

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: P160199

Luminaire Tested: **ENV-F02-LED-E1-SLL-7050-ULG**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P160199
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-7050-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(2) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4440.1 lumens
Efficiency: N/A
Efficacy: 77.5 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

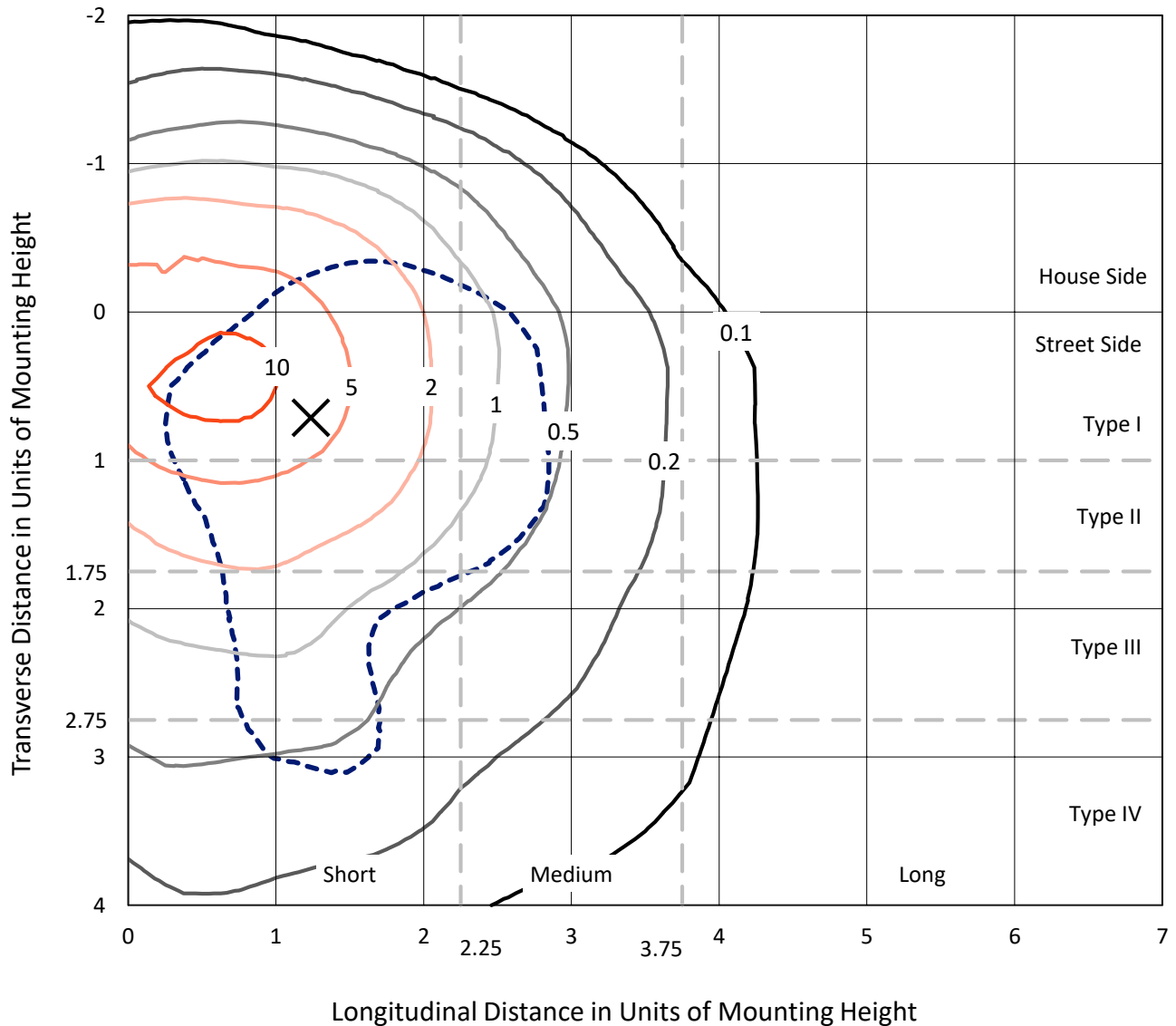
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

