

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: P141073

Luminaire Tested: **ECM-F02-LED-E1-SL3-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141073  
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-F02-LED-E1-SL3-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (14) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4032.5 lumens  
Efficiency: N/A  
Efficacy: 73.3 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

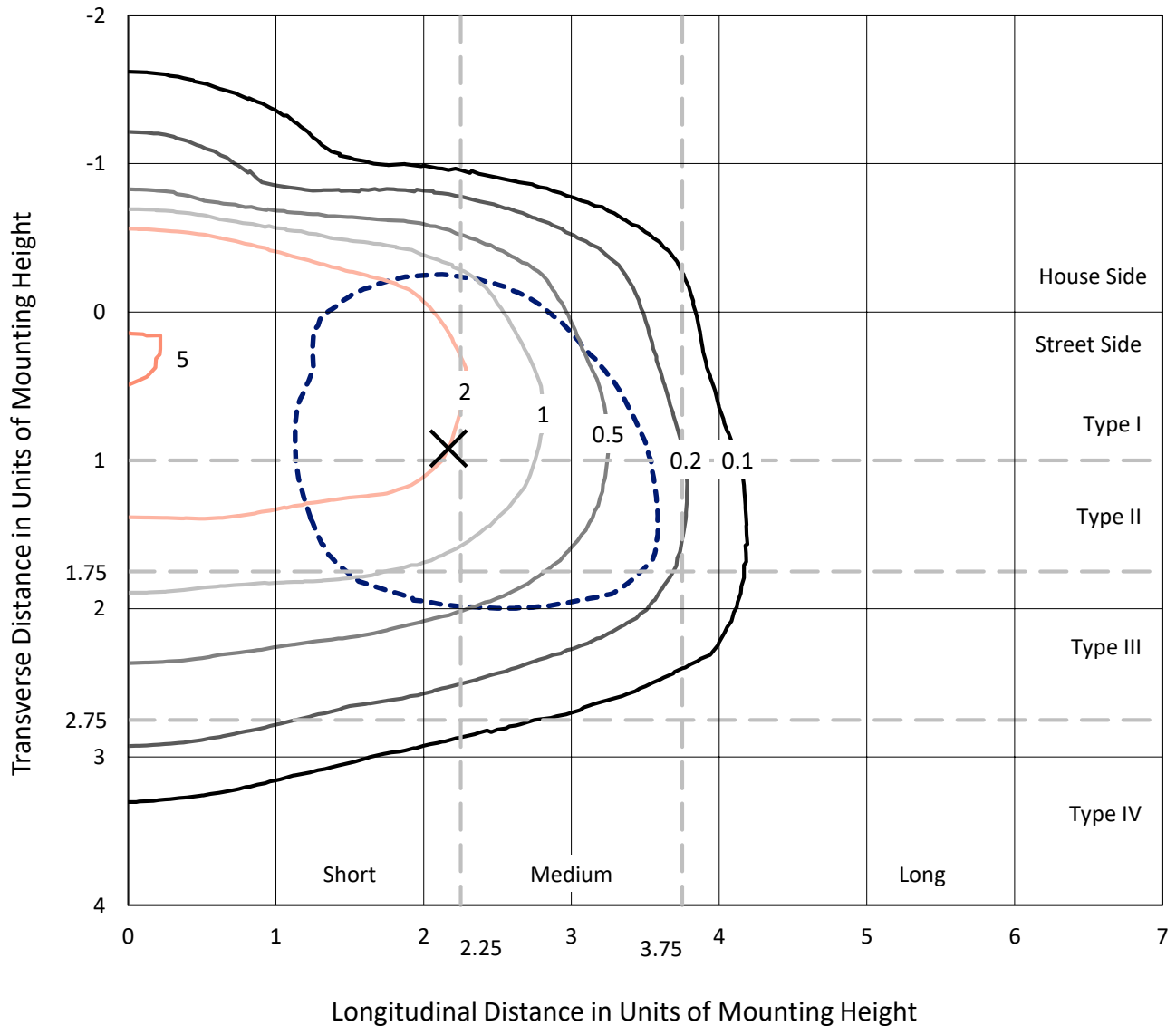
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

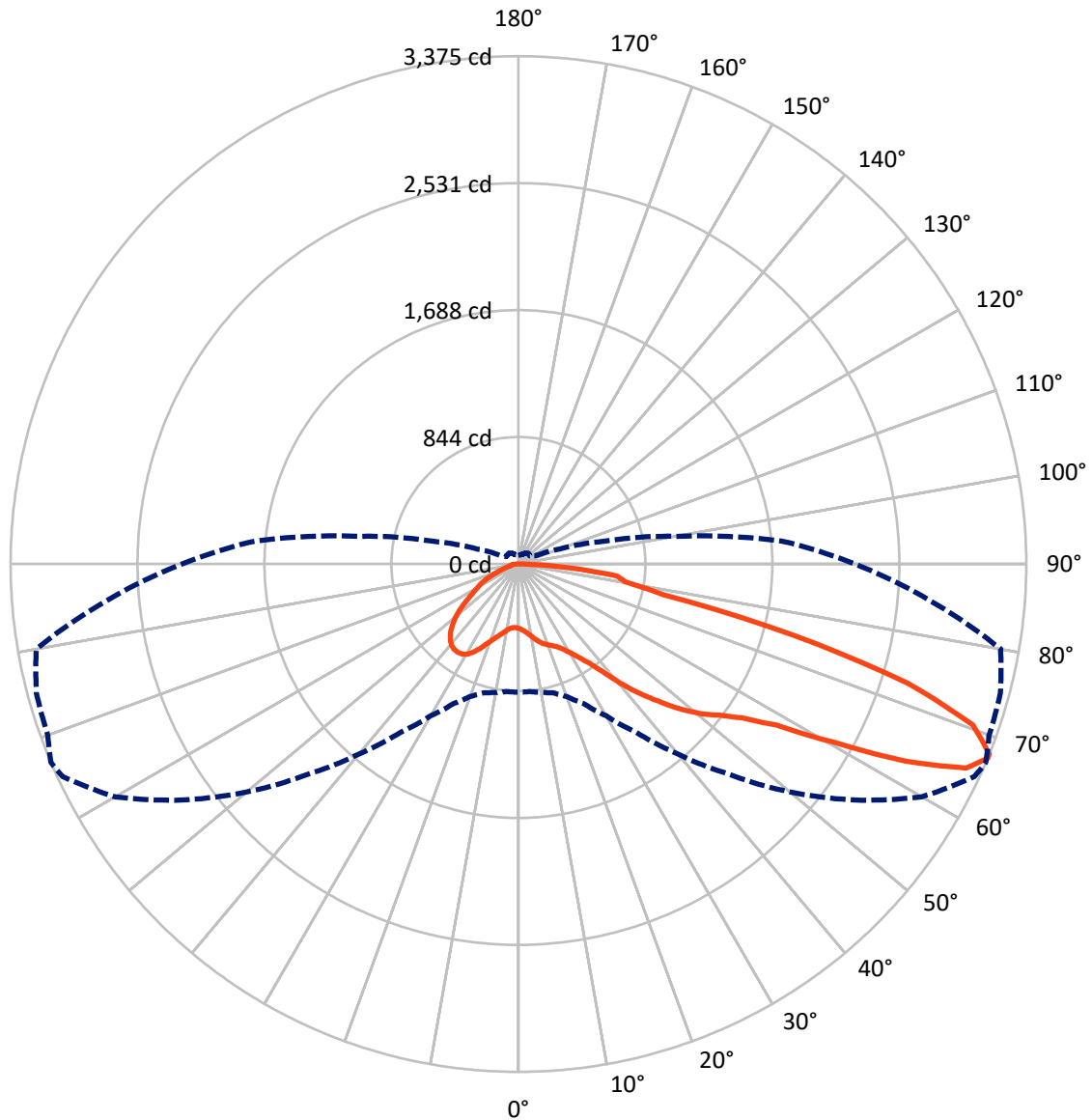
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Short - Semi-Cutoff

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### 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
<b>House Side</b>	Lumens	927.7	0.0	927.7
	% Fixture	23.0	0.0	23.0
<b>Street Side</b>	Lumens	3104.8	0.0	3104.8
	% Fixture	77.0	0.0	77.0
<b>Total</b>	Lumens	4032.5	0.0	4032.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.9	1.1
10°-20°	148.3	3.7
20°-30°	263.9	6.5
30°-40°	379.5	9.4
40°-50°	578.3	14.3
50°-60°	844.8	20.9
60°-70°	1138.3	28.2
70°-80°	558.9	13.9
80°-90°	77.7	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°	4032.5	100.0
0°-180°	4032.5	100.0



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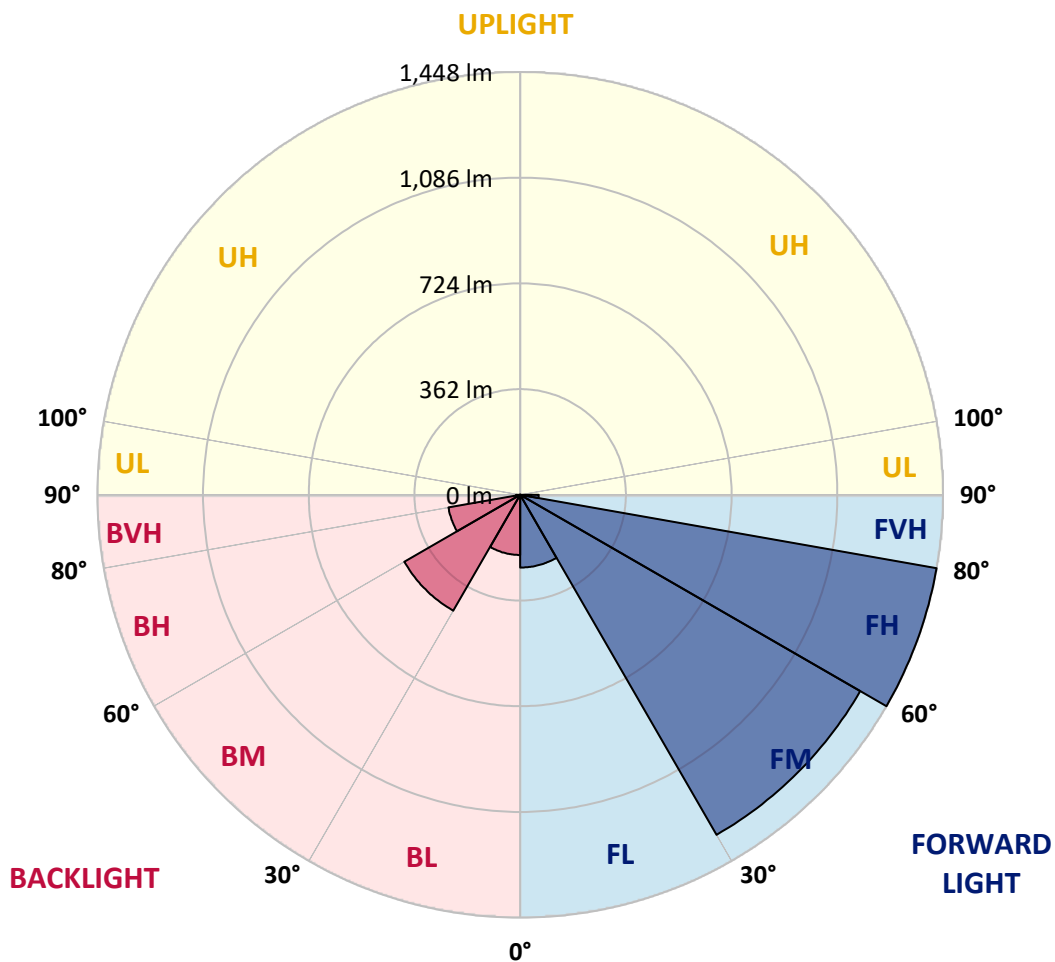
CATALOG NUMBER: ECM-F02-LED-E1-SL3-8030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	249.1	6.2			
FM	(30°-60°)	1344.4	33.3			
FH	(60°-80°)	1447.7	35.9			G1/1800
FVH	(80°-90°)	63.7	1.6			G1/100
BL	(0°-30°)	206.0	5.1	B1/500		
BM	(30°-60°)	458.2	11.4	B1/1000		
