

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: P227101

Luminaire Tested: **IST-AF-1000-LED-E1-SL4-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35947)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: IST-AF-1000-LED-E1-SL4-8030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL, WITH UPLIGHT
GLOW
Light Source: (16) 3000K CCT, 80 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6155.9 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U5 - G1

Input Watts (W): 71.3
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

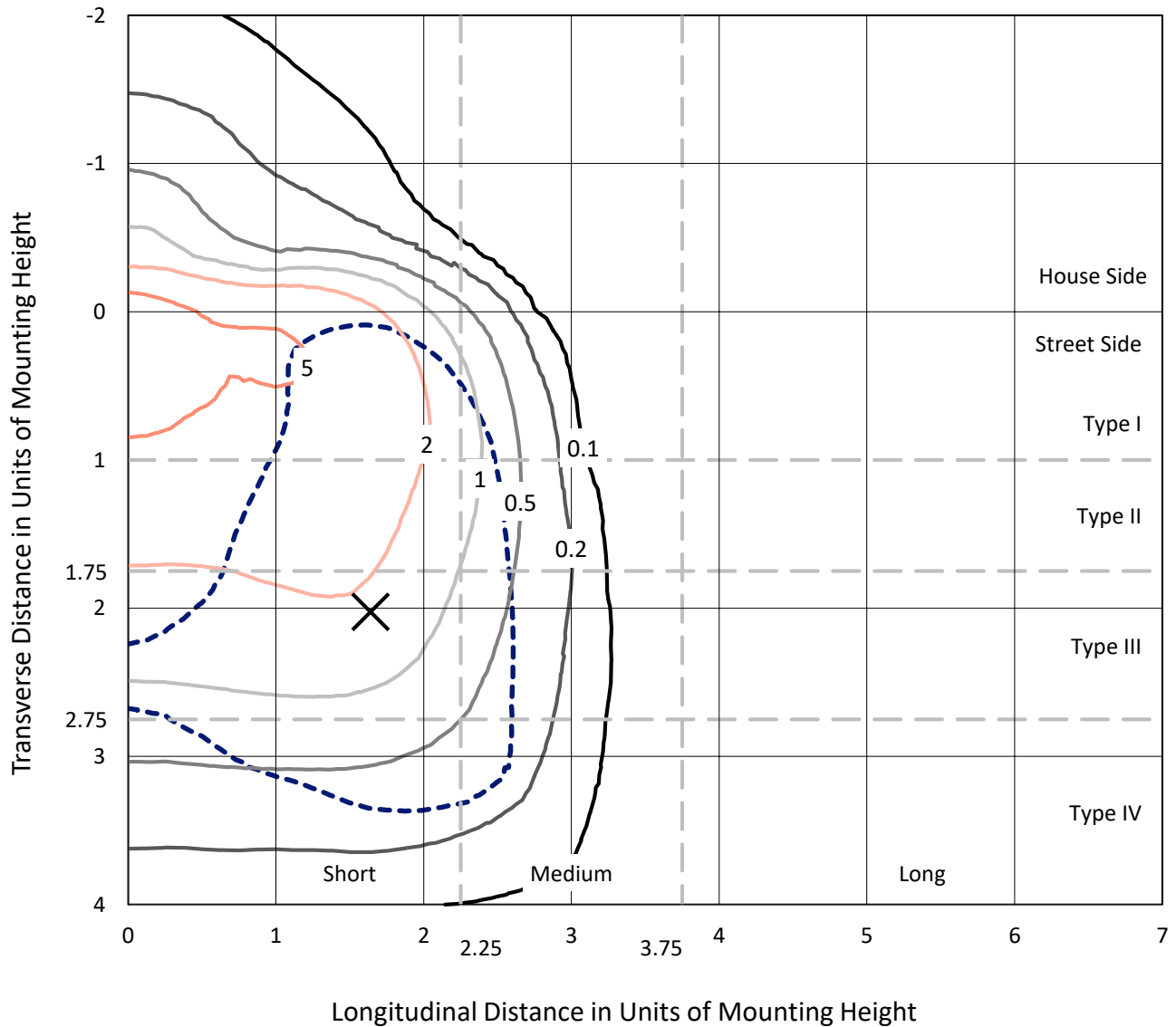


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Iso-Footcandle Lines of Horizontal Illumination