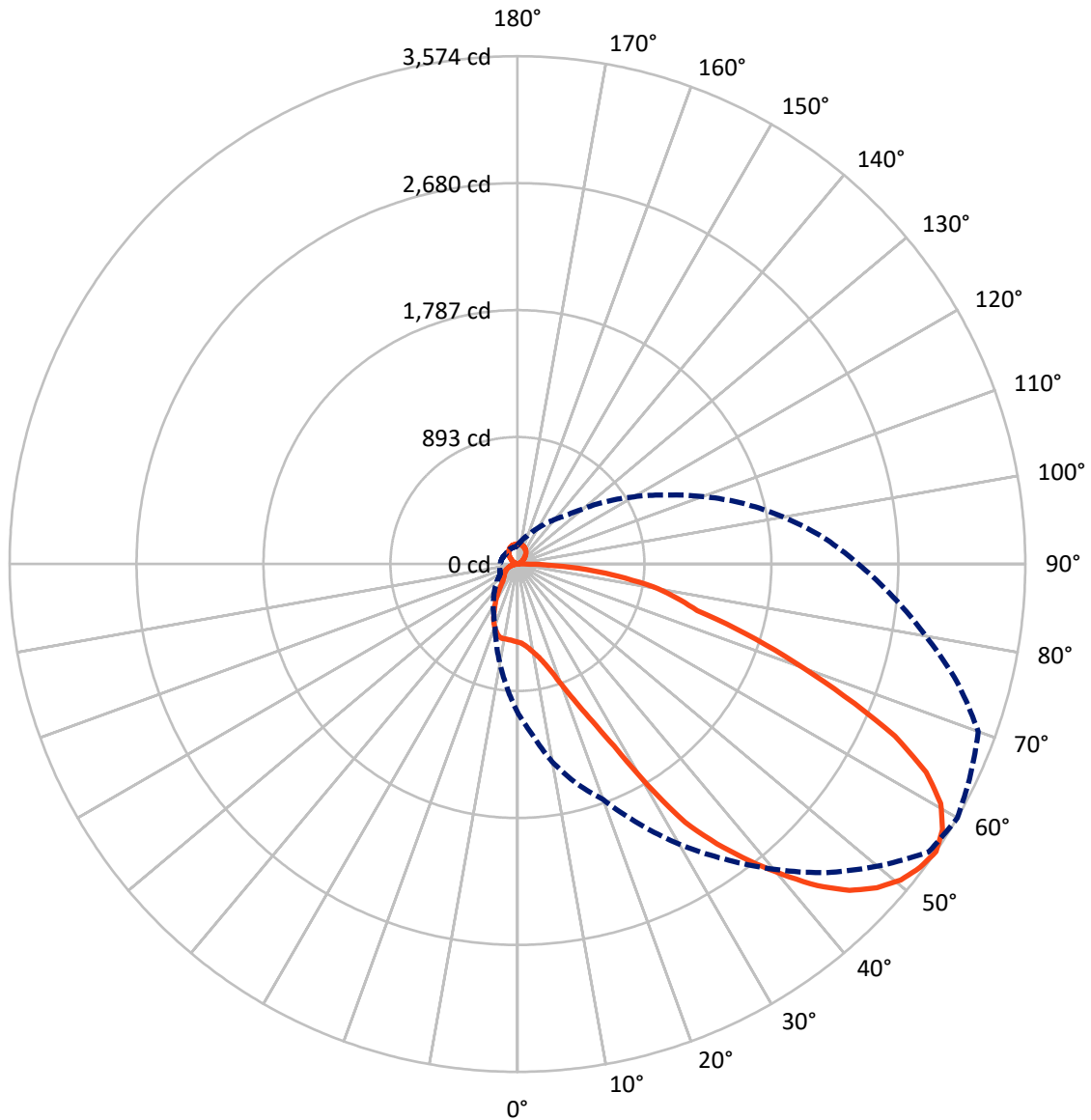
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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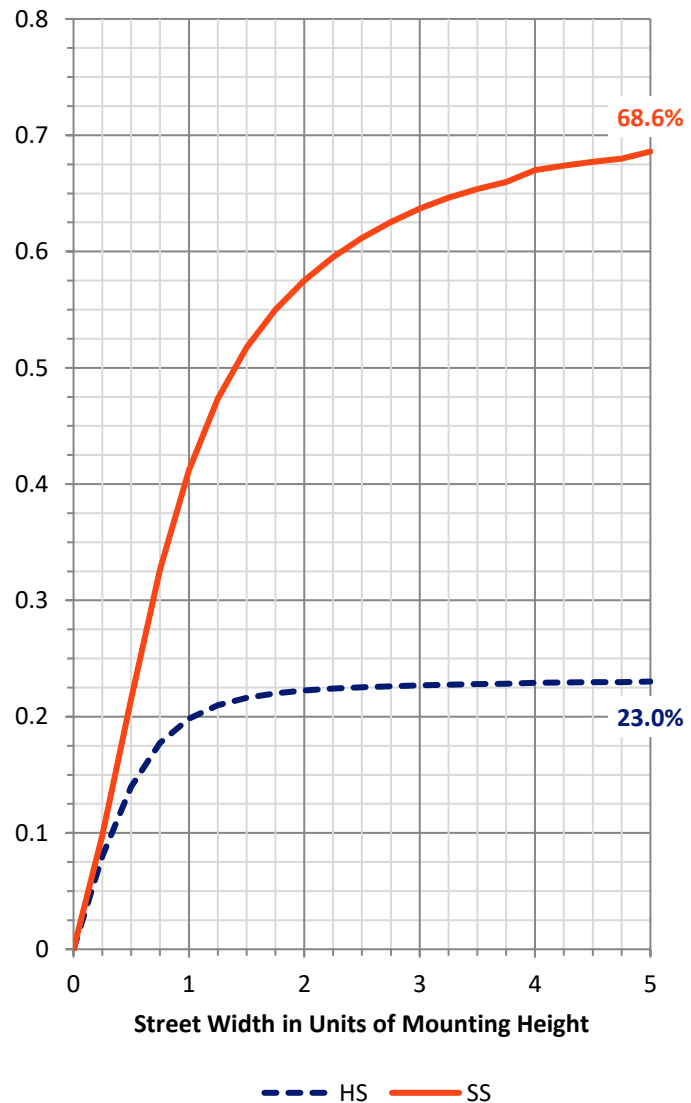
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1030.9	157.7	1188.7
	% Fixture	23.2	3.6	26.8
Street Side	Lumens	3093.7	157.7	3251.4
	% Fixture	69.7	3.6	73.2
Total	Lumens	4124.6	315.5	4440.1
	% Fixture	92.9	7.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.1	1.2
10°-20°	178.0	4.0
20°-30°	345.4	7.8
30°-40°	542.8	12.2
40°-50°	725.6	16.3
50°-60°	851.3	19.2
60°-70°	807.7	18.2
70°-80°	487.5	11.0
80°-90°	132.1	3.0
90°-100°	1.3	0.0
100°-110°	12.3	0.3
110°-120°	25.2	0.6
120°-130°	43.0	1.0
130°-140°	60.0	1.4
140°-150°	65.4	1.5
150°-160°	56.9	1.3
160°-170°	38.2	0.9
170°-180°	13.3	0.3
0°-90°	4124.6	92.9
0°-180°	4440.1	100.0