BH	(60°-80°)	249.5	6.2	B1/500		G1/500
BVH	(80°-90°)	14.0	0.3			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8
2.5°	450.1	447.8	449.6	449.2	447.8	445.9	446.8	445.4	444.5	443.1	441.7
5°	479.4	478.0	477.0	475.6	474.7	473.3	472.4	470.1	466.8	464.5	462.6
7.5°	508.2	507.7	506.3	504.4	500.7	499.8	496.5	494.2	491.4	486.8	483.1
10°	542.1	541.6	539.3	536.5	532.3	528.1	524.4	518.8	513.3	509.1	505.8
12.5°	582.9	580.6	576.0	572.3	567.6	561.1	555.1	548.6	540.7	534.2	530.4
15°	623.8	621.0	617.3	612.2	605.2	596.4	587.6	577.8	565.7	557.4	552.3
17.5°	657.3	655.4	651.2	644.2	637.3	626.6	615.0	601.5	586.7	574.1	566.2
20°	681.4	679.5	673.0	664.7	655.4	643.3	630.8	615.9	598.3	582.9	574.1
22.5°	691.6	688.8	681.4	670.3	657.7	642.9	629.4	616.8	600.6	589.0	579.7
25°	694.9	691.6	681.9	667.9	651.7	632.6	617.3	607.6	597.8	593.6	590.4
27.5°	693.0	690.2	679.5	662.4	640.5	618.2	602.0	595.0	595.5	603.4	607.1
30°	686.5	683.3	673.5	654.5	631.2	607.1	592.7	590.4	601.1	621.0	635.9
32.5°	675.8	673.5	665.6	649.4	628.5	607.6	597.3	602.4	621.0	652.1	677.7
35°	673.0	672.6	668.9	660.0	644.7	631.2	627.1	641.5	672.1	714.9	747.4
37.5°	672.6	674.9	676.8	676.8	673.5	672.6	685.1	705.1	750.6	804.0	857.0
40°	681.9	686.1	695.3	707.4	719.0	735.8	761.3	798.9	846.3	911.3	977.3
42.5°	710.7	720.0	735.8	756.7	786.8	818.0	859.3	906.2	967.1	1032.6	1098.1
45°	766.9	780.3	792.0	824.9	864.9	901.6	955.5	1017.2	1084.1	1166.3	1236.9
47.5°	841.2	850.9	875.1	909.9	958.7	1011.2	1063.2	1117.1	1197.5	1283.4	1368.9
50°	915.5	922.9	948.5	989.4	1053.5	1111.1	1170.5	1223.9	1293.1	1384.2	1467.8
