

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: P227096

Luminaire Tested: **IST-AF-1200-LED-E1-SL4-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227096
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-1200-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: 6765.7 lumens
Efficiency: N/A
Efficacy: 81.8 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 - G2

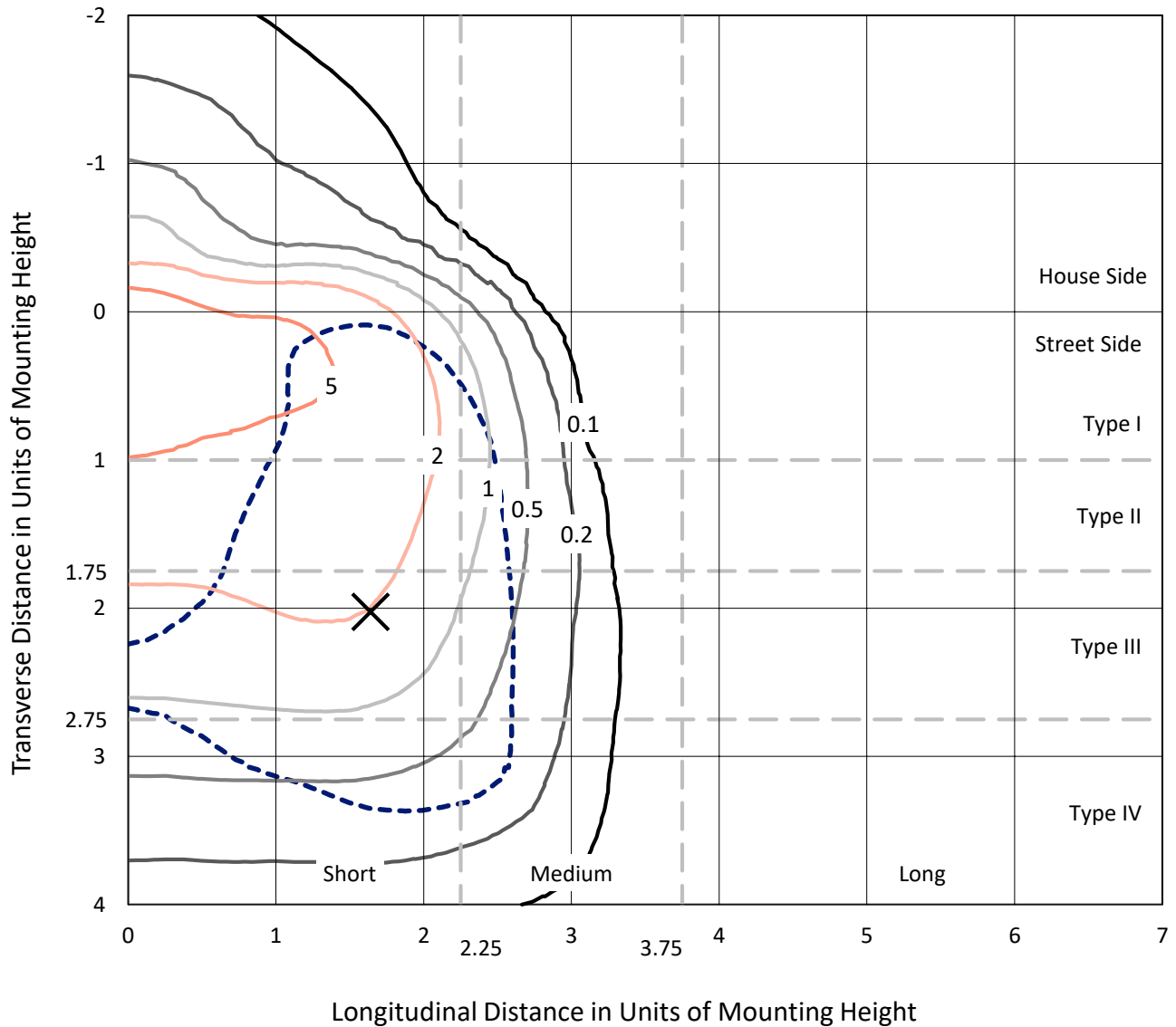
Input Watts (W): 82.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P227096
 CATALOG NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