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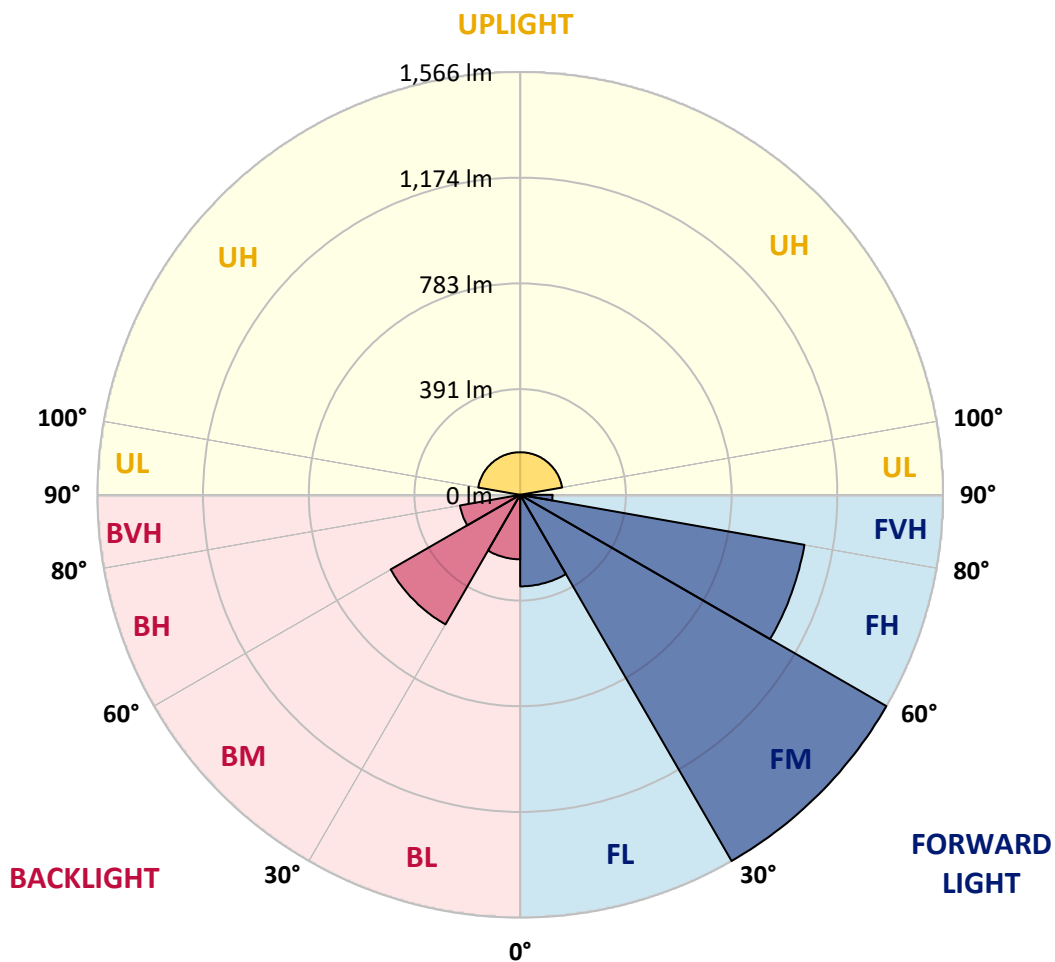
CATALOG NUMBER: ENV-F02-LED-E1-SLL-7050-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	339.0	7.6			
FM	(30°-60°)	1565.8	35.3			
FH	(60°-80°)	1068.8	24.1			G1/1800
FVH	(80°-90°)	120.1	2.7			G2/225
BL	(0°-30°)	238.6	5.4	B1/500		
BM	(30°-60°)	554.0	12.5	B1/1000		
BH	(60°-80°)	226.3	5.1	B1/500		G1/500
BVH	(80°-90°)	12.0	0.3			G1/100
UL	(90°-100°)	1.3	0.0		U1/10	
UH	(100°-180°)	157.7	3.6		U3/500	

BUG Rating: B1-U3-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8
2.5°	561.6	560.8	561.6	560.8	560.8	560.8	561.6	560.8	558.2	558.2	559.1
5°	575.2	575.2	575.2	576.0	576.0	576.9	578.6	576.9	576.0	580.2	576.9
7.5°	591.3	591.3	593.8	594.6	597.2	597.2	600.6	599.7	603.1	605.7	603.1
10°	615.8	613.3	619.2	619.2	626.0	626.8	630.2	631.1	637.0	642.1	637.8
12.5°	651.4	653.1	663.3	665.0	673.4	673.4	673.4	676.8	681.0	684.4	680.2
15°	714.9	718.3	731.9	732.7	747.1	741.2	748.0	748.8	748.0	750.5	744.6
17.5°	797.1	806.4	825.9	830.1	836.9	848.8	848.8	847.1	851.3	853.9	837.8
20°	897.9	914.0	936.0	944.5	963.1	983.5	982.6	979.2	980.1	973.3	955.5
22.5°	1011.4	1047.8	1084.3	1097.8	1111.4	1136.8	1152.9	1147.8	1152.0	1136.8	1120.7
25°	1141.0	1200.3	1255.4	1275.7	1324.8	1369.7	1376.5	1373.1	1354.5	1340.1	1324.0
27.5°	1220.6	1298.6	1374.0	1425.6	1509.5	1581.5	1595.9	1619.6	1625.5	1637.4	1598.4
30°	1237.6	1335.0	1429.0	1507.8	1608.6	1694.2	1789.0	1859.3	1906.8	1944.0	1918.6
32.5°	1249.4	1359.6	1463.7	1562.9	1645.9	1770.4	1889.8	1994.0	2132.9	2183.8	2232.0
35°	1252.8	1379.0	1496.8	1608.6	1716.2	1839.8	1967.8	2082.1	2270.2	2420.9	2524.3
37.5°	1247.7	1393.4	1531.5	1667.9	1795.8	1932.2	2066.9	2178.7	2361.6	2556.5	2695.4
40°	1227.4	1388.4	1545.9	1699.2	1854.2	2022.8	2177.0	2298.1	2469.2	2699.6	2884.3
42.5°	1201.2	1367.2	1540.8	1709.4	1883.9	2082.1	2268.5	2415.9	2604.8	2837.7	3047.8
45°	1168.1	1340.9	1520.5	1698.4	1886.4	2106.7	2319.3	2508.2	2708.9	2968.2	3170.6
47.5°	1127.5	1303.6	1493.4	1673.8	1869.5	2107.5	2343.0	2559.0	2779.3	3057.9	3276.5
50°	1089.3	1264.7	1462.9	1640.8	1837.3	2086.3	2340.5	2581.9	2822.5	3110.5	3340.0
52.5°	1059.7	1231.6	1436.6	1614.5	1800.0	2051.6	2315.1	2570.9	2829.2	3117.2	3351.9
55°	1041.1	1204.5	1414.6	1596.7	1762.8	2014.3	2276.1	2532.8	2803.8	3072.3	3307.8
57.5°	1043.6	1199.5	1401.9	1593.3	1735.7	1982.2	2232.0	2478.5	2725.0	2980.9	3224.0
60°	1069.9	1210.5	1395.1	1569.6	1752.6	1985.5	2212.6	2418.4	2615.8	2851.3	3078.3
62.5°	1135.9	1257.1	1406.1	1585.7	1787.3	2017.7	2199.9	2325.2	2443.0	2678.5	2909.7
65°	1261.3	1366.3	1485.8	1643.3	1840.7	2062.6	2148.2	2173.6	2249.0	2473.5	2703.0
67.5°	1384.1	1508.6	1576.4	1677.2	1861.9	2075.3	2086.3	1977.1	1975.4	2193.9	2360.0
70°	1502.7	1683.1	1710.2	1766.2	1892.4	2061.8	2022.0	1811.0	1715.3	1745.0	1841.5
72.5°	1424.8	1695.0	1714.5	1731.4	1806.8	1964.4	1918.6	1634.0	1419.7	1381.6	1490.9
75°	1087.6	1430.7	1476.5	1446.8	1488.3	1608.6	1600.1	1377.3	1304.5	1329.9	1372.3
77.5°	782.7	1102.9	1202.0	1105.4	1094.4	1172.4	1150.3	1169.0	1307.0	1344.3	1334.1
80°	454.0	700.5	842.0	749.7	716.6	765.8	852.2	982.6	1133.4	1213.9	1229.1
82.5°	283.8	413.4	562.5	526.9	482.0	568.4	702.2	793.7	868.3	941.9	946.2
85°	122.8	177.0	274.5	288.0	356.6	433.7	540.4	566.7	648.0	704.8	655.6
87.5°	4.2	4.2	66.1	98.3	174.5	313.4	424.4	379.5	384.6	337.1	314.3
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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CATALOG NUMBER: ENV-F02-LED-E1-SLL-7050-ULG