52.5°	970.8	981.0	1003.3	1043.2	1115.2	1180.7	1248.6	1307.5	1385.6	1467.3	1554.6
55°	1008.9	1015.4	1035.8	1074.8	1142.6	1217.4	1294.1	1366.5	1459.4	1551.9	1638.7
57.5°	1014.9	1021.4	1040.0	1074.4	1140.3	1218.8	1306.6	1395.3	1507.7	1629.9	1743.7
60°	1007.9	1013.1	1029.3	1057.6	1119.9	1205.8	1310.3	1421.8	1560.2	1717.7	1880.3
62.5°	976.8	981.9	996.8	1020.0	1075.3	1168.2	1299.2	1460.8	1635.0	1832.9	2071.2
65°	918.3	921.5	935.5	954.1	1009.8	1104.1	1248.6	1452.9	1694.0	1963.4	2271.8
67°	851.9	850.5	866.3	884.9	935.9	1022.8	1164.0	1365.1	1647.1	1973.6	2355.9
67.5°	831.4	835.2	850.5	863.5	913.2	997.3	1132.4	1331.2	1607.1	1950.4	2354.5
70°	686.5	693.5	701.8	710.2	753.9	815.6	915.0	1107.3	1330.3	1655.4	2137.6
72.5°	471.0	457.1	463.1	460.3	473.8	512.8	582.0	751.1	928.1	1207.7	1586.7
75°	238.7	254.1	252.2	263.8	282.9	307.5	339.5	402.7	541.6	706.0	981.9
77.5°	133.8	130.1	143.1	145.8	157.0	183.0	239.7	322.8	386.5	453.8	555.1
80°	60.8	67.4	71.5	65.0	67.4	72.9	94.8	148.6	249.9	380.4	437.5
82.5°	33.9	36.2	42.3	42.7	44.6	46.0	49.7	57.6	77.6	157.0	308.9
85°	21.4	22.3	28.3	31.1	32.5	32.5	32.5	34.4	39.5	46.4	79.9
87.5°	7.9	8.4	13.0	17.2	17.7	16.7	15.8	18.1	16.7	17.2	26.0
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):**

	55°	60°	65°	67°	70°	75°	80°	85°	90°	95°	100°
0°	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8
2.5°	440.8	438.9	437.1	436.6	435.2	434.3	432.0	430.1	428.3	426.9	425.5
5°	458.5	454.7	451.5	450.1	448.2	445.9	441.3	438.0	435.2	432.4	429.7
7.5°	478.4	473.8	469.1	467.3	464.5	460.3	455.2	451.5	446.8	442.7	438.9
10°	500.7	495.6	491.9	490.0	487.7	481.7	478.4	471.9	466.8	461.2	456.6
