

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: P226566

Luminaire Tested: **IST-AF-450-LED-E1-T4FT-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226566
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-8030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCUED OPTICS-TYPE IV FORWARD THROW, 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: 4329.6 lumens
Efficiency: N/A
Efficacy: 103.1 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

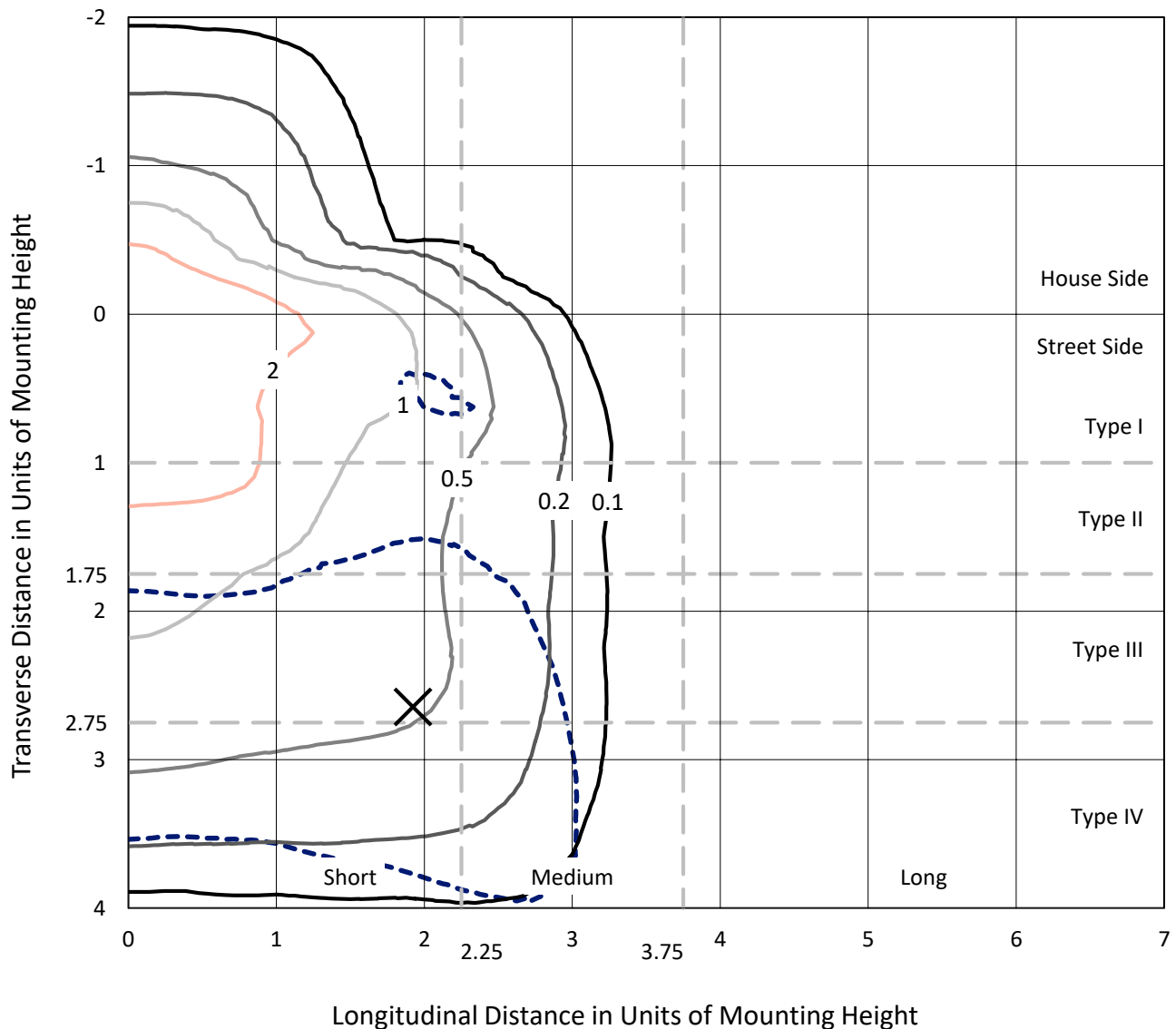


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

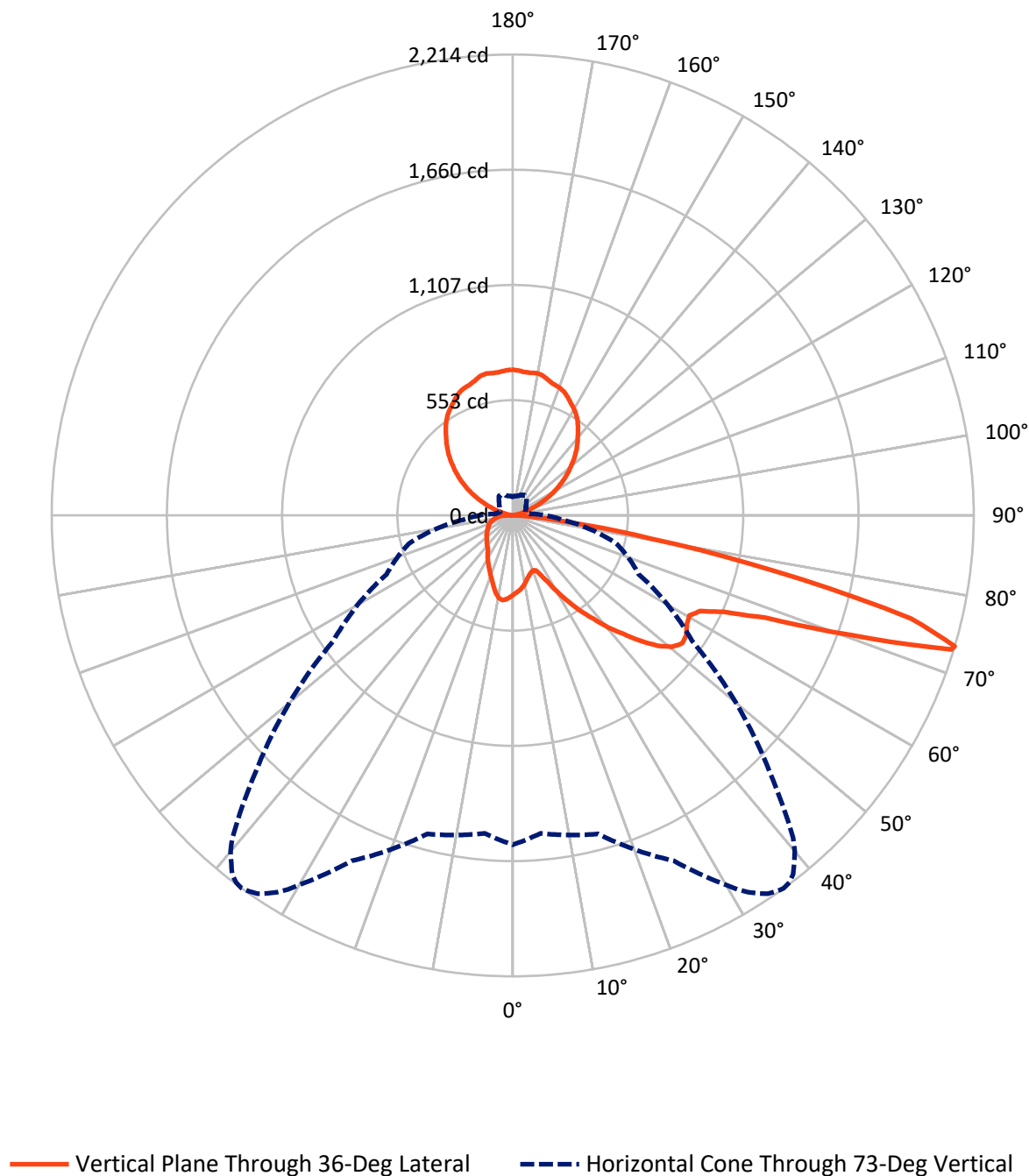


Based on 10 foot mounting height. Maximum calculated value = 4 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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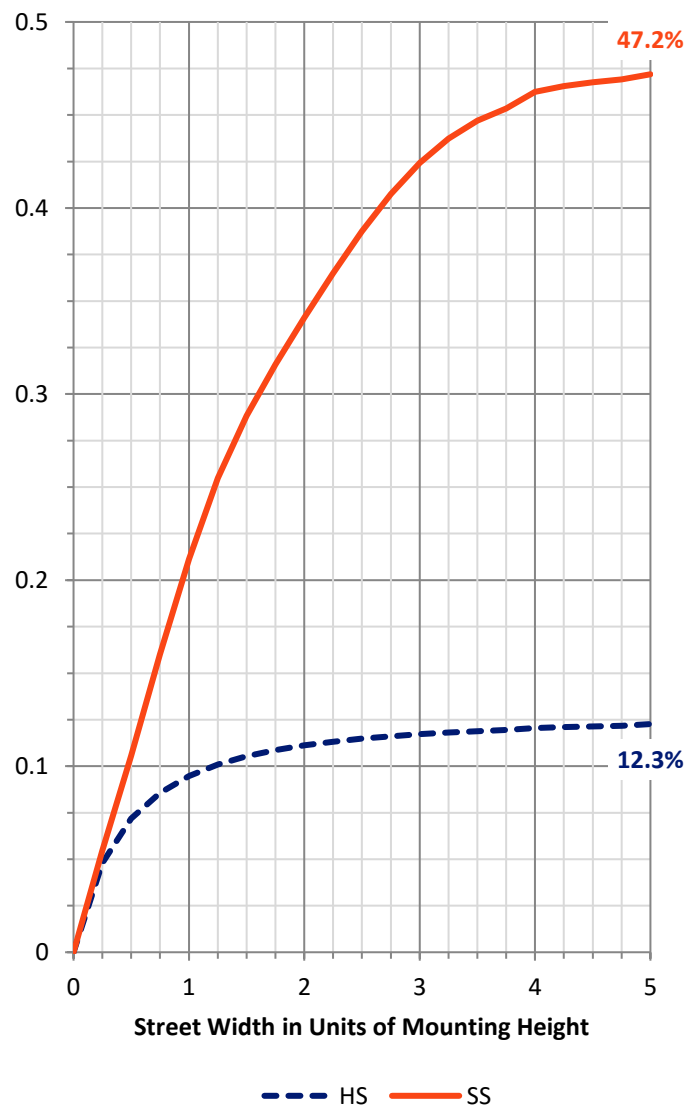
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	547.3	868.2	1415.5
	% Fixture	12.6	20.1	32.7
Street Side	Lumens	2046.3	867.8	2914.1
	% Fixture	47.3	20.0	67.3
Total	Lumens	2593.6	1735.9	4329.6
	% Fixture	59.9	40.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.8	0.8
10°-20°	95.0	2.2
20°-30°	155.7	3.6
30°-40°	258.0	6.0
40°-50°	379.1	8.8
50°-60°	478.0	11.0
60°-70°	626.0	14.5
70°-80°	506.7	11.7
80°-90°	59.3	1.4
90°-100°	10.1	0.2
100°-110°	57.4	1.3
110°-120°	166.1	3.8
120°-130°	273.2	6.3
130°-140°	336.8	7.8
140°-150°	344.6	8.0
150°-160°	290.3	6.7
160°-170°	191.2	4.4
170°-180°	66.3	1.5
0°-90°	2593.6	59.9
0°-180°	4329.6	100.0

