

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: P401320

Luminaire Tested: **ENV-SA1C-740-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401320
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1C-740-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3989 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

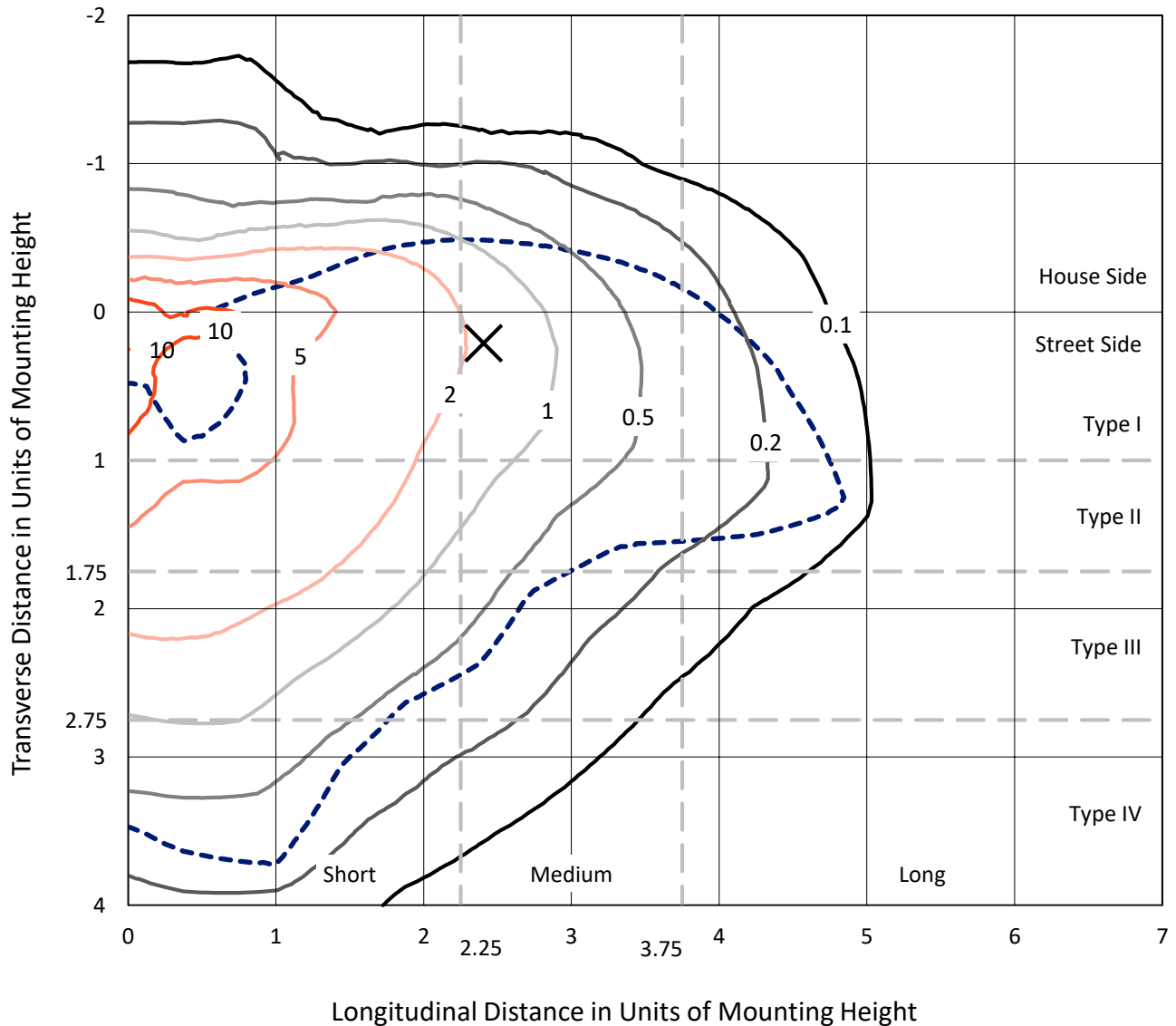
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401320
 CATALOG NUMBER: ENV-SA1C-740-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

