

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: P227107

Luminaire Tested: **IST-AF-450-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227107
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-SL4-8030
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2289.1 lumens
Efficiency: N/A
Efficacy: 90.4 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

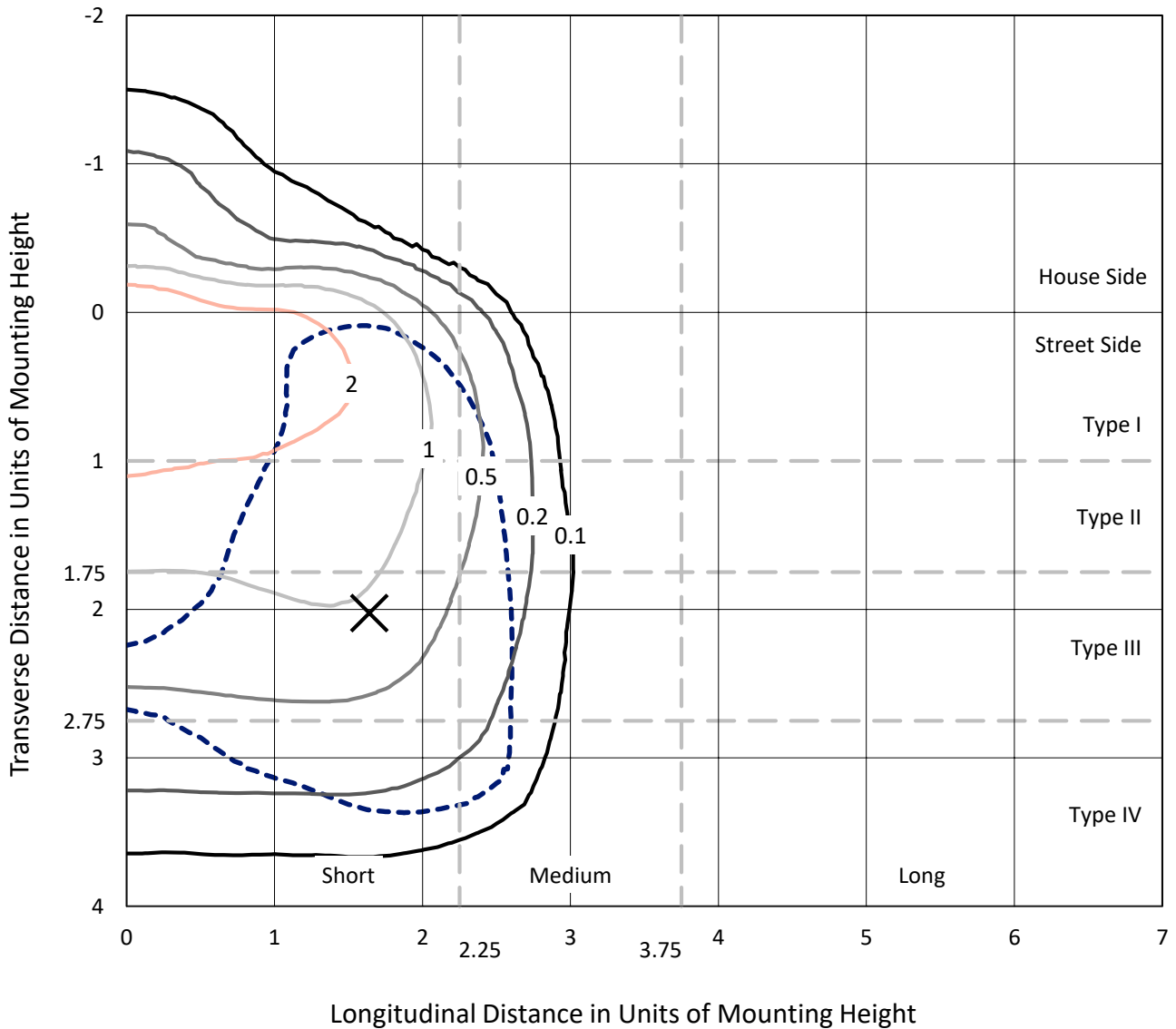
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

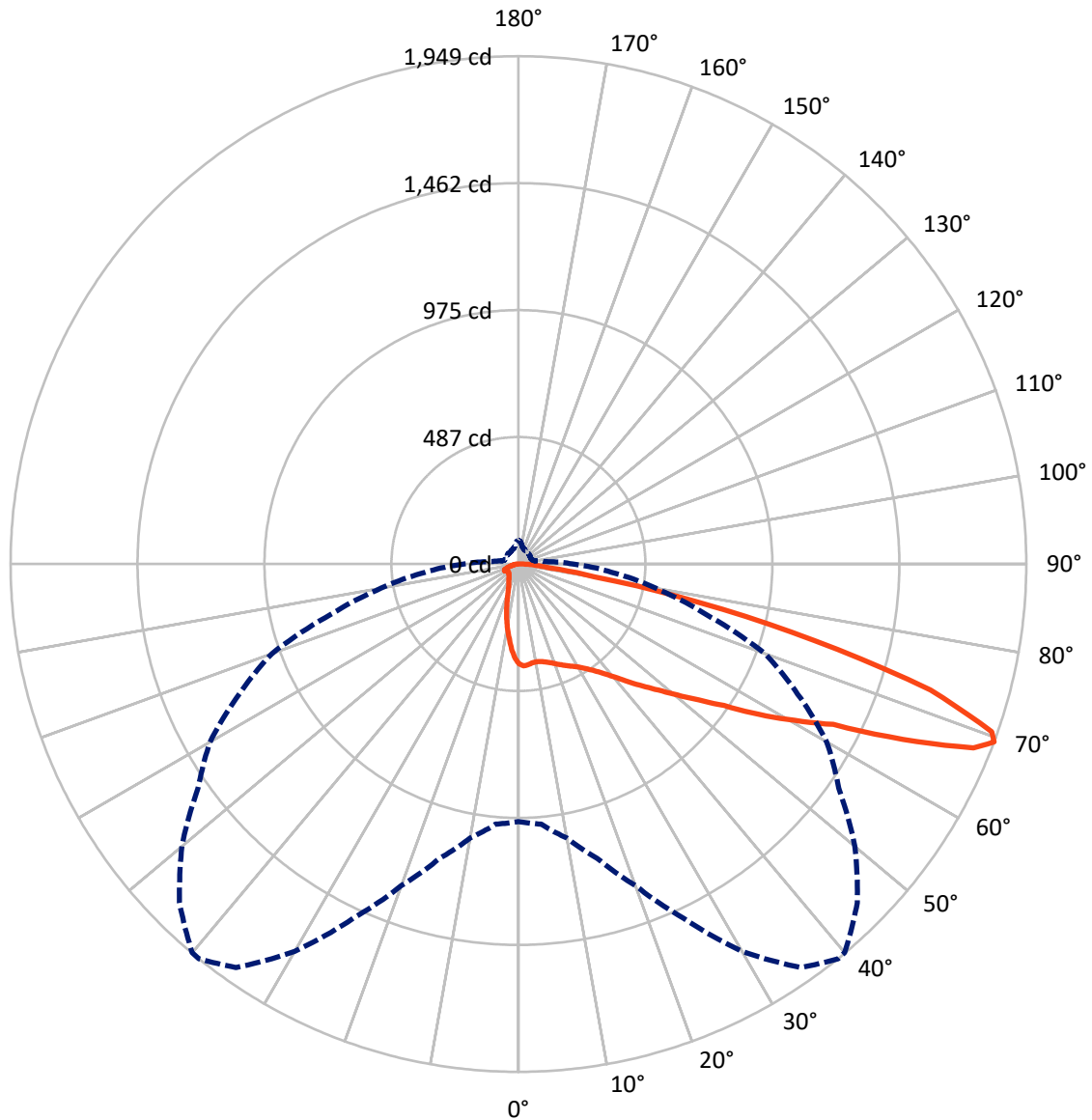
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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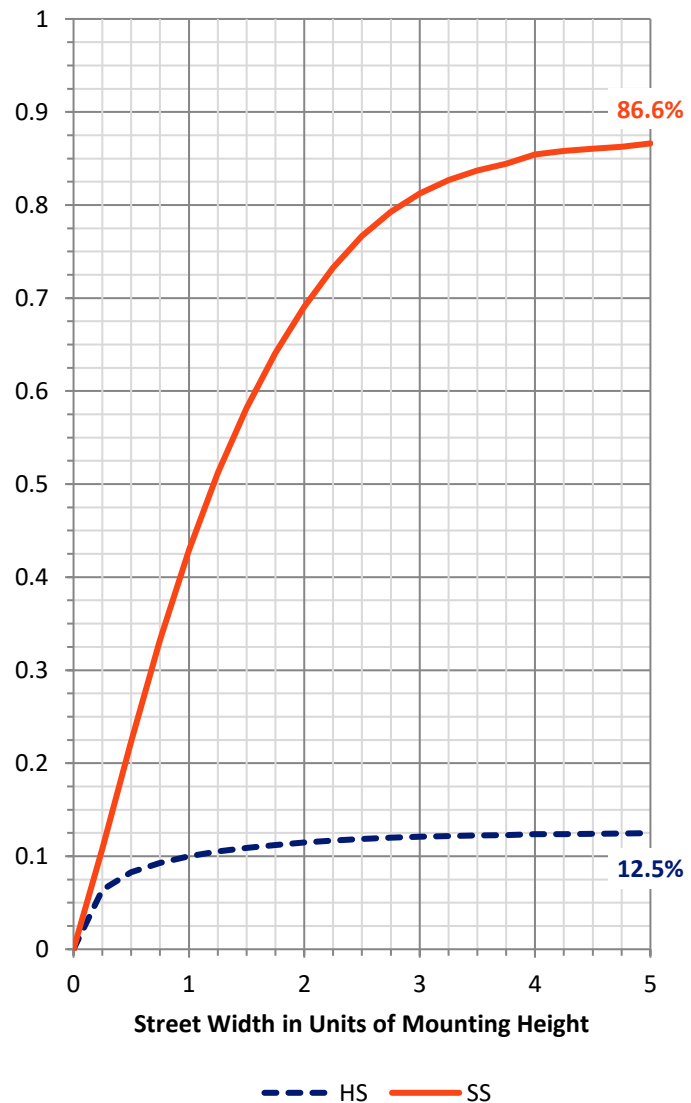
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	289.6	0.1	289.7
	% Fixture	12.7	0.0	12.7
Street Side	Lumens	1998.9	0.6	1999.4
	% Fixture	87.3	0.0	87.3
Total	Lumens	2288.5	0.6	2289.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	1.4
10°-20°	83.5	3.6
20°-30°	129.9	5.7
30°-40°	196.3	8.6
40°-50°	314.1	13.7
50°-60°	493.7	21.6
60°-70°	664.8	29.0
70°-80°	329.8	14.4
80°-90°	43.3	1.9
90°-100°	0.6	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°	2288.5	100.0
0°-180°	2289.1	100.0

Coefficient of Utilization



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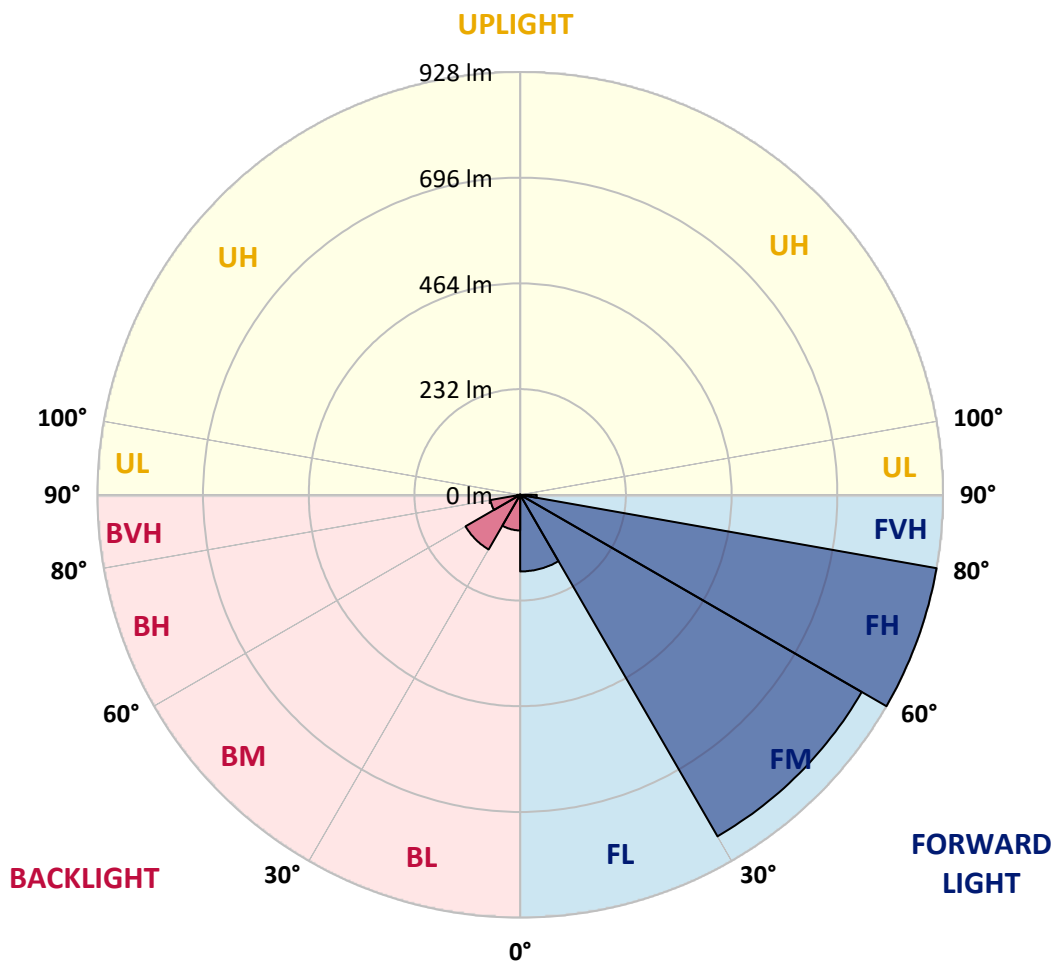
CATALOG NUMBER: IST-AF-450-LED-E1-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	168.3	7.4			
FM	(30°-60°)	865.8	37.8			
