

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: P140901

Luminaire Tested: **ECM-E01-LED-E1-SL2-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140901  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33690)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E01-LED-E1-SL2-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL  
Light Source: (21) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2953 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

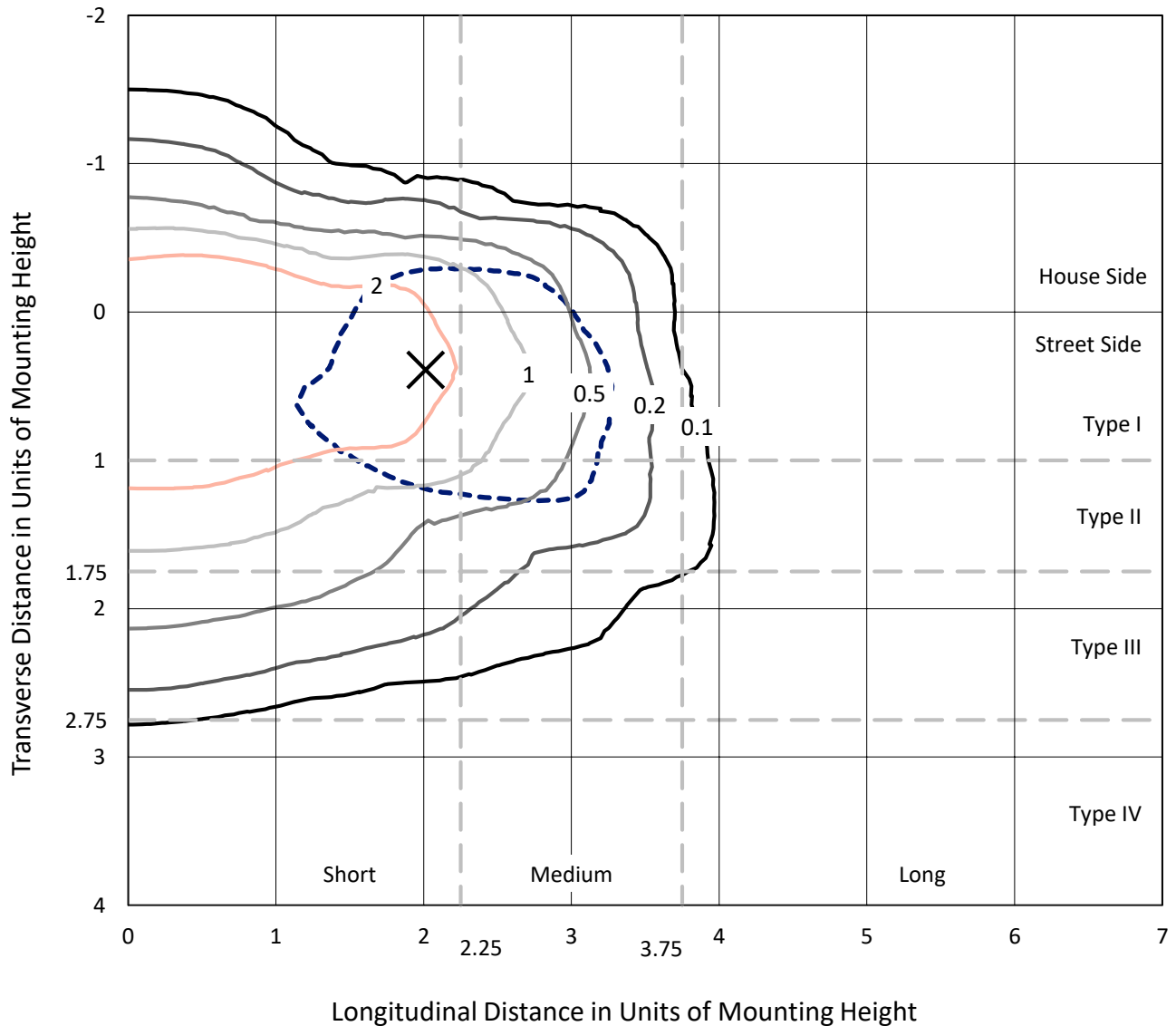
Input Watts (W): 24.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

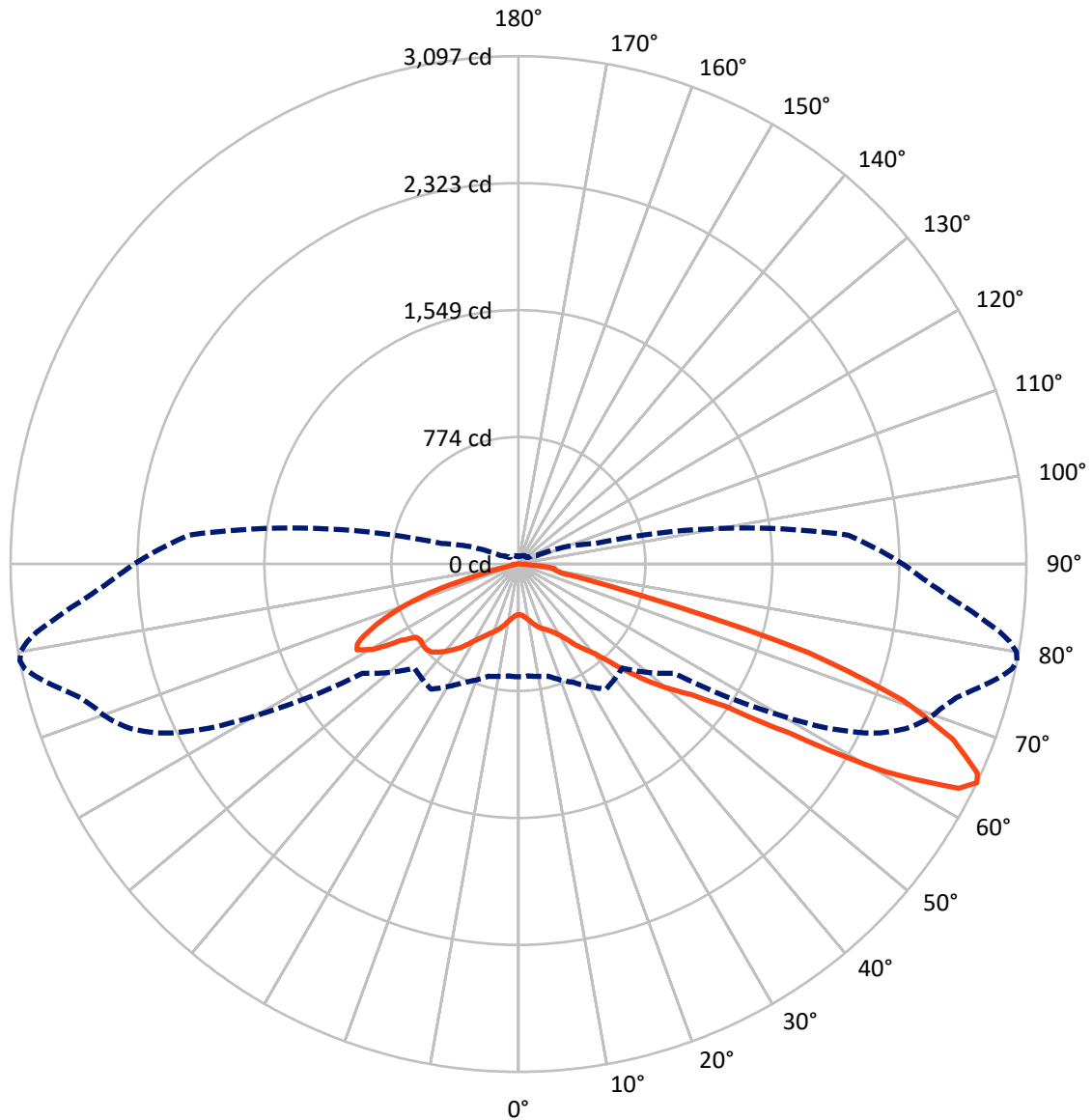
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	703.9	0.0	703.9
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	2249.1	0.0	2249.1
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	2953.0	0.0	2953.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.6	1.0
10°-20°	99.2	3.4
20°-30°	170.3	5.8
30°-40°	284.6	9.6
40°-50°	487.6	16.5
50°-60°	657.8	22.3
60°-70°	832.0	28.2
70°-80°	332.0	11.2
80°-90°	58.9	2.0
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°	2953.0	100.0
0°-180°	2953.0	100.0



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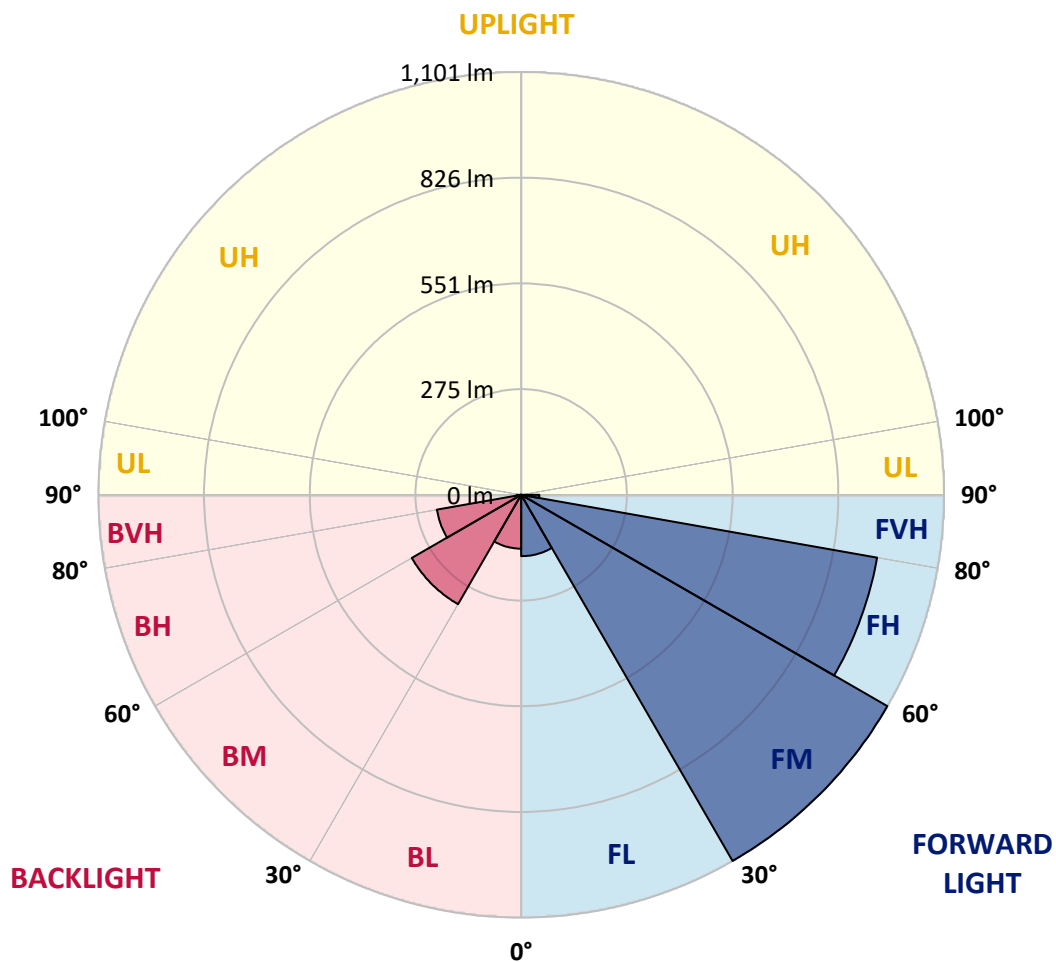
CATALOG NUMBER: ECM-E01-LED-E1-SL2-7050

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	159.8	5.4			
FM (30°-60°)	1101.1	37.3			
FH (60°-80°)	941.1	31.9			G1/1800
FVH (80°-90°)	47.2	1.6			G1/100
BL (0°-30°)	140.3	4.7	B1/500		
BM (30°-60°)	328.9	11.1	B1/1000		
BH (60°-80°)	223.0	7.6	B1/500		G1/500
BVH (80°-90°)	11.7	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9
2.5°	307.5	307.8	307.5	308.5	309.2	310.2	310.2	310.2	310.2	310.2	310.2
