

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: P227475

Luminaire Tested: **IST-AF-450-LED-E1-RW-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227475
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29767)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: IST-AF-450-LED-E1-RW-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I, 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: 4942.4 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B2 - U5 - G2

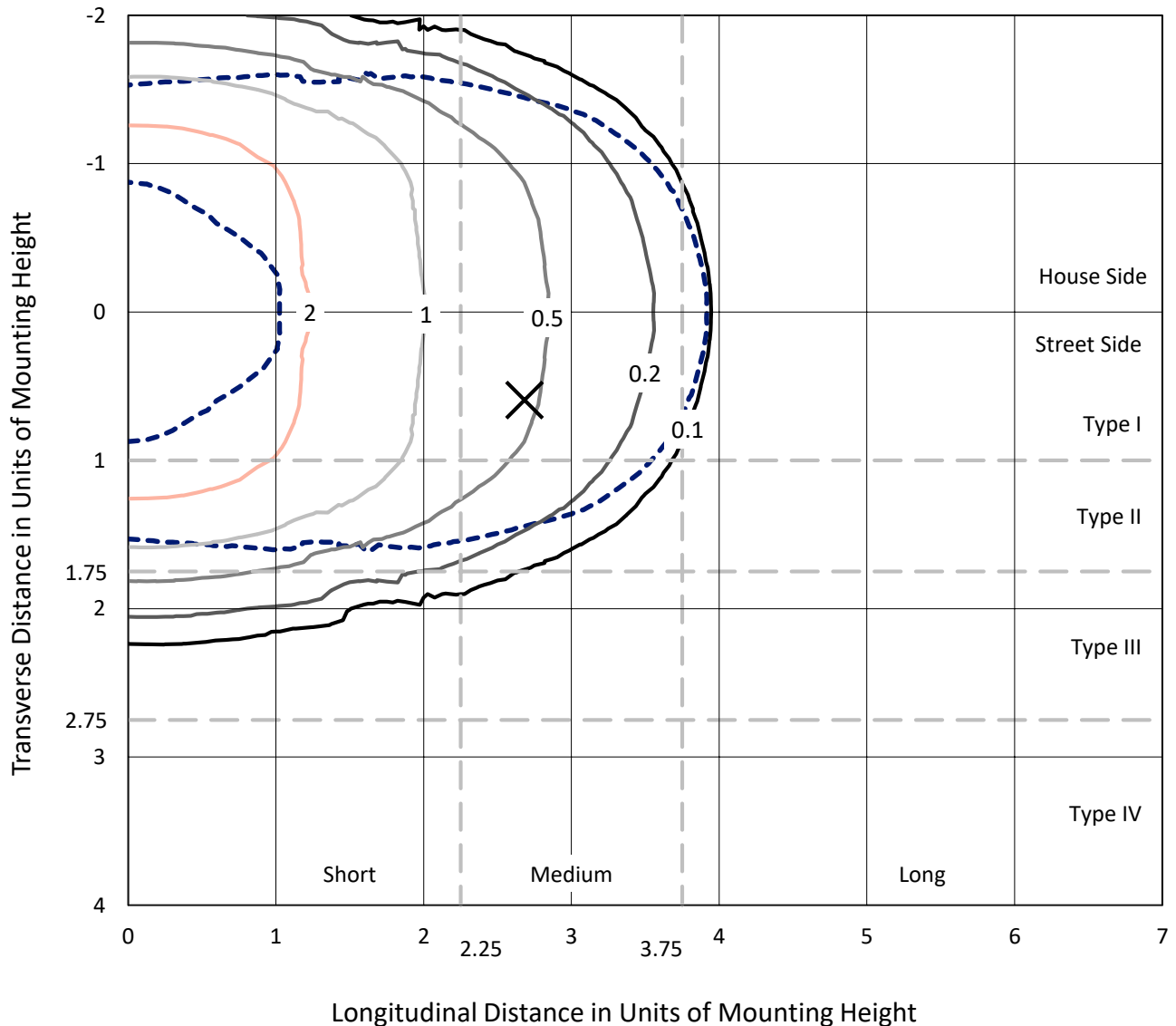
Input Watts (W): 42.01
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

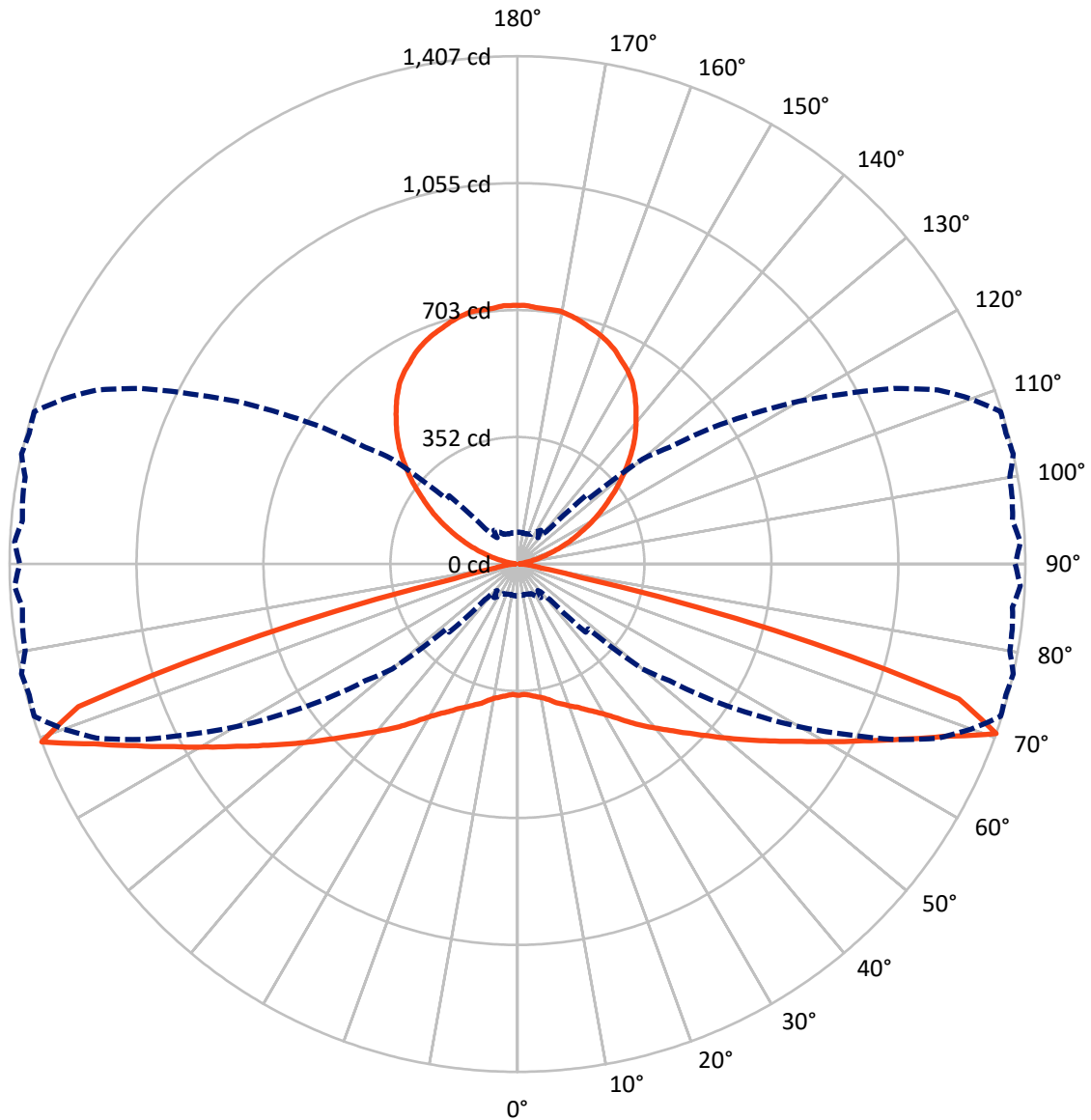
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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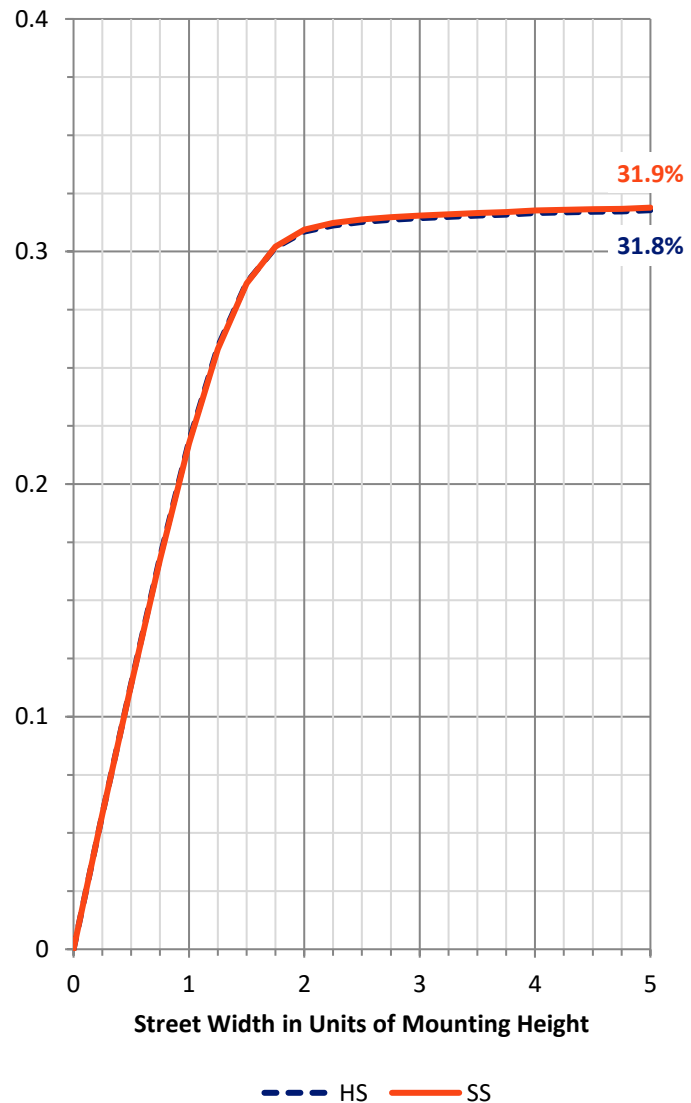
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1583.5	887.7	2471.2
	% Fixture	32.0	18.0	50.0
Street Side	Lumens	1583.5	887.7	2471.2
	% Fixture	32.0	18.0	50.0
Total	Lumens	3166.9	1775.5	4942.4
	% Fixture	64.1	35.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	0.7
10°-20°	109.9	2.2
20°-30°	206.4	4.2
30°-40°	360.6	7.3
40°-50°	587.9	11.9
50°-60°	804.5	16.3
60°-70°	740.0	15.0
70°-80°	289.3	5.9
80°-90°	33.2	0.7
90°-100°	10.0	0.2
100°-110°	58.7	1.2
110°-120°	169.9	3.4
120°-130°	279.4	5.7
130°-140°	344.6	7.0
140°-150°	352.5	7.1
150°-160°	297.0	6.0
160°-170°	195.5	4.0
170°-180°	67.8	1.4
0°-90°	3166.9	64.1
0°-180°	4942.4	100.0



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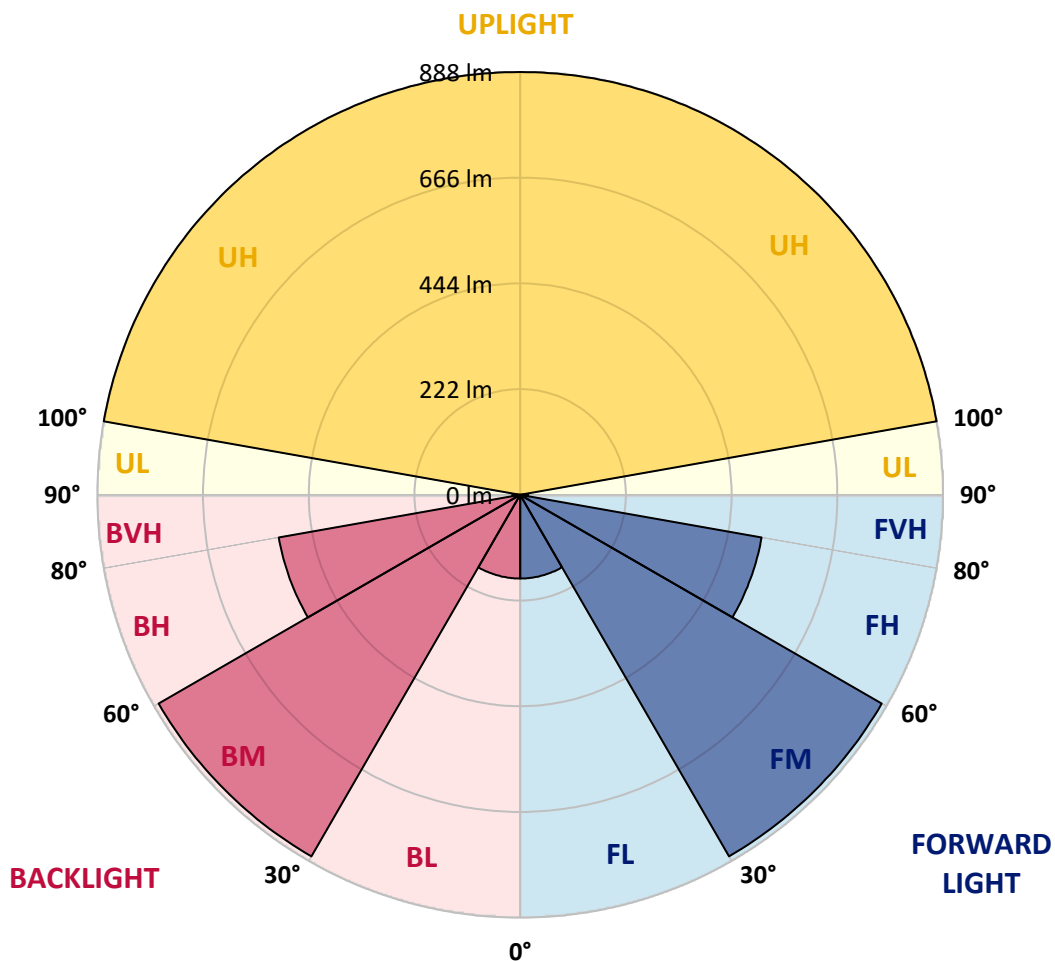
CATALOG NUMBER: IST-AF-450-LED-E1-RW-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	175.7	3.6			
FM (30°-60°)	876.5	17.7			
FH (60°-80°)	514.6	10.4			G0/660
FVH (80°-90°)	16.6	0.3			G1/100
BL (0°-30°)	175.7	3.6	B1/500		
BM (30°-60°)	876.5	17.7	B1/1000		
BH (60°-80°)	514.6	10.4	B2/1000		G2/1000
BVH (80°-90°)	16.6	0.3			G1/100
UL (90°-100°)	10.0	0.2		U1/10	
