

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: P226710

Luminaire Tested: **IST-AF-1000-LED-E1-T4W-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35944)-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-T4W-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7977.8 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G2

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

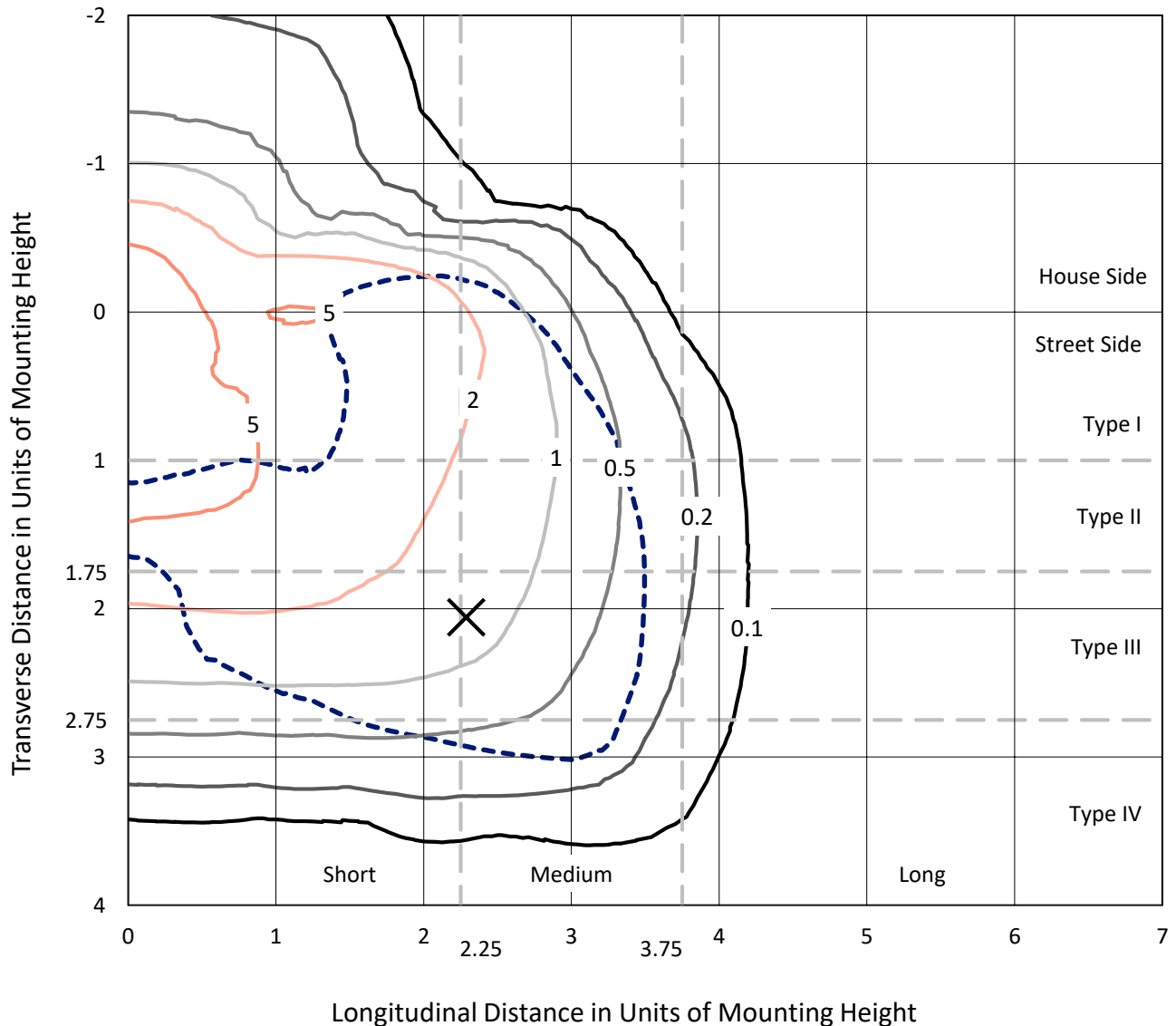


REPORT NUMBER: P226710

CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

Iso-Footcandle Lines of Horizontal Illumination

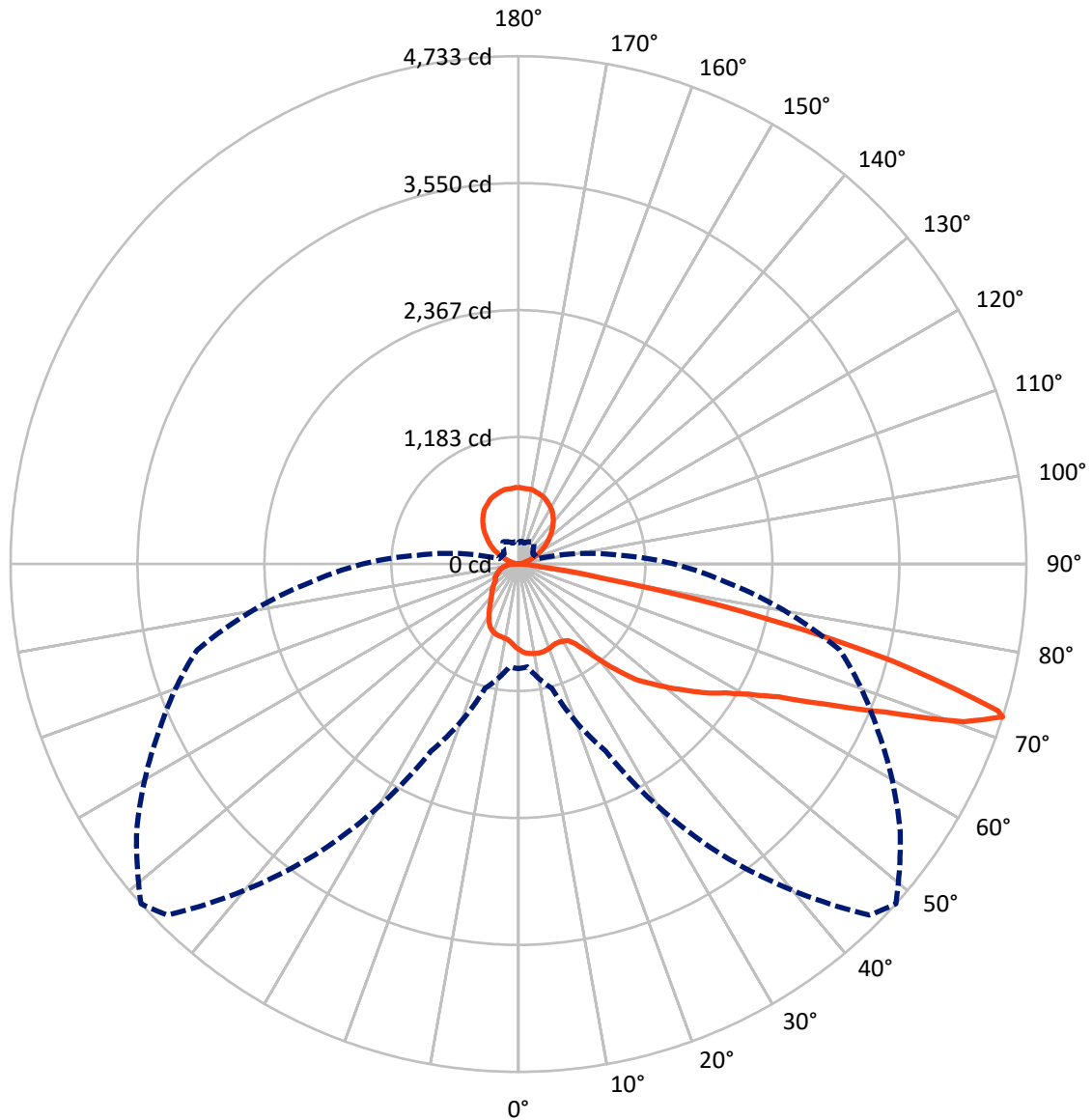
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P226710
CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