FH	(60°-80°)	928.3	40.6			G1/1800
FVH	(80°-90°)	36.5	1.6			G1/100
BL	(0°-30°)	78.1	3.4	B0/110		
BM	(30°-60°)	138.4	6.0	B0/220		
BH	(60°-80°)	66.3	2.9	B0/110		G0/110
BVH	(80°-90°)	6.8	0.3			G0/10
UL	(90°-100°)	0.6	0.0		U1/10	
UH	(100°-180°)	0.1	0.0		U1/10	

BUG Rating: B0-U1-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	39°	40°	45°
0°	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4
2.5°	392.7	393.1	393.1	393.4	392.0	392.0	392.3	390.8	391.6	391.2	389.4
5°	393.4	393.8	393.4	393.8	392.0	391.2	389.7	387.9	388.6	388.2	385.6
7.5°	391.6	392.0	391.2	391.6	389.4	387.9	385.6	384.1	383.0	382.7	379.3
10°	387.5	388.6	387.1	388.2	386.4	384.9	383.8	382.3	381.5	381.2	377.5
12.5°	381.5	382.3	382.7	384.1	384.1	384.5	384.5	383.4	383.8	383.4	380.4
15°	376.0	378.6	381.2	382.7	385.6	387.5	389.0	388.6	389.7	389.4	387.5
17.5°	376.0	378.2	382.7	387.5	393.1	395.7	397.9	397.9	398.3	397.5	394.6
20°	377.5	381.5	389.0	397.2	403.8	409.0	410.5	410.2	408.7	408.7	403.5
22.5°	389.7	392.3	400.5	409.4	418.7	423.9	424.3	423.2	420.2	419.4	413.1
25°	407.2	410.2	417.6	429.1	436.2	440.2	439.1	435.4	432.4	429.8	423.2
27.5°	434.3	436.5	444.0	451.8	455.9	457.3	452.9	447.7	444.3	443.2	434.3
30°	462.2	465.1	471.1	475.9	479.3	474.8	467.7	461.8	458.8	458.1	449.9
32.5°	496.3	496.7	500.8	501.9	502.3	494.9	485.2	479.6	478.5	477.0	470.7
35°	527.6	529.4	528.7	528.3	525.0	515.7	507.5	504.2	503.0	502.7	497.5