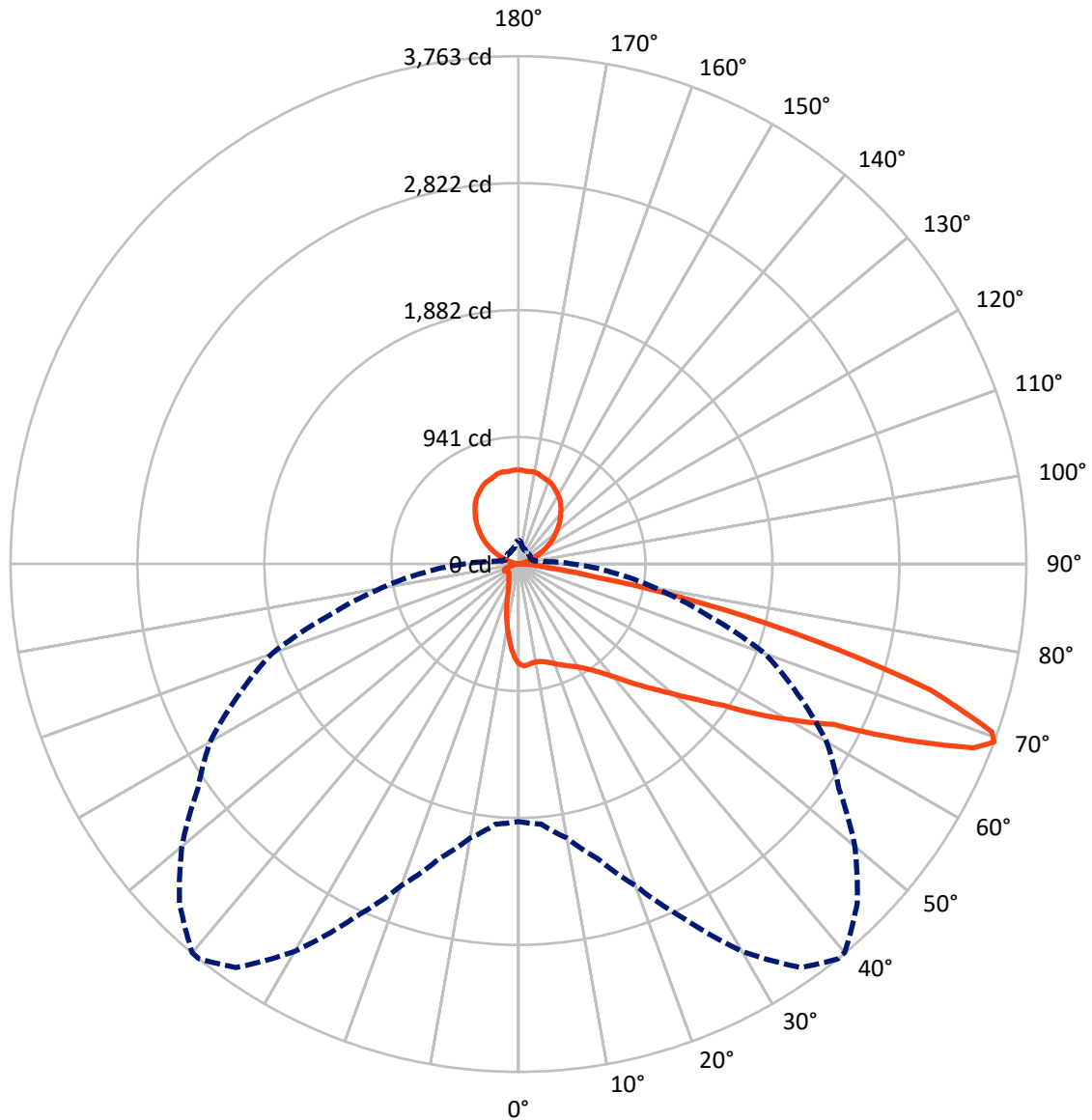
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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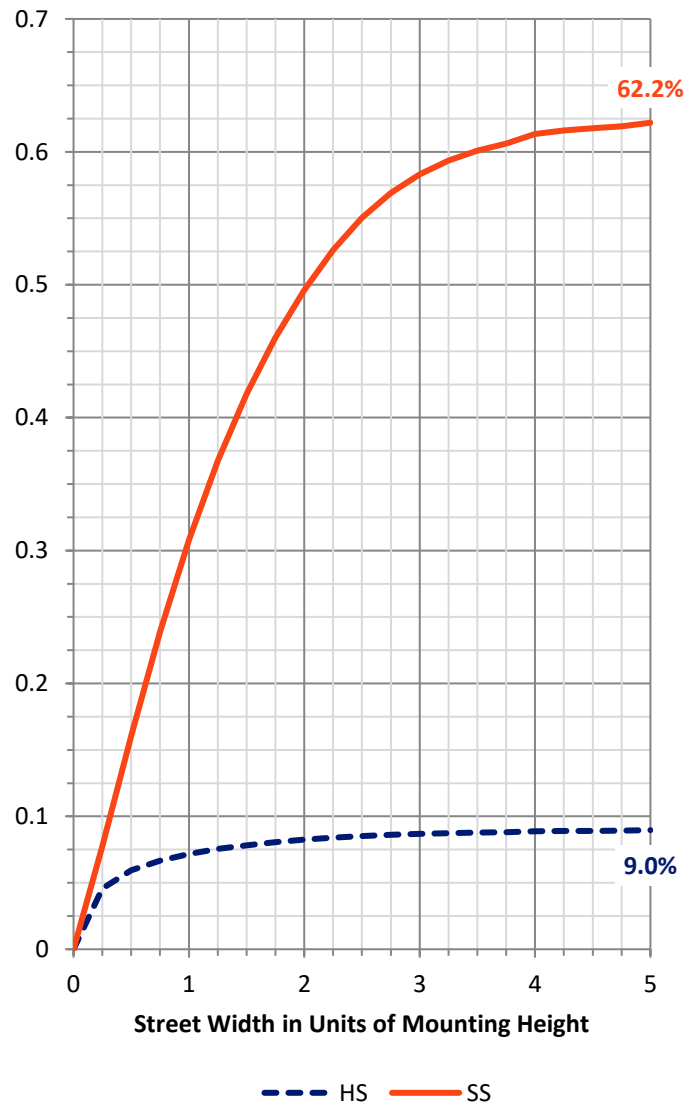
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	559.7	867.7	1427.4
	% Fixture	9.1	14.1	23.2
Street Side	Lumens	3859.8	868.7	4728.5
	% Fixture	62.7	14.1	76.8
Total	Lumens	4419.6	1736.4	6155.9
	% Fixture	71.8	28.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	1.0
10°-20°	161.1	2.6
20°-30°	250.8	4.1
30°-40°	379.0	6.2
40°-50°	606.5	9.9
50°-60°	953.3	15.5
60°-70°	1283.6	20.9
70°-80°	636.7	10.3
80°-90°	84.7	1.4
90°-100°	10.5	0.2
100°-110°	57.4	0.9
110°-120°	166.1	2.7
120°-130°	273.2	4.4
130°-140°	336.8	5.5
140°-150°	344.6	5.6
150°-160°	290.3	4.7
160°-170°	191.2	3.1
170°-180°	66.3	1.1
0°-90°	4419.6	71.8
0°-180°	6155.9	100.0