12.5°	524.9	522.6	517.4	515.6	513.3	509.1	504.4	498.9	492.4	486.3	480.7
15°	546.7	543.0	539.7	539.3	537.9	535.6	529.5	523.5	517.9	510.0	505.4
17.5°	560.2	558.8	558.3	557.9	556.9	555.5	552.7	546.2	541.1	534.6	528.1
20°	568.5	569.9	572.3	574.1	575.0	576.0	574.6	568.1	563.0	557.4	551.8
22.5°	577.4	581.1	587.1	589.9	593.2	597.8	596.9	592.7	589.9	583.4	579.2
25°	589.9	597.3	607.6	611.3	617.3	623.3	624.7	622.4	619.6	615.0	615.0
27.5°	611.3	622.0	635.4	643.3	649.4	657.7	660.5	659.1	659.6	656.8	663.3
30°	644.7	659.6	677.7	686.1	693.5	703.2	705.1	707.9	706.0	711.1	719.0
32.5°	695.3	713.9	732.5	740.4	746.9	757.1	763.2	761.3	767.8	771.1	782.2
35°	773.4	792.0	806.4	807.7	815.2	820.8	826.3	824.5	842.1	849.1	855.1
37.5°	881.1	896.9	905.8	902.5	893.7	904.4	911.8	922.9	934.1	946.6	924.3
40°	1020.9	1046.0	1042.3	1037.7	1020.9	1023.3	1026.5	1032.6	1051.1	1047.0	983.3
42.5°	1153.8	1179.3	1175.2	1170.1	1147.8	1136.1	1145.0	1155.7	1165.9	1126.4	1031.6
45°	1288.0	1311.3	1291.3	1298.3	1278.3	1273.2	1290.4	1296.4	1284.8	1212.3	1072.5
47.5°	1427.4	1452.5	1442.7	1435.7	1421.3	1419.9	1429.7	1439.0	1393.0	1274.6	1103.2
50°	1534.2	1571.4	1566.3	1562.1	1546.3	1544.4	1567.7	1574.2	1491.5	1340.5	1133.8
52.5°	1616.4	1664.7	1674.0	1668.4	1664.7	1665.7	1732.5	1722.8	1608.5	1420.4	1169.6
55°	1713.5	1763.7	1797.6	1804.5	1813.8	1827.3	1959.7	1945.3	1770.2	1535.6	1207.2
57.5°	1842.2	1935.1	1986.2	2017.7	2043.3	2130.6	2298.8	2243.5	1994.1	1684.2	1251.8
60°	2031.7	2216.1	2322.0	2402.3	2453.0	2605.3	2809.2	2605.8	2254.2	1862.6	1310.3
62.5°	2335.9	2636.9	2839.4	2884.9	2906.3	3051.2	3197.1	2883.1	2441.8	1980.6	1319.6
