

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: P226977

Luminaire Tested: **IST-AF-450-LED-E1-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35946)
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-SL3-8030
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III W/SPILL CONTROL
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2423.2 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B0 - U1 - G1

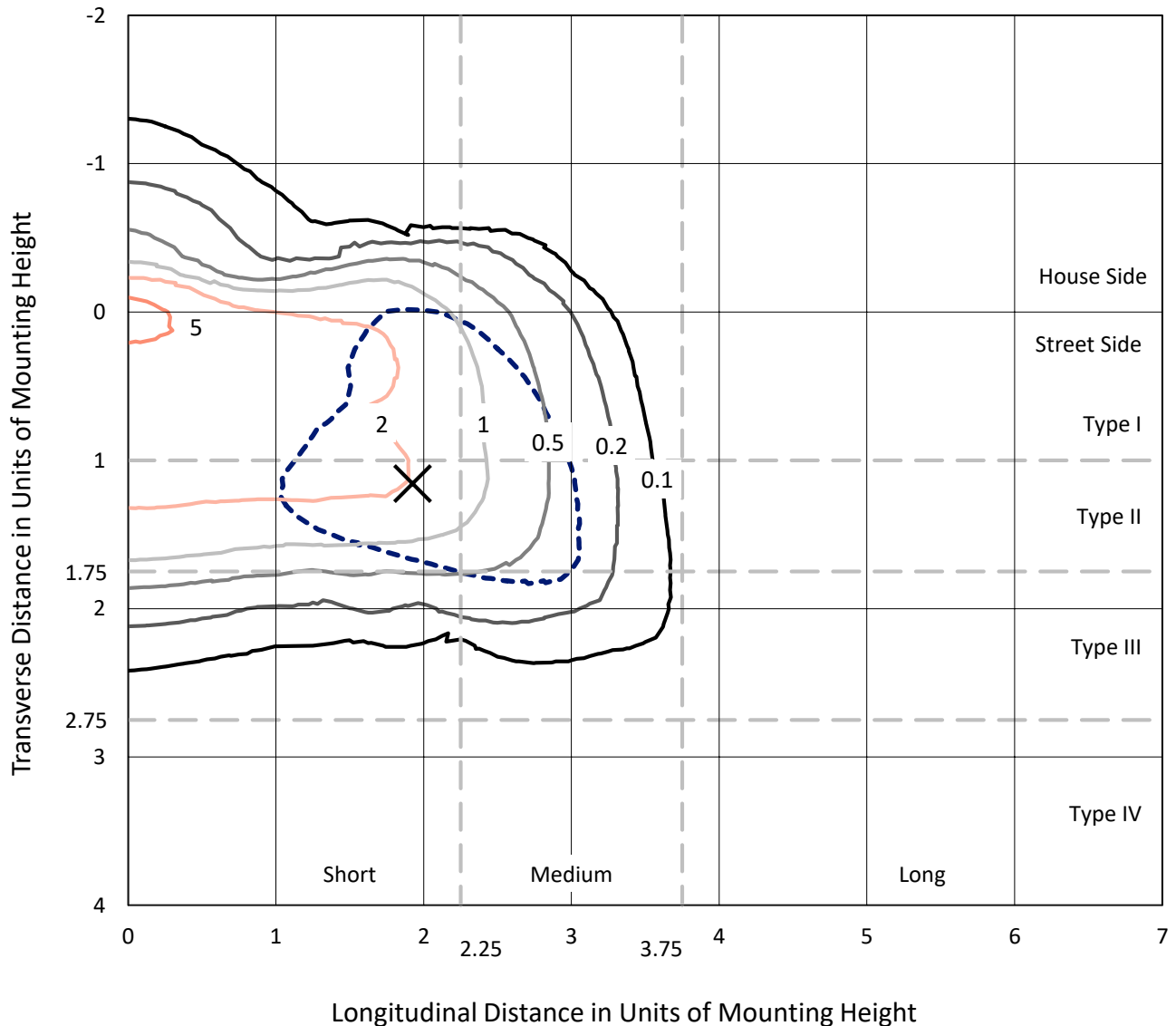
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