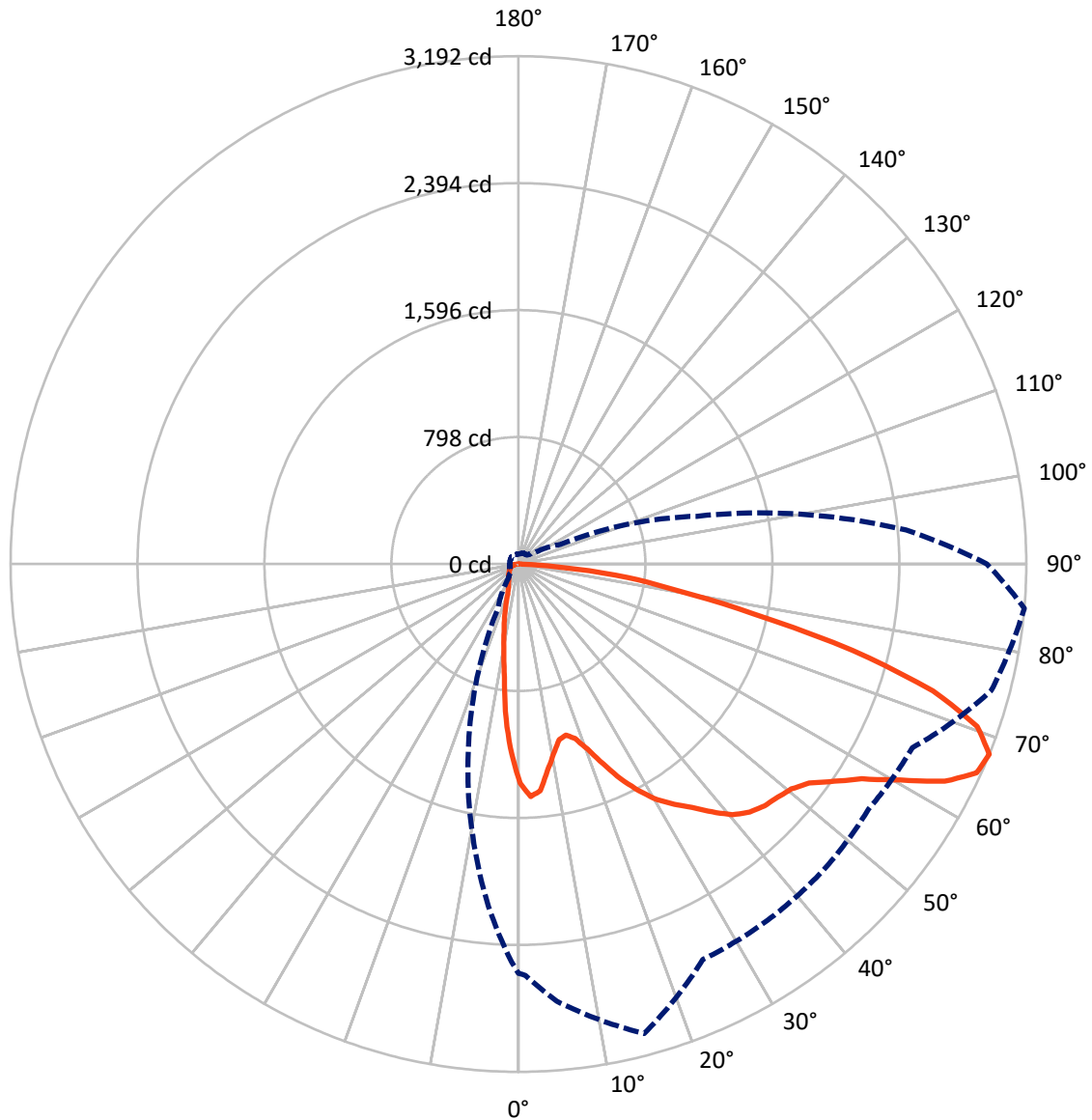
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.7 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401320
CATALOG NUMBER: ENV-SA1C-740-U-SLL

Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P401320

CATALOG NUMBER: ENV-SA1C-740-U-SLL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	803.7	0.0	803.7
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	3185.3	0.0	3185.3
	% Fixture	79.9	0.0	79.9
Total	Lumens	3989.0	0.0	3989.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	2.6
10°-20°	206.7	5.2
20°-30°	288.7	7.2
30°-40°	407.0	10.2
40°-50°	564.0	14.1
50°-60°	792.5	19.9
60°-70°	968.8	24.3
70°-80°	569.4	14.3
80°-90°	87.2	2.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3989.0	100.0
0°-180°	3989.0	100.0



