

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: P162281

Luminaire Tested: **ECM-F02-LED-E1-SL2-HSS-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P162281  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)  
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-SL2-HSS-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD  
Light Source: (14) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2628.9 lumens  
Efficiency: N/A  
Efficacy: 47.8 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B0 - U0 - G1

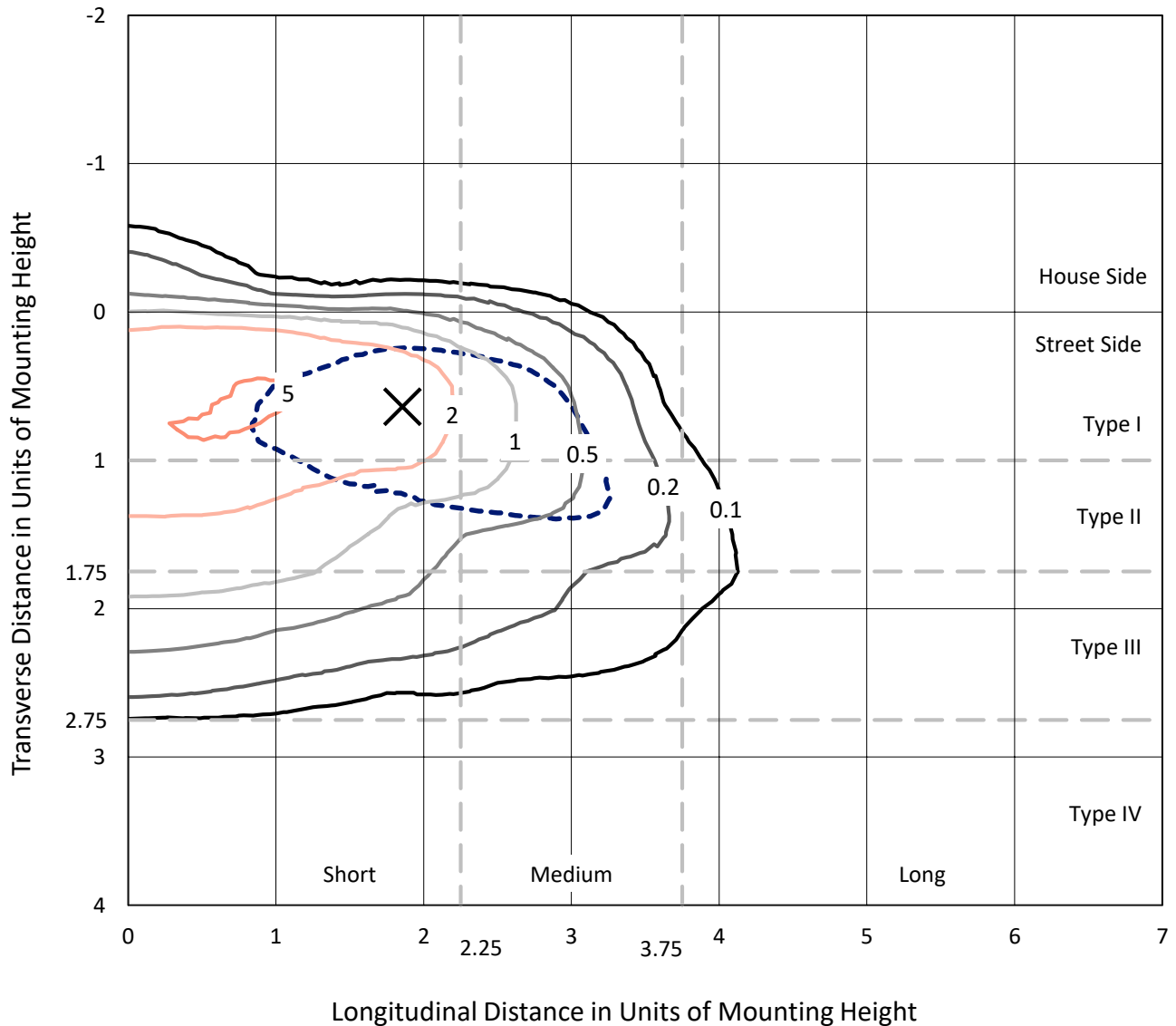
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

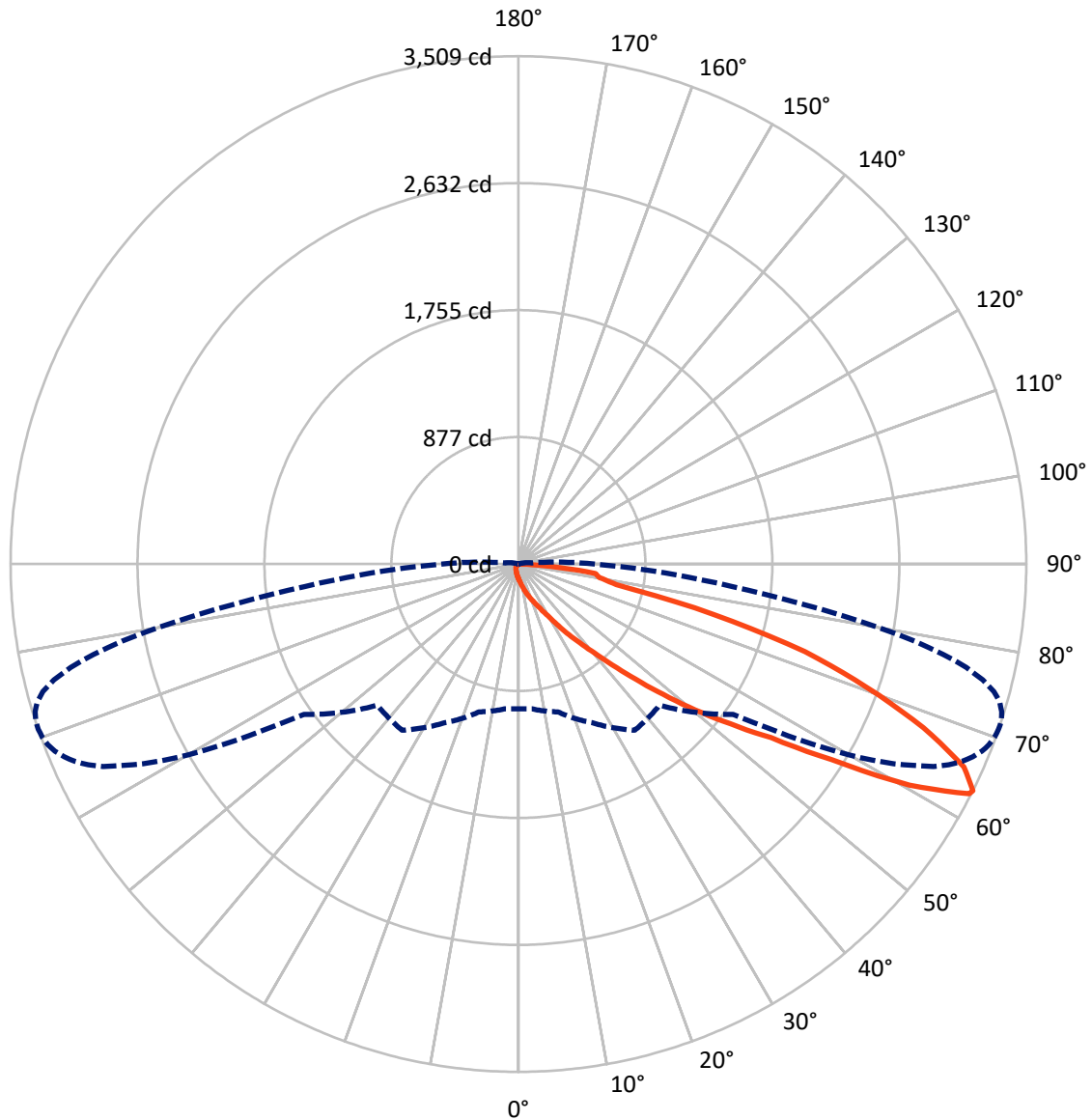
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	55.8	0.0	55.8
	% Fixture	2.1	0.0	2.1
<b>Street Side</b>	Lumens	2573.0	0.0	2573.0
	% Fixture	97.9	0.0	97.9
<b>Total</b>	Lumens	2628.9	0.0	2628.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	11.1	0.4
10°-20°	43.2	1.6
20°-30°	87.8	3.3
30°-40°	214.5	8.2
40°-50°	479.7	18.2
50°-60°	674.5	25.7
60°-70°	793.2	30.2
70°-80°	286.4	10.9
80°-90°	38.3	1.5
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°	2628.9	100.0
0°-180°	2628.9	100.0



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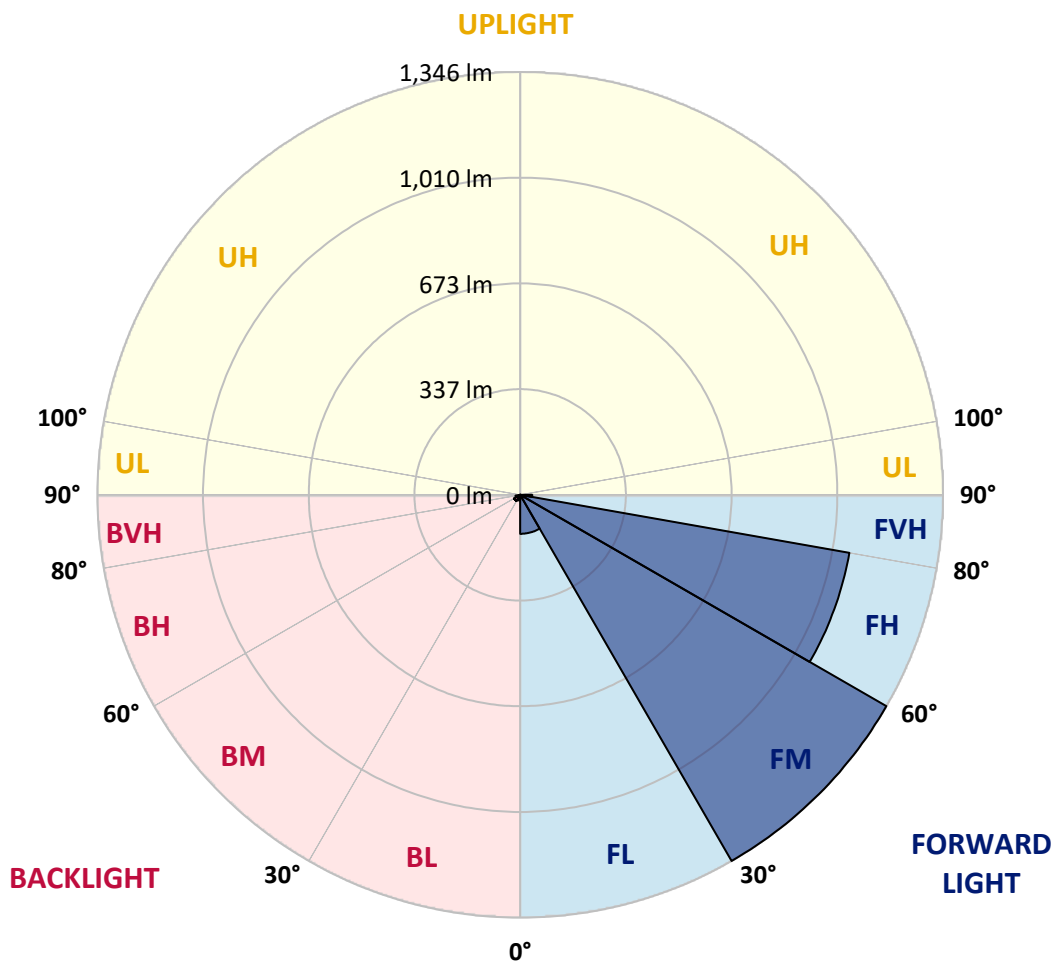
CATALOG NUMBER: ECM-F02-LED-E1-SL2-HSS-7030

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	124.2	4.7			
FM (30°-60°)	1346.3	51.2			
FH (60°-80°)	1064.3	40.5			G1/1800
FVH (80°-90°)	38.2	1.5			G1/100
BL (0°-30°)	17.9	0.7	B0/110		
BM (30°-60°)	22.5	0.9	B0/220		
BH (60°-80°)	15.3	0.6	B0/110		G0/110
BVH (80°-90°)	0.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8
2.5°	131.9	133.4	132.4	130.0	127.1	123.3	119.9	119.9	119.5	118.0	118.5