UH (100°-180°)	887.7	18.0		U4/1000	

BUG Rating: B2-U5-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	362.3	361.9	361.9	362.3	363.2	363.8	362.8	363.2	363.2	362.8	364.2
5°	363.2	362.8	363.2	364.2	365.6	367.0	366.5	366.5	367.0	366.1	368.4
7.5°	362.3	361.9	362.8	365.1	368.4	370.2	370.2	370.2	371.2	370.7	373.5
10°	358.1	357.7	360.0	364.2	370.2	371.6	373.1	373.5	376.3	376.3	379.1
12.5°	354.5	354.9	358.1	364.7	374.4	374.9	376.8	378.6	382.4	380.5	385.7
15°	355.8	356.7	360.9	368.9	381.9	381.5	382.8	384.7	390.8	386.6	395.0
17.5°	362.8	364.2	368.9	378.2	391.7	389.3	391.2	394.0	401.9	396.8	406.6
20°	374.0	375.8	380.9	391.2	403.8	401.5	403.3	406.6	415.9	410.8	420.5
22.5°	388.9	390.8	396.3	408.0	421.5	418.7	420.5	423.4	433.6	425.6	437.8
25°	408.9	410.8	416.9	428.9	444.3	441.1	442.0	443.9	454.6	445.2	456.8
27.5°	436.9	438.7	443.9	455.5	470.4	467.6	468.5	470.4	481.6	472.3	482.5
30°	472.3	474.1	478.7	490.4	503.0	499.7	501.1	502.5	512.8	503.5	511.9
32.5°	514.1	513.7	520.7	532.8	544.0	537.9	537.9	537.9	547.7	538.4	544.9
35°	563.5	563.5	570.5	582.2	592.4	585.4	582.2	580.3	591.1	579.4	584.0
37.5°	617.6	615.2	625.9	636.7	646.4	637.6	634.7	632.5	640.4	627.4	629.6
40°	674.8	673.0	684.7	696.7	703.3	691.6	689.3	686.5	694.9	682.3	681.8
42.5°	727.0	725.6	740.5	754.5	762.4	747.5	744.2	741.4	750.7	738.2	735.4
45°	771.2	770.8	788.0	807.1	821.1	805.3	802.9	798.3	807.6	792.2	790.8
47.5°	805.7	803.8	824.8	852.7	875.1	858.8	858.4	855.1	864.9	848.1	846.2
50°	829.0	830.4	853.2	885.8	922.2	906.7	908.2	906.7	921.2	904.5	906.7
52.5°	833.2	836.0	865.3	908.2	958.9	940.3	951.0	955.2	973.3	958.9	963.6
55°	783.4	791.3	836.0	910.5	981.7	970.1	983.7	995.7	1021.3	1009.2	1017.6
57.5°	672.1	688.3	740.0	848.1	979.0	985.5	1012.9	1031.5	1062.8	1052.1	1071.6
60°	519.2	530.5	587.8	713.9	889.6	898.4	948.3	1007.4	1079.1	1094.0	1124.7
62.5°	340.0	346.5	402.4	530.5	735.4	738.2	800.2	877.0	1001.4	1033.9	1120.1
