

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: P226984

Luminaire Tested: **IST-AF-450-LED-E1-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226984
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-SL3-7030
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III W/SPILL CONTROL
Light Source: (16) 3000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2628.7 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U1 - G1

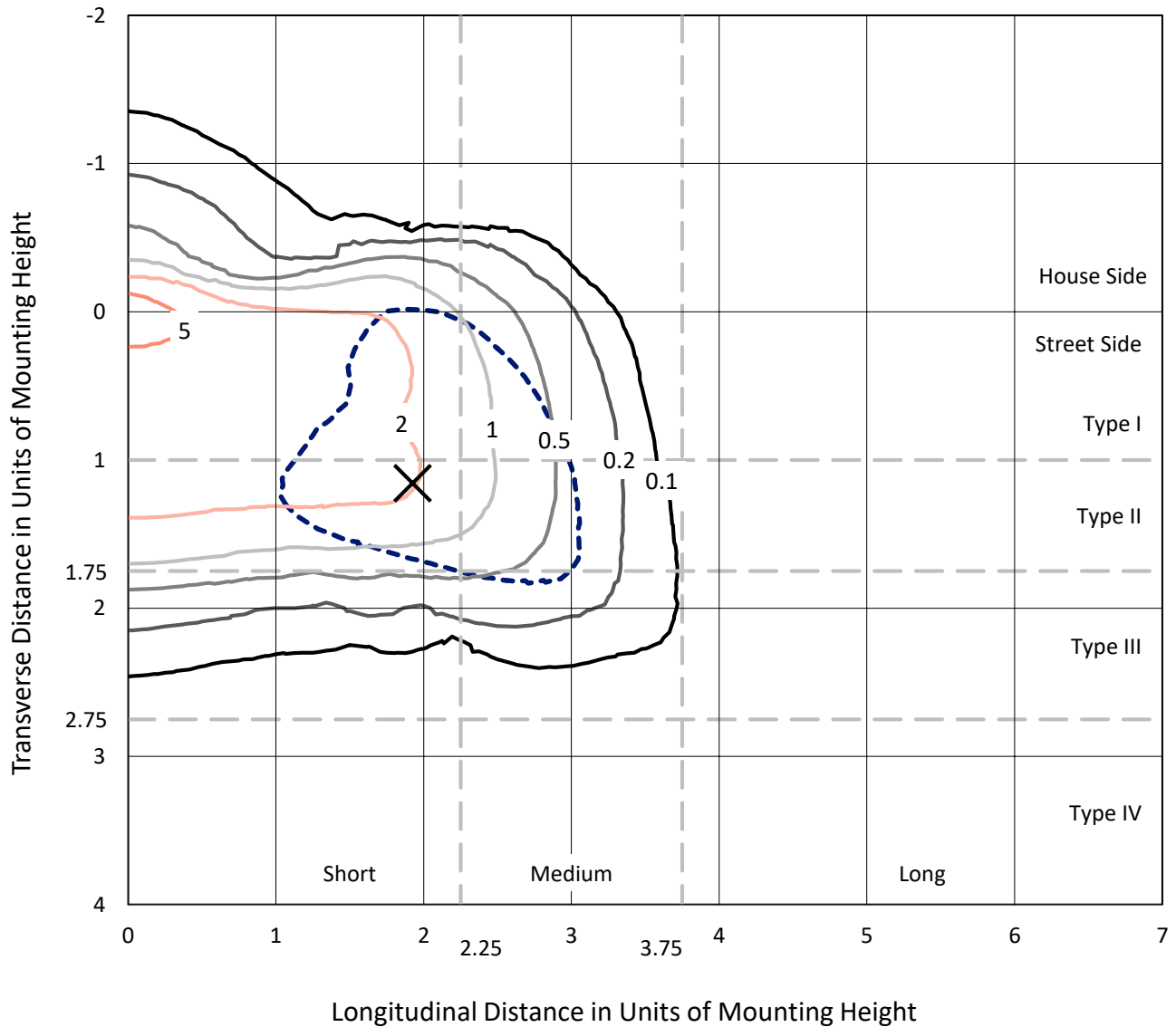
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

