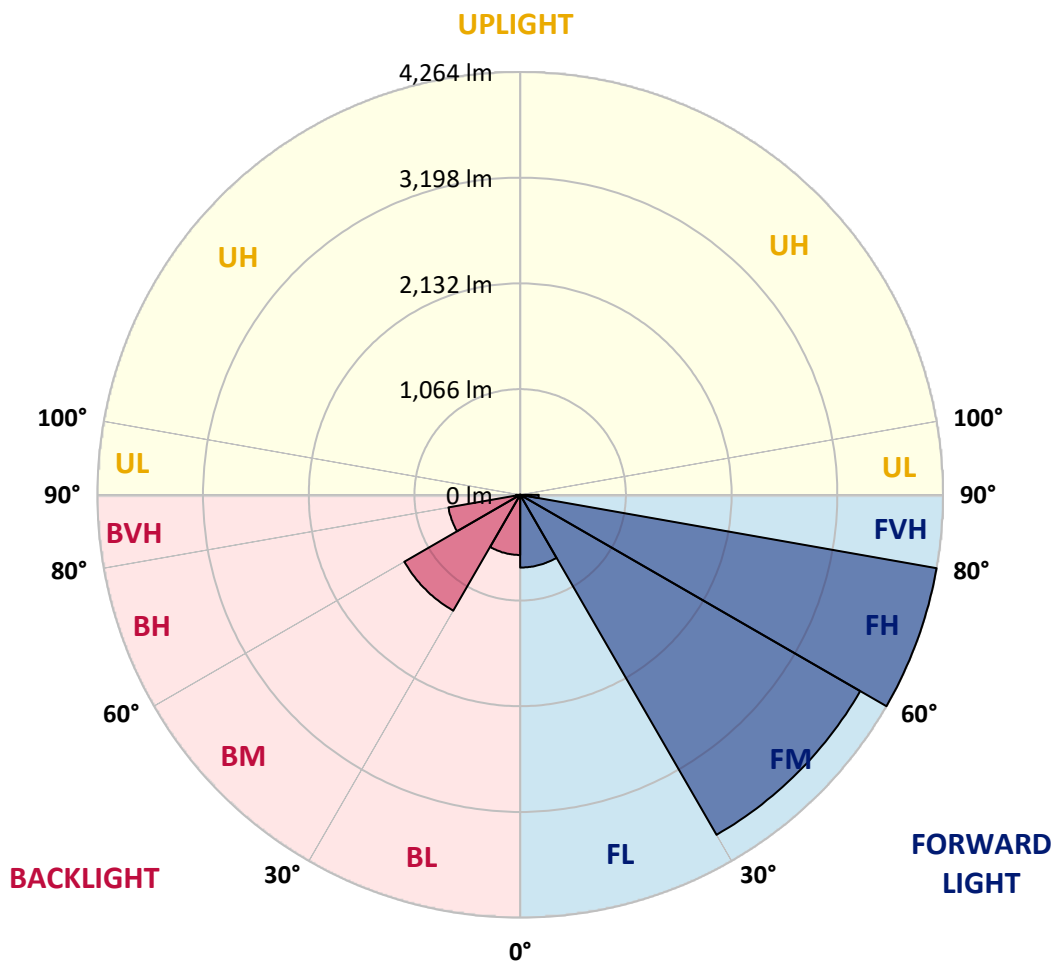
CATALOG NUMBER: ECM-E04-LED-E1-SL3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	733.7	6.2			
FM (30°-60°)	3959.8	33.3			
FH (60°-80°)	4264.1	35.9			G2/5000
FVH (80°-90°)	187.7	1.6			G2/225
BL (0°-30°)	606.8	5.1	B2/1000		
BM (30°-60°)	1349.7	11.4	B2/2500		
BH (60°-80°)	734.8	6.2	B2/1000		G2/1000
BVH (80°-90°)	41.2	0.3			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 III Short





REPORT NUMBER: P141091

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1
2.5°	1325.7	1318.9	1324.4	1323.0	1318.9	1313.4	1316.2	1312.0	1309.3	1305.2	1301.1
5°	1411.9	1407.8	1405.1	1401.0	1398.2	1394.1	1391.4	1384.6	1375.0	1368.1	1362.7
7.5°	1496.7	1495.4	1491.3	1485.8	1474.9	1472.1	1462.5	1455.7	1447.5	1433.8	1422.9
10°	1596.6	1595.3	1588.4	1580.2	1567.9	1555.6	1544.6	1528.2	1511.8	1499.5	1489.9
12.5°	1717.0	1710.2	1696.5	1685.5	1671.9	1652.7	1634.9	1615.8	1592.5	1573.4	1562.4
15°	1837.4	1829.2	1818.3	1803.2	1782.7	1756.7	1730.7	1702.0	1666.4	1641.8	1626.7
17.5°	1935.9	1930.4	1918.1	1897.6	1877.1	1845.6	1811.4	1771.7	1728.0	1691.0	1667.8
20°	2007.1	2001.6	1982.4	1957.8	1930.4	1894.9	1857.9	1814.2	1762.2	1717.0	1691.0
22.5°	2037.2	2029.0	2007.1	1974.2	1937.3	1893.5	1853.8	1816.9	1769.0	1734.8	1707.4
25°	2046.7	2037.2	2008.4	1967.4	1919.5	1863.4	1818.3	1789.5	1760.8	1748.5	1738.9
27.5°	2041.3	2033.1	2001.6	1951.0	1886.7	1821.0	1773.1	1752.6	1754.0	1777.2	1788.2
30°	2022.1	2012.5	1983.8	1927.7	1859.3	1788.2	1745.7	1738.9	1770.4	1829.2	1873.0
32.5°	1990.6	1983.8	1960.5	1912.7	1851.1	1789.5	1759.4	1774.5	1829.2	1920.9	1996.1
35°	1982.4	1981.1	1970.1	1944.1	1899.0	1859.3	1847.0	1889.4	1979.7	2105.6	2201.3
37.5°	1981.1	1987.9	1993.4	1993.4	1983.8	1981.1	2018.0	2076.8	2210.9	2368.3	2524.2
40°	2008.4	2020.7	2048.1	2083.7	2117.9	2167.1	2242.4	2353.2	2492.8	2684.3	2878.6
42.5°	2093.3	2120.6	2167.1	2228.7	2317.6	2409.3	2531.1	2669.2	2848.5	3041.4	3234.3
45°	2258.8	2298.5	2332.7	2429.8	2547.5	2655.6	2814.3	2996.2	3193.2	3435.4	3643.4
47.5°	2477.7	2506.4	2577.6	2680.2	2823.8	2978.4	3131.7	3290.4	3527.1	3780.2	4031.9
50°	2696.6	2718.5	2793.7	2914.1	3102.9	3272.6	3447.7	3605.1	3808.9	4077.1	4323.3