65°	168.6	177.5	207.2	305.6	515.1	511.4	579.4	669.2	830.4	866.2	1006.5
67.5°	105.3	106.7	112.7	141.6	258.0	229.1	285.0	379.1	574.3	606.4	784.3
70°	88.5	88.0	86.6	90.8	113.6	92.2	102.0	133.2	267.3	266.0	452.2
72.5°	81.5	80.1	76.4	75.9	79.2	72.6	73.6	75.5	107.1	89.9	174.2
75°	75.0	72.2	67.5	66.1	66.1	61.0	61.0	61.5	69.4	65.2	79.2
77.5°	67.1	63.8	59.1	57.3	55.4	49.8	49.4	49.8	55.9	52.2	59.1
80°	57.8	54.5	51.2	48.4	45.6	40.5	39.1	39.1	44.3	40.5	46.1
82.5°	50.3	46.1	45.2	40.5	36.3	31.7	30.3	27.9	32.6	28.4	34.5
85°	37.2	34.0	42.9	35.9	28.8	25.6	20.5	17.2	20.5	16.8	21.9
87.5°	21.4	20.0	37.7	28.4	25.6	27.5	16.8	12.1	11.7	10.2	12.1
90°	9.3	9.8	13.2	12.4	13.8	10.6	9.1	8.8	9.9	9.0	10.4
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.6
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	9.2	9.2	9.2	10.0	10.7
100°	8.2	8.2	9.2	10.2	12.3	14.5	16.9	19.2	21.5	23.5	25.6
102.5°	11.3	11.3	13.3	18.4	27.6	30.9	34.3	37.6	40.9	43.5	46.0
105°	21.5	22.5	27.6	36.8	49.1	53.0	56.8	60.6	64.4	66.7	69.0
107.5°	41.9	43.0	50.1	59.3	74.7	78.6	82.3	86.1	90.0	91.9	93.6
110°	67.5	69.6	75.7	89.0	104.3	107.4	110.5	113.5	116.6	118.2	119.7



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CATALOG NUMBER: IST-AF-450-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
112.5°	101.3	101.3	108.4	123.8	137.1	139.3	141.7	144.0	146.3	147.5	148.8
115°	143.2	142.2	150.4	162.6	171.9	173.4	174.9	176.5	178.0	179.2	180.6
117.5°	188.2	188.2	193.3	201.5	206.6	207.5	208.2	208.9	209.7	211.2	212.8
120°	230.2	228.1	231.2	238.3	242.4	244.0	245.5	247.0	248.6	249.4	250.1
122.5°	269.0	266.0	267.0	273.1	277.2	278.8	280.3	281.8	283.4	283.9	284.4
125°	304.8	300.7	302.8	305.9	312.0	313.2	314.6	315.9	317.1	317.9	318.6
127.5°	337.6	336.6	336.6	340.6	346.8	347.0	347.3	347.6	347.8	349.0	350.4
130°	371.3	369.3	370.3	374.4	378.5	379.0	379.5	380.0	380.5	381.8	383.1