37.5°	555.4	558.4	556.5	553.2	549.1	541.7	533.1	529.4	533.1	530.9	532.0
40°	582.5	582.5	580.3	578.5	573.6	566.6	563.6	564.0	569.9	571.4	572.9
42.5°	605.9	605.6	603.3	601.9	601.1	599.6	598.1	605.2	616.7	618.9	622.3
45°	631.6	631.2	622.7	625.6	630.8	632.0	637.2	653.5	667.6	668.7	675.8
47.5°	656.5	653.5	645.3	648.3	663.2	671.0	679.5	702.5	722.2	726.3	746.0
50°	682.5	679.5	670.6	676.2	697.0	711.5	731.5	763.5	790.6	796.2	821.8
52.5°	709.6	709.2	702.2	710.7	736.3	765.7	797.3	833.3	866.4	873.4	911.3
55°	742.3	740.4	737.5	747.9	784.3	823.7	873.1	922.1	958.1	970.8	1009.0
57.5°	779.1	778.3	778.7	800.3	844.1	903.9	964.5	1030.6	1090.0	1099.0	1134.6
60°	811.0	812.5	821.1	854.9	909.8	990.8	1075.9	1165.5	1218.2	1227.5	1262.4
62.5°	850.0	858.6	877.5	920.3	984.9	1083.0	1193.3	1288.1	1356.0	1375.0	1441.1
65°	943.7	950.3	985.6	1037.3	1119.8	1245.3	1372.0	1509.8	1622.0	1639.1	1696.0
67.5°	1012.0	1029.1	1084.5	1168.8	1288.1	1448.5	1622.4	1789.2	1884.0	1891.8	1852.0
69°	988.2	1002.4	1067.7	1169.5	1313.3	1500.2	1716.4	1890.7	1949.0	1947.5	1839.4
70°	951.8	964.8	1036.9	1135.7	1292.1	1494.2	1717.9	1891.4	1926.7	1913.3	1789.6
72.5°	797.3	808.8	876.4	979.7	1131.3	1331.9	1542.5	1661.1	1653.6	1642.5	1438.1
75°	497.8	497.1	556.2	616.0	733.7	936.6	1093.4	1188.5	1173.3	1164.7	923.2
77.5°	186.1	199.1	220.7	285.0	339.2	448.8	575.5	681.4	710.7	673.2	497.1
80°	97.0	104.0	118.1	140.8	162.0	185.4	222.9	286.8	296.8	276.8	200.6