Coefficient of Utilization



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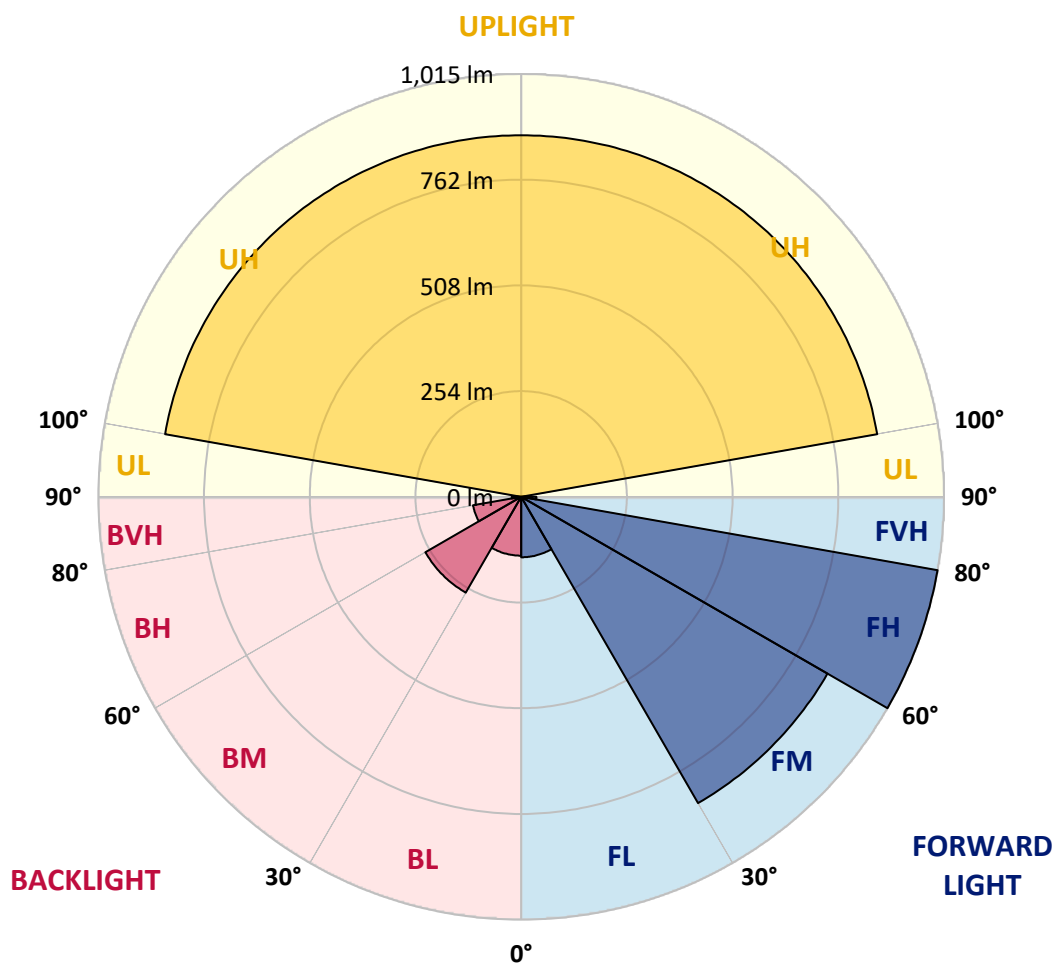
CATALOG NUMBER: IST-AF-450-LED-E1-T4FT-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	145.2	3.4			
FM	(30°-60°)	849.3	19.6			
FH	(60°-80°)	1015.4	23.5			G1/1800
FVH	(80°-90°)	36.5	0.8			G1/100
BL	(0°-30°)	141.4	3.3	B1/500		
BM	(30°-60°)	265.8	6.1	B1/1000		
BH	(60°-80°)	117.3	2.7	B1/500		G1/500
BVH	(80°-90°)	22.9	0.5			G1/100
UL	(90°-100°)	10.1	0.2		U2/50	
UH	(100°-180°)	868.2	20.1		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°	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9
2.5°	367.1	367.9	368.6	368.6	368.6	369.7	369.4	369.4	369.7	370.1	370.1
5°	353.4	353.8	356.0	356.7	359.0	358.6	358.6	358.6	360.1	359.0	359.7
7.5°	337.8	338.5	340.7	343.3	345.2	345.6	345.2	344.5	346.3	347.1	346.3
10°	319.2	319.6	322.5	324.8	327.7	327.4	328.5	328.5	329.2	328.9	330.3
12.5°	309.9	309.2	307.7	308.8	309.5	309.5	309.5	310.6	310.3	311.0	312.1
15°	308.8	306.9	299.5	296.9	296.2	296.2	295.8	295.4	296.5	297.6	297.6
17.5°	314.0	310.3	295.8	288.4	286.9	286.1	286.5	285.8	285.8	287.2	286.9
20°	339.3	332.6	303.6	287.2	282.8	282.8	282.4	281.3	281.3	281.7	281.7
22.5°	403.5	395.0	344.5	310.6	295.0	294.7	293.6	292.4	289.5	288.7	287.2
25°	493.1	483.1	396.5	360.1	338.1	337.4	331.8	331.1	324.0	324.4	319.6
27.5°	562.6	555.9	466.0	417.7	396.9	392.4	389.8	383.1	377.2	372.3	366.4
30°	586.4	585.3	536.2	497.2	466.0	460.8	453.7	450.7	442.2	435.5	431.4
32.5°	623.9	625.0	604.6	561.5	534.3	529.1	523.2	516.1	510.2	505.7	496.1
35°	677.4	677.8	663.7	631.3	600.1	593.1	589.7	581.5	576.0	570.4	565.6
37.5°	714.6	716.4	706.4	681.5	662.9	652.9	652.5	646.6	640.2	635.4	631.0
40°	785.9	775.9	742.8	726.8	711.6	710.5	707.1	703.8	705.3	702.7	707.5
42.5°	858.0	845.4	799.3	776.6	767.3	769.2	768.1	768.4	772.9	771.8	777.0
