

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: McGRAW-EDISON

Report Number: P227135

Luminaire Tested: **IST-AF-450-LED-E1-SL4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P227135  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35947)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: IST-AF-450-LED-E1-SL4  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL  
Light Source: (16) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

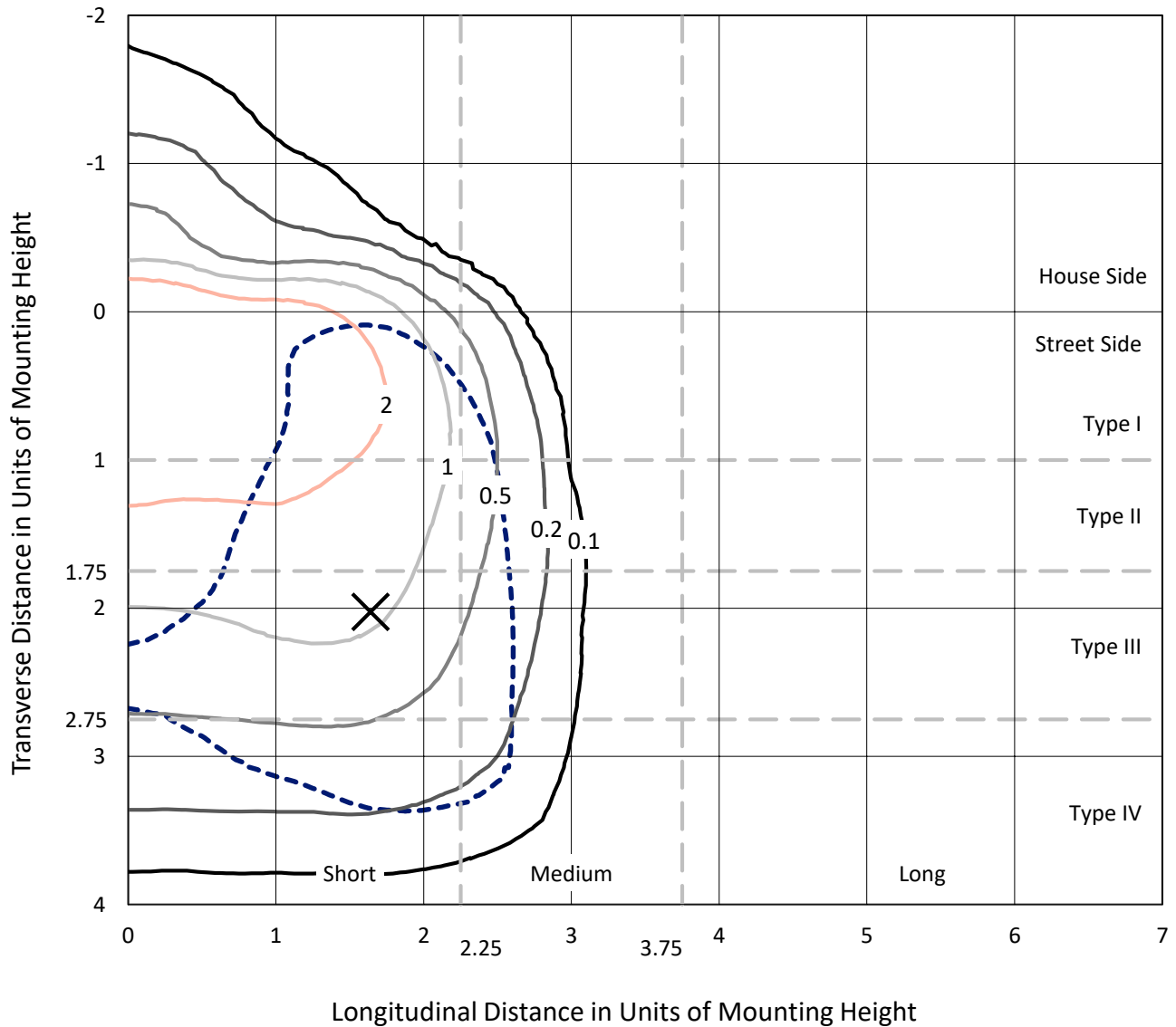
Lumens per Lamp: N/A  
Luminaire Lumens: 2869.7 lumens  
Efficiency: N/A  
Efficacy: 113.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U1 - G1  
  
