

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: P142028

Luminaire Tested: **ECM-E02-LED-E1-T4-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P142028  
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-E02-LED-E1-T4-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (42) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4854.2 lumens  
Efficiency: N/A  
Efficacy: 93.2 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

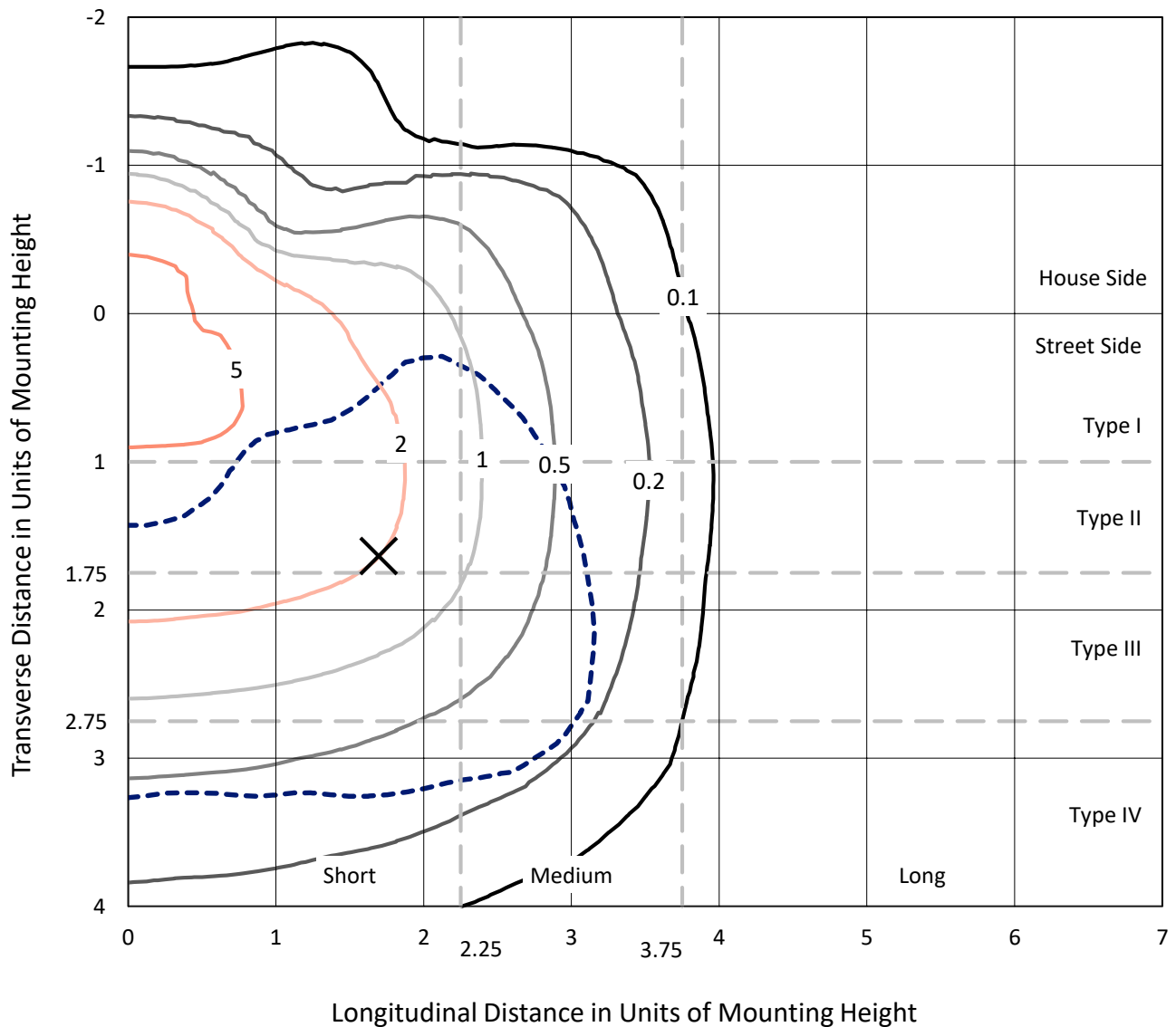
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P142028  
 CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

