

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: P226238

Luminaire Tested: **IST-AF-450-LED-E1-T2-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226238
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35937)
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-T2-7060
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II
Light Source: (16) 5700K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3136.3 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Cutoff
BUG Rating: B1 - U1 - G1

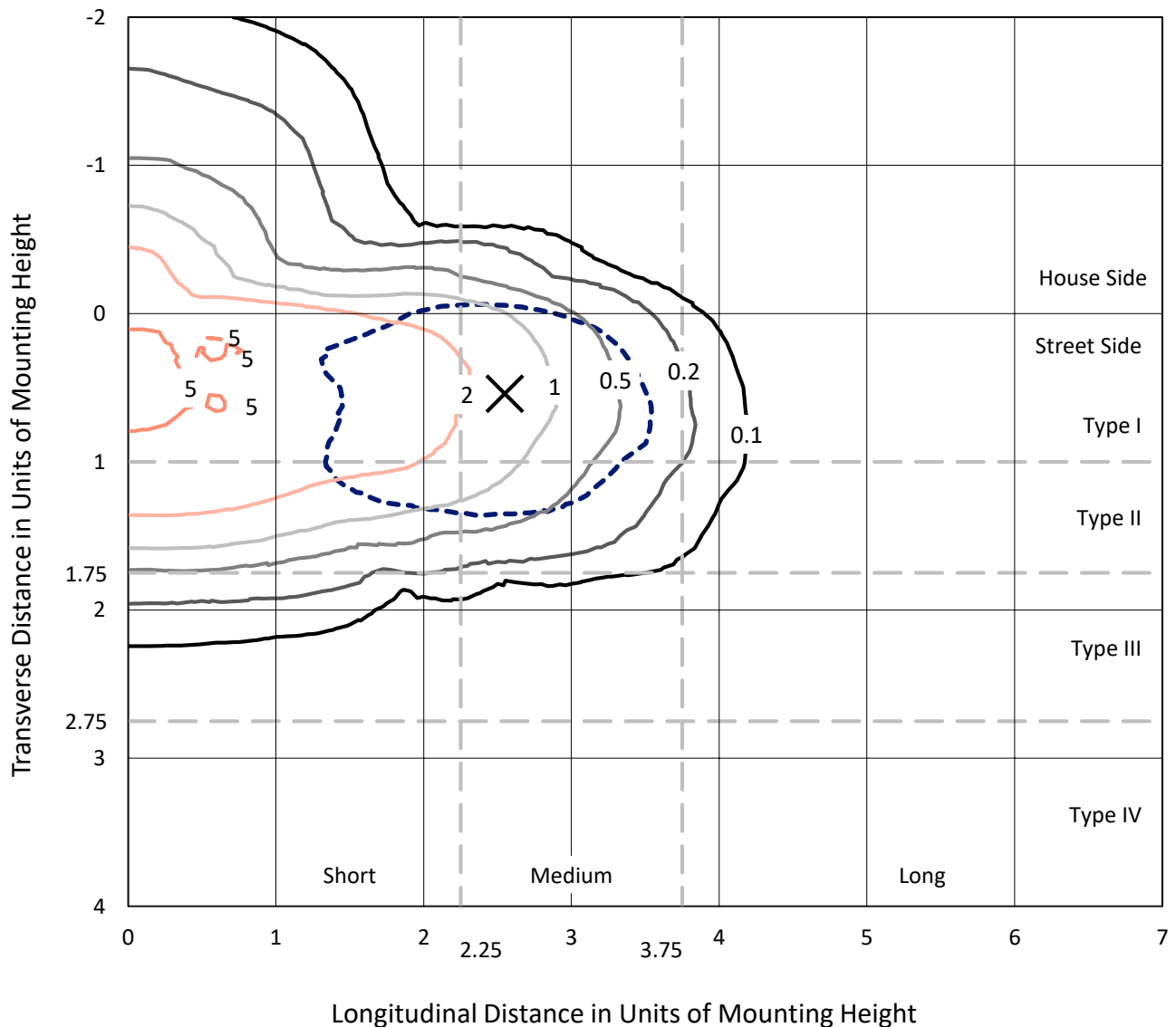
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P226238
 CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