52.5°	2859.4	2889.5	2955.2	3072.8	3284.9	3477.8	3677.6	3851.3	4081.2	4322.0	4579.2
55°	2971.6	2990.8	3051.0	3165.9	3365.6	3585.9	3811.6	4025.1	4298.7	4571.0	4826.8
57.5°	2989.4	3008.5	3063.3	3164.5	3358.8	3590.0	3848.6	4109.9	4441.0	4800.8	5136.0
60°	2968.9	2983.9	3031.8	3115.3	3298.6	3551.7	3859.5	4187.9	4595.6	5059.4	5538.2
62.5°	2877.2	2892.2	2936.0	3004.4	3167.2	3440.9	3826.7	4302.8	4815.9	5398.7	6100.5
65°	2704.8	2714.4	2755.4	2810.2	2974.3	3252.1	3677.6	4279.5	4989.6	5783.1	6691.6
67°	2509.2	2505.1	2551.6	2606.3	2756.8	3012.6	3428.6	4021.0	4851.4	5813.2	6939.2
67.5°	2449.0	2459.9	2505.1	2543.4	2689.8	2937.4	3335.5	3921.1	4733.8	5744.8	6935.1
70°	2022.1	2042.6	2067.3	2091.9	2220.5	2402.5	2695.2	3261.6	3918.4	4876.1	6296.2
72.5°	1387.3	1346.3	1364.0	1355.8	1395.5	1510.4	1714.3	2212.3	2733.5	3557.2	4673.6
75°	703.2	748.4	742.9	777.1	833.2	905.7	1000.1	1186.2	1595.3	2079.6	2892.2
77.5°	394.0	383.1	421.4	429.6	462.4	539.0	706.0	950.9	1138.3	1336.7	1634.9
80°	179.2	198.4	210.7	191.5	198.4	214.8	279.1	437.8	736.1	1120.5	1288.8
82.5°	99.9	106.7	124.5	125.9	131.3	135.4	146.4	169.6	228.5	462.4	909.8
85°	62.9	65.7	83.5	91.7	95.8	95.8	95.8	101.2	116.3	136.8	235.3
87.5°	23.3	24.6	38.3	50.6	52.0	49.3	46.5	53.4	49.3	50.6	76.6
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: P141091
 CATALOG NUMBER: ECM-E04-LED-E1-SL3-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67°	70°	75°	80°	85°	90°	95°	100°
0°	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1
2.5°	1298.4	1292.9	1287.4	1286.1	1281.9	1279.2	1272.4	1266.9	1261.4	1257.3	1253.2
5°	1350.4	1339.4	1329.8	1325.7	1320.3	1313.4	1299.7	1290.2	1281.9	1273.7	1265.5
7.5°	1409.2	1395.5	1381.8	1376.3	1368.1	1355.8	1340.8	1329.8	1316.2	1303.8	1292.9
10°	1474.9	1459.8	1448.9	1443.4	1436.5	1418.8	1409.2	1390.0	1375.0	1358.6	1344.9
12.5°	1546.0	1539.2	1524.1	1518.6	1511.8	1499.5	1485.8	1469.4	1450.2	1432.4	1416.0
15°	1610.3	1599.4	1589.8	1588.4	1584.3	1577.5	1559.7	1541.9	1525.5	1502.2	1488.5
17.5°	1650.0	1645.9	1644.5	1643.1	1640.4	1636.3	1628.1	1608.9	1593.9	1574.7	1555.6
20°	1674.6	1678.7	1685.5	1691.0	1693.8	1696.5	1692.4	1673.2	1658.2	1641.8	1625.4
22.5°	1700.6	1711.5	1729.3	1737.5	1747.1	1760.8	1758.1	1745.7	1737.5	1718.4	1706.1