5°	173.0	173.5	171.6	165.8	160.6	152.5	143.4	142.4	141.4	140.0	139.5
7.5°	213.1	215.0	213.1	206.9	196.4	184.0	169.6	168.2	165.4	165.4	163.5
10°	254.2	254.2	252.3	245.1	235.6	217.9	199.8	197.4	194.0	193.1	190.2
12.5°	283.4	283.4	282.4	278.6	271.0	255.2	233.2	230.8	226.5	225.1	221.8
15°	294.9	294.9	295.4	298.7	299.2	292.0	269.1	267.2	262.8	259.0	257.6
17.5°	302.0	301.5	301.5	306.3	315.0	319.7	304.9	303.0	298.2	296.3	291.5
20°	317.8	316.9	314.0	314.0	322.1	338.8	338.8	338.3	333.1	331.7	329.3
22.5°	341.2	340.3	331.7	324.5	328.3	349.4	369.0	368.0	366.1	364.2	362.7
25°	379.5	376.1	361.3	340.3	336.9	359.4	391.9	394.3	395.7	395.7	396.7
27.5°	437.3	433.0	406.7	367.5	352.7	375.6	417.2	422.0	426.3	427.3	431.5
30°	517.6	510.0	472.2	414.8	380.9	399.5	454.5	459.7	466.0	467.9	474.6
32.5°	649.5	645.2	608.9	522.8	450.2	446.4	506.6	513.3	521.4	524.7	532.9
35°	850.2	851.2	821.6	744.1	643.8	591.2	599.8	605.5	608.4	618.4	622.7
37.5°	986.4	988.8	995.5	964.9	893.2	839.7	772.3	778.5	763.7	765.2	765.6
40°	1061.0	1068.6	1107.8	1137.4	1131.7	1100.6	1046.6	1050.0	1022.3	1016.0	985.9
42.5°	1110.7	1120.7	1183.3	1275.1	1321.9	1350.1	1337.7	1336.2	1314.7	1306.6	1281.3
45°	1141.7	1150.8	1229.7	1364.9	1472.9	1555.1	1589.1	1592.9	1574.7	1566.6	1545.6
47.5°	1140.3	1150.8	1235.4	1398.4	1557.5	1688.9	1784.5	1789.3	1800.3	1793.1	1794.6
50°	1077.2	1087.3	1172.3	1341.5	1532.7	1750.1	1925.0	1940.3	1958.0	1969.9	1975.7
52.5°	1000.8	1007.9	1083.4	1244.0	1426.6	1724.8	2008.2	2034.5	2060.8	2083.2	2099.0
55°	972.6	980.7	1040.0	1173.3	1341.5	1618.7	2046.9	2085.6	2122.9	2159.7	2189.8
57.5°	987.4	995.0	1037.5	1139.8	1290.8	1506.8	2057.9	2118.1	2179.3	2239.0	2298.3
