

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: P160198

Luminaire Tested: **ENV-F02-LED-E1-SLL-7030-ULG**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P160198  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P20107) AND DOWNLIGHT  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-F02-LED-E1-SLL-7030-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(2) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT  
Light Source: (14) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3986.8 lumens  
Efficiency: N/A  
Efficacy: 69.6 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U3 - G2

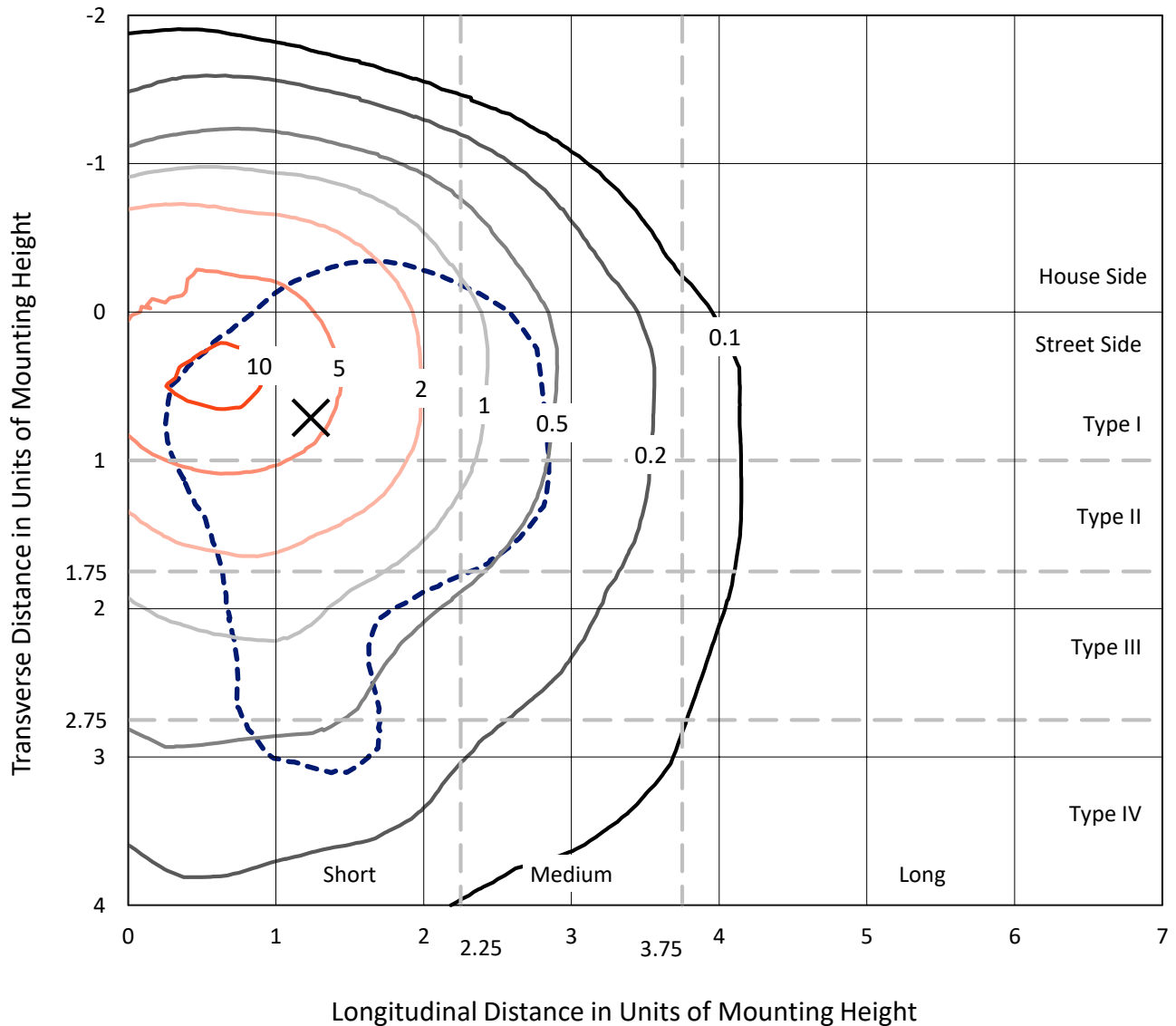
Input Watts (W): 57.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P160198  
 CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

### Iso-Footcandle Lines of Horizontal Illumination

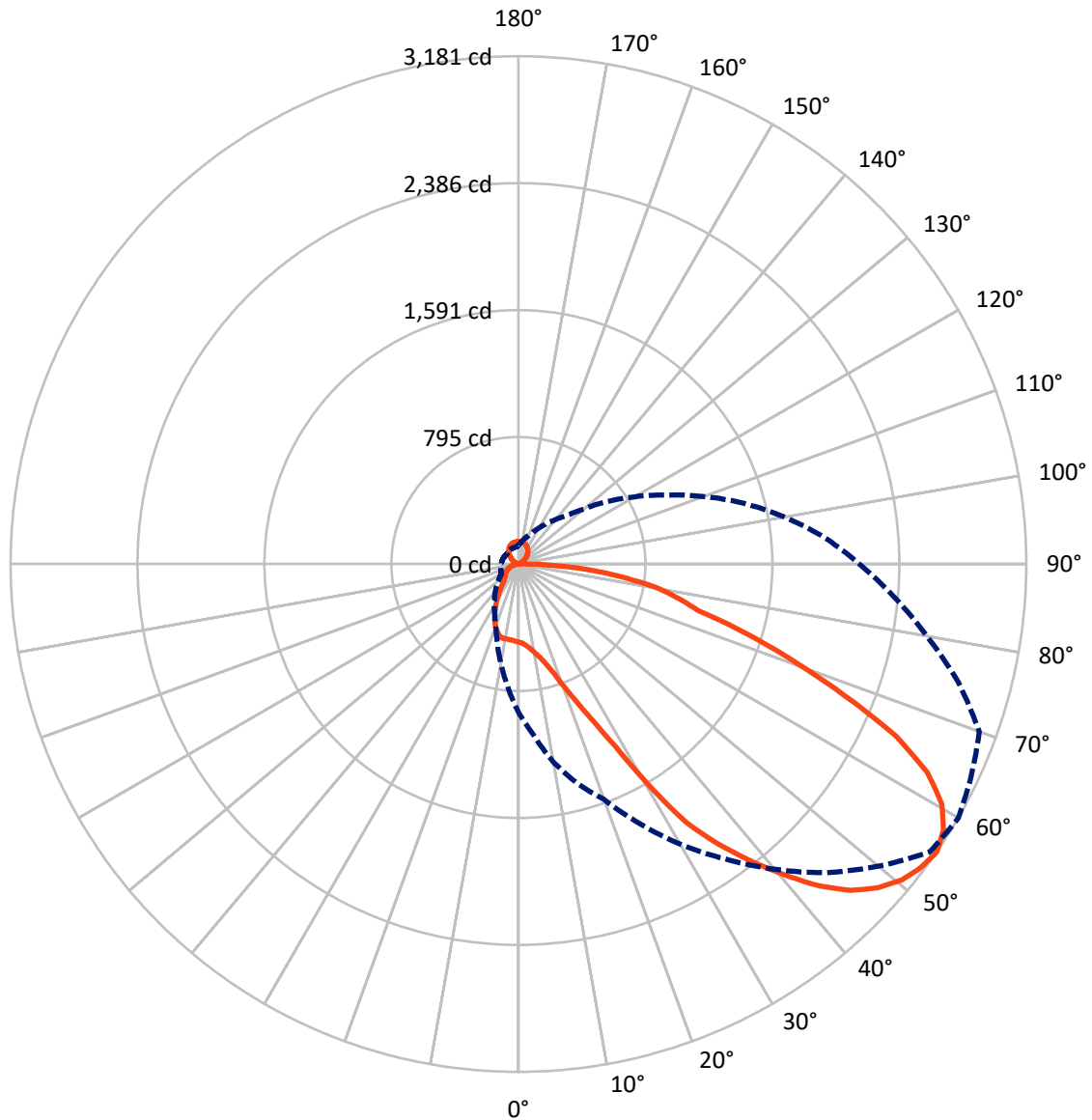
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.9 fc  
 Type IV - Short - Non-Cutoff