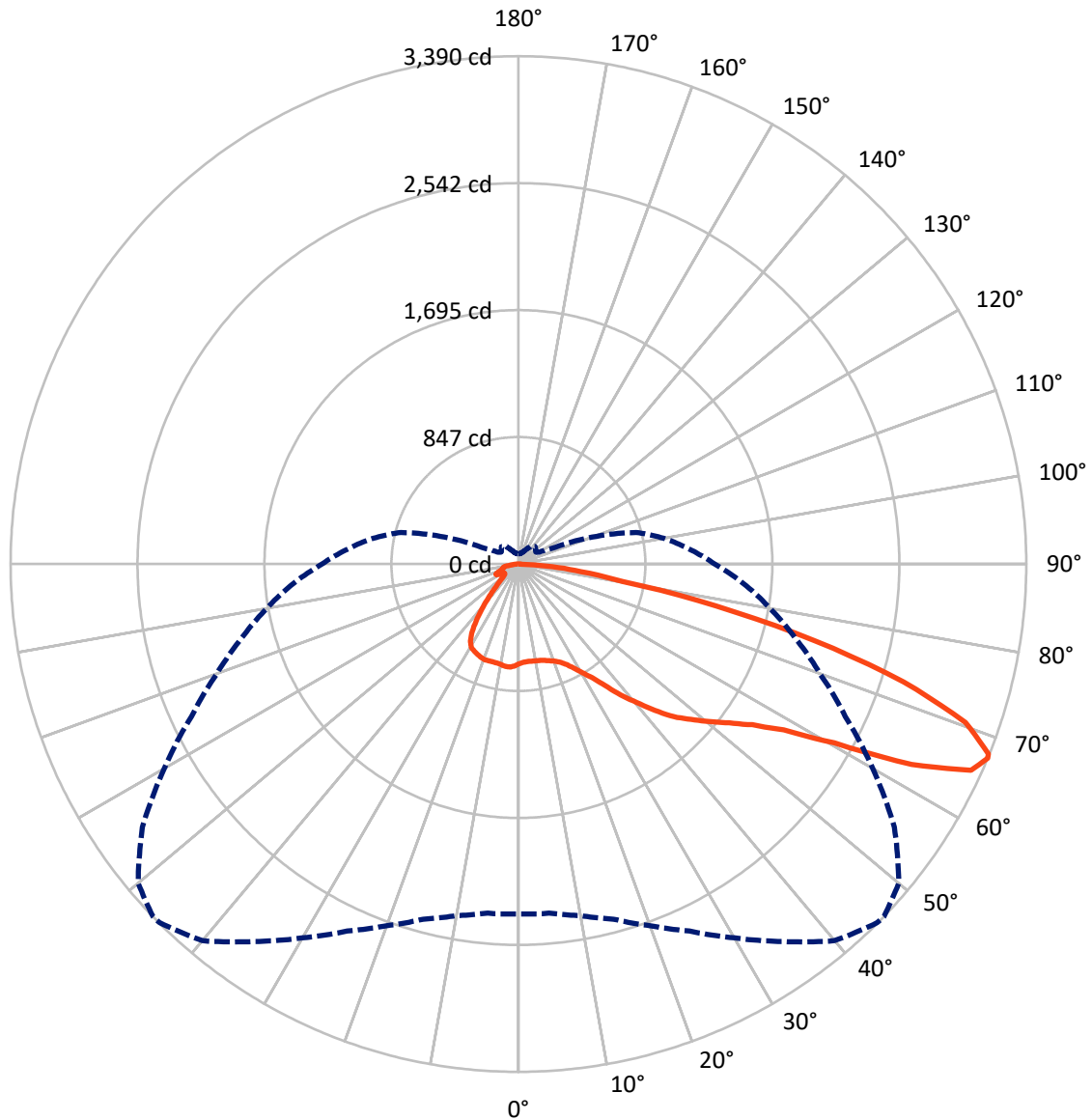


Based on 10 foot mounting height. Maximum calculated value = 6.7 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P142028

CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P142028

CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

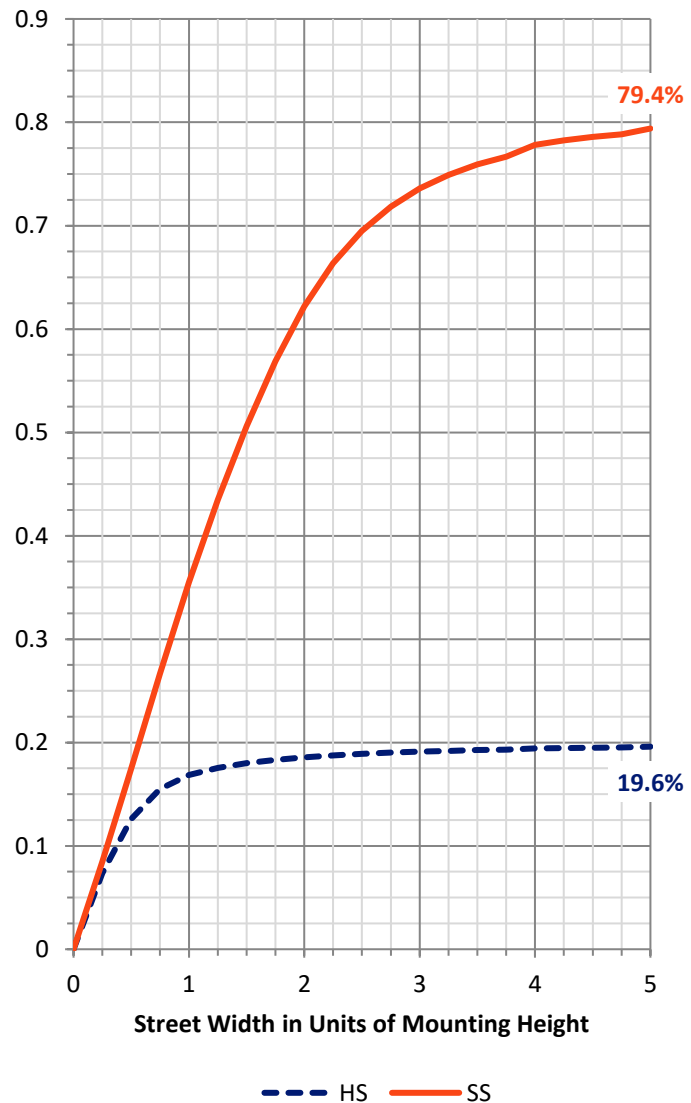
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	964.6	0.0	964.6
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	3889.6	0.0	3889.6
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	4854.2	0.0	4854.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	1.3
10°-20°	191.1	3.9
20°-30°	321.2	6.6
30°-40°	480.4	9.9
40°-50°	625.7	12.9
50°-60°	857.0	17.7
60°-70°	1354.8	27.9
70°-80°	840.4	17.3
80°-90°	119.8	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°	4854.2	100.0
0°-180°	4854.2	100.0