82.5°	76.5	85.1	99.2	118.5	133.4	124.5	117.4	121.5	120.7	115.2	102.2
85°	58.0	68.0	91.0	110.7	131.9	111.5	88.8	77.6	69.1	69.5	73.9
87.5°	29.0	37.5	71.7	96.6	114.8	73.9	58.0	45.0	37.5	36.0	48.3
90°	8.9	8.9	14.5	18.9	26.0	13.0	12.6	9.7	7.1	7.1	11.1
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



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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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4
2.5°	387.9	387.9	387.1	386.8	385.6	384.1	383.0	381.2	380.1	378.2	376.0
5°	383.0	381.5	380.8	379.3	377.1	375.2	373.0	370.4	367.4	363.7	359.6
7.5°	376.7	374.5	371.9	371.1	368.5	366.3	363.7	360.0	355.9	349.2	344.0
10°	374.1	371.9	369.7	368.2	364.8	362.2	359.3	354.4	349.2	340.3	330.7
12.5°	376.7	374.5	372.3	369.7	366.7	363.7	359.6	353.7	346.6	335.1	323.2
15°	383.0	380.8	377.1	374.5	370.4	367.8	362.2	355.5	345.1	331.0	315.4
17.5°	390.1	386.8	383.4	379.3	375.6	372.3	366.3	357.8	344.8	328.1	308.0
20°	396.8	393.1	387.9	384.9	381.2	376.3	370.0	359.6	344.0	322.1	300.2
22.5°	404.6	399.8	394.2	390.8	387.9	383.8	376.3	363.0	344.0	318.8	291.3
25°	414.6	408.3	402.7	399.4	397.5	394.6	385.6	370.8	346.6	316.9	283.8
27.5°	426.5	418.3	413.5	411.3	410.9	408.7	399.8	381.2	352.6	316.9	276.8
30°	440.6	433.6	427.2	427.2	431.7	430.2	420.2	397.2	361.9	318.0	271.6
32.5°	460.3	453.3	449.5	453.3	458.1	459.6	448.1	419.8	377.1	323.2	266.4
35°	489.3	484.8	482.2	487.8	497.5	501.2	487.1	453.6	399.4	333.3	263.4