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CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 55-Deg Vertical

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CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

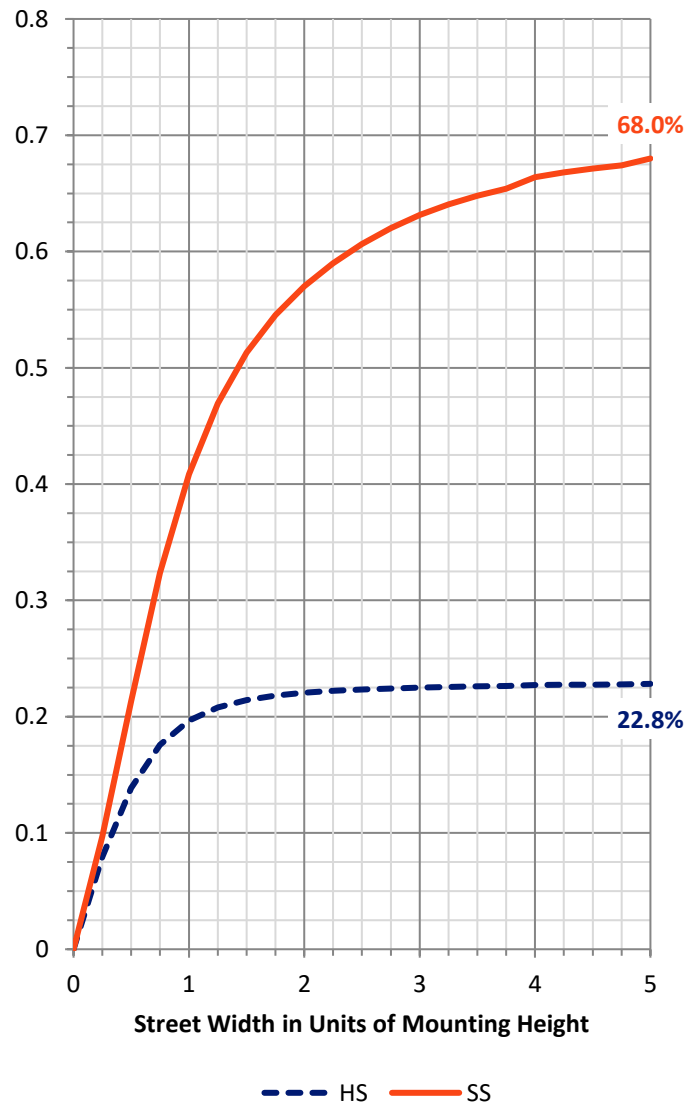
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	917.6	157.7	1075.4
	% Fixture	23.0	4.0	27.0
<b>Street Side</b>	Lumens	2753.7	157.7	2911.5
	% Fixture	69.1	4.0	73.0
<b>Total</b>	Lumens	3671.3	315.5	3986.8
	% Fixture	92.1	7.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.2	1.2
10°-20°	158.4	4.0
20°-30°	307.5	7.7
30°-40°	483.2	12.1
40°-50°	645.9	16.2
50°-60°	757.8	19.0
60°-70°	718.9	18.0
70°-80°	433.9	10.9
80°-90°	117.6	2.9
90°-100°	1.3	0.0
100°-110°	12.3	0.3
110°-120°	25.2	0.6
120°-130°	43.0	1.1
130°-140°	60.0	1.5
140°-150°	65.4	1.6
150°-160°	56.9	1.4
160°-170°	38.2	1.0
170°-180°	13.3	0.3
0°-90°	3671.3	92.1
0°-180°	3986.8	100.0



REPORT NUMBER: P160198

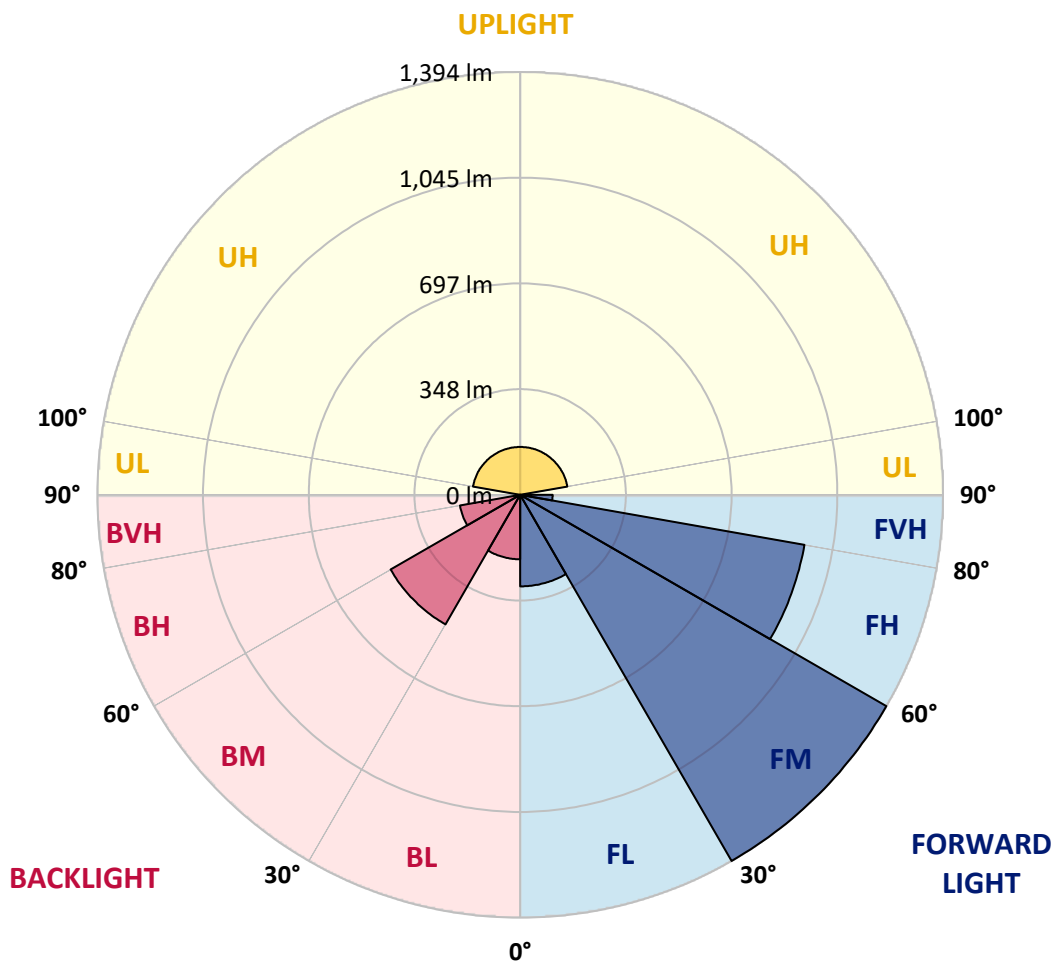
CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	301.7	7.6			
FM	(30°-60°)	1393.7	35.0			
FH	(60°-80°)	951.4	23.9			G1/1800
FVH	(80°-90°)	106.9	2.7			G2/225
BL	(0°-30°)	212.4	5.3	B1/500		
BM	(30°-60°)	493.1	12.4	B1/1000		
BH	(60°-80°)	201.5	5.1	B1/500		G1/500
BVH	(80°-90°)	10.7	0.3			G1/100
UL	(90°-100°)	1.3	0.0		U1/10	
UH	(100°-180°)	157.7	4.0		U3/500	

