

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: P401384

Luminaire Tested: **ENT-SA1C-827-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401384
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: ENT-SA1C-827-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 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: 2932 lumens
Efficiency: N/A
Efficacy: 88.0 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

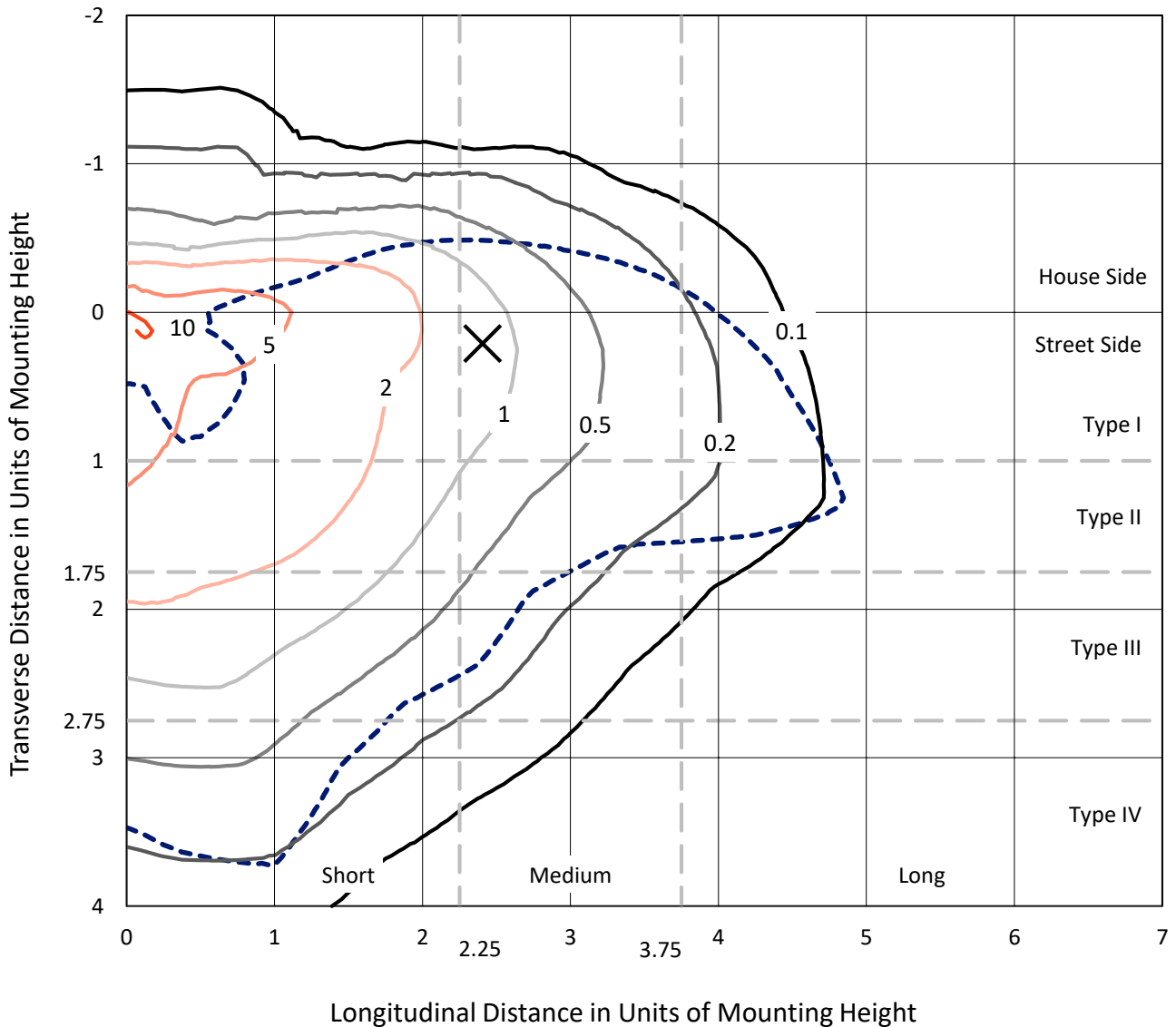
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401384
 CATALOG NUMBER: ENT-SA1C-827-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