Iso-Footcandle Lines of Horizontal Illumination

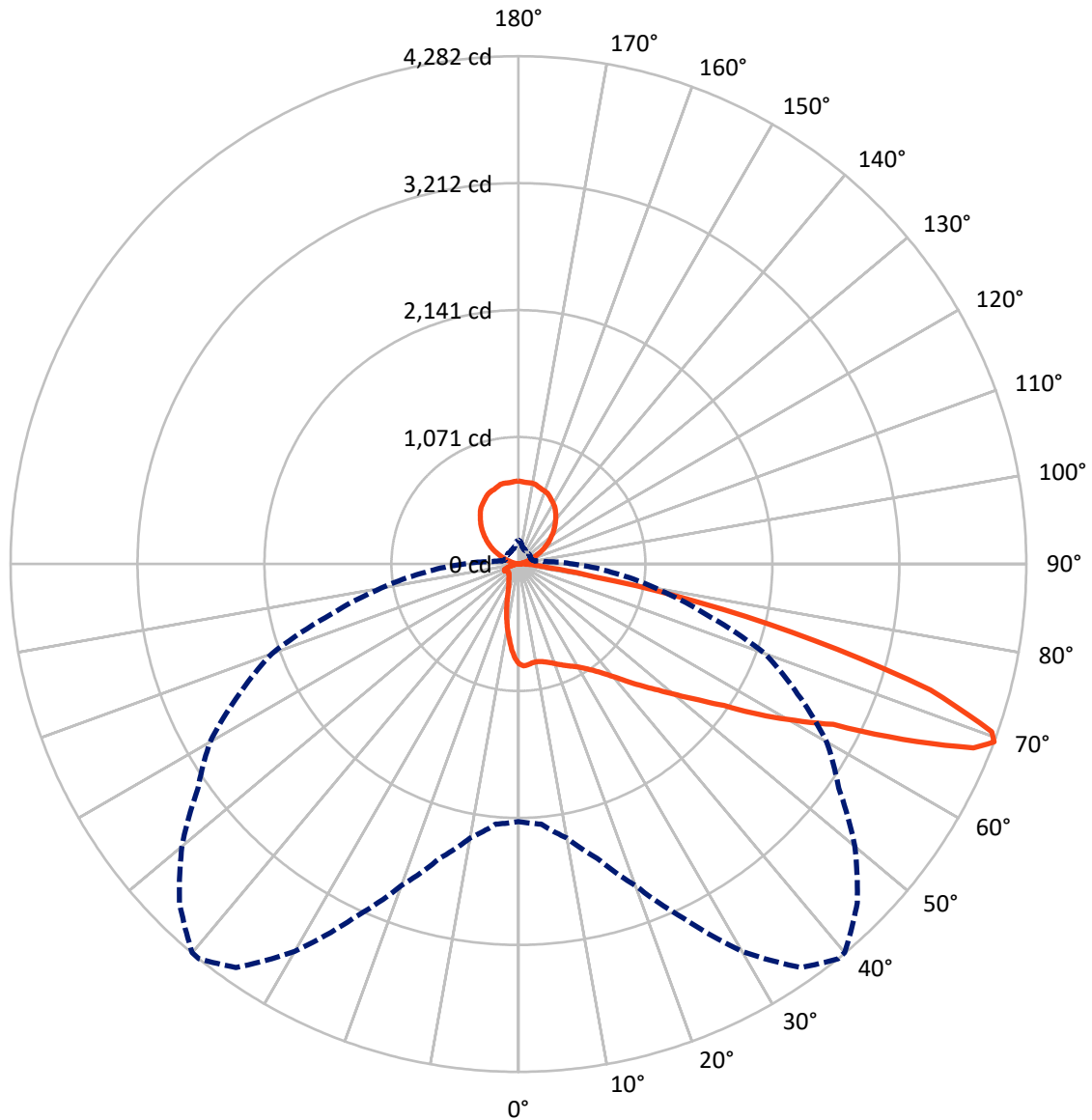
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P227096
CATALOG NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