60°	1041.9	1050.0	1086.3	1170.9	1277.5	1442.3	2014.9	2114.8	2216.5	2320.7	2418.7
62.5°	1020.4	1023.7	1077.2	1225.3	1373.0	1387.4	1858.6	1998.1	2153.5	2314.1	2472.2
63°	999.8	1003.6	1058.1	1210.6	1402.2	1379.3	1810.3	1957.5	2121.4	2294.5	2466.5
65°	906.6	907.1	948.7	1069.1	1369.7	1393.6	1595.2	1735.8	1924.1	2131.5	2348.9
67.5°	676.7	673.4	713.5	805.3	1075.3	1394.1	1369.2	1448.1	1579.0	1763.0	1958.0
70°	239.9	234.6	299.6	426.8	670.0	1140.3	1176.6	1181.9	1218.2	1317.6	1439.9
72.5°	77.9	79.3	95.6	156.3	308.7	767.5	1065.2	1049.0	1039.5	1039.0	1055.2
75°	31.1	31.6	38.3	69.3	138.6	369.9	932.9	941.9	945.3	950.1	955.4
77.5°	14.8	16.2	21.5	38.7	68.8	183.0	667.6	744.6	788.6	822.5	843.0
80°	5.3	6.2	12.0	23.9	32.0	84.1	351.8	424.4	488.9	572.1	643.8
82.5°	0.0	0.0	2.4	16.7	17.7	33.9	144.3	169.2	193.6	250.9	322.1
85°	0.0	0.0	0.0	4.8	5.3	5.7	48.8	58.8	65.9	77.0	88.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	2.9	7.2	11.0
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):**

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8
2.5°	117.6	117.1	117.1	116.1	115.7	114.7	114.2	112.8	112.3	112.3	112.3
5°	139.1	137.2	136.2	133.8	132.4	131.9	129.5	128.6	127.1	127.6	125.2
7.5°	163.0	159.6	158.2	154.8	153.9	150.5	149.6	147.2	145.8	142.9	142.0
10°	189.3	184.9	182.6	177.3	175.9	173.5	170.6	167.7	165.4	162.5	161.1
12.5°	219.4	215.5	213.6	206.4	203.1	199.8	195.9	192.1	188.3	185.9	182.6
15°	254.7	248.5	246.6	239.9	234.2	229.9	224.6	219.8	216.9	212.2	208.9
17.5°	289.6	283.4	281.9	271.9	265.7	262.8	257.1	250.9	245.7	240.9	235.6
20°	324.5	320.2	316.4	306.8	300.1	295.4	287.7	281.5	277.2	270.5	263.8
22.5°	359.4	355.1	352.2	342.2	336.0	329.3	322.6	315.9	309.7	301.5	293.9
