

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: P226239

Luminaire Tested: **IST-AF-450-LED-E1-T2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226239
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-T2-8030
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2559.2 lumens
Efficiency: N/A
Efficacy: 101.1 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

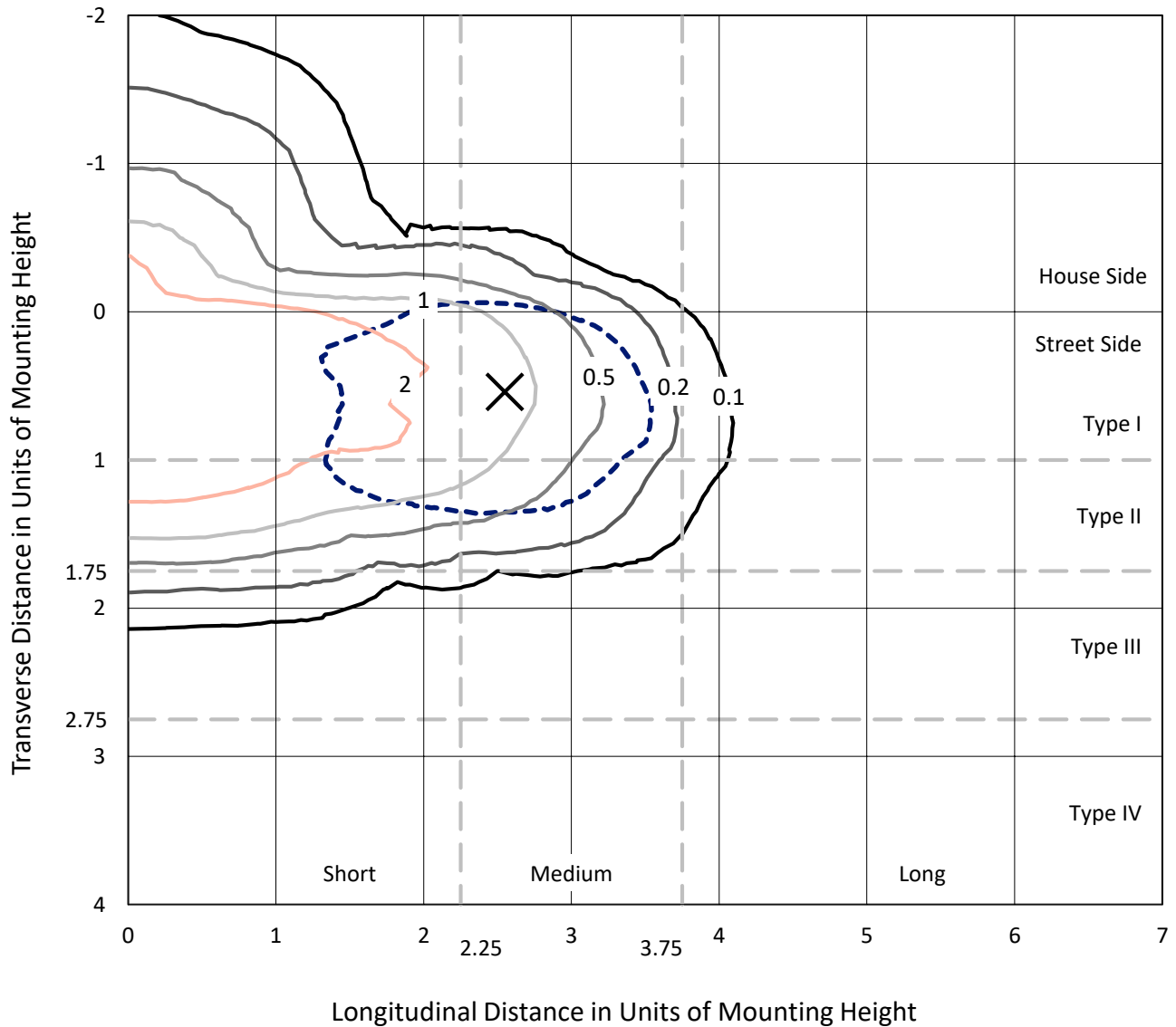
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

