

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: P227477

Luminaire Tested: **IST-AF-450-LED-E1-RW-7060-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227477
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-7060-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I, WITH UPLIGHT
GLOW
Light Source: (16) 5700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4831.5 lumens
Efficiency: N/A
Efficacy: 115.0 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

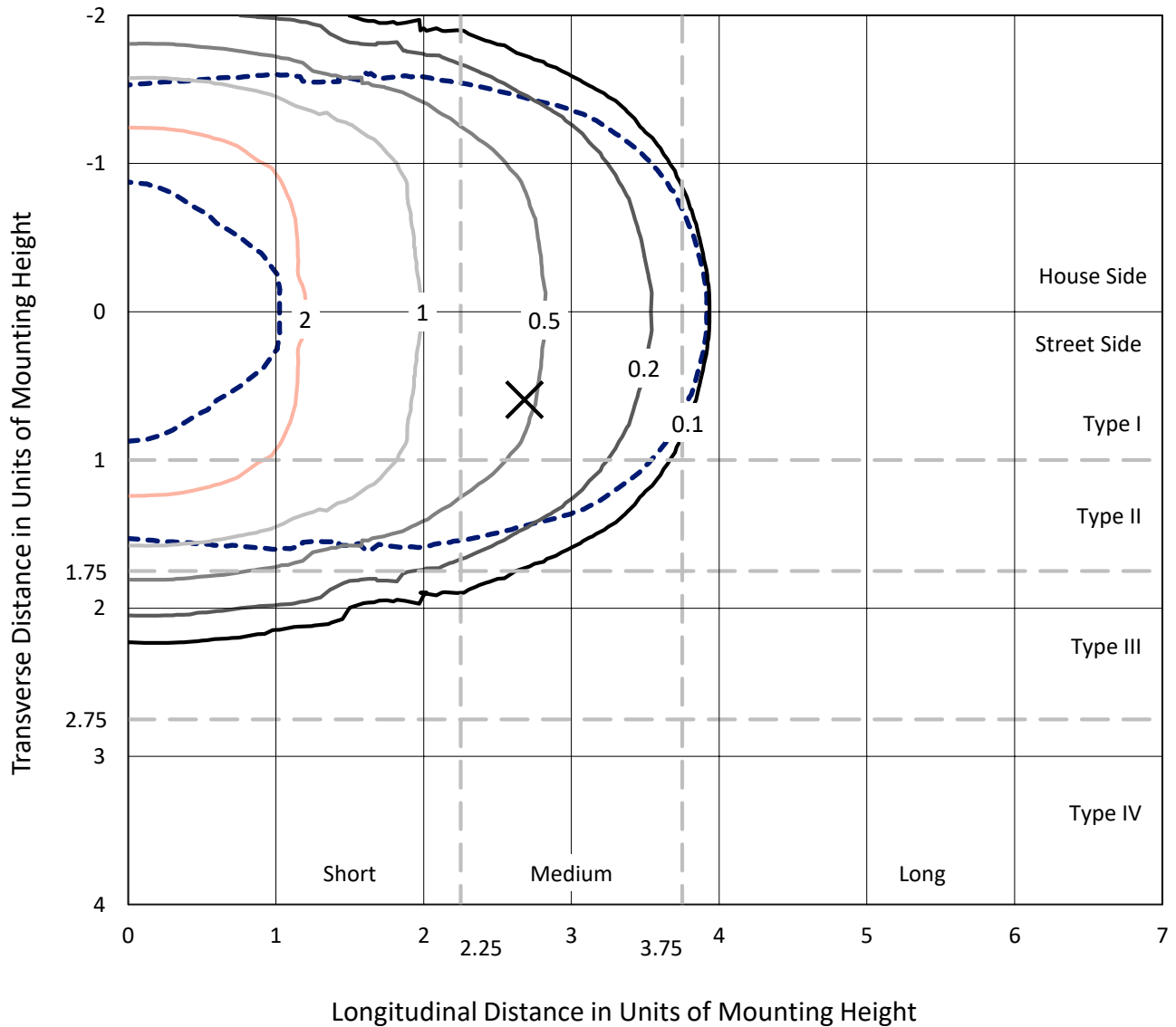


REPORT NUMBER: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

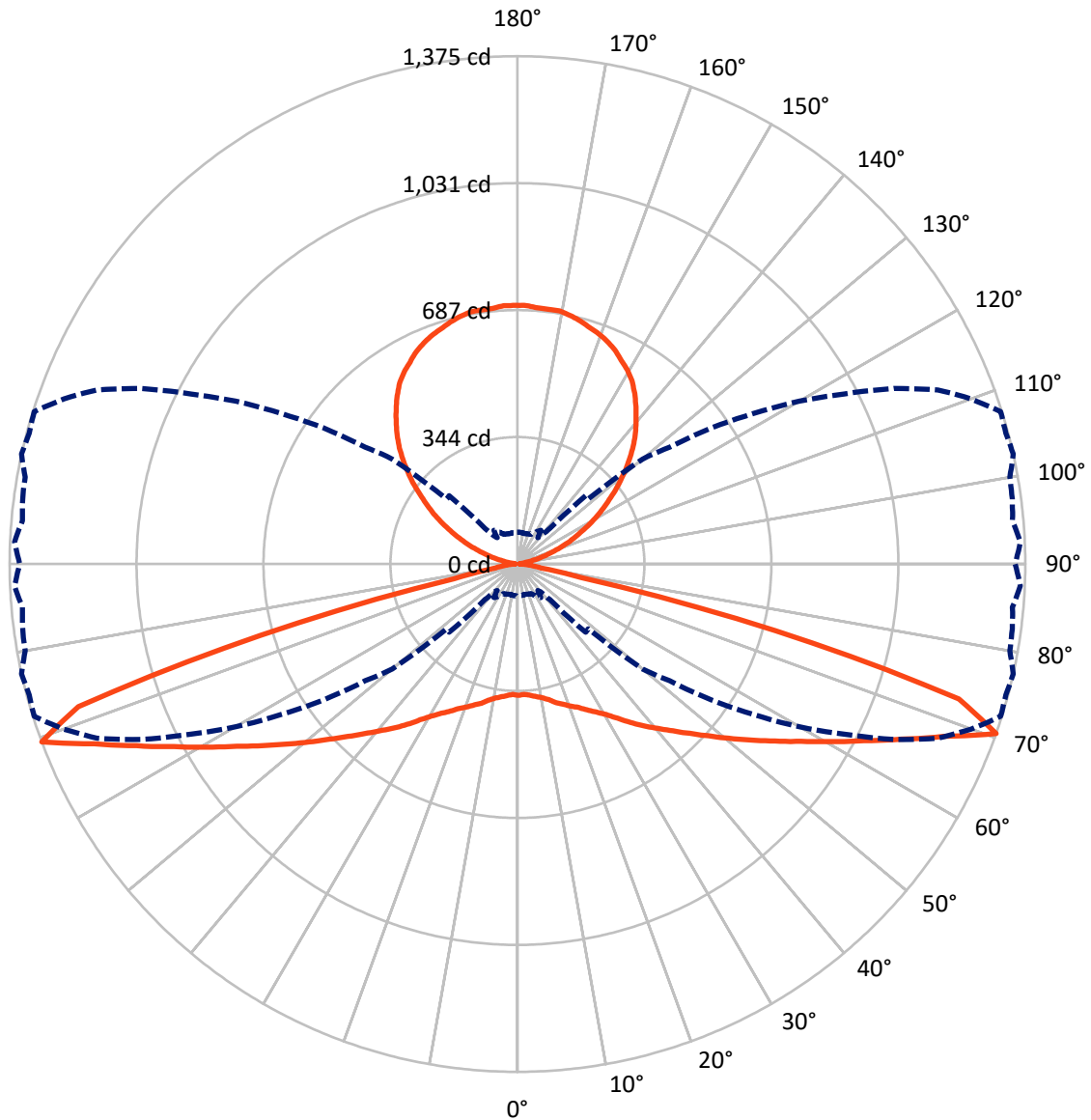


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Medium - Non-Cutoff

