

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: P271709

Luminaire Tested: **IST-AF-450-LED-E1-T4FT-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35943)-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-450-LED-E1-T4FT-7027-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW, WITH UPLIGHT GLOW
Light Source: (16) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4465.3 lumens
Efficiency: N/A
Efficacy: 106.3 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): 42.01
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

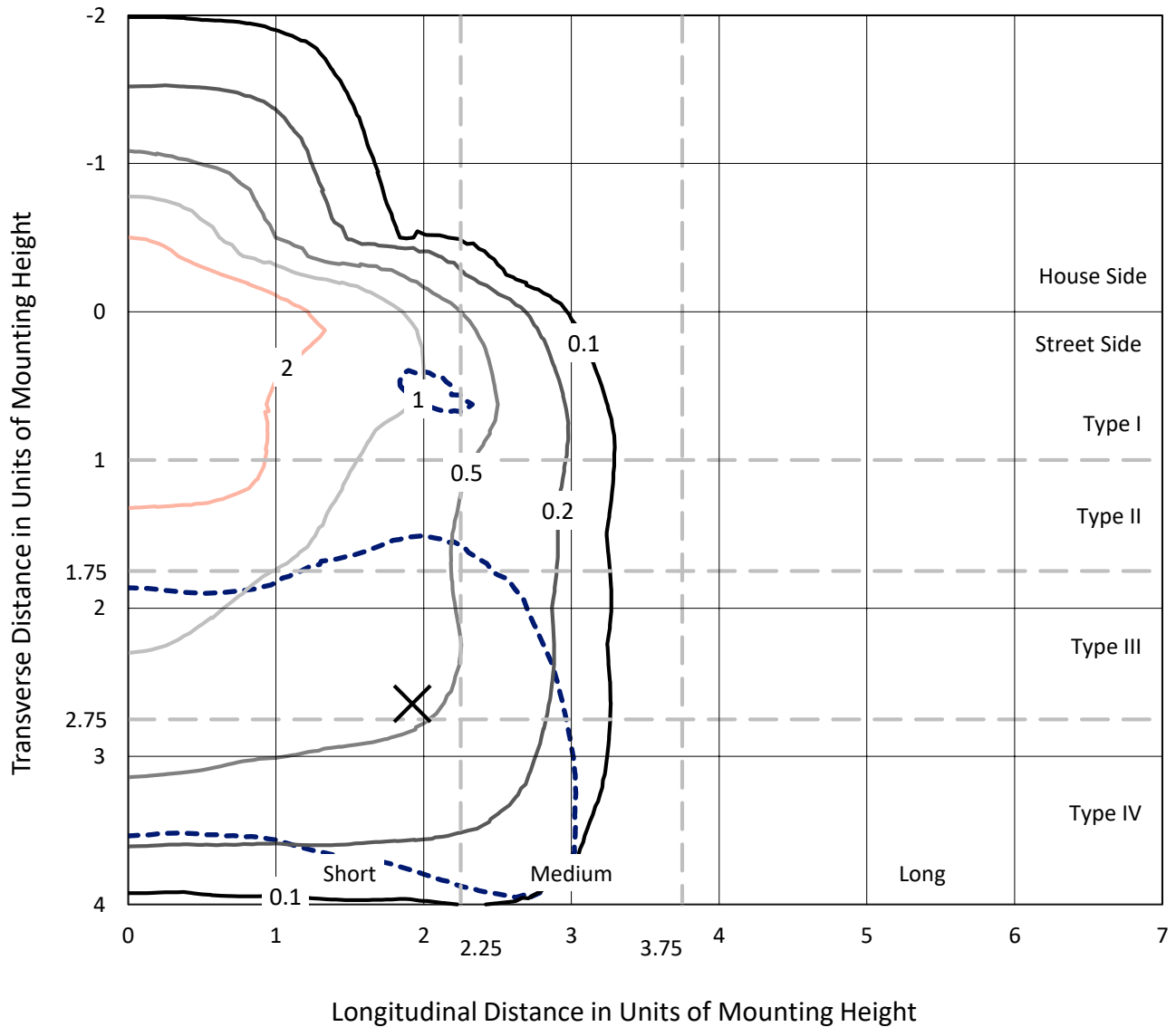


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Iso-Footcandle Lines of Horizontal Illumination

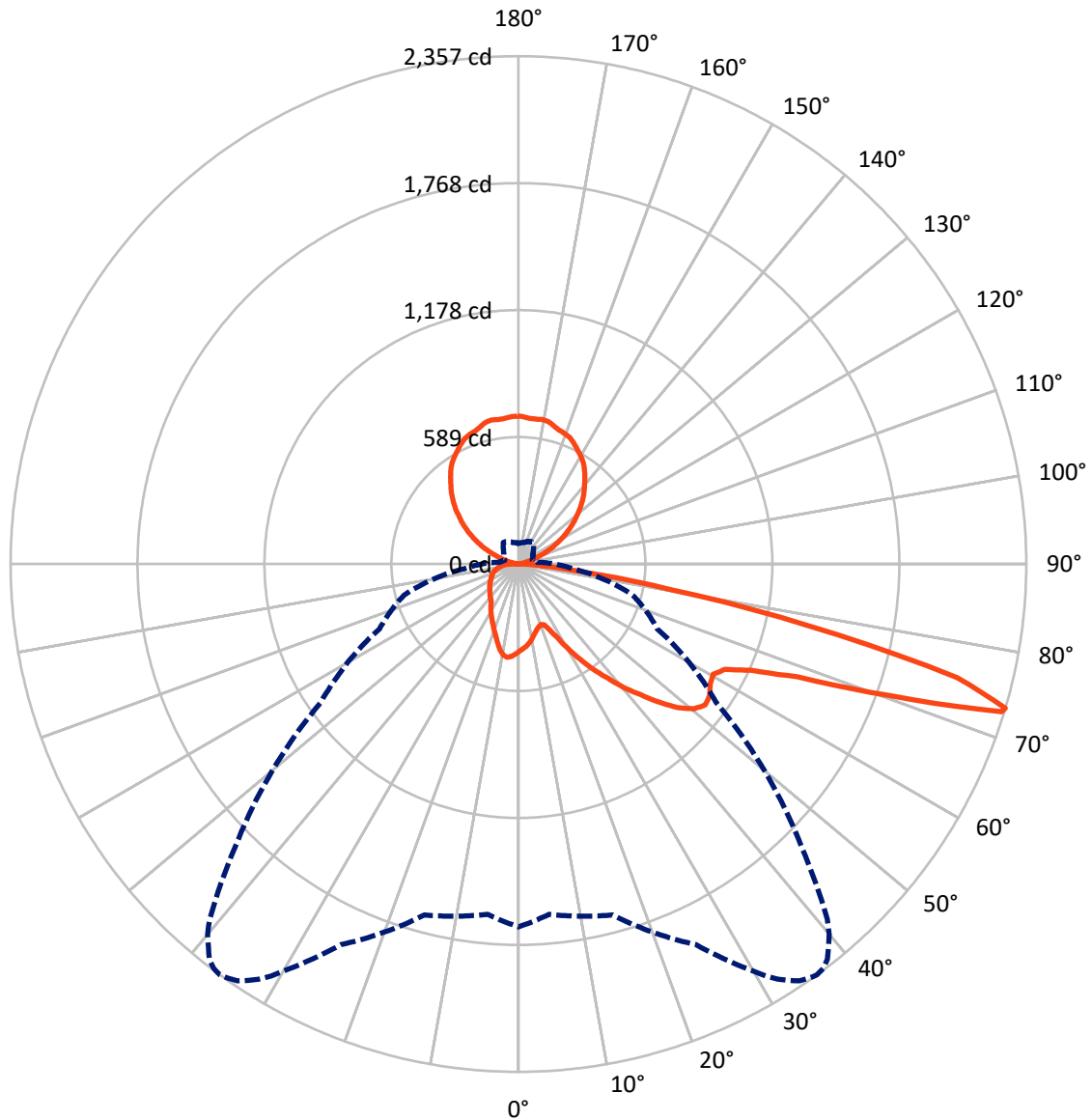
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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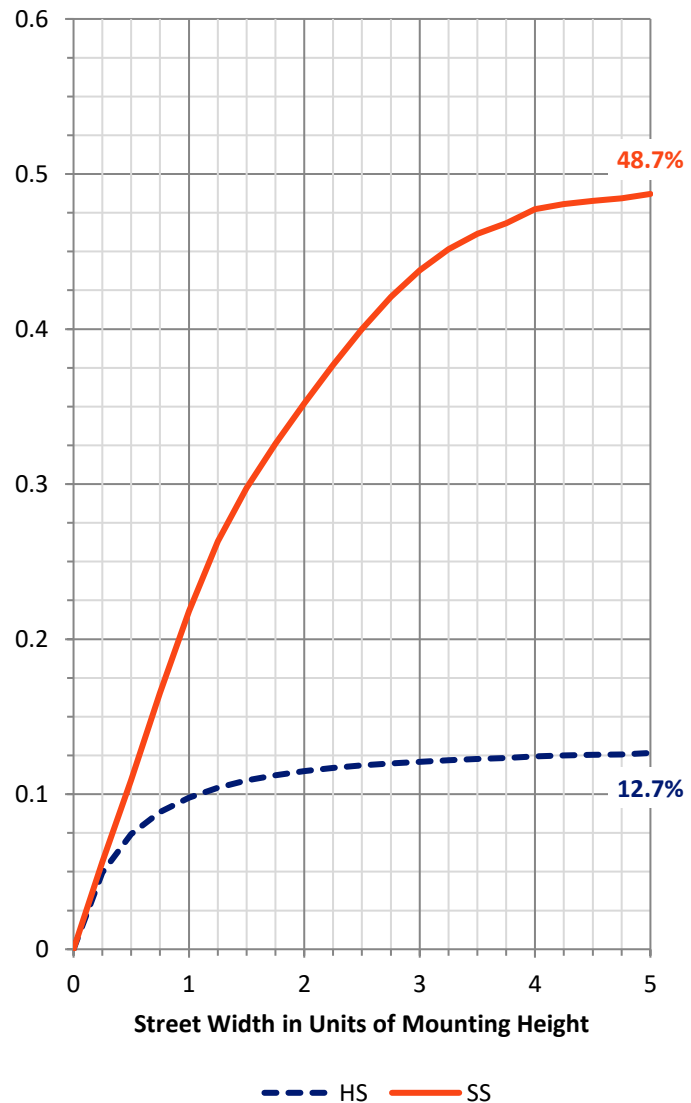
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	582.7	852.1	1434.8
	% Fixture	13.1	19.1	32.1
Street Side	Lumens	2178.7	851.7	3030.4
	% Fixture	48.8	19.1	67.9
Total	Lumens	2761.4	1703.8	4465.3
	% Fixture	61.8	38.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.2	0.9
10°-20°	101.2	2.3
20°-30°	165.8	3.7
30°-40°	274.7	6.2
40°-50°	403.6	9.0
50°-60°	508.9	11.4
60°-70°	666.5	14.9
70°-80°	539.5	12.1
80°-90°	63.1	1.4
90°-100°	9.9	0.2
100°-110°	56.3	1.3
110°-120°	163.1	3.7
120°-130°	268.1	6.0
130°-140°	330.6	7.4
140°-150°	338.2	7.6
150°-160°	284.9	6.4
160°-170°	187.6	4.2
170°-180°	65.0	1.5
0°-90°	2761.4	61.8
0°-180°	4465.3	100.0



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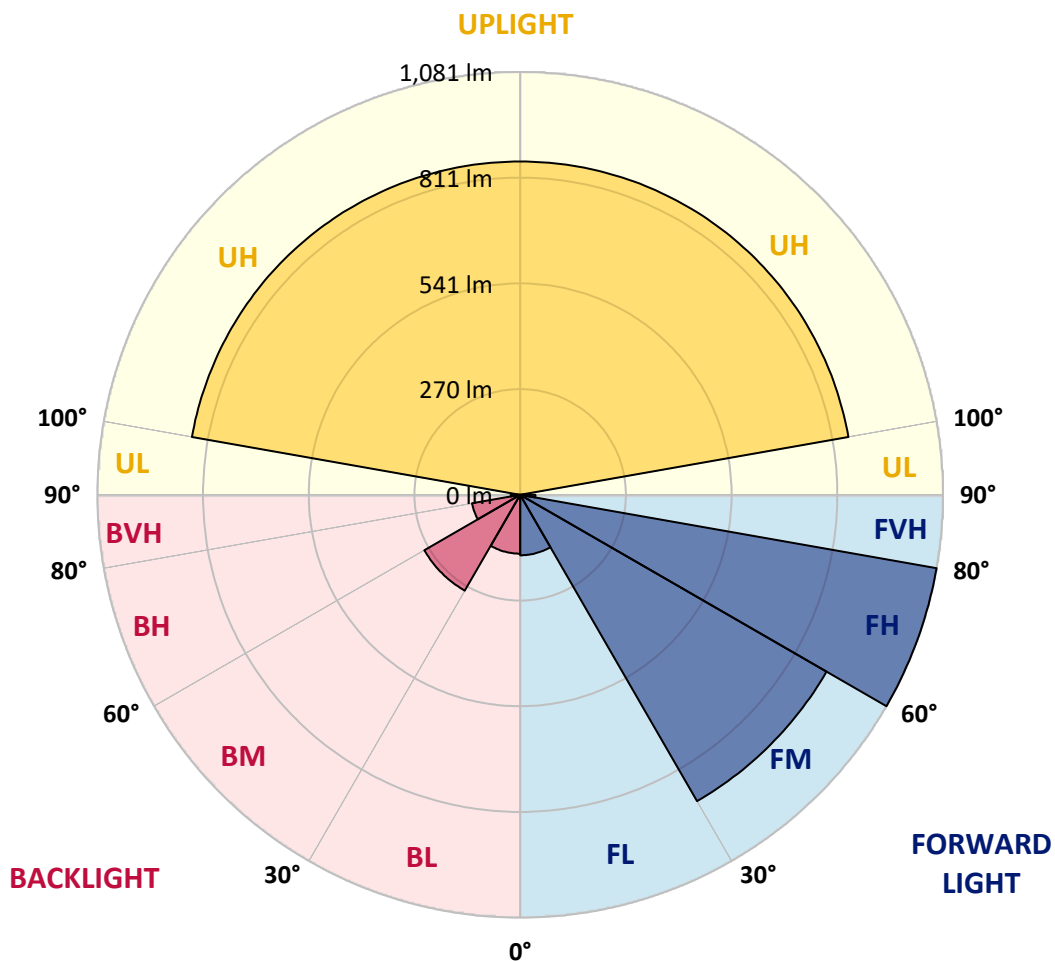
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	154.6	3.5			
FM (30°-60°)	904.3	20.3			
FH (60°-80°)	1081.1	24.2			G1/1800
FVH (80°-90°)	38.8	0.9			G1/100
BL (0°-30°)	150.5	3.4	B1/500		
BM (30°-60°)	283.0	6.3	B1/1000		
BH (60°-80°)	124.9	2.8	B1/500		G1/500
BVH (80°-90°)	24.3	0.5			G1/100
UL (90°-100°)	9.9	0.2		U1/10	
UH (100°-180°)	852.1	19.1		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	30°	31°	32°	33°	34°	35°	36°
0°	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6
2.5°	390.9	391.8	392.5	392.5	392.5	393.6	393.3	393.3	393.6	394.1	394.1