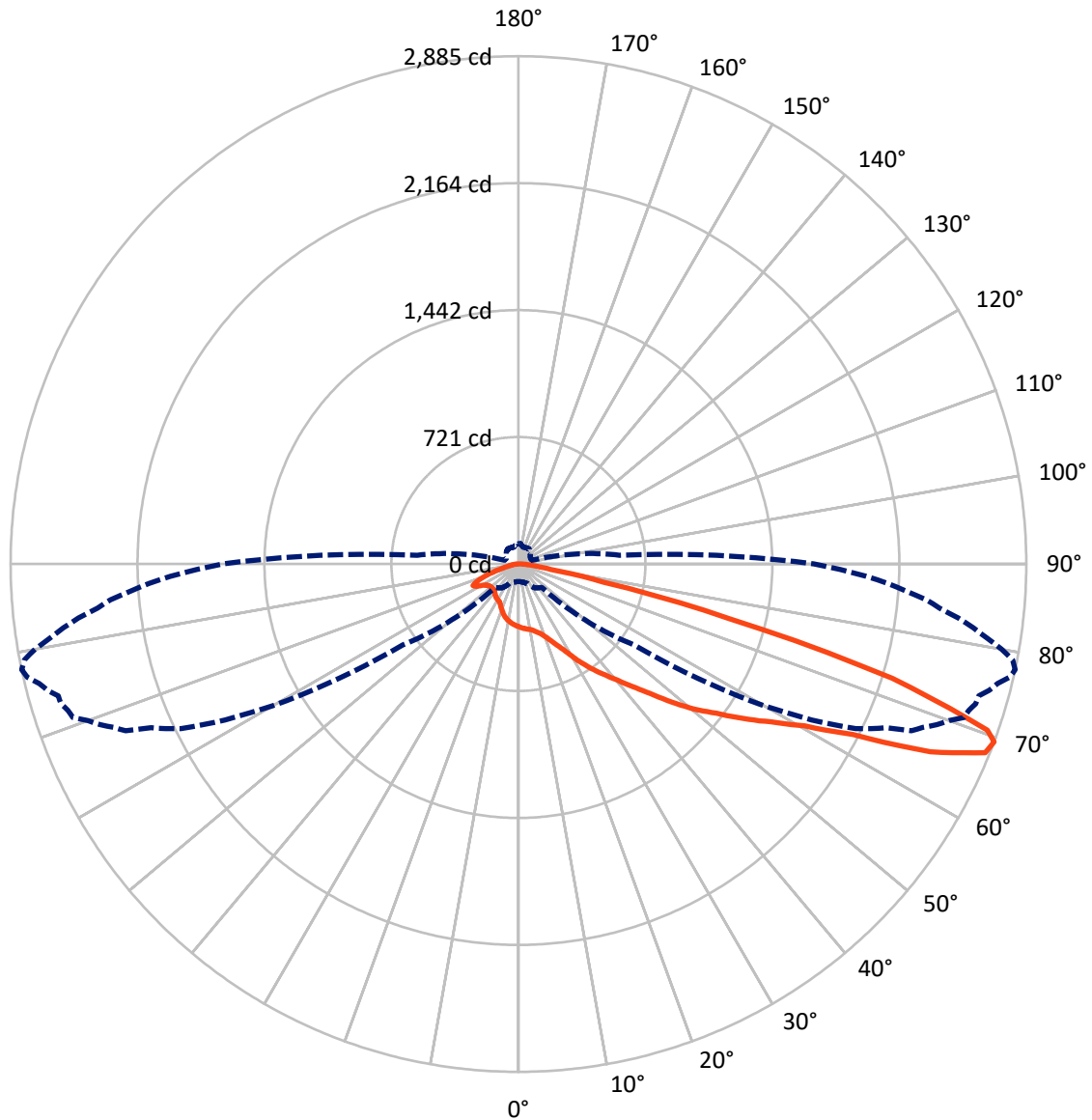
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type II - Medium - Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	467.9	0.9	468.8
	% Fixture	18.3	0.0	18.3
Street Side	Lumens	2090.0	0.4	2090.4
	% Fixture	81.7	0.0	81.7
Total	Lumens	2557.9	1.3	2559.2
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	1.3
10°-20°	99.8	3.9
20°-30°	178.9	7.0
30°-40°	292.0	11.4
40°-50°	431.9	16.9
50°-60°	564.0	22.0
60°-70°	630.8	24.6
70°-80°	283.2	11.1
80°-90°	44.2	1.7
90°-100°	1.3	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°	2557.9	99.9
0°-180°	2559.2	100.0