37.5°	527.6	524.2	520.9	530.5	548.7	556.2	535.7	492.6	431.3	350.0	261.9
40°	571.4	571.8	575.5	594.8	612.3	627.9	604.8	551.7	475.2	373.7	263.4
42.5°	623.4	627.5	640.1	666.9	700.7	712.9	690.7	623.0	529.8	402.4	267.1
45°	688.1	698.8	720.4	760.1	801.0	819.9	788.4	712.9	598.5	448.1	277.5
47.5°	756.8	780.6	817.0	865.3	912.8	925.1	886.1	794.3	665.8	488.5	293.5
50°	844.8	873.8	910.2	968.2	1018.7	1026.1	974.5	869.7	724.5	523.8	308.7
52.5°	926.9	966.3	1012.8	1080.0	1131.3	1122.0	1055.1	937.0	770.9	548.0	317.3
55°	1039.1	1080.0	1132.4	1191.1	1242.0	1219.7	1128.3	994.2	808.1	565.8	319.9
57.5°	1167.3	1198.5	1249.8	1310.0	1343.4	1305.1	1200.4	1049.9	843.3	566.2	299.4
60°	1293.3	1329.7	1386.1	1445.2	1463.8	1397.7	1250.5	1058.5	808.4	505.3	239.6
62.5°	1479.8	1516.5	1545.1	1554.8	1521.4	1388.4	1192.2	968.2	697.0	398.6	169.8
65°	1688.2	1646.6	1591.2	1539.2	1448.2	1246.1	1028.0	795.4	540.9	266.4	117.0
67.5°	1742.8	1616.1	1495.7	1379.8	1210.0	992.3	775.4	559.5	347.0	151.6	79.5
69°	1685.9	1500.9	1366.8	1182.9	1007.6	742.7	534.2	358.5	207.3	105.5	66.5
70°	1581.9	1389.5	1207.8	1010.9	780.6	567.3	355.2	234.8	135.2	76.9	59.8
72.5°	1193.7	954.4	735.6	477.8	291.3	161.6	113.7	81.4	64.3	56.5	51.3
75°	690.3	459.6	300.9	160.5	95.1	70.6	61.7	55.0	50.9	49.0	44.6
77.5°	291.3	182.0	123.3	90.3	63.9	54.6	47.6	43.8	43.5	42.4	38.3
80°	132.6	113.7	97.0	68.0	48.7	41.6	36.4	35.7	36.4	35.3	31.2