25°	395.2	392.4	390.9	381.9	376.1	369.9	363.2	355.6	347.9	338.8	330.7
27.5°	432.5	433.4	430.6	428.7	422.5	418.2	407.7	402.4	396.7	385.7	375.6
30°	479.8	482.7	481.8	483.2	479.3	476.5	468.3	461.6	455.0	444.5	433.0
32.5°	539.6	543.4	545.3	550.6	548.7	547.7	545.3	535.7	531.0	512.8	508.0
35°	631.8	629.9	638.0	642.3	640.4	639.4	636.6	631.3	625.6	612.7	600.7
37.5°	751.7	753.6	756.6	747.9	742.2	741.7	733.1	727.9	719.7	705.4	691.1
40°	971.6	959.6	946.3	909.9	894.2	885.1	859.8	852.6	838.7	819.1	804.3
42.5°	1257.4	1245.4	1205.3	1144.6	1112.1	1067.2	1046.6	1021.3	1001.7	969.7	952.5
45°	1541.3	1506.8	1502.1	1431.3	1391.2	1332.0	1295.2	1252.6	1208.1	1166.1	1135.5
47.5°	1780.7	1773.0	1749.6	1706.6	1669.3	1619.6	1572.3	1506.8	1461.0	1401.2	1346.3
50°	1972.3	1971.8	1963.2	1938.4	1907.4	1867.2	1825.6	1770.2	1718.1	1645.0	1586.2
52.5°	2115.7	2123.3	2126.2	2118.6	2106.7	2071.3	2050.3	2003.9	1959.9	1897.8	1834.2
55°	2220.9	2249.1	2263.4	2279.6	2276.3	2263.9	2262.9	2232.8	2212.7	2163.5	2118.6
57.5°	2350.9	2397.2	2441.6	2520.5	2523.4	2551.1	2565.4	2579.8	2583.6	2564.0	2549.2
60°	2516.2	2610.8	2694.9	2859.8	2902.8	2970.7	3014.7	3062.5	3103.1	3106.4	3105.4
62.5°	2632.8	2778.6	2914.3	3159.0	3242.6	3321.0	3379.8	3426.1	3454.3	3483.0	3496.4
63°	2636.2	2795.8	2940.1	3192.5	3280.4	3354.9	3410.9	3453.8	3483.5	3500.7	3509.3
65°	2555.4	2749.0	2921.0	3172.4	3255.0	3330.1	3359.2	3387.4	3401.8	3408.5	3383.1
67.5°	2165.9	2355.1	2555.9	2836.9	2907.6	2997.5	3021.4	3035.7	3042.4	3041.0	3019.4
70°	1619.6	1778.3	2001.5	2322.7	2416.3	2504.3	2558.8	2582.2	2589.8	2587.4	2555.4
72.5°	1130.7	1223.9	1407.9	1765.4	1893.0	2005.8	2073.2	2108.1	2115.3	2100.9	2071.3
75°	949.6	954.4	996.0	1191.4	1310.9	1431.3	1507.3	1529.3	1515.0	1471.5	1396.0