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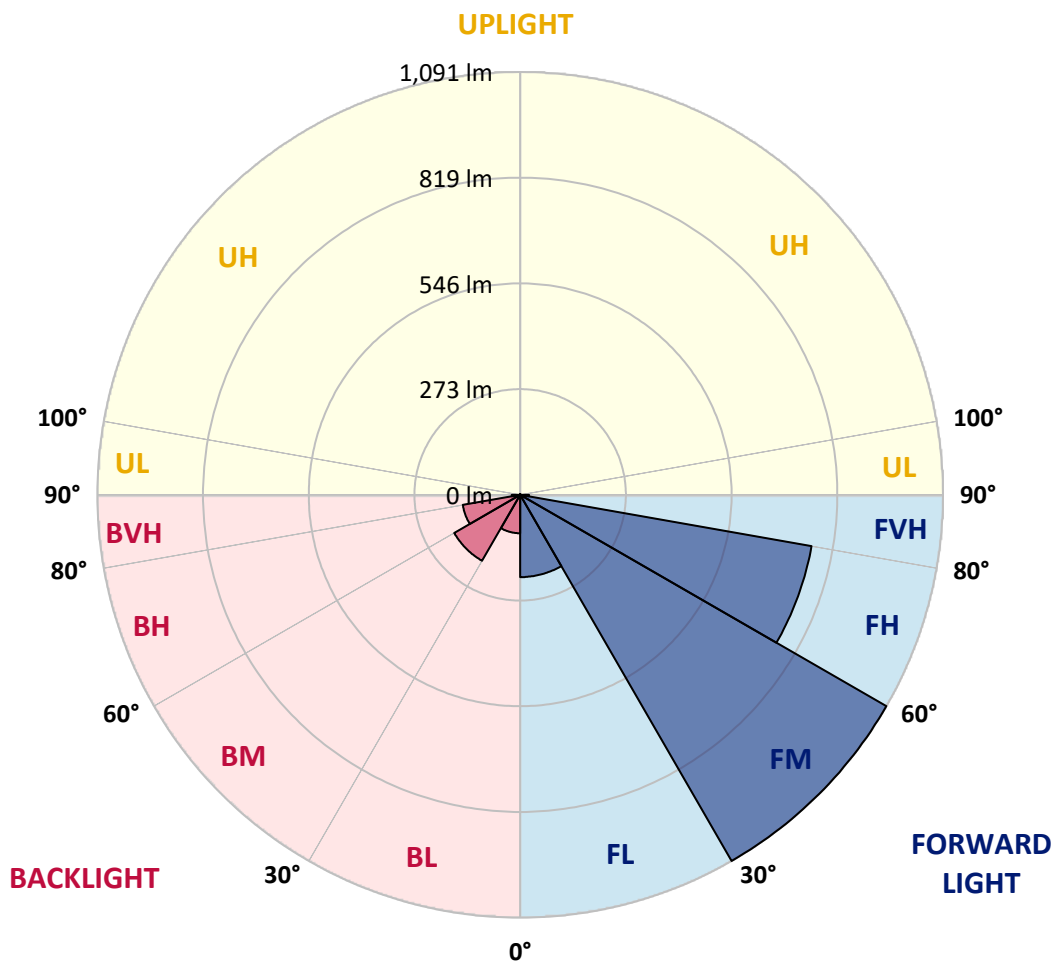
CATALOG NUMBER: IST-AF-450-LED-E1-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	212.4	8.3			
FM (30°-60°)	1091.4	42.6			
FH (60°-80°)	763.6	29.8			G1/1800
FVH (80°-90°)	22.5	0.9			G1/100
BL (0°-30°)	99.3	3.9	B0/110		
BM (30°-60°)	196.6	7.7	B0/220		
BH (60°-80°)	150.4	5.9	B1/500		G1/500
BVH (80°-90°)	21.6	0.8			G1/100
UL (90°-100°)	1.3	0.1		U1/10	
UH (100°-180°)	0.9	0.0		U1/10	

