

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: P141234

Luminaire Tested: **ECM-F02-LED-E1-SL4-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141234  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-F02-LED-E1-SL4-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (14) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4257.8 lumens  
Efficiency: N/A  
Efficacy: 77.4 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 - G1

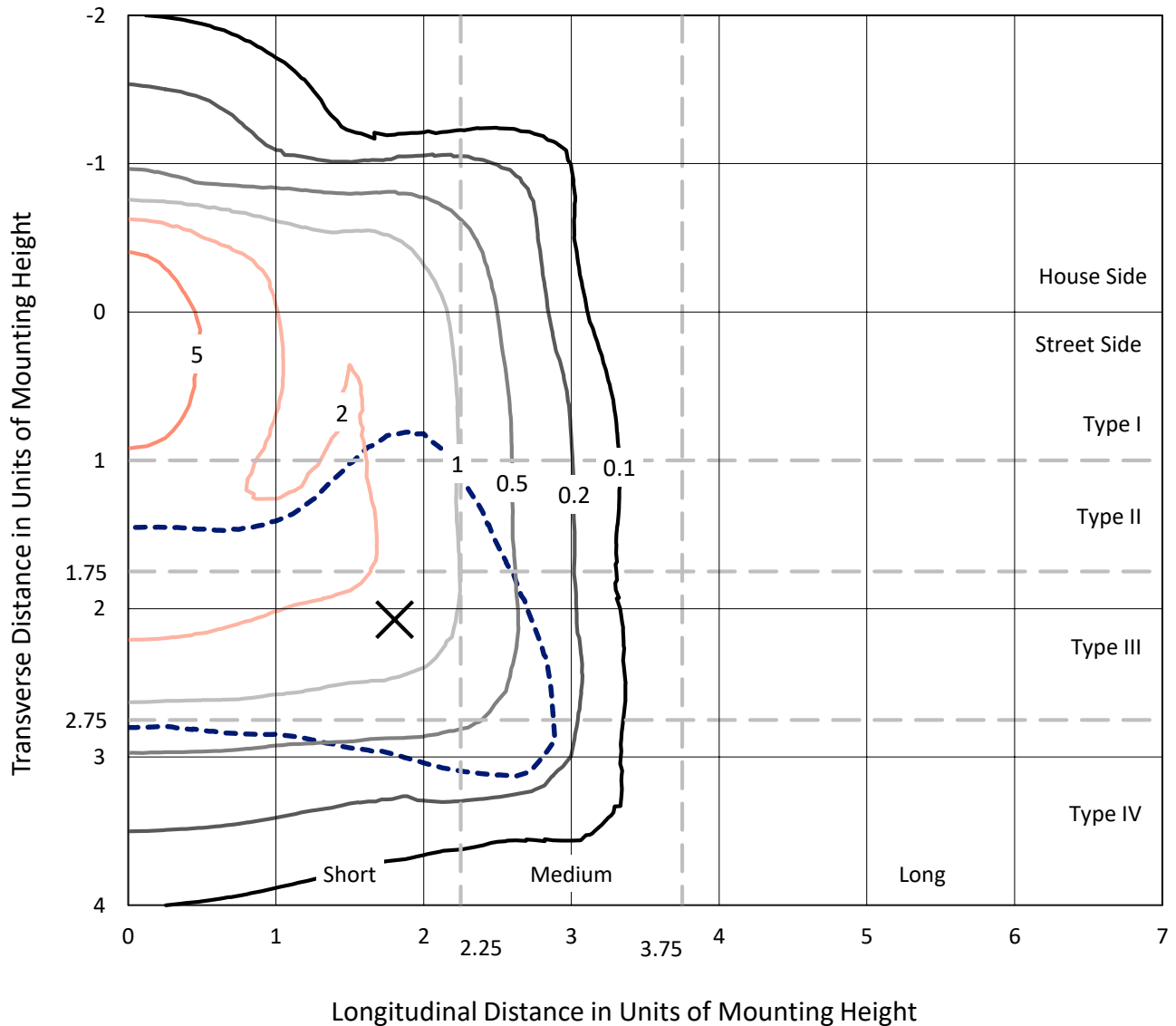
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P141234  
 CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