25°	1737.5	1759.4	1789.5	1800.5	1818.3	1836.0	1840.1	1833.3	1825.1	1811.4	1811.4
27.5°	1800.5	1831.9	1871.6	1894.9	1912.7	1937.3	1945.5	1941.4	1942.8	1934.6	1953.7
30°	1899.0	1942.8	1996.1	2020.7	2042.6	2071.4	2076.8	2085.0	2079.6	2094.6	2117.9
32.5°	2048.1	2102.8	2157.6	2180.8	2200.0	2230.1	2247.9	2242.4	2261.5	2271.1	2303.9
35°	2278.0	2332.7	2375.1	2379.2	2401.1	2417.5	2433.9	2428.4	2480.4	2501.0	2518.7
37.5°	2595.4	2641.9	2667.9	2658.3	2632.3	2663.8	2685.7	2718.5	2751.3	2788.3	2722.6
40°	3007.2	3081.1	3070.1	3056.4	3007.2	3014.0	3023.6	3041.4	3096.1	3083.8	2896.4
42.5°	3398.5	3473.7	3461.4	3446.3	3380.7	3346.5	3372.5	3403.9	3434.0	3317.7	3038.6
45°	3793.9	3862.3	3803.4	3824.0	3765.1	3750.1	3800.7	3818.5	3784.3	3570.8	3159.0
47.5°	4204.3	4278.2	4249.4	4228.9	4186.5	4182.4	4211.1	4238.5	4103.1	3754.2	3249.3
50°	4519.0	4628.4	4613.4	4601.1	4554.5	4549.1	4617.5	4636.6	4393.1	3948.5	3339.6
52.5°	4761.1	4903.4	4930.8	4914.4	4903.4	4906.2	5103.2	5074.4	4737.9	4183.8	3445.0
55°	5047.1	5194.8	5294.7	5315.2	5342.6	5382.3	5772.2	5729.8	5214.0	4523.1	3555.8
57.5°	5426.0	5699.7	5850.2	5943.2	6018.5	6275.7	6770.9	6608.1	5873.4	4960.9	3687.1
60°	5984.2	6527.4	6839.3	7076.0	7225.2	7673.9	8274.5	7675.3	6639.6	5486.2	3859.5
62.5°	6880.4	7766.9	8363.4	8497.5	8560.5	8987.3	9416.9	8492.0	7192.3	5833.8	3886.9
65°	7749.1	8857.3	9553.7	9631.7	9585.2	9700.1	9820.5	8516.7	7063.7	5669.6	3566.7
67°	8055.6	9114.6	9846.5	9940.9	9804.1	9767.2	9583.8	8067.9	6583.5	5166.1	3120.7
67.5°	8039.2	9084.5	9843.8	9939.5	9804.1	9745.3	9475.7	7887.3	6394.7	5043.0	3034.5
70°	7409.8	8414.1	9259.6	9438.8	9363.6	9207.6	8490.7	6680.6	5298.8	4137.3	2339.5
72.5°	6015.7	7100.6	7771.0	7969.4	8022.8	7621.9	6323.5	4676.3	3819.8	2956.6	1696.5
75°	4038.8	5116.8	5665.5	5565.6	5241.3	4558.6	3338.3	2466.8	2093.3	1719.8	1049.4
77.5°	2290.3	3122.1	3079.7	2907.3	2633.7	1949.6	946.8	513.1	489.8	571.9	444.6
80°	1529.6	1925.0	2056.3	2123.4	2108.3	1442.0	391.3	198.4	171.0	171.0	168.3
82.5°	1276.5	1663.7	1883.9	1942.8	1810.0	1095.9	234.0	130.0	104.0	116.3	130.0
85°	537.7	838.7	1109.6	1067.1	848.2	426.9	119.0	68.4	68.4	90.3	113.6
87.5°	130.0	192.9	272.3	264.1	212.1	98.5	60.2	42.4	42.4	69.8	98.5