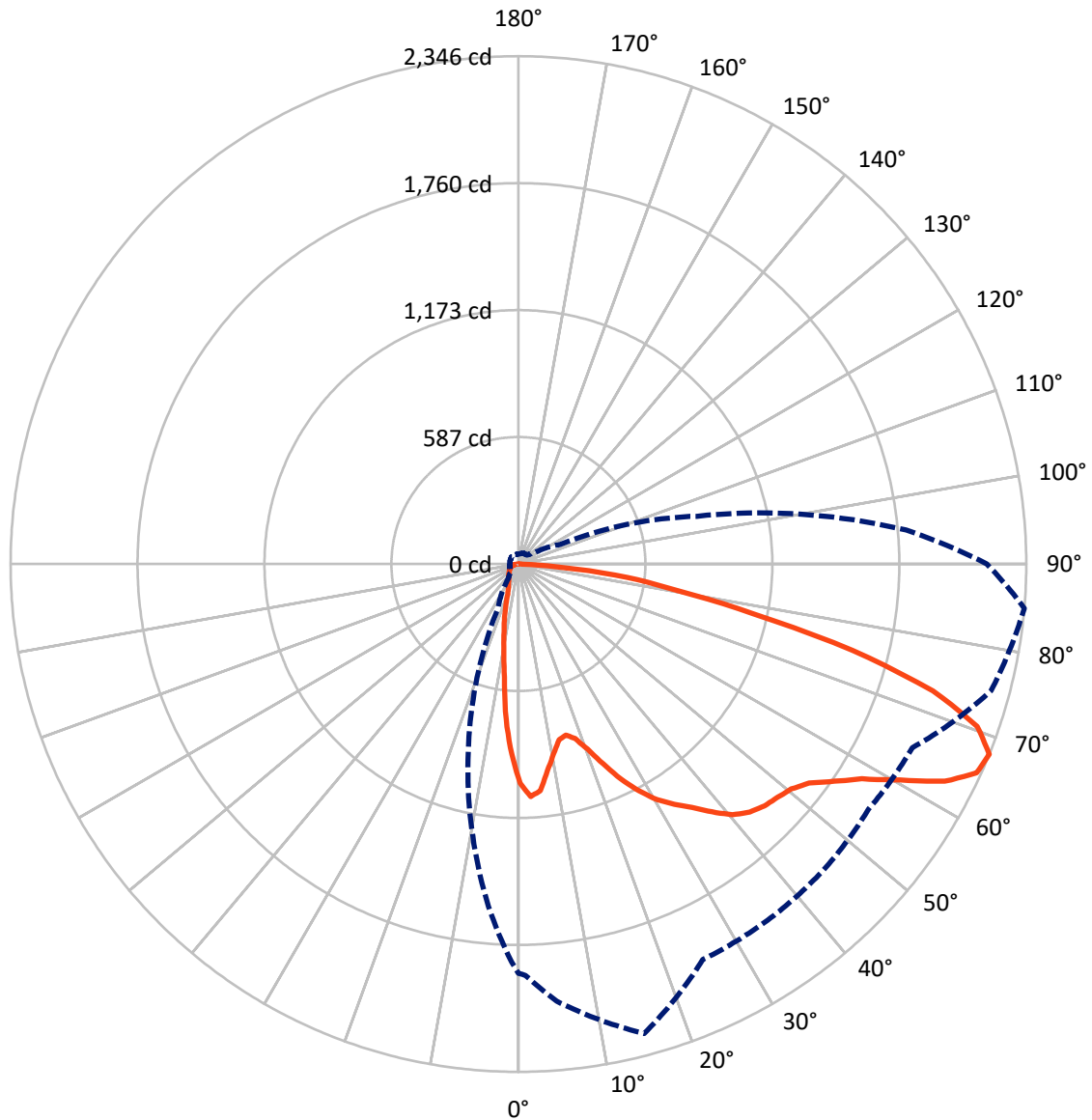
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401384
CATALOG NUMBER: ENT-SA1C-827-U-SLL

Luminous Intensity Polar Plot



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

REPORT NUMBER: P401384

CATALOG NUMBER: ENT-SA1C-827-U-SLL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	590.8	0.0	590.8
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	2341.2	0.0	2341.2
	% Fixture	79.9	0.0	79.9
Total	Lumens	2932.0	0.0	2932.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	2.6
10°-20°	151.9	5.2
20°-30°	212.2	7.2
30°-40°	299.1	10.2
40°-50°	414.5	14.1
50°-60°	582.5	19.9
60°-70°	712.1	24.3
70°-80°	418.5	14.3
80°-90°	64.1	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°	2932.0	100.0
0°-180°	2932.0	100.0