### Iso-Footcandle Lines of Horizontal Illumination

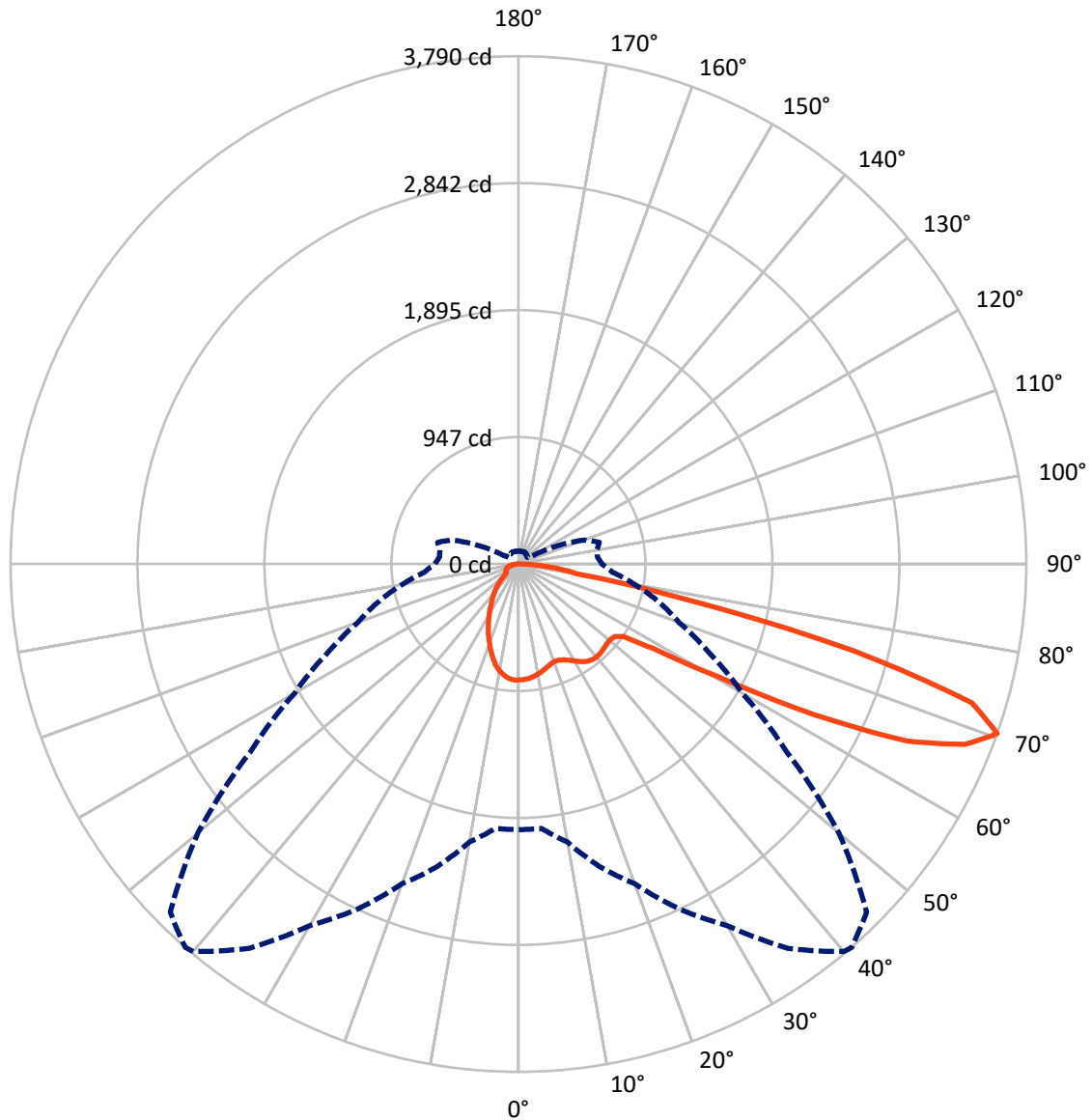
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.7 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P141234  
CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P141234

CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	913.5	0.0	913.5
	% Fixture	21.5	0.0	21.5
<b>Street Side</b>	Lumens	3344.2	0.0	3344.2
	% Fixture	78.5	0.0	78.5
<b>Total</b>	Lumens	4257.8	0.0	4257.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.5	1.9
10°-20°	215.8	5.1
20°-30°	312.0	7.3
30°-40°	397.0	9.3
40°-50°	467.9	11.0
50°-60°	715.9	16.8
60°-70°	1330.6	31.3
70°-80°	642.2	15.1
80°-90°	95.9	2.3
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°	4257.8	100.0
0°-180°	4257.8	100.0

**Coefficient of Utilization**



REPORT NUMBER: P141234

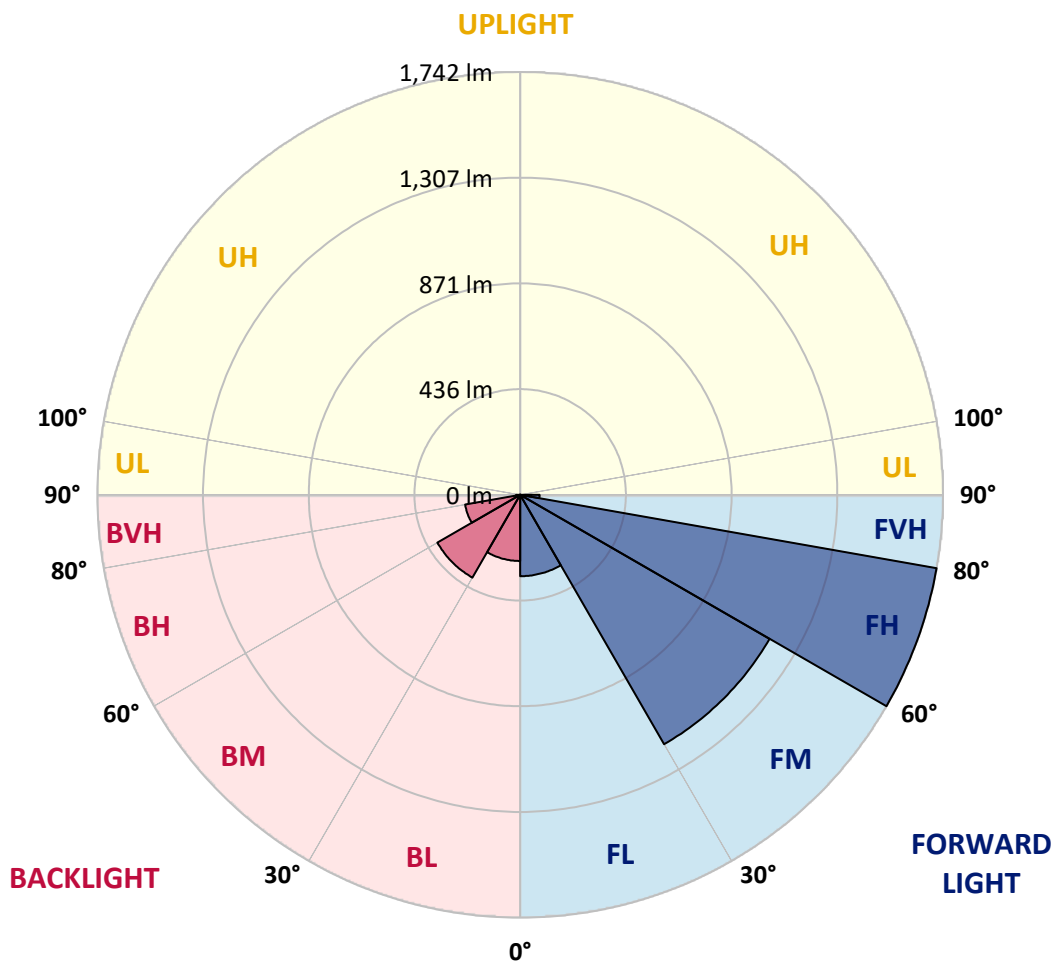
CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	335.3	7.9			
FM	(30°-60°)	1186.7	27.9			
FH	(60°-80°)	1742.5	40.9			G1/1800
FVH	(80°-90°)	79.7	1.9			G1/100
BL	(0°-30°)	272.9	6.4	B1/500		
BM	(30°-60°)	394.1	9.3	B1/1000		
BH	(60°-80°)	230.3	5.4	B1/500		G1/500
BVH	(80°-90°)	16.2	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 IV Short