5°	376.2	376.7	379.1	379.8	382.2	381.8	381.8	381.8	383.4	382.2	382.9
7.5°	359.6	360.4	362.7	365.6	367.6	367.9	367.6	366.8	368.8	369.6	368.8
10°	339.9	340.3	343.4	345.8	348.9	348.5	349.7	349.7	350.5	350.1	351.8
12.5°	329.9	329.2	327.6	328.8	329.6	329.6	329.6	330.8	330.4	331.1	332.4
15°	328.8	326.8	318.9	316.1	315.3	315.3	314.9	314.6	315.8	316.9	316.9
17.5°	334.3	330.4	314.9	307.0	305.4	304.6	305.1	304.3	304.3	305.9	305.4
20°	361.2	354.1	323.2	305.9	301.1	301.1	300.8	299.5	299.5	299.9	299.9
22.5°	429.7	420.6	366.8	330.8	314.1	313.8	312.5	311.4	308.2	307.4	305.9
25°	525.0	514.3	422.1	383.4	360.0	359.2	353.3	352.6	344.9	345.4	340.3
27.5°	599.0	591.8	496.1	444.8	422.6	417.8	415.1	407.9	401.5	396.4	390.1
30°	624.3	623.2	571.0	529.3	496.1	490.6	483.1	480.0	470.8	463.6	459.3
32.5°	664.3	665.5	643.6	597.8	569.0	563.3	557.1	549.5	543.3	538.4	528.1
35°	721.2	721.7	706.6	672.2	639.0	631.4	627.8	619.2	613.3	607.3	602.1
37.5°	760.9	762.8	752.2	725.7	705.8	695.1	694.7	688.4	681.6	676.5	671.8
40°	836.8	826.1	790.9	773.9	757.6	756.5	752.9	749.4	750.9	748.2	753.3
42.5°	913.6	900.1	851.1	826.9	817.0	819.0	817.7	818.2	822.8	821.7	827.2
45°	979.2	963.8	917.1	888.6	896.5	898.8	905.6	909.5	907.6	914.7	914.7
47.5°	1044.9	1008.9	953.6	966.6	972.1	990.3	995.1	993.9	1000.5	1003.8	995.1
50°	998.6	989.1	984.7	1024.7	1049.6	1055.6	1062.2	1065.9	1069.1	1064.6	1056.0
52.5°	900.9	900.1	961.4	1059.1	1080.1	1087.9	1094.3	1097.1	1095.9	1093.6	1086.4
55°	868.0	861.7	914.7	1023.5	1055.6	1063.1	1072.1	1077.7	1083.3	1082.5	1076.9
57.5°	912.8	907.6	908.0	992.3	1023.5	1030.3	1036.1	1042.6	1044.1	1049.2	1049.6
60°	1042.6	1035.7	981.6	991.1	1022.7	1030.3	1031.1	1034.6	1034.9	1037.7	1038.1
62.5°	1229.6	1217.3	1134.6	1063.4	1074.6	1078.1	1080.9	1080.1	1078.5	1076.5	1076.5
65°	1434.5	1423.2	1316.6	1233.6	1201.6	1210.3	1196.5	1193.7	1190.4	1190.4	1186.9
67.5°	1678.3	1656.6	1574.2	1480.9	1434.5	1438.9	1445.2	1421.1	1412.5	1413.2	1394.6
70°	1926.8	1903.8	1867.8	1866.6	1889.9	1879.6	1850.4	1889.1	1843.2	1832.3	1828.2
72.5°	1789.4	1762.1	1769.8	1993.2	2202.9	2236.9	2269.4	2299.4	2326.3	2342.6	2344.9
73°	1684.2	1632.4	1686.2	1949.0	2181.5	2231.7	2272.2	2304.2	2333.1	2347.7	2356.8
75°	841.2	843.9	1109.0	1607.9	1906.6	1949.7	2012.7	2047.8	2100.1	2127.0	2103.2