Luminous Intensity Polar Plot



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

REPORT NUMBER: P227096

CATALOG NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

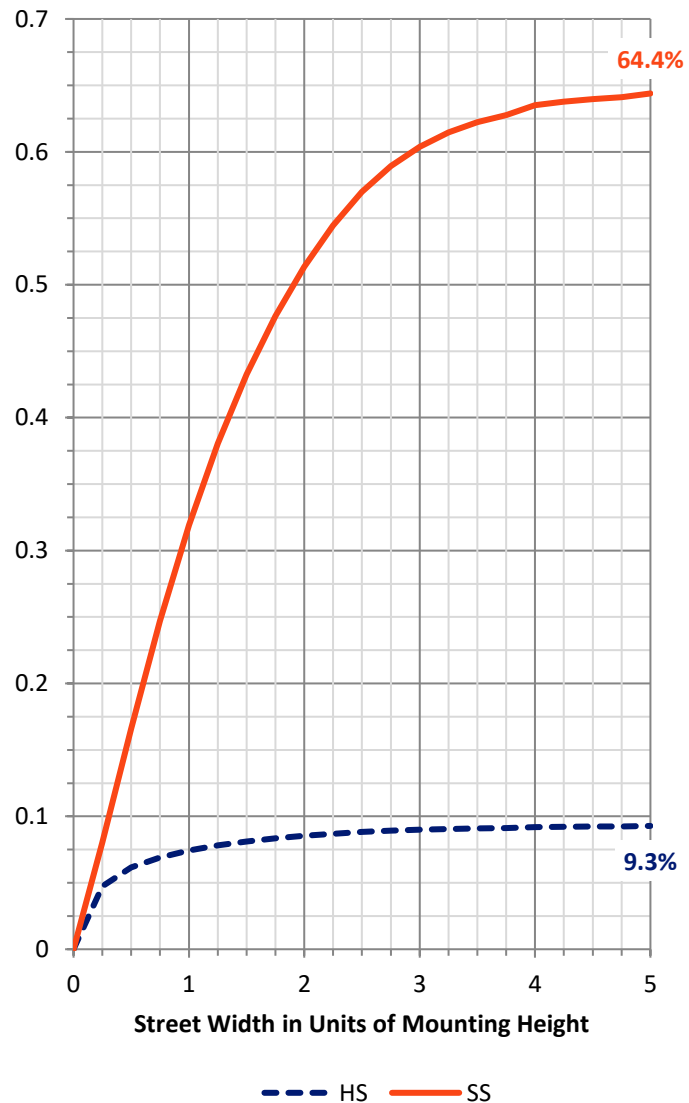
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	636.9	867.7	1504.6
	% Fixture	9.4	12.8	22.2
Street Side	Lumens	4392.3	868.8	5261.1
	% Fixture	64.9	12.8	77.8
Total	Lumens	5029.2	1736.5	6765.7
	% Fixture	74.3	25.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	1.1
10°-20°	183.4	2.7
20°-30°	285.4	4.2
30°-40°	431.3	6.4
40°-50°	690.2	10.2
50°-60°	1084.8	16.0
60°-70°	1460.7	21.6
70°-80°	724.5	10.7
80°-90°	96.2	1.4
90°-100°	10.7	0.2
100°-110°	57.4	0.8
110°-120°	166.1	2.5
120°-130°	273.2	4.0
130°-140°	336.8	5.0
140°-150°	344.6	5.1
150°-160°	290.3	4.3
160°-170°	191.2	2.8
170°-180°	66.3	1.0
0°-90°	5029.2	74.3
0°-180°	6765.7	100.0