**BUG Rating: B1-U3-G2**

Type IV Short





REPORT NUMBER: P160198

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3
2.5°	499.9	499.1	499.9	499.1	499.1	499.1	499.9	499.1	496.9	496.9	497.6
5°	512.0	512.0	512.0	512.7	512.7	513.5	515.0	513.5	512.7	516.5	513.5
7.5°	526.3	526.3	528.5	529.3	531.6	531.6	534.6	533.8	536.8	539.1	536.8
10°	548.2	545.9	551.2	551.2	557.2	558.0	561.0	561.7	567.0	571.5	567.8
12.5°	579.8	581.3	590.4	591.9	599.4	599.4	599.4	602.4	606.2	609.2	605.5
15°	636.4	639.4	651.5	652.2	665.0	659.7	665.8	666.5	665.8	668.0	662.8
17.5°	709.5	717.8	735.1	738.9	744.9	755.5	755.5	754.0	757.8	760.0	745.7
20°	799.2	813.6	833.2	840.7	857.3	875.4	874.6	871.6	872.4	866.3	850.5
22.5°	900.3	932.7	965.1	977.2	989.2	1011.9	1026.2	1021.7	1025.4	1011.9	997.5
25°	1015.6	1068.4	1117.4	1135.5	1179.2	1219.2	1225.2	1222.2	1205.6	1192.8	1178.5
27.5°	1086.5	1155.9	1223.0	1269.0	1343.6	1407.7	1420.5	1441.6	1446.9	1457.5	1422.8
30°	1101.6	1188.3	1272.0	1342.1	1431.8	1508.0	1592.4	1655.0	1697.2	1730.4	1707.8
32.5°	1112.1	1210.2	1302.9	1391.1	1465.0	1575.8	1682.2	1774.9	1898.6	1943.8	1986.8
35°	1115.2	1227.5	1332.3	1431.8	1527.6	1637.7	1751.5	1853.3	2020.7	2154.9	2246.9
37.5°	1110.6	1240.3	1363.2	1484.6	1598.5	1719.9	1839.7	1939.3	2102.1	2275.6	2399.2
40°	1092.5	1235.8	1376.0	1512.5	1650.5	1800.5	1937.8	2045.6	2197.9	2403.0	2567.3
42.5°	1069.2	1216.9	1371.5	1521.6	1676.9	1853.3	2019.2	2150.4	2318.5	2525.9	2712.9
45°	1039.8	1193.6	1353.4	1511.8	1679.1	1875.2	2064.4	2232.6	2411.3	2642.0	2822.2
47.5°	1003.6	1160.4	1329.3	1489.9	1664.1	1875.9	2085.5	2277.8	2473.9	2721.9	2916.4
50°	969.6	1125.7	1302.1	1460.5	1635.4	1857.1	2083.3	2298.2	2512.3	2768.7	2973.0
52.5°	943.2	1096.3	1278.8	1437.1	1602.2	1826.2	2060.7	2288.4	2518.3	2774.7	2983.6
55°	926.7	1072.2	1259.2	1421.3	1569.1	1793.0	2026.0	2254.4	2495.7	2734.7	2944.3
57.5°	928.9	1067.7	1247.9	1418.3	1544.9	1764.3	1986.8	2206.2	2425.6	2653.3	2869.7
60°	952.3	1077.5	1241.8	1397.1	1560.0	1767.4	1969.4	2152.7	2328.3	2537.9	2740.0
62.5°	1011.1	1118.9	1251.6	1411.5	1590.9	1796.0	1958.1	2069.7	2174.5	2384.1	2590.0
65°	1122.7	1216.2	1322.5	1462.7	1638.4	1836.0	1912.1	1934.7	2001.9	2201.7	2406.0
67.5°	1232.0	1342.9	1403.2	1492.9	1657.3	1847.3	1857.1	1759.8	1758.3	1952.8	2100.6
70°	1337.6	1498.2	1522.3	1572.1	1684.4	1835.2	1799.8	1612.0	1526.8	1553.2	1639.2
72.5°	1268.2	1508.7	1526.1	1541.2	1608.3	1748.5	1707.8	1454.5	1263.7	1229.8	1327.0
75°	968.1	1273.5	1314.2	1287.8	1324.8	1431.8	1424.3	1226.0	1161.1	1183.8	1221.5
77.5°	696.7	981.7	1069.9	984.0	974.2	1043.5	1023.9	1040.5	1163.4	1196.6	1187.5
80°	404.1	623.6	749.5	667.3	637.9	681.6	758.5	874.6	1008.8	1080.5	1094.0
82.5°	252.6	367.9	500.7	469.0	429.0	505.9	625.1	706.5	772.8	838.4	842.2
85°	109.3	157.6	244.3	256.4	317.4	386.0	481.0	504.4	576.8	627.3	583.6
87.5°	3.8	3.8	58.8	87.5	155.3	279.0	377.8	337.8	342.3	300.1	279.7
90°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
92.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
95°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
97.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
102.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
105°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
107.5°	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
110°	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
115°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
117.5°	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
120°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
122.5°	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9
125°	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
127.5°	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
130°	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
132.5°	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
135°	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
137.5°	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3
140°	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
142.5°	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
145°	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9
147.5°	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1
150°	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1
152.5°	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7
155°	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7
157.5°	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0
160°	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3
162.5°	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5
165°	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0
167.5°	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1
170°	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4
172.5°	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6
175°	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5
177.5°	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1
180°	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3
2.5°	497.6	496.1	496.9	494.6	494.6	495.4	495.4	493.1	493.1	493.1	492.4
5°	515.0	513.5	512.7	511.2	508.9	510.5	508.2	506.7	504.4	503.7	501.4
7.5°	537.6	535.3	534.6	530.8	527.8	526.3	524.8	519.5	517.2	515.7	512.7
10°	564.0	564.0	562.5	554.9	552.7	547.4	542.1	536.1	531.6	524.8	521.0
12.5°	597.9	600.2	594.9	588.1	582.8	572.3	562.5	554.2	545.1	535.3	529.3
15°	648.4	649.9	639.4	633.4	625.1	613.0	597.9	584.3	570.8	557.2	545.9
17.5°	723.1	720.8	705.7	699.7	685.4	665.0	644.7	626.6	606.2	587.4	573.0
20°	830.9	821.9	782.6	780.4	762.3	733.6	704.2	677.8	650.7	626.6	602.4
22.5°	962.1	941.7	913.1	880.7	846.0	814.3	779.6	742.7	708.8	678.6	652.2
25°	1133.3	1088.0	1061.6	1017.9	987.7	931.9	883.7	854.3	808.3	773.6	739.7
27.5°	1361.7	1290.1	1251.6	1204.1	1137.0	1097.8	1032.2	975.7	926.7	869.4	831.7
30°	1658.0	1605.3	1508.7	1442.4	1349.6	1254.6	1174.0	1100.1	1036.0	967.4	911.6
32.5°	1962.6	1929.5	1816.4	1692.7	1551.7	1412.2	1293.9	1202.6	1118.9	1042.0	977.9
35°	2221.3	2152.7	2041.8	1912.1	1731.2	1569.8	1419.8	1303.7	1199.6	1103.8	1023.2
37.5°	2387.9	2357.7	2245.4	2098.4	1900.1	1725.9	1570.6	1433.3	1303.7	1178.5	1074.4
40°	2573.4	2556.0	2461.8	2281.6	2098.4	1885.0	1707.8	1563.0	1423.5	1274.2	1137.8
42.5°	2739.3	2755.1	2658.6	2500.2	2288.4	2047.8	1859.3	1698.7	1539.7	1387.3	1229.8
45°	2887.8	2916.4	2845.6	2698.5	2466.3	2203.2	2006.4	1831.5	1658.0	1491.4	1315.7
47.5°	2999.4	3030.3	2970.7	2855.4	2613.3	2332.9	2135.3	1939.3	1757.6	1566.0	1379.8
50°	3092.9	3111.0	3065.7	2964.7	2732.5	2458.8	2238.6	2032.8	1831.5	1624.9	1421.3
52.5°	3147.2	3157.7	3113.2	3040.1	2823.0	2552.3	2319.3	2097.6	1883.5	1665.6	1448.4
55°	3144.2	3181.1	3130.6	3071.8	2850.8	2596.8	2361.5	2134.6	1921.9	1692.0	1464.3
57.5°	3085.3	3139.6	3116.3	3043.1	2827.5	2593.7	2367.5	2155.7	1946.8	1701.0	1456.7
60°	2972.2	3046.9	3063.5	2959.4	2734.0	2510.8	2310.2	2131.5	1923.4	1661.0	1410.7
62.5°	2812.4	2872.7	2915.7	2773.9	2550.8	2338.9	2182.1	2041.1	1829.2	1542.7	1315.7
65°	2571.1	2599.0	2611.1	2479.9	2261.2	2120.2	2017.7	1896.3	1661.0	1374.5	1168.7
67.5°	2212.2	2208.4	2220.5	2159.4	1998.1	1924.2	1856.3	1724.4	1449.9	1182.3	977.2
70°	1759.1	1837.5	1903.8	1839.0	1738.7	1664.8	1608.3	1452.2	1158.1	913.1	742.7
72.5°	1431.8	1495.9	1532.1	1475.6	1378.3	1325.5	1250.9	1095.6	815.1	649.2	509.7
75°	1209.4	1162.7	1184.5	1149.1	1059.4	983.2	940.2	769.1	534.6	429.8	317.4
77.5°	1092.5	1017.9	970.4	894.2	791.7	705.0	661.3	478.0	337.0	253.3	183.2
80°	965.9	862.6	738.9	616.0	527.8	474.3	444.1	272.9	185.5	147.0	105.6
82.5°	734.4	637.1	517.2	428.3	352.1	306.9	272.2	156.1	104.8	77.7	60.3
85°	470.5	433.5	395.8	352.1	294.8	236.8	182.5	113.9	76.9	44.5	33.2
87.5°	227.0	188.5	187.0	172.7	164.4	129.7	76.9	26.4	16.6	14.3	9.0
90°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
92.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
95°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
97.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
102.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
105°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
107.5°	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
110°	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8