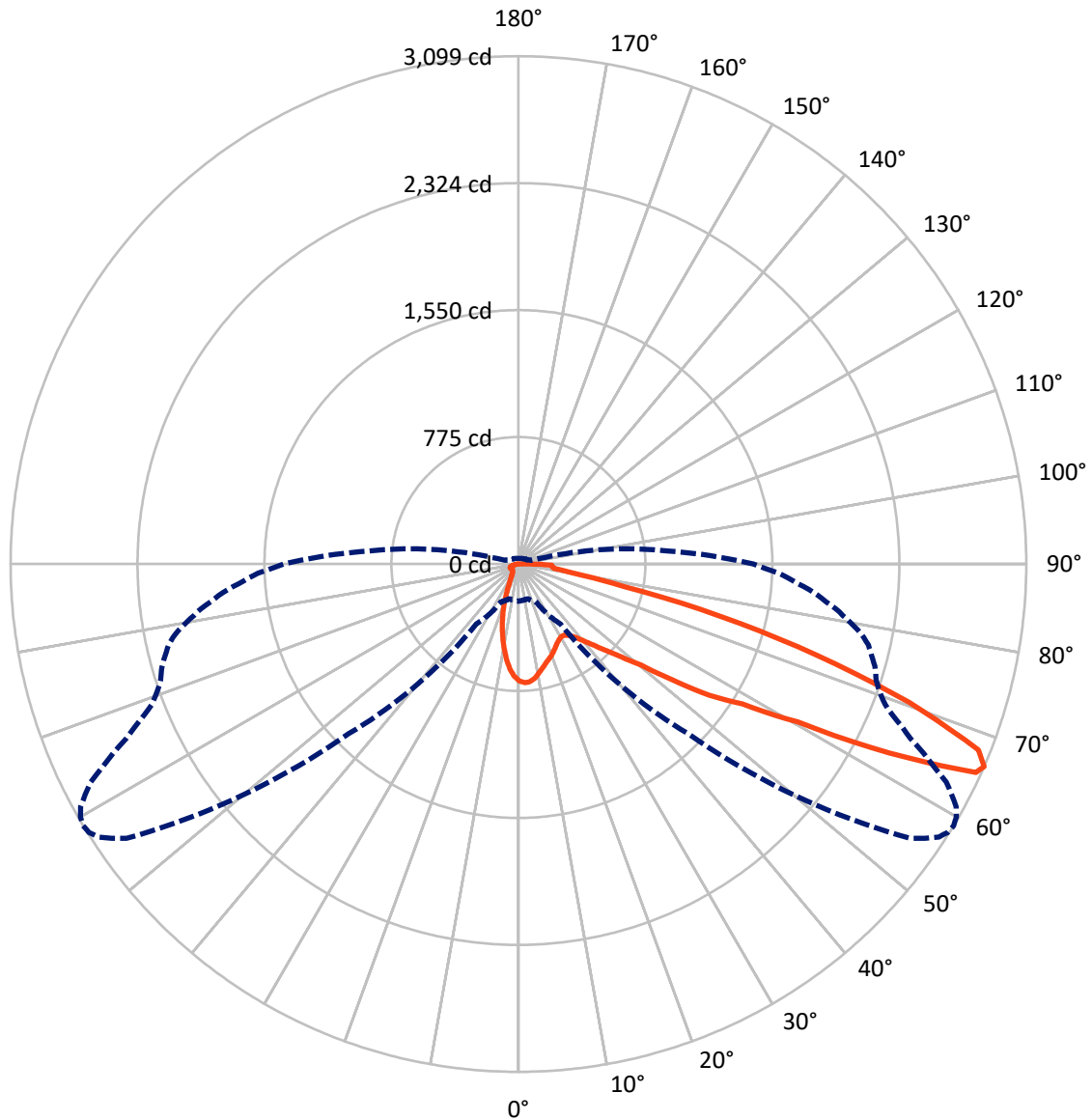
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 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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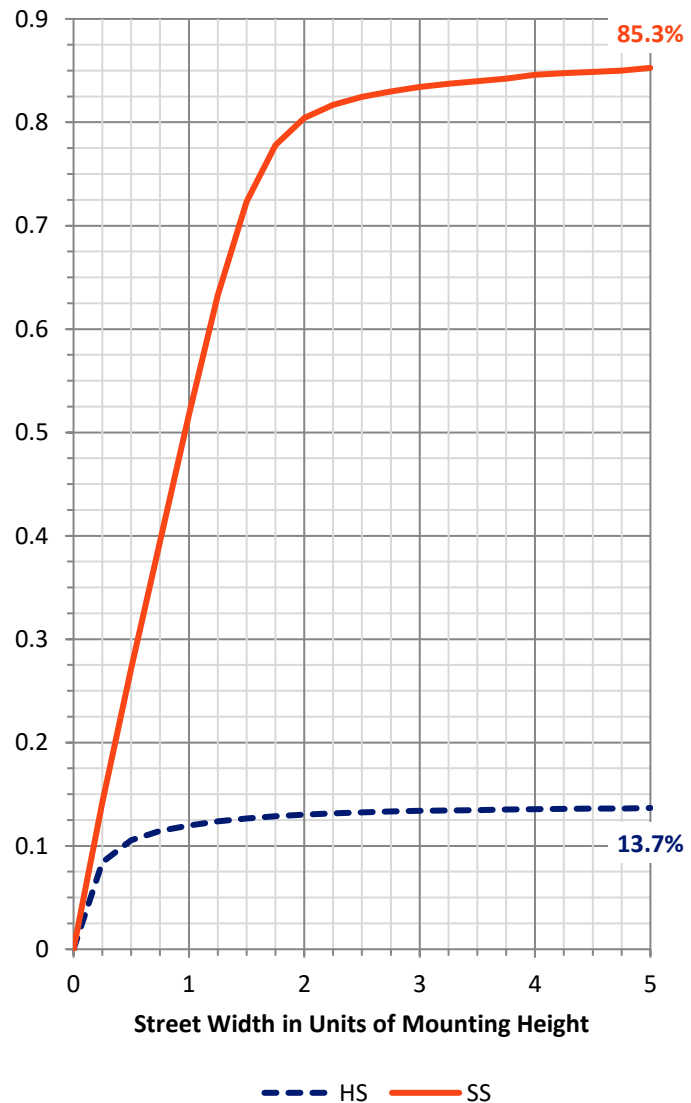
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	364.7	0.2	364.9
	% Fixture	13.9	0.0	13.9
Street Side	Lumens	2262.9	1.0	2263.8
	% Fixture	86.1	0.0	86.1
Total	Lumens	2627.6	1.1	2628.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	2.3
10°-20°	128.6	4.9
20°-30°	161.3	6.1
30°-40°	220.7	8.4
40°-50°	355.0	13.5
50°-60°	616.9	23.5
60°-70°	749.6	28.5
70°-80°	279.6	10.6
80°-90°	55.0	2.1
90°-100°	1.1	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°	2627.6	100.0
0°-180°	2628.7	100.0