5°	307.1	307.5	307.1	308.9	310.6	312.6	314.7	315.4	315.4	315.7	316.0
7.5°	310.2	310.6	310.2	312.3	314.7	318.1	321.9	323.9	324.2	324.6	325.3
10°	319.8	319.1	317.8	319.8	322.2	327.3	331.8	335.2	336.2	336.6	337.9
12.5°	332.5	332.1	329.7	328.7	330.1	335.9	344.1	348.9	349.9	350.2	351.6
15°	342.0	341.0	339.0	337.6	340.0	346.1	357.1	363.2	365.3	365.6	368.0
17.5°	348.2	347.5	344.1	343.1	346.8	356.4	370.1	377.6	379.0	380.0	382.7
20°	358.5	356.4	351.3	346.8	349.9	364.6	380.7	388.6	390.6	391.6	394.0
22.5°	372.1	370.4	364.3	353.0	353.0	369.4	390.3	399.2	400.9	402.9	405.7
25°	395.7	394.4	382.4	363.2	358.5	374.2	399.2	411.1	412.8	415.2	419.3
27.5°	420.0	418.3	405.0	379.3	368.0	383.1	412.2	426.5	428.9	431.6	436.4
30°	451.1	448.1	434.7	405.0	386.8	397.4	432.7	450.8	453.5	457.0	463.5
32.5°	520.9	522.3	498.0	466.5	434.7	430.3	464.5	486.7	490.8	495.3	504.2
35°	634.5	629.0	620.1	588.0	552.7	517.8	526.4	550.3	554.8	556.1	559.9
37.5°	707.0	710.1	717.2	717.2	690.9	676.2	651.9	640.3	641.3	642.7	639.6
40°	747.3	753.8	778.5	811.6	835.6	848.9	844.8	790.4	783.9	775.4	748.0
42.5°	776.4	782.9	825.0	888.6	948.1	995.3	1021.3	978.6	973.8	953.3	920.4
45°	794.2	799.3	850.0	940.3	1030.2	1110.6	1181.7	1166.7	1165.3	1147.9	1104.8
47.5°	790.8	795.2	847.9	956.7	1074.7	1183.8	1293.9	1321.3	1322.6	1318.2	1291.9
50°	740.2	750.8	803.1	920.4	1050.0	1212.2	1366.4	1437.9	1440.0	1444.1	1433.8
52.5°	695.0	703.2	750.1	855.1	979.6	1184.1	1409.9	1523.4	1540.9	1550.8	1569.9
55°	676.5	681.3	717.2	806.5	921.4	1109.2	1424.6	1585.3	1616.5	1635.3	1679.1
57.5°	673.1	676.9	704.6	772.7	882.8	1031.9	1419.8	1668.4	1717.7	1753.3	1838.1
60°	696.0	699.5	719.0	776.1	856.1	975.5	1376.0	1777.9	1847.0	1942.8	2079.6
