

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: P160201

Luminaire Tested: **ENV-F02-LED-E1-SLL-8030-ULG**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P160201
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-8030-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(2) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3708 lumens
Efficiency: N/A
Efficacy: 64.7 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 - G1

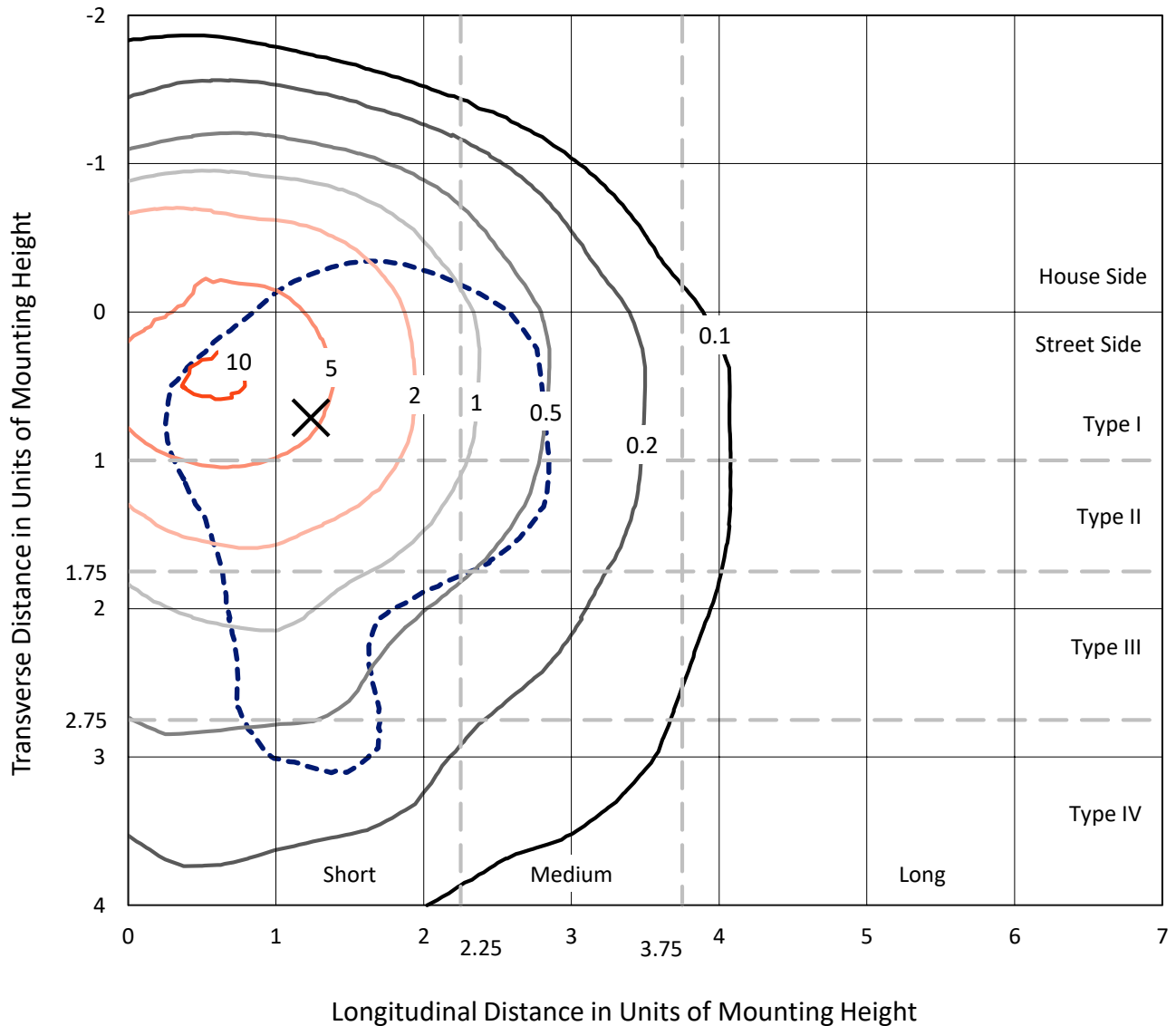
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P160201
 CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

Iso-Footcandle Lines of Horizontal Illumination

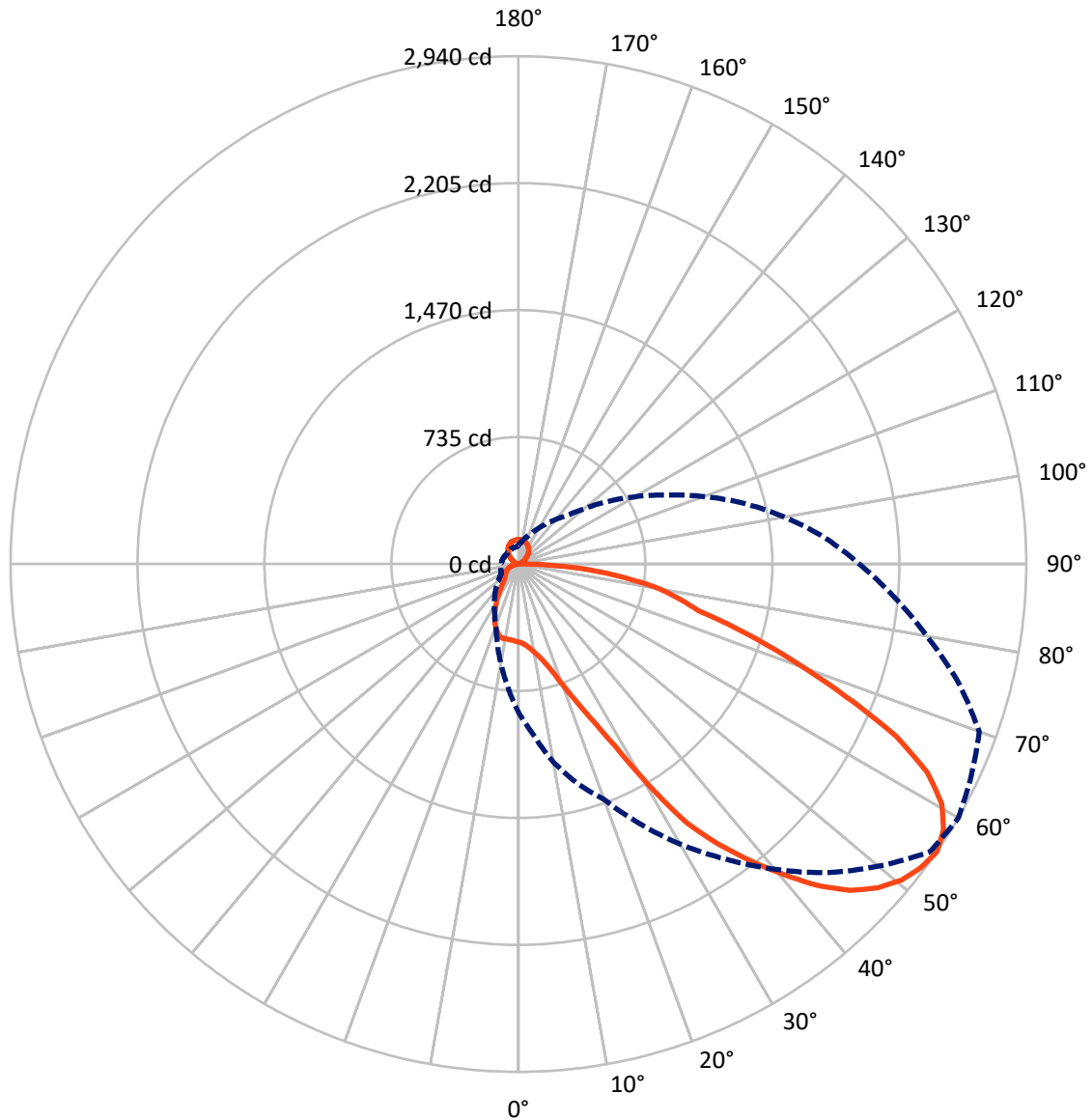
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P160201
CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