REPORT NUMBER: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

Luminous Intensity Polar Plot



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

REPORT NUMBER: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

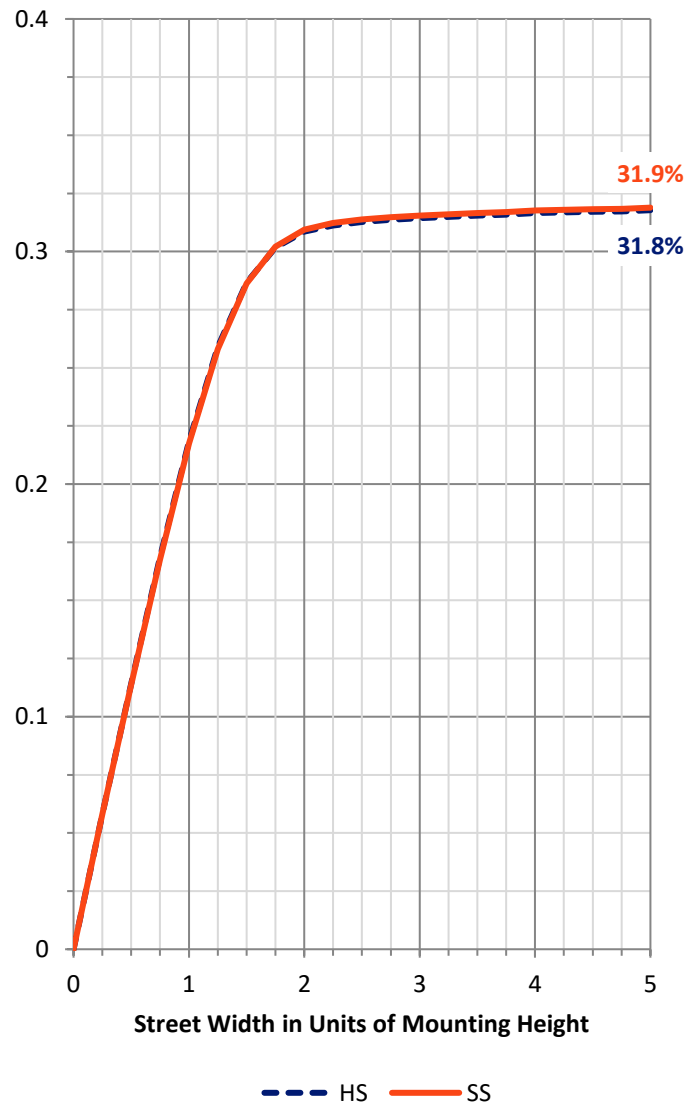
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1547.9	867.8	2415.7
	% Fixture	32.0	18.0	50.0
Street Side	Lumens	1547.9	867.8	2415.7
	% Fixture	32.0	18.0	50.0
Total	Lumens	3095.9	1735.6	4831.5
	% Fixture	64.1	35.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.4	0.7
10°-20°	107.5	2.2
20°-30°	201.7	4.2
30°-40°	352.5	7.3
40°-50°	574.7	11.9
50°-60°	786.4	16.3
60°-70°	723.4	15.0