77.5°	195.0	202.2	335.9	763.2	1143.0	1204.6	1254.9	1306.3	1367.0	1389.5	1369.6
80°	68.8	72.0	118.3	290.1	477.1	511.1	554.3	610.8	667.0	680.8	715.7
82.5°	36.4	40.0	62.5	125.9	203.7	222.7	233.8	257.2	276.9	288.9	295.1
85°	21.0	21.4	35.7	69.6	93.3	100.9	108.0	113.5	119.8	115.5	115.5
87.5°	8.4	9.2	18.1	32.9	45.2	50.2	50.2	50.2	49.9	43.8	40.0
90°	6.5	7.3	10.4	14.6	13.7	13.7	13.4	12.6	12.1	12.6	10.5
92.5°	4.0	4.0	4.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
95°	4.9	4.9	5.9	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
97.5°	6.8	6.8	7.8	7.8	8.4	8.4	8.5	8.6	8.7	8.8	8.8
100°	7.8	7.8	8.8	9.8	10.8	11.0	11.2	11.4	11.6	11.8	12.7
102.5°	10.8	10.8	12.8	17.7	22.1	23.0	23.9	24.7	25.6	26.5	27.8
105°	20.6	21.6	26.5	35.3	41.2	42.4	43.6	44.7	45.9	47.1	48.6
107.5°	40.2	41.2	48.1	57.0	64.3	65.8	67.2	68.7	70.2	71.7	73.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	30°	31°	32°	33°	34°	35°	36°
110°	64.8	66.7	72.7	85.4	92.7	94.2	95.7	97.2	98.6	100.1	101.3
112.5°	97.2	97.2	104.0	118.8	125.1	126.4	127.6	129.0	130.3	131.5	132.4
115°	137.4	136.5	144.3	156.0	160.4	161.3	162.2	163.1	164.0	164.9	165.5
117.5°	180.6	180.6	185.5	193.3	195.8	196.3	196.8	197.3	197.8	198.3	198.5
120°	220.8	218.8	221.8	228.7	230.7	231.0	231.4	231.9	232.2	232.6	233.2
122.5°	258.2	255.2	256.2	262.0	264.0	264.4	264.8	265.2	265.6	266.0	266.5
125°	292.5	288.5	290.5	293.5	296.4	297.0	297.6	298.1	298.8	299.3	299.9
127.5°	323.9	322.9	322.9	326.8	329.8	330.4	330.9	331.6	332.1	332.7	332.8
130°	356.3	354.3	355.3	359.2	361.2	361.6	361.9	362.4	362.7	363.2	363.4
132.5°	388.7	386.7	385.7	393.5	395.1	395.3	395.6	396.0	396.2	396.5	396.6
135°	421.0	418.1	418.1	424.0	425.4	425.8	426.1	426.3	426.7	427.0	427.1
137.5°	451.5	448.5	450.5	451.5	453.5	453.8	454.3	454.6	455.0	455.4	455.8
140°	479.0	476.0	478.0	480.0	481.0	481.1	481.3	481.5	481.7	481.9	482.5
142.5°	508.4	505.5	507.5	508.4	509.9	510.1	510.5	510.8	511.0	511.3	511.8
145°	539.8	535.9	534.0	536.8	538.4	538.6	538.9	539.3	539.5	539.8	539.9
147.5°	564.3	561.4	560.5	563.3	563.3	563.3	563.3	563.3	563.3	563.3	563.5
150°	584.0	581.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
152.5°	599.7	596.7	596.7	597.7	598.2	598.3	598.5	598.5	598.6	598.7	598.7