65°	2630.9	3007.1	3243.5	3270.0	3254.2	3293.2	3334.1	2891.5	2398.2	1924.8	1210.9
67°	2734.9	3094.4	3342.9	3375.0	3328.5	3316.0	3253.8	2739.1	2235.1	1753.9	1059.5
67.5°	2729.3	3084.2	3342.0	3374.5	3328.5	3308.6	3217.1	2677.8	2171.0	1712.1	1030.2
70°	2515.7	2856.6	3143.7	3204.5	3179.0	3126.0	2882.6	2268.1	1799.0	1404.6	794.3
72.5°	2042.4	2410.7	2638.3	2705.7	2723.8	2587.7	2146.9	1587.6	1296.9	1003.8	576.0
75°	1371.2	1737.2	1923.5	1889.5	1779.5	1547.7	1133.4	837.5	710.7	583.9	356.3
77.5°	777.6	1060.0	1045.6	987.0	894.1	661.9	321.4	174.2	166.3	194.2	151.0
80°	519.3	653.5	698.1	720.9	715.8	489.6	132.8	67.4	58.1	58.1	57.1
82.5°	433.4	564.8	639.6	659.6	614.5	372.1	79.4	44.1	35.3	39.5	44.1
85°	182.5	284.7	376.7	362.3	288.0	144.9	40.4	23.2	23.2	30.7	38.6
87.5°	44.1	65.5	92.4	89.6	72.0	33.4	20.4	14.4	14.4	23.7	33.4
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°	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8	427.8
2.5°	425.0	423.2	423.2	421.3	420.4	419.4	419.0	419.4	418.0	416.6	417.1
5°	427.3	424.5	423.2	419.9	418.0	416.2	414.8	414.3	412.0	410.6	410.6
7.5°	435.2	431.5	428.7	425.0	421.3	418.5	416.2	414.8	411.5	409.2	408.8
10°	451.5	446.4	442.2	436.6	431.5	427.8	423.6	421.3	417.6	415.3	414.3
12.5°	475.6	468.2	461.7	453.3	447.3	441.7	439.4	435.7	434.3	432.9	433.4
15°	498.4	489.6	483.5	477.0	470.1	466.8	462.2	461.7	462.2	459.8	459.8
17.5°	521.6	514.7	507.7	505.4	498.9	496.5	493.3	491.4	487.3	483.1	478.0
20°	545.8	542.1	539.3	536.5	535.1	529.5	521.2	511.4	497.9	485.9	475.6
22.5°	576.9	574.6	575.0	572.7	565.3	551.4	532.3	511.9	490.0	470.5	455.2
25°	616.4	618.7	615.9	604.3	582.9	554.6	525.3	496.5	467.7	444.5	423.6