REPORT NUMBER: P160198

CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
115°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
117.5°	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
120°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
122.5°	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9
125°	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
127.5°	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
130°	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
132.5°	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
135°	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
137.5°	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3
140°	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
142.5°	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
145°	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9
147.5°	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1
150°	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1
152.5°	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7
155°	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7
157.5°	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0
160°	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3
162.5°	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5
165°	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0
167.5°	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1
170°	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4
172.5°	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6
175°	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5
177.5°	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1
180°	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8



REPORT NUMBER: P160198

CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3
2.5°	490.8	490.1	488.6	488.6	487.8	487.1	486.3	486.3	487.1	485.6	484.8
5°	499.1	498.4	496.1	495.4	494.6	493.1	493.1	492.4	492.4	490.8	490.1
7.5°	508.9	507.4	505.9	505.2	502.9	502.9	502.9	504.4	504.4	504.4	505.2
10°	518.7	515.0	513.5	513.5	512.7	513.5	515.7	517.2	519.5	521.0	522.5
12.5°	524.0	520.3	518.7	517.2	519.5	519.5	523.3	527.8	531.6	535.3	536.8
15°	537.6	530.8	527.8	524.0	524.0	524.0	527.8	531.6	536.1	540.6	541.4
17.5°	561.0	548.9	542.9	534.6	532.3	529.3	529.3	530.8	533.8	537.6	537.6
20°	584.3	572.3	562.5	553.4	547.4	539.1	533.1	527.8	525.5	527.0	527.0
22.5°	626.6	612.2	600.2	585.1	571.5	561.0	545.9	533.1	523.3	520.3	518.0
25°	702.7	682.4	662.0	639.4	624.3	604.7	583.6	562.5	542.9	529.3	517.2
27.5°	787.2	759.3	729.9	694.4	670.3	640.9	613.0	582.8	558.7	538.4	516.5
30°	867.8	815.8	773.6	729.1	689.9	649.9	615.3	579.8	553.4	529.3	502.9
32.5°	907.8	846.0	788.7	732.9	685.4	639.4	601.7	561.7	533.8	506.7	475.0
35°	935.7	861.8	793.2	728.4	674.8	624.3	581.3	539.9	506.7	475.8	439.6
37.5°	970.4	877.6	797.0	724.6	662.0	604.7	556.4	509.7	472.0	438.8	401.1
40°	1015.6	901.8	801.5	714.0	642.4	577.6	527.8	477.3	437.3	401.9	367.2
42.5°	1078.2	935.0	806.8	701.2	620.5	552.7	501.4	452.4	410.2	372.5	337.8
45°	1140.0	973.4	820.3	697.4	606.2	536.8	482.6	430.5	386.0	346.1	306.1
47.5°	1186.0	1002.1	834.7	699.7	597.9	520.3	462.2	404.1	354.4	310.6	269.9
50°	1215.4	1020.2	847.5	705.7	590.4	498.4	429.8	371.0	319.7	276.7	236.0
52.5°	1230.5	1025.4	852.0	703.5	570.8	463.7	395.1	338.5	289.5	247.3	211.1
55°	1235.0	1020.2	842.2	682.4	536.8	429.0	363.4	309.9	262.4	222.4	190.0
57.5°	1219.2	997.5	807.5	639.4	491.6	395.8	329.5	277.5	232.2	196.8	167.4
60°	1167.9	945.5	746.5	572.3	441.1	351.4	285.0	233.7	196.8	165.9	145.5
62.5°	1074.4	857.3	663.5	488.6	371.7	290.3	227.7	183.2	153.1	131.2	120.6
65°	957.6	736.7	539.1	388.3	284.3	216.4	163.6	134.2	113.1	100.3	95.0
67.5°	782.6	576.1	403.4	276.7	196.0	147.0	110.8	95.0	86.0	82.2	80.7
70°	563.2	399.6	266.9	179.5	127.4	100.3	80.7	73.9	70.1	70.1	70.9
72.5°	371.0	246.6	162.9	114.6	90.5	75.4	65.6	62.6	62.6	64.1	64.8
75°	217.2	143.3	100.3	83.7	71.6	63.3	58.1	55.8	55.8	56.5	56.5
77.5°	128.2	88.2	71.6	63.3	58.1	54.3	51.3	48.3	47.5	47.5	49.8
80°	79.2	62.6	55.8	50.5	46.7	43.7	40.7	40.7	40.7	40.0	41.5
82.5°	51.3	44.5	43.7	42.2	37.7	34.7	31.7	31.7	33.2	31.7	32.4
85°	30.9	29.4	28.7	28.7	27.1	25.6	23.4	23.4	25.6	24.9	21.9
87.5°	8.3	7.5	9.8	9.0	10.6	10.6	10.6	12.1	15.8	20.4	15.1
90°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
92.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
95°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
97.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
102.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
105°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
107.5°	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
110°	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8