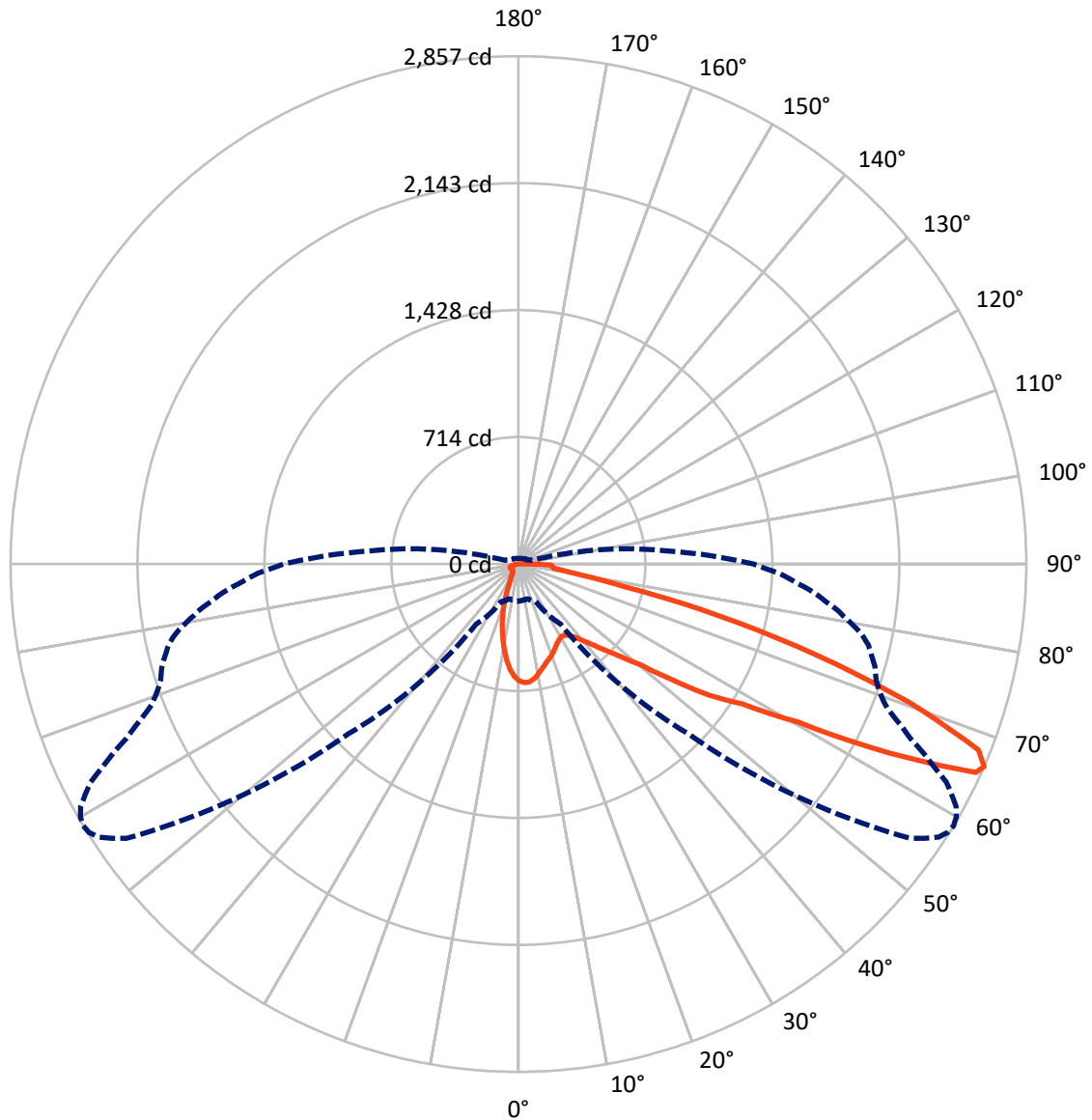
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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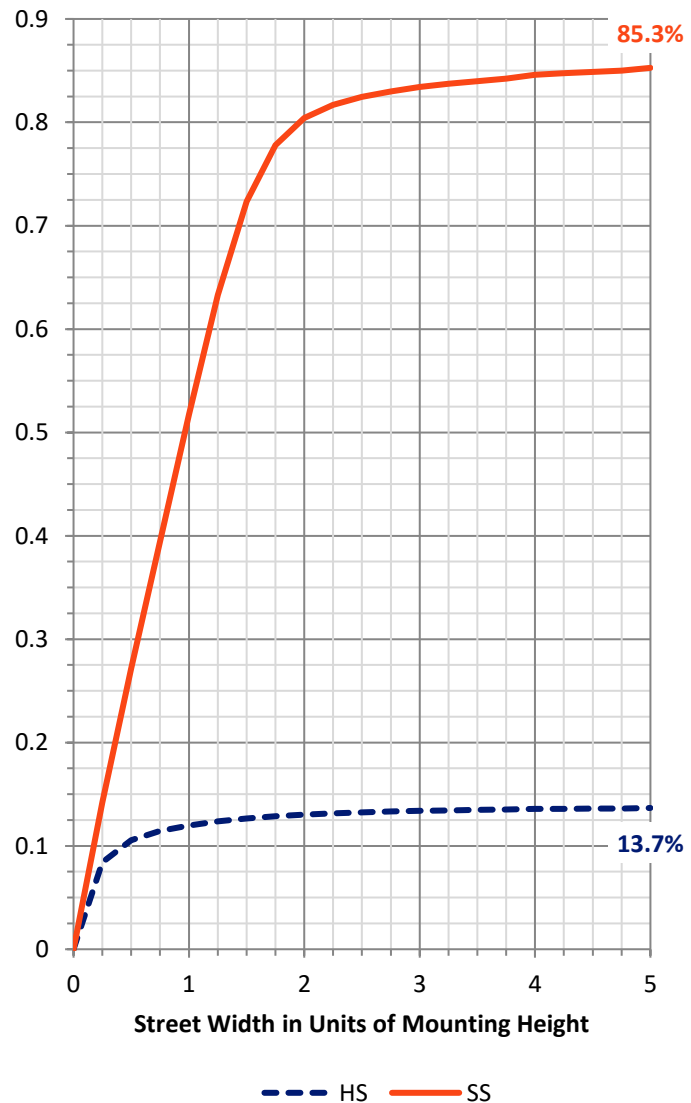
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	336.2	0.2	336.4
	% Fixture	13.9	0.0	13.9
Street Side	Lumens	2086.0	0.9	2086.9
	% Fixture	86.1	0.0	86.1
Total	Lumens	2422.2	1.0	2423.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.1	2.3
10°-20°	118.5	4.9
20°-30°	148.7	6.1
30°-40°	203.4	8.4
40°-50°	327.3	13.5
50°-60°	568.7	23.5
60°-70°	691.0	28.5
70°-80°	257.8	10.6
80°-90°	50.7	2.1
90°-100°	1.0	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°	2422.2	100.0
0°-180°	2423.2	100.0