REPORT NUMBER: P401320

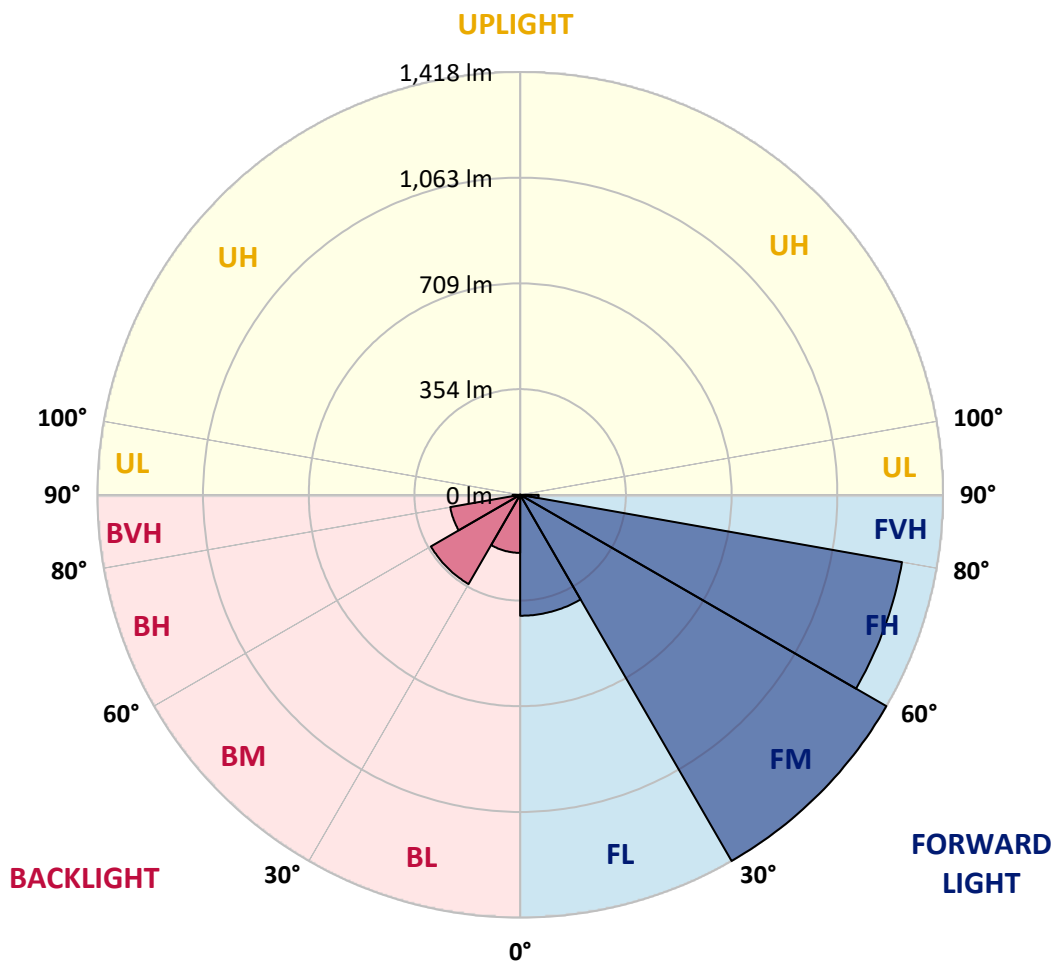
CATALOG NUMBER: ENV-SA1C-740-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	405.5	10.2			
FM	(30°-60°)	1417.9	35.5			
FH	(60°-80°)	1300.1	32.6			G1/1800
FVH	(80°-90°)	61.7	1.5			G1/100
BL	(0°-30°)	194.7	4.9	B1/500		
BM	(30°-60°)	345.5	8.7	B1/1000		
BH	(60°-80°)	238.1	6.0	B1/500		G1/500
BVH	(80°-90°)	25.5	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