45°	919.7	905.2	861.3	834.6	842.0	844.2	850.6	854.3	852.4	859.1	859.1
47.5°	981.4	947.6	895.5	907.8	913.0	930.1	934.5	933.4	939.7	942.7	934.5
50°	937.9	929.0	924.9	962.4	985.8	991.4	997.7	1001.1	1004.0	999.9	991.8
52.5°	846.1	845.4	903.0	994.7	1014.4	1021.9	1027.8	1030.4	1029.3	1027.1	1020.4
55°	815.3	809.3	859.1	961.3	991.4	998.5	1007.0	1012.2	1017.4	1016.7	1011.5
57.5°	857.3	852.4	852.8	931.9	961.3	967.6	973.2	979.1	980.6	985.5	985.8
60°	979.1	972.8	921.9	930.8	960.6	967.6	968.4	971.7	972.1	974.7	975.0
62.5°	1154.9	1143.4	1065.7	998.8	1009.2	1012.6	1015.2	1014.4	1013.0	1011.1	1011.1
65°	1347.4	1336.6	1236.6	1158.6	1128.5	1136.7	1123.7	1121.1	1118.1	1118.1	1114.8
67.5°	1576.3	1555.8	1478.6	1390.9	1347.4	1351.5	1357.4	1334.7	1326.6	1327.3	1309.8
70°	1809.6	1788.1	1754.3	1753.2	1775.1	1765.4	1737.9	1774.3	1731.2	1720.8	1717.1
72.5°	1680.7	1655.1	1662.1	1872.1	2069.0	2101.0	2131.4	2159.7	2184.9	2200.2	2202.4
73°	1581.9	1533.2	1583.7	1830.4	2048.9	2096.1	2134.0	2164.1	2191.3	2205.0	2213.6
75°	790.0	792.6	1041.6	1510.1	1790.7	1831.2	1890.3	1923.3	1972.4	1997.7	1975.4
77.5°	183.2	189.9	315.5	716.8	1073.5	1131.5	1178.7	1227.0	1283.8	1305.0	1286.4
80°	64.7	67.6	111.1	272.4	448.1	480.1	520.6	573.7	626.5	639.5	672.2
82.5°	34.2	37.5	58.7	118.2	191.4	209.2	219.6	241.5	260.1	271.3	277.2
85°	19.7	20.1	33.4	65.4	87.7	94.8	101.4	106.6	112.6	108.5	108.5
87.5°	7.8	8.5	17.1	30.8	42.4	47.2	47.2	47.2	46.8	41.2	37.5
90°	6.5	7.2	10.3	14.3	13.6	13.6	13.2	12.5	12.1	12.5	10.5
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	8.5	8.6	8.7	8.8	8.9	9.0	9.0
100°	8.0	8.0	9.0	10.0	11.0	11.2	11.4	11.6	11.8	12.0	12.9
102.5°	11.0	11.0	13.0	18.0	22.5	23.4	24.3	25.2	26.1	27.0	28.3
105°	21.0	22.0	27.0	36.0	42.0	43.2	44.4	45.6	46.8	48.0	49.5
107.5°	41.0	42.0	49.0	58.0	65.5	67.0	68.5	70.0	71.5	73.0	74.5