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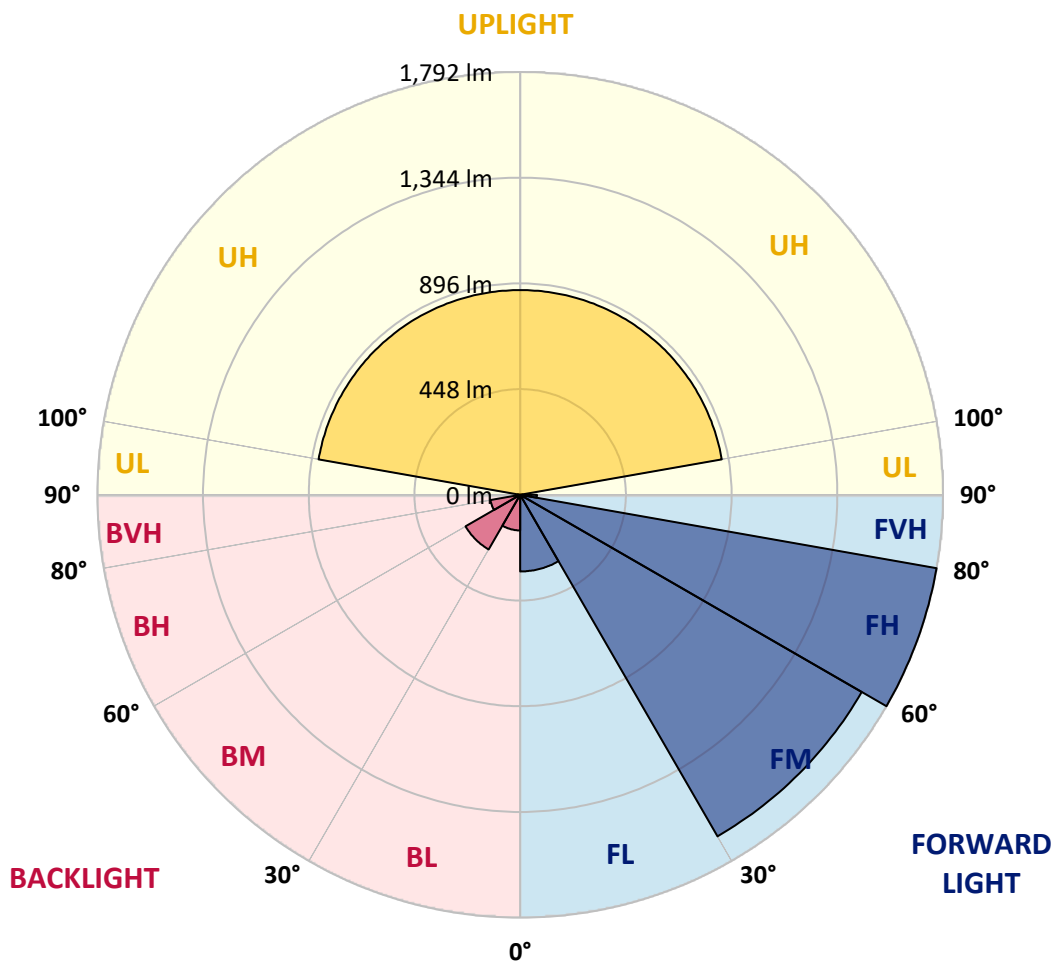
CATALOG NUMBER: IST-AF-1000-LED-E1-SL4-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	325.0	5.3			
FM	(30°-60°)	1671.7	27.2			
FH	(60°-80°)	1792.2	29.1			G1/1800
FVH	(80°-90°)	71.0	1.2			G1/100
BL	(0°-30°)	150.9	2.5	B1/500		
BM	(30°-60°)	267.2	4.3	B1/1000		
BH	(60°-80°)	128.0	2.1	B1/500		G1/500
BVH	(80°-90°)	13.7	0.2			G1/100
UL	(90°-100°)	10.5	0.2		U2/50	
UH	(100°-180°)	867.7	14.1		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	39°	40°	45°
0°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3
2.5°	758.2	758.9	758.9	759.6	756.8	756.8	757.5	754.6	756.1	755.3	751.7
5°	759.6	760.4	759.6	760.4	756.8	755.3	752.5	748.9	750.3	749.6	744.6
7.5°	756.1	756.8	755.3	756.1	751.7	748.9	744.6	741.7	739.6	738.8	732.4
10°	748.2	750.3	747.4	749.6	746.0	743.1	741.0	738.1	736.7	736.0	728.8
12.5°	736.7	738.1	738.8	741.7	741.7	742.4	742.4	740.3	741.0	740.3	734.5
15°	725.9	730.9	736.0	738.8	744.6	748.2	751.0	750.3	752.5	751.7	748.2
17.5°	725.9	730.2	738.8	748.2	758.9	763.9	768.2	768.2	769.0	767.5	761.8
20°	728.8	736.7	751.0	766.8	779.7	789.8	792.6	791.9	789.0	789.0	779.0
22.5°	752.5	757.5	773.3	790.5	808.4	818.5	819.2	817.0	811.3	809.8	797.7
25°	786.2	791.9	806.3	828.5	842.1	850.0	847.9	840.7	835.0	829.9	817.0
27.5°	838.5	842.8	857.2	872.3	880.1	883.0	874.4	864.4	857.9	855.8	838.5
30°	892.3	898.1	909.6	918.9	925.3	916.7	903.1	891.6	885.9	884.4	868.7
32.5°	958.3	959.1	966.9	969.1	969.8	955.5	936.8	926.1	923.9	921.0	908.8
35°	1018.6	1022.2	1020.7	1020.0	1013.6	995.6	979.9	973.4	971.2	970.5	960.5
37.5°	1072.4	1078.1	1074.5	1068.1	1060.2	1045.8	1029.3	1022.2	1029.3	1025.0	1027.2
40°	1124.8	1124.8	1120.4	1116.9	1107.5	1093.9	1088.2	1088.9	1100.4	1103.2	1106.1
42.5°	1169.9	1169.2	1164.9	1162.1	1160.6	1157.7	1154.9	1168.5	1190.7	1195.0	1201.5
45°	1219.4	1218.7	1202.2	1208.0	1218.0	1220.2	1230.2	1261.8	1289.0	1291.2	1304.8