155°	617.3	613.5	613.5	615.4	616.9	617.1	617.5	617.8	618.0	618.3	618.1
157.5°	634.0	631.1	631.1	632.0	633.0	633.2	633.5	633.7	633.8	634.0	633.9
160°	650.7	647.8	646.8	643.8	643.4	643.3	643.2	643.1	643.0	642.8	642.8
162.5°	660.5	656.6	656.6	652.7	650.7	650.4	649.9	649.6	649.1	648.8	648.9
165°	668.4	665.5	663.5	663.5	662.1	661.7	661.4	661.2	660.8	660.5	660.5
167.5°	677.2	674.3	671.3	673.3	674.3	674.4	674.6	674.9	675.1	675.3	675.0
170°	685.0	682.2	679.2	679.2	679.7	679.7	679.8	679.9	680.1	680.2	679.9
172.5°	686.0	684.1	682.2	680.2	678.7	678.4	678.1	677.8	677.5	677.2	677.2
175°	687.0	685.0	684.1	682.2	680.2	679.7	679.4	679.0	678.6	678.2	678.1
177.5°	693.9	692.0	687.0	686.0	685.0	684.9	684.7	684.5	684.3	684.1	683.9
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



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CANDELA DISTRIBUTION (continued):

	37°	38°	39°	40°	41°	45°	55°	65°	75°	85°	90°
0°	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6
2.5°	394.9	395.3	394.4	396.1	394.9	394.9	396.8	400.4	403.2	404.0	406.3
5°	383.8	384.1	384.1	384.6	384.1	384.9	388.4	391.8	397.2	399.9	403.6
7.5°	369.6	370.7	370.3	371.1	371.1	371.9	377.5	382.6	388.1	393.3	397.6
10°	352.6	353.3	354.9	354.1	354.1	356.4	362.4	369.9	376.7	384.1	389.3
12.5°	332.4	334.3	333.9	335.4	336.2	337.9	347.7	356.1	364.4	373.1	379.8
15°	316.6	317.7	318.4	318.9	318.9	322.4	332.4	342.6	353.8	364.0	371.1
17.5°	306.2	306.2	307.0	307.4	308.2	310.5	320.9	332.4	344.9	357.6	365.6
20°	300.3	300.3	300.8	301.1	301.1	303.9	313.4	326.4	340.3	356.4	366.0
22.5°	305.1	303.9	303.4	303.4	301.9	301.9	310.9	324.7	342.3	363.2	375.4
25°	337.4	333.9	328.4	327.3	325.2	315.8	314.6	330.4	351.8	377.8	396.4
27.5°	386.1	382.6	379.1	374.6	371.4	354.1	330.4	344.6	369.9	407.1	430.1
30°	449.8	442.8	437.6	432.8	419.0	399.9	363.2	366.8	397.9	447.9	476.7
32.5°	521.1	513.5	505.7	494.6	490.9	460.1	413.0	403.6	433.6	495.3	525.4
35°	589.8	586.3	580.8	576.4	568.2	542.5	477.9	447.9	474.8	551.1	574.5
37.5°	669.8	663.1	663.5	660.0	655.1	633.5	545.2	501.3	519.1	604.5	619.2
40°	748.6	747.0	749.4	743.3	735.5	706.2	594.7	540.4	565.3	655.9	652.3
42.5°	822.8	824.1	821.3	814.7	805.9	756.8	626.3	573.7	607.0	701.0	678.8