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	30°	31°	32°	33°	34°	35°	36°
110°	66.0	68.0	74.0	87.0	94.5	96.0	97.5	99.0	100.5	102.0	103.2
112.5°	99.0	99.0	106.0	121.0	127.5	128.8	130.1	131.4	132.7	134.0	134.9
115°	140.0	139.0	147.0	159.0	163.5	164.4	165.3	166.2	167.1	168.0	168.6
117.5°	184.0	184.0	189.0	197.0	199.5	200.0	200.5	201.0	201.5	202.0	202.3
120°	225.0	223.0	226.0	233.0	235.0	235.4	235.8	236.2	236.6	237.0	237.6
122.5°	263.0	260.0	261.0	267.0	269.0	269.4	269.8	270.2	270.6	271.0	271.6
125°	298.0	294.0	296.0	299.0	302.0	302.6	303.2	303.8	304.4	305.0	305.5
127.5°	330.0	329.0	329.0	333.0	336.0	336.6	337.2	337.8	338.4	339.0	339.1
130°	363.0	361.0	362.0	366.0	368.0	368.4	368.8	369.2	369.6	370.0	370.2
132.5°	396.0	394.0	393.0	401.0	402.5	402.8	403.1	403.4	403.7	404.0	404.1
135°	429.0	426.0	426.0	432.0	433.5	433.8	434.1	434.4	434.7	435.0	435.2
137.5°	460.0	457.0	459.0	460.0	462.0	462.4	462.8	463.2	463.6	464.0	464.4
140°	488.0	485.0	487.0	489.0	490.0	490.2	490.4	490.6	490.8	491.0	491.6
142.5°	518.0	515.0	517.0	518.0	519.5	519.8	520.1	520.4	520.7	521.0	521.4
145°	550.0	546.0	544.0	547.0	548.5	548.8	549.1	549.4	549.7	550.0	550.1
147.5°	575.0	572.0	571.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.1
150°	595.0	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
152.5°	611.0	608.0	608.0	609.0	609.5	609.6	609.7	609.8	609.9	610.0	610.0
155°	629.0	625.0	625.0	627.0	628.5	628.8	629.1	629.4	629.7	630.0	629.8
157.5°	646.0	643.0	643.0	644.0	645.0	645.2	645.4	645.6	645.8	646.0	645.9
160°	663.0	660.0	659.0	656.0	655.5	655.4	655.3	655.2	655.1	655.0	655.0
162.5°	673.0	669.0	669.0	665.0	663.0	662.6	662.2	661.8	661.4	661.0	661.2
165°	681.0	678.0	676.0	676.0	674.5	674.2	673.9	673.6	673.3	673.0	673.0
167.5°	690.0	687.0	684.0	686.0	687.0	687.2	687.4	687.6	687.8	688.0	687.7
170°	698.0	695.0	692.0	692.0	692.5	692.6	692.7	692.8	692.9	693.0	692.8
172.5°	699.0	697.0	695.0	693.0	691.5	691.2	690.9	690.6	690.3	690.0	690.0
175°	700.0	698.0	697.0	695.0	693.0	692.6	692.2	691.8	691.4	691.0	690.9
177.5°	707.0	705.0	700.0	699.0	698.0	697.8	697.6	697.4	697.2	697.0	696.8
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):