REPORT NUMBER: P401384

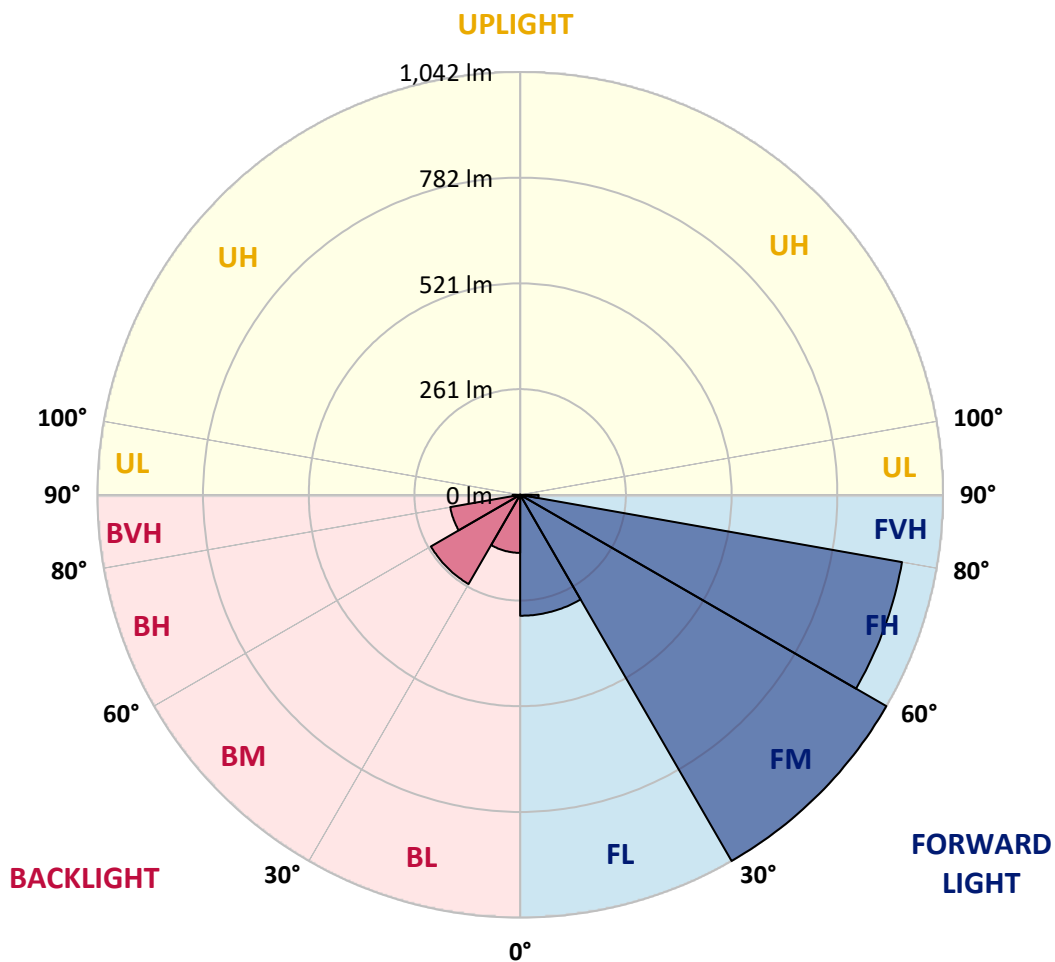
CATALOG NUMBER: ENT-SA1C-827-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	298.1	10.2			
FM	(30°-60°)	1042.2	35.5			
FH	(60°-80°)	955.6	32.6			G1/1800
FVH	(80°-90°)	45.4	1.5			G1/100
BL	(0°-30°)	143.1	4.9	B1/500		
BM	(30°-60°)	254.0	8.7	B1/1000		
BH	(60°-80°)	175.0	6.0	B1/500		G1/500
BVH	(80°-90°)	18.7	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: P401384