47.5°	1267.5	1261.8	1246.0	1251.7	1280.4	1295.5	1312.0	1356.4	1394.5	1402.4	1440.4
50°	1317.7	1312.0	1294.8	1305.5	1345.7	1373.7	1412.4	1474.1	1526.4	1537.2	1586.7
52.5°	1370.1	1369.4	1355.7	1372.2	1421.7	1478.4	1539.4	1608.9	1672.8	1686.4	1759.6
55°	1433.2	1429.6	1423.9	1444.0	1514.3	1590.3	1685.7	1780.4	1850.0	1874.3	1948.2
57.5°	1504.2	1502.8	1503.5	1545.1	1629.7	1745.2	1862.1	1989.8	2104.6	2121.8	2190.7
60°	1565.9	1568.8	1585.3	1650.5	1756.7	1913.1	2077.3	2250.2	2352.1	2370.0	2437.4
62.5°	1641.2	1657.7	1694.3	1776.8	1901.6	2091.0	2304.0	2486.9	2618.2	2654.8	2782.5
65°	1822.0	1834.9	1903.0	2002.7	2162.0	2404.4	2649.0	2915.2	3131.8	3164.8	3274.5
67.5°	1954.0	1987.0	2093.8	2256.7	2486.9	2796.8	3132.5	3454.6	3637.5	3652.6	3575.8
69°	1908.1	1935.3	2061.6	2258.1	2535.7	2896.5	3314.0	3650.4	3763.0	3760.2	3551.4
70°	1837.8	1862.9	2002.0	2192.8	2494.8	2885.0	3316.9	3651.9	3720.0	3694.2	3455.3
72.5°	1539.4	1561.6	1692.1	1891.6	2184.2	2571.6	2978.3	3207.1	3192.8	3171.2	2776.7
75°	961.2	959.8	1073.8	1189.3	1416.7	1808.4	2111.1	2294.7	2265.3	2248.8	1782.5
77.5°	359.4	384.5	426.1	550.2	654.9	866.5	1111.1	1315.6	1372.2	1299.8	959.8
80°	187.2	200.8	228.1	271.9	312.7	357.9	430.4	553.8	573.1	534.4	387.4
82.5°	147.8	164.3	191.5	228.8	257.5	240.3	226.7	234.6	233.1	222.4	197.3
85°	111.9	131.3	175.7	213.8	254.6	215.2	171.4	149.9	133.4	134.1	142.7
87.5°	56.0	72.4	138.4	186.5	221.7	142.7	111.9	86.8	72.4	69.6	93.3
90°	22.2	22.2	34.0	43.6	57.7	33.1	32.4	26.7	21.2	21.1	28.5
92.5°	4.0	4.0	4.5	5.0	5.5	6.0	6.0	6.0	6.0	6.0	6.0
95°	5.0	5.0	5.5	6.0	6.5	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	7.0	7.0	7.5	8.0	8.0	8.0	8.5	9.0	9.0	9.0	9.0
100°	8.0	8.0	8.5	9.0	9.5	10.0	11.0	12.0	15.6	16.5	21.0
102.5°	11.0	11.0	12.0	13.0	15.5	18.0	22.5	27.0	32.2	33.5	40.0
105°	21.0	22.0	24.5	27.0	31.5	36.0	42.0	48.0	54.0	55.5	63.0
107.5°	41.0	42.0	45.5	49.0	53.5	58.0	65.5	73.0	79.0	80.5	88.0