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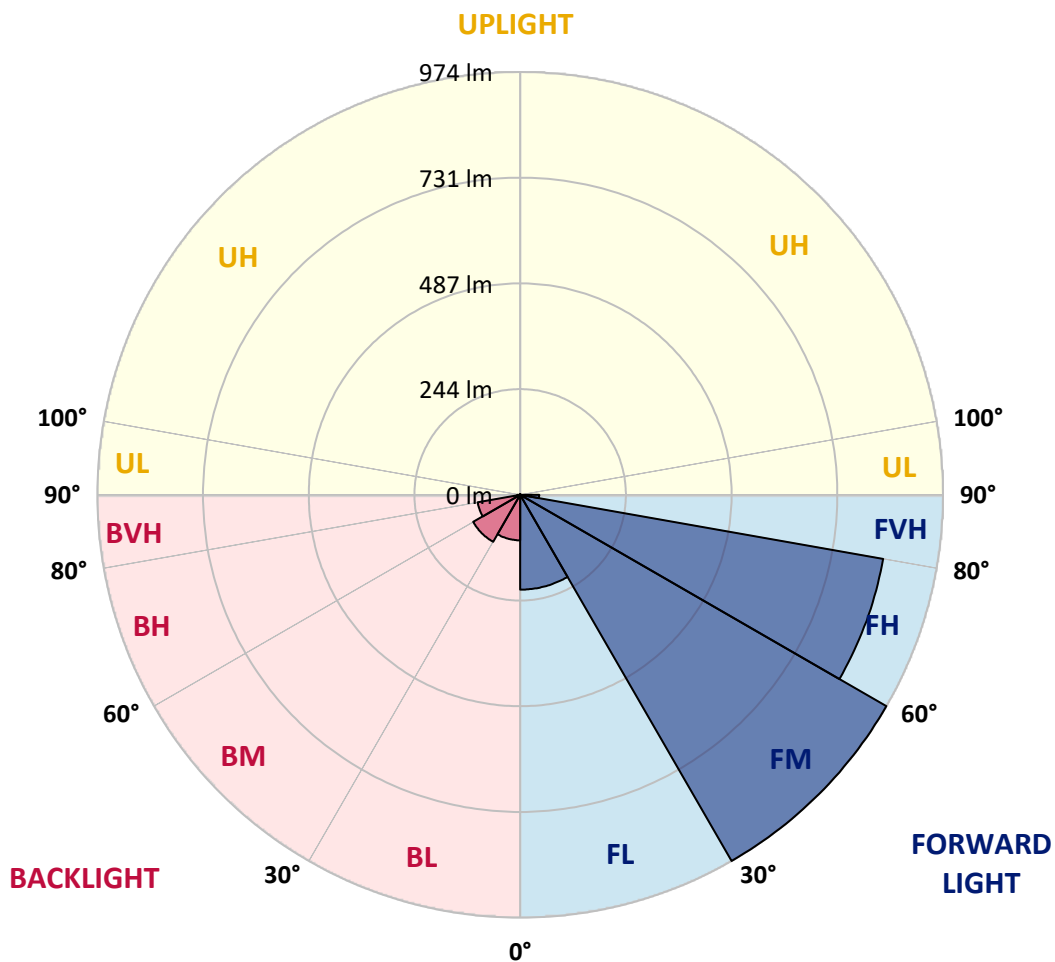
CATALOG NUMBER: IST-AF-450-LED-E1-SL3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	218.5	9.0			
FM (30°-60°)	974.4	40.2			
FH (60°-80°)	849.3	35.0			G1/1800
FVH (80°-90°)	43.7	1.8			G1/100
BL (0°-30°)	104.8	4.3	B0/110		
BM (30°-60°)	125.0	5.2	B0/220		
BH (60°-80°)	99.4	4.1	B0/110		G0/110
BVH (80°-90°)	7.0	0.3			G0/10
UL (90°-100°)	1.0	0.0		U1/10	
UH (100°-180°)	0.2	0.0		U1/10	