REPORT NUMBER: P160198  
 CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°	
112.5°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	0°
115°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.5°
117.5°	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	5°
120°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	7.5°
122.5°	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	10°
125°	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	12.5°
127.5°	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	15°
130°	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	17.5°
132.5°	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	20°
135°	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	22.5°
137.5°	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	25°
140°	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	27.5°
142.5°	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	30°
145°	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	32.5°
147.5°	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	35°
150°	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	37.5°
152.5°	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	40°
155°	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	42.5°
157.5°	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	45°
160°	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	47.5°
162.5°	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	50°
165°	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	52.5°
167.5°	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	55°
170°	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	57.5°
172.5°	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	60°
175°	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	62.5°
177.5°	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	65°
180°	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	67.5°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°
												110°



NUMBER: P160198  
 NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

REPORT NUMBER: P  
 CATALOG NUMBER:

**DISTRIBUTION (continued):**

**CANDELA DISTRIBUTION**

165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°	165°	
489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	112.5°	21.2
484.1	484.8	483.3	482.6	483.3	484.1	481.8	481.0	480.3	479.5	480.3	115°	25.0
489.3	489.3	487.1	485.6	485.6	484.8	482.6	481.8	478.8	478.0	480.3	117.5°	29.5
504.4	503.7	501.4	499.1	498.4	498.4	493.1	490.8	489.3	484.8	485.6	120°	34.8
521.8	521.8	522.5	519.5	515.7	515.0	508.9	505.2	502.9	499.1	497.6	122.5°	40.9
535.3	533.1	532.3	527.8	524.0	522.5	517.2	514.2	511.2	507.4	506.7	125°	47.8
539.9	535.3	532.3	527.0	522.5	519.5	515.0	512.0	508.2	505.9	504.4	127.5°	55.3
535.3	530.8	526.3	520.3	514.2	510.5	505.2	500.7	499.1	496.1	491.6	130°	63.0
525.5	520.3	515.0	507.4	500.7	495.4	489.3	485.6	481.0	476.5	467.5	132.5°	70.5
513.5	507.4	502.2	492.4	485.6	479.5	472.8	466.7	461.4	452.4	438.8	135°	77.9
505.2	492.4	483.3	469.7	462.2	454.7	451.6	445.6	438.1	422.2	405.6	137.5°	85.3
493.1	469.7	453.2	439.6	429.0	420.0	414.7	407.9	400.4	385.3	367.9	140°	92.5
472.8	445.6	429.8	415.5	403.4	393.6	383.8	371.0	361.2	343.8	331.8	142.5°	99.2
441.8	419.2	404.9	391.3	375.5	362.7	350.6	335.5	321.2	303.9	293.3	145°	104.9
407.2	386.8	368.7	354.4	337.8	325.0	312.2	294.8	281.2	265.4	255.6	147.5°	110.1
371.0	349.1	328.0	311.4	296.3	282.0	270.7	254.1	239.8	224.7	219.4	150°	115.1
338.5	313.7	291.0	274.5	257.9	243.5	231.5	214.1	202.1	191.5	185.5	152.5°	119.7
306.9	280.5	259.4	242.0	225.4	210.4	194.5	181.0	170.4	165.9	157.6	155°	123.7
271.4	244.3	223.9	205.1	191.5	175.7	163.6	154.6	147.8	144.0	138.7	157.5°	127.0
235.2	212.6	191.5	174.2	157.6	144.0	136.5	131.9	129.7	126.7	124.4	160°	130.3
205.8	186.2	165.1	148.5	133.5	123.7	119.9	117.6	116.1	114.6	113.9	162.5°	133.5
185.5	164.4	145.5	129.7	118.4	113.1	111.6	110.1	108.6	107.8	107.1	165°	136.0
169.6	148.5	131.2	117.6	109.3	107.8	107.1	105.6	104.1	104.1	102.5	167.5°	137.1
150.8	132.7	117.6	107.8	103.3	102.5	101.8	101.0	100.3	100.3	99.5	170°	137.4
131.2	117.6	107.8	101.0	99.5	98.0	96.5	95.0	94.2	95.8	96.5	172.5°	138.6
111.6	103.3	97.3	95.0	93.5	91.2	89.7	88.2	88.2	89.7	92.0	175°	140.5
92.7	89.7	88.2	86.7	86.0	85.2	83.7	82.2	82.2	82.2	83.7	177.5°	141.1
79.9	78.4	78.4	77.7	76.9	76.9	75.4	73.9	73.9	73.9	73.9	180°	140.8
70.1	70.9	70.9	70.9	70.1	69.4	68.6	67.1	66.4	64.8	63.3		
64.8	64.1	63.3	62.6	61.8	61.1	60.3	59.6	58.1	56.5	55.0		
58.1	56.5	54.3	53.5	52.8	51.3	51.3	50.5	49.0	46.7	45.2		
50.5	49.0	46.7	45.2	45.2	44.5	43.0	42.2	40.0	37.7	36.2		
40.7	38.5	36.2	35.4	34.7	33.9	33.2	32.4	31.7	29.4	28.7		
30.2	27.9	25.6	24.9	24.1	22.6	21.9	21.9	21.9	19.6	18.1		
19.6	16.6	14.3	12.1	12.1	11.3	9.8	8.3	6.8	4.5	3.0		
9.8	5.3	3.0	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0		
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8		
11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8		
14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7		
17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8		