CATALOG NUMBER: ENT-SA1C-827-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0
2.5°	1040.8	1036.0	1052.1	1075.6	1091.7	1103.0	1106.8	1106.3	1103.0	1094.0	1075.2
5°	994.6	990.3	1022.8	1075.2	1120.9	1153.9	1163.3	1150.1	1133.6	1098.7	1052.5
7.5°	906.9	913.5	955.0	1028.5	1102.0	1154.4	1167.1	1146.3	1112.4	1041.2	963.5
10°	840.4	843.7	890.4	979.0	1057.3	1111.0	1133.1	1114.8	1070.5	980.4	890.4
12.5°	799.4	802.7	848.0	930.0	1013.4	1055.4	1062.0	1061.5	1024.7	937.5	833.4
15°	805.1	809.3	854.6	922.4	969.6	988.0	988.4	993.6	982.8	916.3	819.7
17.5°	859.8	859.8	903.1	944.1	933.3	920.1	930.0	939.4	958.3	929.0	847.5
20°	946.0	949.8	989.9	982.8	916.8	883.8	872.0	888.5	947.0	967.2	913.0
22.5°	1039.3	1049.2	1091.2	1039.3	914.0	849.9	836.7	854.6	948.4	1027.6	1003.1
25°	1142.6	1154.8	1183.1	1105.3	922.4	831.0	822.1	839.0	952.1	1083.2	1100.2
27.5°	1236.8	1237.8	1265.6	1161.0	944.6	832.9	817.8	840.0	962.5	1127.0	1185.9
30°	1303.8	1303.8	1316.0	1189.2	971.9	844.7	821.6	854.1	977.1	1151.1	1263.7
32.5°	1365.1	1368.4	1362.2	1218.9	997.9	861.6	830.5	882.4	1000.2	1170.9	1323.6
35°	1442.8	1442.4	1415.0	1242.5	1021.9	880.0	852.7	918.2	1033.7	1200.1	1380.6
37.5°	1539.0	1534.3	1476.3	1263.7	1051.1	911.6	894.6	967.2	1078.5	1234.5	1452.7
40°	1626.2	1618.6	1532.4	1283.5	1074.2	972.9	963.0	1028.0	1135.0	1277.4	1523.0
42.5°	1694.1	1682.8	1580.0	1297.7	1109.1	1069.0	1077.5	1137.4	1192.1	1315.6	1566.8
45°	1751.1	1739.3	1615.8	1304.7	1193.5	1206.2	1222.7	1272.7	1252.9	1325.9	1593.7
47.5°	1792.1	1772.8	1631.4	1325.5	1307.6	1366.5	1417.4	1420.7	1338.7	1325.5	1610.2
50°	1816.1	1794.9	1646.0	1376.8	1440.0	1548.4	1602.6	1577.2	1427.7	1333.9	1633.7
52.5°	1864.7	1842.5	1706.8	1460.3	1575.8	1732.7	1761.9	1720.9	1520.1	1377.8	1680.9
55°	1986.8	1976.9	1824.6	1572.5	1709.1	1881.7	1894.9	1853.9	1616.8	1453.7	1770.9
57.5°	2124.9	2103.2	1984.0	1713.4	1836.9	1998.1	2019.3	1962.7	1718.1	1560.2	1871.3
60°	2163.5	2159.3	2118.8	1877.9	1968.9	2122.5	2123.9	2051.8	1836.4	1687.0	2024.5
62.5°	2107.0	2120.6	2174.9	2030.1	2079.6	2206.0	2194.2	2119.2	1960.4	1888.7	2210.7
65°	2008.5	2027.8	2136.7	2173.9	2105.1	2189.5	2164.5	2116.9	2038.6	2106.0	2326.2
67.5°	1890.2	1900.5	2027.3	2245.6	2016.0	2008.0	1996.2	1974.5	2007.5	2260.6	2346.0
70°	1767.1	1776.1	1893.0	2147.0	1748.7	1656.8	1646.9	1628.1	1756.8	2258.8	2248.9
72.5°	1489.5	1483.8	1591.8	1792.1	1335.4	1210.5	1294.4	1253.3	1421.1	2029.2	2003.3
75°	925.3	956.4	1091.7	1256.6	914.9	829.1	945.1	934.7	1153.9	1747.3	1595.1
77.5°	563.7	569.9	646.2	783.4	551.0	574.6	607.6	671.7	855.5	1416.4	1111.9
80°	295.1	274.3	330.4	429.9	327.1	385.6	445.4	516.1	543.0	923.4	743.3
82.5°	85.3	84.8	111.7	180.1	155.1	189.5	224.8	324.3	355.9	549.1	509.1
85°	0.5	0.5	0.5	0.9	1.4	2.4	9.9	83.4	110.3	254.5	209.3
87.5°	0.0	0.0	0.5	0.9	0.9	1.9	2.8	3.8	4.7	5.7	20.7
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: P401384