77.5°	847.8	858.3	858.3	887.5	910.9	944.4	951.5	898.0	835.9	755.6	690.6
80°	711.1	747.9	773.7	795.3	797.6	790.9	773.2	743.1	695.4	634.2	566.3
82.5°	432.0	504.7	534.3	645.2	699.7	736.5	733.6	693.5	657.1	593.5	535.7
85°	109.0	117.6	127.6	165.8	185.9	227.0	252.8	264.8	269.1	247.1	223.7
87.5°	10.5	7.2	12.0	9.1	12.9	9.6	12.9	12.0	14.8	15.8	17.2
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):**

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8
2.5°	111.3	110.9	110.4	109.9	109.4	109.0	108.0	108.0	107.1	106.6	106.1
5°	123.8	122.8	122.3	121.4	119.9	119.0	117.6	115.7	114.2	113.8	112.8
7.5°	139.5	137.2	136.2	134.8	132.9	130.0	128.1	126.7	124.3	122.8	119.9
10°	157.2	154.8	152.0	149.1	146.2	142.9	140.5	138.6	134.8	132.9	129.5
12.5°	179.7	175.4	172.1	168.2	164.4	160.6	157.7	152.0	148.6	144.3	141.4
15°	202.6	198.8	195.0	190.2	184.5	178.2	175.4	170.2	165.8	159.1	155.3
17.5°	230.4	223.2	217.5	211.7	206.4	200.7	195.0	186.8	180.7	174.9	167.3
20°	257.6	249.0	242.8	235.1	227.5	218.4	211.7	206.0	197.4	189.8	181.6
22.5°	286.8	278.1	268.1	260.5	249.9	242.8	233.7	224.1	215.5	205.5	195.5
25°	322.1	313.0	301.5	291.5	279.6	269.5	258.6	247.6	237.1	225.6	212.7
27.5°	365.6	356.0	343.6	331.7	315.9	303.5	293.0	278.1	264.8	250.4	235.6
30°	420.6	410.1	394.7	377.5	361.8	347.9	333.1	313.5	298.7	281.5	262.4
32.5°	492.3	479.8	459.3	443.0	423.4	405.2	384.7	365.1	344.1	321.7	299.6
35°	582.6	571.1	547.2	523.3	501.8	480.3	454.5	432.0	402.4	375.1	347.0
37.5°	676.2	655.7	633.7	607.9	581.1	555.3	523.8	492.7	458.8	429.2	393.8
40°	783.3	758.5	740.3	712.6	674.8	638.0	608.9	570.2	527.6	487.9	446.4
42.5°	930.0	902.3	869.8	827.7	800.5	757.5	719.7	673.9	617.9	573.5	523.3