Input Watts (W): 25.31  
Input Voltage (V): 120  
Input 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: P227135  
 CATALOG NUMBER: IST-AF-450-LED-E1-SL4

### Iso-Footcandle Lines of Horizontal Illumination

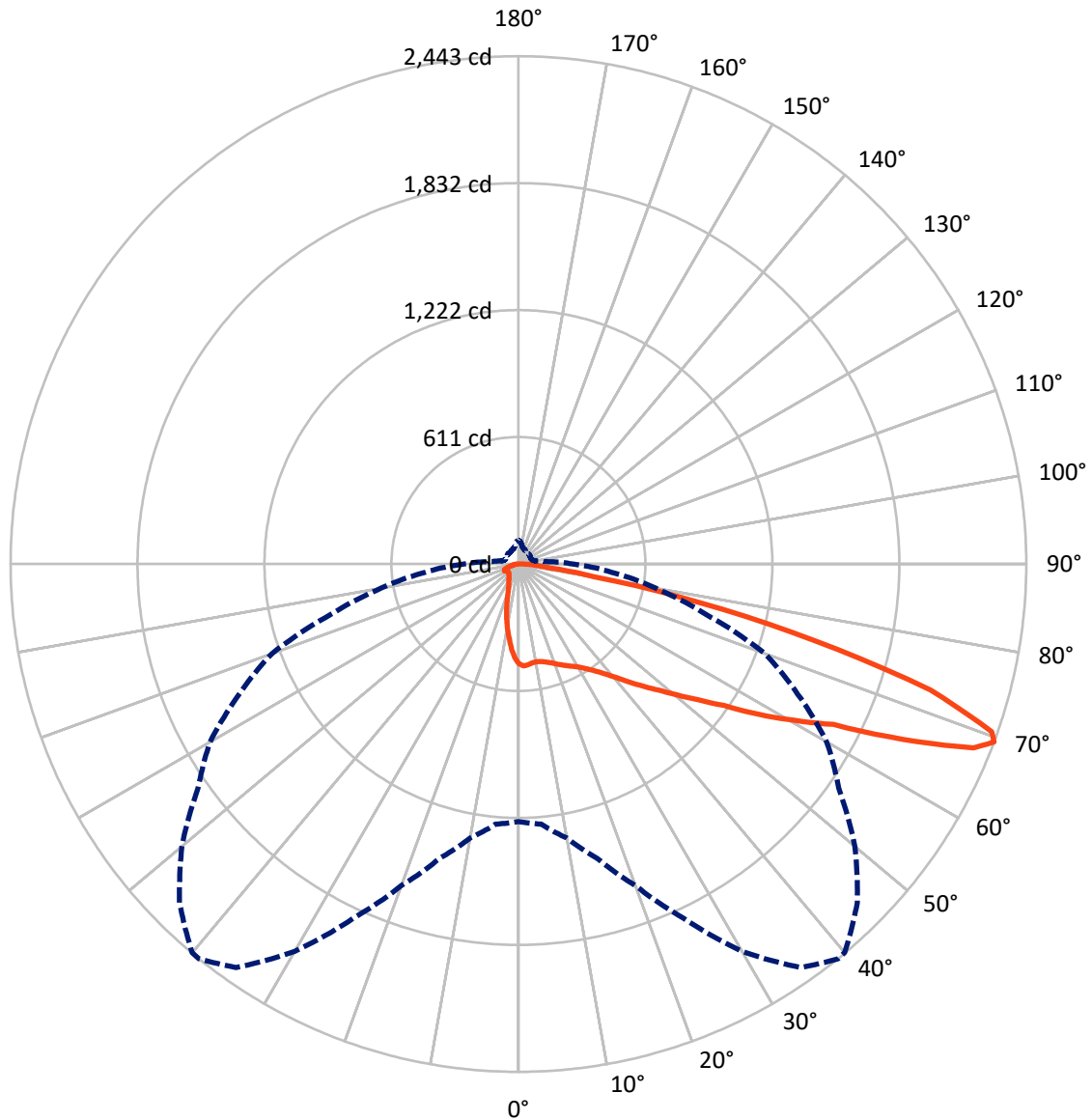
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P227135  
CATALOG NUMBER: IST-AF-450-LED-E1-SL4

### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P227135

CATALOG NUMBER: IST-AF-450-LED-E1-SL4

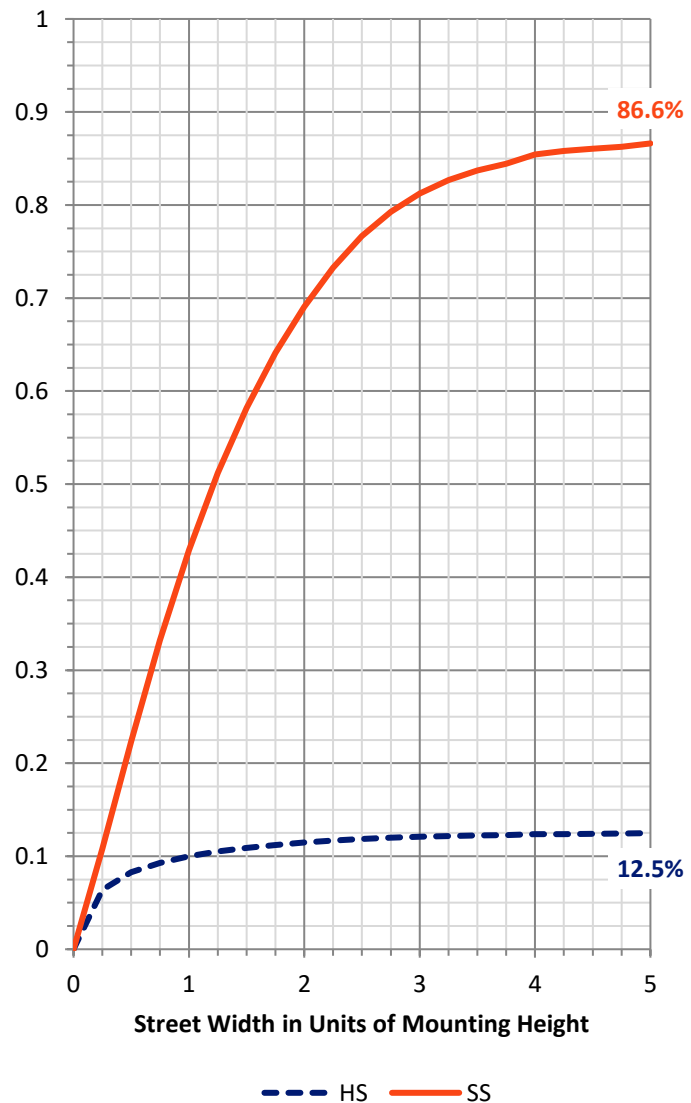
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	363.1	0.1	363.2
	% Fixture	12.7	0.0	12.7
<b>Street Side</b>	Lumens	2505.8	0.7	2506.5
	% Fixture	87.3	0.0	87.3
<b>Total</b>	Lumens	2868.9	0.8	2869.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.5	1.4
10°-20°	104.6	3.6
20°-30°	162.8	5.7
30°-40°	246.1	8.6
40°-50°	393.8	13.7
50°-60°	618.9	21.6
60°-70°	833.4	29.0
70°-80°	413.4	14.4
80°-90°	54.3	1.9
90°-100°	0.8	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°	2868.9	100.0
0°-180°	2869.7	100.0