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CATALOG NUMBER: IST-AF-1000-LED-E1-SL4-8030-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	39°	40°	45°
110°	66.0	68.0	71.0	74.0	80.5	87.0	94.5	102.0	106.8	108.0	114.0
112.5°	99.0	99.0	102.5	106.0	113.5	121.0	127.5	134.0	137.6	138.5	143.0
115°	140.0	139.0	143.0	147.0	153.0	159.0	163.5	168.0	170.4	171.0	174.0
117.5°	184.0	184.0	186.5	189.0	193.0	197.0	199.5	202.0	203.2	203.5	205.0
120°	225.0	223.0	224.5	226.0	229.5	233.0	235.0	237.0	239.4	240.0	243.0
122.5°	263.0	260.0	260.5	261.0	264.0	267.0	269.0	271.0	273.4	274.0	277.0
125°	298.0	294.0	295.0	296.0	297.5	299.0	302.0	305.0	307.0	307.5	310.0
127.5°	330.0	329.0	329.0	329.0	331.0	333.0	336.0	339.0	339.4	339.5	340.0
130°	363.0	361.0	361.5	362.0	364.0	366.0	368.0	370.0	370.8	371.0	372.0
132.5°	396.0	394.0	393.5	393.0	397.0	401.0	402.5	404.0	404.4	404.5	405.0
135°	429.0	426.0	426.0	426.0	429.0	432.0	433.5	435.0	435.8	436.0	437.0
137.5°	460.0	457.0	458.0	459.0	459.5	460.0	462.0	464.0	465.6	466.0	468.0
140°	488.0	485.0	486.0	487.0	488.0	489.0	490.0	491.0	493.4	494.0	497.0
142.5°	518.0	515.0	516.0	517.0	517.5	518.0	519.5	521.0	522.6	523.0	525.0
145°	550.0	546.0	545.0	544.0	545.5	547.0	548.5	550.0	550.4	550.5	551.0
147.5°	575.0	572.0	571.5	571.0	572.5	574.0	574.0	574.0	574.4	574.5	575.0
150°	595.0	592.0	592.5	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
152.5°	611.0	608.0	608.0	608.0	608.5	609.0	609.5	610.0	610.0	610.0	610.0
155°	629.0	625.0	625.0	625.0	626.0	627.0	628.5	630.0	629.2	629.0	628.0
157.5°	646.0	643.0	643.0	643.0	643.5	644.0	645.0	646.0	645.6	645.5	645.0
160°	663.0	660.0	659.5	659.0	657.5	656.0	655.5	655.0	655.0	655.0	655.0
162.5°	673.0	669.0	669.0	669.0	667.0	665.0	663.0	661.0	661.8	662.0	663.0
165°	681.0	678.0	677.0	676.0	676.0	676.0	674.5	673.0	673.0	673.0	673.0
167.5°	690.0	687.0	685.5	684.0	685.0	686.0	687.0	688.0	686.8	686.5	685.0
170°	698.0	695.0	693.5	692.0	692.0	692.0	692.5	693.0	692.2	692.0	691.0
172.5°	699.0	697.0	696.0	695.0	694.0	693.0	691.5	690.0	690.0	690.0	690.0
175°	700.0	698.0	697.5	697.0	696.0	695.0	693.0	691.0	690.6	690.5	690.0
177.5°	707.0	705.0	702.5	700.0	699.5	699.0	698.0	697.0	696.2	696.0	695.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3
2.5°	748.9	748.9	747.4	746.7	744.6	741.7	739.6	736.0	733.8	730.2	725.9
5°	739.6	736.7	735.2	732.4	728.1	724.5	720.2	715.2	709.4	702.3	694.4
7.5°	727.4	723.1	718.0	716.6	711.6	707.3	702.3	695.1	687.2	674.3	664.2
10°	722.3	718.0	713.7	710.9	704.4	699.4	693.6	684.3	674.3	657.1	638.4
12.5°	727.4	723.1	718.7	713.7	708.0	702.3	694.4	682.9	669.3	647.0	624.1
15°	739.6	735.2	728.1	723.1	715.2	710.1	699.4	686.5	666.4	639.1	609.0
17.5°	753.2	746.7	740.3	732.4	725.2	718.7	707.3	690.8	665.7	633.4	594.7
20°	766.1	758.9	748.9	743.1	736.0	726.6	714.4	694.4	664.2	621.9	579.6
22.5°	781.2	771.8	761.1	754.6	748.9	741.0	726.6	700.8	664.2	615.5	562.4
25°	800.5	788.3	777.6	771.1	767.5	761.8	744.6	715.9	669.3	611.9	548.0
27.5°	823.5	807.7	798.4	794.1	793.4	789.0	771.8	736.0	680.7	611.9	534.4
30°	850.7	837.1	824.9	824.9	833.5	830.7	811.3	766.8	698.7	614.0	524.4
32.5°	888.8	875.1	868.0	875.1	884.4	887.3	865.1	810.6	728.1	624.1	514.3
35°	944.7	936.1	931.1	941.8	960.5	967.7	940.4	875.8	771.1	643.4	508.6
37.5°	1018.6	1012.1	1005.7	1024.3	1059.5	1073.8	1034.4	951.2	832.8	675.7	505.7
40°	1103.2	1103.9	1111.1	1148.4	1182.1	1212.3	1167.8	1065.2	917.4	721.6	508.6
42.5°	1203.7	1211.5	1235.9	1287.6	1352.9	1376.5	1333.5	1202.9	1022.9	776.9	515.7
45°	1328.5	1349.3	1390.9	1467.6	1546.5	1583.1	1522.1	1376.5	1155.6	865.1	535.8
47.5°	1461.2	1507.1	1577.4	1670.6	1762.4	1786.1	1710.8	1533.6	1285.4	943.3	566.7
50°	1631.2	1687.1	1757.4	1869.3	1966.9	1981.2	1881.5	1679.2	1398.8	1011.4	596.1
52.5°	1789.7	1865.7	1955.4	2085.2	2184.2	2166.3	2037.2	1809.1	1488.4	1058.0	612.6
55°	2006.3	2085.2	2186.4	2299.7	2398.0	2354.9	2178.5	1919.5	1560.2	1092.5	617.6
57.5°	2253.8	2314.1	2413.0	2529.3	2593.8	2519.9	2317.6	2027.1	1628.3	1093.2	578.2
60°	2497.0	2567.3	2676.3	2790.4	2826.2	2698.5	2414.5	2043.6	1560.9	975.5	462.7
62.5°	2857.1	2928.1	2983.3	3002.0	2937.4	2680.6	2301.9	1869.3	1345.7	769.7	327.8
65°	3259.5	3179.1	3072.3	2971.8	2796.1	2405.9	1984.8	1535.8	1044.4	514.3	226.0
67.5°	3364.9	3120.3	2887.9	2664.1	2336.3	1915.9	1497.0	1080.3	670.0	292.7	153.5
69°	3255.2	2898.0	2639.0	2283.9	1945.4	1433.9	1031.5	692.2	400.3	203.7	128.4
70°	3054.3	2682.8	2332.0	1951.8	1507.1	1095.3	685.8	453.3	261.1	148.5	115.5
72.5°	2304.7	1842.8	1420.3	922.5	562.4	312.0	219.5	157.1	124.1	109.0	99.0
75°	1332.8	887.3	581.0	309.9	183.6	136.3	119.1	106.2	98.3	94.7	86.1
77.5°	562.4	351.5	238.1	174.3	123.4	105.4	91.8	84.6	83.9	81.8	73.9
80°	256.1	219.5	187.2	131.3	94.0	80.3	70.3	68.9	70.3	68.1	60.3
82.5°	190.1	187.2	156.4	101.1	71.7	53.8	43.8	45.9	51.6	56.0	48.8
85°	158.5	158.5	131.3	75.3	47.3	34.4	33.7	38.0	43.0	46.6	39.5
87.5°	145.6	139.9	75.3	38.7	27.3	22.2	20.8	18.7	18.7	32.3	27.3
90°	21.3	13.5	11.6	11.9	12.6	11.9	12.3	10.6	10.6	10.6	11.6
92.5°	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.0	7.5	8.0	7.5	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	10.5	12.0	11.0	10.0	9.5	9.0	8.5	8.0	8.0	8.0	8.5
100°	25.0	29.0	27.5	26.0	24.5	23.0	21.0	19.0	19.0	19.0	21.0
102.5°	45.0	50.0	48.5	47.0	44.5	42.0	40.5	39.0	38.0	39.0	40.5
105°	67.5	72.0	71.0	70.0	67.5	65.0	63.0	61.0	61.0	61.0	63.0
107.5°	91.5	95.0	94.5	94.0	92.0	90.0	88.5	87.0	86.0	87.0	88.5