27.5°	666.5	664.7	651.7	622.0	585.3	544.8	507.2	472.9	438.5	411.5	385.5
30°	721.4	707.9	674.0	627.5	576.0	527.2	480.7	440.8	400.9	369.3	340.0
32.5°	776.6	738.1	683.3	621.0	559.7	502.1	450.1	403.2	357.2	321.9	288.0
35°	818.4	756.7	681.9	607.1	535.1	469.1	408.8	350.7	297.3	255.0	220.6
37.5°	857.0	766.9	672.6	585.7	501.2	425.5	350.2	287.5	233.6	191.4	161.6
40°	880.7	765.9	654.5	550.4	454.3	361.4	279.6	215.1	167.7	136.6	120.3
42.5°	894.6	756.2	623.3	503.5	389.7	289.4	206.2	148.2	119.4	105.9	98.5
45°	901.6	735.3	584.8	440.8	311.7	206.7	142.1	106.8	95.2	91.5	89.6
47.5°	897.4	706.0	529.5	370.2	232.2	141.7	101.7	90.1	86.4	84.5	84.1
50°	887.6	667.9	471.5	293.6	164.9	101.7	85.5	82.2	80.8	80.4	79.4
52.5°	873.7	622.9	405.0	227.6	117.1	84.5	79.9	78.5	77.6	76.2	75.7
55°	850.5	567.1	337.2	167.7	93.8	79.9	77.6	77.1	75.2	73.9	72.9
57.5°	822.6	507.7	273.1	131.5	86.4	78.0	76.6	76.2	74.3	72.5	70.6
60°	808.7	465.9	224.8	113.8	85.0	79.0	78.0	77.1	74.8	72.0	69.7
62.5°	774.3	420.8	193.7	108.2	86.9	82.2	81.8	79.9	76.6	73.9	70.1
65°	685.6	357.2	164.9	102.7	89.6	87.3	88.3	85.9	82.2	77.6	71.5
67°	579.2	290.3	139.3	98.5	92.9	94.3	95.7	94.3	88.3	81.3	73.4
67.5°	550.4	270.3	132.4	97.1	93.8	95.7	98.0	96.6	90.1	82.2	74.3
70°	413.9	193.7	105.0	92.0	97.1	102.2	106.8	106.4	99.9	90.1	77.6
72.5°	286.1	132.4	85.0	85.9	94.3	103.6	109.6	112.4	105.9	94.3	79.4
75°	172.3	84.5	71.5	77.6	85.9	95.2	105.0	105.9	98.5	86.9	74.3
77.5°	84.5	60.8	59.0	61.3	69.2	77.1	81.3	76.2	71.5	63.6	59.0
80°	51.1	47.8	46.9	52.0	56.7	55.3	52.0	47.8	45.5	43.7	41.8
82.5°	42.7	43.2	44.1	45.1	44.1	39.0	33.4	30.7	28.8	28.8	29.3