BUG Rating: B1-U1-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9
2.5°	381.2	381.2	380.1	379.3	378.2	375.2	370.8	370.0	369.7	368.9	368.2
5°	409.0	406.1	406.8	405.0	400.9	395.7	387.5	383.4	381.2	380.8	379.3
7.5°	431.7	432.1	431.0	427.2	421.7	415.4	404.2	397.9	396.0	394.9	392.3
10°	448.0	446.9	446.2	445.4	441.0	435.8	421.7	413.9	412.4	409.4	406.4
12.5°	459.9	459.9	459.9	459.2	456.6	452.5	441.4	433.6	431.7	427.6	425.0
15°	472.9	471.5	470.0	468.9	469.2	469.2	461.0	455.1	452.1	449.9	444.7
17.5°	500.8	497.5	494.1	489.7	482.6	480.7	480.4	480.0	475.9	475.5	470.3
20°	524.6	521.6	518.6	514.2	504.1	493.4	498.9	504.1	503.4	503.8	501.2
22.5°	553.9	551.7	545.8	540.6	527.5	514.5	515.3	526.4	527.9	529.4	530.2
25°	594.1	592.9	583.3	573.2	558.4	546.1	534.6	548.4	551.3	554.7	561.4
27.5°	634.5	631.9	621.5	612.6	594.1	581.0	565.1	572.5	577.0	583.3	593.7
30°	686.9	679.9	676.2	656.1	639.0	620.1	606.3	608.5	607.8	615.2	631.2
32.5°	762.7	751.6	733.0	712.9	692.9	667.6	656.1	655.7	653.9	662.4	671.3
35°	803.6	801.0	789.5	769.4	747.5	723.7	716.3	709.2	710.3	714.8	718.1
37.5°	847.8	845.6	836.6	825.5	808.8	821.8	780.6	770.1	765.3	763.1	764.2
40°	867.1	869.0	873.8	875.7	866.0	928.4	847.1	812.9	811.4	808.0	804.7
42.5°	871.2	876.0	885.7	906.9	916.2	1052.1	902.0	860.8	854.9	852.3	852.6
45°	886.1	893.5	895.3	914.7	958.5	1058.4	964.1	903.2	898.7	898.3	896.1
47.5°	922.1	932.1	932.1	940.7	982.3	1070.7	985.3	945.5	942.5	941.0	947.0
50°	927.3	940.7	967.4	994.9	1025.0	1080.7	1009.4	991.6	992.7	996.0	1013.5
52.5°	839.3	852.6	923.2	1004.2	1102.3	1108.2	1045.8	1052.9	1060.3	1076.6	1108.6
55°	719.6	729.3	812.9	942.5	1105.3	1212.6	1137.2	1156.9	1172.5	1177.3	1227.5
57.5°	566.6	579.9	665.0	833.3	1032.1	1242.3	1347.5	1356.4	1338.9	1354.9	1373.1
60°	306.9	305.4	423.9	602.6	878.3	1187.4	1550.3	1703.4	1707.1	1731.6	1702.3
62.5°	171.6	171.6	205.8	309.5	565.1	1004.6	1647.7	2003.6	2050.0	2089.0	2174.8
65°	129.7	130.8	143.0	186.5	317.3	634.2	1576.3	2106.1	2195.3	2284.8	2435.3
67.5°	107.7	107.7	116.7	138.9	198.4	287.9	1160.6	1900.3	2011.7	2118.7	2326.8
69°	99.9	100.3	107.0	122.2	166.1	187.2	801.7	1611.3	1738.7	1886.9	2132.1
70°	96.2	95.1	101.4	114.1	150.5	147.9	587.4	1401.0	1499.8	1632.8	1914.8
72.5°	85.4	84.3	87.7	97.3	118.5	105.5	239.6	753.8	902.8	1051.8	1276.5
75°	76.2	75.0	77.6	82.1	92.1	80.6	120.4	315.8	382.3	494.1	681.7
77.5°	67.2	65.0	67.2	70.2	72.4	60.2	81.7	146.0	179.1	219.9	310.6
80°	60.9	58.7	61.3	59.8	56.8	46.4	54.2	85.1	94.4	112.9	147.9
82.5°	43.5	43.1	58.3	60.2	45.3	33.8	38.6	54.6	60.9	64.3	78.0
85°	26.7	25.6	33.8	43.1	46.1	21.2	24.9	32.3	33.8	36.8	43.5
87.5°	13.7	14.1	18.2	22.3	30.1	12.6	14.9	18.9	18.9	18.9	21.5
90°	3.3	4.1	5.6	7.8	6.3	3.3	5.6	4.5	5.2	4.5	5.2
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°	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°	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9