REPORT NUMBER: P226710

CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

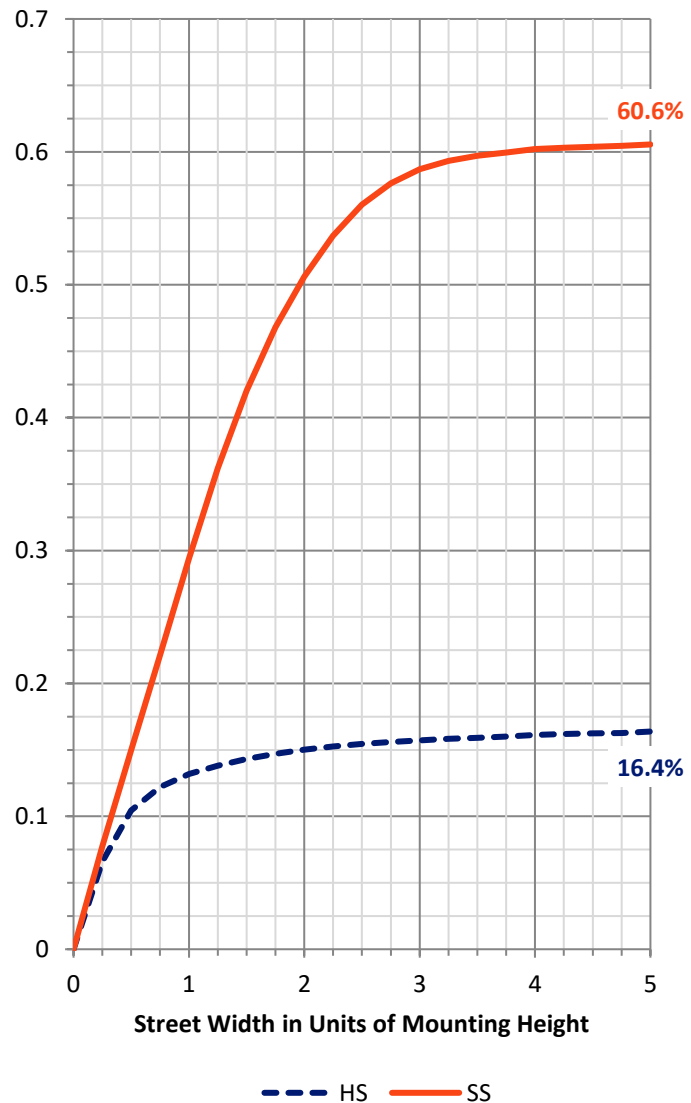
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1347.5	890.3	2237.8
	% Fixture	16.9	11.2	28.1
Street Side	Lumens	4851.6	888.5	5740.0
	% Fixture	60.8	11.1	71.9
Total	Lumens	6199.1	1778.7	7977.8
	% Fixture	77.7	22.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	0.9
10°-20°	220.4	2.8
20°-30°	339.8	4.3
30°-40°	509.3	6.4
40°-50°	848.1	10.6
50°-60°	1325.4	16.6
60°-70°	1750.7	21.9
70°-80°	1012.7	12.7
80°-90°	117.1	1.5
90°-100°	13.2	0.2
100°-110°	58.7	0.7
110°-120°	169.9	2.1
120°-130°	279.4	3.5
130°-140°	344.6	4.3
140°-150°	352.5	4.4
150°-160°	297.0	3.7
160°-170°	195.5	2.5
170°-180°	67.8	0.8
0°-90°	6199.1	77.7
0°-180°	7977.8	100.0