BUG Rating: B0-U1-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3
2.5°	675.4	673.2	677.3	675.8	676.9	671.3	670.2	669.1	669.8	668.7	668.7
5°	659.4	658.3	663.1	665.8	668.0	667.2	666.9	666.9	667.2	664.6	665.0
7.5°	612.6	611.9	618.6	623.4	634.2	640.5	648.7	649.0	649.8	648.7	650.9
10°	562.8	565.1	571.0	578.8	594.8	604.5	620.1	623.0	624.1	624.5	624.9
12.5°	515.3	513.1	520.5	535.3	556.9	572.5	592.2	593.7	595.5	598.1	600.7
15°	472.9	475.5	481.5	497.1	519.7	541.7	567.3	568.8	572.5	574.7	578.4
17.5°	444.0	444.0	450.6	465.1	486.3	514.2	546.5	549.1	552.1	555.0	559.1
20°	429.5	429.5	432.1	440.6	459.2	485.9	524.9	527.9	533.1	536.5	542.0
22.5°	428.4	428.0	427.6	429.5	440.6	461.4	501.9	506.0	510.5	515.7	520.5
25°	440.2	441.4	436.9	433.9	435.0	444.7	480.0	482.2	490.8	494.1	500.1
27.5°	457.3	459.2	455.5	451.0	444.3	438.0	461.4	465.1	470.7	476.3	483.7
30°	481.9	481.5	481.1	478.1	465.1	445.4	455.8	458.4	463.3	467.7	474.0
32.5°	508.2	511.2	513.4	511.9	498.6	465.1	463.6	465.9	470.3	472.9	477.0
35°	542.4	543.9	552.4	552.4	539.1	500.4	485.6	487.4	489.7	490.8	493.7
37.5°	579.9	585.1	597.8	605.2	584.4	544.3	520.1	520.1	521.2	522.0	523.8
40°	623.4	630.8	648.3	662.4	649.0	598.9	565.4	568.8	567.7	566.2	570.3
42.5°	673.9	682.1	703.3	716.6	708.8	664.6	626.4	624.1	627.5	623.0	624.5
45°	732.6	738.9	760.5	774.6	780.9	745.3	706.2	701.8	701.8	692.1	696.2
47.5°	785.4	787.2	808.0	832.9	853.4	854.1	799.1	796.2	789.1	782.8	781.3
50°	834.4	840.0	853.4	880.5	923.2	960.4	926.9	917.6	909.8	886.4	893.5
52.5°	919.5	930.3	938.8	955.2	1005.7	1081.1	1122.3	1107.8	1106.0	1084.8	1080.0
55°	935.5	936.6	964.8	1059.2	1178.1	1232.3	1311.4	1311.1	1317.0	1310.3	1304.0
57.5°	860.4	851.5	898.7	1023.1	1262.0	1540.7	1516.5	1519.1	1511.3	1490.9	1484.6
60°	670.2	677.6	728.5	887.2	1201.5	1739.8	1899.2	1852.0	1885.8	1832.7	1804.1
62.5°	377.1	368.5	403.1	569.9	985.6	1750.2	2420.4	2425.6	2442.0	2412.2	2342.4
65°	243.3	239.6	236.3	288.3	590.7	1531.0	2708.7	2772.6	2810.9	2826.5	2827.6
66°	209.2	206.2	202.1	235.9	411.6	1349.0	2690.1	2758.5	2819.4	2848.4	2856.9
67.5°	178.0	173.5	172.8	195.4	286.4	1046.6	2512.9	2620.3	2674.1	2749.2	2790.1
70°	136.0	133.7	140.4	168.7	219.9	492.6	2002.5	2142.5	2235.4	2294.1	2332.0
72.5°	114.1	113.3	122.6	154.2	208.4	279.4	1401.7	1552.2	1649.1	1705.2	1757.3
75°	89.2	89.9	102.2	147.1	207.3	243.3	814.4	957.8	1014.2	1102.6	1170.3
77.5°	66.9	66.1	75.8	118.9	202.1	246.7	423.2	482.6	544.6	589.6	605.9
80°	46.8	47.6	54.2	81.7	157.5	253.7	263.8	277.5	290.5	305.0	308.0
82.5°	31.2	31.6	40.1	56.1	109.2	242.2	246.3	240.0	230.0	217.3	203.6
85°	18.9	19.7	28.6	37.9	84.7	219.2	254.9	238.1	222.9	206.2	189.5
87.5°	9.7	10.8	17.1	22.3	50.2	108.1	265.3	253.0	232.2	206.6	188.0
90°	2.6	2.6	3.7	5.6	10.0	21.9	66.9	60.2	30.1	57.2	28.2
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°	15°	25°	35°	45°	55°	56°	57°	58°	59°