132.5°	405.1	403.0	402.0	410.2	413.3	413.5	413.8	414.1	414.3	415.8	417.4
135°	438.8	435.8	435.8	441.9	445.0	445.5	446.0	446.5	447.0	448.6	450.1
137.5°	470.6	467.5	469.5	470.6	474.6	475.7	476.7	477.7	478.7	480.0	481.3
140°	499.2	496.1	498.2	500.2	502.3	503.8	505.3	506.9	508.4	509.2	509.9
142.5°	529.9	526.8	528.9	529.9	533.0	534.0	535.0	536.0	537.0	537.6	538.1
145°	562.6	558.5	556.5	559.6	562.6	562.8	563.1	563.4	563.6	564.9	566.2
147.5°	588.2	585.1	584.1	587.2	587.2	587.4	587.7	588.0	588.2	589.4	590.8
150°	608.7	605.6	606.6	606.6	606.6	606.6	606.6	606.6	606.6	607.6	608.7
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	624.0	624.0	624.0	624.2	624.5
155°	643.4	639.3	639.3	641.4	644.5	643.9	643.4	642.9	642.4	641.9	641.4
157.5°	660.8	657.8	657.8	658.8	660.8	660.6	660.3	660.0	659.8	659.6	659.3
160°	678.2	675.1	674.1	671.1	670.0	670.0	670.0	670.0	670.0	670.9	671.6
162.5°	688.4	684.4	684.4	680.3	676.2	676.7	677.2	677.7	678.2	679.2	680.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	688.4	688.4	688.4	688.2	687.9
167.5°	705.8	702.8	699.7	701.7	703.8	703.0	702.3	701.5	700.7	698.9	697.1
170°	714.0	711.0	707.9	707.9	708.9	708.4	707.9	707.4	706.9	705.6	704.3
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	705.8	705.8	705.8	705.6	705.3
175°	716.1	714.0	713.0	711.0	706.9	706.7	706.3	706.0	705.8	705.8	705.8
177.5°	723.2	721.2	716.1	715.0	713.0	712.5	712.0	711.5	711.0	710.7	710.4
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CATALOG NUMBER: IST-AF-450-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
0°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	362.8	364.2	362.3	364.2	360.9	363.8	361.4	364.2	361.9	364.2	361.4
5°	365.1	368.9	364.7	369.8	363.8	369.8	364.7	370.2	365.6	370.2	365.1
7.5°	368.9	375.4	369.8	376.3	368.9	377.3	370.2	378.2	371.2	378.6	370.7
10°	373.5	381.9	374.4	382.8	374.0	383.8	374.9	385.1	375.8	386.1	376.3