REPORT NUMBER: P401320

CATALOG NUMBER: ENV-SA1C-740-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1
2.5°	1416.0	1409.5	1431.4	1463.4	1485.2	1500.6	1505.7	1505.1	1500.6	1488.4	1462.8
5°	1353.1	1347.3	1391.6	1462.8	1525.0	1569.9	1582.7	1564.7	1542.3	1494.8	1432.0
7.5°	1233.8	1242.8	1299.2	1399.3	1499.3	1570.5	1587.8	1559.6	1513.4	1416.6	1310.8
10°	1143.4	1147.9	1211.4	1332.0	1438.4	1511.5	1541.7	1516.6	1456.4	1333.9	1211.4
12.5°	1087.6	1092.1	1153.7	1265.3	1378.8	1435.8	1444.8	1444.2	1394.2	1275.5	1133.8
15°	1095.3	1101.1	1162.7	1255.0	1319.1	1344.1	1344.8	1351.8	1337.1	1246.7	1115.2
17.5°	1169.7	1169.7	1228.7	1284.5	1269.7	1251.8	1265.3	1278.1	1303.7	1264.0	1153.0
20°	1287.1	1292.2	1346.7	1337.1	1247.3	1202.4	1186.4	1208.8	1288.3	1315.9	1242.2
22.5°	1414.0	1427.5	1484.6	1414.0	1243.5	1156.2	1138.3	1162.7	1290.3	1398.0	1364.7
25°	1554.5	1571.2	1609.6	1503.8	1255.0	1130.6	1118.4	1141.5	1295.4	1473.7	1496.8
27.5°	1682.7	1684.0	1721.9	1579.5	1285.1	1133.2	1112.6	1142.8	1309.5	1533.3	1613.5
30°	1773.8	1773.8	1790.5	1618.0	1322.3	1149.2	1117.8	1162.0	1329.4	1566.0	1719.3
32.5°	1857.2	1861.7	1853.3	1658.4	1357.6	1172.3	1129.9	1200.5	1360.8	1593.0	1800.7
35°	1963.0	1962.3	1925.1	1690.4	1390.3	1197.3	1160.1	1249.2	1406.3	1632.7	1878.3
37.5°	2093.8	2087.4	2008.5	1719.3	1430.1	1240.2	1217.2	1315.9	1467.3	1679.5	1976.4
40°	2212.4	2202.2	2084.8	1746.2	1461.5	1323.6	1310.1	1398.6	1544.2	1737.9	2072.0
42.5°	2304.8	2289.4	2149.6	1765.5	1508.9	1454.4	1466.0	1547.4	1621.8	1789.8	2131.6
45°	2382.4	2366.3	2198.3	1775.1	1623.7	1641.1	1663.5	1731.5	1704.5	1803.9	2168.2
47.5°	2438.2	2411.9	2219.5	1803.3	1778.9	1859.1	1928.3	1932.8	1821.3	1803.3	2190.6
50°	2470.9	2442.0	2239.4	1873.2	1959.1	2106.6	2180.4	2145.7	1942.5	1814.8	2222.7
52.5°	2536.9	2506.8	2322.1	1986.7	2143.8	2357.4	2397.1	2341.3	2068.1	1874.5	2286.8
55°	2703.0	2689.6	2482.4	2139.3	2325.3	2560.0	2578.0	2522.2	2199.6	1977.7	2409.3
57.5°	2890.9	2861.4	2699.2	2331.1	2499.1	2718.4	2747.3	2670.3	2337.5	2122.7	2545.9
60°	2943.5	2937.7	2882.6	2554.9	2678.7	2887.7	2889.6	2791.5	2498.5	2295.2	2754.3
62.5°	2866.6	2885.1	2958.9	2762.0	2829.4	3001.2	2985.2	2883.2	2667.1	2569.6	3007.6
65°	2732.5	2758.8	2907.0	2957.6	2864.0	2978.8	2944.8	2880.0	2773.6	2865.3	3164.7
67.5°	2571.6	2585.7	2758.2	3055.1	2742.8	2731.9	2715.8	2686.3	2731.2	3075.6	3191.7
70°	2404.2	2416.4	2575.4	2921.1	2379.2	2254.1	2240.7	2215.0	2390.1	3073.0	3059.6
72.5°	2026.5	2018.8	2165.6	2438.2	1816.8	1646.8	1761.0	1705.2	1933.5	2760.7	2725.5
75°	1258.8	1301.2	1485.2	1709.7	1244.7	1128.0	1285.8	1271.7	1569.9	2377.2	2170.1
77.5°	767.0	775.3	879.2	1065.8	749.7	781.7	826.6	913.8	1163.9	1927.1	1512.8
80°	401.4	373.2	449.5	584.9	445.1	524.6	606.0	702.2	738.8	1256.3	1011.3
82.5°	116.1	115.4	152.0	245.0	211.0	257.8	305.9	441.2	484.2	747.1	692.6
85°	0.6	0.6	0.6	1.3	1.9	3.2	13.5	113.5	150.1	346.3	284.7
87.5°	0.0	0.0	0.6	1.3	1.3	2.6	3.8	5.1	6.4	7.7	28.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401320