62.5°	713.1	714.9	738.8	818.8	885.5	920.4	1264.5	1854.5	1977.3	2099.1	2302.6
64°	688.2	684.8	708.4	796.6	931.0	896.8	1161.2	1850.8	1994.7	2129.9	2350.1
65°	651.6	654.0	675.2	753.2	923.2	895.8	1093.5	1809.7	1959.2	2102.5	2327.9
67.5°	506.2	515.4	521.3	592.7	756.2	924.9	915.6	1548.4	1698.5	1835.4	2101.8
70°	272.3	271.2	284.2	340.7	526.1	785.0	785.7	1091.4	1257.7	1427.7	1692.7
72.5°	100.2	105.3	115.6	155.6	273.3	566.4	720.0	756.9	831.1	966.2	1250.5
75°	57.5	58.1	60.2	73.2	131.7	312.6	669.0	669.7	675.2	697.4	852.0
77.5°	44.8	43.4	44.5	47.5	71.8	164.5	536.7	636.2	635.5	632.1	654.7
80°	33.5	34.9	36.9	36.9	44.5	88.2	305.1	566.1	585.2	599.6	607.8
82.5°	27.0	28.0	33.2	33.2	32.5	49.9	144.0	419.3	479.5	518.5	579.1
85°	17.4	18.5	28.0	27.7	26.3	29.4	75.2	140.6	151.5	184.7	262.7
87.5°	4.8	5.8	13.0	11.3	13.7	10.9	28.0	42.8	52.7	59.5	74.9
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):**

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9
2.5°	310.2	310.2	310.2	310.6	310.6	310.6	310.6	310.6	310.9	310.2	310.2
5°	316.4	316.0	316.4	316.4	317.4	317.1	317.4	317.4	317.1	317.8	317.8
7.5°	326.3	325.6	326.3	326.6	327.0	328.4	328.4	329.0	329.4	329.7	329.0
10°	338.3	339.3	339.6	339.6	341.4	342.0	342.0	343.1	344.1	344.8	344.4
12.5°	353.0	353.7	354.0	356.1	356.4	357.4	359.1	360.2	360.2	361.9	362.9
15°	369.4	370.1	372.1	372.8	374.2	375.9	376.9	377.9	377.9	381.0	382.1
17.5°	383.4	384.8	386.2	387.2	389.6	391.3	393.0	394.0	395.7	397.1	399.5
20°	395.4	397.1	398.8	400.9	402.6	404.3	406.3	407.7	409.8	411.8	414.2
22.5°	407.0	409.1	411.1	412.8	415.2	416.9	418.7	421.0	422.4	424.5	427.2
25°	419.7	423.1	425.1	427.5	429.9	432.3	434.4	436.4	438.5	441.2	444.0