12.5°	377.7	388.4	380.0	391.2	381.5	393.1	382.8	395.9	384.7	398.2	385.7
15°	385.7	399.6	388.9	402.4	391.2	404.7	393.5	408.5	395.9	411.2	398.2
17.5°	395.9	411.2	400.1	413.6	401.5	416.3	404.3	419.2	406.6	422.4	408.0
20°	409.8	425.2	413.6	426.6	415.0	428.5	416.3	429.8	419.2	432.7	420.1
22.5°	425.6	440.1	427.5	440.6	427.5	440.1	428.5	440.6	429.8	442.4	431.3
25°	444.8	458.3	445.7	456.8	443.9	455.0	443.9	455.0	445.2	455.9	447.5
27.5°	471.3	481.6	468.5	478.3	464.3	474.1	462.5	472.3	462.9	472.3	463.9
30°	501.1	510.5	495.5	503.5	488.0	495.5	482.9	491.3	481.6	490.4	483.9
32.5°	533.8	541.1	526.3	532.8	517.0	523.4	509.9	515.6	507.2	512.8	508.6
35°	570.1	577.5	562.1	568.1	552.4	557.9	544.4	547.3	538.9	542.6	538.9
37.5°	613.4	619.9	602.2	607.7	590.5	597.5	581.2	584.0	573.8	576.1	568.7
40°	659.9	667.0	646.0	651.5	630.1	638.0	619.9	621.7	607.7	610.1	598.4
42.5°	710.2	716.8	690.7	695.3	670.1	678.5	657.1	660.8	644.2	646.4	631.6
45°	765.7	769.4	740.5	743.8	713.5	721.9	694.9	701.8	681.8	686.5	669.2
47.5°	817.3	824.8	793.1	796.0	763.3	768.4	737.2	746.5	725.2	732.1	711.2
50°	876.5	882.1	851.8	852.3	820.6	822.5	787.6	796.9	773.6	781.0	758.7
52.5°	937.0	940.8	908.2	911.4	880.2	883.5	848.5	852.3	825.3	831.8	809.9
55°	995.7	996.7	969.7	968.7	939.4	945.4	906.7	915.1	883.0	890.0	865.3
57.5°	1054.5	1057.6	1032.6	1033.5	1004.1	1008.3	973.3	979.5	949.2	957.6	926.8
60°	1116.3	1126.6	1101.9	1105.2	1077.3	1085.7	1043.2	1051.2	1018.0	1031.5	998.5
62.5°	1155.9	1194.1	1189.5	1194.6	1168.0	1172.2	1128.4	1141.0	1101.4	1111.2	1077.3
65°	1080.5	1174.1	1221.6	1273.8	1275.2	1288.7	1246.3	1251.0	1211.4	1209.0	1169.0
67.5°	880.7	996.1	1076.3	1183.5	1258.4	1330.6	1356.6	1363.2	1341.8	1319.0	1273.8
70°	531.4	657.7	775.4	901.6	1020.0	1149.9	1260.3	1336.7	1403.3	1400.0	1406.5
72.5°	210.0	314.9	393.5	511.9	629.2	773.1	895.1	1002.7	1117.3	1187.6	1278.9
75°	82.9	109.5	128.1	194.3	250.1	357.2	464.8	523.0	612.8	674.3	737.8