'160198  
 ENV-F02-LED-E1-SLL-7030-ULG

REPORT NUMBER: P160198  
 CATALOG NUMBER: ENV-F02-I

**TION (continued):**

**CANDELA DISTRIBUTION (con**

170°	175°	180°	185°	190°	195°	200°	205°	210°	215°		220°	225°
21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	0°	489.3	489.3
25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.5°	480.3	479.5
29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	5°	480.3	475.8
34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	7.5°	482.6	478.8
40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	10°	492.4	486.3
47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	12.5°	500.7	493.9
55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	15°	499.9	490.1
63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	17.5°	484.1	472.8
70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	20°	457.7	442.6
77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	22.5°	423.7	409.4
85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	25°	390.6	374.0
92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	27.5°	353.6	339.3
99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	30°	315.9	303.1
104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	32.5°	279.7	267.7
110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	35°	243.5	231.5
115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	37.5°	208.9	197.5
119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	40°	176.4	168.1
123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	42.5°	153.1	145.5
127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	45°	134.2	128.2
130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	47.5°	120.6	116.1
133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	50°	110.8	107.1
136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	52.5°	104.8	101.8
137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	55°	100.3	98.0
137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	57.5°	97.3	94.2
138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	60°	93.5	91.2
140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	62.5°	89.7	86.7
141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	65°	82.9	79.2
140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	67.5°	73.1	70.1
										70°	61.8	61.1
										72.5°	52.0	51.3
										75°	43.7	43.7
										77.5°	36.2	35.4
										80°	27.9	26.4
										82.5°	15.8	15.1
										85°	2.3	1.5
										87.5°	0.0	0.0
										90°	0.1	0.1
										92.5°	0.1	0.1
										95°	0.5	0.5
										97.5°	1.5	1.5
										100°	5.0	5.0
										102.5°	8.8	8.8
										105°	11.8	11.8
										107.5°	14.7	14.7
										110°	17.8	17.8

REPORT NUMBER: P160198

CATALOG NUMBER: ENV-F02-LED-E1-SLL

LED-E1-SLL-7030-ULG

**tinued):**

**CANDELA DISTRIBUTION (continued):**

230°	235°	240°	245°	250°	255°	260°	265°	270°		220°	225°	230°
489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	489.3	112.5°	21.2	21.2	21.2
480.3	481.0	484.1	485.6	486.3	486.3	487.1	488.6	489.3	115°	25.0	25.0	25.0
475.8	477.3	478.8	481.0	481.8	481.8	482.6	484.8	487.1	117.5°	29.5	29.5	29.5
476.5	475.8	476.5	478.0	478.0	478.0	478.8	481.0	483.3	120°	34.8	34.8	34.8
482.6	478.0	475.0	474.3	473.5	473.5	475.0	478.0	480.3	122.5°	40.9	40.9	40.9
487.8	481.8	475.8	472.0	469.0	467.5	468.2	471.2	475.8	125°	47.8	47.8	47.8
483.3	474.3	467.5	462.2	457.7	456.2	456.9	459.2	464.5	127.5°	55.3	55.3	55.3
463.7	453.9	446.4	442.6	440.3	439.6	441.1	445.6	450.1	130°	63.0	63.0	63.0
435.8	430.5	423.7	421.5	417.0	417.0	416.2	416.2	418.5	132.5°	70.5	70.5	70.5
404.9	401.9	395.1	389.8	384.5	383.8	378.5	379.3	378.5	135°	77.9	77.9	77.9
369.5	365.7	357.4	349.9	343.8	340.1	334.0	333.3	331.0	137.5°	85.3	85.3	85.3
334.0	328.0	318.2	310.6	303.1	297.8	292.5	287.3	285.8	140°	92.5	92.5	92.5
297.8	292.5	281.2	274.5	263.9	256.4	251.8	244.3	240.5	142.5°	99.2	99.2	99.2
262.4	256.4	243.5	230.7	223.2	214.1	207.3	197.5	193.0	145°	104.9	104.9	104.9
223.2	219.4	206.6	193.0	186.2	174.2	165.9	157.6	156.1	147.5°	110.1	110.1	110.1
191.5	183.2	173.4	162.9	151.6	144.8	141.0	139.5	138.7	150°	115.1	115.1	115.1
162.1	156.8	147.8	140.2	135.0	133.5	133.5	133.5	134.2	152.5°	119.7	119.7	119.7
142.5	135.7	131.2	128.9	128.9	129.7	130.4	131.9	133.5	155°	123.7	123.7	123.7
125.9	123.7	123.7	122.9	124.4	125.9	128.2	130.4	131.9	157.5°	127.0	127.0	127.0
114.6	115.4	116.9	117.6	120.6	122.9	125.2	126.7	128.2	160°	130.3	130.3	130.3
105.6	106.3	107.8	110.1	112.3	115.4	117.6	119.1	119.9	162.5°	133.5	133.5	133.5
100.3	100.3	102.5	104.8	107.8	110.1	112.3	113.1	114.6	165°	136.0	136.0	136.0
95.8	96.5	98.8	100.3	101.8	103.3	104.8	105.6	108.6	167.5°	137.1	137.1	137.1
92.7	93.5	94.2	92.7	94.2	95.8	97.3	98.8	100.3	170°	137.4	137.4	137.4
89.0	87.5	86.0	86.0	86.7	88.2	91.2	93.5	95.8	172.5°	138.6	138.6	138.6
84.4	82.2	79.9	79.2	79.9	81.4	84.4	87.5	89.0	175°	140.5	140.5	140.5
76.9	76.2	75.4	74.6	75.4	76.9	79.9	82.2	84.4	177.5°	141.1	141.1	141.1
69.4	68.6	67.9	68.6	69.4	70.9	73.9	76.2	78.4	180°	140.8	140.8	140.8
60.3	60.3	60.3	61.1	61.8	64.8	67.1	70.1	70.9				
50.5	52.0	52.0	52.0	53.5	57.3	60.3	63.3	64.8				
43.0	42.2	43.7	43.7	45.2	48.3	50.5	52.8	53.5				
34.7	34.7	35.4	35.4	35.4	36.9	38.5	38.5	38.5				
25.6	24.9	24.1	22.6	22.6	23.4	23.4	23.4	24.9				
12.1	9.8	9.8	9.0	8.3	8.3	8.3	9.8	10.6				
0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	1.5				
0.0	0.8	0.8	0.8	1.5	1.5	1.5	2.3	2.3				
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5				
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5				
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8				
11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8				
14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7				
17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8				