2.5°	368.5	367.4	365.9	366.3	365.6	364.5	364.8	364.5	364.8	364.1	363.3
5°	379.3	378.6	376.3	376.0	375.2	374.5	373.4	372.3	371.9	371.1	369.7
7.5°	391.6	389.3	388.2	386.7	384.9	381.9	381.5	380.1	378.9	378.2	376.3
10°	404.2	401.6	400.1	398.3	396.4	394.5	392.7	390.1	387.5	386.7	384.5
12.5°	423.2	419.8	416.8	413.9	412.0	408.7	406.1	402.7	400.1	399.0	395.3
15°	444.0	439.5	436.5	434.3	431.3	428.4	425.0	422.0	418.0	414.6	411.3
17.5°	468.5	464.4	462.2	458.1	454.4	451.0	448.4	444.7	441.4	435.4	432.4
20°	500.8	497.5	494.9	490.4	486.3	483.0	480.7	472.9	468.5	463.3	458.4
22.5°	530.9	531.3	528.7	525.7	523.1	518.6	514.9	509.3	503.8	497.5	490.8
25°	563.6	566.6	566.9	566.2	564.7	559.5	557.6	552.1	547.6	537.2	534.2
27.5°	600.0	603.3	607.4	612.6	613.7	608.2	610.8	605.2	597.4	592.9	583.3
30°	635.3	644.6	653.1	659.1	662.8	665.4	663.5	661.7	656.5	649.0	640.5
32.5°	680.6	690.3	698.8	711.8	718.5	726.7	725.2	725.9	724.1	716.7	706.6
35°	726.3	734.9	746.0	754.5	770.9	779.8	787.2	786.9	786.9	782.4	772.7
37.5°	766.8	771.6	780.9	795.0	805.8	819.9	831.8	836.6	844.5	844.8	834.4
40°	809.2	814.0	821.0	831.4	843.3	860.1	876.0	891.6	899.1	906.9	902.8
42.5°	854.9	860.1	865.3	871.9	889.0	902.0	923.6	944.8	960.0	976.0	974.1
45°	900.2	906.1	913.6	923.6	938.8	960.0	980.8	1004.6	1039.5	1058.4	1071.4
47.5°	951.4	961.1	974.9	990.8	1003.1	1025.0	1051.4	1088.2	1123.5	1156.2	1176.6
50°	1028.7	1032.4	1054.7	1070.3	1093.7	1116.0	1142.4	1174.7	1220.4	1253.9	1286.6
52.5°	1119.7	1133.9	1156.2	1174.0	1192.6	1214.9	1242.0	1270.9	1316.3	1353.8	1396.1
55°	1237.1	1257.2	1276.5	1286.2	1312.2	1332.2	1354.2	1382.8	1431.4	1472.3	1522.1
57.5°	1377.2	1397.3	1406.6	1420.7	1431.8	1454.1	1483.8	1503.1	1546.2	1588.6	1641.3
60°	1664.8	1652.1	1663.3	1641.3	1638.0	1639.9	1646.2	1661.0	1685.2	1724.6	1780.3
62.5°	2183.8	2165.6	2117.3	2099.8	2066.0	2020.3	1977.2	1971.3	1958.6	1988.3	2023.3
65°	2486.9	2553.0	2560.1	2578.7	2565.3	2529.6	2479.1	2462.8	2421.9	2393.3	2391.4
67.5°	2414.1	2513.3	2575.3	2653.7	2697.2	2739.5	2750.7	2765.2	2738.8	2725.8	2729.5
69°	2211.6	2285.2	2424.1	2477.6	2546.4	2602.8	2677.1	2690.1	2715.8	2719.5	2768.9
70°	2011.0	2119.1	2198.6	2278.9	2374.0	2436.0	2469.5	2524.4	2588.0	2619.2	2672.7
72.5°	1445.9	1481.2	1537.7	1641.7	1668.1	1732.4	1798.1	1844.9	1919.6	1972.4	2098.3
75°	780.2	801.4	890.1	949.2	964.8	986.0	1034.3	1045.8	1073.7	1090.8	1211.9
77.5°	356.3	388.6	400.1	432.4	414.2	423.2	434.7	432.1	439.9	477.0	519.4
80°	164.2	170.5	175.0	188.4	189.1	186.1	187.2	185.4	183.9	189.8	194.3
82.5°	79.9	89.5	89.5	97.7	101.8	100.7	102.9	102.2	103.7	102.2	107.0
85°	46.8	46.8	50.5	55.0	54.2	55.7	55.7	58.7	59.1	59.8	59.8
87.5°	21.9	24.1	25.3	27.1	27.9	29.0	29.7	29.7	30.1	29.3	30.1
90°	5.6	5.6	9.3	9.3	10.0	11.1	9.7	10.4	13.0	9.7	12.3
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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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: P226239