Luminous Intensity Polar Plot



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

REPORT NUMBER: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

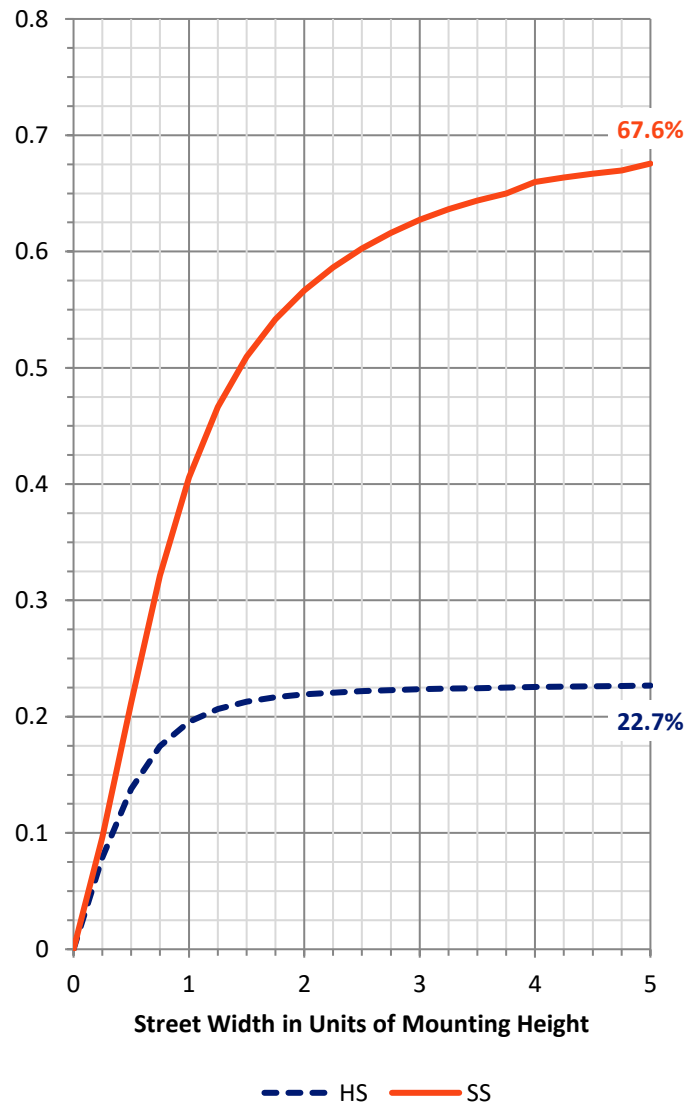
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	848.0	157.7	1005.7
	% Fixture	22.9	4.3	27.1
Street Side	Lumens	2544.6	157.7	2702.3
	% Fixture	68.6	4.3	72.9
Total	Lumens	3392.5	315.5	3708.0
	% Fixture	91.5	8.5	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.5	1.2
10°-20°	146.4	3.9
20°-30°	284.1	7.7
30°-40°	446.5	12.0
40°-50°	596.8	16.1
50°-60°	700.2	18.9
60°-70°	664.3	17.9
70°-80°	401.0	10.8
80°-90°	108.7	2.9
90°-100°	1.3	0.0
100°-110°	12.3	0.3
110°-120°	25.2	0.7
120°-130°	43.0	1.2
130°-140°	60.0	1.6
140°-150°	65.4	1.8
150°-160°	56.9	1.5
160°-170°	38.2	1.0
170°-180°	13.3	0.4
0°-90°	3392.5	91.5
0°-180°	3708.0	100.0