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3
2.5°	668.4	669.1	668.4	667.2	668.4	667.2	666.9	666.5	666.9	666.1	665.8
5°	665.0	665.8	665.8	663.5	663.1	664.6	662.4	663.1	662.4	661.7	660.2
7.5°	649.0	649.4	649.8	648.3	649.4	649.4	648.7	648.7	647.9	648.3	646.8
10°	626.7	628.2	629.7	629.0	628.6	631.9	630.5	631.6	631.6	630.5	630.8
12.5°	602.6	605.2	607.1	607.1	608.5	612.3	611.9	612.6	615.6	615.6	614.5
15°	580.3	582.9	585.9	588.1	591.1	593.7	595.5	598.5	600.0	600.0	601.8
17.5°	562.8	566.6	569.9	571.0	575.1	579.6	580.7	584.4	586.6	587.7	590.0
20°	545.8	549.8	553.9	557.6	561.4	566.6	569.2	571.4	575.1	577.3	580.7
22.5°	525.7	532.0	537.2	541.7	548.0	552.4	557.6	561.4	565.8	569.2	571.8
25°	506.7	515.3	522.3	526.8	535.3	541.7	548.0	553.6	559.1	564.0	567.7
27.5°	489.3	498.9	507.5	514.5	523.8	533.9	540.2	549.5	556.9	563.6	568.0
30°	480.7	488.9	497.8	506.0	515.3	527.9	538.3	550.2	559.5	568.0	574.7
32.5°	482.6	490.0	497.8	504.9	514.5	528.7	539.4	553.2	566.9	578.1	586.6
35°	497.5	504.1	509.3	515.7	524.2	535.0	546.5	561.0	578.1	592.9	604.1
37.5°	528.7	530.5	535.7	540.6	545.0	555.0	565.8	578.1	597.8	613.4	629.0
40°	567.3	572.1	577.0	579.2	584.4	590.7	595.5	608.5	626.0	646.4	663.5
42.5°	624.9	626.7	627.5	628.2	630.1	634.5	641.6	653.5	670.6	688.8	707.7
45°	689.5	691.8	694.0	695.1	692.5	695.1	702.5	708.1	724.8	741.9	766.1
47.5°	779.1	772.4	769.0	773.5	771.3	776.8	780.2	783.5	803.6	824.0	844.4
50°	893.9	889.8	884.6	884.9	889.0	885.3	887.5	899.8	906.5	923.6	950.7
52.5°	1077.4	1064.8	1045.1	1036.5	1041.3	1038.4	1039.5	1042.1	1037.6	1053.6	1076.6
55°	1304.0	1287.7	1274.7	1267.2	1239.7	1237.5	1219.3	1212.6	1198.1	1213.4	1208.2
57.5°	1465.6	1455.2	1448.5	1426.2	1413.6	1388.3	1380.9	1372.0	1351.9	1362.0	1370.9
60°	1777.7	1740.5	1727.9	1688.9	1675.9	1651.7	1620.9	1605.7	1595.3	1604.9	1599.0
62.5°	2298.5	2246.9	2236.9	2144.4	2121.7	2066.0	2008.0	2000.2	1967.5	1947.1	1942.3
65°	2807.1	2733.2	2677.9	2576.8	2508.5	2428.9	2340.5	2275.9	2209.4	2175.9	2131.7
66°	2845.0	2815.7	2760.0	2700.9	2601.3	2514.4	2414.1	2344.2	2269.6	2210.9	2173.0
67.5°	2780.4	2764.8	2745.1	2705.0	2642.6	2561.6	2466.5	2377.3	2287.4	2218.3	2157.7
70°	2350.2	2367.3	2389.6	2379.2	2343.5	2311.9	2228.0	2178.2	2110.6	2019.9	1982.8
72.5°	1774.0	1819.7	1804.1	1745.4	1717.9	1696.0	1665.5	1632.1	1535.1	1523.9	1480.1
75°	1141.3	1126.1	1136.1	1064.8	1016.1	996.0	923.6	893.9	821.0	773.9	737.8
77.5°	601.5	571.8	548.7	485.9	441.0	414.6	379.3	337.7	273.8	270.1	211.8
80°	279.0	256.3	235.5	213.6	191.7	162.7	141.2	115.2	101.8	87.3	81.4
82.5°	189.5	175.0	162.4	147.9	131.1	111.1	95.9	81.4	69.5	62.4	56.8
85°	171.6	156.0	141.9	123.7	106.3	89.5	73.2	60.6	49.4	43.1	39.4
87.5°	166.8	147.5	132.6	112.9	95.9	78.8	63.2	49.0	38.3	31.2	26.7
90°	21.2	22.7	16.3	15.6	6.7	8.5	6.3	3.7	4.1	3.0	3.3
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-SL3-8030