REPORT NUMBER: P227096

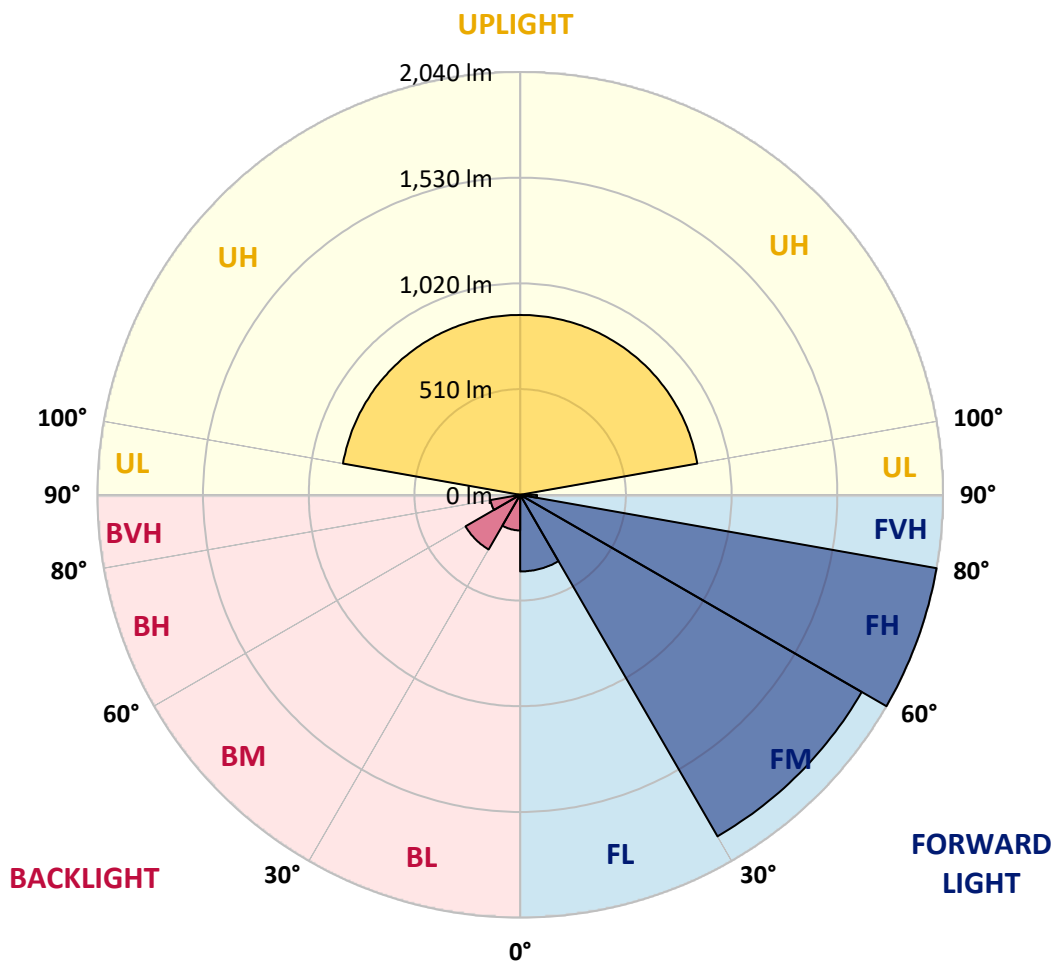
CATALOG NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	369.8	5.5			
FM	(30°-60°)	1902.3	28.1			
FH	(60°-80°)	2039.5	30.1			G2/5000
FVH	(80°-90°)	80.7	1.2			G1/100
BL	(0°-30°)	171.7	2.5	B1/500		
BM	(30°-60°)	304.0	4.5	B1/1000		
BH	(60°-80°)	145.7	2.2	B1/500		G1/500
BVH	(80°-90°)	15.5	0.2			G1/100
UL	(90°-100°)	10.7	0.2		U2/50	
UH	(100°-180°)	867.7	12.8		U4/1000	