45°	908.0	903.7	892.2	880.2	869.6	800.4	643.3	610.8	646.9	749.7	705.8
47.5°	988.2	971.2	961.4	943.2	922.2	839.9	666.3	650.0	691.2	795.6	731.5
50°	1047.2	1031.4	1014.8	992.6	970.5	874.4	696.7	694.3	741.4	847.0	766.7
52.5°	1074.1	1059.6	1043.3	1020.7	998.6	899.2	737.5	737.5	800.7	915.1	815.4
55°	1069.8	1059.1	1044.9	1024.2	1007.3	912.8	779.4	785.0	875.2	988.7	871.5
57.5°	1046.9	1041.0	1032.6	1018.4	1004.6	923.0	828.9	832.4	974.8	1059.6	924.5
60°	1038.9	1036.6	1031.8	1023.5	1012.7	945.6	881.5	889.4	1086.4	1124.4	954.7
62.5°	1074.1	1069.4	1065.9	1057.6	1047.6	1000.9	947.5	949.9	1191.2	1132.3	925.4
65°	1173.1	1164.3	1158.5	1147.3	1136.3	1084.4	1031.8	1006.1	1242.6	1058.3	826.1
67.5°	1380.3	1366.1	1349.2	1328.1	1297.7	1251.0	1115.2	1014.0	1196.0	896.5	651.6
70°	1790.2	1759.4	1720.3	1675.5	1664.0	1527.9	1167.4	955.4	994.2	626.3	432.1
72.5°	2340.9	2308.9	2274.1	2237.3	2164.6	1865.4	1144.6	770.7	618.3	322.0	205.7
73°	2350.1	2328.2	2286.4	2243.7	2184.3	1859.5	1119.6	710.6	545.2	253.6	168.5
75°	2107.5	2098.8	2057.7	1975.5	1925.2	1570.7	824.6	411.9	238.6	156.7	109.6
77.5°	1367.7	1358.1	1334.9	1327.0	1234.5	1018.4	369.1	160.3	129.7	104.0	77.5
80°	728.7	684.5	676.5	644.9	577.3	392.1	126.2	98.2	86.2	69.6	54.2
82.5°	295.5	276.6	269.4	244.1	229.4	117.5	63.3	68.0	57.9	41.1	33.2
85°	108.9	100.1	97.7	79.5	70.0	34.9	38.8	47.9	36.0	23.0	16.6
87.5°	37.5	32.5	28.0	21.8	20.2	14.2	21.4	26.1	23.0	13.8	7.9
90°	10.4	9.9	9.4	8.9	9.3	8.4	9.3	12.4	12.8	9.3	8.4
92.5°	5.9	5.9	5.9	5.9	5.9	5.9	6.8	6.8	5.9	5.9	5.9
95°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	7.8	6.8	6.8	6.8
97.5°	8.8	8.8	8.8	8.8	8.8	8.8	11.8	9.8	8.8	7.8	7.8
100°	13.6	14.5	15.3	16.2	17.1	20.6	28.5	25.5	22.5	18.7	18.7
102.5°	29.0	30.4	31.6	32.9	34.1	39.3	49.0	46.2	41.2	38.3	37.3
105°	50.0	51.6	53.0	54.4	56.0	61.8	70.7	68.7	63.8	59.8	59.8
107.5°	74.6	76.1	77.5	79.1	80.5	86.3	93.2	92.3	88.3	85.4	84.4



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CANDELA DISTRIBUTION (continued):

	37°	38°	39°	40°	41°	45°	55°	65°	75°	85°	90°
110°	102.5	103.7	104.8	106.0	107.2	111.9	117.8	118.8	116.8	113.8	114.8
112.5°	133.3	134.2	135.0	135.9	136.8	140.3	145.3	147.2	146.2	144.3	144.3
115°	166.1	166.6	167.3	167.8	168.4	170.8	175.7	178.7	175.7	173.7	174.7