Iso-Footcandle Lines of Horizontal Illumination

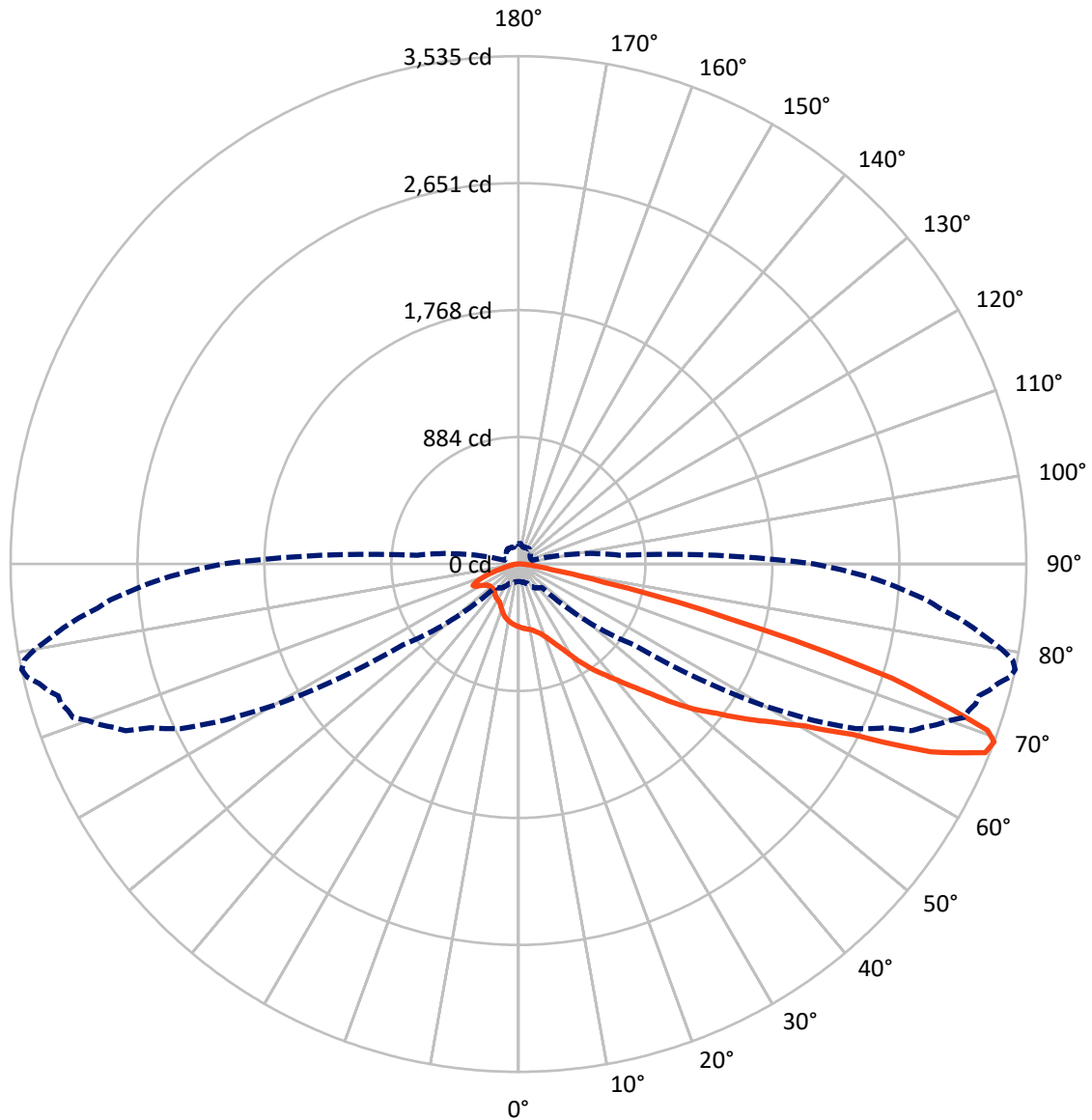
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type II - Medium - Cutoff

REPORT NUMBER: P226238
CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P226238

CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

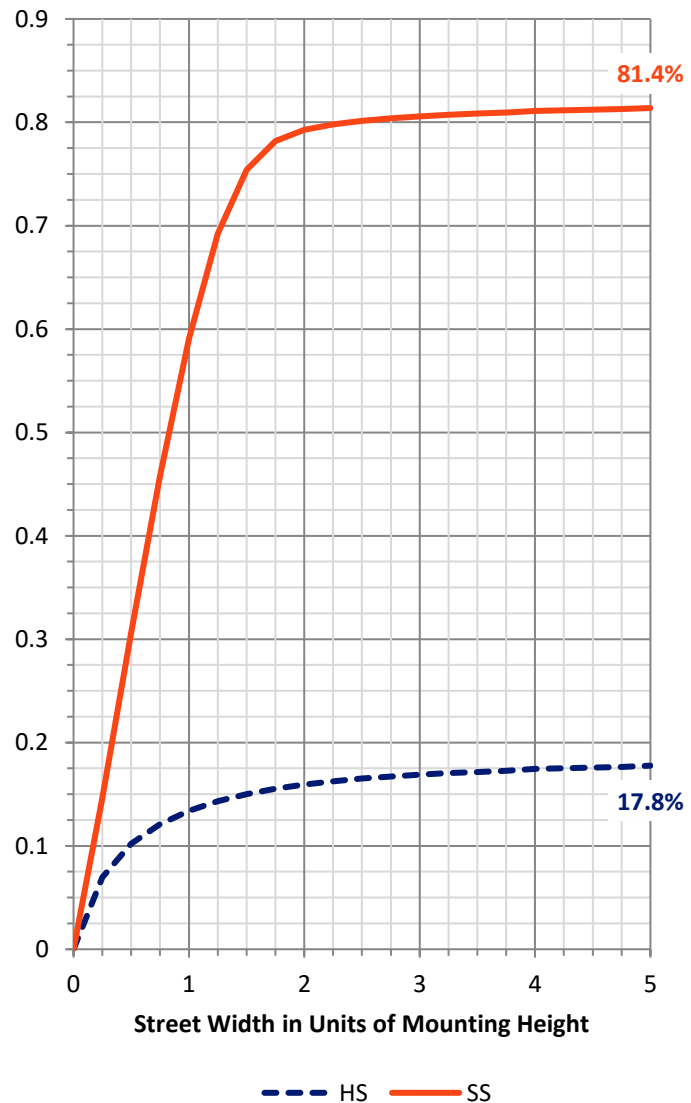
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	573.4	1.1	574.5
	% Fixture	18.3	0.0	18.3
Street Side	Lumens	2561.2	0.5	2561.8
	% Fixture	81.7	0.0	81.7
Total	Lumens	3134.7	1.6	3136.3
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.5	1.3
10°-20°	122.3	3.9
20°-30°	219.2	7.0
30°-40°	357.9	11.4
40°-50°	529.3	16.9
50°-60°	691.2	22.0
60°-70°	773.0	24.6
70°-80°	347.0	11.1
80°-90°	54.1	1.7
90°-100°	1.6	0.1