REPORT NUMBER: P160198

CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULC

.-7030-ULG

**CANDELA DISTRIBUTION (continued):**

235°	240°	245°	250°	255°	260°	265°	270°		275°	280°	285°	290°
21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	0°	489.3	489.3	489.3	489.3
25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.5°	488.6	490.1	490.1	491.6
29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	5°	487.1	488.6	489.3	491.6
34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	7.5°	484.8	487.8	489.3	492.4
40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	10°	482.6	487.1	490.1	495.4
47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	12.5°	480.3	484.8	490.1	495.4
55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	15°	469.0	473.5	481.0	488.6
63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	17.5°	452.4	456.9	463.0	469.7
70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	20°	420.7	422.2	428.3	435.8
77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	22.5°	376.2	375.5	378.5	386.8
85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	25°	325.7	328.7	326.5	336.3
92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	27.5°	279.0	281.2	284.3	288.8
99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	30°	234.5	233.7	236.0	239.8
104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	32.5°	188.5	187.7	188.5	192.3
110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	35°	154.6	152.3	154.6	159.8
115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	37.5°	139.5	139.5	141.8	145.5
119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	40°	135.0	135.7	137.2	140.2
123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	42.5°	134.2	134.2	134.2	135.7
127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	45°	132.7	131.9	131.9	131.9
130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	47.5°	128.9	128.2	128.2	128.2
133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	50°	120.6	121.4	121.4	122.1
136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	52.5°	115.4	116.9	117.6	119.1
137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	55°	110.1	113.1	115.4	116.9
137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	57.5°	101.8	104.8	107.1	110.8
138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	60°	97.3	98.8	99.5	101.8
140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	62.5°	91.2	92.7	94.2	95.0
141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	65°	86.0	87.5	89.7	90.5
140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	67.5°	79.9	82.2	83.7	84.4
								70°	73.1	76.2	76.9	78.4
								72.5°	66.4	67.9	68.6	70.1
								75°	55.8	58.1	59.6	60.3
								77.5°	41.5	43.7	46.0	48.3
								80°	26.4	28.7	30.2	31.7
								82.5°	12.1	14.3	15.1	16.6
								85°	2.3	2.3	2.3	3.0
								87.5°	2.3	3.0	3.0	3.0
								90°	0.1	0.1	0.1	0.1
								92.5°	0.1	0.1	0.1	0.1
								95°	0.5	0.5	0.5	0.5
								97.5°	1.5	1.5	1.5	1.5
								100°	5.0	5.0	5.0	5.0
								102.5°	8.8	8.8	8.8	8.8
								105°	11.8	11.8	11.8	11.8
								107.5°	14.7	14.7	14.7	14.7
								110°	17.8	17.8	17.8	17.8





REPORT NUMBER: P160198

CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

5

**CANDELA DISTRIBUTION (continued):**

295°	300°	305°	310°	315°	320°	325°		275°	280°	285°	290°	295°
489.3	489.3	489.3	489.3	489.3	489.3	489.3	112.5°	21.2	21.2	21.2	21.2	21.2
491.6	492.4	493.9	493.9	495.4	495.4	496.9	115°	25.0	25.0	25.0	25.0	25.0
493.1	494.6	496.9	497.6	500.7	502.2	503.7	117.5°	29.5	29.5	29.5	29.5	29.5
495.4	497.6	500.7	502.9	506.7	508.9	511.2	120°	34.8	34.8	34.8	34.8	34.8
499.1	502.9	508.2	510.5	513.5	518.7	522.5	122.5°	40.9	40.9	40.9	40.9	40.9
504.4	509.7	516.5	522.5	526.3	533.8	539.9	125°	47.8	47.8	47.8	47.8	47.8
496.9	508.2	516.5	527.8	537.6	550.4	561.0	127.5°	55.3	55.3	55.3	55.3	55.3
478.8	489.3	503.7	518.0	533.1	554.9	576.1	130°	63.0	63.0	63.0	63.0	63.0
445.6	457.7	474.3	492.4	514.2	542.9	573.0	132.5°	70.5	70.5	70.5	70.5	70.5
397.4	407.9	426.0	446.4	471.2	506.7	550.4	135°	77.9	77.9	77.9	77.9	77.9
346.1	360.4	377.8	399.6	427.5	469.7	516.5	137.5°	85.3	85.3	85.3	85.3	85.3
297.1	312.2	331.0	355.1	387.6	432.8	486.3	140°	92.5	92.5	92.5	92.5	92.5
246.6	263.9	281.2	311.4	343.8	391.3	450.9	142.5°	99.2	99.2	99.2	99.2	99.2
201.3	214.1	235.2	262.4	300.1	346.8	410.2	145°	104.9	104.9	104.9	104.9	104.9
165.1	175.7	196.0	222.4	256.4	302.4	357.4	147.5°	110.1	110.1	110.1	110.1	110.1
150.8	159.1	173.4	192.3	222.4	266.9	313.7	150°	115.1	115.1	115.1	115.1	115.1
145.5	153.1	163.6	180.2	203.6	237.5	277.5	152.5°	119.7	119.7	119.7	119.7	119.7
140.2	147.8	159.8	174.9	194.5	218.7	252.6	155°	123.7	123.7	123.7	123.7	123.7
135.7	144.0	156.8	173.4	191.5	212.6	239.0	157.5°	127.0	127.0	127.0	127.0	127.0
131.2	138.7	151.6	170.4	190.0	212.6	239.0	160°	130.3	130.3	130.3	130.3	130.3
124.4	131.9	145.5	165.1	187.0	211.9	242.0	162.5°	133.5	133.5	133.5	133.5	133.5
120.6	127.4	141.8	163.6	187.0	214.1	246.6	165°	136.0	136.0	136.0	136.0	136.0
118.4	124.4	141.0	165.9	193.0	224.7	260.1	167.5°	137.1	137.1	137.1	137.1	137.1
114.6	121.4	138.7	166.6	200.6	239.8	284.3	170°	137.4	137.4	137.4	137.4	137.4
104.1	112.3	131.2	161.4	198.3	246.6	305.4	172.5°	138.6	138.6	138.6	138.6	138.6
95.8	101.0	116.9	148.5	187.0	239.0	309.1	175°	140.5	140.5	140.5	140.5	140.5
92.0	95.0	105.6	131.2	168.9	224.7	297.8	177.5°	141.1	141.1	141.1	141.1	141.1
86.7	88.2	95.8	116.1	144.8	199.1	269.9	180°	140.8	140.8	140.8	140.8	140.8
79.9	80.7	86.7	99.5	120.6	158.3	225.4						
71.6	73.1	76.9	86.0	99.5	121.4	163.6						
61.8	62.6	64.1	70.1	78.4	93.5	116.1						
49.8	49.8	51.3	54.3	58.8	69.4	82.9						
32.4	34.7	36.2	41.5	43.0	50.5	58.8						
18.8	20.4	21.1	22.6	26.4	30.2	36.2						
3.0	4.5	4.5	6.0	7.5	8.3	9.8						
3.8	3.8	3.8	3.8	4.5	4.5	4.5						
0.1	0.1	0.1	0.1	0.1	0.1	0.1						
0.1	0.1	0.1	0.1	0.1	0.1	0.1						
0.5	0.5	0.5	0.5	0.5	0.5	0.5						
1.5	1.5	1.5	1.5	1.5	1.5	1.5						
5.0	5.0	5.0	5.0	5.0	5.0	5.0						
8.8	8.8	8.8	8.8	8.8	8.8	8.8						
11.8	11.8	11.8	11.8	11.8	11.8	11.8						
14.7	14.7	14.7	14.7	14.7	14.7	14.7						
17.8	17.8	17.8	17.8	17.8	17.8	17.8						