CATALOG NUMBER: ENT-SA1C-827-U-SLL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0
2.5°	1069.0	1062.0	1046.9	1026.6	1012.5	988.0	982.8	967.2	951.7	938.9	939.4
5°	1030.4	1006.4	969.6	927.2	886.6	850.3	843.3	822.1	815.9	809.8	792.8
7.5°	929.0	900.8	849.4	786.7	735.8	701.4	664.6	642.5	622.7	600.0	605.7
10°	851.3	810.7	740.0	666.5	602.9	556.7	516.1	495.4	466.6	445.9	443.1
12.5°	791.4	747.6	662.7	576.5	516.6	489.7	463.8	431.3	399.2	371.9	357.8
15°	771.6	722.1	623.6	537.8	490.7	458.2	421.9	384.6	345.5	316.3	305.0
17.5°	794.7	736.3	623.1	521.3	462.4	414.8	369.5	327.6	281.4	252.2	243.2
20°	858.3	785.3	636.3	505.8	428.0	363.4	299.8	254.5	207.4	186.7	177.2
22.5°	947.0	851.7	656.6	486.9	389.8	300.7	229.1	172.0	148.9	138.6	136.2
25°	1037.9	936.1	685.4	470.9	347.9	239.5	164.5	137.6	126.8	122.1	122.1
27.5°	1137.9	1020.5	716.5	451.6	304.5	178.2	133.9	121.1	115.5	112.7	112.2
30°	1218.9	1089.3	751.8	428.9	265.4	146.1	118.8	110.3	105.1	103.7	103.7
32.5°	1277.4	1140.7	789.1	406.3	229.6	132.0	110.3	102.8	97.1	96.2	96.2
35°	1345.7	1189.7	806.0	393.6	207.9	123.0	104.2	96.6	91.4	89.1	89.1
37.5°	1427.7	1248.2	815.5	381.3	198.4	114.5	99.9	91.4	86.3	83.4	83.4
40°	1531.9	1314.6	825.3	369.1	192.8	107.5	95.2	86.7	82.5	79.2	79.2
42.5°	1606.4	1375.9	832.9	358.7	182.9	104.2	91.4	83.4	78.2	75.4	74.9
45°	1645.5	1432.9	836.2	352.6	171.6	107.0	88.6	80.6	74.5	71.6	71.2
47.5°	1671.9	1480.1	840.4	347.9	162.6	101.8	88.1	77.8	71.6	67.9	67.9
50°	1713.9	1542.3	851.3	338.9	157.4	95.2	95.2	76.4	68.3	65.0	64.6
52.5°	1788.8	1631.4	880.5	329.0	151.8	88.6	98.0	76.8	66.0	62.2	61.3
55°	1901.9	1773.3	929.0	314.9	143.8	80.6	91.4	77.3	63.6	60.3	58.9
57.5°	2049.0	1944.8	985.6	303.6	130.1	74.0	83.4	74.9	60.8	58.0	57.0
60°	2148.0	2059.4	1021.4	288.9	110.8	69.8	71.6	72.6	58.0	54.7	54.2
62.5°	2201.2	2061.3	1021.9	268.7	92.9	66.0	64.1	74.0	55.6	51.4	50.9
65°	2205.0	1960.9	970.5	242.7	86.7	61.7	58.9	65.5	53.3	49.0	48.5
67.5°	2164.0	1797.3	853.2	213.1	89.1	58.4	54.7	55.1	50.4	46.7	46.2
70°	2016.9	1585.7	684.4	189.5	89.6	54.2	51.4	50.0	47.6	44.3	43.4
72.5°	1740.3	1325.0	518.5	181.9	91.0	50.9	47.6	46.2	44.3	41.5	40.5
75°	1313.2	1033.7	389.3	169.7	91.9	47.1	43.4	42.4	40.5	37.7	37.2
77.5°	907.4	766.4	270.6	143.3	82.0	42.9	39.1	38.2	36.8	33.9	33.5
80°	612.8	525.6	165.9	107.5	62.2	37.7	33.9	33.9	32.5	29.7	29.7
82.5°	426.6	392.6	95.7	70.2	45.3	31.1	29.7	29.7	28.3	25.5	25.0
85°	178.2	237.6	42.9	38.2	31.6	24.5	24.5	25.0	23.6	21.2	20.7
87.5°	6.1	25.5	17.0	17.9	18.9	17.0	18.9	18.9	18.4	16.5	16.0
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: P401384