117.5°	198.9	199.2	199.4	199.7	200.1	201.2	207.1	211.0	206.1	204.2	205.2
120°	233.8	234.4	235.0	235.5	236.2	238.5	241.5	245.3	240.5	238.5	238.5
122.5°	267.2	267.8	268.3	269.0	269.5	271.8	273.8	277.8	272.8	270.9	271.8
125°	300.3	300.8	301.3	301.8	302.3	304.3	307.2	309.2	304.3	304.3	304.3
127.5°	332.9	333.0	333.1	333.2	333.3	333.7	338.6	339.6	339.6	338.6	340.5
130°	363.5	363.7	363.9	364.2	364.4	365.1	370.0	374.0	374.0	372.0	373.0
132.5°	396.7	396.8	396.9	397.1	397.1	397.5	403.4	408.3	406.3	406.3	407.3
135°	427.3	427.5	427.8	428.0	428.1	428.9	434.8	439.7	438.7	441.7	442.7
137.5°	456.2	456.6	457.0	457.3	457.8	459.3	464.2	466.2	467.2	472.1	473.0
140°	483.1	483.6	484.3	484.8	485.4	487.8	490.7	492.7	494.7	499.5	501.5
142.5°	512.1	512.6	512.9	513.3	513.7	515.3	517.2	523.2	523.2	524.1	526.0
145°	540.0	540.2	540.2	540.3	540.4	540.8	545.7	551.6	550.6	547.7	549.7
147.5°	563.6	563.7	563.8	563.9	564.0	564.3	569.3	574.2	575.2	572.2	574.2
150°	582.0	582.0	582.0	582.0	582.0	582.0	586.0	588.9	591.8	594.8	598.7
152.5°	598.7	598.7	598.7	598.7	598.7	598.7	599.7	602.7	606.5	611.5	616.3
155°	617.9	617.8	617.6	617.3	617.1	616.3	614.4	619.3	624.2	626.2	629.2
157.5°	633.8	633.8	633.7	633.6	633.5	633.0	632.0	636.0	638.0	638.0	642.8
160°	642.8	642.8	642.8	642.8	642.8	642.8	645.8	651.7	648.8	647.8	653.7
162.5°	649.1	649.4	649.6	649.7	649.9	650.7	654.7	658.5	657.6	655.7	661.5
165°	660.5	660.5	660.5	660.5	660.5	660.5	659.5	664.5	667.4	665.5	669.3
167.5°	674.6	674.4	674.1	673.8	673.5	672.3	665.5	671.3	675.3	675.3	681.2
170°	679.7	679.6	679.4	679.2	679.0	678.2	673.3	676.2	681.2	683.1	688.0
172.5°	677.2	677.2	677.2	677.2	677.2	677.2	676.2	679.2	681.2	683.1	688.0
175°	678.0	678.0	677.8	677.7	677.6	677.2	677.2	682.2	683.1	681.2	686.0
177.5°	683.7	683.5	683.3	683.1	682.9	682.2	681.2	686.0	688.0	685.0	689.0
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6	405.6
2.5°	407.1	408.7	411.9	414.2	416.3	419.0	419.8	421.3	419.4	421.8
5°	405.6	410.3	416.3	421.8	426.9	431.3	433.3	433.6	434.0	435.6
7.5°	401.5	408.7	418.3	425.7	433.6	436.4	437.6	437.9	435.2	436.4
10°	393.6	405.1	417.0	426.1	430.1	428.1	424.9	419.8	417.4	417.4
12.5°	384.9	399.6	413.4	418.6	415.1	407.5	398.8	389.3	385.7	385.7