27.5°	439.9	441.6	444.3	445.7	449.8	452.5	455.2	455.6	458.3	463.5	464.1
30°	466.2	469.3	471.0	475.8	476.5	477.5	481.9	485.0	488.4	492.5	494.2
32.5°	505.9	508.6	511.0	512.4	516.1	522.3	523.0	525.7	531.5	532.5	538.7
35°	564.0	564.7	568.5	570.5	575.3	578.7	580.4	582.8	585.9	593.1	594.8
37.5°	633.8	639.6	634.8	630.0	638.6	637.6	639.6	636.9	645.1	645.4	648.5
40°	742.2	739.8	729.6	718.6	713.5	710.4	704.3	702.9	707.3	705.3	706.3
42.5°	901.9	879.4	861.9	848.9	832.9	815.4	805.5	790.4	790.4	786.0	790.1
45°	1089.7	1064.4	1031.9	1001.1	981.3	958.4	934.8	919.0	903.0	891.0	901.6
47.5°	1274.8	1257.7	1221.4	1193.0	1153.3	1119.1	1081.9	1049.4	1030.2	1016.2	1018.2
50°	1435.5	1419.8	1401.0	1362.7	1332.6	1297.7	1258.3	1215.6	1174.2	1157.4	1143.1
52.5°	1571.0	1565.5	1549.4	1531.6	1507.0	1469.7	1444.8	1404.1	1355.1	1319.9	1304.9
55°	1690.7	1700.3	1708.8	1705.0	1696.2	1691.4	1660.6	1632.9	1599.7	1589.4	1558.3
57.5°	1879.1	1906.8	1939.7	1957.8	1975.6	2016.3	2026.2	2015.6	2019.7	2017.0	2000.6
60°	2145.9	2213.0	2270.4	2316.3	2365.2	2412.7	2468.8	2505.7	2521.1	2580.7	2579.6
62.5°	2374.8	2464.0	2537.6	2592.6	2649.7	2692.8	2729.1	2766.0	2811.2	2854.3	2908.7
64°	2437.0	2507.1	2567.0	2616.2	2657.3	2692.5	2720.2	2754.1	2791.3	2847.1	2907.3
65°	2404.8	2483.9	2527.3	2571.8	2608.7	2636.1	2664.5	2695.2	2742.4	2786.6	2850.9
67.5°	2186.3	2246.1	2309.1	2350.5	2386.0	2402.1	2428.8	2454.4	2480.8	2525.2	2605.6
70°	1843.6	1910.6	2001.2	2040.2	2077.2	2083.0	2108.0	2127.1	2144.6	2203.7	2243.4
72.5°	1383.2	1513.2	1602.1	1670.5	1678.0	1707.1	1717.4	1725.2	1745.1	1756.0	1768.0
75°	953.3	1070.2	1145.8	1171.8	1203.6	1188.2	1170.4	1107.9	1108.2	1055.2	995.0