CATALOG NUMBER: IST-AF-450-LED-E1-T2-8030

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9
2.5°	362.6	363.3	363.0	361.5	361.1	361.1	360.4	360.0	359.3	358.9	359.6
5°	369.3	369.3	368.2	366.7	365.2	364.8	364.5	362.6	361.9	361.1	360.4
7.5°	375.6	374.9	373.4	370.8	369.3	368.9	367.4	365.6	363.7	362.2	361.5
10°	382.3	381.5	378.6	376.7	373.7	373.4	370.8	368.5	366.7	364.8	363.3
12.5°	391.9	391.2	387.9	383.4	381.2	379.7	376.3	373.7	371.1	368.9	366.3
15°	406.8	403.8	401.6	397.1	393.8	390.8	386.7	383.0	379.3	375.6	373.4
17.5°	427.6	423.5	417.6	415.0	410.5	405.7	400.1	397.5	392.7	388.2	383.8
20°	454.7	450.6	441.4	438.0	431.7	424.6	420.2	414.6	410.5	403.5	398.6
22.5°	484.8	481.1	472.2	463.3	457.3	451.8	444.7	437.6	429.8	423.2	418.0
25°	523.8	518.3	510.5	501.5	492.6	484.8	475.2	465.1	458.4	449.2	441.7
27.5°	577.0	567.3	554.3	544.6	537.6	525.7	513.8	504.9	494.5	482.2	474.1
30°	634.5	623.8	614.1	603.0	591.1	579.6	563.2	550.2	539.1	526.1	512.7
32.5°	698.4	689.2	675.4	660.9	647.9	633.4	621.5	607.8	588.5	574.7	560.6
35°	762.7	751.9	737.8	725.6	710.7	695.8	682.5	664.3	646.8	627.1	607.4
37.5°	824.8	815.5	799.9	781.3	768.3	752.3	738.6	719.3	698.4	676.5	661.7
40°	893.9	879.0	868.2	846.7	833.3	815.5	795.8	780.9	760.9	737.1	715.9
42.5°	973.0	962.6	951.1	933.6	919.5	898.3	873.4	854.5	835.9	807.7	778.3
45°	1073.3	1066.6	1047.7	1033.6	1014.6	992.3	970.8	947.7	918.4	885.7	858.9
47.5°	1193.7	1188.5	1171.4	1151.3	1126.4	1096.3	1076.3	1044.7	1019.8	978.9	947.0
50°	1302.9	1305.5	1296.2	1265.4	1243.1	1213.0	1181.4	1153.9	1115.7	1073.3	1032.4
52.5°	1433.3	1430.7	1407.3	1390.2	1363.8	1327.4	1292.9	1257.6	1215.6	1171.8	1120.9
55°	1558.1	1565.9	1549.6	1525.4	1493.5	1442.6	1407.7	1362.0	1317.8	1269.5	1210.8
57.5°	1679.2	1704.1	1691.5	1662.9	1630.2	1593.4	1547.4	1496.1	1450.4	1387.2	1321.1
60°	1830.1	1863.1	1868.3	1849.8	1814.1	1771.4	1710.8	1670.7	1607.9	1549.6	1498.7
62.5°	2062.3	2137.3	2132.9	2141.8	2116.5	2090.1	2019.2	1976.1	1894.3	1852.4	1781.4
65°	2450.1	2505.5	2572.0	2569.8	2552.3	2489.1	2415.6	2343.5	2289.6	2206.8	2132.9
67.5°	2775.6	2821.3	2860.7	2840.2	2800.1	2729.1	2643.0	2542.6	2460.5	2369.1	2272.2
69°	2806.0	2861.8	2884.8	2859.5	2787.5	2695.0	2610.6	2517.4	2404.4	2326.0	2207.9
70°	2724.3	2779.3	2825.7	2760.7	2694.6	2604.3	2512.2	2415.2	2314.2	2229.8	2110.6
72.5°	2164.1	2226.1	2219.8	2212.7	2160.0	2069.7	1985.0	1933.0	1862.0	1760.2	1674.0
75°	1258.3	1286.9	1236.8	1289.5	1226.4	1135.3	1147.2	1088.5	1036.5	977.8	932.5
77.5°	494.1	519.4	493.0	484.5	456.2	449.9	402.7	408.3	384.9	338.8	317.6
80°	187.2	190.6	186.1	176.8	175.0	164.2	161.2	150.8	146.0	130.8	125.2
82.5°	100.7	102.5	99.6	96.6	94.4	88.0	84.0	76.2	71.7	66.9	66.5
85°	58.0	56.5	55.0	53.5	50.2	46.4	43.5	40.5	37.2	34.6	32.0
87.5°	30.5	30.8	31.2	29.7	27.5	24.5	22.7	21.5	18.9	17.8	16.7
90°	10.0	7.4	8.5	10.8	10.0	8.2	7.8	6.7	5.6	5.6	4.5
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