70°-80°	282.8	5.9
80°-90°	32.5	0.7
90°-100°	9.7	0.2
100°-110°	57.4	1.2
110°-120°	166.1	3.4
120°-130°	273.2	5.7
130°-140°	336.8	7.0
140°-150°	344.6	7.1
150°-160°	290.3	6.0
160°-170°	191.2	4.0
170°-180°	66.3	1.4
0°-90°	3095.9	64.1
0°-180°	4831.5	100.0



REPORT NUMBER: P227477

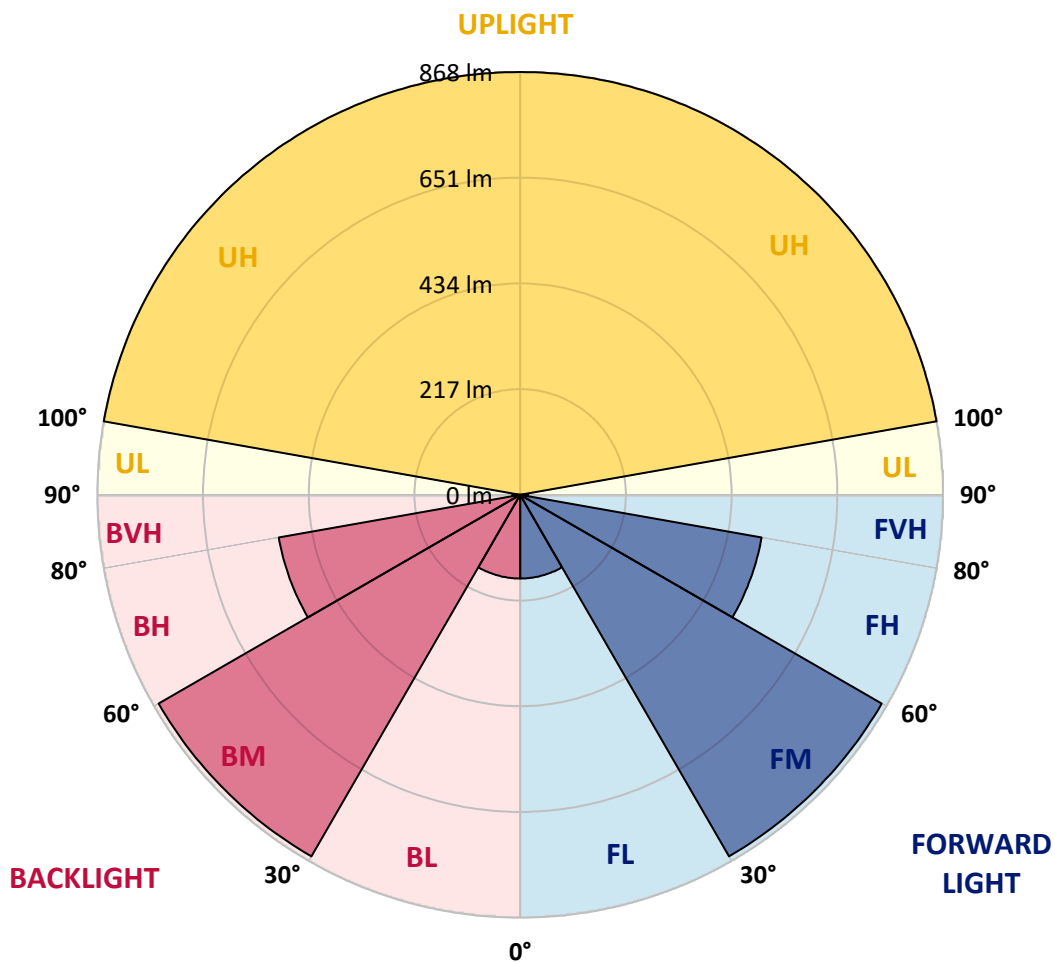
CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	171.8	3.6			
FM (30°-60°)	856.8	17.7			
FH (60°-80°)	503.1	10.4			G0/660
FVH (80°-90°)	16.2	0.3			G1/100
BL (0°-30°)	171.8	3.6	B1/500		
BM (30°-60°)	856.8	17.7	B1/1000		
BH (60°-80°)	503.1	10.4	B2/1000		G2/1000
BVH (80°-90°)	16.2	0.3			G1/100
UL (90°-100°)	9.7	0.2		U1/10	
UH (100°-180°)	867.8	18.0		U4/1000	