REPORT NUMBER: P226710

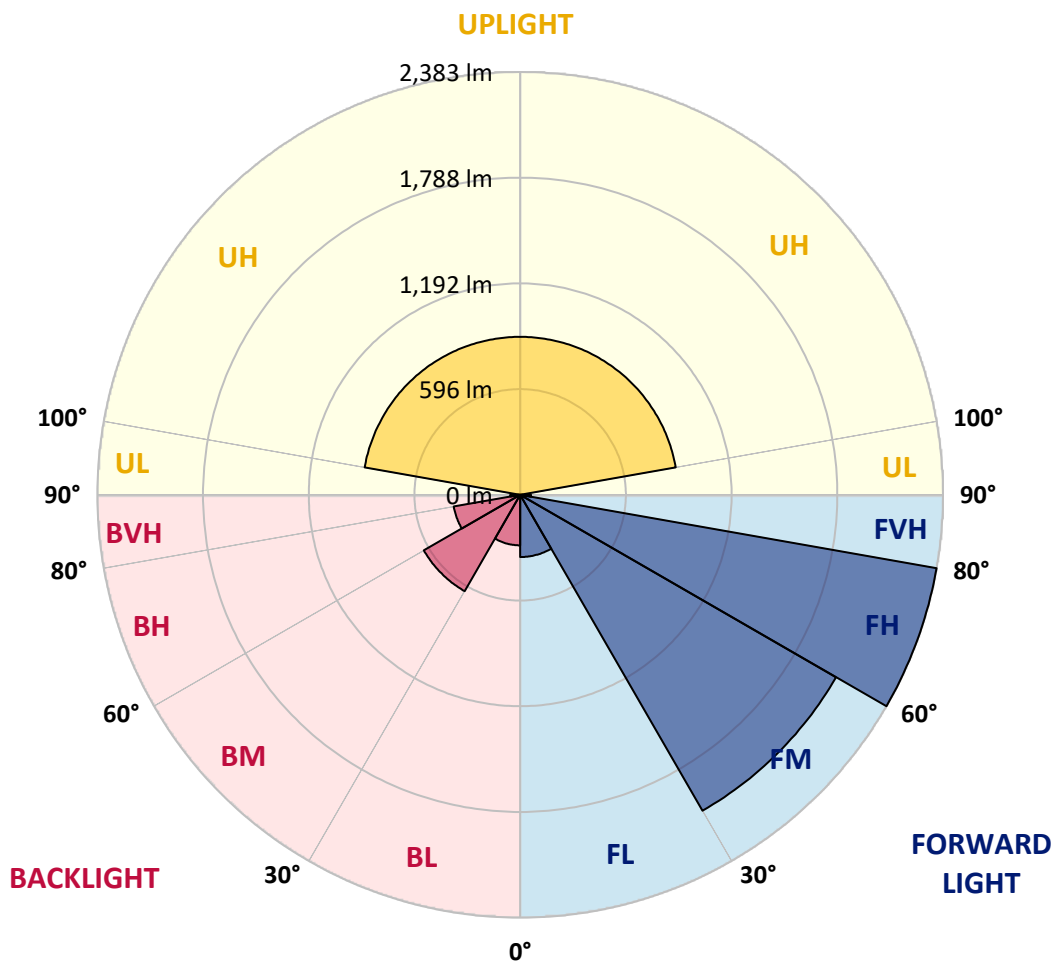
CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	350.6	4.4			
FM	(30°-60°)	2056.1	25.8			
FH	(60°-80°)	2383.4	29.9			G2/5000
FVH	(80°-90°)	61.4	0.8			G1/100
BL	(0°-30°)	284.9	3.6	B1/500		
BM	(30°-60°)	626.8	7.9	B1/1000		
BH	(60°-80°)	380.1	4.8	B1/500		G1/500
BVH	(80°-90°)	55.7	0.7			G1/100
UL	(90°-100°)	13.2	0.2		U2/50	
UH	(100°-180°)	890.3	11.2		U4/1000	