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°	3134.7	99.9
0°-180°	3136.3	100.0



REPORT NUMBER: P226238

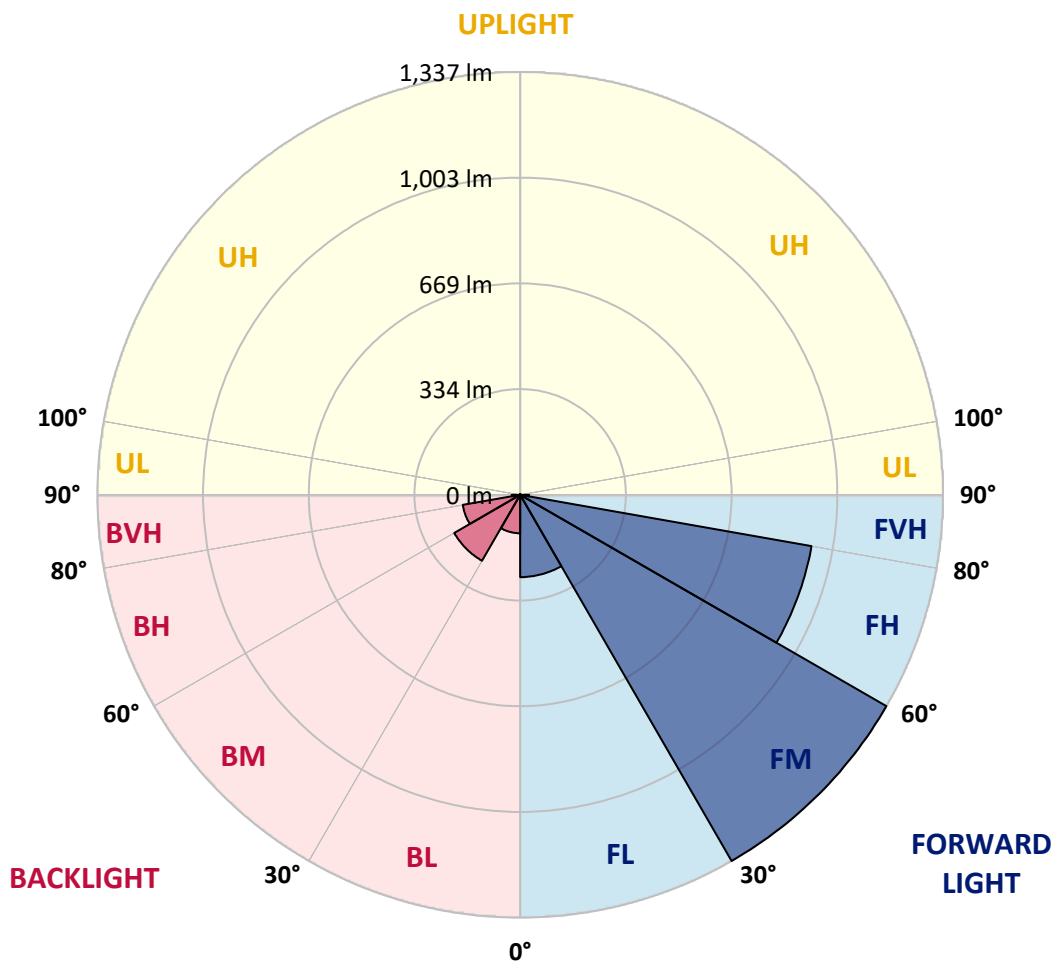
CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	260.3	8.3			
FM	(30°-60°)	1337.5	42.6			
FH	(60°-80°)	935.8	29.8			G1/1800
FVH	(80°-90°)	27.6	0.9			G1/100
BL	(0°-30°)	121.7	3.9	B1/500		
BM	(30°-60°)	240.9	7.7	B1/1000		
BH	(60°-80°)	184.3	5.9	B1/500		G1/500
BVH	(80°-90°)	26.5	0.8			G1/100
UL	(90°-100°)	1.6	0.1		U1/10	
UH	(100°-180°)	1.1	0.0		U1/10	