REPORT NUMBER: P160201

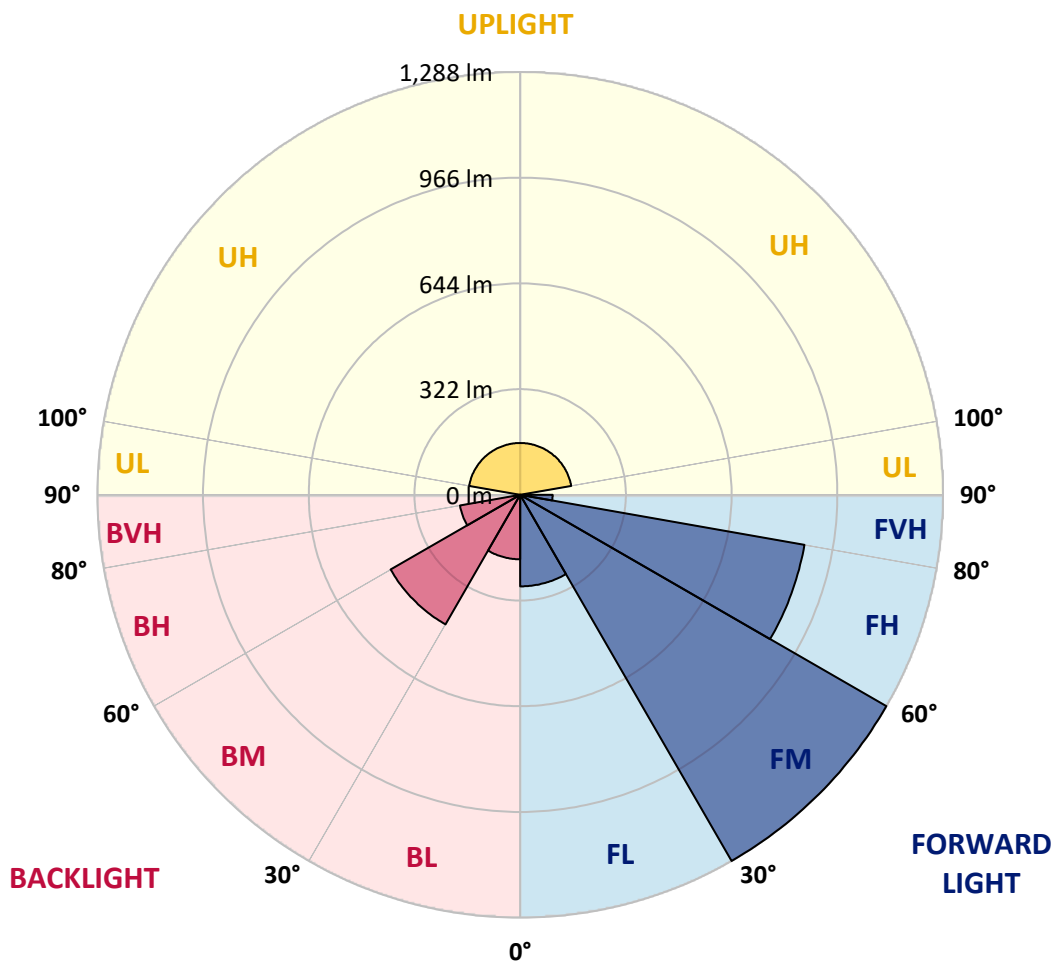
CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	278.8	7.5			
FM	(30°-60°)	1287.9	34.7			
FH	(60°-80°)	879.1	23.7			G1/1800
FVH	(80°-90°)	98.8	2.7			G1/100
BL	(0°-30°)	196.2	5.3	B1/500		
BM	(30°-60°)	455.7	12.3	B1/1000		
BH	(60°-80°)	186.2	5.0	B1/500		G1/500
BVH	(80°-90°)	9.9	0.3			G0/10
UL	(90°-100°)	1.3	0.0		U1/10	
UH	(100°-180°)	157.7	4.3		U3/500	

BUG Rating: B1-U3-G1

Type IV Short





REPORT NUMBER: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2
2.5°	461.9	461.2	461.9	461.2	461.2	461.2	461.9	461.2	459.1	459.1	459.8
5°	473.1	473.1	473.1	473.8	473.8	474.5	475.9	474.5	473.8	477.3	474.5
7.5°	486.3	486.3	488.4	489.1	491.2	491.2	494.0	493.3	496.1	498.2	496.1
10°	506.5	504.4	509.3	509.3	514.9	515.6	518.4	519.1	523.9	528.1	524.6
12.5°	535.8	537.2	545.5	546.9	553.9	553.9	553.9	556.7	560.2	563.0	559.5
15°	588.0	590.8	602.0	602.7	614.5	609.6	615.2	615.9	615.2	617.3	612.4
17.5°	655.6	663.3	679.3	682.8	688.4	698.1	698.1	696.7	700.2	702.3	689.1
20°	738.5	751.8	769.9	776.9	792.2	808.9	808.2	805.4	806.1	800.5	785.9
22.5°	831.9	861.9	891.8	903.0	914.1	935.0	948.3	944.1	947.6	935.0	921.8
25°	938.5	987.3	1032.6	1049.3	1089.7	1126.6	1132.2	1129.4	1114.1	1102.2	1089.0
27.5°	1004.0	1068.1	1130.1	1172.6	1241.6	1300.8	1312.6	1332.2	1337.0	1346.8	1314.7
30°	1017.9	1098.1	1175.4	1240.2	1323.1	1393.5	1471.5	1529.3	1568.4	1599.0	1578.1
32.5°	1027.7	1118.3	1204.0	1285.5	1353.8	1456.2	1554.4	1640.1	1754.4	1796.2	1835.9
35°	1030.5	1134.3	1231.1	1323.1	1411.6	1513.3	1618.5	1712.6	1867.3	1991.3	2076.3
37.5°	1026.3	1146.1	1259.7	1371.9	1477.1	1589.3	1700.0	1792.0	1942.5	2102.7	2217.0
40°	1009.6	1141.9	1271.5	1397.7	1525.2	1663.8	1790.6	1890.2	2031.0	2220.5	2372.4
42.5°	988.0	1124.5	1267.4	1406.0	1549.5	1712.6	1865.9	1987.1	2142.5	2334.1	2506.9
45°	960.8	1102.9	1250.6	1397.0	1551.6	1732.8	1907.7	2063.0	2228.2	2441.4	2607.9
47.5°	927.4	1072.3	1228.3	1376.7	1537.7	1733.5	1927.2	2104.8	2286.0	2515.2	2695.0
50°	896.0	1040.2	1203.3	1349.6	1511.2	1716.1	1925.1	2123.6	2321.5	2558.4	2747.2
52.5°	871.6	1013.1	1181.7	1328.0	1480.6	1687.5	1904.2	2114.6	2327.1	2564.0	2757.0
55°	856.3	990.8	1163.5	1313.3	1449.9	1656.8	1872.1	2083.2	2306.2	2527.1	2720.8
57.5°	858.4	986.6	1153.1	1310.6	1427.6	1630.4	1835.9	2038.6	2241.4	2451.8	2651.8
60°	880.0	995.6	1147.5	1291.1	1441.5	1633.1	1819.9	1989.2	2151.5	2345.2	2531.9
62.5°	934.3	1034.0	1156.6	1304.3	1470.1	1659.6	1809.4	1912.5	2009.4	2203.1	2393.3
65°	1037.4	1123.8	1222.1	1351.7	1514.0	1696.6	1766.9	1787.8	1849.8	2034.5	2223.3
67.5°	1138.5	1240.9	1296.6	1379.5	1531.4	1707.0	1716.1	1626.2	1624.8	1804.5	1941.1
70°	1236.0	1384.4	1406.7	1452.7	1556.5	1695.9	1663.1	1489.6	1410.9	1435.3	1514.7
72.5°	1171.9	1394.2	1410.2	1424.1	1486.1	1615.7	1578.1	1344.0	1167.7	1136.4	1226.3
75°	894.6	1176.8	1214.4	1190.0	1224.2	1323.1	1316.1	1132.9	1073.0	1093.9	1128.7
77.5°	643.8	907.1	988.7	909.2	900.2	964.3	946.2	961.5	1075.1	1105.7	1097.4
80°	373.5	576.2	692.6	616.6	589.4	629.8	700.9	808.2	932.2	998.4	1011.0
82.5°	233.4	340.0	462.6	433.4	396.4	467.5	577.6	652.8	714.2	774.8	778.3
85°	101.0	145.6	225.7	236.9	293.3	356.7	444.5	466.1	533.0	579.7	539.3
87.5°	3.5	3.5	54.3	80.8	143.5	257.8	349.1	312.1	316.3	277.3	258.5
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: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-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