	37°	38°	39°	40°	41°	45°	55°	65°	75°	85°	90°
0°	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9
2.5°	370.8	371.2	370.5	372.0	370.8	370.8	372.7	376.0	378.6	379.4	381.6
5°	360.4	360.8	360.8	361.2	360.8	361.6	364.9	367.9	373.1	375.7	379.0
7.5°	347.1	348.2	347.8	348.5	348.5	349.3	354.5	359.3	364.5	369.4	373.4
10°	331.1	331.8	333.3	332.6	332.6	334.8	340.4	347.4	353.8	360.8	365.6
12.5°	312.1	314.0	313.6	315.1	315.9	317.3	326.6	334.4	342.2	350.4	356.7
15°	297.3	298.4	299.1	299.5	299.5	302.8	312.1	321.8	332.2	341.9	348.5
17.5°	287.6	287.6	288.4	288.7	289.5	291.7	301.4	312.1	324.0	335.9	343.3
20°	282.0	282.0	282.4	282.8	282.8	285.4	294.3	306.6	319.6	334.8	343.7
22.5°	286.5	285.4	285.0	285.0	283.5	283.5	292.1	305.1	321.4	341.1	352.6
25°	317.0	313.6	308.4	307.3	305.4	296.5	295.4	310.3	330.3	354.9	372.3
27.5°	362.7	359.3	356.0	351.9	348.9	332.6	310.3	323.7	347.4	382.4	403.9
30°	422.5	415.8	411.0	406.5	393.5	375.7	341.1	344.5	373.8	420.6	447.8
32.5°	489.4	482.3	474.9	464.5	461.1	432.2	387.9	379.0	407.3	465.2	493.5
35°	554.0	550.7	545.5	541.4	533.6	509.4	448.9	420.6	445.9	517.6	539.5
37.5°	629.1	622.8	623.2	619.8	615.4	594.9	512.0	470.8	487.5	567.8	581.5
40°	703.0	701.6	703.8	698.2	690.8	663.3	558.5	507.6	531.0	616.1	612.7
42.5°	772.9	774.0	771.4	765.1	756.9	710.8	588.2	538.8	570.0	658.5	637.6
45°	852.8	848.7	837.9	826.8	816.8	751.7	604.2	573.7	607.5	704.2	662.9
47.5°	928.2	912.2	903.0	885.9	866.2	788.9	625.8	610.5	649.2	747.3	687.1
50°	983.6	968.7	953.1	932.3	911.5	821.2	654.4	652.1	696.4	795.6	720.1
52.5°	1008.9	995.1	979.9	958.7	937.9	844.6	692.6	692.6	752.1	859.5	765.8
55°	1004.8	994.7	981.4	962.0	946.1	857.3	732.0	737.2	822.0	928.6	818.6
57.5°	983.2	977.6	969.8	956.5	943.5	866.9	778.5	781.8	915.6	995.1	868.4
60°	975.8	973.6	969.1	961.3	951.3	888.1	827.9	835.3	1020.4	1056.1	896.6
62.5°	1008.9	1004.4	1001.1	993.3	984.0	940.1	890.0	892.2	1118.9	1063.5	869.1
65°	1101.8	1093.6	1088.0	1077.6	1067.2	1018.5	969.1	944.9	1167.2	994.0	775.9
67.5°	1296.5	1283.1	1267.1	1247.4	1218.8	1175.0	1047.5	952.4	1123.3	842.0	612.0
70°	1681.4	1652.5	1615.7	1573.7	1562.9	1435.1	1096.6	897.4	933.8	588.2	405.8
72.5°	2198.7	2168.6	2135.9	2101.3	2033.0	1752.0	1075.0	723.9	580.8	302.5	193.2
73°	2207.2	2186.8	2147.4	2107.3	2051.5	1746.5	1051.6	667.4	512.0	238.2	158.3
75°	1979.5	1971.3	1932.6	1855.3	1808.1	1475.2	774.4	386.8	224.1	147.1	102.9
77.5°	1284.6	1275.7	1253.7	1246.3	1159.4	956.5	346.7	150.5	121.9	97.7	72.8
80°	684.5	642.8	635.4	605.7	542.1	368.2	118.5	92.2	81.0	65.4	50.9
82.5°	277.6	259.7	253.1	229.3	215.5	110.4	59.5	63.9	54.3	38.6	31.2
85°	102.2	94.0	91.8	74.7	65.8	32.7	36.4	45.0	33.8	21.6	15.6
87.5°	35.3	30.5	26.4	20.4	19.0	13.4	20.1	24.5	21.6	13.0	7.4
90°	10.4	9.9	9.5	9.0	9.3	8.5	9.2	12.3	12.7	9.2	8.5
92.5°	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0
95°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0	7.0
97.5°	9.0	9.0	9.0	9.0	9.0	9.0	12.0	10.0	9.0	8.0	8.0
100°	13.8	14.7	15.6	16.5	17.4	21.0	29.0	26.0	23.0	19.0	19.0
102.5°	29.6	30.9	32.2	33.5	34.8	40.0	50.0	47.0	42.0	39.0	38.0
105°	51.0	52.5	54.0	55.5	57.0	63.0	72.0	70.0	65.0	61.0	61.0
107.5°	76.0	77.5	79.0	80.5	82.0	88.0	95.0	94.0	90.0	87.0	86.0

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CATALOG NUMBER: IST-AF-450-LED-E1-T4FT-8030-ULG

CANDELA DISTRIBUTION (continued):