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°	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8
2.5°	559.1	557.4	558.2	555.7	555.7	556.5	556.5	554.0	554.0	554.0	553.1
5°	578.6	576.9	576.0	574.3	571.8	573.5	570.9	569.2	566.7	565.8	563.3
7.5°	604.0	601.4	600.6	596.3	593.0	591.3	589.6	583.6	581.1	579.4	576.0
10°	633.6	633.6	631.9	623.4	620.9	615.0	609.0	602.3	597.2	589.6	585.3
12.5°	671.7	674.3	668.3	660.7	654.8	642.9	631.9	622.6	612.4	601.4	594.6
15°	728.5	730.2	718.3	711.5	702.2	688.7	671.7	656.5	641.2	626.0	613.3
17.5°	812.3	809.8	792.9	786.1	770.0	747.1	724.2	703.9	681.0	659.9	643.8
20°	933.5	923.3	879.3	876.7	856.4	824.2	791.2	761.5	731.0	703.9	676.8
22.5°	1080.9	1058.0	1025.8	989.4	950.4	914.8	875.9	834.4	796.3	762.4	732.7
25°	1273.2	1222.3	1192.7	1143.6	1109.7	1047.0	992.8	959.7	908.1	869.1	831.0
27.5°	1529.8	1449.3	1406.1	1352.8	1277.4	1233.3	1159.6	1096.1	1041.1	976.7	934.3
30°	1862.7	1803.4	1695.0	1620.5	1516.3	1409.5	1318.9	1235.9	1163.9	1086.8	1024.1
32.5°	2204.9	2167.7	2040.6	1901.7	1743.3	1586.6	1453.6	1351.1	1257.1	1170.7	1098.7
35°	2495.5	2418.4	2293.9	2148.2	1944.9	1763.6	1595.0	1464.6	1347.7	1240.1	1149.5
37.5°	2682.7	2648.8	2522.6	2357.4	2134.6	1939.0	1764.5	1610.3	1464.6	1324.0	1207.1
40°	2891.1	2871.6	2765.7	2563.3	2357.4	2117.7	1918.6	1756.0	1599.3	1431.6	1278.2
42.5°	3077.4	3095.2	2986.8	2808.9	2570.9	2300.7	2088.9	1908.5	1729.7	1558.6	1381.6
45°	3244.3	3276.5	3196.9	3031.7	2770.8	2475.2	2254.1	2057.5	1862.7	1675.5	1478.1
47.5°	3369.7	3404.4	3337.5	3207.9	2936.0	2620.9	2398.9	2178.7	1974.5	1759.4	1550.1
50°	3474.7	3495.0	3444.2	3330.7	3069.8	2762.3	2515.0	2283.7	2057.5	1825.4	1596.7
52.5°	3535.7	3547.6	3497.6	3415.4	3171.5	2867.4	2605.6	2356.6	2116.0	1871.2	1627.2
55°	3532.3	3573.8	3517.1	3451.0	3202.8	2917.3	2653.0	2398.1	2159.2	1900.8	1645.0
57.5°	3466.2	3527.2	3501.0	3418.8	3176.5	2913.9	2659.8	2421.8	2187.1	1911.0	1636.6
60°	3339.2	3423.0	3441.7	3324.8	3071.5	2820.8	2595.4	2394.7	2160.9	1866.1	1584.9
62.5°	3159.6	3227.4	3275.6	3116.4	2865.7	2627.6	2451.4	2293.0	2055.0	1733.1	1478.1
65°	2888.5	2919.9	2933.4	2786.0	2540.4	2382.0	2266.8	2130.4	1866.1	1544.2	1313.0
67.5°	2485.3	2481.1	2494.6	2426.0	2244.8	2161.7	2085.5	1937.3	1628.9	1328.2	1097.8
70°	1976.2	2064.3	2138.9	2066.0	1953.4	1870.3	1806.8	1631.5	1301.1	1025.8	834.4
72.5°	1608.6	1680.6	1721.3	1657.7	1548.5	1489.2	1405.3	1230.8	915.7	729.3	572.6
75°	1358.7	1306.2	1330.8	1290.9	1190.1	1104.6	1056.3	864.0	600.6	482.8	356.6
77.5°	1227.4	1143.6	1090.2	1004.6	889.4	792.0	742.9	537.0	378.6	284.6	205.8
80°	1085.1	969.1	830.1	692.1	593.0	532.8	498.9	306.6	208.4	165.2	118.6
82.5°	825.1	715.8	581.1	481.1	395.6	344.8	305.8	175.3	117.7	87.2	67.8
85°	528.6	487.1	444.7	395.6	331.2	266.0	205.0	127.9	86.4	50.0	37.3
87.5°	255.0	211.8	210.1	194.0	184.7	145.7	86.4	29.6	18.6	16.1	10.2
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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CATALOG NUMBER: ENV-F02-LED-E1-SLL-7050-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



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CATALOG NUMBER: ENV-F02-LED-E1-SLL-7050-ULG