REPORT NUMBER: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2
2.5°	459.8	458.5	459.1	457.1	457.1	457.8	457.8	455.7	455.7	455.7	455.0
5°	475.9	474.5	473.8	472.4	470.3	471.7	469.6	468.2	466.1	465.4	463.3
7.5°	496.8	494.7	494.0	490.5	487.7	486.3	484.9	480.1	478.0	476.6	473.8
10°	521.2	521.2	519.8	512.8	510.7	505.8	501.0	495.4	491.2	484.9	481.4
12.5°	552.5	554.6	549.7	543.5	538.6	528.8	519.8	512.1	503.7	494.7	489.1
15°	599.2	600.6	590.8	585.3	577.6	566.4	552.5	540.0	527.4	514.9	504.4
17.5°	668.2	666.1	652.1	646.6	633.3	614.5	595.7	579.0	560.2	542.8	529.5
20°	767.8	759.4	723.2	721.1	704.4	677.9	650.8	626.4	601.3	579.0	556.7
22.5°	889.0	870.2	843.7	813.8	781.7	752.5	720.4	686.3	654.9	627.1	602.7
25°	1047.2	1005.4	981.0	940.6	912.7	861.2	816.6	789.4	746.9	714.9	683.5
27.5°	1258.3	1192.1	1156.6	1112.7	1050.7	1014.4	953.8	901.6	856.3	803.3	768.5
30°	1532.1	1483.3	1394.2	1332.9	1247.2	1159.4	1084.8	1016.5	957.3	893.9	842.4
32.5°	1813.6	1782.9	1678.4	1564.2	1433.9	1305.0	1195.6	1111.3	1034.0	962.9	903.7
35°	2052.6	1989.2	1886.8	1766.9	1599.7	1450.6	1312.0	1204.7	1108.5	1020.0	945.5
37.5°	2206.6	2178.7	2074.9	1939.0	1755.8	1594.8	1451.3	1324.5	1204.7	1089.0	992.8
40°	2378.0	2361.9	2274.8	2108.3	1939.0	1741.8	1578.1	1444.3	1315.4	1177.5	1051.4
42.5°	2531.2	2545.9	2456.7	2310.4	2114.6	1892.3	1718.1	1569.7	1422.7	1282.0	1136.4
45°	2668.5	2695.0	2629.5	2493.6	2279.0	2035.9	1854.0	1692.4	1532.1	1378.1	1215.8
47.5°	2771.6	2800.2	2745.1	2638.5	2414.9	2155.7	1973.2	1792.0	1624.1	1447.1	1275.0
50°	2858.0	2874.7	2832.9	2739.6	2525.0	2272.1	2068.6	1878.4	1692.4	1501.5	1313.3
52.5°	2908.2	2917.9	2876.8	2809.2	2608.6	2358.4	2143.2	1938.3	1740.4	1539.1	1338.4
55°	2905.4	2939.5	2892.8	2838.5	2634.4	2399.6	2182.2	1972.5	1776.0	1563.5	1353.1
57.5°	2851.0	2901.2	2879.6	2812.0	2612.8	2396.8	2187.7	1992.0	1799.0	1571.8	1346.1
60°	2746.5	2815.5	2830.8	2734.7	2526.4	2320.1	2134.8	1969.7	1777.4	1534.9	1303.6
62.5°	2598.8	2654.6	2694.3	2563.3	2357.1	2161.3	2016.4	1886.1	1690.3	1425.5	1215.8
65°	2375.9	2401.6	2412.8	2291.6	2089.5	1959.2	1864.5	1752.3	1534.9	1270.1	1079.9
67.5°	2044.2	2040.7	2051.9	1995.5	1846.3	1778.1	1715.4	1593.4	1339.8	1092.5	903.0
70°	1625.5	1697.9	1759.3	1699.3	1606.7	1538.4	1486.1	1341.9	1070.2	843.7	686.3
72.5°	1323.1	1382.3	1415.8	1363.5	1273.6	1224.9	1155.9	1012.4	753.2	599.9	471.0
75°	1117.6	1074.4	1094.6	1061.8	978.9	908.5	868.8	710.7	494.0	397.1	293.3
77.5°	1009.6	940.6	896.7	826.3	731.6	651.4	611.0	441.7	311.4	234.1	169.3
80°	892.5	797.1	682.8	569.2	487.7	438.2	410.4	252.2	171.4	135.9	97.5
82.5°	678.6	588.7	478.0	395.7	325.4	283.6	251.5	144.2	96.8	71.8	55.7
85°	434.8	400.6	365.8	325.4	272.4	218.8	168.6	105.2	71.1	41.1	30.7
87.5°	209.7	174.2	172.8	159.6	151.9	119.8	71.1	24.4	15.3	13.2	8.4
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: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-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: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2
2.5°	453.6	452.9	451.5	451.5	450.8	450.1	449.4	449.4	450.1	448.7	448.0
5°	461.2	460.5	458.5	457.8	457.1	455.7	455.7	455.0	455.0	453.6	452.9
7.5°	470.3	468.9	467.5	466.8	464.7	464.7	464.7	466.1	466.1	466.1	466.8
10°	479.4	475.9	474.5	474.5	473.8	474.5	476.6	478.0	480.1	481.4	482.8
12.5°	484.2	480.7	479.4	478.0	480.1	480.1	483.5	487.7	491.2	494.7	496.1
15°	496.8	490.5	487.7	484.2	484.2	484.2	487.7	491.2	495.4	499.6	500.3
17.5°	518.4	507.2	501.6	494.0	491.9	489.1	489.1	490.5	493.3	496.8	496.8
20°	540.0	528.8	519.8	511.4	505.8	498.2	492.6	487.7	485.6	487.0	487.0
22.5°	579.0	565.7	554.6	540.7	528.1	518.4	504.4	492.6	483.5	480.7	478.7
25°	649.4	630.5	611.7	590.8	576.9	558.8	539.3	519.8	501.6	489.1	478.0
27.5°	727.4	701.6	674.4	641.7	619.4	592.2	566.4	538.6	516.3	497.5	477.3
30°	801.9	753.9	714.9	673.7	637.5	600.6	568.5	535.8	511.4	489.1	464.7
32.5°	838.9	781.7	728.8	677.2	633.3	590.8	556.0	519.1	493.3	468.2	438.9
35°	864.6	796.4	733.0	673.0	623.6	576.9	537.2	498.9	468.2	439.6	406.2
37.5°	896.7	811.0	736.4	669.6	611.7	558.8	514.2	471.0	436.2	405.5	370.7
40°	938.5	833.3	740.6	659.8	593.6	533.7	487.7	441.0	404.1	371.4	339.3
42.5°	996.3	864.0	745.5	648.0	573.4	510.7	463.3	418.0	379.0	344.2	312.1
45°	1053.5	899.5	758.0	644.5	560.2	496.1	445.9	397.8	356.7	319.8	282.9
47.5°	1096.0	926.0	771.3	646.6	552.5	480.7	427.1	373.5	327.5	287.1	249.4
50°	1123.1	942.7	783.1	652.1	545.5	460.5	397.1	342.8	295.4	255.7	218.1
52.5°	1137.1	947.6	787.3	650.1	527.4	428.5	365.1	312.8	267.5	228.5	195.1
55°	1141.3	942.7	778.3	630.5	496.1	396.4	335.8	286.4	242.5	205.5	175.6
57.5°	1126.6	921.8	746.2	590.8	454.3	365.8	304.5	256.4	214.6	181.8	154.7
60°	1079.2	873.7	689.8	528.8	407.6	324.7	263.4	216.0	181.8	153.3	134.5
62.5°	992.8	792.2	613.1	451.5	343.5	268.2	210.4	169.3	141.4	121.2	111.5
65°	884.9	680.7	498.2	358.8	262.7	200.0	151.2	124.0	104.5	92.7	87.8
67.5°	723.2	532.3	372.8	255.7	181.2	135.9	102.4	87.8	79.4	75.9	74.6
70°	520.5	369.3	246.6	165.8	117.7	92.7	74.6	68.3	64.8	64.8	65.5
72.5°	342.8	227.8	150.5	105.9	83.6	69.7	60.6	57.8	57.8	59.2	59.9
75°	200.7	132.4	92.7	77.3	66.2	58.5	53.6	51.6	51.6	52.3	52.3
77.5°	118.4	81.5	66.2	58.5	53.6	50.2	47.4	44.6	43.9	43.9	46.0
80°	73.2	57.8	51.6	46.7	43.2	40.4	37.6	37.6	37.6	36.9	38.3
82.5°	47.4	41.1	40.4	39.0	34.8	32.0	29.3	29.3	30.7	29.3	30.0
85°	28.6	27.2	26.5	26.5	25.1	23.7	21.6	21.6	23.7	23.0	20.2
87.5°	7.7	7.0	9.1	8.4	9.8	9.8	9.8	11.1	14.6	18.8	13.9
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