45°	1099.7	1061.9	1030.4	989.7	956.8	903.2	859.3	798.1	742.2	683.9	622.7
47.5°	1293.2	1246.4	1200.5	1160.3	1107.8	1055.2	999.3	934.3	862.6	798.6	725.9
50°	1515.5	1449.0	1385.5	1333.9	1261.7	1201.0	1140.3	1067.2	987.8	914.2	831.6
52.5°	1762.5	1685.6	1601.5	1522.2	1438.5	1360.6	1287.5	1203.4	1115.0	1025.1	932.9
55°	2060.8	2002.9	1904.0	1803.2	1691.3	1587.2	1493.0	1388.8	1281.3	1163.2	1066.2
57.5°	2527.7	2499.5	2416.8	2316.0	2170.2	2043.5	1883.9	1756.3	1600.5	1438.0	1312.8
60°	3160.4	3125.6	3079.2	2997.5	2881.8	2709.8	2533.9	2335.6	2098.5	1873.4	1659.8
62.5°	3497.8	3485.4	3447.7	3391.3	3283.2	3147.5	2970.2	2752.3	2484.7	2211.3	1938.9
63°	3507.9	3492.1	3459.6	3402.3	3307.2	3175.7	3001.7	2790.0	2528.1	2249.5	1971.4
65°	3372.2	3365.9	3333.0	3270.4	3205.3	3105.0	2970.2	2788.1	2568.3	2305.0	2028.2
67.5°	2990.8	2972.1	2921.5	2902.4	2856.9	2787.2	2684.4	2559.2	2402.0	2195.0	1956.1
70°	2529.6	2501.9	2438.3	2404.4	2348.9	2305.0	2242.4	2153.0	2056.0	1911.6	1733.4
72.5°	2040.7	1983.4	1925.0	1836.6	1759.2	1680.8	1611.5	1548.5	1441.8	1383.6	1248.3
75°	1325.3	1221.1	1121.2	987.4	866.9	760.4	656.6	604.1	494.6	450.2	386.6
77.5°	628.9	570.6	492.3	431.5	354.1	289.1	236.1	177.3	139.1	109.0	83.1
80°	507.5	458.3	411.0	356.0	297.7	237.5	182.1	136.2	96.6	66.9	47.3
82.5°	452.6	399.1	340.8	303.0	263.3	215.5	176.8	144.3	106.6	77.9	53.0
85°	175.9	148.1	114.2	93.2	72.6	59.7	54.0	37.3	29.2	22.9	17.7
87.5°	15.3	12.4	10.1	6.7	7.2	3.8	4.3	2.9	2.4	2.4	1.9
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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CATALOG NUMBER: ECM-F02-LED-E1-SL2-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8
2.5°	105.6	105.2	104.7	103.7	103.7	102.7	102.3	101.8	99.4	94.1	89.8