BUG Rating: B1-U1-G1

Type II Medium





REPORT NUMBER: P226238

CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2
2.5°	467.1	467.1	465.8	464.8	463.5	459.8	454.4	453.5	453.0	452.1	451.2
5°	501.3	497.6	498.5	496.3	491.3	484.9	474.9	469.9	467.1	466.7	464.8
7.5°	529.0	529.5	528.1	523.6	516.8	509.0	495.4	487.6	485.3	484.0	480.8
10°	549.1	547.7	546.8	545.9	540.4	534.1	516.8	507.2	505.4	501.7	498.1
12.5°	563.6	563.6	563.6	562.7	559.5	554.5	540.9	531.3	529.0	524.0	520.8
15°	579.6	577.8	575.9	574.6	575.0	575.0	565.0	557.7	554.1	551.4	545.0
17.5°	613.7	609.6	605.5	600.1	591.4	589.1	588.7	588.2	583.2	582.8	576.4
20°	642.9	639.2	635.6	630.1	617.8	604.6	611.5	617.8	616.9	617.4	614.2
22.5°	678.8	676.1	668.8	662.4	646.5	630.6	631.5	645.1	647.0	648.8	649.7
25°	728.0	726.6	714.8	702.5	684.3	669.3	655.2	672.0	675.6	679.7	687.9
27.5°	777.6	774.4	761.7	750.8	728.0	712.1	692.5	701.6	707.1	714.8	727.5
30°	841.8	833.2	828.6	804.0	783.1	759.9	743.0	745.8	744.8	754.0	773.5
32.5°	934.7	921.0	898.3	873.7	849.1	818.2	804.0	803.6	801.3	811.8	822.7
35°	984.8	981.6	967.5	942.9	916.0	886.9	877.8	869.1	870.5	876.0	880.1
37.5°	1039.0	1036.2	1025.3	1011.6	991.2	1007.1	956.6	943.8	937.9	935.2	936.5
40°	1062.6	1064.9	1070.8	1073.1	1061.3	1137.8	1038.1	996.2	994.3	990.2	986.2
42.5°	1067.6	1073.6	1085.4	1111.4	1122.7	1289.4	1105.4	1054.9	1047.6	1044.4	1044.9
45°	1085.9	1095.0	1097.2	1120.9	1174.6	1297.1	1181.5	1106.8	1101.3	1100.9	1098.2
47.5°	1130.0	1142.3	1142.3	1152.8	1203.8	1312.1	1207.4	1158.7	1155.1	1153.2	1160.5
50°	1136.4	1152.8	1185.6	1219.3	1256.1	1324.4	1237.0	1215.2	1216.5	1220.6	1242.0
52.5°	1028.5	1044.9	1131.4	1230.6	1350.8	1358.1	1281.6	1290.3	1299.4	1319.4	1358.6
55°	881.9	893.7	996.2	1155.1	1354.5	1486.1	1393.6	1417.8	1436.9	1442.8	1504.3
57.5°	694.3	710.7	815.0	1021.2	1264.8	1522.5	1651.3	1662.3	1640.9	1660.4	1682.7
60°	376.1	374.2	519.5	738.5	1076.3	1455.1	1899.9	2087.5	2092.0	2122.1	2086.1
62.5°	210.3	210.3	252.2	379.3	692.5	1231.1	2019.2	2455.4	2512.3	2560.1	2665.2
65°	158.9	160.3	175.3	228.6	388.8	777.2	1931.8	2581.0	2690.3	2800.0	2984.4
67.5°	132.0	132.0	143.0	170.3	243.1	352.8	1422.3	2328.8	2465.4	2596.5	2851.5
69°	122.5	122.9	131.1	149.8	203.5	229.5	982.5	1974.6	2130.7	2312.4	2612.9
70°	117.9	116.6	124.3	139.8	184.4	181.2	719.8	1716.9	1838.0	2001.0	2346.5
72.5°	104.7	103.4	107.4	119.3	145.2	129.3	293.7	923.8	1106.3	1288.9	1564.4
75°	93.3	92.0	95.2	100.6	112.9	98.8	147.5	387.0	468.5	605.5	835.5
77.5°	82.4	79.7	82.4	86.0	88.8	73.8	100.2	178.9	219.4	269.5	380.6
80°	74.7	71.9	75.1	73.3	69.7	56.9	66.5	104.3	115.6	138.4	181.2
82.5°	53.3	52.8	71.5	73.8	55.5	41.4	47.3	66.9	74.7	78.8	95.6
85°	32.8	31.4	41.4	52.8	56.5	26.0	30.5	39.6	41.4	45.1	53.3
87.5°	16.8	17.3	22.3	27.3	36.9	15.5	18.2	23.2	23.2	23.2	26.4
90°	4.1	5.0	6.8	9.6	7.7	4.1	6.8	5.5	6.4	5.5	6.4
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