REPORT NUMBER: P227101

CATALOG NUMBER: IST-AF-1000-LED-E1-SL4-8030-ULG

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	117.0	120.0	120.5	121.0	120.0	119.0	117.5	116.0	117.0	116.0	117.5
112.5°	145.5	148.0	149.0	150.0	149.5	149.0	148.0	147.0	147.0	147.0	148.0
115°	176.5	179.0	180.5	182.0	180.5	179.0	178.0	177.0	178.0	177.0	178.0
117.5°	208.0	211.0	213.0	215.0	212.5	210.0	209.0	208.0	209.0	208.0	209.0
120°	244.5	246.0	248.0	250.0	247.5	245.0	244.0	243.0	243.0	243.0	244.0
122.5°	278.0	279.0	281.0	283.0	280.5	278.0	277.0	276.0	277.0	276.0	277.0
125°	311.5	313.0	314.0	315.0	312.5	310.0	310.0	310.0	310.0	310.0	310.0
127.5°	342.5	345.0	345.5	346.0	346.0	346.0	345.5	345.0	347.0	345.0	345.5
130°	374.5	377.0	379.0	381.0	381.0	381.0	380.0	379.0	380.0	379.0	380.0
132.5°	408.0	411.0	413.5	416.0	415.0	414.0	414.0	414.0	415.0	414.0	414.0
135°	440.0	443.0	445.5	448.0	447.5	447.0	448.5	450.0	451.0	450.0	448.5
137.5°	470.5	473.0	474.0	475.0	475.5	476.0	478.5	481.0	482.0	481.0	478.5
140°	498.5	500.0	501.0	502.0	503.0	504.0	506.5	509.0	511.0	509.0	506.5
142.5°	526.0	527.0	530.0	533.0	533.0	533.0	533.5	534.0	536.0	534.0	533.5
145°	553.5	556.0	559.0	562.0	561.5	561.0	559.5	558.0	560.0	558.0	559.5
147.5°	577.5	580.0	582.5	585.0	585.5	586.0	584.5	583.0	585.0	583.0	584.5
150°	595.0	597.0	598.5	600.0	601.5	603.0	604.5	606.0	610.0	606.0	604.5
152.5°	610.5	611.0	612.5	614.0	616.0	618.0	620.5	623.0	628.0	623.0	620.5
155°	627.0	626.0	628.5	631.0	633.5	636.0	637.0	638.0	641.0	638.0	637.0
157.5°	644.5	644.0	646.0	648.0	649.0	650.0	650.0	650.0	655.0	650.0	650.0
160°	656.5	658.0	661.0	664.0	662.5	661.0	660.5	660.0	666.0	660.0	660.5
162.5°	665.0	667.0	669.0	671.0	670.5	670.0	669.0	668.0	674.0	668.0	669.0
165°	672.5	672.0	674.5	677.0	678.5	680.0	679.0	678.0	682.0	678.0	679.0
167.5°	681.5	678.0	681.0	684.0	686.0	688.0	688.0	688.0	694.0	688.0	688.0
170°	688.5	686.0	687.5	689.0	691.5	694.0	695.0	696.0	701.0	696.0	695.0
172.5°	689.5	689.0	690.5	692.0	693.0	694.0	695.0	696.0	701.0	696.0	695.0
175°	690.0	690.0	692.5	695.0	695.5	696.0	695.0	694.0	699.0	694.0	695.0
177.5°	694.5	694.0	696.5	699.0	700.0	701.0	699.5	698.0	702.0	698.0	699.5
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