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8
2.5°	551.4	550.6	548.9	548.9	548.1	547.2	546.4	546.4	547.2	545.5	544.7
5°	560.8	559.9	557.4	556.5	555.7	554.0	554.0	553.1	553.1	551.4	550.6
7.5°	571.8	570.1	568.4	567.5	565.0	565.0	565.0	566.7	566.7	566.7	567.5
10°	582.8	578.6	576.9	576.9	576.0	576.9	579.4	581.1	583.6	585.3	587.0
12.5°	588.7	584.5	582.8	581.1	583.6	583.6	587.9	593.0	597.2	601.4	603.1
15°	604.0	596.3	593.0	588.7	588.7	588.7	593.0	597.2	602.3	607.4	608.2
17.5°	630.2	616.7	609.9	600.6	598.0	594.6	594.6	596.3	599.7	604.0	604.0
20°	656.5	642.9	631.9	621.8	615.0	605.7	598.9	593.0	590.4	592.1	592.1
22.5°	703.9	687.8	674.3	657.3	642.1	630.2	613.3	598.9	587.9	584.5	581.9
25°	789.5	766.6	743.7	718.3	701.4	679.4	655.6	631.9	609.9	594.6	581.1
27.5°	884.3	853.0	820.0	780.2	753.1	720.0	688.7	654.8	627.7	604.8	580.2
30°	975.0	916.5	869.1	819.1	775.1	730.2	691.2	651.4	621.8	594.6	565.0
32.5°	1019.9	950.4	886.0	823.4	770.0	718.3	676.0	631.1	599.7	569.2	533.7
35°	1051.2	968.2	891.1	818.3	758.1	701.4	653.1	606.5	569.2	534.5	493.8
37.5°	1090.2	986.0	895.4	814.0	743.7	679.4	625.1	572.6	530.3	493.0	450.6
40°	1141.0	1013.1	900.4	802.2	721.7	648.9	593.0	536.2	491.3	451.5	412.5
42.5°	1211.3	1050.4	906.4	787.8	697.1	620.9	563.3	508.2	460.8	418.5	379.5
45°	1280.8	1093.6	921.6	783.5	681.0	603.1	542.1	483.7	433.7	388.8	343.9
47.5°	1332.4	1125.8	937.7	786.1	671.7	584.5	519.3	454.0	398.1	349.0	303.3
50°	1365.5	1146.1	952.1	792.9	663.3	559.9	482.8	416.8	359.2	310.9	265.1
52.5°	1382.4	1152.0	957.2	790.3	641.2	521.0	443.9	380.3	325.3	277.8	237.2
55°	1387.5	1146.1	946.2	766.6	603.1	482.0	408.3	348.1	294.8	249.9	213.5
57.5°	1369.7	1120.7	907.2	718.3	552.3	444.7	370.2	311.7	260.9	221.1	188.1
60°	1312.1	1062.2	838.6	642.9	495.5	394.7	320.2	262.6	221.1	186.4	163.5
62.5°	1207.1	963.1	745.4	548.9	417.6	326.1	255.8	205.8	172.0	147.4	135.5
65°	1075.8	827.6	605.7	436.2	319.3	243.1	183.8	150.8	127.1	112.7	106.7
67.5°	879.3	647.2	453.2	310.9	220.2	165.2	124.5	106.7	96.6	92.3	90.6
70°	632.8	449.0	299.9	201.6	143.2	112.7	90.6	83.0	78.8	78.8	79.6
72.5°	416.8	277.0	183.0	128.8	101.6	84.7	73.7	70.3	70.3	72.0	72.8
75°	244.0	160.9	112.7	94.0	80.5	71.2	65.2	62.7	62.7	63.5	63.5
77.5°	144.0	99.1	80.5	71.2	65.2	61.0	57.6	54.2	53.4	53.4	55.9
80°	88.9	70.3	62.7	56.8	52.5	49.1	45.7	45.7	45.7	44.9	46.6
82.5°	57.6	50.0	49.1	47.4	42.4	39.0	35.6	35.6	37.3	35.6	36.4
85°	34.7	33.0	32.2	32.2	30.5	28.8	26.3	26.3	28.8	28.0	24.6
87.5°	9.3	8.5	11.0	10.2	11.9	11.9	11.9	13.6	17.8	22.9	16.9
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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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°

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REPORT NUMBER: P
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DISTRIBUTION (continued):											CANDELA DISTRIBUTION	
165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°	165°	165°
549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	112.5°	21.2
543.8	544.7	543.0	542.1	543.0	543.8	541.3	540.4	539.6	538.7	539.6	115°	25.0
549.8	549.8	547.2	545.5	545.5	544.7	542.1	541.3	537.9	537.0	539.6	117.5°	29.5
566.7	565.8	563.3	560.8	559.9	559.9	554.0	551.4	549.8	544.7	545.5	120°	34.8
586.2	586.2	587.0	583.6	579.4	578.6	571.8	567.5	565.0	560.8	559.1	122.5°	40.9
601.4	598.9	598.0	593.0	588.7	587.0	581.1	577.7	574.3	570.1	569.2	125°	47.8
606.5	601.4	598.0	592.1	587.0	583.6	578.6	575.2	570.9	568.4	566.7	127.5°	55.3
601.4	596.3	591.3	584.5	577.7	573.5	567.5	562.5	560.8	557.4	552.3	130°	63.0
590.4	584.5	578.6	570.1	562.5	556.5	549.8	545.5	540.4	535.4	525.2	132.5°	70.5
576.9	570.1	564.2	553.1	545.5	538.7	531.1	524.3	518.4	508.2	493.0	135°	77.9
567.5	553.1	543.0	527.7	519.3	510.8	507.4	500.6	492.2	474.4	455.7	137.5°	85.3
554.0	527.7	509.1	493.8	482.0	471.8	465.9	458.3	449.8	432.9	413.4	140°	92.5
531.1	500.6	482.8	466.7	453.2	442.2	431.2	416.8	405.7	386.3	372.7	142.5°	99.2
496.4	471.0	454.9	439.6	421.8	407.4	393.9	376.9	360.9	341.4	329.5	145°	104.9
457.4	434.5	414.2	398.1	379.5	365.1	350.7	331.2	316.0	298.2	287.2	147.5°	110.1
416.8	392.2	368.5	349.8	332.9	316.8	304.1	285.5	269.4	252.4	246.5	150°	115.1
380.3	352.4	327.0	308.3	289.7	273.6	260.1	240.6	227.0	215.2	208.4	152.5°	119.7
344.8	315.1	291.4	271.9	253.3	236.3	218.5	203.3	191.4	186.4	177.0	155°	123.7
304.9	274.5	251.6	230.4	215.2	197.4	183.8	173.7	166.0	161.8	155.9	157.5°	127.0
264.3	238.9	215.2	195.7	177.0	161.8	153.3	148.2	145.7	142.3	139.8	160°	130.3
231.3	209.2	185.5	166.9	149.9	138.9	134.7	132.1	130.4	128.8	127.9	162.5°	133.5
208.4	184.7	163.5	145.7	133.0	127.1	125.4	123.7	122.0	121.1	120.3	165°	136.0
190.6	166.9	147.4	132.1	122.8	121.1	120.3	118.6	116.9	116.9	115.2	167.5°	137.1
169.4	149.1	132.1	121.1	116.0	115.2	114.4	113.5	112.7	112.7	111.8	170°	137.4
147.4	132.1	121.1	113.5	111.8	110.1	108.4	106.7	105.9	107.6	108.4	172.5°	138.6
125.4	116.0	109.3	106.7	105.0	102.5	100.8	99.1	99.1	100.8	103.3	175°	140.5
104.2	100.8	99.1	97.4	96.6	95.7	94.0	92.3	92.3	92.3	94.0	177.5°	141.1
89.8	88.1	88.1	87.2	86.4	86.4	84.7	83.0	83.0	83.0	83.0	180°	140.8
78.8	79.6	79.6	79.6	78.8	77.9	77.1	75.4	74.5	72.8	71.2		
72.8	72.0	71.2	70.3	69.5	68.6	67.8	66.9	65.2	63.5	61.8		
65.2	63.5	61.0	60.1	59.3	57.6	57.6	56.8	55.1	52.5	50.8		
56.8	55.1	52.5	50.8	50.8	50.0	48.3	47.4	44.9	42.4	40.7		
45.7	43.2	40.7	39.8	39.0	38.1	37.3	36.4	35.6	33.0	32.2		
33.9	31.3	28.8	28.0	27.1	25.4	24.6	24.6	24.6	22.0	20.3		
22.0	18.6	16.1	13.6	13.6	12.7	11.0	9.3	7.6	5.1	3.4		
11.0	5.9	3.4	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		