BUG Rating: B1-U5-G2

Type IV Short





REPORT NUMBER: P227096

CATALOG NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	39°	40°	45°
0°	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4
2.5°	862.8	863.6	863.6	864.4	861.2	861.2	862.0	858.7	860.4	859.6	855.5
5°	864.4	865.3	864.4	865.3	861.2	859.6	856.3	852.2	853.8	853.0	847.3
7.5°	860.4	861.2	859.6	860.4	855.5	852.2	847.3	844.0	841.6	840.8	833.4
10°	851.4	853.8	850.6	853.0	848.9	845.7	843.2	840.0	838.3	837.5	829.3
12.5°	838.3	840.0	840.8	844.0	844.0	844.9	844.9	842.4	843.2	842.4	835.9
15°	826.1	831.8	837.5	840.8	847.3	851.4	854.7	853.8	856.3	855.5	851.4
17.5°	826.1	831.0	840.8	851.4	863.6	869.3	874.2	874.2	875.1	873.4	866.9
20°	829.3	838.3	854.7	872.6	887.3	898.7	902.0	901.2	897.9	897.9	886.5
22.5°	856.3	862.0	880.0	899.5	920.0	931.4	932.2	929.8	923.2	921.6	907.7
25°	894.7	901.2	917.5	942.8	958.3	967.3	964.9	956.7	950.2	944.4	929.8
27.5°	954.2	959.1	975.5	992.6	1001.6	1004.9	995.1	983.6	976.3	973.8	954.2
30°	1015.5	1022.0	1035.1	1045.7	1053.0	1043.2	1027.7	1014.6	1008.1	1006.5	988.5
32.5°	1090.6	1091.4	1100.4	1102.8	1103.6	1087.3	1066.1	1053.8	1051.4	1048.1	1034.2
35°	1159.1	1163.2	1161.6	1160.8	1153.4	1133.0	1115.0	1107.7	1105.3	1104.4	1093.0
37.5°	1220.4	1226.9	1222.8	1215.5	1206.5	1190.1	1171.4	1163.2	1171.4	1166.5	1168.9
40°	1279.9	1279.9	1275.0	1271.0	1260.3	1244.8	1238.3	1239.1	1252.2	1255.5	1258.7
42.5°	1331.4	1330.5	1325.7	1322.4	1320.8	1317.5	1314.2	1329.7	1355.0	1359.9	1367.3
45°	1387.7	1386.9	1368.1	1374.6	1386.1	1388.5	1399.9	1435.9	1466.9	1469.3	1484.8
47.5°	1442.4	1435.9	1417.9	1424.4	1457.1	1474.2	1493.0	1543.6	1586.9	1595.8	1639.1
50°	1499.5	1493.0	1473.4	1485.6	1531.4	1563.2	1607.3	1677.5	1737.1	1749.3	1805.6
52.5°	1559.1	1558.3	1542.8	1561.6	1617.9	1682.4	1751.8	1830.9	1903.6	1919.1	2002.4
55°	1630.9	1626.9	1620.3	1643.2	1723.2	1809.7	1918.3	2026.0	2105.2	2133.0	2217.0
57.5°	1711.8	1710.1	1710.9	1758.3	1854.6	1986.0	2119.1	2264.4	2395.0	2414.6	2492.9
60°	1782.0	1785.2	1804.0	1878.3	1999.1	2177.0	2364.0	2560.7	2676.6	2697.0	2773.7
62.5°	1867.7	1886.4	1928.1	2021.9	2164.0	2379.5	2621.9	2830.1	2979.5	3021.1	3166.4
65°	2073.4	2088.1	2165.6	2279.1	2460.3	2736.2	3014.6	3317.4	3563.9	3601.5	3726.4
67.5°	2223.6	2261.1	2382.7	2568.0	2830.1	3182.7	3564.7	3931.2	4139.4	4156.5	4069.2
69°	2171.3	2202.3	2346.0	2569.7	2885.6	3296.2	3771.2	4154.1	4282.2	4279.0	4041.4
70°	2091.3	2119.9	2278.3	2495.4	2839.0	3283.1	3774.5	4155.7	4233.3	4203.9	3932.1
72.5°	1751.8	1777.1	1925.6	2152.6	2485.6	2926.4	3389.2	3649.6	3633.3	3608.8	3159.8
75°	1093.8	1092.2	1222.0	1353.4	1612.2	2057.9	2402.3	2611.3	2577.8	2559.1	2028.5
77.5°	409.0	437.5	484.9	626.1	745.3	986.1	1264.4	1497.1	1561.6	1479.1	1092.2
80°	213.1	228.6	259.6	309.4	355.9	407.3	489.8	630.2	652.2	608.1	440.8
82.5°	168.2	186.9	217.9	260.4	293.0	273.5	257.9	266.9	265.3	253.0	224.5
85°	127.3	149.4	200.0	243.3	289.8	244.9	195.1	170.6	151.8	152.6	162.4
87.5°	63.7	82.4	157.5	212.2	252.2	162.4	127.3	98.8	82.4	79.2	106.1
90°	24.6	24.6	37.8	48.6	64.6	36.6	35.8	29.2	23.1	23.0	31.5
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