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2
2.5°	451.6	450.3	448.5	448.9	448.0	446.6	447.1	446.6	447.1	446.2	445.3
5°	464.8	463.9	461.2	460.8	459.8	458.9	457.6	456.2	455.7	454.8	453.0
7.5°	479.9	477.1	475.8	474.0	471.7	468.0	467.6	465.8	464.4	463.5	461.2
10°	495.4	492.2	490.3	488.1	485.8	483.5	481.2	478.1	474.9	474.0	471.2
12.5°	518.6	514.5	510.8	507.2	504.9	500.8	497.6	493.5	490.3	489.0	484.4
15°	544.1	538.6	535.0	532.2	528.6	524.9	520.8	517.2	512.2	508.1	504.0
17.5°	574.1	569.1	566.4	561.4	556.8	552.7	549.5	545.0	540.9	533.6	530.0
20°	613.7	609.6	606.4	601.0	596.0	591.9	589.1	579.6	574.1	567.7	561.8
22.5°	650.6	651.1	647.9	644.2	641.0	635.6	631.0	624.2	617.4	609.6	601.4
25°	690.7	694.3	694.8	693.9	692.0	685.7	683.4	676.6	671.1	658.3	654.7
27.5°	735.3	739.4	744.4	750.8	752.1	745.3	748.5	741.7	732.1	726.6	714.8
30°	778.5	789.9	800.4	807.7	812.2	815.4	813.1	810.9	804.5	795.4	784.9
32.5°	834.1	845.9	856.4	872.3	880.5	890.5	888.7	889.6	887.4	878.2	866.0
35°	890.1	900.6	914.2	924.7	944.7	955.6	964.8	964.3	964.3	958.8	947.0
37.5°	939.7	945.6	957.0	974.3	987.5	1004.8	1019.4	1025.3	1034.9	1035.3	1022.6
40°	991.6	997.5	1006.2	1018.9	1033.5	1054.0	1073.6	1092.7	1101.8	1111.4	1106.3
42.5°	1047.6	1054.0	1060.4	1068.6	1089.5	1105.4	1131.8	1157.8	1176.5	1196.0	1193.8
45°	1103.2	1110.4	1119.6	1131.8	1150.5	1176.5	1202.0	1231.1	1273.9	1297.1	1313.0
47.5°	1166.0	1177.8	1194.7	1214.2	1229.3	1256.1	1288.5	1333.5	1376.8	1416.9	1441.9
50°	1260.7	1265.2	1292.6	1311.7	1340.4	1367.7	1400.0	1439.6	1495.6	1536.6	1576.7
52.5°	1372.2	1389.5	1416.9	1438.7	1461.5	1488.8	1522.0	1557.5	1613.1	1659.1	1711.0
55°	1516.1	1540.7	1564.4	1576.2	1608.1	1632.7	1659.5	1694.6	1754.2	1804.3	1865.3
57.5°	1687.7	1712.3	1723.7	1741.0	1754.7	1782.0	1818.4	1842.1	1894.9	1946.8	2011.5
60°	2040.1	2024.7	2038.3	2011.5	2007.4	2009.6	2017.4	2035.6	2065.2	2113.4	2181.7
62.5°	2676.2	2653.9	2594.7	2573.3	2531.8	2475.8	2423.0	2415.8	2400.3	2436.7	2479.5
65°	3047.7	3128.7	3137.4	3160.1	3143.8	3100.0	3038.1	3018.1	2968.0	2933.0	2930.7
67.5°	2958.5	3080.0	3156.0	3252.1	3305.4	3357.3	3370.9	3388.7	3356.4	3340.4	3345.0
69°	2710.3	2800.5	2970.7	3036.3	3120.5	3189.7	3280.8	3296.7	3328.1	3332.7	3393.3
70°	2464.5	2597.0	2694.4	2792.7	2909.3	2985.3	3026.3	3093.7	3171.5	3209.8	3275.3
72.5°	1772.0	1815.2	1884.4	2011.9	2044.2	2123.0	2203.6	2261.0	2352.5	2417.1	2571.5
75°	956.1	982.1	1090.9	1163.3	1182.4	1208.3	1267.5	1281.6	1315.8	1336.7	1485.1
77.5°	436.6	476.2	490.3	530.0	507.6	518.6	532.7	529.5	539.1	584.6	636.5
80°	201.2	209.0	214.4	230.8	231.7	228.1	229.5	227.2	225.4	232.7	238.1
82.5°	97.9	109.7	109.7	119.7	124.7	123.4	126.1	125.2	127.0	125.2	131.1
85°	57.4	57.4	61.9	67.4	66.5	68.3	68.3	71.9	72.4	73.3	73.3
87.5°	26.9	29.6	31.0	33.2	34.1	35.5	36.4	36.4	36.9	36.0	36.9
90°	6.8	6.8	11.4	11.4	12.3	13.7	11.8	12.7	15.9	11.8	15.0
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: P226238

CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
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: P226238

CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2
2.5°	444.4	445.3	444.8	443.0	442.5	442.5	441.6	441.2	440.3	439.8	440.7
5°	452.6	452.6	451.2	449.4	447.5	447.1	446.6	444.4	443.4	442.5	441.6
7.5°	460.3	459.4	457.6	454.4	452.6	452.1	450.3	448.0	445.7	443.9	443.0
10°	468.5	467.6	463.9	461.7	458.0	457.6	454.4	451.6	449.4	447.1	445.3
12.5°	480.3	479.4	475.3	469.9	467.1	465.3	461.2	458.0	454.8	452.1	448.9
15°	498.5	494.9	492.2	486.7	482.6	479.0	474.0	469.4	464.8	460.3	457.6
17.5°	524.0	519.0	511.7	508.6	503.1	497.2	490.3	487.2	481.2	475.8	470.3
20°	557.3	552.3	540.9	536.8	529.0	520.4	514.9	508.1	503.1	494.4	488.5
22.5°	594.1	589.6	578.7	567.7	560.5	553.6	545.0	536.3	526.8	518.6	512.2
25°	642.0	635.1	625.6	614.6	603.7	594.1	582.3	570.0	561.8	550.4	541.3
27.5°	707.1	695.2	679.3	667.5	658.8	644.2	629.7	618.7	606.0	591.0	580.9
30°	777.6	764.4	752.6	738.9	724.4	710.2	690.2	674.3	660.6	644.7	628.3
32.5°	855.9	844.6	827.7	810.0	794.0	776.3	761.7	744.8	721.2	704.3	687.0
35°	934.7	921.5	904.2	889.2	871.0	852.8	836.4	814.1	792.7	768.5	744.4
37.5°	1010.7	999.4	980.2	957.5	941.5	922.0	905.1	881.4	855.9	829.1	810.9
40°	1095.4	1077.2	1064.0	1037.6	1021.2	999.4	975.2	957.0	932.4	903.3	877.3
42.5°	1192.4	1179.6	1165.5	1144.1	1126.8	1100.9	1070.4	1047.2	1024.4	989.8	953.8
45°	1315.3	1307.1	1283.9	1266.6	1243.4	1216.1	1189.7	1161.4	1125.5	1085.4	1052.6
47.5°	1462.8	1456.5	1435.5	1410.9	1380.4	1343.6	1319.0	1280.3	1249.8	1199.7	1160.5
50°	1596.7	1599.9	1588.5	1550.7	1523.4	1486.5	1447.8	1414.1	1367.2	1315.3	1265.2
52.5°	1756.5	1753.3	1724.6	1703.7	1671.4	1626.7	1584.4	1541.1	1489.7	1436.0	1373.6
55°	1909.5	1919.0	1899.0	1869.4	1830.3	1767.9	1725.1	1669.1	1614.9	1555.7	1483.8
57.5°	2057.9	2088.4	2072.9	2037.9	1997.8	1952.7	1896.3	1833.4	1777.4	1700.0	1619.0
60°	2242.7	2283.3	2289.6	2266.9	2223.2	2170.8	2096.6	2047.4	1970.5	1899.0	1836.6
62.5°	2527.3	2619.3	2613.8	2624.7	2593.8	2561.4	2474.5	2421.7	2321.5	2270.1	2183.1
65°	3002.6	3070.5	3152.0	3149.2	3127.8	3050.4	2960.3	2871.9	2805.9	2704.4	2613.8
67.5°	3401.4	3457.4	3505.7	3480.7	3431.5	3344.5	3238.9	3116.0	3015.4	2903.4	2784.5
69°	3438.8	3507.1	3535.3	3504.3	3416.0	3302.6	3199.3	3085.0	2946.6	2850.6	2705.8
70°	3338.6	3406.0	3462.9	3383.2	3302.2	3191.6	3078.6	2959.8	2836.0	2732.6	2586.5
72.5°	2652.0	2728.1	2720.3	2711.7	2647.0	2536.4	2432.6	2368.9	2281.9	2157.1	2051.5
75°	1542.1	1577.1	1515.6	1580.3	1502.9	1391.4	1405.9	1334.0	1270.2	1198.3	1142.8
77.5°	605.5	636.5	604.2	593.7	559.1	551.4	493.5	500.4	471.7	415.2	389.3
80°	229.5	233.6	228.1	216.7	214.4	201.2	197.6	184.8	178.9	160.3	153.4
82.5°	123.4	125.7	122.0	118.4	115.6	107.9	102.9	93.3	87.9	82.0	81.5
85°	71.0	69.2	67.4	65.6	61.5	56.9	53.3	49.6	45.5	42.3	39.2
87.5°	37.3	37.8	38.2	36.4	33.7	30.0	27.8	26.4	23.2	21.9	20.5
90°	12.3	9.1	10.5	13.2	12.3	10.0	9.6	8.2	6.8	6.8	5.5
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: P226238
 CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°	
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: P226238
 NUMBER: IST-AF-450-LED-E1-T2-7060