'160199
 ENV-F02-LED-E1-SLL-7050-ULG

REPORT NUMBER: P160199
 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°	549.8	549.8
25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.5°	539.6	538.7
29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	5°	539.6	534.5
34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	7.5°	542.1	537.9
40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	10°	553.1	546.4
47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	12.5°	562.5	554.8
55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	15°	561.6	550.6
63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	17.5°	543.8	531.1
70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	20°	514.2	497.2
77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	22.5°	476.1	460.0
85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	25°	438.8	420.1
92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	27.5°	397.3	381.2
99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	30°	354.9	340.5
104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	32.5°	314.3	300.7
110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	35°	273.6	260.1
115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	37.5°	234.6	221.9
119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	40°	198.2	188.9
123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	42.5°	172.0	163.5
127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	45°	150.8	144.0
130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	47.5°	135.5	130.4
133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	50°	124.5	120.3
136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	52.5°	117.7	114.4
137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	55°	112.7	110.1
137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	57.5°	109.3	105.9
138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	60°	105.0	102.5
140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	62.5°	100.8	97.4
141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	65°	93.2	88.9
140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	67.5°	82.2	78.8
										70°	69.5	68.6
										72.5°	58.4	57.6
										75°	49.1	49.1
										77.5°	40.7	39.8
										80°	31.3	29.6
										82.5°	17.8	16.9
										85°	2.5	1.7
										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



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

LED-E1-SLL-7050-ULG

tinued):

CANDELA DISTRIBUTION (continued):

230°	235°	240°	245°	250°	255°	260°	265°	270°		220°	225°	230°
549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	549.8	112.5°	21.2	21.2	21.2
539.6	540.4	543.8	545.5	546.4	546.4	547.2	548.9	549.8	115°	25.0	25.0	25.0
534.5	536.2	537.9	540.4	541.3	541.3	542.1	544.7	547.2	117.5°	29.5	29.5	29.5
535.4	534.5	535.4	537.0	537.0	537.0	537.9	540.4	543.0	120°	34.8	34.8	34.8
542.1	537.0	533.7	532.8	532.0	532.0	533.7	537.0	539.6	122.5°	40.9	40.9	40.9
548.1	541.3	534.5	530.3	526.9	525.2	526.0	529.4	534.5	125°	47.8	47.8	47.8
543.0	532.8	525.2	519.3	514.2	512.5	513.3	515.9	521.8	127.5°	55.3	55.3	55.3
521.0	509.9	501.5	497.2	494.7	493.8	495.5	500.6	505.7	130°	63.0	63.0	63.0
489.6	483.7	476.1	473.5	468.4	468.4	467.6	467.6	470.1	132.5°	70.5	70.5	70.5
454.9	451.5	443.9	437.9	432.0	431.2	425.2	426.1	425.2	135°	77.9	77.9	77.9
415.1	410.8	401.5	393.0	386.3	382.0	375.3	374.4	371.9	137.5°	85.3	85.3	85.3
375.3	368.5	357.5	349.0	340.5	334.6	328.7	322.7	321.0	140°	92.5	92.5	92.5
334.6	328.7	316.0	308.3	296.5	288.0	282.9	274.5	270.2	142.5°	99.2	99.2	99.2
294.8	288.0	273.6	259.2	250.7	240.6	232.9	221.9	216.9	145°	104.9	104.9	104.9
250.7	246.5	232.1	216.9	209.2	195.7	186.4	177.0	175.3	147.5°	110.1	110.1	110.1
215.2	205.8	194.8	183.0	170.3	162.6	158.4	156.7	155.9	150°	115.1	115.1	115.1
182.1	176.2	166.0	157.6	151.6	149.9	149.9	149.9	150.8	152.5°	119.7	119.7	119.7
160.1	152.5	147.4	144.8	144.8	145.7	146.5	148.2	149.9	155°	123.7	123.7	123.7
141.5	138.9	138.9	138.1	139.8	141.5	144.0	146.5	148.2	157.5°	127.0	127.0	127.0
128.8	129.6	131.3	132.1	135.5	138.1	140.6	142.3	144.0	160°	130.3	130.3	130.3
118.6	119.4	121.1	123.7	126.2	129.6	132.1	133.8	134.7	162.5°	133.5	133.5	133.5
112.7	112.7	115.2	117.7	121.1	123.7	126.2	127.1	128.8	165°	136.0	136.0	136.0
107.6	108.4	111.0	112.7	114.4	116.0	117.7	118.6	122.0	167.5°	137.1	137.1	137.1
104.2	105.0	105.9	104.2	105.9	107.6	109.3	111.0	112.7	170°	137.4	137.4	137.4
100.0	98.3	96.6	96.6	97.4	99.1	102.5	105.0	107.6	172.5°	138.6	138.6	138.6
94.9	92.3	89.8	88.9	89.8	91.5	94.9	98.3	100.0	175°	140.5	140.5	140.5
86.4	85.6	84.7	83.9	84.7	86.4	89.8	92.3	94.9	177.5°	141.1	141.1	141.1
77.9	77.1	76.2	77.1	77.9	79.6	83.0	85.6	88.1	180°	140.8	140.8	140.8
67.8	67.8	67.8	68.6	69.5	72.8	75.4	78.8	79.6				
56.8	58.4	58.4	58.4	60.1	64.4	67.8	71.2	72.8				
48.3	47.4	49.1	49.1	50.8	54.2	56.8	59.3	60.1				
39.0	39.0	39.8	39.8	39.8	41.5	43.2	43.2	43.2				
28.8	28.0	27.1	25.4	25.4	26.3	26.3	26.3	28.0				
13.6	11.0	11.0	10.2	9.3	9.3	9.3	11.0	11.9				
0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7				
0.0	0.8	0.8	0.8	1.7	1.7	1.7	2.5	2.5				
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	0.1	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				