REPORT NUMBER: P227096

CATALOG NUMBER: IST-AF-1200-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



REPORT NUMBER: P227096

CATALOG NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4
2.5°	852.2	852.2	850.6	849.8	847.3	844.0	841.6	837.5	835.1	831.0	826.1
5°	841.6	838.3	836.7	833.4	828.5	824.5	819.6	813.8	807.3	799.1	790.2
7.5°	827.7	822.8	817.1	815.5	809.8	804.9	799.1	791.0	782.0	767.3	755.9
10°	822.0	817.1	812.2	808.9	801.6	795.9	789.4	778.7	767.3	747.7	726.5
12.5°	827.7	822.8	817.9	812.2	805.7	799.1	790.2	777.1	761.6	736.3	710.2
15°	841.6	836.7	828.5	822.8	813.8	808.1	795.9	781.2	758.3	727.3	693.0
17.5°	857.1	849.8	842.4	833.4	825.3	817.9	804.9	786.1	757.5	720.8	676.7
20°	871.8	863.6	852.2	845.7	837.5	826.9	813.0	790.2	755.9	707.7	659.6
22.5°	888.9	878.3	866.1	858.7	852.2	843.2	826.9	797.5	755.9	700.4	640.0
25°	911.0	897.1	884.9	877.5	873.4	866.9	847.3	814.7	761.6	696.3	623.6
27.5°	937.1	919.1	908.5	903.6	902.8	897.9	878.3	837.5	774.7	696.3	608.1
30°	968.1	952.6	938.7	938.7	948.5	945.3	923.2	872.6	795.1	698.7	596.7
32.5°	1011.4	995.9	987.7	995.9	1006.5	1009.7	984.4	922.4	828.5	710.2	585.3
35°	1075.1	1065.3	1059.5	1071.8	1093.0	1101.2	1070.2	996.7	877.5	732.2	578.7
37.5°	1159.1	1151.8	1144.4	1165.7	1205.7	1222.0	1177.1	1082.4	947.7	768.9	575.5
40°	1255.5	1256.3	1264.4	1306.9	1345.2	1379.5	1328.9	1212.2	1044.0	821.2	578.7
42.5°	1369.7	1378.7	1406.5	1465.2	1539.5	1566.5	1517.5	1368.9	1164.0	884.0	586.9
45°	1511.8	1535.4	1582.8	1670.1	1759.9	1801.5	1732.2	1566.5	1315.0	984.4	609.8
47.5°	1662.8	1715.0	1795.0	1901.1	2005.6	2032.6	1946.8	1745.2	1462.8	1073.4	644.9
50°	1856.2	1919.9	1999.9	2127.2	2238.3	2254.6	2141.1	1910.9	1591.8	1151.0	678.3
52.5°	2036.6	2123.2	2225.2	2372.9	2485.6	2465.2	2318.3	2058.7	1693.8	1204.0	697.1
55°	2283.2	2372.9	2488.0	2617.0	2728.8	2679.9	2479.1	2184.4	1775.4	1243.2	702.8
57.5°	2564.8	2633.3	2746.0	2878.2	2951.7	2867.6	2637.4	2306.8	1853.0	1244.0	657.9
60°	2841.5	2921.5	3045.6	3175.4	3216.2	3070.9	2747.6	2325.6	1776.2	1110.2	526.5
62.5°	3251.3	3332.1	3394.9	3416.2	3342.7	3050.5	2619.5	2127.2	1531.4	875.9	373.0
65°	3709.2	3617.8	3496.2	3381.9	3181.9	2737.8	2258.7	1747.7	1188.5	585.3	257.1
67.5°	3829.2	3550.9	3286.4	3031.7	2658.6	2180.3	1703.6	1229.3	762.4	333.0	174.7
69°	3704.3	3297.8	3003.1	2599.1	2213.8	1631.8	1173.8	787.7	455.5	231.8	146.1
70°	3475.8	3052.9	2653.8	2221.1	1715.0	1246.5	780.4	515.9	297.1	169.0	131.4
72.5°	2622.7	2097.0	1616.2	1049.7	640.0	355.1	249.8	178.8	141.2	124.1	112.6
75°	1516.7	1009.7	661.2	352.6	209.0	155.1	135.5	120.8	111.8	107.7	98.0
77.5°	640.0	400.0	271.0	198.4	140.4	120.0	104.5	96.3	95.5	93.1	84.1
80°	291.4	249.8	213.1	149.4	106.9	91.4	80.0	78.4	80.0	77.5	68.6
82.5°	216.3	213.1	178.0	115.1	81.6	61.2	49.8	52.2	58.8	63.7	55.5
85°	180.4	180.4	149.4	85.7	53.9	39.2	38.4	43.3	49.0	53.1	44.9
87.5°	165.7	159.2	85.7	44.1	31.0	25.3	23.7	21.2	21.2	36.7	31.0
90°	23.3	14.3	12.1	12.3	13.1	12.3	12.9	11.1	11.1	11.1	12.1
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: P227096