BUG Rating: B1-U5-G2

Type IV Medium





REPORT NUMBER: P226710

CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8
2.5°	840.1	839.2	839.2	832.1	829.3	824.8	821.2	815.8	810.4	804.1	796.1
5°	880.6	883.3	879.7	868.9	855.4	841.0	835.6	823.1	806.0	790.6	776.2
7.5°	919.2	920.1	910.2	892.3	871.6	849.2	841.9	824.8	806.0	785.2	764.6
10°	947.2	948.1	933.6	908.5	880.6	855.4	847.3	830.2	806.8	784.3	758.2
12.5°	963.3	964.2	942.6	916.6	883.3	858.1	850.9	832.9	808.6	779.9	751.1
15°	960.7	963.3	945.3	916.6	881.5	859.0	850.0	834.7	804.1	775.4	744.8
17.5°	942.6	946.2	931.9	900.4	872.5	854.5	844.7	829.3	799.6	769.1	735.8
20°	907.6	912.1	905.8	875.2	856.3	841.9	835.6	821.2	793.3	761.9	727.7
22.5°	868.0	872.5	870.7	845.5	836.5	829.3	823.1	812.2	788.0	756.5	724.0
25°	839.2	842.8	840.1	818.6	821.2	821.2	817.6	809.6	787.1	758.2	724.0
27.5°	886.9	886.9	863.5	819.4	814.9	823.1	821.2	816.7	798.7	767.2	731.3
30°	1061.4	1047.9	1005.7	895.0	838.3	834.7	833.8	831.1	814.9	787.1	753.8
32.5°	1256.6	1243.1	1192.7	1054.2	936.3	859.0	850.9	851.8	847.3	821.2	788.0
35°	1430.2	1428.3	1388.8	1238.6	1088.3	944.5	912.1	890.5	888.6	877.9	851.8
37.5°	1570.5	1570.5	1574.1	1403.2	1253.0	1080.2	1025.4	957.1	957.1	950.7	934.6
40°	1730.6	1737.8	1745.9	1552.5	1429.3	1242.2	1180.1	1076.7	1045.1	1055.1	1058.7
42.5°	1941.0	1950.1	1944.6	1736.9	1590.3	1435.6	1359.1	1234.1	1156.8	1172.9	1210.7
45°	2083.2	2086.8	2125.5	1929.4	1792.6	1599.3	1534.5	1362.7	1286.3	1319.5	1386.1
47.5°	2244.1	2253.2	2259.5	2148.0	2030.1	1784.5	1665.9	1487.8	1438.3	1488.6	1593.9
50°	2401.6	2389.9	2407.0	2402.5	2255.0	1949.1	1808.0	1604.7	1608.3	1676.6	1849.3
52.5°	2538.4	2498.8	2538.4	2587.8	2544.6	2118.2	1953.6	1742.3	1794.5	1878.1	2150.7
55°	2643.6	2548.2	2614.8	2755.1	2745.2	2267.6	2120.1	1925.8	2013.1	2127.2	2516.8
57.5°	2428.6	2440.2	2623.8	2867.5	2863.0	2418.7	2265.8	2155.2	2262.2	2389.9	2950.3
60°	2228.0	2280.2	2563.5	2885.5	2944.9	2583.3	2461.8	2416.0	2514.9	2670.5	3365.8
62.5°	2121.9	2171.3	2465.5	2852.3	3075.3	2827.0	2725.4	2690.4	2825.3	2999.8	3736.4
65°	2155.2	2185.7	2459.2	2902.6	3225.6	3195.8	3151.8	3093.3	3160.8	3324.5	3903.8
67.5°	2061.6	2112.0	2407.0	2991.6	3499.8	3645.6	3682.4	3619.5	3562.8	3540.3	3660.0
70°	1534.5	1583.1	1892.5	2623.8	3724.8	4426.3	4403.8	4193.4	3812.0	3493.6	2859.5
72°	975.1	961.6	1198.1	1922.2	3311.0	4626.9	4733.1	4343.6	3698.7	3102.3	1942.0
72.5°	708.8	772.6	993.9	1709.0	3145.5	4517.1	4671.9	4295.0	3550.3	2930.5	1708.1
75°	172.7	182.6	238.3	612.5	1842.1	3399.2	3593.4	3318.1	2591.4	1739.6	757.4
77.5°	116.9	121.4	157.4	215.8	541.4	1938.4	2132.6	1832.2	1159.4	591.9	337.3
80°	87.3	89.9	114.3	152.9	224.8	661.1	779.9	619.7	288.8	328.3	240.2
82.5°	61.2	63.0	86.3	112.4	149.4	154.7	206.0	227.6	187.1	215.0	140.3
85°	42.2	42.2	63.0	77.3	94.4	76.4	81.8	114.3	126.8	127.8	85.4
87.5°	22.5	25.2	36.9	49.5	49.5	35.1	38.7	58.5	71.1	76.4	51.2
90°	13.2	13.2	22.4	27.1	19.8	16.2	15.2	18.8	26.3	33.5	23.3
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	6.4	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	10.1	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	23.9	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	44.0	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	67.2	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	92.2	97.2	96.2	92.1	89.0



REPORT NUMBER: P226710

CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	118.5	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	147.8	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	179.5	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	211.5	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	249.5	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	284.0	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	318.0	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	349.3	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	382.1	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	416.1	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	448.9	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	480.3	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	509.3	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	537.7	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	565.2	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	589.7	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	607.8	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	624.3	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	641.8	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	659.5	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	671.0	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	679.4	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	688.1	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	698.6	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	705.3	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	705.5	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	710.6	709.9	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