REPORT NUMBER: P141234

CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1
2.5°	865.1	866.1	865.6	864.6	863.6	864.1	863.6	863.1	863.1	862.6	862.1
5°	861.1	863.1	861.6	860.6	859.0	859.0	858.5	857.5	856.5	856.0	855.0
7.5°	852.5	854.5	853.5	852.5	851.0	850.0	848.0	847.0	846.0	845.5	844.0
10°	841.0	842.0	841.0	838.9	837.9	837.4	836.4	834.4	832.4	831.4	829.9
12.5°	825.9	826.4	825.4	824.4	822.9	822.9	821.4	819.8	816.8	815.8	812.3
15°	812.8	811.3	810.3	809.8	809.3	806.8	807.3	804.8	799.7	798.2	794.2
17.5°	809.3	807.8	807.3	805.8	804.8	801.7	798.7	793.7	785.2	783.7	777.6
20°	819.3	819.3	817.8	816.8	815.3	809.8	803.3	793.7	778.1	774.6	767.1
22.5°	843.5	841.0	839.9	839.9	839.4	831.4	819.3	804.3	783.7	779.1	766.1
25°	881.2	876.6	878.2	877.6	876.6	865.1	847.5	825.9	797.7	791.7	774.6
27.5°	925.9	926.9	926.4	924.4	921.4	908.8	883.7	854.5	819.3	813.3	791.2
30°	972.7	973.7	976.7	975.2	973.2	954.1	922.9	891.2	848.5	840.5	813.3
32.5°	1026.9	1030.5	1033.0	1033.5	1025.4	999.3	962.6	922.4	877.1	869.1	835.4
35°	1089.8	1087.8	1092.3	1090.3	1076.2	1040.5	995.3	947.5	901.3	890.7	854.5
37.5°	1153.1	1155.6	1151.1	1142.6	1120.4	1073.7	1017.9	964.1	912.8	902.8	865.1
40°	1214.4	1212.9	1202.4	1187.8	1154.6	1094.8	1030.5	971.6	916.9	906.3	867.6
42.5°	1260.2	1256.2	1240.1	1216.4	1173.7	1104.9	1034.0	971.6	914.3	903.3	864.1
45°	1280.3	1276.3	1260.7	1230.5	1179.7	1102.8	1027.9	963.1	905.8	896.2	857.0
47.5°	1280.3	1278.8	1261.7	1232.5	1178.2	1097.3	1018.9	952.5	897.3	887.7	851.0
50°	1270.2	1269.2	1254.1	1225.5	1173.2	1094.3	1016.4	950.5	896.7	887.2	853.5
52.5°	1303.9	1297.4	1281.8	1248.6	1191.8	1106.9	1028.9	960.6	908.8	899.3	864.6
55°	1713.6	1708.0	1629.1	1490.4	1345.1	1212.4	1098.8	1020.4	968.1	953.6	928.4
57.5°	2376.1	2368.0	2287.1	2160.9	1911.1	1627.1	1404.4	1273.7	1200.4	1189.8	1174.7
60°	2645.0	2642.0	2607.8	2556.5	2462.0	2315.3	2108.2	1891.0	1722.1	1695.0	1697.0
62.5°	2799.3	2791.8	2775.2	2762.6	2730.5	2670.6	2631.9	2571.1	2489.2	2470.6	2353.0
65°	2885.8	2884.8	2893.8	2904.4	2902.4	2920.5	2940.1	3056.2	3192.4	3186.4	3062.2
67.5°	2757.1	2765.6	2812.9	2885.3	2961.2	3041.6	3191.4	3424.1	3592.5	3592.5	3483.4
70°	1982.0	1980.5	2106.2	2335.4	2539.5	2840.0	3116.0	3499.5	3775.0	3789.6	3674.0
72.5°	1187.8	1215.4	1292.8	1396.9	1570.3	1934.2	2447.5	3136.6	3521.1	3536.7	3398.5
75°	834.4	813.8	810.8	816.8	846.5	936.0	1218.5	1925.2	2552.5	2576.6	2442.9
77.5°	533.8	529.3	531.3	537.8	539.4	547.9	561.5	660.0	1183.3	1298.9	1292.8
80°	460.4	458.9	459.4	451.9	437.3	431.8	448.9	435.3	422.7	440.3	416.2
82.5°	308.6	314.2	323.2	335.3	364.4	374.5	369.0	366.4	326.7	317.7	282.0
85°	228.7	225.7	229.2	229.2	221.7	214.1	219.7	214.1	189.5	177.4	156.8
87.5°	123.7	124.2	134.2	138.2	137.7	117.6	97.0	83.9	75.9	70.4	59.3
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: P141234

CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1
2.5°	862.6	861.1	861.6	861.6	861.1	862.1	860.6	860.1	860.6	860.6	860.6
5°	854.0	852.0	852.0	851.5	850.5	850.5	848.5	848.0	847.0	848.5	847.5
7.5°	842.0	838.9	836.4	834.4	833.4	831.9	829.4	828.4	827.4	826.9	825.9
10°	827.4	823.9	818.8	814.8	812.8	808.8	805.8	801.7	801.7	799.7	797.7
12.5°	809.8	804.8	799.7	794.2	790.7	785.2	780.1	775.6	772.1	767.6	764.5
15°	792.2	784.7	779.1	773.6	767.1	759.5	753.5	746.5	739.9	732.9	730.9
17.5°	773.1	767.1	762.0	755.5	748.5	739.4	731.4	719.8	711.8	703.2	696.7
20°	760.5	753.5	748.0	741.9	734.4	723.8	713.3	700.2	688.1	675.6	666.0
22.5°	754.0	742.4	737.4	731.9	724.3	712.8	700.7	684.6	669.5	653.0	637.9
25°	756.5	740.9	730.9	724.8	718.3	706.7	691.2	673.1	656.0	634.9	617.8
27.5°	767.6	746.5	730.9	720.8	713.8	701.7	685.6	665.0	644.4	622.3	601.7
30°	782.1	755.5	735.4	720.8	710.3	697.2	679.6	657.5	634.9	610.2	586.6
32.5°	798.7	766.1	741.9	721.8	704.7	688.1	670.0	646.9	623.3	597.2	574.0
35°	811.8	774.1	746.5	719.8	697.2	676.6	655.5	633.9	610.2	585.6	561.0
37.5°	819.3	779.1	746.5	712.8	685.1	663.5	641.4	620.3	597.7	573.5	551.9
40°	822.4	781.1	743.4	704.7	672.6	647.9	627.3	605.7	585.6	564.5	545.4
42.5°	820.8	779.6	739.4	697.2	662.5	635.9	613.2	593.1	576.6	559.0	542.9
45°	814.8	774.6	735.4	693.7	659.0	631.8	608.7	589.6	574.0	558.0	545.4
47.5°	809.8	772.6	737.9	702.2	669.0	641.4	616.3	595.2	582.1	569.5	561.5
50°	813.8	778.1	743.4	709.8	677.6	649.4	623.8	604.2	596.7	594.6	592.1
52.5°	824.9	789.7	760.5	736.9	722.3	711.8	685.6	681.1	674.6	671.1	662.5
55°	896.7	882.2	908.3	937.0	942.0	973.7	986.2	987.2	976.2	937.0	845.5
57.5°	1189.3	1225.5	1236.5	1302.9	1321.0	1306.9	1287.8	1286.8	1252.6	1200.9	1067.7
60°	1712.1	1693.0	1669.3	1626.1	1585.4	1541.7	1481.3	1435.1	1391.4	1311.9	1171.7
62.5°	2259.0	2092.6	1971.4	1847.3	1746.8	1658.8	1571.3	1496.9	1426.1	1316.0	1165.7
65°	2733.5	2394.7	2148.9	1962.4	1806.6	1677.9	1561.8	1460.2	1370.8	1233.0	1080.7
67.5°	3042.1	2555.0	2187.6	1909.1	1688.9	1525.1	1354.2	1193.8	1105.9	994.8	917.4
70°	3121.0	2441.9	1929.2	1572.3	1275.8	1080.2	878.7	703.7	622.8	591.6	594.1
72.5°	2815.4	1930.2	1367.7	1000.3	783.1	620.8	504.7	388.1	303.1	254.3	248.3
75°	1839.2	1074.2	649.4	452.4	359.9	286.5	225.7	190.0	163.9	132.2	110.6
77.5°	695.2	409.2	291.5	237.8	175.9	122.6	95.5	80.4	73.9	71.9	64.8
80°	356.4	284.0	203.1	133.7	93.5	74.9	62.8	53.3	49.3	47.3	48.3
82.5°	240.3	178.9	112.1	80.4	64.8	55.8	44.2	37.2	33.2	32.7	35.2
85°	133.7	89.5	65.3	54.3	47.8	41.7	33.7	27.6	25.6	27.1	31.7
87.5°	41.7	41.2	29.7	24.1	25.1	21.6	16.1	12.1	12.1	15.6	22.1
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: P141234

CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1
2.5°	860.6	861.6	863.6	862.1	862.6	863.1	864.6	866.6	865.1	864.1	867.1
5°	848.5	848.5	851.0	850.0	852.0	854.0	855.0	858.5	857.5	856.5	860.6
7.5°	826.4	826.9	830.4	829.4	833.4	833.9	837.9	841.0	841.0	843.0	846.5
10°	798.2	798.2	801.2	801.7	804.3	806.3	810.8	816.3	817.3	820.8	825.9
12.5°	766.6	765.6	768.1	768.1	770.1	772.6	777.6	784.2	785.2	790.7	797.2
15°	727.4	725.8	724.8	725.8	726.8	727.4	734.9	741.4	745.4	751.5	758.0
17.5°	689.7	684.1	681.6	681.6	682.1	682.1	685.1	692.7	698.2	707.7	717.3
20°	656.0	646.4	642.9	634.9	633.4	629.8	632.3	640.9	650.9	658.5	666.0
22.5°	624.3	614.3	604.2	594.6	587.1	582.6	587.1	592.6	596.2	602.2	604.2
25°	600.2	583.6	569.5	554.4	546.4	542.4	541.9	541.4	538.4	537.3	537.3
27.5°	581.1	561.5	540.4	523.8	512.7	505.2	496.6	490.6	483.1	473.0	468.0
30°	565.0	543.9	520.8	501.2	487.1	472.5	454.9	441.3	427.8	415.7	405.1
32.5°	550.4	528.8	506.2	485.6	461.4	436.3	414.2	398.1	374.5	358.4	344.8
35°	539.4	517.7	496.6	469.5	436.3	404.1	375.5	351.9	327.7	306.6	288.5
37.5°	531.3	513.2	490.6	453.9	412.2	373.5	343.3	315.2	286.5	257.9	235.2
40°	528.8	513.2	484.6	436.8	389.1	347.3	312.7	278.0	246.3	215.6	192.5
42.5°	530.3	513.7	475.0	421.7	370.0	324.7	285.5	245.3	207.6	174.9	151.8
45°	535.8	513.7	465.0	405.1	352.4	304.1	257.4	209.6	165.9	139.7	129.7
47.5°	552.4	517.2	456.9	393.1	336.8	281.5	225.7	171.4	134.2	123.2	123.2
50°	578.1	527.8	455.9	384.0	319.2	255.4	186.5	135.2	118.6	118.1	121.1
52.5°	621.8	546.4	460.9	378.0	300.6	220.2	145.3	116.6	113.1	116.1	120.6
55°	706.7	579.1	468.0	366.9	269.4	172.4	119.1	110.6	112.1	115.6	119.6
57.5°	862.1	644.9	475.5	343.3	218.2	130.7	108.1	108.6	111.1	114.6	118.1
60°	969.1	726.3	490.6	303.6	162.4	108.1	103.5	107.6	110.6	113.1	116.1
62.5°	978.2	756.0	501.7	258.9	120.6	98.5	99.5	105.6	109.6	110.6	112.1
65°	923.9	717.8	470.0	213.6	100.0	93.5	97.0	102.5	106.6	107.1	108.6
67.5°	805.3	637.9	401.1	162.4	91.5	90.0	94.0	97.5	100.5	103.0	105.1
70°	623.8	520.8	322.7	126.2	84.9	84.4	88.0	92.0	95.0	97.5	100.5
72.5°	328.7	370.0	240.3	101.0	77.9	78.4	81.9	85.5	87.5	90.0	93.0
75°	102.0	156.8	148.3	80.9	69.4	71.4	73.4	76.4	79.9	81.4	82.9
77.5°	60.3	63.8	77.4	63.3	60.3	61.8	64.3	66.9	69.4	71.4	72.9
80°	48.8	49.8	50.3	50.3	50.3	52.3	54.3	57.8	59.8	60.8	61.3
82.5°	38.2	40.7	41.2	40.2	41.7	43.7	44.7	46.7	47.3	48.3	49.3
85°	31.7	31.2	32.2	32.7	30.7	30.7	29.7	29.7	31.7	35.2	35.7
87.5°	24.6	21.6	17.6	16.6	15.6	14.6	13.6	13.6	14.1	16.1	17.6
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: P141234