CATALOG NUMBER: ENT-SA1C-827-U-SLL

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0
2.5°	925.7	919.6	900.8	898.4	884.3	883.3	889.5	879.1	880.0	892.8	890.9
5°	796.6	782.5	782.0	766.4	749.0	744.7	729.7	724.0	721.7	716.5	735.3
7.5°	623.1	616.5	622.2	620.3	604.3	595.3	563.3	538.8	526.5	531.7	533.1
10°	443.1	453.0	468.1	482.7	471.4	441.7	428.0	408.2	405.8	404.4	413.9
12.5°	351.2	339.8	346.9	352.1	341.3	328.5	322.9	314.4	319.1	330.0	336.1
15°	291.8	272.0	263.0	256.9	259.7	252.2	255.0	252.2	255.5	258.8	270.1
17.5°	230.5	223.4	206.5	198.4	198.9	195.6	196.6	196.1	194.2	201.7	210.7
20°	173.5	171.6	167.8	162.1	163.1	160.7	159.3	151.3	148.0	150.4	157.9
22.5°	135.3	137.6	140.0	139.5	141.9	135.8	130.1	123.0	122.1	122.6	124.4
25°	121.1	122.1	124.0	126.3	127.7	122.1	114.1	109.8	109.4	110.3	110.3
27.5°	112.7	111.7	114.1	116.9	118.8	111.7	105.1	101.3	100.4	99.5	99.0
30°	103.7	103.7	105.6	108.4	109.8	103.7	98.0	94.3	91.9	90.5	90.0
32.5°	97.1	97.6	98.5	100.4	102.8	96.6	91.9	88.6	84.4	83.0	82.0
35°	89.6	91.4	92.9	93.3	95.2	91.0	86.3	81.1	77.3	75.9	75.9
37.5°	83.4	84.8	87.2	86.7	88.1	85.3	80.1	74.5	72.6	72.1	71.6
40°	78.7	78.7	80.6	82.5	84.4	79.2	73.1	70.2	68.8	67.9	68.3
42.5°	74.5	74.0	74.0	77.3	80.6	73.1	67.9	66.0	65.5	64.6	65.0
45°	70.7	70.2	68.8	70.2	74.9	66.9	63.6	62.2	61.7	61.7	61.7
47.5°	67.4	66.5	64.6	65.0	68.3	62.2	59.4	58.9	58.4	58.4	58.9
50°	63.6	62.7	61.3	60.8	61.7	58.9	56.6	55.6	55.6	55.6	56.6
52.5°	60.3	59.9	58.0	57.5	58.0	56.1	53.7	53.3	53.3	53.3	54.7
55°	58.0	57.0	56.1	55.1	56.1	53.7	51.8	50.9	50.9	51.8	52.8
57.5°	55.6	54.7	54.2	53.3	54.2	51.8	50.0	49.0	49.5	50.0	50.0
60°	53.3	52.3	51.8	50.9	52.3	50.0	48.1	47.6	47.6	47.1	47.1
62.5°	50.9	50.4	49.5	48.5	50.4	47.6	46.2	45.3	44.8	44.8	44.8
65°	48.1	47.6	47.1	46.7	47.6	45.3	43.8	43.4	42.4	42.0	42.4
67.5°	45.7	45.7	44.8	43.8	45.3	42.4	41.5	41.0	39.6	39.1	39.6
70°	42.9	42.9	42.0	41.5	43.4	39.6	38.7	38.2	37.2	36.8	36.8
72.5°	40.1	40.1	39.1	38.7	41.0	36.8	35.8	35.4	33.9	33.5	33.5
75°	37.2	36.8	36.3	35.8	38.7	33.9	32.5	31.6	30.2	29.7	29.2
77.5°	33.9	33.5	32.5	33.0	34.9	30.2	28.3	27.8	26.4	25.9	25.5
80°	29.7	29.2	28.8	29.7	29.7	26.4	24.0	23.1	21.7	20.7	20.3
82.5°	25.5	25.0	25.0	25.9	24.5	23.1	20.3	18.4	16.0	14.6	14.1
85°	20.7	21.7	20.7	21.7	18.4	18.4	14.1	10.8	7.5	6.1	5.7
87.5°	16.0	16.5	16.0	16.5	12.7	12.3	6.6	3.8	0.5	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: P401384