77.5°	670.7	688.9	689.5	689.9	647.8	623.2	595.1	559.2	545.2	517.2	478.8
80°	608.1	606.1	593.4	578.0	555.1	522.3	488.4	464.8	446.4	425.5	398.1
82.5°	586.9	591.7	582.5	569.5	556.1	523.7	484.7	447.7	417.3	384.1	350.6
85°	285.9	294.2	320.8	338.3	342.4	322.2	294.5	261.0	228.8	192.6	175.8
87.5°	85.9	92.0	94.1	99.9	107.1	97.5	85.9	77.0	61.9	53.7	42.1
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):**

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9
2.5°	310.2	310.6	310.6	310.2	310.6	310.6	310.9	310.6	310.6	310.6	310.2
5°	317.1	318.4	318.1	318.1	318.8	318.8	318.4	319.1	318.8	318.8	318.4
7.5°	330.1	330.1	331.1	331.4	330.7	330.7	331.4	331.8	332.5	332.8	332.8
10°	345.1	346.8	346.8	347.2	347.5	348.5	348.9	348.9	349.6	349.6	350.2
12.5°	363.6	364.3	365.0	366.7	367.0	367.0	368.7	368.4	368.4	370.1	370.4
15°	383.4	384.4	386.2	386.8	387.5	389.2	390.3	391.3	390.9	393.3	394.0
17.5°	400.9	401.9	403.9	405.7	406.7	407.7	408.4	409.8	411.8	413.5	413.9
20°	414.9	416.3	418.7	420.7	422.4	423.4	426.2	427.5	428.2	429.6	431.3
22.5°	428.6	431.0	433.4	434.0	437.8	438.8	440.9	442.9	444.3	447.4	448.4
25°	445.7	447.7	450.8	452.9	455.2	457.3	459.4	461.1	464.1	466.9	468.2
27.5°	468.2	470.0	472.4	476.1	478.2	479.5	483.3	486.7	488.1	490.8	493.2
30°	498.0	499.7	503.1	506.9	508.6	513.1	515.8	518.2	520.9	524.7	528.1
32.5°	541.4	543.5	546.6	551.4	551.4	554.4	560.3	565.4	567.4	571.9	574.3
35°	598.6	598.9	602.3	609.5	611.6	610.9	616.3	621.1	622.5	629.3	633.8
37.5°	654.0	655.0	659.1	661.8	665.6	668.3	672.1	679.3	679.3	689.2	693.3
40°	711.4	716.6	717.2	717.9	724.1	735.0	738.8	746.0	752.5	762.1	766.5
42.5°	794.9	800.4	806.9	814.4	823.6	829.8	837.0	847.2	850.0	861.9	865.0