REPORT NUMBER: P227135

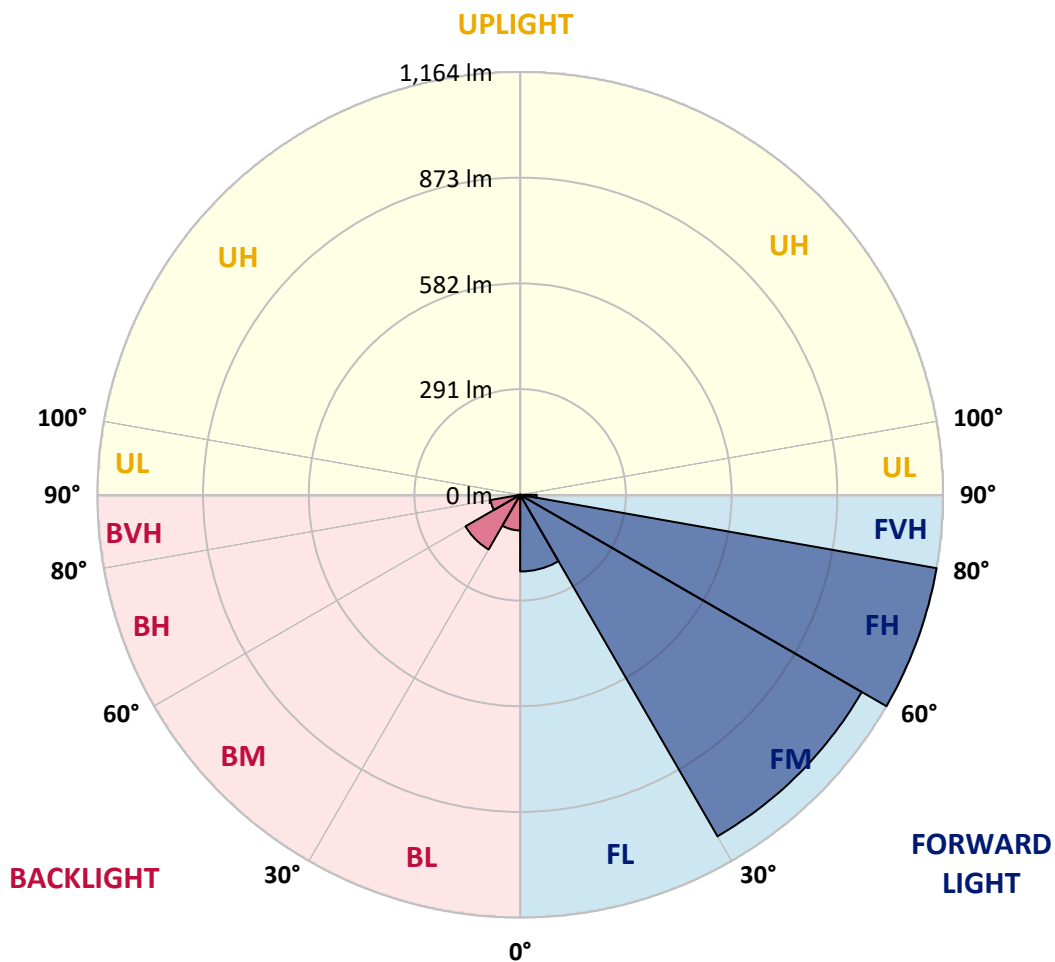
CATALOG NUMBER: IST-AF-450-LED-E1-SL4

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	211.0	7.4			
FM	(30°-60°)	1085.4	37.8			
FH	(60°-80°)	1163.7	40.6			G1/1800
FVH	(80°-90°)	45.7	1.6			G1/100
BL	(0°-30°)	98.0	3.4	B0/110		
BM	(30°-60°)	173.5	6.0	B0/220		
BH	(60°-80°)	83.1	2.9	B0/110		G0/110
BVH	(80°-90°)	8.6	0.3			G0/10
UL	(90°-100°)	0.8	0.0		U1/10	
UH	(100°-180°)	0.1	0.0		U1/10	