REPORT NUMBER: P160201
 CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-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: P160201
 NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°	165°	
452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	112.5°	21.2
447.3	448.0	446.6	445.9	446.6	447.3	445.2	444.5	443.8	443.1	443.8	115°	25.0
452.2	452.2	450.1	448.7	448.7	448.0	445.9	445.2	442.4	441.7	443.8	117.5°	29.5
466.1	465.4	463.3	461.2	460.5	460.5	455.7	453.6	452.2	448.0	448.7	120°	34.8
482.1	482.1	482.8	480.1	476.6	475.9	470.3	466.8	464.7	461.2	459.8	122.5°	40.9
494.7	492.6	491.9	487.7	484.2	482.8	478.0	475.2	472.4	468.9	468.2	125°	47.8
498.9	494.7	491.9	487.0	482.8	480.1	475.9	473.1	469.6	467.5	466.1	127.5°	55.3
494.7	490.5	486.3	480.7	475.2	471.7	466.8	462.6	461.2	458.5	454.3	130°	63.0
485.6	480.7	475.9	468.9	462.6	457.8	452.2	448.7	444.5	440.3	432.0	132.5°	70.5
474.5	468.9	464.0	455.0	448.7	443.1	436.9	431.3	426.4	418.0	405.5	135°	77.9
466.8	455.0	446.6	434.1	427.1	420.1	417.3	411.8	404.8	390.2	374.8	137.5°	85.3
455.7	434.1	418.7	406.2	396.4	388.1	383.2	376.9	370.0	356.0	340.0	140°	92.5
436.9	411.8	397.1	383.9	372.8	363.7	354.6	342.8	333.7	317.7	306.6	142.5°	99.2
408.3	387.4	374.1	361.6	347.0	335.1	324.0	310.0	296.8	280.8	271.0	145°	104.9
376.2	357.4	340.7	327.5	312.1	300.3	288.4	272.4	259.9	245.3	236.2	147.5°	110.1
342.8	322.6	303.1	287.8	273.8	260.6	250.1	234.8	221.6	207.6	202.8	150°	115.1
312.8	289.8	268.9	253.6	238.3	225.0	213.9	197.9	186.7	177.0	171.4	152.5°	119.7
283.6	259.2	239.7	223.7	208.3	194.4	179.8	167.2	157.5	153.3	145.6	155°	123.7
250.8	225.7	206.9	189.5	177.0	162.3	151.2	142.8	136.6	133.1	128.2	157.5°	127.0
217.4	196.5	177.0	160.9	145.6	133.1	126.1	121.9	119.8	117.1	115.0	160°	130.3
190.2	172.1	152.6	137.3	123.3	114.3	110.8	108.7	107.3	105.9	105.2	162.5°	133.5
171.4	151.9	134.5	119.8	109.4	104.5	103.1	101.7	100.3	99.6	98.9	165°	136.0
156.8	137.3	121.2	108.7	101.0	99.6	98.9	97.5	96.1	96.1	94.8	167.5°	137.1
139.3	122.6	108.7	99.6	95.5	94.8	94.1	93.4	92.7	92.7	92.0	170°	137.4
121.2	108.7	99.6	93.4	92.0	90.6	89.2	87.8	87.1	88.5	89.2	172.5°	138.6
103.1	95.5	89.9	87.8	86.4	84.3	82.9	81.5	81.5	82.9	85.0	175°	140.5
85.7	82.9	81.5	80.1	79.4	78.7	77.3	75.9	75.9	75.9	77.3	177.5°	141.1
73.9	72.5	72.5	71.8	71.1	71.1	69.7	68.3	68.3	68.3	68.3	180°	140.8
64.8	65.5	65.5	65.5	64.8	64.1	63.4	62.0	61.3	59.9	58.5		
59.9	59.2	58.5	57.8	57.1	56.4	55.7	55.0	53.6	52.3	50.9		
53.6	52.3	50.2	49.5	48.8	47.4	47.4	46.7	45.3	43.2	41.8		
46.7	45.3	43.2	41.8	41.8	41.1	39.7	39.0	36.9	34.8	33.4		
37.6	35.5	33.4	32.7	32.0	31.4	30.7	30.0	29.3	27.2	26.5		
27.9	25.8	23.7	23.0	22.3	20.9	20.2	20.2	20.2	18.1	16.7		
18.1	15.3	13.2	11.1	11.1	10.5	9.1	7.7	6.3	4.2	2.8		
9.1	4.9	2.8	0.7	0.7	0.7	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		