REPORT NUMBER: P227101

CATALOG NUMBER: IST-AF-1000-LED-E1-SL4-8030-ULG

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3
2.5°	722.3	719.5	712.3	710.9	708.7	705.8	705.1	701.5	694.4	692.9	693.6
5°	689.3	677.9	670.0	663.5	658.5	645.6	640.6	634.8	624.8	621.9	617.6
7.5°	650.6	637.0	621.2	609.7	596.1	582.5	571.7	558.1	547.3	540.9	529.4
10°	620.5	601.8	581.0	558.1	540.1	519.3	505.7	489.9	472.7	456.9	445.5
12.5°	597.5	571.7	541.6	514.3	488.5	466.3	441.9	419.6	398.1	376.6	357.9
15°	578.9	546.6	508.6	474.1	442.6	409.6	382.3	351.5	324.2	305.6	281.9
17.5°	558.8	517.2	472.0	431.8	390.9	356.5	322.1	289.8	264.0	239.6	220.2
20°	534.4	484.2	435.4	388.8	342.2	302.7	267.6	236.7	211.6	192.2	177.9
22.5°	507.1	448.3	391.7	340.7	294.1	255.4	222.4	199.4	180.8	170.0	165.7
25°	480.6	413.2	349.3	293.4	246.8	213.8	191.5	172.2	162.8	158.5	158.5
27.5°	456.2	377.3	306.3	251.8	206.6	180.8	163.5	155.7	151.4	151.4	153.5
30°	433.3	341.4	265.4	210.2	174.3	154.9	145.6	142.7	143.5	146.3	149.2
32.5°	406.7	307.0	230.3	180.8	151.4	138.4	131.3	132.0	135.6	140.6	145.6
35°	378.7	270.4	199.4	158.5	135.6	125.5	121.2	121.9	127.0	133.4	138.4
37.5°	353.6	241.0	175.7	141.3	124.1	117.6	114.1	114.8	118.4	126.2	132.7
40°	328.5	215.9	156.4	131.3	117.6	111.2	109.0	108.3	111.2	118.4	126.2
42.5°	307.0	194.4	144.9	124.1	113.3	107.6	104.7	104.7	106.2	111.9	119.8
45°	294.1	181.5	137.0	119.1	109.7	104.7	101.9	100.4	102.6	106.2	113.3
47.5°	294.1	175.0	132.0	115.5	106.9	102.6	99.0	98.3	99.0	102.6	109.7
50°	304.1	176.5	131.3	114.1	105.4	99.7	96.1	96.1	97.6	102.6	108.3
52.5°	312.7	179.3	133.4	115.5	105.4	98.3	94.0	93.3	95.4	100.4	105.4
55°	311.3	179.3	135.6	117.6	107.6	99.0	93.3	92.5	94.0	99.0	104.0
57.5°	278.3	168.6	133.4	119.1	110.5	102.6	96.8	94.7	96.1	100.4	104.7
60°	225.2	149.9	127.7	119.1	114.8	109.0	103.3	101.9	102.6	106.9	111.9
62.5°	176.5	133.4	120.5	118.4	116.9	114.1	111.9	110.5	110.5	114.1	118.4
65°	143.5	120.5	114.8	115.5	116.9	116.2	115.5	114.8	114.8	116.9	121.2
67.5°	119.8	108.3	106.9	109.0	110.5	111.2	111.9	111.2	111.9	114.1	119.1
69°	109.0	101.9	100.4	101.9	104.7	105.4	106.9	106.2	106.9	109.0	114.1
70°	102.6	96.8	95.4	97.6	99.7	100.4	101.9	101.1	101.9	104.0	109.0
72.5°	88.9	82.5	80.3	81.8	83.9	83.9	86.1	86.8	85.4	86.1	89.7
75°	76.0	68.9	65.3	66.0	66.0	66.0	67.4	67.4	66.0	65.3	66.0
77.5°	63.8	56.0	51.6	51.6	51.6	50.9	48.8	49.5	50.2	49.5	50.2
80°	50.2	43.8	39.5	39.5	39.5	38.0	37.3	37.3	38.7	40.2	39.5
82.5°	38.7	32.3	30.1	29.4	29.4	28.0	28.0	29.4	28.7	29.4	30.8
85°	28.0	23.0	20.8	21.5	20.8	19.4	20.1	22.2	22.2	21.5	23.0
87.5°	17.2	14.3	13.6	14.3	12.9	10.8	10.0	10.8	12.2	11.5	12.9
90°	11.2	10.4	10.4	9.4	9.2	8.4	8.4	8.9	10.2	10.2	9.4
92.5°	6.0	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.5	8.0	7.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	9.0	9.5	10.0	11.0	12.0	10.5	9.0	9.0	9.0	8.5	8.0
100°	23.0	24.5	26.0	27.5	29.0	25.0	21.0	16.5	12.0	11.0	10.0
102.5°	42.0	44.5	47.0	48.5	50.0	45.0	40.0	33.5	27.0	22.5	18.0
105°	65.0	67.5	70.0	71.0	72.0	67.5	63.0	55.5	48.0	42.0	36.0
107.5°	90.0	92.0	94.0	94.5	95.0	91.5	88.0	80.5	73.0	65.5	58.0



REPORT NUMBER: P227101
 CATALOG NUMBER: IST-AF-1000-LED-E1-SL4-8030-ULG

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	119.0	120.0	121.0	120.5	120.0	117.0	114.0	108.0	102.0	94.5	87.0	0°
112.5°	149.0	149.5	150.0	149.0	148.0	145.5	143.0	138.5	134.0	127.5	121.0	2.5°
115°	179.0	180.5	182.0	180.5	179.0	176.5	174.0	171.0	168.0	163.5	159.0	5°
117.5°	210.0	212.5	215.0	213.0	211.0	208.0	205.0	203.5	202.0	199.5	197.0	7.5°
120°	245.0	247.5	250.0	248.0	246.0	244.5	243.0	240.0	237.0	235.0	233.0	10°
122.5°	278.0	280.5	283.0	281.0	279.0	278.0	277.0	274.0	271.0	269.0	267.0	12.5°
125°	310.0	312.5	315.0	314.0	313.0	311.5	310.0	307.5	305.0	302.0	299.0	15°
127.5°	346.0	346.0	346.0	345.5	345.0	342.5	340.0	339.5	339.0	336.0	333.0	17.5°
130°	381.0	381.0	381.0	379.0	377.0	374.5	372.0	371.0	370.0	368.0	366.0	20°
132.5°	414.0	415.0	416.0	413.5	411.0	408.0	405.0	404.5	404.0	402.5	401.0	22.5°
135°	447.0	447.5	448.0	445.5	443.0	440.0	437.0	436.0	435.0	433.5	432.0	25°
137.5°	476.0	475.5	475.0	474.0	473.0	470.5	468.0	466.0	464.0	462.0	460.0	27.5°
140°	504.0	503.0	502.0	501.0	500.0	498.5	497.0	494.0	491.0	490.0	489.0	30°
142.5°	533.0	533.0	533.0	530.0	527.0	526.0	525.0	523.0	521.0	519.5	518.0	32.5°
145°	561.0	561.5	562.0	559.0	556.0	553.5	551.0	550.5	550.0	548.5	547.0	35°
147.5°	586.0	585.5	585.0	582.5	580.0	577.5	575.0	574.5	574.0	574.0	574.0	37.5°
150°	603.0	601.5	600.0	598.5	597.0	595.0	593.0	593.0	593.0	593.0	593.0	40°
152.5°	618.0	616.0	614.0	612.5	611.0	610.5	610.0	610.0	610.0	609.5	609.0	42.5°
155°	636.0	633.5	631.0	628.5	626.0	627.0	628.0	629.0	630.0	628.5	627.0	45°
157.5°	650.0	649.0	648.0	646.0	644.0	644.5	645.0	645.5	646.0	645.0	644.0	47.5°
160°	661.0	662.5	664.0	661.0	658.0	656.5	655.0	655.0	655.0	655.5	656.0	50°
162.5°	670.0	670.5	671.0	669.0	667.0	665.0	663.0	662.0	661.0	663.0	665.0	52.5°
165°	680.0	678.5	677.0	674.5	672.0	672.5	673.0	673.0	673.0	674.5	676.0	55°
167.5°	688.0	686.0	684.0	681.0	678.0	681.5	685.0	686.5	688.0	687.0	686.0	57.5°
170°	694.0	691.5	689.0	687.5	686.0	688.5	691.0	692.0	693.0	692.5	692.0	60°
172.5°	694.0	693.0	692.0	690.5	689.0	689.5	690.0	690.0	690.0	691.5	693.0	62.5°
175°	696.0	695.5	695.0	692.5	690.0	690.0	690.0	690.5	691.0	693.0	695.0	65°
177.5°	701.0	700.0	699.0	696.5	694.0	694.5	695.0	696.0	697.0	698.0	699.0	67.5°
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	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: P227101
 NUMBER: IST-AF-1000-LED-E1-SL4-8030-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