Coefficient of Utilization



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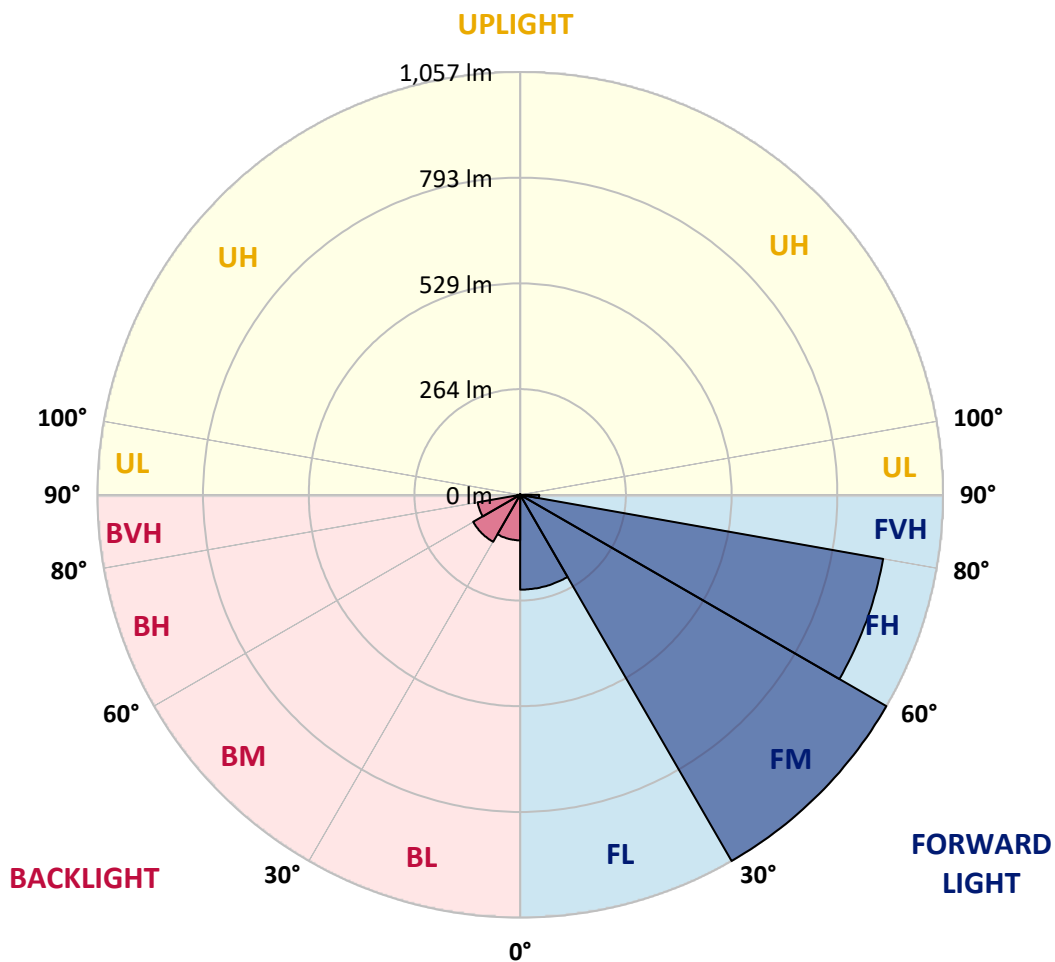
CATALOG NUMBER: IST-AF-450-LED-E1-SL3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	237.1	9.0			
FM (30°-60°)	1057.1	40.2			
FH (60°-80°)	921.3	35.0			G1/1800
FVH (80°-90°)	47.5	1.8			G1/100
BL (0°-30°)	113.7	4.3	B1/500		
BM (30°-60°)	135.6	5.2	B0/220		
BH (60°-80°)	107.8	4.1	B0/110		G0/110
BVH (80°-90°)	7.6	0.3			G0/10
UL (90°-100°)	1.1	0.0		U1/10	
UH (100°-180°)	0.2	0.0		U1/10	