45°	909.1	915.6	933.1	934.8	951.2	959.4	971.4	985.1	988.5	996.3	992.2
47.5°	1023.0	1030.6	1049.7	1069.5	1084.6	1099.0	1102.4	1108.2	1113.3	1108.5	1109.9
50°	1149.2	1160.2	1178.3	1195.8	1207.0	1223.5	1223.5	1224.8	1220.0	1212.2	1199.5
52.5°	1297.0	1298.7	1310.3	1324.0	1334.3	1337.7	1337.7	1329.8	1318.2	1305.5	1280.9
55°	1543.6	1524.8	1528.2	1528.2	1520.7	1514.5	1509.7	1490.6	1467.7	1444.8	1422.2
57.5°	1987.9	2005.7	1952.7	1938.3	1939.0	1892.1	1873.0	1840.1	1815.5	1774.5	1739.9
60°	2621.7	2609.4	2591.9	2575.5	2576.9	2515.0	2471.5	2422.6	2379.9	2289.6	2251.3
62.5°	2957.2	3001.0	3026.0	3013.3	2984.3	2945.6	2874.5	2800.2	2725.0	2648.4	2579.6
64°	2969.5	3027.4	3076.6	3097.1	3083.4	3034.5	2962.0	2869.7	2780.1	2689.8	2606.6
65°	2910.0	2983.2	3046.8	3075.6	3076.3	3033.2	2960.7	2867.6	2771.9	2667.2	2580.7
67.5°	2663.1	2747.2	2809.8	2858.0	2899.4	2877.5	2827.3	2728.4	2637.8	2519.1	2424.3
70°	2292.7	2344.7	2415.1	2485.6	2518.7	2523.9	2505.1	2455.1	2349.1	2252.6	2130.5
72.5°	1767.0	1847.7	1806.3	1849.7	1877.4	1850.4	1853.8	1768.7	1734.5	1649.6	1563.8
75°	935.8	938.5	920.8	791.5	775.4	716.2	781.9	664.6	624.6	587.6	540.1
77.5°	434.0	377.9	325.6	271.9	222.3	194.6	151.9	133.7	120.4	106.0	109.1
80°	362.9	319.8	274.0	227.1	190.9	154.3	123.8	96.1	77.0	64.6	58.8
82.5°	321.2	283.2	251.4	222.7	196.7	160.8	132.0	101.9	78.3	59.2	45.8
85°	145.0	113.6	103.3	81.4	69.1	58.8	46.9	38.6	31.8	27.0	21.2
87.5°	33.9	23.3	19.8	18.8	16.4	15.4	13.0	13.7	11.3	8.9	9.2
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: P140901

CATALOG NUMBER: ECM-E01-LED-E1-SL2-7050

**CANDELA DISTRIBUTION (continued):**

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9
2.5°	310.2	310.2	310.6	310.6	310.9	311.6	312.6	311.6	311.6	311.6	311.9