	37°	38°	39°	40°	41°	45°	55°	65°	75°	85°	90°
110°	104.4	105.6	106.8	108.0	109.2	114.0	120.0	121.0	119.0	116.0	117.0
112.5°	135.8	136.7	137.6	138.5	139.4	143.0	148.0	150.0	149.0	147.0	147.0
115°	169.2	169.8	170.4	171.0	171.6	174.0	179.0	182.0	179.0	177.0	178.0
117.5°	202.6	202.9	203.2	203.5	203.8	205.0	211.0	215.0	210.0	208.0	209.0
120°	238.2	238.8	239.4	240.0	240.6	243.0	246.0	250.0	245.0	243.0	243.0
122.5°	272.2	272.8	273.4	274.0	274.6	277.0	279.0	283.0	278.0	276.0	277.0
125°	306.0	306.5	307.0	307.5	308.0	310.0	313.0	315.0	310.0	310.0	310.0
127.5°	339.2	339.3	339.4	339.5	339.6	340.0	345.0	346.0	346.0	345.0	347.0
130°	370.4	370.6	370.8	371.0	371.2	372.0	377.0	381.0	381.0	379.0	380.0
132.5°	404.2	404.3	404.4	404.5	404.6	405.0	411.0	416.0	414.0	414.0	415.0
135°	435.4	435.6	435.8	436.0	436.2	437.0	443.0	448.0	447.0	450.0	451.0
137.5°	464.8	465.2	465.6	466.0	466.4	468.0	473.0	475.0	476.0	481.0	482.0
140°	492.2	492.8	493.4	494.0	494.6	497.0	500.0	502.0	504.0	509.0	511.0
142.5°	521.8	522.2	522.6	523.0	523.4	525.0	527.0	533.0	533.0	534.0	536.0
145°	550.2	550.3	550.4	550.5	550.6	551.0	556.0	562.0	561.0	558.0	560.0
147.5°	574.2	574.3	574.4	574.5	574.6	575.0	580.0	585.0	586.0	583.0	585.0
150°	593.0	593.0	593.0	593.0	593.0	593.0	597.0	600.0	603.0	606.0	610.0
152.5°	610.0	610.0	610.0	610.0	610.0	610.0	611.0	614.0	618.0	623.0	628.0
155°	629.6	629.4	629.2	629.0	628.8	628.0	626.0	631.0	636.0	638.0	641.0
157.5°	645.8	645.7	645.6	645.5	645.4	645.0	644.0	648.0	650.0	650.0	655.0
160°	655.0	655.0	655.0	655.0	655.0	655.0	658.0	664.0	661.0	660.0	666.0
162.5°	661.4	661.6	661.8	662.0	662.2	663.0	667.0	671.0	670.0	668.0	674.0
165°	673.0	673.0	673.0	673.0	673.0	673.0	672.0	677.0	680.0	678.0	682.0
167.5°	687.4	687.1	686.8	686.5	686.2	685.0	678.0	684.0	688.0	688.0	694.0
170°	692.6	692.4	692.2	692.0	691.8	691.0	686.0	689.0	694.0	696.0	701.0
172.5°	690.0	690.0	690.0	690.0	690.0	690.0	689.0	692.0	694.0	696.0	701.0
175°	690.8	690.7	690.6	690.5	690.4	690.0	690.0	695.0	696.0	694.0	699.0
177.5°	696.6	696.4	696.2	696.0	695.8	695.0	694.0	699.0	701.0	698.0	702.0
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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CATALOG NUMBER: IST-AF-450-LED-E1-T4FT-8030-ULG

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9
2.5°	382.4	383.9	386.8	389.1	390.9	393.5	394.3	395.7	393.9	396.1
5°	380.9	385.3	390.9	396.1	400.9	405.0	406.9	407.3	407.6	409.1
7.5°	377.2	383.9	392.8	399.8	407.3	409.9	411.0	411.3	408.7	409.9
10°	369.7	380.5	391.7	400.2	403.9	402.1	399.1	394.3	392.0	392.0
12.5°	361.6	375.3	388.3	393.1	389.8	382.7	374.6	365.6	362.3	362.3
15°	354.9	372.3	383.1	379.8	370.1	356.7	345.6	336.3	333.3	332.2
17.5°	351.2	370.8	374.9	364.5	348.2	331.5	320.3	312.5	309.9	309.9
20°	354.1	372.3	365.6	346.3	325.9	310.6	301.0	295.8	293.2	294.3
22.5°	366.8	377.9	357.5	328.5	303.6	290.6	286.1	282.8	282.4	283.2
25°	387.9	385.3	350.4	309.9	282.8	273.5	273.1	272.0	271.6	271.3
27.5°	415.4	394.6	341.9	289.1	262.0	257.5	259.7	259.4	259.0	259.4
30°	451.9	402.8	329.2	266.4	242.3	242.3	245.6	244.5	243.0	243.4
32.5°	485.7	408.7	309.9	241.2	226.7	227.4	228.5	225.6	221.8	222.6
35°	514.7	408.7	283.9	218.5	210.7	210.7	211.4	208.8	205.9	204.7
37.5°	538.8	400.6	251.2	201.4	197.7	197.7	200.7	198.1	192.5	191.4
40°	553.3	382.7	221.1	188.8	191.4	191.7	187.7	183.2	178.0	176.9
42.5°	562.6	356.7	197.3	179.8	187.3	184.3	174.6	167.6	167.2	168.7
45°	570.8	327.4	178.4	170.9	182.8	176.5	163.5	156.8	159.0	160.5
47.5°	578.9	298.0	163.1	160.9	174.6	170.2	156.4	149.0	147.9	150.1
50°	598.3	257.1	145.7	149.0	164.6	163.1	150.1	141.6	134.5	134.1
52.5°	624.3	202.5	130.8	138.6	156.8	159.0	143.1	134.9	125.2	123.7
55°	653.3	155.3	118.5	130.4	149.4	153.1	140.5	128.2	117.8	116.3
57.5°	661.8	122.6	107.0	118.9	139.3	147.5	136.4	120.4	112.6	111.1
60°	632.4	101.8	97.4	109.2	129.3	141.9	130.1	114.4	107.4	106.3
62.5°	542.9	89.9	92.2	102.9	121.9	136.7	125.2	110.0	104.4	103.7
65°	414.3	81.7	87.7	97.7	115.2	131.9	121.9	108.1	103.7	102.9
67.5°	260.1	75.8	83.2	92.2	108.5	126.7	119.3	105.9	102.6	101.4
70°	144.2	69.5	77.3	85.8	101.8	121.9	115.9	102.6	102.2	100.0
72.5°	87.7	62.8	71.0	79.1	94.4	115.9	110.0	98.5	94.8	90.3
73°	83.6	62.1	69.5	77.7	92.5	114.4	108.9	97.0	93.3	88.8
75°	67.6	55.7	63.5	70.6	85.8	108.5	102.6	91.8	85.8	82.5
77.5°	49.8	47.6	55.0	61.7	77.3	100.3	93.6	84.0	76.9	75.1
80°	36.8	39.4	46.4	52.4	68.0	92.2	84.4	75.1	70.6	68.4
82.5°	24.9	30.5	37.2	42.0	60.2	83.2	74.7	65.8	68.7	57.2
85°	14.5	21.2	26.8	32.7	48.3	74.3	65.0	56.1	49.0	44.2
87.5°	9.7	11.9	16.3	22.3	34.9	58.3	51.7	43.8	32.0	32.0
90°	8.1	10.5	11.2	9.6	11.8	32.9	25.1	27.4	8.7	8.3
92.5°	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0
95°	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0	5.0	5.0
97.5°	8.0	9.0	10.0	12.0	9.0	9.0	8.0	8.0	7.0	7.0
100°	19.0	23.0	26.0	29.0	21.0	12.0	10.0	9.0	8.0	8.0
102.5°	39.0	42.0	47.0	50.0	40.0	27.0	18.0	13.0	11.0	11.0
105°	61.0	65.0	70.0	72.0	63.0	48.0	36.0	27.0	22.0	21.0
107.5°	87.0	90.0	94.0	95.0	88.0	73.0	58.0	49.0	42.0	41.0