BUG Rating: B1-U1-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1
2.5°	732.7	730.3	734.7	733.1	734.3	728.3	727.0	725.8	726.6	725.4	725.4
5°	715.4	714.1	719.4	722.2	724.6	723.8	723.4	723.4	723.8	721.0	721.4
7.5°	664.6	663.8	671.0	676.3	688.0	694.8	703.7	704.1	704.9	703.7	706.1
10°	610.6	613.0	619.4	627.9	645.2	655.7	672.6	675.9	677.1	677.5	677.9
12.5°	559.0	556.6	564.6	580.7	604.1	621.1	642.4	644.0	646.0	648.9	651.7
15°	513.0	515.9	522.3	539.2	563.8	587.6	615.4	617.0	621.1	623.5	627.5
17.5°	481.6	481.6	488.9	504.6	527.6	557.8	592.8	595.7	598.9	602.1	606.5
20°	465.9	465.9	468.7	478.0	498.1	527.1	569.5	572.7	578.3	582.0	588.0
22.5°	464.7	464.3	463.9	465.9	478.0	500.5	544.5	548.9	553.7	559.4	564.6
25°	477.6	478.8	473.9	470.7	471.9	482.4	520.7	523.1	532.4	536.0	542.5
27.5°	496.1	498.1	494.1	489.3	482.0	475.2	500.5	504.6	510.6	516.7	524.7
30°	522.7	522.3	521.9	518.7	504.6	483.2	494.5	497.3	502.6	507.4	514.3
32.5°	551.3	554.6	557.0	555.4	540.9	504.6	503.0	505.4	510.2	513.0	517.5
35°	588.4	590.0	599.3	599.3	584.8	542.9	526.7	528.8	531.2	532.4	535.6
37.5°	629.1	634.8	648.5	656.5	633.9	590.4	564.2	564.2	565.4	566.2	568.3
40°	676.3	684.3	703.3	718.6	704.1	649.7	613.4	617.0	615.8	614.2	618.6
42.5°	731.1	739.9	762.9	777.4	769.0	721.0	679.5	677.1	680.7	675.9	677.5
45°	794.8	801.6	825.0	840.3	847.1	808.5	766.1	761.3	761.3	750.8	755.3
47.5°	852.0	854.0	876.6	903.6	925.7	926.5	866.9	863.7	856.0	849.2	847.5
50°	905.2	911.2	925.7	955.2	1001.5	1041.8	1005.5	995.5	987.0	961.6	969.3
52.5°	997.5	1009.2	1018.4	1036.2	1091.0	1172.8	1217.5	1201.8	1199.8	1176.8	1171.6
55°	1014.8	1016.0	1046.6	1149.0	1278.0	1336.8	1422.7	1422.3	1428.7	1421.4	1414.6
57.5°	933.4	923.7	974.9	1109.9	1369.1	1671.3	1645.1	1647.9	1639.5	1617.3	1610.5
60°	727.0	735.1	790.3	962.4	1303.4	1887.3	2060.2	2009.0	2045.7	1988.1	1957.1
62.5°	409.1	399.8	437.3	618.2	1069.2	1898.6	2625.7	2631.3	2649.0	2616.8	2541.0
65°	264.0	259.9	256.3	312.7	640.8	1660.8	2938.4	3007.7	3049.2	3066.2	3067.4
66°	226.9	223.7	219.2	255.9	446.5	1463.4	2918.3	2992.4	3058.5	3089.9	3099.2
67.5°	193.0	188.2	187.4	212.0	310.7	1135.3	2726.0	2842.5	2900.9	2982.3	3026.7
70°	147.5	145.1	152.3	183.0	238.6	534.4	2172.3	2324.2	2425.0	2488.6	2529.7
72.5°	123.7	122.9	133.0	167.3	226.1	303.1	1520.6	1683.8	1789.0	1849.9	1906.3
75°	96.7	97.5	110.8	159.6	224.9	264.0	883.4	1039.0	1100.2	1196.2	1269.5
77.5°	72.5	71.7	82.2	129.0	219.2	267.6	459.0	523.5	590.8	639.6	657.3
80°	50.8	51.6	58.8	88.7	170.9	275.3	286.1	301.1	315.2	330.9	334.1
82.5°	33.9	34.3	43.5	60.9	118.5	262.8	267.2	260.3	249.5	235.8	220.9
85°	20.6	21.4	31.0	41.1	91.9	237.8	276.5	258.3	241.8	223.7	205.5
87.5°	10.5	11.7	18.5	24.2	54.4	117.3	287.8	274.5	251.9	224.1	203.9
90°	2.8	2.8	4.0	6.0	10.9	23.8	72.5	65.3	32.6	62.1	30.6
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°	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1