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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°



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REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°	110°	87°
355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	355.9	110°	0.0
358.5	358.5	357.4	356.7	354.1	349.6	345.1	341.0	335.5	333.2	330.3	112.5°	0.0
359.6	358.9	357.8	356.3	351.1	340.7	329.9	318.4	306.5	295.7	283.1	115°	0.0
360.4	358.9	357.4	355.5	348.1	332.1	310.6	287.9	266.7	250.8	244.1	117.5°	0.0
360.7	359.6	357.8	355.2	344.8	321.0	286.4	253.7	235.2	228.9	227.7	120°	0.0
364.8	363.0	360.0	357.0	343.3	308.7	259.3	228.1	220.7	223.7	228.9	122.5°	0.0
370.0	367.8	364.1	361.1	342.5	292.8	232.9	213.6	216.2	224.4	232.9	125°	0.0
379.3	375.6	371.5	368.5	344.0	273.1	211.8	206.2	214.0	224.4	235.9	127.5°	0.0
393.1	387.9	383.0	377.8	346.3	248.5	199.1	201.4	210.6	221.8	234.4	130°	0.0
410.2	404.2	397.5	389.7	348.9	227.4	192.1	196.2	204.7	214.4	224.8	132.5°	0.0
433.2	425.0	416.5	406.8	352.6	204.3	185.8	190.2	195.4	201.0	206.2	135°	0.0
462.2	451.0	441.7	428.7	356.3	188.7	180.6	182.0	183.2	183.9	183.5	137.5°	0.0
500.8	483.7	472.9	457.0	360.4	180.6	174.6	172.8	170.9	168.3	165.3	140°	0.0
541.7	527.5	510.5	490.0	363.0	175.0	169.0	163.1	157.9	155.3	155.3	142.5°	0.0
589.2	571.8	550.2	524.6	359.6	169.0	161.6	153.8	150.8	154.2	153.1	145°	0.0
636.8	612.6	588.8	559.5	351.5	162.4	153.4	149.3	151.6	147.1	144.5	147.5°	0.0
689.2	662.4	629.3	595.2	339.6	155.3	149.3	151.6	143.8	138.6	140.8	150°	0.0
747.9	716.3	680.6	634.2	331.8	150.8	143.0	144.9	138.2	134.5	133.4	152.5°	0.0
827.7	782.8	739.3	684.7	337.7	143.8	130.8	138.2	134.5	131.1	128.2	155°	0.0
906.1	858.2	806.9	742.7	348.1	138.6	121.1	131.1	133.7	128.2	122.6	157.5°	0.0
984.9	934.0	874.2	802.5	360.7	135.2	113.7	122.6	131.9	125.2	120.7	160°	0.0
1067.7	1003.5	942.2	864.9	377.1	131.9	107.7	115.2	128.5	125.2	118.5	162.5°	0.0
1154.7	1078.9	1017.6	934.0	405.7	127.1	100.3	109.2	125.2	124.8	116.3	165°	0.0
1255.7	1188.1	1109.3	1024.3	445.4	121.5	93.6	104.8	122.2	123.3	113.7	167.5°	0.0
1427.7	1357.9	1262.8	1181.8	524.2	114.1	89.5	100.3	117.4	120.4	111.5	170°	0.0
1706.7	1611.6	1524.3	1448.5	659.1	103.7	86.6	95.5	112.2	116.7	109.6	172.5°	0.0
2026.6	1933.7	1828.2	1700.8	734.1	94.0	82.5	89.5	107.0	112.9	107.7	175°	0.0
2162.6	2041.1	1912.9	1761.7	662.4	86.2	78.0	84.0	101.1	107.7	105.1	177.5°	0.0
2100.2	1977.2	1828.2	1680.0	576.2	82.1	75.4	81.0	96.6	104.4	102.5	180°	0.0
1991.7	1868.0	1735.0	1557.0	514.5	79.9	73.6	79.1	94.7	102.5	101.1		
1575.2	1464.9	1342.3	1206.7	350.7	72.4	67.6	73.6	87.3	95.9	95.5		
834.8	802.5	711.8	632.3	181.7	64.6	61.3	67.2	80.6	89.5	89.5		
300.6	272.7	260.8	216.6	96.6	56.5	55.0	59.4	73.2	81.7	81.4		
113.7	110.7	99.2	92.9	61.3	46.1	46.4	50.9	64.3	72.4	72.1		
64.3	58.3	56.5	54.6	39.0	36.4	38.3	42.7	55.0	62.0	63.2		
30.8	28.6	27.9	26.0	25.6	27.9	30.1	33.8	43.8	52.4	51.3		