77.5°	59.6	65.2	66.1	76.8	81.0	112.2	131.3	151.4	170.4	182.6	180.2
80°	46.1	49.8	49.8	54.5	54.0	60.0	58.7	64.2	63.8	68.4	65.2
82.5°	34.5	36.8	36.8	40.5	40.5	44.3	43.3	47.1	45.6	48.9	45.6
85°	22.4	24.7	24.7	26.6	25.6	29.4	28.8	31.7	30.3	31.7	29.4
87.5°	12.6	14.0	14.4	15.9	14.4	17.2	16.8	18.2	16.8	18.2	17.2
90°	9.0	9.9	9.5	10.9	10.1	13.4	11.6	13.9	10.6	14.8	11.0
92.5°	7.0	7.2	7.2	7.2	7.2	7.2	7.0	6.6	6.3	6.1	6.1
95°	7.2	7.2	7.4	7.7	8.0	8.2	8.0	7.7	7.4	7.2	7.2
97.5°	11.5	12.3	11.8	11.3	10.7	10.2	10.0	9.7	9.4	9.2	9.0
100°	27.6	29.7	28.8	28.1	27.4	26.6	25.8	25.1	24.3	23.5	22.5
102.5°	48.6	51.1	50.3	49.6	48.9	48.1	46.9	45.5	44.2	43.0	42.1
105°	71.4	73.7	73.1	72.6	72.1	71.6	70.4	69.0	67.7	66.5	65.5
107.5°	95.3	97.2	97.0	96.7	96.4	96.2	95.1	94.1	93.1	92.1	91.2
110°	121.2	122.8	123.0	123.3	123.6	123.8	123.3	122.8	122.2	121.7	120.9



REPORT NUMBER: P227475

CATALOG NUMBER: IST-AF-450-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
112.5°	150.2	151.4	151.9	152.4	152.9	153.4	153.2	152.9	152.6	152.4	151.9
115°	181.9	183.1	183.9	184.6	185.4	186.2	185.4	184.6	183.9	183.1	182.6
117.5°	214.3	215.8	216.9	217.9	218.9	219.9	218.7	217.4	216.0	214.8	214.3
120°	250.8	251.6	252.7	253.7	254.7	255.7	254.5	253.2	251.9	250.6	250.1
122.5°	284.9	285.4	286.4	287.4	288.5	289.5	288.3	286.9	285.6	284.4	283.9
125°	319.4	320.2	320.7	321.2	321.7	322.2	321.0	319.7	318.3	317.1	317.1
127.5°	351.7	352.9	353.1	353.4	353.7	353.9	353.9	353.9	353.9	353.9	353.7
130°	384.4	385.7	386.7	387.7	388.7	389.7	389.7	389.7	389.7	389.7	389.2
132.5°	418.9	420.4	421.7	423.0	424.3	425.5	425.0	424.5	424.0	423.5	423.5
135°	451.6	453.2	454.4	455.7	457.1	458.3	458.1	457.8	457.5	457.3	458.1
137.5°	482.6	483.9	484.4	484.9	485.4	485.9	486.1	486.4	486.7	486.9	488.2
140°	510.7	511.5	512.0	512.5	513.0	513.5	514.0	514.5	515.1	515.6	516.8
142.5°	538.6	539.1	540.6	542.2	543.7	545.2	545.2	545.2	545.2	545.2	545.4