2.5°	725.0	725.8	725.0	723.8	725.0	723.8	723.4	723.0	723.4	722.6	722.2
5°	721.4	722.2	722.2	719.8	719.4	721.0	718.6	719.4	718.6	717.8	716.2
7.5°	704.1	704.5	704.9	703.3	704.5	704.5	703.7	703.7	702.9	703.3	701.7
10°	679.9	681.5	683.1	682.3	681.9	685.5	683.9	685.1	685.1	683.9	684.3
12.5°	653.7	656.5	658.5	658.5	660.1	664.2	663.8	664.6	667.8	667.8	666.6
15°	629.5	632.3	635.6	638.0	641.2	644.0	646.0	649.3	650.9	650.9	652.9
17.5°	610.6	614.6	618.2	619.4	623.9	628.7	629.9	633.9	636.4	637.6	640.0
20°	592.0	596.5	600.9	604.9	609.0	614.6	617.4	619.8	623.9	626.3	629.9
22.5°	570.3	577.1	582.8	587.6	594.5	599.3	604.9	609.0	613.8	617.4	620.2
25°	549.7	559.0	566.6	571.5	580.7	587.6	594.5	600.5	606.5	611.8	615.8
27.5°	530.8	541.3	550.5	558.2	568.3	579.1	586.0	596.1	604.1	611.4	616.2
30°	521.5	530.4	540.0	548.9	559.0	572.7	584.0	596.9	606.9	616.2	623.5
32.5°	523.5	531.6	540.0	547.7	558.2	573.5	585.2	600.1	615.0	627.1	636.4
35°	539.6	546.9	552.5	559.4	568.7	580.3	592.8	608.6	627.1	643.2	655.3
37.5°	573.5	575.5	581.2	586.4	591.2	602.1	613.8	627.1	648.5	665.4	682.3
40°	615.4	620.6	625.9	628.3	633.9	640.8	646.0	660.1	679.1	701.3	719.8
42.5°	677.9	679.9	680.7	681.5	683.5	688.4	696.0	708.9	727.4	747.2	767.7
45°	748.0	750.4	752.8	754.0	751.2	754.0	762.1	768.2	786.3	804.8	831.0
47.5°	845.1	837.9	834.2	839.1	836.7	842.7	846.3	850.0	871.7	893.9	916.1
50°	969.7	965.2	959.6	960.0	964.4	960.4	962.8	976.1	983.4	1001.9	1031.3
52.5°	1168.8	1155.0	1133.7	1124.4	1129.7	1126.4	1127.6	1130.5	1125.6	1143.0	1167.9
55°	1414.6	1396.9	1382.8	1374.7	1344.9	1342.5	1322.7	1315.5	1299.7	1316.3	1310.6
57.5°	1589.9	1578.6	1571.4	1547.2	1533.5	1506.1	1498.0	1488.3	1466.6	1477.5	1487.1
60°	1928.4	1888.1	1874.4	1832.1	1818.0	1791.8	1758.4	1741.8	1730.6	1741.0	1734.6
62.5°	2493.5	2437.5	2426.6	2326.2	2301.6	2241.2	2178.3	2169.8	2134.4	2112.2	2107.0
65°	3045.2	2965.0	2905.0	2795.3	2721.2	2634.9	2539.0	2468.9	2396.7	2360.5	2312.5
66°	3086.3	3054.5	2994.0	2929.9	2821.9	2727.6	2618.8	2543.0	2462.0	2398.4	2357.3
67.5°	3016.2	2999.3	2977.9	2934.4	2866.7	2778.8	2675.6	2578.9	2481.4	2406.4	2340.7
70°	2549.5	2568.0	2592.2	2580.9	2542.2	2508.0	2416.9	2362.9	2289.5	2191.2	2150.9
72.5°	1924.4	1974.0	1957.1	1893.4	1863.6	1839.8	1806.7	1770.5	1665.3	1653.2	1605.6
75°	1238.1	1221.5	1232.4	1155.0	1102.3	1080.5	1001.9	969.7	890.7	839.5	800.4
77.5°	652.5	620.2	595.3	527.1	478.4	449.8	411.5	366.3	297.0	293.0	229.7
80°	302.7	278.1	255.5	231.7	208.0	176.5	153.1	124.9	110.4	94.7	88.3
82.5°	205.5	189.8	176.1	160.4	142.3	120.5	104.0	88.3	75.4	67.7	61.7
85°	186.2	169.3	154.0	134.2	115.3	97.1	79.4	65.7	53.6	46.8	42.7
87.5°	181.0	160.0	143.9	122.5	104.0	85.4	68.5	53.2	41.5	33.9	29.0
90°	23.0	24.6	17.7	16.9	7.3	9.3	6.9	4.0	4.4	3.2	3.6
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: P226984