85°	43.7	44.6	40.9	37.6	33.4	27.9	22.8	19.5	20.0	20.4	20.4
87.5°	33.9	32.5	28.8	23.7	19.0	13.9	11.1	9.3	10.2	9.8	10.7
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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CATALOG NUMBER: ECM-F02-LED-E1-SL3-8030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	427.8	427.8	427.8	427.8	427.8
2.5°	417.1	416.6	417.1	417.1	417.6
5°	409.7	408.8	408.8	409.2	409.2
7.5°	407.8	406.9	406.9	407.4	406.9
10°	414.3	413.9	414.8	414.3	414.3
12.5°	433.8	433.8	435.7	436.6	435.7
15°	460.3	459.4	460.8	461.2	461.7
17.5°	475.2	471.0	469.6	470.5	468.7
20°	466.8	459.8	457.1	456.6	453.3
22.5°	443.1	432.9	428.7	426.9	423.2
25°	409.7	397.6	392.0	387.4	385.1
27.5°	369.7	354.9	347.0	343.3	341.9
30°	319.6	305.2	293.6	287.5	285.7
32.5°	263.8	242.9	230.9	223.4	218.3
35°	196.9	177.0	168.1	162.6	156.1
37.5°	143.1	131.0	123.6	119.8	118.4
40°	110.5	104.5	100.8	100.3	99.9
42.5°	95.7	92.9	92.4	91.5	90.6
45°	88.3	87.3	87.8	86.4	85.5
47.5°	83.1	82.7	82.7	81.8	81.3
50°	79.0	79.0	78.5	78.0	78.0
52.5°	75.2	75.7	75.7	74.8	74.8
55°	72.0	72.0	72.5	72.0	72.0
57.5°	69.7	69.2	69.7	69.7	69.7
60°	68.3	67.4	66.9	67.4	67.4
62.5°	66.9	65.5	65.0	65.0	65.5
65°	66.9	64.6	63.6	63.6	63.2
67°	67.4	63.6	61.8	60.8	60.4
67.5°	67.4	63.2	60.8	60.4	59.9
70°	67.4	61.3	58.1	55.7	55.7
72.5°	66.9	59.5	54.3	52.0	51.1
75°	63.6	56.2	51.6	48.8	47.8
77.5°	53.4	48.8	46.4	44.1	43.7
80°	40.4	38.1	36.2	31.1	28.8
82.5°	28.8	27.4	24.2	22.3	20.9
85°	20.4	19.0	17.7	15.8	15.8
87.5°	11.1	10.7	10.2	9.3	8.4
90°	0.0	0.0	0.0	0.0	0.0

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