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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°	549.8	549.8	549.8	549.8
25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.5°	548.9	550.6	550.6	552.3
29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	5°	547.2	548.9	549.8	552.3
34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	7.5°	544.7	548.1	549.8	553.1
40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	10°	542.1	547.2	550.6	556.5
47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	12.5°	539.6	544.7	550.6	556.5
55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	15°	526.9	532.0	540.4	548.9
63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	17.5°	508.2	513.3	520.1	527.7
70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	20°	472.7	474.4	481.1	489.6
77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	22.5°	422.7	421.8	425.2	434.5
85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	25°	365.9	369.3	366.8	377.8
92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	27.5°	313.4	316.0	319.3	324.4
99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	30°	263.4	262.6	265.1	269.4
104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	32.5°	211.8	210.9	211.8	216.0
110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	35°	173.7	171.1	173.7	179.6
115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	37.5°	156.7	156.7	159.3	163.5
119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	40°	151.6	152.5	154.2	157.6
123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	42.5°	150.8	150.8	150.8	152.5
127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	45°	149.1	148.2	148.2	148.2
130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	47.5°	144.8	144.0	144.0	144.0
133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	50°	135.5	136.4	136.4	137.2
136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	52.5°	129.6	131.3	132.1	133.8
137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	55°	123.7	127.1	129.6	131.3
137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	57.5°	114.4	117.7	120.3	124.5
138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	60°	109.3	111.0	111.8	114.4
140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	62.5°	102.5	104.2	105.9	106.7
141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	65°	96.6	98.3	100.8	101.6
140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	67.5°	89.8	92.3	94.0	94.9
								70°	82.2	85.6	86.4	88.1
								72.5°	74.5	76.2	77.1	78.8
								75°	62.7	65.2	66.9	67.8
								77.5°	46.6	49.1	51.7	54.2
								80°	29.6	32.2	33.9	35.6
								82.5°	13.6	16.1	16.9	18.6
								85°	2.5	2.5	2.5	3.4
								87.5°	2.5	3.4	3.4	3.4
								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



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CANDELA DISTRIBUTION (continued):

295°	300°	305°	310°	315°	320°	325°		275°	280°	285°	290°	295°
549.8	549.8	549.8	549.8	549.8	549.8	549.8	112.5°	21.2	21.2	21.2	21.2	21.2
552.3	553.1	554.8	554.8	556.5	556.5	558.2	115°	25.0	25.0	25.0	25.0	25.0
554.0	555.7	558.2	559.1	562.5	564.2	565.8	117.5°	29.5	29.5	29.5	29.5	29.5
556.5	559.1	562.5	565.0	569.2	571.8	574.3	120°	34.8	34.8	34.8	34.8	34.8
560.8	565.0	570.9	573.5	576.9	582.8	587.0	122.5°	40.9	40.9	40.9	40.9	40.9
566.7	572.6	580.2	587.0	591.3	599.7	606.5	125°	47.8	47.8	47.8	47.8	47.8
558.2	570.9	580.2	593.0	604.0	618.4	630.2	127.5°	55.3	55.3	55.3	55.3	55.3
537.9	549.8	565.8	581.9	598.9	623.4	647.2	130°	63.0	63.0	63.0	63.0	63.0
500.6	514.2	532.8	553.1	577.7	609.9	643.8	132.5°	70.5	70.5	70.5	70.5	70.5
446.4	458.3	478.6	501.5	529.4	569.2	618.4	135°	77.9	77.9	77.9	77.9	77.9
388.8	404.9	424.4	449.0	480.3	527.7	580.2	137.5°	85.3	85.3	85.3	85.3	85.3
333.7	350.7	371.9	399.0	435.4	486.2	546.4	140°	92.5	92.5	92.5	92.5	92.5
277.0	296.5	316.0	349.8	386.3	439.6	506.6	142.5°	99.2	99.2	99.2	99.2	99.2
226.2	240.6	264.3	294.8	337.1	389.7	460.8	145°	104.9	104.9	104.9	104.9	104.9
185.5	197.4	220.2	249.9	288.0	339.7	401.5	147.5°	110.1	110.1	110.1	110.1	110.1
169.4	178.7	194.8	216.0	249.9	299.9	352.4	150°	115.1	115.1	115.1	115.1	115.1
163.5	172.0	183.8	202.5	228.7	266.8	311.7	152.5°	119.7	119.7	119.7	119.7	119.7
157.6	166.0	179.6	196.5	218.5	245.7	283.8	155°	123.7	123.7	123.7	123.7	123.7
152.5	161.8	176.2	194.8	215.2	238.9	268.5	157.5°	127.0	127.0	127.0	127.0	127.0
147.4	155.9	170.3	191.4	213.5	238.9	268.5	160°	130.3	130.3	130.3	130.3	130.3
139.8	148.2	163.5	185.5	210.1	238.0	271.9	162.5°	133.5	133.5	133.5	133.5	133.5
135.5	143.2	159.3	183.8	210.1	240.6	277.0	165°	136.0	136.0	136.0	136.0	136.0
133.0	139.8	158.4	186.4	216.9	252.4	292.2	167.5°	137.1	137.1	137.1	137.1	137.1
128.8	136.4	155.9	187.2	225.3	269.4	319.3	170°	137.4	137.4	137.4	137.4	137.4
116.9	126.2	147.4	181.3	222.8	277.0	343.1	172.5°	138.6	138.6	138.6	138.6	138.6
107.6	113.5	131.3	166.9	210.1	268.5	347.3	175°	140.5	140.5	140.5	140.5	140.5
103.3	106.7	118.6	147.4	189.7	252.4	334.6	177.5°	141.1	141.1	141.1	141.1	141.1
97.4	99.1	107.6	130.4	162.6	223.6	303.3	180°	140.8	140.8	140.8	140.8	140.8
89.8	90.6	97.4	111.8	135.5	177.9	253.3						
80.5	82.2	86.4	96.6	111.8	136.4	183.8						
69.5	70.3	72.0	78.8	88.1	105.0	130.4						
55.9	55.9	57.6	61.0	66.1	77.9	93.2						
36.4	39.0	40.7	46.6	48.3	56.8	66.1						
21.2	22.9	23.7	25.4	29.6	33.9	40.7						
3.4	5.1	5.1	6.8	8.5	9.3	11.0						
4.2	4.2	4.2	4.2	5.1	5.1	5.1						
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						
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						