145°	567.5	568.8	570.3	571.8	573.4	574.9	574.7	574.4	574.1	573.9	573.1
147.5°	592.1	593.3	594.5	595.9	597.2	598.4	598.6	598.9	599.2	599.4	598.6
150°	609.7	610.7	611.5	612.2	613.0	613.8	614.6	615.3	616.0	616.8	617.7
152.5°	624.8	625.0	625.8	626.6	627.3	628.1	629.1	630.1	631.2	632.2	633.4
155°	640.9	640.4	641.6	642.9	644.3	645.5	646.7	648.0	649.4	650.6	651.1
157.5°	659.0	658.8	659.8	660.8	661.8	662.9	663.4	663.9	664.4	664.9	664.9
160°	672.3	673.1	674.6	676.2	677.7	679.2	678.4	677.7	677.0	676.2	676.0
162.5°	681.3	682.3	683.3	684.4	685.4	686.4	686.2	685.9	685.6	685.4	684.9
165°	687.6	687.4	688.7	690.0	691.3	692.5	693.4	694.1	694.8	695.6	695.1
167.5°	695.4	693.6	695.1	696.6	698.2	699.7	700.7	701.7	702.8	703.8	703.8
170°	703.0	701.7	702.6	703.3	704.0	704.8	706.0	707.4	708.7	709.9	710.4
172.5°	705.0	704.8	705.6	706.3	707.1	707.9	708.4	708.9	709.4	709.9	710.4
175°	705.8	705.8	707.1	708.4	709.7	711.0	711.2	711.5	711.8	712.0	711.5
177.5°	710.1	709.9	711.2	712.5	713.8	715.0	715.6	716.1	716.6	717.1	716.3
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
0°	363.8	363.8	363.8	363.8	363.8
2.5°	363.8	362.8	364.7	361.9	364.2
5°	370.2	366.1	371.2	366.1	370.7
7.5°	379.1	372.1	379.6	372.1	379.6
10°	387.5	375.8	387.9	376.8	388.4
12.5°	400.1	386.1	401.9	386.6	401.9
15°	414.0	398.2	415.9	398.6	416.9
17.5°	425.2	409.8	427.1	409.8	427.5
20°	434.5	422.4	436.9	422.4	438.2
22.5°	445.2	436.4	448.1	436.4	450.8
25°	459.2	453.2	462.5	454.1	464.3
27.5°	475.5	471.3	478.7	472.7	480.6
30°	494.6	493.2	496.9	494.2	498.8
32.5°	516.1	519.2	519.2	519.2	521.2
35°	547.3	550.0	550.0	551.0	551.5
37.5°	577.0	581.6	581.2	582.7	582.7
40°	608.2	614.3	614.3	614.3	615.2
42.5°	642.7	649.3	650.2	647.3	649.3
45°	681.4	683.7	686.0	684.7	687.8
47.5°	722.8	725.2	727.0	725.2	730.3
50°	771.7	771.2	776.4	771.2	778.7
52.5°	823.0	827.2	830.4	825.3	830.4
55°	880.7	879.3	890.0	883.0	890.0
57.5°	944.1	944.1	954.7	948.3	956.2