15°	377.8	396.4	407.9	404.3	394.1	379.8	367.9	358.1	354.9	353.8
17.5°	373.9	394.9	399.2	388.1	370.7	352.9	341.1	332.7	329.9	329.9
20°	377.1	396.4	389.3	368.8	346.9	330.8	320.4	314.9	312.1	313.4
22.5°	390.5	402.4	380.6	349.7	323.2	309.4	304.6	301.1	300.8	301.5
25°	413.0	410.3	373.1	329.9	301.1	291.2	290.8	289.6	289.3	288.9
27.5°	442.3	420.1	364.0	307.8	278.9	274.2	276.6	276.2	275.8	276.2
30°	481.1	428.9	350.5	283.7	257.9	257.9	261.5	260.3	258.7	259.1
32.5°	517.2	435.2	329.9	256.7	241.4	242.1	243.4	240.2	236.3	237.1
35°	548.0	435.2	302.3	232.6	224.4	224.4	225.1	222.3	219.2	218.0
37.5°	573.7	426.4	267.4	214.4	210.5	210.5	213.7	210.9	204.9	203.7
40°	589.1	407.5	235.4	201.0	203.7	204.2	199.9	195.0	189.5	188.4
42.5°	599.0	379.8	210.0	191.5	199.4	196.2	185.9	178.4	178.0	179.6
45°	607.7	348.5	189.9	182.0	194.7	187.9	174.1	166.9	169.3	170.9
47.5°	616.3	317.3	173.7	171.3	185.9	181.2	166.5	158.6	157.5	159.9
50°	637.0	273.7	155.0	158.6	175.3	173.7	159.9	150.7	143.2	142.8
52.5°	664.7	215.6	139.2	147.6	166.9	169.3	152.4	143.5	133.3	131.7
55°	695.6	165.4	126.2	138.9	159.0	163.0	149.6	136.5	125.4	123.9
57.5°	704.6	130.5	113.9	126.6	148.4	157.0	145.2	128.2	119.8	118.3
60°	673.4	108.3	103.7	116.3	137.7	151.2	138.5	121.9	114.4	113.2
62.5°	578.0	95.8	98.2	109.6	129.7	145.5	133.3	117.0	111.2	110.4
65°	441.2	87.0	93.3	104.0	122.7	140.5	129.7	115.2	110.4	109.6
67.5°	276.9	80.7	88.7	98.2	115.5	134.9	127.0	112.7	109.2	108.0
70°	153.5	74.0	82.3	91.4	108.3	129.7	123.4	109.2	108.9	106.4
72.5°	93.3	66.8	75.5	84.4	100.5	123.4	117.0	104.8	100.9	96.2
73°	89.0	66.0	74.0	82.6	98.5	121.9	115.9	103.2	99.4	94.5
75°	72.0	59.4	67.6	75.2	91.4	115.5	109.2	97.7	91.4	87.9
77.5°	53.0	50.7	58.6	65.7	82.3	106.8	99.7	89.4	81.8	79.9
80°	39.2	42.0	49.5	55.8	72.4	98.2	89.8	79.9	75.2	72.9
82.5°	26.5	32.5	39.5	44.7	64.0	88.7	79.5	70.0	73.2	60.9
85°	15.5	22.5	28.5	34.9	51.5	79.1	69.2	59.7	52.2	47.1
87.5°	10.3	12.7	17.3	23.7	37.2	62.2	55.0	46.7	34.0	34.0
90°	8.1	10.4	11.2	9.6	11.9	34.3	26.1	28.7	8.8	8.4
92.5°	5.9	5.9	6.8	6.8	5.9	5.9	5.9	4.9	4.0	4.0
95°	6.8	6.8	7.8	6.8	6.8	6.8	6.8	5.9	4.9	4.9
97.5°	7.8	8.8	9.8	11.8	8.8	8.8	7.8	7.8	6.8	6.8
100°	18.7	22.5	25.5	28.5	20.6	11.8	9.8	8.8	7.8	7.8