82.5°	98.5	97.0	81.0	52.4	37.2	27.9	22.7	23.8	26.7	29.0	25.3
85°	82.1	82.1	68.0	39.0	24.5	17.8	17.5	19.7	22.3	24.1	20.4
87.5°	75.4	72.4	39.0	20.1	14.1	11.5	10.8	9.7	9.7	16.7	14.1
90°	7.4	3.3	1.9	1.5	1.9	1.5	2.2	1.9	1.9	1.9	1.9
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



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CATALOG NUMBER: IST-AF-450-LED-E1-SL4-8030

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: P227107

CATALOG NUMBER: IST-AF-450-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4
2.5°	374.1	372.6	368.9	368.2	367.1	365.6	365.2	363.3	359.6	358.9	359.3
5°	357.0	351.1	347.0	343.7	341.1	334.4	331.8	328.8	323.6	322.1	319.9
7.5°	337.0	329.9	321.7	315.8	308.7	301.7	296.1	289.0	283.5	280.1	274.2
10°	321.4	311.7	300.9	289.0	279.8	269.0	261.9	253.7	244.8	236.7	230.7
12.5°	309.5	296.1	280.5	266.4	253.0	241.5	228.9	217.3	206.2	195.0	185.4
15°	299.8	283.1	263.4	245.6	229.2	212.1	198.0	182.0	167.9	158.3	146.0
17.5°	289.4	267.9	244.5	223.7	202.5	184.6	166.8	150.1	136.7	124.1	114.1
20°	276.8	250.8	225.5	201.4	177.2	156.8	138.6	122.6	109.6	99.6	92.1
22.5°	262.7	232.2	202.8	176.5	152.3	132.3	115.2	103.3	93.6	88.0	85.8
25°	248.9	214.0	180.9	152.0	127.8	110.7	99.2	89.2	84.3	82.1	82.1
27.5°	236.3	195.4	158.6	130.4	107.0	93.6	84.7	80.6	78.4	78.4	79.5
30°	224.4	176.8	137.5	108.9	90.3	80.2	75.4	73.9	74.3	75.8	77.3
32.5°	210.7	159.0	119.3	93.6	78.4	71.7	68.0	68.4	70.2	72.8	75.4