160°	165°	170°	175°	180°
740.3	740.3	740.3	740.3	740.3
688.6	690.8	681.4	685.8	682.9
613.3	609.7	609.0	606.8	602.5
525.1	522.2	513.6	516.5	510.0
434.0	433.3	417.5	418.2	410.3
350.0	337.1	330.7	321.4	326.4
271.1	260.4	246.8	243.2	248.2
204.4	193.7	187.2	181.5	179.3
169.3	162.8	159.2	157.1	155.7
163.5	162.1	161.4	160.0	159.2
160.0	161.4	161.4	161.4	160.0
156.4	159.2	160.0	159.2	157.8
152.8	154.9	154.9	154.2	152.1
147.8	149.9	149.9	149.2	147.8
142.0	143.5	144.2	144.2	144.9
137.7	139.2	140.6	142.0	144.2
132.7	134.9	135.6	138.4	141.3
126.2	129.1	130.6	132.7	135.6
119.8	123.4	124.1	127.0	129.8
116.9	119.8	119.8	121.9	124.1
113.3	114.8	114.1	115.5	116.2
109.7	111.2	110.5	111.9	112.6
106.9	108.3	109.7	111.2	111.9
108.3	110.5	111.2	113.3	114.1
114.8	117.6	120.5	123.4	125.5
121.2	124.8	131.3	144.2	149.2
124.8	129.8	144.9	167.1	173.6
122.7	129.1	147.0	170.7	178.6
118.4	123.4	142.7	167.1	174.3
112.6	117.6	137.0	163.5	170.0
91.1	94.0	115.5	140.6	144.9
66.7	68.9	85.4	95.4	94.7
51.6	54.5	60.3	61.0	60.3
40.9	42.3	45.2	45.2	45.9
31.6	32.3	33.7	32.3	31.6
23.7	23.0	22.2	21.5	20.8
13.6	13.6	11.5	10.0	9.3
8.9	9.2	8.2	6.4	5.0
5.5	5.0	4.5	4.0	4.0
6.5	6.0	5.5	5.0	5.0
8.0	8.0	7.5	7.0	7.0
9.5	9.0	8.5	8.0	8.0
15.5	13.0	12.0	11.0	11.0
31.5	27.0	24.5	22.0	21.0
53.5	49.0	45.5	42.0	41.0

CANDELA DISTRIBUTION:

	160°
110°	80.5
112.5°	113.5
115°	153.0
117.5°	193.0
120°	229.5
122.5°	264.0
125°	297.5
127.5°	331.0
130°	364.0
132.5°	397.0
135°	429.0
137.5°	459.5
140°	488.0
142.5°	517.5
145°	545.5
147.5°	572.5
150°	593.0
152.5°	608.5
155°	626.0
157.5°	643.5
160°	657.5
162.5°	667.0
165°	676.0
167.5°	685.0
170°	692.0
172.5°	694.0
175°	696.0
177.5°	699.5
180°	700.0

'227101

IST-AF-1000-LED-E1-SL4-8030-ULG

TION (continued):

165°	170°	175°	180°
74.0	71.0	68.0	66.0
106.0	102.5	99.0	99.0
147.0	143.0	139.0	140.0
189.0	186.5	184.0	184.0
226.0	224.5	223.0	225.0
261.0	260.5	260.0	263.0
296.0	295.0	294.0	298.0
329.0	329.0	329.0	330.0
362.0	361.5	361.0	363.0
393.0	393.5	394.0	396.0
426.0	426.0	426.0	429.0
459.0	458.0	457.0	460.0
487.0	486.0	485.0	488.0
517.0	516.0	515.0	518.0
544.0	545.0	546.0	550.0
571.0	571.5	572.0	575.0
593.0	592.5	592.0	595.0
608.0	608.0	608.0	611.0
625.0	625.0	625.0	629.0
643.0	643.0	643.0	646.0
659.0	659.5	660.0	663.0
669.0	669.0	669.0	673.0
676.0	677.0	678.0	681.0
684.0	685.5	687.0	690.0
692.0	693.5	695.0	698.0
695.0	696.0	697.0	699.0
697.0	697.5	698.0	700.0
700.0	702.5	705.0	707.0
700.0	700.0	700.0	700.0

(END OF REPORT)