CATALOG NUMBER: IST-AF-450-LED-E1-SL3-7030

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: P226984
 CATALOG NUMBER: IST-AF-450-LED-E1-SL3-7030

CANDELA DISTRIBUTION (continued):

	71°	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°
0°	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1
2.5°	721.4	720.2	721.4	721.0	719.4	719.8	720.2	718.6	717.8	717.8	717.4
5°	715.0	714.1	715.0	714.6	712.1	711.7	711.7	710.5	708.9	707.7	706.9
7.5°	699.6	700.4	700.0	698.8	697.6	697.6	696.4	693.6	692.0	690.4	688.8
10°	682.3	682.3	682.7	682.3	680.3	679.5	677.9	676.3	676.7	672.6	669.4
12.5°	667.0	667.0	666.6	665.8	664.6	664.2	664.2	659.3	658.1	656.9	653.3
15°	652.5	653.3	653.3	653.3	651.3	651.3	649.3	646.0	646.0	642.4	638.8
17.5°	641.2	642.4	642.0	642.4	642.8	640.4	636.8	634.8	632.3	630.3	625.5
20°	631.5	632.3	632.7	632.7	631.5	629.9	626.7	623.5	621.9	617.8	611.8
22.5°	622.7	624.3	624.7	624.7	623.1	621.9	618.6	613.8	610.6	605.7	600.1
25°	619.0	621.1	619.8	620.6	619.0	616.2	611.8	607.8	602.9	596.9	590.8
27.5°	620.2	623.1	622.3	621.9	619.8	617.8	612.2	607.3	601.7	594.5	586.8
30°	627.5	632.3	630.3	628.7	628.3	623.5	618.2	611.4	604.9	596.5	587.6
32.5°	641.2	643.6	644.0	642.8	640.8	636.8	629.5	620.6	613.4	603.3	592.8
35°	663.8	666.2	665.4	665.4	663.4	656.9	648.1	639.2	629.1	617.8	606.9
37.5°	695.2	699.6	698.8	697.2	694.8	687.1	680.3	669.4	658.1	643.2	630.7
40°	734.7	741.6	747.6	746.4	740.7	733.9	727.4	715.0	703.7	687.1	673.4
42.5°	787.9	797.2	804.8	810.5	808.1	799.2	787.9	782.7	766.5	749.6	735.5
45°	856.0	875.4	882.2	889.1	889.1	883.4	881.0	870.5	853.6	831.0	817.7
47.5°	945.9	971.7	979.3	991.0	997.9	991.8	987.4	969.7	958.4	927.3	924.1
50°	1055.1	1080.9	1101.9	1115.6	1113.5	1118.8	1108.3	1098.2	1082.5	1057.1	1048.2
52.5°	1194.5	1215.1	1234.0	1242.1	1250.6	1249.4	1246.9	1240.1	1220.3	1206.6	1184.1
55°	1337.6	1354.5	1377.5	1390.8	1401.7	1399.7	1390.4	1373.9	1377.5	1348.9	1336.4
57.5°	1500.4	1519.0	1544.0	1556.5	1561.3	1585.9	1579.8	1577.8	1571.0	1560.9	1548.0
60°	1780.5	1785.8	1806.3	1837.8	1876.5	1868.8	1878.5	1884.9	1889.8	1867.2	1865.6
62.5°	2114.2	2120.7	2138.4	2144.9	2150.5	2151.3	2138.4	2138.4	2116.2	2087.2	2064.7
65°	2296.4	2283.1	2271.0	2264.2	2249.2	2235.9	2216.6	2190.4	2152.9	2108.2	2067.9
66°	2322.6	2295.6	2279.9	2262.5	2238.8	2214.2	2191.2	2155.3	2111.4	2058.2	2005.0
67.5°	2297.2	2260.1	2223.5	2198.1	2165.0	2120.7	2080.4	2038.5	1997.0	1924.0	1874.4
70°	2065.5	2021.1	1980.8	1925.2	1872.8	1829.3	1760.0	1687.0	1627.0	1550.4	1501.6
72.5°	1533.9	1481.5	1429.1	1350.9	1274.7	1263.5	1176.4	1090.6	1044.6	983.0	933.4
75°	757.7	691.6	597.7	555.8	494.9	465.1	448.6	386.5	371.6	310.7	309.9
77.5°	214.0	183.8	163.2	142.3	133.4	127.0	104.8	100.4	91.1	89.5	84.2
80°	81.0	76.6	74.6	72.5	70.5	69.3	68.5	65.3	63.7	61.3	60.0
82.5°	58.4	56.8	53.2	52.0	50.4	48.0	47.6	45.5	44.3	41.9	41.1
85°	39.5	37.5	35.5	33.5	32.6	32.2	31.0	30.2	29.4	28.2	27.8
87.5°	26.6	24.6	22.2	21.4	21.0	21.4	21.8	21.0	20.6	19.7	19.3
90°	3.2	4.4	4.0	4.0	4.8	4.0	4.0	4.4	4.0	4.0	3.6
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: P226984
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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°