35°	196.2	140.1	103.3	82.1	70.2	65.0	62.8	63.2	65.8	69.1	71.7
37.5°	183.2	124.8	91.0	73.2	64.3	60.9	59.1	59.4	61.3	65.4	68.7
40°	170.2	111.8	81.0	68.0	60.9	57.6	56.5	56.1	57.6	61.3	65.4
42.5°	159.0	100.7	75.0	64.3	58.7	55.7	54.2	54.2	55.0	58.0	62.0
45°	152.3	94.0	71.0	61.7	56.8	54.2	52.8	52.0	53.1	55.0	58.7
47.5°	152.3	90.7	68.4	59.8	55.4	53.1	51.3	50.9	51.3	53.1	56.8
50°	157.5	91.4	68.0	59.1	54.6	51.6	49.8	49.8	50.5	53.1	56.1
52.5°	162.0	92.9	69.1	59.8	54.6	50.9	48.7	48.3	49.4	52.0	54.6
55°	161.2	92.9	70.2	60.9	55.7	51.3	48.3	47.9	48.7	51.3	53.9
57.5°	144.1	87.3	69.1	61.7	57.2	53.1	50.2	49.0	49.8	52.0	54.2
60°	116.7	77.6	66.1	61.7	59.4	56.5	53.5	52.8	53.1	55.4	58.0
62.5°	91.4	69.1	62.4	61.3	60.6	59.1	58.0	57.2	57.2	59.1	61.3
65°	74.3	62.4	59.4	59.8	60.6	60.2	59.8	59.4	59.4	60.6	62.8
67.5°	62.0	56.1	55.4	56.5	57.2	57.6	58.0	57.6	58.0	59.1	61.7
69°	56.5	52.8	52.0	52.8	54.2	54.6	55.4	55.0	55.4	56.5	59.1
70°	53.1	50.2	49.4	50.5	51.6	52.0	52.8	52.4	52.8	53.9	56.5
72.5°	46.1	42.7	41.6	42.4	43.5	43.5	44.6	45.0	44.2	44.6	46.4
75°	39.4	35.7	33.8	34.2	34.2	34.2	34.9	34.9	34.2	33.8	34.2
77.5°	33.1	29.0	26.7	26.7	26.7	26.4	25.3	25.6	26.0	25.6	26.0
80°	26.0	22.7	20.4	20.4	20.4	19.7	19.3	19.3	20.1	20.8	20.4
82.5°	20.1	16.7	15.6	15.2	15.2	14.5	14.5	15.2	14.9	15.2	16.0
85°	14.5	11.9	10.8	11.1	10.8	10.0	10.4	11.5	11.5	11.1	11.9
87.5°	8.9	7.4	7.1	7.4	6.7	5.6	5.2	5.6	6.3	5.9	6.7