102.5°	38.3	41.2	46.2	49.0	39.3	26.5	17.7	12.8	10.8	10.8
105°	59.8	63.8	68.7	70.7	61.8	47.1	35.3	26.5	21.6	20.6
107.5°	85.4	88.3	92.3	93.2	86.3	71.7	57.0	48.1	41.2	40.2



REPORT NUMBER: P271709

CATALOG NUMBER: IST-AF-450-LED-E1-T4FT-7027-ULG

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	113.8	116.8	118.8	117.8	111.9	100.1	85.4	72.7	66.7	64.8
112.5°	144.3	146.2	147.2	145.3	140.3	131.5	118.8	104.0	97.2	97.2
115°	173.7	175.7	178.7	175.7	170.8	164.9	156.0	144.3	136.5	137.4
117.5°	204.2	206.1	211.0	207.1	201.2	198.3	193.3	185.5	180.6	180.6
120°	238.5	240.5	245.3	241.5	238.5	232.6	228.7	221.8	218.8	220.8
122.5°	270.9	272.8	277.8	273.8	271.8	266.0	262.0	256.2	255.2	258.2
125°	304.3	304.3	309.2	307.2	304.3	299.3	293.5	290.5	288.5	292.5
127.5°	338.6	339.6	339.6	338.6	333.7	332.7	326.8	322.9	322.9	323.9
130°	372.0	374.0	374.0	370.0	365.1	363.2	359.2	355.3	354.3	356.3
132.5°	406.3	406.3	408.3	403.4	397.5	396.5	393.5	385.7	386.7	388.7
135°	441.7	438.7	439.7	434.8	428.9	427.0	424.0	418.1	418.1	421.0
137.5°	472.1	467.2	466.2	464.2	459.3	455.4	451.5	450.5	448.5	451.5
140°	499.5	494.7	492.7	490.7	487.8	481.9	480.0	478.0	476.0	479.0
142.5°	524.1	523.2	523.2	517.2	515.3	511.3	508.4	507.5	505.5	508.4
145°	547.7	550.6	551.6	545.7	540.8	539.8	536.8	534.0	535.9	539.8
147.5°	572.2	575.2	574.2	569.3	564.3	563.3	563.3	560.5	561.4	564.3
150°	594.8	591.8	588.9	586.0	582.0	582.0	582.0	582.0	581.0	584.0
152.5°	611.5	606.5	602.7	599.7	598.7	598.7	597.7	596.7	596.7	599.7
155°	626.2	624.2	619.3	614.4	616.3	618.3	615.4	613.5	613.5	617.3
157.5°	638.0	638.0	636.0	632.0	633.0	634.0	632.0	631.1	631.1	634.0
160°	647.8	648.8	651.7	645.8	642.8	642.8	643.8	646.8	647.8	650.7
162.5°	655.7	657.6	658.5	654.7	650.7	648.8	652.7	656.6	656.6	660.5
165°	665.5	667.4	664.5	659.5	660.5	660.5	663.5	663.5	665.5	668.4
167.5°	675.3	675.3	671.3	665.5	672.3	675.3	673.3	671.3	674.3	677.2
170°	683.1	681.2	676.2	673.3	678.2	680.2	679.2	679.2	682.2	685.0
172.5°	683.1	681.2	679.2	676.2	677.2	677.2	680.2	682.2	684.1	686.0
175°	681.2	683.1	682.2	677.2	677.2	678.2	682.2	684.1	685.0	687.0
177.5°	685.0	688.0	686.0	681.2	682.2	684.1	686.0	687.0	692.0	693.9
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0

(END OF REPORT)