CATALOG NUMBER: ENV-SA1C-740-U-SLL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1
2.5°	1454.4	1444.8	1424.3	1396.7	1377.5	1344.1	1337.1	1315.9	1294.8	1277.4	1278.1
5°	1401.9	1369.1	1319.1	1261.4	1206.3	1156.9	1147.3	1118.4	1110.1	1101.7	1078.6
7.5°	1264.0	1225.5	1155.6	1070.3	1001.0	954.2	904.2	874.1	847.1	816.4	824.1
10°	1158.2	1103.0	1006.8	906.8	820.2	757.4	702.2	674.0	634.9	606.7	602.8
12.5°	1076.7	1017.1	901.6	784.3	702.8	666.3	631.0	586.8	543.2	506.0	486.7
15°	1049.8	982.5	848.4	731.7	667.6	623.3	574.0	523.3	470.1	430.3	414.9
17.5°	1081.2	1001.7	847.8	709.3	629.1	564.3	502.8	445.7	382.8	343.1	330.9
20°	1167.8	1068.4	865.7	688.1	582.3	494.4	407.9	346.3	282.2	253.9	241.1
22.5°	1288.3	1158.8	893.3	662.4	530.3	409.1	311.7	234.1	202.6	188.5	185.3
25°	1412.1	1273.6	932.4	640.6	473.3	325.8	223.8	187.3	172.5	166.1	166.1
27.5°	1548.1	1388.4	974.8	614.4	414.3	242.4	182.1	164.8	157.1	153.3	152.6
30°	1658.4	1482.0	1022.9	583.6	361.0	198.8	161.6	150.1	143.0	141.1	141.1
32.5°	1737.9	1551.9	1073.5	552.8	312.3	179.6	150.1	139.8	132.1	130.8	130.8
35°	1830.9	1618.6	1096.6	535.5	282.8	167.4	141.7	131.5	124.4	121.2	121.2
37.5°	1942.5	1698.1	1109.4	518.8	270.0	155.8	136.0	124.4	117.4	113.5	113.5
40°	2084.2	1788.5	1122.9	502.1	262.3	146.2	129.5	118.0	112.2	107.7	107.7
42.5°	2185.5	1871.9	1133.2	488.0	248.8	141.7	124.4	113.5	106.5	102.6	102.0
45°	2238.7	1949.5	1137.6	479.7	233.4	145.6	120.6	109.7	101.3	97.5	96.8
47.5°	2274.6	2013.6	1143.4	473.3	221.2	138.5	119.9	105.8	97.5	92.3	92.3
50°	2331.7	2098.3	1158.2	461.1	214.2	129.5	129.5	103.9	93.0	88.5	87.9
52.5°	2433.7	2219.5	1197.9	447.6	206.5	120.6	133.4	104.5	89.8	84.6	83.4
55°	2587.6	2412.5	1264.0	428.4	195.6	109.7	124.4	105.2	86.6	82.1	80.2
57.5°	2787.7	2645.9	1340.9	413.0	177.0	100.7	113.5	102.0	82.7	78.9	77.6
60°	2922.3	2801.8	1389.7	393.1	150.7	94.9	97.5	98.8	78.9	74.4	73.7
62.5°	2994.8	2804.3	1390.3	365.5	126.3	89.8	87.2	100.7	75.7	69.9	69.3
65°	2999.9	2667.8	1320.4	330.3	118.0	84.0	80.2	89.1	72.5	66.7	66.1
67.5°	2944.1	2445.2	1160.7	289.9	121.2	79.5	74.4	75.0	68.6	63.5	62.8
70°	2744.1	2157.3	931.1	257.8	121.8	73.7	69.9	68.0	64.8	60.3	59.0
72.5°	2367.6	1802.7	705.4	247.5	123.8	69.3	64.8	62.8	60.3	56.4	55.2
75°	1786.6	1406.3	529.7	230.9	125.1	64.1	59.0	57.7	55.2	51.3	50.7
77.5°	1234.5	1042.7	368.1	195.0	111.6	58.4	53.2	51.9	50.0	46.2	45.5
80°	833.7	715.0	225.7	146.2	84.6	51.3	46.2	46.2	44.2	40.4	40.4
82.5°	580.4	534.2	130.2	95.6	61.6	42.3	40.4	40.4	38.5	34.6	34.0
85°	242.4	323.2	58.4	51.9	43.0	33.3	33.3	34.0	32.1	28.9	28.2
87.5°	8.3	34.6	23.1	24.4	25.7	23.1	25.7	25.7	25.0	22.4	21.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401320