NUMBER: P226984
 NUMBER: IST-AF-450-LED-E1-SL3-7030

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

82°	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	110°	82°
714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	714.1	0.0
716.6	715.4	715.8	714.1	713.7	714.6	715.0	715.0	713.7	706.5	698.0	698.0	0.0
706.1	703.7	703.3	702.1	700.0	702.5	701.3	699.2	696.8	688.4	671.8	671.8	0.0
686.7	685.1	683.1	681.5	680.3	679.5	679.1	677.1	672.6	656.9	629.1	629.1	0.0
668.2	666.2	663.8	660.1	658.5	656.1	656.1	651.3	648.1	628.3	587.2	587.2	0.0
650.1	646.4	645.2	642.8	638.4	636.4	633.5	628.7	623.9	600.1	546.1	546.1	0.0
636.4	632.7	627.5	625.9	621.1	616.6	613.0	606.5	601.3	569.9	503.0	503.0	0.0
621.5	618.6	613.0	609.4	604.1	598.9	592.8	584.8	581.2	541.3	461.9	461.9	0.0
609.4	602.9	596.5	593.2	586.8	580.7	574.7	565.0	557.8	513.0	418.3	418.3	0.0
595.3	589.6	582.8	577.1	568.3	561.4	554.6	544.5	535.6	484.4	374.4	374.4	0.0
585.6	577.5	570.3	563.8	553.7	545.7	536.0	525.1	516.3	457.0	326.0	326.0	0.0
579.9	571.9	562.6	554.6	542.9	533.6	523.1	511.0	499.7	434.9	280.5	280.5	0.0
578.3	568.7	559.0	548.9	536.8	525.1	512.6	500.5	486.0	413.5	230.9	230.9	0.0
583.2	571.5	560.6	548.5	534.4	521.1	508.6	492.9	478.4	395.0	182.2	182.2	0.0
596.5	582.4	569.9	556.6	540.4	525.9	511.0	493.3	477.2	382.1	139.4	139.4	0.0
617.4	604.1	589.6	576.3	557.8	541.7	525.1	506.2	486.8	376.8	105.2	105.2	0.0
659.7	642.0	627.1	613.0	591.6	575.1	556.2	533.2	511.4	381.7	87.9	87.9	0.0
719.0	696.8	683.1	670.6	644.0	625.9	604.1	577.9	553.3	395.4	77.4	77.4	0.0
800.8	783.9	759.3	739.9	712.9	692.8	668.6	637.2	609.8	414.7	72.1	72.1	0.0
903.2	881.0	856.8	837.1	807.6	772.6	747.2	709.3	678.3	444.9	69.7	69.7	0.0
1028.5	1001.9	969.3	952.7	912.0	884.6	850.8	810.1	770.6	491.7	70.9	70.9	0.0
1164.7	1136.1	1110.7	1079.3	1042.2	1011.6	979.3	936.2	886.6	580.3	75.8	75.8	0.0
1308.6	1290.1	1265.9	1225.2	1205.0	1166.3	1125.2	1077.7	1041.8	695.6	87.5	87.5	0.0
1518.2	1498.0	1495.2	1455.3	1424.7	1389.6	1357.4	1317.9	1275.6	900.3	114.9	114.9	0.0
1840.6	1819.6	1795.8	1764.8	1728.5	1685.0	1645.1	1591.9	1544.8	1105.5	127.8	127.8	0.0
2031.6	1992.9	1950.2	1903.1	1850.3	1796.3	1742.6	1674.5	1606.0	1118.0	115.3	115.3	0.0
2015.5	1967.5	1913.1	1849.0	1793.4	1726.9	1669.3	1581.4	1519.0	995.5	93.9	93.9	0.0
<i>1955.8</i>	<i>1890.2</i>	<i>1839.0</i>	<i>1780.1</i>	<i>1710.4</i>	<i>1650.8</i>	<i>1589.9</i>	<i>1503.3</i>	<i>1431.9</i>	<i>912.8</i>	<i>85.8</i>	<i>85.8</i>	0.0
1803.1	1747.1	1676.2	1619.7	1568.1	1496.8	1439.6	1358.6	1309.4	791.5	77.0	77.0	0.0
1441.2	1363.8	1303.8	1259.8	1201.4	1136.9	1086.1	1018.0	974.5	523.9	66.5	66.5	0.0
839.5	820.1	752.8	715.0	679.5	627.1	586.8	554.1	496.9	253.9	58.8	58.8	0.0
258.7	240.6	238.2	202.3	214.0	183.0	178.1	162.0	162.0	97.5	46.3	46.3	0.0
82.6	81.0	77.8	73.3	71.7	71.7	69.7	69.3	66.1	52.4	34.7	34.7	0.0
58.4	57.2	56.0	54.8	54.0	54.4	52.8	52.0	51.2	37.9	27.4	27.4	0.0
40.3	39.1	36.7	36.7	35.9	35.5	35.9	34.3	33.9	26.6	23.0	23.0	0.0
27.4	27.0	26.6	26.2	25.8	25.4	25.0	23.8	23.0	18.5	16.1	16.1	0.0
18.1	15.3	14.9	12.9	12.5	12.1	11.3	12.1	13.3	13.3	10.5	10.5	0.0
4.0	3.6	4.0	4.0	3.2	3.6	3.6	2.8	2.8	4.0	3.6	3.6	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	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