5°	110.9	109.9	109.0	107.5	106.6	105.2	104.2	102.7	97.5	87.5	78.9
7.5°	118.5	116.6	115.2	112.3	110.9	109.0	107.5	105.2	96.6	81.2	69.3
10°	127.6	124.3	121.8	118.5	115.7	113.2	110.9	107.5	95.6	74.5	60.7
12.5°	138.6	134.8	130.0	126.2	122.3	119.0	115.7	111.3	94.1	68.8	54.0
15°	149.6	143.9	140.5	135.3	130.0	125.2	120.4	116.6	94.7	62.6	48.3
17.5°	162.0	156.3	149.1	143.4	137.6	131.4	125.7	118.0	92.2	57.8	44.0
20°	174.0	165.8	159.1	152.0	143.9	136.2	129.0	122.3	90.3	53.0	40.2
22.5°	186.8	177.3	168.7	159.6	149.6	141.0	132.4	123.8	87.0	48.8	36.8
25°	202.6	191.7	179.2	168.2	157.7	147.2	136.2	125.7	83.6	44.9	34.4
27.5°	221.8	207.4	195.0	181.1	166.3	152.9	141.0	129.5	80.3	42.1	32.0
30°	246.1	229.4	211.7	194.0	178.2	163.0	146.2	131.9	77.0	39.2	29.6
32.5°	278.6	257.6	236.1	215.5	194.5	174.9	157.2	138.6	75.0	36.8	27.2
35°	321.7	294.4	268.1	242.3	216.9	193.1	170.2	149.1	75.0	33.9	24.4
37.5°	362.3	330.7	297.3	265.3	235.1	207.4	180.2	154.8	71.2	31.6	22.0
40°	406.2	368.5	329.3	291.5	255.2	220.8	189.8	160.6	67.9	28.7	19.6
42.5°	473.6	425.8	374.7	330.7	287.2	244.7	206.0	171.6	63.6	25.8	17.2
45°	562.0	501.3	441.1	387.6	332.2	280.0	234.2	191.7	62.6	23.4	14.8
47.5°	656.6	584.9	514.2	445.9	380.9	320.2	265.3	214.1	62.6	21.0	12.9
50°	750.8	661.0	585.5	506.1	433.0	361.3	295.8	237.5	63.1	19.1	10.5
52.5°	835.9	739.8	655.2	563.4	482.7	399.5	328.3	260.5	62.1	16.7	8.6
55°	953.9	841.1	743.1	641.8	547.2	453.6	372.8	294.9	62.6	14.8	7.2
57.5°	1171.4	1039.0	920.9	788.1	679.1	558.2	460.2	365.6	68.4	12.4	5.3
60°	1483.5	1311.4	1145.6	983.6	844.9	701.1	574.0	462.6	80.3	10.1	3.8
62.5°	1693.2	1468.1	1270.3	1091.5	930.5	779.9	641.3	514.7	88.4	8.1	2.4
63°	1714.7	1482.0	1283.2	1098.7	934.3	783.8	644.2	518.5	88.9	7.6	2.4