5°	319.1	319.5	319.1	319.1	319.8	320.8	321.2	319.1	318.1	317.1	315.7
7.5°	332.1	333.5	333.1	333.1	333.8	333.8	333.1	330.1	327.0	322.2	318.1
10°	350.2	350.9	350.9	350.9	352.0	352.6	349.6	342.7	334.5	326.0	318.4
12.5°	371.8	371.5	372.5	373.5	372.8	372.8	367.0	356.4	343.1	329.0	316.0
15°	394.4	394.7	394.7	396.4	396.8	395.4	386.2	369.7	349.2	328.0	307.1
17.5°	415.6	416.3	416.6	418.0	419.7	415.9	402.6	380.3	350.2	318.4	290.4
20°	433.4	434.4	435.4	436.4	438.1	435.4	417.6	385.5	344.8	303.0	270.9
22.5°	449.4	451.1	451.8	453.5	456.3	452.9	431.3	385.5	332.5	286.3	249.0
25°	468.9	471.0	474.4	475.1	479.9	476.1	442.3	382.7	318.4	265.1	225.4
27.5°	494.6	496.6	499.7	501.4	507.2	502.1	450.5	375.6	301.0	242.2	202.5
30°	528.4	530.5	534.3	536.0	546.6	529.5	455.9	364.6	280.8	215.5	176.1
32.5°	575.6	581.1	580.8	585.2	594.8	559.9	458.3	349.2	255.5	188.5	151.5
35°	637.6	641.3	644.7	650.9	655.3	592.4	456.6	329.0	224.0	160.4	130.0
37.5°	697.1	703.6	706.0	710.1	709.0	614.3	449.8	297.6	189.8	135.4	115.3
40°	771.3	775.1	782.6	786.3	768.2	635.2	433.7	255.5	155.6	119.0	105.7
42.5°	870.1	874.9	871.2	870.1	835.2	646.8	402.9	213.4	130.3	107.1	97.8
45°	990.2	992.2	981.0	973.4	912.5	645.8	358.1	173.8	112.9	98.2	91.0
47.5°	1098.6	1094.5	1079.8	1068.5	979.6	621.8	302.0	143.3	103.6	91.0	85.5
50°	1188.2	1170.1	1154.4	1140.0	1033.3	585.2	248.3	120.7	94.7	85.2	80.0
52.5°	1269.3	1244.7	1226.2	1201.9	1082.2	537.0	205.6	105.3	85.9	79.4	74.2
55°	1389.3	1360.6	1337.0	1313.1	1168.7	499.4	177.9	93.7	77.0	73.2	68.4
57.5°	1733.8	1656.8	1636.0	1614.4	1400.6	491.2	161.8	84.5	70.1	67.4	64.3
60°	2204.8	2154.8	2121.3	2068.6	1785.8	517.5	149.8	77.6	65.3	63.6	60.9