REPORT NUMBER: P160198

CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

**CANDELA DISTRIBUTION (continued):**

300°	305°	310°	315°	320°	325°		330°	335°	340°	345°	350°	355°
21.2	21.2	21.2	21.2	21.2	21.2	0°	489.3	489.3	489.3	489.3	489.3	489.3
25.0	25.0	25.0	25.0	25.0	25.0	2.5°	497.6	496.9	498.4	499.9	499.1	503.7
29.5	29.5	29.5	29.5	29.5	29.5	5°	505.9	505.2	507.4	508.9	509.7	512.7
34.8	34.8	34.8	34.8	34.8	34.8	7.5°	514.2	515.0	518.7	519.5	521.8	525.5
40.9	40.9	40.9	40.9	40.9	40.9	10°	524.0	527.8	532.3	533.8	537.6	542.1
47.8	47.8	47.8	47.8	47.8	47.8	12.5°	543.6	548.9	554.9	559.5	567.0	576.1
55.3	55.3	55.3	55.3	55.3	55.3	15°	570.8	583.6	593.4	602.4	613.8	624.3
63.0	63.0	63.0	63.0	63.0	63.0	17.5°	594.9	619.8	640.9	659.7	677.8	694.4
70.5	70.5	70.5	70.5	70.5	70.5	20°	606.2	645.4	678.6	713.3	748.0	771.3
77.9	77.9	77.9	77.9	77.9	77.9	22.5°	595.7	650.7	702.0	757.8	810.5	858.0
85.3	85.3	85.3	85.3	85.3	85.3	25°	573.0	640.9	717.0	797.0	876.9	949.3
92.5	92.5	92.5	92.5	92.5	92.5	27.5°	551.9	634.9	723.1	814.3	909.3	996.0
99.2	99.2	99.2	99.2	99.2	99.2	30°	524.0	614.5	711.0	805.3	908.6	1010.4
104.9	104.9	104.9	104.9	104.9	104.9	32.5°	482.6	574.5	676.3	778.9	893.5	1006.6
110.1	110.1	110.1	110.1	110.1	110.1	35°	433.5	525.5	629.6	737.4	864.8	992.3
115.1	115.1	115.1	115.1	115.1	115.1	37.5°	380.0	470.5	579.1	694.4	826.4	968.9
119.7	119.7	119.7	119.7	119.7	119.7	40°	334.8	415.5	527.8	653.0	791.7	939.5
123.7	123.7	123.7	123.7	123.7	123.7	42.5°	298.6	371.7	478.0	604.7	753.2	905.5
127.0	127.0	127.0	127.0	127.0	127.0	45°	277.5	338.5	435.8	561.7	713.3	870.1
130.3	130.3	130.3	130.3	130.3	130.3	47.5°	272.9	322.0	407.2	529.3	674.8	832.4
133.5	133.5	133.5	133.5	133.5	133.5	50°	277.5	322.7	394.3	508.9	645.4	798.5
136.0	136.0	136.0	136.0	136.0	136.0	52.5°	286.5	330.2	395.8	501.4	633.4	778.1
137.1	137.1	137.1	137.1	137.1	137.1	55°	300.8	350.6	411.7	508.2	631.8	769.8
137.4	137.4	137.4	137.4	137.4	137.4	57.5°	329.5	386.0	447.9	536.1	649.9	778.9
138.6	138.6	138.6	138.6	138.6	138.6	60°	365.7	433.5	508.2	601.7	693.7	809.0
140.5	140.5	140.5	140.5	140.5	140.5	62.5°	387.6	480.3	582.8	691.4	785.7	879.9
141.1	141.1	141.1	141.1	141.1	141.1	65°	385.3	499.9	644.7	799.2	916.9	1007.3
140.8	140.8	140.8	140.8	140.8	140.8	67.5°	360.4	485.6	629.6	805.3	982.5	1109.9
						70°	300.8	417.7	585.9	797.7	1015.6	1179.2
						72.5°	239.8	343.1	503.7	703.5	918.4	1085.8
						75°	159.8	242.0	371.7	539.9	695.9	841.5
						77.5°	108.6	153.1	232.2	354.4	483.3	602.4
						80°	72.4	95.8	132.7	195.3	270.7	346.8
						82.5°	42.2	52.8	67.9	96.5	143.3	202.1
						85°	11.3	14.3	18.8	24.9	44.5	78.4
						87.5°	4.5	3.8	3.8	3.8	3.8	3.8
						90°	0.1	0.1	0.1	0.1	0.1	0.1
						92.5°	0.1	0.1	0.1	0.1	0.1	0.1
						95°	0.5	0.5	0.5	0.5	0.5	0.5
						97.5°	1.5	1.5	1.5	1.5	1.5	1.5
						100°	5.0	5.0	5.0	5.0	5.0	5.0
						102.5°	8.8	8.8	8.8	8.8	8.8	8.8
						105°	11.8	11.8	11.8	11.8	11.8	11.8
						107.5°	14.7	14.7	14.7	14.7	14.7	14.7
						110°	17.8	17.8	17.8	17.8	17.8	17.8



REPORT NUMBER: P160198

CATALOG NUMBER: ENV-F02-LED-E1-SLL-7030-ULG

**CANDELA DISTRIBUTION (continued):**

360°	330°	335°	340°	345°	350°	355°	360°
489.3	112.5°	21.2	21.2	21.2	21.2	21.2	21.2
499.9	115°	25.0	25.0	25.0	25.0	25.0	25.0
512.0	117.5°	29.5	29.5	29.5	29.5	29.5	29.5
526.3	120°	34.8	34.8	34.8	34.8	34.8	34.8
548.2	122.5°	40.9	40.9	40.9	40.9	40.9	40.9
579.8	125°	47.8	47.8	47.8	47.8	47.8	47.8
636.4	127.5°	55.3	55.3	55.3	55.3	55.3	55.3
709.5	130°	63.0	63.0	63.0	63.0	63.0	63.0
799.2	132.5°	70.5	70.5	70.5	70.5	70.5	70.5
900.3	135°	77.9	77.9	77.9	77.9	77.9	77.9
1015.6	137.5°	85.3	85.3	85.3	85.3	85.3	85.3
1086.5	140°	92.5	92.5	92.5	92.5	92.5	92.5
1101.6	142.5°	99.2	99.2	99.2	99.2	99.2	99.2
1112.1	145°	104.9	104.9	104.9	104.9	104.9	104.9
1115.2	147.5°	110.1	110.1	110.1	110.1	110.1	110.1
1110.6	150°	115.1	115.1	115.1	115.1	115.1	115.1
1092.5	152.5°	119.7	119.7	119.7	119.7	119.7	119.7
1069.2	155°	123.7	123.7	123.7	123.7	123.7	123.7
1039.8	157.5°	127.0	127.0	127.0	127.0	127.0	127.0
1003.6	160°	130.3	130.3	130.3	130.3	130.3	130.3
969.6	162.5°	133.5	133.5	133.5	133.5	133.5	133.5
943.2	165°	136.0	136.0	136.0	136.0	136.0	136.0
926.7	167.5°	137.1	137.1	137.1	137.1	137.1	137.1
928.9	170°	137.4	137.4	137.4	137.4	137.4	137.4
952.3	172.5°	138.6	138.6	138.6	138.6	138.6	138.6
1011.1	175°	140.5	140.5	140.5	140.5	140.5	140.5
1122.7	177.5°	141.1	141.1	141.1	141.1	141.1	141.1
1232.0	180°	140.8	140.8	140.8	140.8	140.8	140.8
1337.6							
1268.2							
968.1							
696.7							
404.1							
252.6							
109.3							
3.8							
0.1							
0.1							
0.5							
1.5							
5.0							
8.8							
11.8							
14.7							
17.8							

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Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(REPORT)