**BUG Rating: B0-U1-G1**

Type IV Short





REPORT NUMBER: P227135

CATALOG NUMBER: IST-AF-450-LED-E1-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	39°	40°	45°
0°	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7
2.5°	492.2	492.8	492.8	493.3	491.3	491.3	491.8	490.0	490.9	490.4	488.0
5°	493.3	493.7	493.3	493.7	491.3	490.4	488.6	486.2	487.1	486.7	483.4
7.5°	490.9	491.3	490.4	490.9	488.0	486.2	483.4	481.6	480.2	479.8	475.6
10°	485.8	487.1	485.3	486.7	484.4	482.5	481.1	479.3	478.3	477.8	473.2
12.5°	478.3	479.3	479.8	481.6	481.6	482.0	482.0	480.7	481.1	480.7	476.9
15°	471.4	474.5	477.8	479.8	483.4	485.8	487.6	487.1	488.6	488.0	485.8
17.5°	471.4	474.1	479.8	485.8	492.8	496.0	498.8	498.8	499.3	498.4	494.6
20°	473.2	478.3	487.6	497.9	506.3	512.8	514.6	514.1	512.3	512.3	505.7
22.5°	488.6	491.8	502.1	513.2	524.9	531.4	531.8	530.5	526.7	525.8	517.9
25°	510.5	514.1	523.4	538.0	546.8	551.9	550.6	545.8	542.2	538.9	530.5
27.5°	544.4	547.3	556.6	566.3	571.4	573.4	567.7	561.2	557.0	555.7	544.4
30°	579.4	583.1	590.5	596.6	600.8	595.3	586.4	578.9	575.2	574.3	564.1
32.5°	622.3	622.7	627.8	629.2	629.7	620.3	608.2	601.3	599.9	598.0	590.1
35°	661.3	663.7	662.8	662.3	658.1	646.4	636.2	632.0	630.6	630.1	623.6
37.5°	696.3	700.0	697.7	693.5	688.3	679.0	668.3	663.7	668.3	665.5	667.0
40°	730.3	730.3	727.5	725.2	719.1	710.2	706.6	707.0	714.4	716.3	718.2
42.5°	759.6	759.1	756.4	754.5	753.6	751.7	749.8	758.7	773.1	775.9	780.1
45°	791.8	791.3	780.6	784.3	790.8	792.3	798.7	819.3	837.0	838.3	847.2
47.5°	823.0	819.3	808.9	812.7	831.4	841.2	851.8	880.8	905.4	910.5	935.2
50°	855.6	851.8	840.7	847.6	873.7	891.9	917.1	957.1	991.1	998.1	1030.2
52.5°	889.6	889.1	880.2	891.0	923.1	959.9	999.5	1044.6	1086.1	1095.0	1142.4
55°	930.6	928.2	924.5	937.5	983.2	1032.6	1094.5	1155.9	1201.1	1217.0	1265.0
57.5°	976.6	975.7	976.2	1003.2	1058.1	1133.1	1209.0	1292.0	1366.5	1377.7	1422.4
60°	1016.7	1018.6	1029.3	1071.6	1140.6	1242.2	1348.8	1461.1	1527.2	1538.8	1582.6
62.5°	1065.6	1076.3	1100.1	1153.7	1234.7	1357.7	1496.0	1614.7	1699.9	1723.7	1806.6
65°	1182.9	1191.3	1235.6	1300.4	1403.7	1561.1	1720.0	1892.8	2033.4	2054.8	2126.1
67.5°	1268.7	1290.1	1359.5	1465.2	1614.7	1815.9	2033.9	2243.0	2361.8	2371.5	2321.7
69°	1238.9	1256.6	1338.5	1466.2	1646.4	1880.7	2151.7	2370.2	2443.3	2441.4	2305.8
70°	1193.3	1209.5	1299.9	1423.7	1619.8	1873.2	2153.6	2371.1	2415.3	2398.6	2243.4
72.5°	999.5	1013.9	1098.6	1228.2	1418.2	1669.7	1933.8	2082.3	2073.0	2059.0	1802.8
75°	624.1	623.2	697.2	772.2	919.8	1174.1	1370.7	1489.9	1470.8	1460.1	1157.4
77.5°	233.3	249.6	276.6	357.2	425.2	562.6	721.4	854.2	891.0	843.9	623.2
80°	121.5	130.4	148.1	176.6	203.1	232.4	279.5	359.6	372.1	347.0	251.5
82.5°	96.0	106.7	124.4	148.5	167.2	156.0	147.2	152.3	151.4	144.3	128.1
85°	72.6	85.2	114.1	138.8	165.3	139.7	111.3	97.4	86.6	87.1	92.7
87.5°	36.3	47.1	89.9	121.1	143.9	92.7	72.6	56.4	47.1	45.2	60.6
90°	11.2	11.2	18.2	23.7	32.6	16.3	15.9	12.1	8.9	8.9	14.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P227135