90°	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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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1	1260.1
2.5°	1251.8	1246.4	1246.4	1240.9	1238.2	1235.4	1234.1	1235.4	1231.3	1227.2	1228.6
5°	1258.7	1250.5	1246.4	1236.8	1231.3	1225.9	1221.7	1220.4	1213.5	1209.4	1209.4
7.5°	1281.9	1271.0	1262.8	1251.8	1240.9	1232.7	1225.9	1221.7	1212.2	1205.3	1204.0
10°	1329.8	1314.8	1302.5	1286.1	1271.0	1260.1	1247.7	1240.9	1230.0	1223.1	1220.4
12.5°	1401.0	1379.1	1359.9	1335.3	1317.5	1301.1	1294.3	1283.3	1279.2	1275.1	1276.5
15°	1468.0	1442.0	1424.2	1405.1	1384.6	1375.0	1361.3	1359.9	1361.3	1354.5	1354.5
17.5°	1536.4	1515.9	1495.4	1488.5	1469.4	1462.5	1453.0	1447.5	1435.2	1422.9	1407.8
20°	1607.6	1596.6	1588.4	1580.2	1576.1	1559.7	1535.1	1506.3	1466.6	1431.1	1401.0
22.5°	1699.2	1692.4	1693.8	1686.9	1665.0	1624.0	1567.9	1507.7	1443.4	1385.9	1340.8
25°	1815.5	1822.4	1814.2	1780.0	1717.0	1633.6	1547.4	1462.5	1377.7	1309.3	1247.7
27.5°	1963.3	1957.8	1919.5	1831.9	1723.9	1604.8	1494.0	1392.8	1291.5	1212.2	1135.6
30°	2124.7	2085.0	1985.2	1848.4	1696.5	1552.8	1416.0	1298.4	1180.7	1087.7	1001.5
32.5°	2287.5	2174.0	2012.5	1829.2	1648.6	1479.0	1325.7	1187.5	1052.1	948.1	848.2
35°	2410.7	2228.7	2008.4	1788.2	1576.1	1381.8	1204.0	1032.9	875.6	751.1	649.9
37.5°	2524.2	2258.8	1981.1	1725.2	1476.2	1253.2	1031.6	846.9	688.2	563.7	476.1
40°	2594.0	2256.1	1927.7	1621.2	1338.0	1064.4	823.6	633.4	493.9	402.2	354.3
42.5°	2635.0	2227.3	1836.0	1483.1	1147.9	852.4	607.5	436.4	351.6	311.9	290.0
45°	2655.6	2165.8	1722.5	1298.4	918.0	608.8	418.7	314.7	280.5	269.5	264.1
47.5°	2643.2	2079.6	1559.7	1090.4	684.1	417.3	299.6	265.4	254.5	249.0	247.6
50°	2614.5	1967.4	1388.7	864.7	485.7	299.6	251.7	242.2	238.1	236.7	234.0
52.5°	2573.5	1834.7	1193.0	670.4	344.8	249.0	235.3	231.2	228.5	224.4	223.0
55°	2505.1	1670.5	993.3	493.9	276.4	235.3	228.5	227.1	221.6	217.5	214.8
57.5°	2423.0	1495.4	804.5	387.2	254.5	229.8	225.7	224.4	218.9	213.4	208.0
60°	2381.9	1372.2	662.2	335.2	250.4	232.6	229.8	227.1	220.3	212.1	205.2
62.5°	2280.7	1239.5	570.5	318.8	255.8	242.2	240.8	235.3	225.7	217.5	206.6
65°	2019.4	1052.1	485.7	302.4	264.1	257.2	259.9	253.1	242.2	228.5	210.7