65°	1755.3	1505.9	1290.4	1100.1	930.5	778.5	642.3	518.0	89.8	6.2	1.9
67.5°	1709.0	1469.1	1248.8	1059.1	897.1	747.5	618.4	498.9	89.4	4.3	1.5
70°	1528.3	1329.5	1136.0	959.2	812.0	676.7	563.0	455.0	82.2	2.9	1.0
72.5°	1122.1	986.9	836.8	709.2	611.7	508.0	433.4	341.7	63.6	1.9	0.5
75°	332.6	303.0	254.7	224.6	198.4	163.9	145.8	113.8	32.5	1.0	0.0
77.5°	66.5	60.2	54.0	49.2	46.3	39.7	37.7	31.1	13.4	0.5	0.0
80°	34.9	28.7	24.4	21.5	18.6	15.3	12.9	10.5	2.4	0.0	0.0
82.5°	33.5	22.5	16.2	13.4	11.5	9.1	7.2	5.3	1.5	0.0	0.0
85°	12.4	9.6	7.2	5.7	4.8	4.3	3.4	2.9	0.0	0.0	0.0
87.5°	1.9	1.5	1.5	1.0	1.0	0.5	0.5	0.5	0.0	0.0	0.0
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):**

	125°	135°	145°	155°	165°	175°	180°
0°	100.8	100.8	100.8	100.8	100.8	100.8	100.8
2.5°	85.6	81.7	79.8	77.4	77.4	77.0	77.9
5°	71.2	65.9	62.1	59.3	59.7	58.3	58.8
7.5°	60.2	54.9	51.6	49.7	49.2	48.8	48.8
10°	52.1	47.3	44.4	43.0	42.5	42.5	42.5
12.5°	46.3	41.6	39.2	38.3	38.3	37.7	37.7
15°	41.6	37.7	35.4	34.4	34.4	33.9	34.4
17.5°	37.7	33.9	32.0	31.1	31.1	30.6	30.6
20°	34.4	31.1	29.2	27.7	27.7	27.2	27.7
22.5°	31.6	28.2	25.8	24.8	24.4	23.9	24.4
25°	28.7	25.3	22.9	21.5	21.0	21.0	20.6
27.5°	26.3	22.9	20.1	18.6	18.1	18.1	17.7
30°	23.9	20.1	17.2	15.8	15.3	15.3	15.3
32.5°	21.5	17.2	14.8	13.4	12.9	12.9	12.9
35°	19.1	14.8	12.4	11.0	10.5	10.5	10.5
37.5°	16.2	12.4	9.6	8.6	8.1	7.6	7.6
40°	13.9	9.6	7.2	6.2	5.3	5.3	5.3
42.5°	11.5	7.6	5.3	3.8	3.4	2.9	3.4
45°	9.6	5.7	3.4	1.9	1.5	1.5	1.5
47.5°	7.6	3.8	1.5	0.5	0.5	0.5	0.5
50°	5.7	2.4	0.5	0.0	0.0	0.5	0.5
52.5°	4.3	1.5	0.0	0.0	0.0	0.0	0.0
55°	2.4	0.5	0.0	0.0	0.0	0.0	0.0
57.5°	1.5	0.0	0.0	0.0	0.0	0.0	0.0
60°	1.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)