REPORT NUMBER: P142028

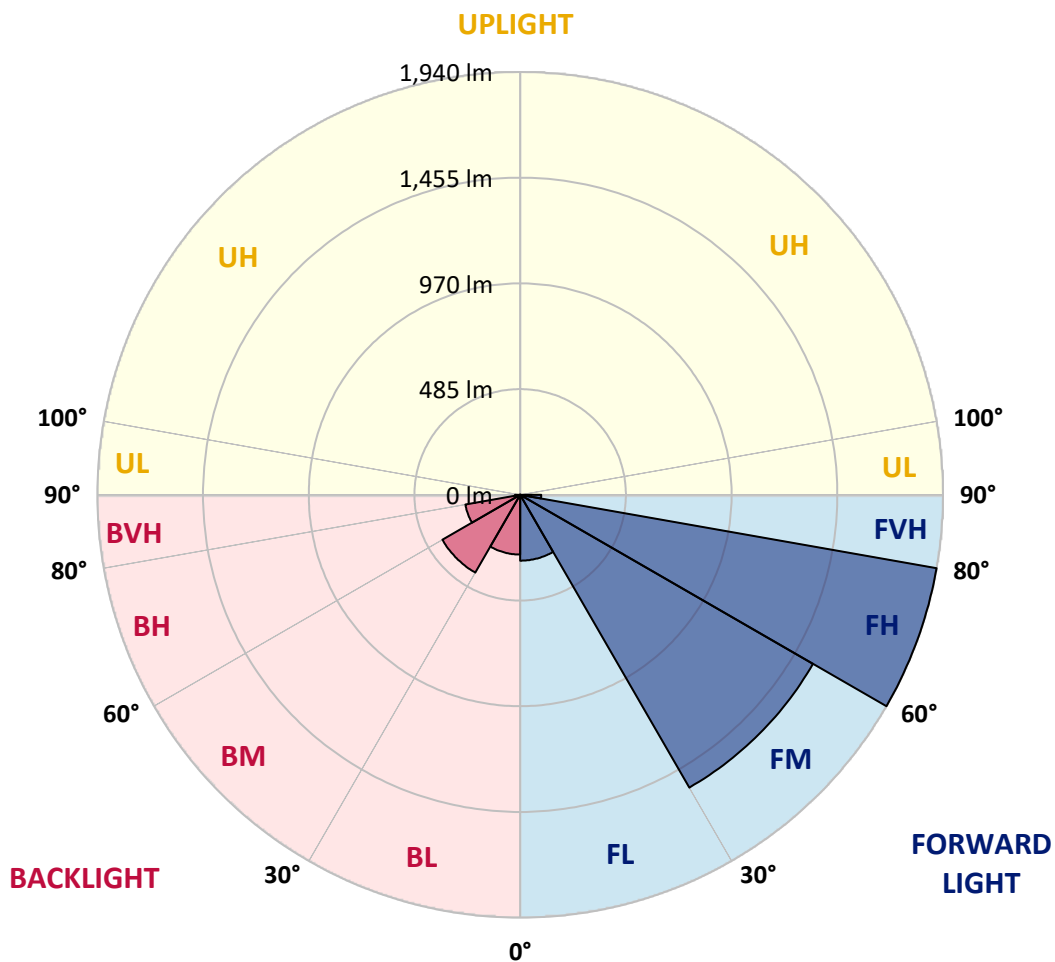
CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	302.3	6.2			
FM	(30°-60°)	1551.1	32.0			
FH	(60°-80°)	1939.8	40.0			G2/5000
FVH	(80°-90°)	96.4	2.0			G1/100
BL	(0°-30°)	274.0	5.6	B1/500		
BM	(30°-60°)	412.0	8.5	B1/1000		
BH	(60°-80°)	255.4	5.3	B1/500		G1/500
BVH	(80°-90°)	23.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