CATALOG NUMBER: ENT-SA1C-827-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0	1013.0
2.5°	905.0	906.0	926.2	946.5	958.7	989.4	1004.5	1021.4	1030.4	1040.8
5°	726.4	744.3	760.8	801.3	822.1	870.6	906.0	962.5	980.4	994.6
7.5°	548.7	575.5	595.8	646.2	685.4	745.7	807.4	874.8	894.2	906.9
10°	436.0	460.5	498.7	538.3	582.1	655.2	722.1	791.9	825.8	840.4
12.5°	366.2	405.4	450.1	486.9	521.8	575.5	660.4	748.5	783.9	799.4
15°	302.1	346.0	391.7	436.9	480.3	541.1	630.2	744.7	789.5	805.1
17.5°	239.9	275.7	321.9	376.6	439.8	517.1	635.9	784.8	839.5	859.8
20°	170.6	205.5	252.6	320.1	395.0	492.1	649.1	845.1	922.9	946.0
22.5°	128.7	148.0	191.4	257.8	354.9	472.3	669.8	927.6	1018.6	1039.3
25°	113.1	119.7	141.9	206.0	314.9	454.4	697.1	1009.7	1119.9	1142.6
27.5°	100.4	104.2	115.5	165.4	285.2	436.0	729.7	1098.3	1207.2	1236.8
30°	90.5	95.2	104.6	138.6	256.4	409.6	759.4	1177.9	1281.2	1303.8
32.5°	83.0	88.1	96.6	125.4	231.9	389.8	776.3	1237.3	1344.3	1365.1
35°	77.8	82.5	91.0	113.6	210.2	376.1	781.5	1296.2	1421.6	1442.8
37.5°	73.1	77.8	85.3	101.8	195.1	358.2	789.5	1366.5	1511.2	1539.0
40°	69.8	73.5	80.6	93.8	174.4	338.9	799.0	1448.5	1598.4	1626.2
42.5°	66.5	70.7	76.8	94.3	153.7	322.4	805.1	1511.6	1667.7	1694.1
45°	63.6	68.3	75.4	92.4	138.1	307.3	802.3	1564.4	1730.8	1751.1
47.5°	60.8	66.5	79.2	88.6	133.4	293.7	804.6	1615.3	1776.1	1792.1
50°	58.9	66.0	84.8	83.0	134.3	287.5	827.2	1676.2	1810.0	1816.1
52.5°	57.5	67.4	80.1	74.9	134.3	284.7	870.6	1774.2	1868.9	1864.7
55°	55.1	66.9	74.9	67.9	128.7	286.1	911.6	1903.8	2010.3	1986.8
57.5°	53.3	64.1	67.4	62.7	115.5	286.6	972.4	2013.2	2121.6	2124.9
60°	50.9	68.8	58.4	58.4	99.0	284.2	1026.1	2011.3	2141.9	2163.5
62.5°	48.5	67.4	52.3	54.2	87.7	275.3	1058.7	1893.9	2066.9	2107.0
65°	45.7	53.3	48.1	50.4	83.0	253.1	1012.5	1748.3	1965.6	2008.5
67.5°	42.4	43.8	43.8	46.7	81.1	219.7	896.1	1587.5	1838.3	1890.2
70°	38.7	39.1	40.1	44.3	75.4	189.0	729.7	1416.4	1701.6	1767.1
72.5°	34.9	35.4	35.4	40.1	70.7	163.1	516.6	1122.3	1420.7	1489.5
75°	30.6	31.1	30.6	34.9	61.7	122.1	306.9	709.9	847.5	925.3
77.5°	25.9	25.9	25.0	27.3	42.4	77.3	167.8	431.3	515.7	563.7
80°	21.2	19.3	16.0	16.5	23.1	44.3	74.9	247.5	282.8	295.1
82.5°	14.1	10.8	6.6	6.1	7.5	12.3	17.4	98.0	90.0	85.3
85°	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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

(END OF REPORT)