67°	1706.1	855.1	410.4	290.0	273.6	277.7	281.8	277.7	259.9	239.4	216.2
67.5°	1621.2	796.3	389.9	285.9	276.4	281.8	288.7	284.6	265.4	242.2	218.9
70°	1219.0	570.5	309.2	270.9	285.9	301.0	314.7	313.3	294.2	265.4	228.5
72.5°	842.8	389.9	250.4	253.1	277.7	305.1	322.9	331.1	311.9	277.7	234.0
75°	507.6	249.0	210.7	228.5	253.1	280.5	309.2	311.9	290.0	255.8	218.9
77.5°	249.0	179.2	173.8	180.6	203.9	227.1	239.4	224.4	210.7	187.4	173.8
80°	150.5	140.9	138.2	153.2	166.9	162.8	153.2	140.9	134.1	128.6	123.1
82.5°	125.9	127.2	130.0	132.7	130.0	114.9	98.5	90.3	84.8	84.8	86.2
85°	128.6	131.3	120.4	110.8	98.5	82.1	67.0	57.5	58.8	60.2	60.2
87.5°	99.9	95.8	84.8	69.8	56.1	41.0	32.8	27.4	30.1	28.7	31.5
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: P141091

CATALOG NUMBER: ECM-E04-LED-E1-SL3-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1260.1	1260.1	1260.1	1260.1	1260.1
2.5°	1228.6	1227.2	1228.6	1228.6	1230.0
5°	1206.7	1204.0	1204.0	1205.3	1205.3
7.5°	1201.2	1198.5	1198.5	1199.9	1198.5
10°	1220.4	1219.0	1221.7	1220.4	1220.4
12.5°	1277.8	1277.8	1283.3	1286.1	1283.3
15°	1355.8	1353.1	1357.2	1358.6	1359.9
17.5°	1399.6	1387.3	1383.2	1385.9	1380.5
20°	1375.0	1354.5	1346.3	1344.9	1335.3
22.5°	1305.2	1275.1	1262.8	1257.3	1246.4
25°	1206.7	1171.1	1154.7	1141.0	1134.2
27.5°	1089.0	1045.3	1022.0	1011.1	1007.0
30°	941.3	898.9	864.7	846.9	841.4
32.5°	777.1	715.5	680.0	658.1	643.0
35°	580.1	521.3	495.3	478.8	459.7
37.5°	421.4	385.8	363.9	353.0	348.9
40°	325.6	307.8	296.9	295.5	294.2
42.5°	281.8	273.6	272.3	269.5	266.8
45°	259.9	257.2	258.6	254.5	251.7
47.5°	244.9	243.5	243.5	240.8	239.4
50°	232.6	232.6	231.2	229.8	229.8
52.5°	221.6	223.0	223.0	220.3	220.3
55°	212.1	212.1	213.4	212.1	212.1
57.5°	205.2	203.9	205.2	205.2	205.2
60°	201.1	198.4	197.0	198.4	198.4
62.5°	197.0	192.9	191.5	191.5	192.9
65°	197.0	190.2	187.4	187.4	186.1
67°	198.4	187.4	182.0	179.2	177.9
67.5°	198.4	186.1	179.2	177.9	176.5
70°	198.4	180.6	171.0	164.2	164.2
72.5°	197.0	175.1	160.1	153.2	150.5
75°	187.4	165.5	151.9	143.7	140.9
77.5°	157.3	143.7	136.8	130.0	128.6
80°	119.0	112.2	106.7	91.7	84.8
82.5°	84.8	80.7	71.1	65.7	61.6
85°	60.2	56.1	52.0	46.5	46.5
87.5°	32.8	31.5	30.1	27.4	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)