REPORT NUMBER: P226710

CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8	797.8
2.5°	794.2	788.8	781.6	778.1	776.2	772.6	769.1	767.2	767.2	763.6	764.6
5°	769.1	761.0	751.1	743.9	743.0	743.0	744.8	744.8	745.6	743.0	746.5
7.5°	756.5	747.5	733.0	725.0	718.7	717.8	721.4	728.5	732.1	729.5	733.0
10°	747.5	737.5	721.4	711.5	707.0	705.2	707.9	715.0	726.8	726.8	730.4
12.5°	738.5	725.9	709.7	702.5	698.9	699.8	703.4	708.8	721.4	725.9	727.7
15°	729.5	715.0	701.6	691.7	691.7	694.4	698.9	705.2	716.9	725.0	726.8
17.5°	720.5	706.0	694.4	686.3	686.3	689.9	694.4	702.5	710.5	722.3	722.3
20°	712.4	700.7	685.4	678.2	677.3	680.0	685.4	693.5	699.8	711.5	712.4
22.5°	707.9	693.5	679.1	668.3	663.8	662.1	667.4	675.6	681.8	693.5	695.3
25°	706.0	689.9	671.9	652.1	640.5	636.8	639.5	649.5	654.8	663.8	666.6
27.5°	712.4	697.1	669.2	633.2	609.0	599.0	601.7	608.0	609.9	619.7	624.2
30°	734.0	716.0	674.6	613.5	569.4	551.4	551.4	552.3	555.0	563.0	564.0
32.5°	769.1	752.0	690.8	592.8	528.9	503.7	497.5	493.0	493.0	492.0	493.0
35°	833.8	819.4	718.7	569.4	484.8	457.0	441.6	433.5	425.4	421.9	420.9
37.5°	927.4	914.7	758.2	542.4	446.1	418.3	399.4	383.2	374.2	373.3	377.8
40°	1066.7	1054.2	802.3	511.8	409.3	388.6	368.8	351.7	341.8	342.7	347.2
42.5°	1238.6	1199.9	850.0	470.5	379.6	368.8	347.2	332.8	322.9	317.5	316.6
45°	1439.2	1374.4	895.0	431.8	347.2	351.7	331.0	314.9	302.2	287.9	286.0
47.5°	1689.2	1549.0	934.6	393.1	312.1	333.7	313.9	298.6	279.8	262.7	259.9
50°	1950.1	1749.5	968.7	351.7	280.6	313.9	296.9	276.1	250.0	234.8	234.8
52.5°	2251.4	1990.6	1012.8	305.9	256.4	292.4	275.3	248.3	226.7	224.8	224.8
55°	2586.9	2243.3	1043.4	269.9	237.4	268.9	260.9	252.8	245.5	247.3	248.3
57.5°	2937.7	2506.8	1016.4	244.7	222.2	263.5	286.9	276.1	253.7	252.8	251.9
60°	3239.9	2711.9	867.1	228.4	210.5	272.5	307.6	276.1	253.7	265.4	266.3
62.5°	3437.8	2809.0	577.5	207.8	193.3	257.3	300.4	268.0	254.5	287.9	290.5
65°	3410.8	2700.3	331.9	193.3	182.6	236.6	290.5	258.2	237.4	256.4	250.9
67.5°	3008.7	2263.1	240.2	187.1	174.5	222.2	272.5	243.8	221.3	244.7	234.8
70°	2162.3	1540.8	206.8	181.7	169.1	205.1	259.9	234.8	212.3	228.4	213.2
72°	1450.9	937.2	189.8	177.2	163.7	194.3	250.9	227.6	204.2	213.2	196.1
72.5°	1235.0	739.4	185.3	175.4	161.9	191.6	248.3	225.8	202.3	211.3	195.2
75°	461.5	289.6	164.6	161.9	149.4	178.1	237.4	217.7	193.3	190.7	183.5
77.5°	237.4	183.5	140.3	143.0	134.0	162.9	225.8	205.1	178.1	168.2	164.6
80°	172.7	133.1	113.3	121.4	114.3	146.6	209.6	186.2	161.9	151.1	146.6
82.5°	108.8	82.8	86.3	96.3	97.2	129.5	190.7	167.3	143.9	134.9	127.8
85°	52.2	49.5	61.2	71.1	78.3	109.8	174.5	148.4	125.9	107.9	108.8
87.5°	27.9	37.7	36.9	47.7	60.3	89.9	154.7	121.4	100.8	80.9	81.8
90°	13.5	17.1	20.0	28.1	31.4	45.8	108.0	77.4	74.6	33.9	30.3
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



REPORT NUMBER: P226710

CATALOG NUMBER: IST-AF-1000-LED-E1-T4W-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)