REPORT NUMBER: P142028

CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	46°
0°	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1
2.5°	650.4	652.1	651.6	651.0	651.6	652.1	652.7	654.4	654.9	655.5	656.1
5°	638.6	640.3	639.7	640.9	641.4	643.7	645.4	648.2	649.9	652.1	653.2
7.5°	635.2	636.4	636.4	637.5	638.1	640.3	643.1	646.5	649.9	653.2	654.4
10°	644.2	644.8	644.8	644.2	644.8	645.9	647.1	649.9	652.7	655.5	656.6
12.5°	665.6	663.9	663.4	661.7	662.3	660.0	660.0	659.4	659.4	660.0	660.0
15°	688.1	687.0	685.9	683.1	683.1	679.7	678.6	676.3	670.7	668.4	667.9
17.5°	708.4	707.3	705.0	702.8	701.6	697.1	696.0	692.1	685.3	680.3	678.6
20°	732.6	729.8	724.7	723.6	720.8	715.7	714.0	709.0	699.9	692.6	692.1
22.5°	769.7	765.2	760.2	756.2	748.9	743.8	739.3	732.6	721.9	713.5	711.2
25°	806.9	805.2	800.7	795.0	790.0	784.3	778.7	768.6	754.5	743.8	741.6
27.5°	859.2	855.2	849.6	840.6	837.8	828.2	823.7	815.3	801.2	787.7	785.5
30°	913.8	909.8	900.8	892.9	891.3	881.1	878.3	869.3	856.9	843.4	841.7
32.5°	976.2	972.3	965.5	961.0	954.8	949.2	942.5	934.0	918.3	907.0	904.8
35°	1056.1	1052.7	1044.9	1048.2	1042.6	1040.9	1037.0	1022.9	1005.5	992.0	994.2
37.5°	1119.1	1118.6	1120.3	1118.6	1125.9	1133.2	1133.2	1134.3	1125.9	1111.3	1108.4
40°	1178.2	1177.6	1182.1	1187.2	1206.9	1218.7	1232.2	1237.3	1228.3	1217.0	1213.1
42.5°	1233.4	1232.2	1238.4	1257.0	1281.2	1303.1	1326.2	1345.9	1350.4	1338.0	1335.2
45°	1287.9	1289.6	1297.5	1318.3	1350.4	1379.1	1418.5	1441.5	1456.2	1449.4	1453.9
47.5°	1353.8	1355.4	1363.9	1388.6	1416.8	1452.8	1498.9	1538.3	1555.8	1555.8	1550.1
50°	1432.0	1439.8	1448.9	1465.7	1498.4	1533.8	1590.1	1629.5	1657.6	1656.5	1652.0
52.5°	1536.1	1537.8	1552.4	1565.9	1594.0	1630.0	1680.7	1734.7	1770.1	1766.8	1761.7
55°	1676.2	1669.4	1679.0	1691.9	1722.3	1753.8	1809.0	1871.4	1907.4	1896.7	1893.4
57.5°	1852.8	1847.2	1854.0	1869.7	1908.0	1933.9	1978.3	2035.7	2086.3	2095.3	2087.5
60°	2107.7	2107.7	2121.2	2155.0	2193.8	2232.6	2289.5	2358.7	2411.0	2423.9	2423.4
62.5°	2409.9	2429.0	2431.8	2475.7	2550.0	2616.9	2705.3	2827.4	2905.6	2961.3	2946.7
65°	2458.3	2464.5	2489.2	2557.3	2658.0	2776.7	2914.0	3074.4	3237.0	3317.4	3319.7
67°	2336.7	2339.0	2382.3	2453.8	2569.1	2703.0	2880.8	3076.1	3282.0	3386.1	3389.5
67.5°	2299.0	2294.5	2333.4	2408.2	2534.2	2685.0	2852.1	3057.5	3270.2	3381.6	3383.3
70°	2046.4	2048.6	2079.0	2162.3	2295.7	2436.9	2623.7	2834.7	3058.6	3160.5	3165.5
72.5°	1764.5	1749.9	1777.4	1866.3	1929.9	2067.8	2239.4	2398.6	2595.6	2691.8	2689.5
75°	1345.9	1305.4	1353.8	1405.5	1441.0	1577.7	1684.6	1794.3	1976.1	2049.2	2045.3
77.5°	725.3	723.6	776.5	817.0	869.9	993.1	1087.1	1156.3	1309.3	1345.3	1349.8
80°	393.9	408.5	440.0	485.0	527.8	586.9	641.4	684.8	734.8	711.8	706.7
82.5°	237.4	261.6	310.0	344.3	361.2	387.7	426.5	451.3	470.9	428.2	419.7
85°	37.7	68.1	175.0	209.3	227.3	239.7	248.1	264.5	241.4	226.2	230.1
87.5°	12.4	14.1	27.0	59.6	52.3	36.0	47.3	68.6	32.6	17.4	16.9
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: P142028

CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1
2.5°	656.6	657.2	658.9	661.1	662.3	665.1	665.1	667.3	667.3	669.0	670.7
5°	654.9	657.8	660.0	663.4	665.1	669.0	670.7	674.1	675.8	678.0	680.3
7.5°	657.8	661.7	664.5	668.4	671.3	675.2	676.9	679.7	681.4	684.2	685.3
10°	660.0	663.9	667.3	671.8	674.1	676.9	678.6	680.8	681.4	683.1	684.2
12.5°	662.8	664.5	667.3	671.3	673.5	675.2	676.9	678.6	680.3	680.3	680.3
15°	666.8	665.1	665.6	669.0	671.3	672.4	674.1	675.2	675.8	675.8	674.6
17.5°	675.2	670.7	667.9	667.9	669.0	670.1	670.1	668.4	667.3	665.6	663.4
20°	687.6	680.3	674.6	671.8	669.6	666.8	662.3	656.6	651.6	647.1	644.2
22.5°	705.0	697.7	690.9	684.8	677.4	667.9	658.3	646.5	636.9	629.6	626.8
25°	737.6	727.0	721.9	712.3	701.1	685.9	671.3	654.9	643.7	633.6	629.1
27.5°	781.5	773.1	761.8	756.8	742.1	724.7	708.4	688.7	672.9	660.6	652.1
30°	837.2	831.6	822.0	813.6	799.5	783.8	759.6	737.6	710.1	688.1	675.8
32.5°	901.4	892.9	884.5	873.8	863.7	842.9	820.4	787.2	748.9	711.2	688.1
35°	981.8	973.4	967.8	950.9	934.0	911.5	881.1	841.7	788.3	737.6	698.3
37.5°	1092.7	1074.7	1047.1	1022.9	992.5	958.2	923.9	876.6	817.0	751.2	697.1
40°	1188.9	1162.5	1131.5	1089.9	1047.1	1002.1	961.6	910.4	840.6	762.4	689.3
42.5°	1313.8	1268.2	1215.9	1160.8	1102.3	1048.2	998.2	939.6	858.1	763.0	670.7
45°	1426.3	1370.1	1300.9	1226.0	1154.6	1088.7	1031.4	966.7	872.7	760.7	649.3
47.5°	1526.5	1460.7	1376.3	1286.2	1201.8	1127.6	1064.6	996.5	891.8	768.0	641.4
50°	1623.3	1547.9	1452.8	1343.6	1249.7	1168.6	1102.8	1029.7	923.9	792.8	653.8
52.5°	1726.8	1635.1	1527.6	1404.4	1302.0	1218.2	1144.5	1069.6	962.1	826.0	676.3
55°	1853.4	1749.3	1626.7	1490.5	1372.9	1279.5	1196.2	1117.4	1007.7	867.1	702.8
57.5°	2022.2	1917.0	1775.8	1618.8	1495.6	1384.7	1284.6	1195.7	1076.9	923.9	742.1
60°	2347.4	2217.4	2029.5	1859.0	1725.7	1595.1	1474.2	1352.6	1209.7	1038.7	843.4
62.5°	2869.6	2688.4	2455.5	2218.0	2038.0	1865.2	1705.4	1547.3	1369.0	1177.1	963.8
65°	3230.8	3006.9	2714.3	2416.6	2173.0	1962.0	1771.3	1583.3	1384.7	1201.8	1016.2
67°	3313.5	3063.1	2730.0	2407.1	2142.0	1913.0	1705.4	1509.6	1309.9	1143.9	985.2
67.5°	3310.1	3060.3	2717.7	2386.8	2121.2	1895.6	1686.3	1480.4	1284.0	1121.4	970.0
70°	3109.8	2858.9	2514.5	2185.4	1929.4	1704.9	1493.9	1314.4	1114.1	982.4	868.7
72.5°	2634.9	2416.6	2138.7	1842.7	1623.3	1422.4	1253.6	1077.5	903.6	815.9	726.4
75°	2003.6	1810.1	1555.2	1338.6	1171.5	1031.9	862.6	746.7	624.6	564.3	532.3
77.5°	1323.9	1101.7	925.6	719.1	596.4	486.7	383.7	304.4	254.3	267.3	292.0
80°	700.5	555.9	411.3	318.5	245.9	191.3	151.9	113.7	82.7	96.8	121.5
82.5°	381.5	325.2	240.3	191.3	156.4	129.4	99.6	69.8	51.8	57.4	82.7
85°	217.7	191.3	148.5	115.9	101.3	82.7	56.8	38.3	37.1	39.9	51.2
87.5°	36.0	48.4	39.4	27.0	30.4	29.8	26.4	20.3	15.2	21.4	27.6
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: P142028

CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1	665.1
2.5°	671.8	673.5	675.8	676.3	675.8	677.4	680.3	682.5	680.8	679.7	682.5
5°	682.5	683.6	686.4	686.4	687.0	688.1	689.8	691.5	689.3	689.3	690.4
7.5°	687.0	687.0	689.8	688.7	688.7	688.1	689.8	690.4	687.0	686.4	687.0
10°	684.2	684.2	685.3	683.1	682.5	681.9	681.9	682.5	679.1	678.0	679.7
12.5°	680.3	680.3	679.1	678.0	676.9	675.8	676.9	677.4	675.2	675.2	675.8
15°	673.5	671.8	671.3	671.3	671.8	672.4	674.6	676.3	674.6	673.5	673.5
17.5°	662.3	661.1	662.8	666.2	670.1	672.9	676.3	677.4	673.5	669.0	665.6
20°	645.4	648.2	654.4	663.9	672.4	676.9	676.9	672.9	663.9	654.9	650.4
22.5°	627.9	635.8	649.3	663.9	674.1	675.8	669.6	661.1	648.7	639.2	630.7
25°	630.2	639.7	653.2	665.6	672.4	669.6	658.3	647.6	633.0	622.9	610.5
27.5°	653.8	662.8	669.6	673.5	671.3	662.3	649.3	634.7	618.4	604.3	589.7
30°	672.9	676.9	676.3	672.9	664.5	650.4	635.2	617.8	598.1	582.9	563.8
32.5°	676.3	669.0	657.8	645.4	634.1	618.4	600.9	580.7	558.7	539.0	519.9
35°	670.1	642.6	617.8	593.0	576.2	556.5	541.3	517.6	493.5	476.6	462.5
37.5°	647.1	599.2	559.8	525.0	500.2	477.7	454.6	431.6	411.3	403.4	399.5
40°	617.8	545.8	485.6	437.2	410.7	388.8	365.2	346.6	337.0	329.7	326.9
42.5°	575.0	485.0	410.2	358.4	324.7	304.4	281.3	271.2	266.7	268.4	266.1
45°	535.1	421.4	327.5	270.1	247.0	227.9	216.6	212.1	209.9	208.7	210.4
47.5°	507.0	372.5	263.9	205.4	186.2	172.7	168.2	166.5	166.0	163.7	163.2
50°	500.2	343.8	216.1	159.8	145.2	137.9	135.6	133.9	132.8	131.1	127.2
52.5°	508.1	335.9	192.4	137.3	124.9	119.3	117.6	114.8	113.7	109.2	104.1
55°	521.6	338.7	185.1	131.1	118.7	112.5	110.3	109.2	105.2	100.2	94.0
57.5°	549.7	356.2	188.5	132.8	119.8	114.2	113.1	112.0	106.9	99.6	91.7
60°	631.3	406.8	205.9	144.6	128.8	124.9	125.5	123.2	115.9	106.3	94.5
62.5°	757.3	485.6	238.0	159.2	143.5	143.5	146.9	145.2	133.9	118.2	101.3
65°	822.6	532.8	251.5	163.7	148.0	155.3	166.0	164.3	148.0	124.3	101.8
67°	812.5	523.8	243.6	157.0	139.5	149.1	159.8	160.4	142.4	118.7	97.3
67.5°	802.9	517.6	239.7	154.2	137.3	146.9	157.0	155.3	140.1	116.5	96.2
70°	721.3	454.6	213.8	144.0	127.2	130.0	132.8	130.5	118.7	103.0	88.9
72.5°	622.9	377.5	188.5	137.9	121.5	117.0	117.0	113.1	105.2	94.5	84.4
75°	474.9	293.7	165.4	131.1	114.8	108.0	106.9	104.1	97.3	89.5	80.5
77.5°	289.8	210.4	143.5	121.0	106.3	100.7	101.3	99.6	92.8	85.5	77.1
80°	145.2	136.2	120.4	105.2	96.2	90.6	91.2	87.8	82.1	76.5	69.8
82.5°	88.9	94.0	84.4	79.9	74.3	68.1	52.9	61.9	60.2	55.1	52.3
85°	59.1	58.5	52.9	46.7	42.8	37.1	33.2	33.8	37.1	38.3	38.3
87.5°	28.7	27.6	25.3	23.6	22.5	18.6	17.4	19.7	19.7	20.8	20.3
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: P142028