CATALOG NUMBER: IST-AF-450-LED-E1-SL4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	39°	40°	45°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P227135

CATALOG NUMBER: IST-AF-450-LED-E1-SL4

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7
2.5°	486.2	486.2	485.3	484.9	483.4	481.6	480.2	477.8	476.5	474.1	471.4
5°	480.2	478.3	477.4	475.6	472.7	470.4	467.6	464.3	460.6	455.9	450.8
7.5°	472.3	469.4	466.2	465.2	462.0	459.2	455.9	451.3	446.2	437.8	431.3
10°	469.0	466.2	463.4	461.6	457.4	454.1	450.4	444.3	437.8	426.6	414.5
12.5°	472.3	469.4	466.7	463.4	459.7	455.9	450.8	443.3	434.5	420.1	405.2
15°	480.2	477.4	472.7	469.4	464.3	461.0	454.1	445.7	432.7	415.0	395.4
17.5°	489.1	484.9	480.7	475.6	470.9	466.7	459.2	448.5	432.2	411.2	386.1
20°	497.5	492.8	486.2	482.5	477.8	471.8	463.9	450.8	431.3	403.8	376.3
22.5°	507.2	501.1	494.2	490.0	486.2	481.1	471.8	455.0	431.3	399.6	365.1
25°	519.8	511.9	504.8	500.6	498.4	494.6	483.4	464.8	434.5	397.3	355.8
27.5°	534.7	524.5	518.3	515.6	515.2	512.3	501.1	477.8	442.0	397.3	347.0
30°	552.4	543.5	535.6	535.6	541.1	539.3	526.7	497.9	453.7	398.6	340.4
32.5°	577.0	568.2	563.5	568.2	574.3	576.1	561.7	526.3	472.7	405.2	333.9
35°	613.4	607.8	604.6	611.5	623.6	628.3	610.6	568.7	500.6	417.8	330.2
37.5°	661.3	657.1	652.9	665.1	687.9	697.2	671.6	617.6	540.7	438.7	328.4
40°	716.3	716.8	721.4	745.6	767.5	787.1	758.2	691.6	595.7	468.5	330.2
42.5°	781.5	786.6	802.5	836.0	878.4	893.8	865.8	781.0	664.1	504.4	334.9
45°	862.6	876.1	903.1	952.9	1004.1	1027.9	988.3	893.8	750.3	561.7	347.9
47.5°	948.7	978.6	1024.2	1084.7	1144.4	1159.7	1110.8	995.7	834.6	612.4	368.0
50°	1059.1	1095.4	1141.1	1213.7	1277.1	1286.4	1221.6	1090.3	908.2	656.7	387.0
52.5°	1162.1	1211.4	1269.6	1353.9	1418.2	1406.6	1322.7	1174.6	966.4	687.0	397.7
55°	1302.7	1353.9	1419.5	1493.2	1556.9	1529.0	1414.4	1246.4	1013.0	709.3	401.0
57.5°	1463.3	1502.5	1566.8	1642.2	1684.1	1636.1	1504.8	1316.2	1057.2	709.8	375.4
60°	1621.3	1666.9	1737.7	1811.7	1835.0	1752.1	1567.7	1326.9	1013.4	633.4	300.4
62.5°	1855.0	1901.2	1937.1	1949.1	1907.2	1740.4	1494.5	1213.7	873.7	499.7	212.9
65°	2116.3	2064.2	1994.8	1929.6	1815.4	1562.0	1288.7	997.2	678.1	333.9	146.7
67.5°	2184.8	2026.0	1875.1	1729.8	1516.9	1244.0	972.0	701.4	435.0	190.1	99.6
69°	2113.5	1881.6	1713.4	1482.9	1263.1	931.0	669.7	449.5	259.9	132.3	83.4
70°	1983.1	1741.9	1514.2	1267.2	978.6	711.2	445.3	294.3	169.5	96.4	75.0
72.5°	1496.5	1196.4	922.2	598.9	365.1	202.6	142.5	102.0	80.6	70.8	64.2
75°	865.3	576.1	377.3	201.2	119.3	88.5	77.3	68.9	63.8	61.5	55.9
77.5°	365.1	228.2	154.7	113.1	80.1	68.4	59.6	54.9	54.5	53.1	48.0
80°	166.2	142.5	121.5	85.2	61.0	52.2	45.6	44.7	45.6	44.3	39.1
82.5°	123.5	121.5	101.6	65.7	46.5	34.9	28.4	29.8	33.6	36.3	31.7
85°	102.9	102.9	85.2	48.9	30.7	22.4	21.9	24.7	27.9	30.3	25.6
87.5°	94.5	90.8	48.9	25.2	17.7	14.4	13.5	12.1	12.1	21.0	17.7
90°	9.3	4.2	2.4	1.8	2.4	1.8	2.8	2.4	2.4	2.4	2.4
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P227135