CATALOG NUMBER: IST-AF-1200-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: P227096

CATALOG NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4	842.4
2.5°	822.0	818.7	810.6	808.9	806.5	803.2	802.4	798.3	790.2	788.5	789.4
5°	784.5	771.4	762.4	755.1	749.4	734.7	728.9	722.4	711.0	707.7	702.8
7.5°	740.4	724.9	706.9	693.8	678.3	662.8	650.6	635.1	622.8	615.5	602.4
10°	706.1	684.9	661.2	635.1	614.7	591.0	575.5	557.5	537.9	520.0	506.9
12.5°	680.0	650.6	616.3	585.3	555.9	530.6	502.8	477.5	453.0	428.6	407.3
15°	658.7	622.0	578.7	539.6	503.6	466.1	435.1	400.0	369.0	347.7	320.8
17.5°	635.9	588.5	537.1	491.4	444.9	405.7	366.5	329.8	300.4	272.6	250.6
20°	608.1	551.0	495.5	442.4	389.4	344.5	304.5	269.4	240.8	218.8	202.4
22.5°	577.1	510.2	445.7	387.7	334.7	290.6	253.0	226.9	205.7	193.5	188.6
25°	546.9	470.2	397.5	333.9	280.8	243.3	217.9	195.9	185.3	180.4	180.4
27.5°	519.2	429.4	348.6	286.5	235.1	205.7	186.1	177.1	172.2	172.2	174.7
30°	493.0	388.6	302.0	239.2	198.4	176.3	165.7	162.4	163.3	166.5	169.8
32.5°	462.8	349.4	262.0	205.7	172.2	157.5	149.4	150.2	154.3	160.0	165.7
35°	431.0	307.7	226.9	180.4	154.3	142.9	138.0	138.8	144.5	151.8	157.5
37.5°	402.4	274.3	200.0	160.8	141.2	133.9	129.8	130.6	134.7	143.7	151.0
40°	373.9	245.7	178.0	149.4	133.9	126.5	124.1	123.3	126.5	134.7	143.7
42.5°	349.4	221.2	164.9	141.2	129.0	122.4	119.2	119.2	120.8	127.3	136.3
45°	334.7	206.5	155.9	135.5	124.9	119.2	115.9	114.3	116.7	120.8	129.0
47.5°	334.7	199.2	150.2	131.4	121.6	116.7	112.6	111.8	112.6	116.7	124.9
50°	346.1	200.8	149.4	129.8	120.0	113.5	109.4	109.4	111.0	116.7	123.3
52.5°	355.9	204.1	151.8	131.4	120.0	111.8	106.9	106.1	108.6	114.3	120.0
55°	354.3	204.1	154.3	133.9	122.4	112.6	106.1	105.3	106.9	112.6	118.4
57.5°	316.7	191.8	151.8	135.5	125.7	116.7	110.2	107.7	109.4	114.3	119.2
60°	256.3	170.6	145.3	135.5	130.6	124.1	117.5	115.9	116.7	121.6	127.3
62.5°	200.8	151.8	137.1	134.7	133.1	129.8	127.3	125.7	125.7	129.8	134.7
65°	163.3	137.1	130.6	131.4	133.1	132.2	131.4	130.6	130.6	133.1	138.0
67.5°	136.3	123.3	121.6	124.1	125.7	126.5	127.3	126.5	127.3	129.8	135.5
69°	124.1	115.9	114.3	115.9	119.2	120.0	121.6	120.8	121.6	124.1	129.8
70°	116.7	110.2	108.6	111.0	113.5	114.3	115.9	115.1	115.9	118.4	124.1
72.5°	101.2	93.9	91.4	93.1	95.5	95.5	98.0	98.8	97.1	98.0	102.0
75°	86.5	78.4	74.3	75.1	75.1	75.1	76.7	76.7	75.1	74.3	75.1
77.5°	72.6	63.7	58.8	58.8	58.8	58.0	55.5	56.3	57.1	56.3	57.1
80°	57.1	49.8	44.9	44.9	44.9	43.3	42.4	42.4	44.1	45.7	44.9
82.5°	44.1	36.7	34.3	33.5	33.5	31.8	31.8	33.5	32.7	33.5	35.1
85°	31.8	26.1	23.7	24.5	23.7	22.0	22.9	25.3	25.3	24.5	26.1
87.5°	19.6	16.3	15.5	16.3	14.7	12.2	11.4	12.2	13.9	13.1	14.7
90°	11.4	10.6	10.6	9.6	9.4	8.6	8.6	9.1	10.4	10.4	9.6
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: P227096
 CATALOG NUMBER: IST-AF-1200-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: P227096
 NUMBER: IST-AF-1200-LED-E1-SL4-8030-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