'160201
 ENV-F02-LED-E1-SLL-8030-ULG

REPORT NUMBER: P160201
 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°	452.2	452.2
25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.5°	443.8	443.1
29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	5°	443.8	439.6
34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	7.5°	445.9	442.4
40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	10°	455.0	449.4
47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	12.5°	462.6	456.4
55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	15°	461.9	452.9
63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	17.5°	447.3	436.9
70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	20°	422.9	409.0
77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	22.5°	391.6	378.3
85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	25°	360.9	345.6
92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	27.5°	326.8	313.5
99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	30°	291.9	280.1
104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	32.5°	258.5	247.3
110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	35°	225.0	213.9
115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	37.5°	193.0	182.5
119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	40°	163.0	155.4
123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	42.5°	141.4	134.5
127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	45°	124.0	118.4
130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	47.5°	111.5	107.3
133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	50°	102.4	98.9
136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	52.5°	96.8	94.1
137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	55°	92.7	90.6
137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	57.5°	89.9	87.1
138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	60°	86.4	84.3
140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	62.5°	82.9	80.1
141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	65°	76.6	73.2
140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	67.5°	67.6	64.8
										70°	57.1	56.4
										72.5°	48.1	47.4
										75°	40.4	40.4
										77.5°	33.4	32.7
										80°	25.8	24.4
										82.5°	14.6	13.9
										85°	2.1	1.4
										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: P160201

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

LED-E1-SLL-8030-ULG

tinued):

CANDELA DISTRIBUTION (continued):

230°	235°	240°	245°	250°	255°	260°	265°	270°		220°	225°	230°
452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	452.2	112.5°	21.2	21.2	21.2
443.8	444.5	447.3	448.7	449.4	449.4	450.1	451.5	452.2	115°	25.0	25.0	25.0
439.6	441.0	442.4	444.5	445.2	445.2	445.9	448.0	450.1	117.5°	29.5	29.5	29.5
440.3	439.6	440.3	441.7	441.7	441.7	442.4	444.5	446.6	120°	34.8	34.8	34.8
445.9	441.7	438.9	438.2	437.5	437.5	438.9	441.7	443.8	122.5°	40.9	40.9	40.9
450.8	445.2	439.6	436.2	433.4	432.0	432.7	435.5	439.6	125°	47.8	47.8	47.8
446.6	438.2	432.0	427.1	422.9	421.5	422.2	424.3	429.2	127.5°	55.3	55.3	55.3
428.5	419.4	412.5	409.0	406.9	406.2	407.6	411.8	416.0	130°	63.0	63.0	63.0
402.7	397.8	391.6	389.5	385.3	385.3	384.6	384.6	386.7	132.5°	70.5	70.5	70.5
374.1	371.4	365.1	360.2	355.3	354.6	349.8	350.5	349.8	135°	77.9	77.9	77.9
341.4	337.9	330.3	323.3	317.7	314.2	308.7	308.0	305.9	137.5°	85.3	85.3	85.3
308.7	303.1	294.0	287.1	280.1	275.2	270.3	265.5	264.1	140°	92.5	92.5	92.5
275.2	270.3	259.9	253.6	243.9	236.9	232.7	225.7	222.3	142.5°	99.2	99.2	99.2
242.5	236.9	225.0	213.2	206.2	197.9	191.6	182.5	178.4	145°	104.9	104.9	104.9
206.2	202.8	190.9	178.4	172.1	160.9	153.3	145.6	144.2	147.5°	110.1	110.1	110.1
177.0	169.3	160.2	150.5	140.0	133.8	130.3	128.9	128.2	150°	115.1	115.1	115.1
149.8	144.9	136.6	129.6	124.7	123.3	123.3	123.3	124.0	152.5°	119.7	119.7	119.7
131.7	125.4	121.2	119.1	119.1	119.8	120.5	121.9	123.3	155°	123.7	123.7	123.7
116.4	114.3	114.3	113.6	115.0	116.4	118.4	120.5	121.9	157.5°	127.0	127.0	127.0
105.9	106.6	108.0	108.7	111.5	113.6	115.7	117.1	118.4	160°	130.3	130.3	130.3
97.5	98.2	99.6	101.7	103.8	106.6	108.7	110.1	110.8	162.5°	133.5	133.5	133.5
92.7	92.7	94.8	96.8	99.6	101.7	103.8	104.5	105.9	165°	136.0	136.0	136.0
88.5	89.2	91.3	92.7	94.1	95.5	96.8	97.5	100.3	167.5°	137.1	137.1	137.1
85.7	86.4	87.1	85.7	87.1	88.5	89.9	91.3	92.7	170°	137.4	137.4	137.4
82.2	80.8	79.4	79.4	80.1	81.5	84.3	86.4	88.5	172.5°	138.6	138.6	138.6
78.0	75.9	73.9	73.2	73.9	75.2	78.0	80.8	82.2	175°	140.5	140.5	140.5
71.1	70.4	69.7	69.0	69.7	71.1	73.9	75.9	78.0	177.5°	141.1	141.1	141.1
64.1	63.4	62.7	63.4	64.1	65.5	68.3	70.4	72.5	180°	140.8	140.8	140.8
55.7	55.7	55.7	56.4	57.1	59.9	62.0	64.8	65.5				
46.7	48.1	48.1	48.1	49.5	53.0	55.7	58.5	59.9				
39.7	39.0	40.4	40.4	41.8	44.6	46.7	48.8	49.5				
32.0	32.0	32.7	32.7	32.7	34.1	35.5	35.5	35.5				
23.7	23.0	22.3	20.9	20.9	21.6	21.6	21.6	23.0				
11.1	9.1	9.1	8.4	7.7	7.7	7.7	9.1	9.8				
0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4	1.4				
0.0	0.7	0.7	0.7	1.4	1.4	1.4	2.1	2.1				
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				
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: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULC

.-8030-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°	452.2	452.2	452.2	452.2
25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.5°	451.5	452.9	452.9	454.3
29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	5°	450.1	451.5	452.2	454.3
34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	7.5°	448.0	450.8	452.2	455.0
40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	10°	445.9	450.1	452.9	457.8
47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	12.5°	443.8	448.0	452.9	457.8
55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	15°	433.4	437.5	444.5	451.5
63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	17.5°	418.0	422.2	427.8	434.1
70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	20°	388.8	390.2	395.7	402.7
77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	22.5°	347.7	347.0	349.8	357.4
85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	25°	301.0	303.8	301.7	310.7
92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	27.5°	257.8	259.9	262.7	266.8
99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	30°	216.7	216.0	218.1	221.6
104.9	104.9	104.9	104.9	104.9	104.9	104.9	104.9	32.5°	174.2	173.5	174.2	177.7
110.1	110.1	110.1	110.1	110.1	110.1	110.1	110.1	35°	142.8	140.7	142.8	147.7
115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1	37.5°	128.9	128.9	131.0	134.5
119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	40°	124.7	125.4	126.8	129.6
123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	42.5°	124.0	124.0	124.0	125.4
127.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	45°	122.6	121.9	121.9	121.9
130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	47.5°	119.1	118.4	118.4	118.4
133.5	133.5	133.5	133.5	133.5	133.5	133.5	133.5	50°	111.5	112.2	112.2	112.9
136.0	136.0	136.0	136.0	136.0	136.0	136.0	136.0	52.5°	106.6	108.0	108.7	110.1
137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	55°	101.7	104.5	106.6	108.0
137.4	137.4	137.4	137.4	137.4	137.4	137.4	137.4	57.5°	94.1	96.8	98.9	102.4
138.6	138.6	138.6	138.6	138.6	138.6	138.6	138.6	60°	89.9	91.3	92.0	94.1
140.5	140.5	140.5	140.5	140.5	140.5	140.5	140.5	62.5°	84.3	85.7	87.1	87.8
141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	65°	79.4	80.8	82.9	83.6
140.8	140.8	140.8	140.8	140.8	140.8	140.8	140.8	67.5°	73.9	75.9	77.3	78.0
								70°	67.6	70.4	71.1	72.5
								72.5°	61.3	62.7	63.4	64.8
								75°	51.6	53.6	55.0	55.7
								77.5°	38.3	40.4	42.5	44.6
								80°	24.4	26.5	27.9	29.3
								82.5°	11.1	13.2	13.9	15.3
								85°	2.1	2.1	2.1	2.8
								87.5°	2.1	2.8	2.8	2.8
								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: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

5

CANDELA DISTRIBUTION (continued):

295°	300°	305°	310°	315°	320°	325°		275°	280°	285°	290°	295°
452.2	452.2	452.2	452.2	452.2	452.2	452.2	112.5°	21.2	21.2	21.2	21.2	21.2
454.3	455.0	456.4	456.4	457.8	457.8	459.1	115°	25.0	25.0	25.0	25.0	25.0
455.7	457.1	459.1	459.8	462.6	464.0	465.4	117.5°	29.5	29.5	29.5	29.5	29.5
457.8	459.8	462.6	464.7	468.2	470.3	472.4	120°	34.8	34.8	34.8	34.8	34.8
461.2	464.7	469.6	471.7	474.5	479.4	482.8	122.5°	40.9	40.9	40.9	40.9	40.9
466.1	471.0	477.3	482.8	486.3	493.3	498.9	125°	47.8	47.8	47.8	47.8	47.8
459.1	469.6	477.3	487.7	496.8	508.6	518.4	127.5°	55.3	55.3	55.3	55.3	55.3
442.4	452.2	465.4	478.7	492.6	512.8	532.3	130°	63.0	63.0	63.0	63.0	63.0
411.8	422.9	438.2	455.0	475.2	501.6	529.5	132.5°	70.5	70.5	70.5	70.5	70.5
367.2	376.9	393.7	412.5	435.5	468.2	508.6	135°	77.9	77.9	77.9	77.9	77.9
319.8	333.0	349.1	369.3	395.0	434.1	477.3	137.5°	85.3	85.3	85.3	85.3	85.3
274.5	288.4	305.9	328.2	358.1	399.9	449.4	140°	92.5	92.5	92.5	92.5	92.5
227.8	243.9	259.9	287.8	317.7	361.6	416.6	142.5°	99.2	99.2	99.2	99.2	99.2
186.0	197.9	217.4	242.5	277.3	320.5	379.0	145°	104.9	104.9	104.9	104.9	104.9
152.6	162.3	181.2	205.5	236.9	279.4	330.3	147.5°	110.1	110.1	110.1	110.1	110.1
139.3	147.0	160.2	177.7	205.5	246.6	289.8	150°	115.1	115.1	115.1	115.1	115.1
134.5	141.4	151.2	166.5	188.1	219.5	256.4	152.5°	119.7	119.7	119.7	119.7	119.7
129.6	136.6	147.7	161.6	179.8	202.1	233.4	155°	123.7	123.7	123.7	123.7	123.7
125.4	133.1	144.9	160.2	177.0	196.5	220.9	157.5°	127.0	127.0	127.0	127.0	127.0
121.2	128.2	140.0	157.5	175.6	196.5	220.9	160°	130.3	130.3	130.3	130.3	130.3
115.0	121.9	134.5	152.6	172.8	195.8	223.7	162.5°	133.5	133.5	133.5	133.5	133.5
111.5	117.7	131.0	151.2	172.8	197.9	227.8	165°	136.0	136.0	136.0	136.0	136.0
109.4	115.0	130.3	153.3	178.4	207.6	240.4	167.5°	137.1	137.1	137.1	137.1	137.1
105.9	112.2	128.2	154.0	185.3	221.6	262.7	170°	137.4	137.4	137.4	137.4	137.4
96.1	103.8	121.2	149.1	183.2	227.8	282.2	172.5°	138.6	138.6	138.6	138.6	138.6
88.5	93.4	108.0	137.3	172.8	220.9	285.7	175°	140.5	140.5	140.5	140.5	140.5
85.0	87.8	97.5	121.2	156.1	207.6	275.2	177.5°	141.1	141.1	141.1	141.1	141.1
80.1	81.5	88.5	107.3	133.8	183.9	249.4	180°	140.8	140.8	140.8	140.8	140.8
73.9	74.6	80.1	92.0	111.5	146.3	208.3						
66.2	67.6	71.1	79.4	92.0	112.2	151.2						
57.1	57.8	59.2	64.8	72.5	86.4	107.3						
46.0	46.0	47.4	50.2	54.3	64.1	76.6						
30.0	32.0	33.4	38.3	39.7	46.7	54.3						
17.4	18.8	19.5	20.9	24.4	27.9	33.4						
2.8	4.2	4.2	5.6	7.0	7.7	9.1						
3.5	3.5	3.5	3.5	4.2	4.2	4.2						
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: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-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°	452.2	452.2	452.2	452.2	452.2	452.2
25.0	25.0	25.0	25.0	25.0	25.0	2.5°	459.8	459.1	460.5	461.9	461.2	465.4
29.5	29.5	29.5	29.5	29.5	29.5	5°	467.5	466.8	468.9	470.3	471.0	473.8
34.8	34.8	34.8	34.8	34.8	34.8	7.5°	475.2	475.9	479.4	480.1	482.1	485.6
40.9	40.9	40.9	40.9	40.9	40.9	10°	484.2	487.7	491.9	493.3	496.8	501.0
47.8	47.8	47.8	47.8	47.8	47.8	12.5°	502.3	507.2	512.8	517.0	523.9	532.3
55.3	55.3	55.3	55.3	55.3	55.3	15°	527.4	539.3	548.3	556.7	567.1	576.9
63.0	63.0	63.0	63.0	63.0	63.0	17.5°	549.7	572.7	592.2	609.6	626.4	641.7
70.5	70.5	70.5	70.5	70.5	70.5	20°	560.2	596.4	627.1	659.1	691.2	712.8
77.9	77.9	77.9	77.9	77.9	77.9	22.5°	550.4	601.3	648.7	700.2	749.0	792.9
85.3	85.3	85.3	85.3	85.3	85.3	25°	529.5	592.2	662.6	736.4	810.3	877.2
92.5	92.5	92.5	92.5	92.5	92.5	27.5°	510.0	586.7	668.2	752.5	840.3	920.4
99.2	99.2	99.2	99.2	99.2	99.2	30°	484.2	567.8	657.0	744.1	839.6	933.6
104.9	104.9	104.9	104.9	104.9	104.9	32.5°	445.9	530.9	625.0	719.7	825.6	930.1
110.1	110.1	110.1	110.1	110.1	110.1	35°	400.6	485.6	581.8	681.4	799.2	916.9
115.1	115.1	115.1	115.1	115.1	115.1	37.5°	351.2	434.8	535.1	641.7	763.6	895.3
119.7	119.7	119.7	119.7	119.7	119.7	40°	309.4	383.9	487.7	603.4	731.6	868.1
123.7	123.7	123.7	123.7	123.7	123.7	42.5°	275.9	343.5	441.7	558.8	696.0	836.8
127.0	127.0	127.0	127.0	127.0	127.0	45°	256.4	312.8	402.7	519.1	659.1	804.0
130.3	130.3	130.3	130.3	130.3	130.3	47.5°	252.2	297.5	376.2	489.1	623.6	769.2
133.5	133.5	133.5	133.5	133.5	133.5	50°	256.4	298.2	364.4	470.3	596.4	737.8
136.0	136.0	136.0	136.0	136.0	136.0	52.5°	264.8	305.2	365.8	463.3	585.3	719.0
137.1	137.1	137.1	137.1	137.1	137.1	55°	278.0	324.0	380.4	469.6	583.9	711.4
137.4	137.4	137.4	137.4	137.4	137.4	57.5°	304.5	356.7	413.9	495.4	600.6	719.7
138.6	138.6	138.6	138.6	138.6	138.6	60°	337.9	400.6	469.6	556.0	641.0	747.6
140.5	140.5	140.5	140.5	140.5	140.5	62.5°	358.1	443.8	538.6	638.9	726.0	813.1
141.1	141.1	141.1	141.1	141.1	141.1	65°	356.0	461.9	595.7	738.5	847.2	930.8
140.8	140.8	140.8	140.8	140.8	140.8	67.5°	333.0	448.7	581.8	744.1	907.8	1025.6
						70°	278.0	386.0	541.4	737.1	938.5	1089.7
						72.5°	221.6	317.0	465.4	650.1	848.6	1003.3
						75°	147.7	223.7	343.5	498.9	643.1	777.6
						77.5°	100.3	141.4	214.6	327.5	446.6	556.7
						80°	66.9	88.5	122.6	180.5	250.1	320.5
						82.5°	39.0	48.8	62.7	89.2	132.4	186.7
						85°	10.5	13.2	17.4	23.0	41.1	72.5
						87.5°	4.2	3.5	3.5	3.5	3.5	3.5
						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: P160201