CATALOG NUMBER: IST-AF-450-LED-E1-SL4

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P227135

CATALOG NUMBER: IST-AF-450-LED-E1-SL4

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7
2.5°	469.0	467.2	462.5	461.6	460.1	458.3	457.9	455.5	450.8	449.9	450.4
5°	447.5	440.2	435.0	430.8	427.6	419.2	415.9	412.1	405.7	403.8	401.0
7.5°	422.4	413.6	403.3	395.9	387.0	378.2	371.2	362.3	355.4	351.2	343.7
10°	402.8	390.8	377.3	362.3	350.7	337.2	328.4	318.1	306.9	296.7	289.2
12.5°	388.0	371.2	351.6	333.9	317.2	302.7	286.9	272.4	258.5	244.5	232.4
15°	375.8	354.9	330.2	307.8	287.3	266.0	248.3	228.2	210.5	198.5	183.0
17.5°	362.8	335.8	306.5	280.4	253.8	231.5	209.1	188.1	171.3	155.6	143.0
20°	347.0	314.4	282.7	252.5	222.2	196.5	173.7	153.6	137.4	124.8	115.5
22.5°	329.3	291.1	254.3	221.3	191.0	165.8	144.3	129.5	117.3	110.4	107.6
25°	312.0	268.2	226.8	190.5	160.2	138.8	124.4	111.8	105.8	102.9	102.9
27.5°	296.2	245.0	198.9	163.5	134.1	117.3	106.2	101.1	98.3	98.3	99.6
30°	281.3	221.7	172.4	136.5	113.1	100.6	94.5	92.7	93.2	95.0	96.9
32.5°	264.1	199.4	149.5	117.3	98.3	89.9	85.2	85.7	88.1	91.2	94.5
35°	245.9	175.5	129.5	102.9	88.1	81.5	78.7	79.2	82.4	86.6	89.9
37.5°	229.7	156.5	114.1	91.8	80.6	76.4	74.1	74.5	76.8	81.9	86.1
40°	213.3	140.1	101.6	85.2	76.4	72.2	70.8	70.3	72.2	76.8	81.9
42.5°	199.4	126.2	94.1	80.6	73.6	69.9	68.0	68.0	68.9	72.6	77.7
45°	191.0	117.8	89.0	77.3	71.3	68.0	66.2	65.2	66.6	68.9	73.6
47.5°	191.0	113.6	85.7	75.0	69.4	66.6	64.2	63.8	64.2	66.6	71.3
50°	197.4	114.6	85.2	74.1	68.4	64.8	62.4	62.4	63.3	66.6	70.3
52.5°	203.1	116.4	86.6	75.0	68.4	63.8	61.0	60.6	62.0	65.2	68.4
55°	202.1	116.4	88.1	76.4	69.9	64.2	60.6	60.0	61.0	64.2	67.5
57.5°	180.8	109.5	86.6	77.3	71.7	66.6	62.9	61.5	62.4	65.2	68.0
60°	146.3	97.4	82.9	77.3	74.5	70.8	67.1	66.2	66.6	69.4	72.6
62.5°	114.6	86.6	78.3	76.8	75.9	74.1	72.6	71.7	71.7	74.1	76.8
65°	93.2	78.3	74.5	75.0	75.9	75.5	75.0	74.5	74.5	75.9	78.7
67.5°	77.7	70.3	69.4	70.8	71.7	72.2	72.6	72.2	72.6	74.1	77.3
69°	70.8	66.2	65.2	66.2	68.0	68.4	69.4	68.9	69.4	70.8	74.1
70°	66.6	62.9	62.0	63.3	64.8	65.2	66.2	65.7	66.2	67.5	70.8
72.5°	57.8	53.6	52.2	53.1	54.5	54.5	55.9	56.4	55.4	55.9	58.2
75°	49.4	44.7	42.4	42.9	42.9	42.9	43.8	43.8	42.9	42.4	42.9
77.5°	41.4	36.3	33.6	33.6	33.6	33.0	31.7	32.1	32.6	32.1	32.6
80°	32.6	28.4	25.6	25.6	25.6	24.7	24.2	24.2	25.2	26.1	25.6
82.5°	25.2	21.0	19.5	19.1	19.1	18.2	18.2	19.1	18.6	19.1	20.0
85°	18.2	14.9	13.5	14.0	13.5	12.6	13.0	14.4	14.4	14.0	14.9
87.5°	11.2	9.3	8.9	9.3	8.4	7.0	6.5	7.0	7.9	7.5	8.4
90°	1.4	0.9	0.9	0.9	1.4	0.9	0.9	0.9	1.4	1.4	0.9
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P227135  
 CATALOG NUMBER: IST-AF-450-LED-E1-SL4

REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°

NUMBER: P227135  
 NUMBER: IST-AF-450-LED-E1-SL4

REPORT NUMBER: P  
 CATALOG NUMBER:

**DISTRIBUTION (continued):**

160°	165°	170°	175°	180°
480.7	480.7	480.7	480.7	480.7
447.1	448.5	442.4	445.3	443.3
398.2	395.9	395.4	394.0	391.2
340.9	339.1	333.5	335.3	331.1
281.8	281.3	271.1	271.5	266.4
227.3	218.9	214.7	208.7	212.0
176.0	169.1	160.2	157.8	161.1
132.8	125.7	121.5	117.8	116.4
109.9	105.8	103.4	102.0	101.1
106.2	105.3	104.8	103.8	103.4
103.8	104.8	104.8	104.8	103.8
101.6	103.4	103.8	103.4	102.5
99.2	100.6	100.6	100.1	98.7
96.0	97.4	97.4	96.9	96.0
92.2	93.2	93.6	93.6	94.1
89.4	90.3	91.2	92.2	93.6
86.1	87.6	88.1	89.9	91.8
81.9	83.9	84.8	86.1	88.1
77.7	80.1	80.6	82.4	84.3
75.9	77.7	77.7	79.2	80.6
73.6	74.5	74.1	75.0	75.5
71.3	72.2	71.7	72.6	73.1
69.4	70.3	71.3	72.2	72.6
70.3	71.7	72.2	73.6	74.1
74.5	76.4	78.3	80.1	81.5
78.7	81.0	85.2	93.6	96.9
81.0	84.3	94.1	108.5	112.7
79.7	83.9	95.4	110.9	116.0
<i>76.8</i>	<i>80.1</i>	<i>92.7</i>	<i>108.5</i>	<i>113.1</i>
73.1	76.4	89.0	106.2	110.4
59.1	61.0	75.0	91.2	94.1
43.3	44.7	55.4	62.0	61.5
33.6	35.4	39.1	39.6	39.1
26.6	27.5	29.4	29.4	29.8
20.5	21.0	21.9	21.0	20.5
15.3	14.9	14.4	14.0	13.5
8.9	8.9	7.5	6.5	6.0
0.9	1.4	1.4	0.9	0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0

**CANDELA DISTRIBUTION:**

	160°
110°	0.0
112.5°	0.0
115°	0.0
117.5°	0.0
120°	0.0
122.5°	0.0
125°	0.0
127.5°	0.0
130°	0.0
132.5°	0.0
135°	0.0
137.5°	0.0
140°	0.0
142.5°	0.0
145°	0.0
147.5°	0.0
150°	0.0
152.5°	0.0
155°	0.0
157.5°	0.0
160°	0.0
162.5°	0.0
165°	0.0
167.5°	0.0
170°	0.0
172.5°	0.0
175°	0.0
177.5°	0.0
180°	0.0