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CATALOG NUMBER: ENV-F02-LED-E1-SLL-7050-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°	549.8	549.8	549.8	549.8	549.8	549.8
25.0	25.0	25.0	25.0	25.0	25.0	2.5°	559.1	558.2	559.9	561.6	560.8	565.8
29.5	29.5	29.5	29.5	29.5	29.5	5°	568.4	567.5	570.1	571.8	572.6	576.0
34.8	34.8	34.8	34.8	34.8	34.8	7.5°	577.7	578.6	582.8	583.6	586.2	590.4
40.9	40.9	40.9	40.9	40.9	40.9	10°	588.7	593.0	598.0	599.7	604.0	609.0
47.8	47.8	47.8	47.8	47.8	47.8	12.5°	610.7	616.7	623.4	628.5	637.0	647.2
55.3	55.3	55.3	55.3	55.3	55.3	15°	641.2	655.6	666.6	676.8	689.5	701.4
63.0	63.0	63.0	63.0	63.0	63.0	17.5°	668.3	696.3	720.0	741.2	761.5	780.2
70.5	70.5	70.5	70.5	70.5	70.5	20°	681.0	725.1	762.4	801.3	840.3	866.6
77.9	77.9	77.9	77.9	77.9	77.9	22.5°	669.2	731.0	788.6	851.3	910.6	964.0
85.3	85.3	85.3	85.3	85.3	85.3	25°	643.8	720.0	805.6	895.4	985.1	1066.5
92.5	92.5	92.5	92.5	92.5	92.5	27.5°	620.1	713.2	812.3	914.8	1021.6	1119.0
99.2	99.2	99.2	99.2	99.2	99.2	30°	588.7	690.4	798.8	904.7	1020.7	1135.1
104.9	104.9	104.9	104.9	104.9	104.9	32.5°	542.1	645.5	759.8	875.0	1003.8	1130.8
110.1	110.1	110.1	110.1	110.1	110.1	35°	487.1	590.4	707.3	828.4	971.6	1114.8
115.1	115.1	115.1	115.1	115.1	115.1	37.5°	426.9	528.6	650.6	780.2	928.4	1088.5
119.7	119.7	119.7	119.7	119.7	119.7	40°	376.1	466.7	593.0	733.6	889.4	1055.5
123.7	123.7	123.7	123.7	123.7	123.7	42.5°	335.4	417.6	537.0	679.4	846.2	1017.3
127.0	127.0	127.0	127.0	127.0	127.0	45°	311.7	380.3	489.6	631.1	801.3	977.5
130.3	130.3	130.3	130.3	130.3	130.3	47.5°	306.6	361.7	457.4	594.6	758.1	935.2
133.5	133.5	133.5	133.5	133.5	133.5	50°	311.7	362.5	443.0	571.8	725.1	897.1
136.0	136.0	136.0	136.0	136.0	136.0	52.5°	321.9	371.0	444.7	563.3	711.5	874.2
137.1	137.1	137.1	137.1	137.1	137.1	55°	338.0	393.9	462.5	570.9	709.8	864.9
137.4	137.4	137.4	137.4	137.4	137.4	57.5°	370.2	433.7	503.2	602.3	730.2	875.0
138.6	138.6	138.6	138.6	138.6	138.6	60°	410.8	487.1	570.9	676.0	779.3	908.9
140.5	140.5	140.5	140.5	140.5	140.5	62.5°	435.4	539.6	654.8	776.8	882.7	988.5
141.1	141.1	141.1	141.1	141.1	141.1	65°	432.9	561.6	724.2	897.9	1030.0	1131.7
140.8	140.8	140.8	140.8	140.8	140.8	67.5°	404.9	545.5	707.3	904.7	1103.7	1246.9
						70°	338.0	469.3	658.2	896.2	1141.0	1324.8
						72.5°	269.4	385.4	565.8	790.3	1031.7	1219.8
						75°	179.6	271.9	417.6	606.5	781.9	945.3
						77.5°	122.0	172.0	260.9	398.1	543.0	676.8
						80°	81.3	107.6	149.1	219.4	304.1	389.7
						82.5°	47.4	59.3	76.2	108.4	160.9	227.0
						85°	12.7	16.1	21.2	28.0	50.0	88.1
						87.5°	5.1	4.2	4.2	4.2	4.2	4.2
						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: P160199

CATALOG NUMBER: ENV-F02-LED-E1-SLL-7050-ULG

CANDELA DISTRIBUTION (continued):

360°		330°	335°	340°	345°	350°	355°	360°
549.8	112.5°	21.2	21.2	21.2	21.2	21.2	21.2	21.2
561.6	115°	25.0	25.0	25.0	25.0	25.0	25.0	25.0
575.2	117.5°	29.5	29.5	29.5	29.5	29.5	29.5	29.5
591.3	120°	34.8	34.8	34.8	34.8	34.8	34.8	34.8
615.8	122.5°	40.9	40.9	40.9	40.9	40.9	40.9	40.9
651.4	125°	47.8	47.8	47.8	47.8	47.8	47.8	47.8
714.9	127.5°	55.3	55.3	55.3	55.3	55.3	55.3	55.3
797.1	130°	63.0	63.0	63.0	63.0	63.0	63.0	63.0
897.9	132.5°	70.5	70.5	70.5	70.5	70.5	70.5	70.5
1011.4	135°	77.9	77.9	77.9	77.9	77.9	77.9	77.9
1141.0	137.5°	85.3	85.3	85.3	85.3	85.3	85.3	85.3
1220.6	140°	92.5	92.5	92.5	92.5	92.5	92.5	92.5
1237.6	142.5°	99.2	99.2	99.2	99.2	99.2	99.2	99.2
1249.4	145°	104.9	104.9	104.9	104.9	104.9	104.9	104.9
1252.8	147.5°	110.1	110.1	110.1	110.1	110.1	110.1	110.1
1247.7	150°	115.1	115.1	115.1	115.1	115.1	115.1	115.1
1227.4	152.5°	119.7	119.7	119.7	119.7	119.7	119.7	119.7
1201.2	155°	123.7	123.7	123.7	123.7	123.7	123.7	123.7
1168.1	157.5°	127.0	127.0	127.0	127.0	127.0	127.0	127.0
1127.5	160°	130.3	130.3	130.3	130.3	130.3	130.3	130.3
1089.3	162.5°	133.5	133.5	133.5	133.5	133.5	133.5	133.5
1059.7	165°	136.0	136.0	136.0	136.0	136.0	136.0	136.0
1041.1	167.5°	137.1	137.1	137.1	137.1	137.1	137.1	137.1
1043.6	170°	137.4	137.4	137.4	137.4	137.4	137.4	137.4
1069.9	172.5°	138.6	138.6	138.6	138.6	138.6	138.6	138.6
1135.9	175°	140.5	140.5	140.5	140.5	140.5	140.5	140.5
1261.3	177.5°	141.1	141.1	141.1	141.1	141.1	141.1	141.1
1384.1	180°	140.8	140.8	140.8	140.8	140.8	140.8	140.8
1502.7								
1424.8								
1087.6								
782.7								
454.0								
283.8								
122.8								
4.2								
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



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