CATALOG NUMBER: ENV-SA1C-740-U-SLL

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1
2.5°	1259.5	1251.1	1225.5	1222.3	1203.1	1201.8	1210.1	1196.0	1197.3	1214.6	1212.0
5°	1083.8	1064.5	1063.9	1042.7	1019.0	1013.2	992.7	985.0	981.8	974.8	1000.4
7.5°	847.8	838.8	846.5	843.9	822.1	809.9	766.3	733.0	716.3	723.4	725.3
10°	602.8	616.3	636.8	656.7	641.3	600.9	582.3	555.4	552.1	550.2	563.0
12.5°	477.8	462.4	472.0	479.0	464.3	447.0	439.3	427.7	434.2	448.9	457.2
15°	397.0	370.0	357.8	349.5	353.3	343.1	346.9	343.1	347.6	352.1	367.5
17.5°	313.6	304.0	280.9	270.0	270.6	266.1	267.4	266.8	264.2	274.5	286.7
20°	236.0	233.4	228.3	220.6	221.9	218.7	216.8	205.9	201.4	204.6	214.8
22.5°	184.0	187.3	190.5	189.8	193.0	184.7	177.0	167.4	166.1	166.7	169.3
25°	164.8	166.1	168.7	171.9	173.8	166.1	155.2	149.4	148.8	150.1	150.1
27.5°	153.3	152.0	155.2	159.0	161.6	152.0	143.0	137.9	136.6	135.3	134.7
30°	141.1	141.1	143.6	147.5	149.4	141.1	133.4	128.3	125.1	123.1	122.5
32.5°	132.1	132.7	134.0	136.6	139.8	131.5	125.1	120.6	114.8	112.9	111.6
35°	121.8	124.4	126.3	127.0	129.5	123.8	117.4	110.3	105.2	103.2	103.2
37.5°	113.5	115.4	118.6	118.0	119.9	116.1	109.0	101.3	98.8	98.1	97.5
40°	107.1	107.1	109.7	112.2	114.8	107.7	99.4	95.6	93.6	92.3	93.0
42.5°	101.3	100.7	100.7	105.2	109.7	99.4	92.3	89.8	89.1	87.9	88.5
45°	96.2	95.6	93.6	95.6	102.0	91.1	86.6	84.6	84.0	84.0	84.0
47.5°	91.7	90.4	87.9	88.5	93.0	84.6	80.8	80.2	79.5	79.5	80.2
50°	86.6	85.3	83.4	82.7	84.0	80.2	77.0	75.7	75.7	75.7	77.0
52.5°	82.1	81.4	78.9	78.2	78.9	76.3	73.1	72.5	72.5	72.5	74.4
55°	78.9	77.6	76.3	75.0	76.3	73.1	70.5	69.3	69.3	70.5	71.8
57.5°	75.7	74.4	73.7	72.5	73.7	70.5	68.0	66.7	67.3	68.0	68.0
60°	72.5	71.2	70.5	69.3	71.2	68.0	65.4	64.8	64.8	64.1	64.1
62.5°	69.3	68.6	67.3	66.1	68.6	64.8	62.8	61.6	60.9	60.9	60.9
65°	65.4	64.8	64.1	63.5	64.8	61.6	59.6	59.0	57.7	57.1	57.7
67.5°	62.2	62.2	60.9	59.6	61.6	57.7	56.4	55.8	53.9	53.2	53.9
70°	58.4	58.4	57.1	56.4	59.0	53.9	52.6	51.9	50.7	50.0	50.0
72.5°	54.5	54.5	53.2	52.6	55.8	50.0	48.7	48.1	46.2	45.5	45.5
75°	50.7	50.0	49.4	48.7	52.6	46.2	44.2	43.0	41.0	40.4	39.8
77.5°	46.2	45.5	44.2	44.9	47.5	41.0	38.5	37.8	35.9	35.3	34.6
80°	40.4	39.8	39.1	40.4	40.4	35.9	32.7	31.4	29.5	28.2	27.6
82.5°	34.6	34.0	34.0	35.3	33.3	31.4	27.6	25.0	21.8	19.9	19.2
85°	28.2	29.5	28.2	29.5	25.0	25.0	19.2	14.7	10.3	8.3	7.7
87.5°	21.8	22.4	21.8	22.4	17.3	16.7	9.0	5.1	0.6	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401320