62.5°	2511.9	2451.7	2396.3	2342.6	2011.9	516.8	135.1	73.2	62.6	62.3	58.1
64°	2531.4	2464.0	2402.1	2344.3	2019.0	483.0	121.8	70.1	62.6	62.6	56.4
65°	2499.3	2431.5	2367.6	2307.4	1978.0	457.0	112.9	68.7	63.6	63.3	55.4
67.5°	2335.4	2267.4	2195.5	2130.9	1804.2	358.1	89.3	66.4	69.1	66.7	54.4
70°	2045.7	1968.4	1914.4	1867.9	1548.7	250.0	70.8	67.7	75.6	70.8	57.1
72.5°	1482.7	1419.8	1419.1	1366.4	1172.5	158.7	57.1	67.4	75.2	70.1	59.2
75°	576.0	493.9	491.2	509.6	498.7	85.9	49.3	59.5	61.6	58.5	52.3
77.5°	98.5	96.8	95.8	100.9	111.2	47.5	45.1	50.6	45.8	41.4	43.4
80°	54.7	52.3	51.6	51.6	48.6	39.0	40.0	40.4	33.2	30.8	35.9
82.5°	38.0	35.2	33.9	32.8	31.8	34.9	35.6	31.8	23.9	23.6	33.5
85°	18.5	17.4	17.1	17.1	19.5	32.8	29.4	24.6	16.1	16.1	36.3
87.5°	7.9	7.9	6.8	6.8	10.6	20.9	13.3	10.3	6.5	7.5	14.7
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):**

	165°	175°	180°
0°	308.9	308.9	308.9
2.5°	311.6	312.3	311.9
5°	314.0	314.0	313.3
7.5°	313.6	312.3	311.6
10°	311.6	307.8	307.5
12.5°	306.1	300.0	298.3
15°	290.4	282.2	280.1
17.5°	270.5	261.0	258.2
20°	248.0	237.0	233.3
22.5°	226.1	213.4	209.7
25°	202.1	189.5	187.4
27.5°	175.8	163.8	160.8
30°	151.5	141.3	138.9
32.5°	129.6	122.4	122.4
35°	115.3	109.1	109.1
37.5°	104.0	101.2	100.9
40°	96.5	94.1	93.7
42.5°	90.6	87.9	87.6
45°	84.5	81.7	81.7
47.5°	78.7	75.6	75.9
50°	72.9	70.5	70.5
52.5°	68.1	65.7	65.3
55°	63.6	61.2	60.9
57.5°	59.5	56.8	56.4
60°	55.4	52.7	52.0
62.5°	52.0	48.9	48.2
64°	49.9	46.9	46.2
65°	48.9	45.5	45.1
67.5°	47.9	43.4	43.1
70°	51.6	42.8	41.0
72.5°	52.0	41.7	39.7
75°	49.3	39.7	38.0
77.5°	43.4	36.3	34.2
80°	41.7	28.4	25.0
82.5°	38.3	23.3	19.5
85°	31.5	15.0	14.0
87.5°	18.1	9.9	7.2
90°	0.0	0.0	0.0

(END OF REPORT)