90°	1.1	0.7	0.7	0.7	1.1	0.7	0.7	0.7	1.1	1.1	0.7
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: P227107
 CATALOG NUMBER: IST-AF-450-LED-E1-SL4-8030

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: P227107
 NUMBER: IST-AF-450-LED-E1-SL4-8030

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

160°	165°	170°	175°	180°
383.4	383.4	383.4	383.4	383.4
356.7	357.8	352.9	355.2	353.7
317.6	315.8	315.4	314.3	312.1
272.0	270.5	266.0	267.5	264.1
224.8	224.4	216.2	216.6	212.5
181.3	174.6	171.3	166.4	169.0
140.4	134.9	127.8	125.9	128.5
105.9	100.3	97.0	94.0	92.9
87.7	84.3	82.5	81.4	80.6
84.7	84.0	83.6	82.8	82.5
82.8	83.6	83.6	83.6	82.8
81.0	82.5	82.8	82.5	81.7
79.1	80.2	80.2	79.9	78.8
76.5	77.6	77.6	77.3	76.5
73.6	74.3	74.7	74.7	75.0
71.3	72.1	72.8	73.6	74.7
68.7	69.8	70.2	71.7	73.2
65.4	66.9	67.6	68.7	70.2
62.0	63.9	64.3	65.8	67.2
60.6	62.0	62.0	63.2	64.3
58.7	59.4	59.1	59.8	60.2
56.8	57.6	57.2	58.0	58.3
55.4	56.1	56.8	57.6	58.0
56.1	57.2	57.6	58.7	59.1
59.4	60.9	62.4	63.9	65.0
62.8	64.6	68.0	74.7	77.3
64.6	67.2	75.0	86.6	89.9
63.5	66.9	76.2	88.4	92.5
61.3	63.9	73.9	86.6	90.3
58.3	60.9	71.0	84.7	88.0
47.2	48.7	59.8	72.8	75.0
34.6	35.7	44.2	49.4	49.0
26.7	28.2	31.2	31.6	31.2
21.2	21.9	23.4	23.4	23.8
16.3	16.7	17.5	16.7	16.3
12.3	11.9	11.5	11.1	10.8
7.1	7.1	5.9	5.2	4.8
0.7	1.1	1.1	0.7	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
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