60°	1019.1	1012.9	1027.9	1017.1	1027.9
62.5°	1095.0	1084.2	1101.0	1091.7	1105.6
65°	1182.5	1167.1	1182.9	1170.9	1183.5
67.5°	1271.0	1253.3	1258.4	1252.3	1259.4
70°	1384.6	1382.3	1376.3	1394.0	1378.5
72.5°	1264.5	1291.5	1269.6	1311.9	1283.1
75°	776.8	826.6	854.2	897.4	890.5
77.5°	183.9	163.5	180.2	161.6	182.1
80°	68.0	62.0	64.8	56.4	62.9
82.5°	46.5	40.5	39.1	31.2	33.6
85°	29.8	24.2	22.4	18.6	20.5
87.5°	17.7	13.5	12.6	10.7	11.2
90°	13.3	9.5	10.8	8.1	10.4
92.5°	6.1	6.1	6.1	6.1	6.1
95°	7.2	7.2	7.2	7.2	7.2
97.5°	8.7	8.4	8.2	8.2	8.2
100°	21.5	20.5	19.4	19.4	19.4
102.5°	41.4	40.7	39.9	39.4	38.9
105°	64.4	63.4	62.4	62.4	62.4
107.5°	90.5	89.8	89.0	88.5	88.0
110°	120.2	119.5	118.7	119.2	119.7



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CATALOG NUMBER: IST-AF-450-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
112.5°	151.4	150.9	150.4	150.4	150.4
115°	182.1	181.6	181.1	181.6	182.1
117.5°	213.8	213.3	212.8	213.3	213.8
120°	249.6	249.1	248.6	248.6	248.6
122.5°	283.4	282.8	282.3	282.8	283.4
125°	317.1	317.1	317.1	317.1	317.1
127.5°	353.4	353.1	352.9	353.9	355.0
130°	388.7	388.2	387.7	388.2	388.7
132.5°	423.5	423.5	423.5	424.0	424.5
135°	458.8	459.5	460.3	460.8	461.4
137.5°	489.5	490.8	492.0	492.6	493.1
140°	518.1	519.5	520.7	521.7	522.7
142.5°	545.7	546.1	546.3	547.3	548.3
145°	572.3	571.6	570.8	571.8	572.9
147.5°	597.9	597.2	596.4	597.4	598.4
150°	618.4	619.1	619.9	622.0	624.0
152.5°	634.7	636.1	637.3	639.9	642.4
155°	651.6	652.1	652.6	654.2	655.7
157.5°	664.9	664.9	664.9	667.5	670.0
160°	675.7	675.4	675.1	678.2	681.3
162.5°	684.4	683.8	683.3	686.4	689.5
165°	694.6	694.1	693.6	695.6	697.7
167.5°	703.8	703.8	703.8	706.9	709.9
170°	711.0	711.5	712.0	714.5	717.1
172.5°	711.0	711.5	712.0	714.5	717.1
175°	711.0	710.4	709.9	712.5	715.0
177.5°	715.6	714.8	714.0	716.1	718.1
180°	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)