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°	110°	87°
436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	436.2	110°	0.0
439.4	439.4	438.0	437.1	433.9	428.4	423.0	418.0	411.1	408.4	404.7	112.5°	0.0
440.7	439.8	438.4	436.6	430.2	417.5	404.3	390.2	375.6	362.4	346.9	115°	0.0
441.6	439.8	438.0	435.7	426.6	407.0	380.6	352.8	326.9	307.3	299.1	117.5°	0.0
442.1	440.7	438.4	435.3	422.5	393.4	351.0	311.0	288.2	280.5	279.1	120°	0.0
447.1	444.8	441.2	437.5	420.7	378.3	317.8	279.5	270.4	274.1	280.5	122.5°	0.0
453.5	450.7	446.2	442.5	419.8	358.8	285.5	261.8	265.0	275.0	285.5	125°	0.0
464.8	460.3	455.3	451.6	421.6	334.6	259.5	252.7	262.2	275.0	289.1	127.5°	0.0
481.7	475.3	469.4	463.0	424.3	304.6	244.0	246.8	258.1	271.8	287.3	130°	0.0
502.6	495.4	487.2	477.6	427.5	278.6	235.4	240.4	250.9	262.7	275.4	132.5°	0.0
530.9	520.8	510.4	498.5	432.1	250.4	227.6	233.1	239.5	246.3	252.7	135°	0.0
566.4	552.7	541.3	525.4	436.6	231.3	221.3	223.1	224.5	225.4	224.9	137.5°	0.0
613.7	592.8	579.6	560.0	441.6	221.3	214.0	211.7	209.4	206.2	202.6	140°	0.0
663.8	646.5	625.6	600.5	444.8	214.4	207.2	199.9	193.5	190.3	190.3	142.5°	0.0
722.1	700.7	674.3	642.9	440.7	207.2	198.0	188.5	184.8	188.9	187.6	145°	0.0
780.4	750.8	721.6	685.7	430.7	199.0	188.0	183.0	185.8	180.3	177.1	147.5°	0.0
844.6	811.8	771.3	729.4	416.1	190.3	183.0	185.8	176.2	169.8	172.6	150°	0.0
916.5	877.8	834.1	777.2	406.6	184.8	175.3	177.6	169.4	164.8	163.4	152.5°	0.0
1014.4	959.3	906.0	839.1	413.9	176.2	160.3	169.4	164.8	160.7	157.1	155°	0.0
1110.4	1051.7	988.9	910.1	426.6	169.8	148.4	160.7	163.9	157.1	150.2	157.5°	0.0
1207.0	1144.6	1071.3	983.4	442.1	165.7	139.3	150.2	161.6	153.4	148.0	160°	0.0
1308.5	1229.7	1154.6	1059.9	462.1	161.6	132.0	141.1	157.5	153.4	145.2	162.5°	0.0
1415.0	1322.2	1247.0	1144.6	497.2	155.7	122.9	133.9	153.4	153.0	142.5	165°	0.0
1538.9	1456.0	1359.5	1255.2	545.9	148.9	114.7	128.4	149.8	151.2	139.3	167.5°	0.0
1749.7	1664.1	1547.5	1448.3	642.4	139.8	109.7	122.9	143.9	147.5	136.6	170°	0.0
2091.6	1975.0	1868.0	1775.2	807.7	127.0	106.1	117.0	137.5	143.0	134.3	172.5°	0.0
2483.6	2369.8	2240.5	2084.3	899.6	115.2	101.1	109.7	131.1	138.4	132.0	175°	0.0
2650.2	2501.3	2344.3	2159.0	811.8	105.6	95.6	102.9	123.8	132.0	128.8	177.5°	0.0
2573.7	2423.0	2240.5	2058.8	706.1	100.6	92.4	99.3	118.4	127.9	125.7	180°	0.0
2440.8	2289.2	2126.2	1908.1	630.6	97.9	90.1	97.0	116.1	125.7	123.8		
1930.4	1795.2	1645.0	1478.8	429.8	88.8	82.9	90.1	107.0	117.5	117.0		
1023.0	983.4	872.3	774.9	222.6	79.2	75.1	82.4	98.8	109.7	109.7		
368.3	334.2	319.6	265.4	118.4	69.2	67.4	72.8	89.7	100.2	99.7		
139.3	135.7	121.6	113.8	75.1	56.5	56.9	62.4	78.8	88.8	88.3		
78.8	71.5	69.2	66.9	47.8	44.6	46.9	52.4	67.4	76.0	77.4		
37.8	35.1	34.1	31.9	31.4	34.1	36.9	41.4	53.7	64.2	62.8		
18.2	17.3	16.8	16.4	22.3	21.9	26.9	28.7	36.0	51.0	46.0		
5.9	5.9	5.5	4.6	6.4	7.3	8.7	12.3	15.0	29.6	24.1		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

'226238
 IST-AF-450-LED-E1-T2-7060

REPORT NUMBER: P226238
 CATALOG NUMBER: IST-AF-450

TION (continued):

CANDELA DISTRIBUTION (con

88°	89°	90°	95°	105°	115°	125°	135°	145°	155°		165°	175°
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0°	436.2	436.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°	401.6	395.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°	335.5	334.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°	294.1	288.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°	280.5	280.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°	286.4	287.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°	294.1	296.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°	299.1	304.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°	297.8	303.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°	282.7	285.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°	255.9	256.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°	223.5	222.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°	200.8	194.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°	190.3	186.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°	183.0	177.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°	189.9	189.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°	196.2	195.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°	185.3	177.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°	165.3	155.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°	151.6	146.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°	145.2	143.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°	143.4	148.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°	142.5	147.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°	136.1	144.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°	131.6	142.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°	128.8	140.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°	126.6	141.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°	122.9	144.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69°	121.1	143.9
										70°	119.3	142.5
										72.5°	112.9	131.6
										75°	105.2	116.1
										77.5°	95.2	99.7
										80°	84.2	87.0
										82.5°	73.3	83.8
										85°	57.4	71.0
										87.5°	42.3	39.2
										90°	24.1	17.8
										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: P226238

CATALOG NUMBER: IST-AF-450-LED-E1-1

0-LED-E1-T2-7060

tinued):

180°
436.2
396.6
331.9
288.7
281.4
286.8
297.8
306.0
305.0
287.7
257.7
226.3
199.4
190.8
179.8
191.7
197.1
178.9
155.7
145.2
142.5
149.3
147.1
145.2
142.5
140.2
139.8
140.7
138.9
136.6
122.9
110.6
99.7
87.9
74.2
55.5
42.3
15.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
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

(END OF F

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