160°	165°	170°	175°	180°
842.4	842.4	842.4	842.4	842.4
783.6	786.1	775.5	780.4	777.1
697.9	693.8	693.0	690.6	685.7
597.5	594.3	584.5	587.7	580.4
493.9	493.0	475.1	475.9	466.9
398.3	383.7	376.3	365.7	371.4
308.6	296.3	280.8	276.7	282.4
232.6	220.4	213.1	206.5	204.1
192.6	185.3	181.2	178.8	177.1
186.1	184.5	183.7	182.0	181.2
182.0	183.7	183.7	183.7	182.0
178.0	181.2	182.0	181.2	179.6
173.9	176.3	176.3	175.5	173.1
168.2	170.6	170.6	169.8	168.2
161.6	163.3	164.1	164.1	164.9
156.7	158.4	160.0	161.6	164.1
151.0	153.5	154.3	157.5	160.8
143.7	146.9	148.6	151.0	154.3
136.3	140.4	141.2	144.5	147.7
133.1	136.3	136.3	138.8	141.2
129.0	130.6	129.8	131.4	132.2
124.9	126.5	125.7	127.3	128.2
121.6	123.3	124.9	126.5	127.3
123.3	125.7	126.5	129.0	129.8
130.6	133.9	137.1	140.4	142.9
138.0	142.0	149.4	164.1	169.8
142.0	147.7	164.9	190.2	197.5
139.6	146.9	167.3	194.3	203.3
134.7	140.4	162.4	190.2	198.4
128.2	133.9	155.9	186.1	193.5
103.7	106.9	131.4	160.0	164.9
75.9	78.4	97.1	108.6	107.7
58.8	62.0	68.6	69.4	68.6
46.5	48.2	51.4	51.4	52.2
35.9	36.7	38.4	36.7	35.9
26.9	26.1	25.3	24.5	23.7
15.5	15.5	13.1	11.4	10.6
9.1	9.4	8.4	6.6	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

'227096

IST-AF-1200-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)