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
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: P226977

CATALOG NUMBER: IST-AF-450-LED-E1-SL3-8030

CANDELA DISTRIBUTION (continued):

	71°	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°
0°	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3	658.3
2.5°	665.0	663.9	665.0	664.6	663.1	663.5	663.9	662.4	661.7	661.7	661.3
5°	659.1	658.3	659.1	658.7	656.5	656.1	656.1	655.0	653.5	652.4	651.6
7.5°	644.9	645.7	645.3	644.2	643.1	643.1	642.0	639.4	637.9	636.4	634.9
10°	629.0	629.0	629.3	629.0	627.1	626.4	624.9	623.4	623.8	620.1	617.1
12.5°	614.9	614.9	614.5	613.7	612.6	612.3	612.3	607.8	606.7	605.6	602.2
15°	601.5	602.2	602.2	602.2	600.4	600.4	598.5	595.5	595.5	592.2	588.8
17.5°	591.1	592.2	591.8	592.2	592.6	590.3	587.0	585.1	582.9	581.0	576.6
20°	582.2	582.9	583.3	583.3	582.2	580.7	577.7	574.7	573.2	569.5	564.0
22.5°	574.0	575.5	575.8	575.8	574.4	573.2	570.3	565.8	562.8	558.4	553.2
25°	570.6	572.5	571.4	572.1	570.6	568.0	564.0	560.2	555.8	550.2	544.6
27.5°	571.8	574.4	573.6	573.2	571.4	569.5	564.3	559.9	554.7	548.0	540.9
30°	578.4	582.9	581.0	579.6	579.2	574.7	569.9	563.6	557.6	549.8	541.7
32.5°	591.1	593.3	593.7	592.6	590.7	587.0	580.3	572.1	565.4	556.2	546.5
35°	611.9	614.1	613.4	613.4	611.5	605.6	597.4	589.2	579.9	569.5	559.5
37.5°	640.9	644.9	644.2	642.7	640.5	633.4	627.1	617.1	606.7	592.9	581.4
40°	677.3	683.6	689.2	688.0	682.8	676.5	670.6	659.1	648.7	633.4	620.8
42.5°	726.3	734.9	741.9	747.1	744.9	736.7	726.3	721.5	706.6	691.0	678.0
45°	789.1	806.9	813.2	819.6	819.6	814.4	812.1	802.5	786.9	766.1	753.8
47.5°	871.9	895.7	902.8	913.5	919.9	914.3	910.2	893.9	883.5	854.8	851.9
50°	972.6	996.4	1015.7	1028.3	1026.5	1031.3	1021.7	1012.4	997.9	974.5	966.3
52.5°	1101.2	1120.1	1137.6	1145.0	1152.8	1151.7	1149.5	1143.1	1124.9	1112.3	1091.5
55°	1233.0	1248.7	1269.8	1282.1	1292.1	1290.3	1281.7	1266.5	1269.8	1243.5	1231.9
57.5°	1383.1	1400.2	1423.3	1434.8	1439.2	1461.9	1456.3	1454.5	1448.2	1438.9	1427.0
60°	1641.3	1646.2	1665.1	1694.1	1729.8	1722.7	1731.6	1737.6	1742.0	1721.2	1719.7
62.5°	1949.0	1954.9	1971.2	1977.2	1982.4	1983.1	1971.2	1971.2	1950.8	1924.1	1903.3
65°	2116.9	2104.6	2093.5	2087.2	2073.4	2061.2	2043.3	2019.2	1984.6	1943.4	1906.2
66°	2141.0	2116.1	2101.6	2085.7	2063.8	2041.1	2019.9	1986.8	1946.4	1897.3	1848.3
67.5°	2117.6	2083.4	2049.6	2026.2	1995.8	1954.9	1917.7	1879.1	1840.8	1773.6	1727.9
70°	1904.0	1863.1	1826.0	1774.7	1726.4	1686.3	1622.4	1555.2	1499.8	1429.2	1384.3
72.5°	1414.0	1365.7	1317.4	1245.3	1175.1	1164.7	1084.4	1005.3	963.0	906.1	860.4
75°	698.4	637.5	551.0	512.3	456.2	428.7	413.5	356.3	342.5	286.4	285.7
77.5°	197.3	169.4	150.5	131.1	123.0	117.0	96.6	92.5	84.0	82.5	77.6
80°	74.7	70.6	68.7	66.9	65.0	63.9	63.2	60.2	58.7	56.5	55.4
82.5°	53.9	52.4	49.0	47.9	46.4	44.2	43.8	42.0	40.9	38.6	37.9
85°	36.4	34.6	32.7	30.8	30.1	29.7	28.6	27.9	27.1	26.0	25.6
87.5°	24.5	22.7	20.4	19.7	19.3	19.7	20.1	19.3	18.9	18.2	17.8
90°	3.0	4.1	3.7	3.7	4.5	3.7	3.7	4.1	3.7	3.7	3.3
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: P226977
 CATALOG NUMBER: IST-AF-450-LED-E1-SL3-8030