CATALOG NUMBER: ECM-F02-LED-E1-SL4-7030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	865.1	865.1	865.1	865.1	865.1
2.5°	867.1	866.6	867.6	869.1	868.1
5°	861.1	861.1	863.1	864.6	863.6
7.5°	849.0	849.5	852.5	854.5	853.5
10°	829.9	830.9	834.4	837.4	838.9
12.5°	801.2	804.8	809.3	812.3	812.3
15°	765.1	770.6	775.6	780.1	777.6
17.5°	723.8	730.4	736.9	739.4	736.9
20°	674.1	674.6	678.6	681.1	680.1
22.5°	606.2	604.2	606.2	607.2	608.7
25°	536.8	533.3	531.3	534.3	535.8
27.5°	466.0	460.9	462.4	458.9	454.9
30°	397.1	392.6	387.0	385.5	388.1
32.5°	336.3	324.7	320.2	311.7	315.2
35°	271.9	260.4	249.3	246.3	244.3
37.5°	219.2	205.1	191.5	187.0	186.0
40°	171.4	159.8	150.8	148.3	147.3
42.5°	139.2	134.2	132.7	132.7	133.2
45°	127.2	127.7	129.2	130.2	130.7
47.5°	124.7	126.7	128.7	130.7	131.2
50°	124.7	126.2	127.7	129.7	130.2
52.5°	123.7	125.2	125.7	126.7	127.7
55°	122.6	123.2	123.2	123.7	124.7
57.5°	120.1	120.6	119.6	120.1	122.1
60°	117.6	118.1	117.1	118.1	118.6
62.5°	114.1	114.1	113.6	114.1	114.6
65°	110.1	108.6	109.6	109.1	109.6
67.5°	105.1	103.0	102.5	102.5	103.0
70°	98.0	96.5	96.0	97.0	98.0
72.5°	89.5	90.5	92.0	93.5	96.0
75°	83.4	84.9	87.0	92.0	95.5
77.5°	74.9	74.4	76.4	81.9	87.0
80°	62.3	62.8	62.3	63.8	64.8
82.5°	47.8	47.3	45.7	45.7	44.7
85°	33.7	32.2	30.2	29.7	29.2
87.5°	17.1	18.1	16.6	15.1	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)