CATALOG NUMBER: ECM-E02-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	665.1	665.1	665.1	665.1	665.1
2.5°	683.1	684.2	683.6	685.3	683.6
5°	690.9	690.9	691.5	692.1	691.5
7.5°	687.0	686.4	687.6	688.7	688.1
10°	679.7	680.3	681.4	683.1	683.1
12.5°	676.9	677.4	679.7	681.4	681.4
15°	674.6	675.2	676.3	678.6	676.9
17.5°	664.5	662.3	662.3	663.9	662.3
20°	646.5	643.1	643.1	642.6	642.0
22.5°	625.1	616.7	614.4	611.6	612.2
25°	598.7	587.4	581.2	577.9	576.7
27.5°	577.3	564.3	558.2	553.1	551.4
30°	550.3	535.7	530.6	527.8	526.7
32.5°	510.9	498.0	491.2	489.5	486.1
35°	451.3	445.6	442.8	438.9	439.4
37.5°	391.6	389.9	383.2	385.4	383.2
40°	327.5	326.9	328.0	326.3	330.3
42.5°	267.3	265.6	268.4	266.7	268.4
45°	207.1	210.4	214.4	212.7	214.9
47.5°	158.7	159.2	158.1	159.2	160.4
50°	122.1	121.0	119.8	117.6	118.7
52.5°	100.7	96.8	94.0	92.3	91.7
55°	88.9	85.0	82.7	80.5	80.5
57.5°	85.5	80.5	77.1	75.4	74.8
60°	86.1	79.3	74.8	72.0	71.5
62.5°	88.3	79.3	73.1	70.3	69.2
65°	87.8	78.2	72.0	69.2	68.1
67°	85.0	76.5	71.5	68.6	68.1
67.5°	83.8	76.0	71.5	68.6	67.5
70°	79.9	74.3	70.3	67.5	66.4
72.5°	76.5	72.0	67.5	65.3	64.1
75°	73.1	68.6	64.7	62.5	61.9
77.5°	69.8	64.7	61.9	59.1	56.8
80°	63.6	58.0	54.0	49.5	48.4
82.5°	52.3	47.8	43.9	39.9	39.4
85°	38.8	37.1	33.8	30.4	30.4
87.5°	21.4	23.6	20.8	19.1	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)