'226984
 IST-AF-450-LED-E1-SL3-7030

REPORT NUMBER: P226984
 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°	714.1	714.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°	690.8	684.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°	654.1	639.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°	604.5	576.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°	547.7	507.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°	488.9	436.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°	434.1	365.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°	376.4	291.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°	321.2	220.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°	258.7	154.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°	189.8	112.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°	135.4	89.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°	101.2	75.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°	81.0	65.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°	68.9	59.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°	61.7	55.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°	57.6	53.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°	55.2	51.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°	54.0	50.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°	53.2	48.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°	52.4	48.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°	52.8	49.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°	54.8	49.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°	58.0	49.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°	60.5	50.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°	61.3	51.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°	60.5	52.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66°	59.6	52.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°	58.4	51.6
										70°	55.6	48.4
										72.5°	50.0	43.5
										75°	42.7	35.1
										77.5°	34.7	28.2
										80°	25.8	21.4
										82.5°	18.9	16.5
										85°	13.3	11.7
										87.5°	8.1	7.3
										90°	2.0	2.0
										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: P226984

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

0-LED-E1-SL3-7030

tinued):

135°	145°	155°	165°	175°	180°
714.1	714.1	714.1	714.1	714.1	714.1
679.9	679.5	669.4	667.4	660.5	664.2
622.3	615.4	597.3	593.6	586.0	584.0
553.3	534.4	519.9	503.8	488.5	496.1
472.7	440.9	409.1	388.1	379.6	376.8
396.2	338.9	299.0	257.9	243.4	248.7
303.5	238.2	185.0	161.2	147.5	145.1
214.0	152.7	128.2	122.1	119.3	119.3
145.1	116.5	107.2	104.4	104.4	104.8
110.4	97.9	93.9	94.3	95.9	96.3
91.5	86.6	84.6	87.5	90.7	91.1
79.0	77.8	78.2	81.8	85.0	85.4
69.3	70.5	72.1	75.4	78.2	79.0
62.5	64.5	65.7	67.7	69.3	69.7
57.6	60.0	59.6	60.9	62.1	62.5
54.8	56.0	54.8	55.6	55.6	56.4
52.4	52.8	50.8	51.2	52.0	52.0
50.0	49.6	47.6	48.4	49.6	50.0
47.6	46.8	45.1	46.8	48.8	49.2
45.5	44.7	43.9	45.9	48.4	48.8
44.7	43.9	43.1	45.9	48.4	48.8
44.7	43.9	43.1	45.1	47.6	48.0
45.1	44.3	42.7	44.7	46.3	46.8
45.5	44.7	41.9	43.1	43.9	44.3
45.5	43.9	41.1	41.5	41.5	41.9
44.7	42.7	39.5	39.5	39.1	39.1
44.7	41.1	37.9	37.1	36.3	36.3
44.3	40.7	37.5	36.3	35.1	35.1
43.5	39.9	36.7	35.1	33.9	33.9
40.7	38.3	34.7	33.0	31.8	31.4
36.3	35.1	32.2	31.0	29.8	29.4
30.6	31.0	29.4	28.6	27.4	27.0
25.8	26.6	25.8	25.4	24.6	24.2
20.6	22.2	21.4	21.4	21.8	21.0
15.7	17.7	16.9	17.7	18.5	17.3
10.9	12.9	12.9	13.3	13.7	12.9
6.9	8.5	8.1	8.5	8.5	8.1
1.6	2.8	1.6	2.4	2.0	1.6
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