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	71°	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	
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	66°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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°

'226977
 IST-AF-450-LED-E1-SL3-8030

REPORT NUMBER: P226977
 CATALOG NUMBER: IST-AF-450

TION (continued):

CANDELA DISTRIBUTION (con

83°	84°	85°	86°	87°	88°	89°	90°	95°	105°		115°	125°
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0°	658.3	658.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°	636.8	630.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°	603.0	589.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°	557.3	531.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°	504.9	467.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°	450.6	402.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°	400.1	336.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°	347.0	268.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°	296.1	202.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°	238.5	142.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°	175.0	103.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°	124.8	82.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°	93.2	69.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°	74.7	60.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°	63.5	54.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°	56.8	50.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°	53.1	49.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°	50.9	47.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°	49.8	46.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°	49.0	44.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°	48.3	44.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°	48.7	45.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°	50.5	45.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°	53.5	45.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°	55.7	46.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°	56.5	47.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°	55.7	48.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66°	55.0	48.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°	53.9	47.6
										70°	51.3	44.6
										72.5°	46.1	40.1
										75°	39.4	32.3
										77.5°	32.0	26.0
										80°	23.8	19.7
										82.5°	17.5	15.2
										85°	12.3	10.8
										87.5°	7.4	6.7
										90°	1.9	1.9
										92.5°	0.0	0.0
										95°	0.0	0.0
										97.5°	0.0	0.0
										100°	0.0	0.0
										102.5°	0.0	0.0
										105°	0.0	0.0
										107.5°	0.0	0.0



REPORT NUMBER: P226977

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

0-LED-E1-SL3-8030

tinued):

135°	145°	155°	165°	175°	180°
658.3	658.3	658.3	658.3	658.3	658.3
626.7	626.4	617.1	615.2	608.9	612.3
573.6	567.3	550.6	547.2	540.2	538.3
510.1	492.6	479.3	464.4	450.3	457.3
435.8	406.4	377.1	357.8	350.0	347.4
365.2	312.4	275.7	237.8	224.4	229.2
279.7	219.6	170.5	148.6	136.0	133.7
197.3	140.8	118.1	112.6	110.0	110.0
133.7	107.4	98.8	96.2	96.2	96.6
101.8	90.3	86.6	86.9	88.4	88.8
84.3	79.9	78.0	80.6	83.6	84.0
72.8	71.7	72.1	75.4	78.4	78.8
63.9	65.0	66.5	69.5	72.1	72.8
57.6	59.4	60.6	62.4	63.9	64.3
53.1	55.4	55.0	56.1	57.2	57.6
50.5	51.6	50.5	51.3	51.3	52.0
48.3	48.7	46.8	47.2	47.9	47.9
46.1	45.7	43.8	44.6	45.7	46.1
43.8	43.1	41.6	43.1	45.0	45.3
42.0	41.2	40.5	42.4	44.6	45.0
41.2	40.5	39.8	42.4	44.6	45.0
41.2	40.5	39.8	41.6	43.8	44.2
41.6	40.9	39.4	41.2	42.7	43.1
42.0	41.2	38.6	39.8	40.5	40.9
42.0	40.5	37.9	38.3	38.3	38.6
41.2	39.4	36.4	36.4	36.0	36.0
41.2	37.9	34.9	34.2	33.4	33.4
40.9	37.5	34.6	33.4	32.3	32.3
40.1	36.8	33.8	32.3	31.2	31.2
37.5	35.3	32.0	30.5	29.3	29.0
33.4	32.3	29.7	28.6	27.5	27.1
28.2	28.6	27.1	26.4	25.3	24.9
23.8	24.5	23.8	23.4	22.7	22.3
18.9	20.4	19.7	19.7	20.1	19.3
14.5	16.3	15.6	16.3	17.1	16.0
10.0	11.9	11.9	12.3	12.6	11.9
6.3	7.8	7.4	7.8	7.8	7.4
1.5	2.6	1.5	2.2	1.9	1.5
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	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

CANDELA DISTRIBUTION (continued):

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