CATALOG NUMBER: ENV-F02-LED-E1-SLL-8030-ULG

CANDELA DISTRIBUTION (continued):

360°	330°	335°	340°	345°	350°	355°	360°
452.2	112.5°	21.2	21.2	21.2	21.2	21.2	21.2
461.9	115°	25.0	25.0	25.0	25.0	25.0	25.0
473.1	117.5°	29.5	29.5	29.5	29.5	29.5	29.5
486.3	120°	34.8	34.8	34.8	34.8	34.8	34.8
506.5	122.5°	40.9	40.9	40.9	40.9	40.9	40.9
535.8	125°	47.8	47.8	47.8	47.8	47.8	47.8
588.0	127.5°	55.3	55.3	55.3	55.3	55.3	55.3
655.6	130°	63.0	63.0	63.0	63.0	63.0	63.0
738.5	132.5°	70.5	70.5	70.5	70.5	70.5	70.5
831.9	135°	77.9	77.9	77.9	77.9	77.9	77.9
938.5	137.5°	85.3	85.3	85.3	85.3	85.3	85.3
1004.0	140°	92.5	92.5	92.5	92.5	92.5	92.5
1017.9	142.5°	99.2	99.2	99.2	99.2	99.2	99.2
1027.7	145°	104.9	104.9	104.9	104.9	104.9	104.9
1030.5	147.5°	110.1	110.1	110.1	110.1	110.1	110.1
1026.3	150°	115.1	115.1	115.1	115.1	115.1	115.1
1009.6	152.5°	119.7	119.7	119.7	119.7	119.7	119.7
988.0	155°	123.7	123.7	123.7	123.7	123.7	123.7
960.8	157.5°	127.0	127.0	127.0	127.0	127.0	127.0
927.4	160°	130.3	130.3	130.3	130.3	130.3	130.3
896.0	162.5°	133.5	133.5	133.5	133.5	133.5	133.5
871.6	165°	136.0	136.0	136.0	136.0	136.0	136.0
856.3	167.5°	137.1	137.1	137.1	137.1	137.1	137.1
858.4	170°	137.4	137.4	137.4	137.4	137.4	137.4
880.0	172.5°	138.6	138.6	138.6	138.6	138.6	138.6
934.3	175°	140.5	140.5	140.5	140.5	140.5	140.5
1037.4	177.5°	141.1	141.1	141.1	141.1	141.1	141.1
1138.5	180°	140.8	140.8	140.8	140.8	140.8	140.8
1236.0							
1171.9							
894.6							
643.8							
373.5							
233.4							
101.0							
3.5							
0.1							
0.1							
0.5							
1.5							
5.0							
8.8							
11.8							
14.7							
17.8							

(END OF F

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

Scaled Data Report



(REPORT)