14.9	14.1	13.7	13.4	18.2	17.8	21.9	23.4	29.3	41.6	37.5		
4.8	4.8	4.5	3.7	5.2	5.9	7.1	10.0	12.3	24.1	19.7		
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

'226239
 IST-AF-450-LED-E1-T2-8030

REPORT NUMBER: P226239
 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°	355.9	355.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°	327.7	322.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°	273.8	273.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°	240.0	235.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°	228.9	228.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°	233.7	234.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°	240.0	242.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°	244.1	248.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°	243.0	247.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°	230.7	232.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°	208.8	209.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°	182.4	181.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°	163.8	159.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°	155.3	152.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°	149.3	144.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°	154.9	154.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°	160.1	159.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°	151.2	144.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°	134.9	127.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°	123.7	119.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°	118.5	117.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°	117.0	120.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°	116.3	120.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°	111.1	118.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°	107.4	115.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°	105.1	114.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°	103.3	115.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°	100.3	117.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69°	98.8	117.4
										70°	97.3	116.3
										72.5°	92.1	107.4
										75°	85.8	94.7
										77.5°	77.6	81.4
										80°	68.7	71.0
										82.5°	59.8	68.4
										85°	46.8	58.0
										87.5°	34.6	32.0
										90°	19.7	14.5
										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: P226239

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

0-LED-E1-T2-8030

tinued):

180°
355.9
323.6
270.8
235.5
229.6
234.1
243.0
249.7
248.9
234.8
210.3
184.6
162.7
155.7
146.7
156.4
160.9
146.0
127.1
118.5
116.3
121.9
120.0
118.5
116.3
114.4
114.1
114.8
113.3
111.5
100.3
90.3
81.4
71.7
60.6
45.3
34.6
12.3
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

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Scaled Data Report