CATALOG NUMBER: ENV-SA1C-740-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1	1378.1
2.5°	1231.3	1232.6	1260.1	1287.7	1304.4	1346.1	1366.6	1389.7	1401.9	1416.0
5°	988.2	1012.6	1035.0	1090.2	1118.4	1184.5	1232.6	1309.5	1333.9	1353.1
7.5°	746.5	783.0	810.6	879.2	932.4	1014.5	1098.5	1190.2	1216.5	1233.8
10°	593.2	626.5	678.5	732.3	792.0	891.4	982.5	1077.4	1123.5	1143.4
12.5°	498.3	551.5	612.4	662.4	709.9	783.0	898.4	1018.4	1066.5	1087.6
15°	411.1	470.7	532.9	594.5	653.5	736.2	857.4	1013.2	1074.2	1095.3
17.5°	326.4	375.2	438.0	512.4	598.3	703.5	865.1	1067.7	1142.1	1169.7
20°	232.1	279.6	343.7	435.4	537.4	669.5	883.1	1149.8	1255.6	1287.1
22.5°	175.1	201.4	260.4	350.8	482.9	642.6	911.3	1262.1	1385.8	1414.0
25°	153.9	162.9	193.0	280.2	428.4	618.2	948.5	1373.6	1523.7	1554.5
27.5°	136.6	141.7	157.1	225.1	388.0	593.2	992.7	1494.2	1642.3	1682.7
30°	123.1	129.5	142.4	188.5	348.9	557.3	1033.1	1602.6	1743.0	1773.8
32.5°	112.9	119.9	131.5	170.6	315.5	530.3	1056.2	1683.4	1828.9	1857.2
35°	105.8	112.2	123.8	154.6	286.0	511.7	1063.3	1763.5	1934.1	1963.0
37.5°	99.4	105.8	116.1	138.5	265.5	487.4	1074.2	1859.1	2056.0	2093.8
40°	94.9	100.0	109.7	127.6	237.3	461.1	1087.0	1970.7	2174.6	2212.4
42.5°	90.4	96.2	104.5	128.3	209.1	438.6	1095.3	2056.6	2268.9	2304.8
45°	86.6	93.0	102.6	125.7	187.9	418.1	1091.5	2128.4	2354.8	2382.4
47.5°	82.7	90.4	107.7	120.6	181.5	399.5	1094.7	2197.7	2416.4	2438.2
50°	80.2	89.8	115.4	112.9	182.8	391.2	1125.5	2280.4	2462.5	2470.9
52.5°	78.2	91.7	109.0	102.0	182.8	387.3	1184.5	2413.8	2542.7	2536.9
55°	75.0	91.1	102.0	92.3	175.1	389.3	1240.2	2590.2	2735.1	2703.0
57.5°	72.5	87.2	91.7	85.3	157.1	389.9	1323.0	2738.9	2886.4	2890.9
60°	69.3	93.6	79.5	79.5	134.7	386.7	1396.1	2736.4	2914.0	2943.5
62.5°	66.1	91.7	71.2	73.7	119.3	374.5	1440.3	2576.7	2812.0	2866.6
65°	62.2	72.5	65.4	68.6	112.9	344.4	1377.5	2378.5	2674.2	2732.5
67.5°	57.7	59.6	59.6	63.5	110.3	298.8	1219.1	2159.9	2501.0	2571.6
70°	52.6	53.2	54.5	60.3	102.6	257.2	992.7	1927.1	2315.0	2404.2
72.5°	47.5	48.1	48.1	54.5	96.2	221.9	702.8	1526.9	1932.8	2026.5
75°	41.7	42.3	41.7	47.5	84.0	166.1	417.5	965.8	1153.0	1258.8
77.5°	35.3	35.3	34.0	37.2	57.7	105.2	228.3	586.8	701.6	767.0
80°	28.9	26.3	21.8	22.4	31.4	60.3	102.0	336.7	384.8	401.4
82.5°	19.2	14.7	9.0	8.3	10.3	16.7	23.7	133.4	122.5	116.1
85°	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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