REPORT NUMBER: P226566

CATALOG NUMBER: IST-AF-450-LED-E1-T4FT-8030-ULG

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
112.5°	147.0	149.0	150.0	148.0	143.0	134.0	121.0	106.0	99.0	99.0
115°	177.0	179.0	182.0	179.0	174.0	168.0	159.0	147.0	139.0	140.0
117.5°	208.0	210.0	215.0	211.0	205.0	202.0	197.0	189.0	184.0	184.0
120°	243.0	245.0	250.0	246.0	243.0	237.0	233.0	226.0	223.0	225.0
122.5°	276.0	278.0	283.0	279.0	277.0	271.0	267.0	261.0	260.0	263.0
125°	310.0	310.0	315.0	313.0	310.0	305.0	299.0	296.0	294.0	298.0
127.5°	345.0	346.0	346.0	345.0	340.0	339.0	333.0	329.0	329.0	330.0
130°	379.0	381.0	381.0	377.0	372.0	370.0	366.0	362.0	361.0	363.0
132.5°	414.0	414.0	416.0	411.0	405.0	404.0	401.0	393.0	394.0	396.0
135°	450.0	447.0	448.0	443.0	437.0	435.0	432.0	426.0	426.0	429.0
137.5°	481.0	476.0	475.0	473.0	468.0	464.0	460.0	459.0	457.0	460.0
140°	509.0	504.0	502.0	500.0	497.0	491.0	489.0	487.0	485.0	488.0
142.5°	534.0	533.0	533.0	527.0	525.0	521.0	518.0	517.0	515.0	518.0
145°	558.0	561.0	562.0	556.0	551.0	550.0	547.0	544.0	546.0	550.0
147.5°	583.0	586.0	585.0	580.0	575.0	574.0	574.0	571.0	572.0	575.0
150°	606.0	603.0	600.0	597.0	593.0	593.0	593.0	593.0	592.0	595.0
152.5°	623.0	618.0	614.0	611.0	610.0	610.0	609.0	608.0	608.0	611.0
155°	638.0	636.0	631.0	626.0	628.0	630.0	627.0	625.0	625.0	629.0
157.5°	650.0	650.0	648.0	644.0	645.0	646.0	644.0	643.0	643.0	646.0
160°	660.0	661.0	664.0	658.0	655.0	655.0	656.0	659.0	660.0	663.0
162.5°	668.0	670.0	671.0	667.0	663.0	661.0	665.0	669.0	669.0	673.0
165°	678.0	680.0	677.0	672.0	673.0	673.0	676.0	676.0	678.0	681.0
167.5°	688.0	688.0	684.0	678.0	685.0	688.0	686.0	684.0	687.0	690.0
170°	696.0	694.0	689.0	686.0	691.0	693.0	692.0	692.0	695.0	698.0
172.5°	696.0	694.0	692.0	689.0	690.0	690.0	693.0	695.0	697.0	699.0
175°	694.0	696.0	695.0	690.0	690.0	691.0	695.0	697.0	698.0	700.0
177.5°	698.0	701.0	699.0	694.0	695.0	697.0	699.0	700.0	705.0	707.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)