BUG Rating: B2-U5-G2

Type II Medium





REPORT NUMBER: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6
2.5°	354.2	353.8	353.8	354.2	355.1	355.6	354.7	355.1	355.1	354.7	356.0
5°	355.1	354.7	355.1	356.0	357.4	358.8	358.3	358.3	358.8	357.9	360.1
7.5°	354.2	353.8	354.7	356.9	360.1	361.9	361.9	361.9	362.9	362.4	365.1
10°	350.1	349.7	351.9	356.0	361.9	363.3	364.7	365.1	367.9	367.9	370.6
12.5°	346.5	346.9	350.1	356.5	366.0	366.5	368.3	370.1	373.8	372.0	377.0
15°	347.8	348.7	352.8	360.6	373.3	372.9	374.2	376.1	382.0	377.9	386.1
17.5°	354.7	356.0	360.6	369.7	382.9	380.6	382.4	385.2	392.9	387.9	397.5
20°	365.6	367.4	372.4	382.4	394.7	392.5	394.3	397.5	406.6	401.6	411.1
22.5°	380.2	382.0	387.4	398.8	412.0	409.3	411.1	413.9	423.9	416.1	428.0
25°	399.7	401.6	407.5	419.3	434.3	431.2	432.1	433.9	444.4	435.2	446.6
27.5°	427.1	428.9	433.9	445.3	459.8	457.1	458.0	459.8	470.8	461.7	471.7
30°	461.7	463.5	468.0	479.4	491.7	488.5	489.9	491.2	501.3	492.2	500.4
32.5°	502.6	502.2	509.0	520.8	531.8	525.8	525.8	525.8	535.4	526.3	532.7
35°	550.9	550.9	557.7	569.1	579.1	572.3	569.1	567.3	577.8	566.4	570.9
37.5°	603.7	601.4	611.9	622.4	631.9	623.3	620.5	618.3	626.0	613.3	615.5
40°	659.7	657.9	669.3	681.1	687.5	676.1	673.8	671.1	679.3	667.0	666.5
42.5°	710.7	709.3	723.9	737.6	745.3	730.7	727.5	724.8	733.9	721.6	718.9
45°	753.9	753.5	770.3	789.0	802.7	787.2	784.9	780.4	789.5	774.4	773.1
47.5°	787.6	785.8	806.3	833.6	855.5	839.5	839.1	835.9	845.5	829.1	827.2
50°	810.4	811.8	834.1	865.9	901.5	886.4	887.8	886.4	900.5	884.2	886.4
52.5°	814.5	817.2	845.9	887.8	937.4	919.2	929.7	933.8	951.5	937.4	942.0
55°	765.8	773.5	817.2	890.1	959.7	948.3	961.6	973.4	998.4	986.6	994.8
57.5°	657.0	672.9	723.4	829.1	957.0	963.4	990.2	1008.4	1039.0	1028.5	1047.6
60°	507.6	518.6	574.6	697.9	869.6	878.2	927.0	984.8	1054.9	1069.5	1099.5
62.5°	332.4	338.7	393.4	518.6	718.9	721.6	782.2	857.3	978.9	1010.7	1095.0
65°	164.8	173.5	202.6	298.7	503.5	499.9	566.4	654.2	811.8	846.8	983.9
67.5°	102.9	104.3	110.2	138.4	252.2	224.0	278.6	370.6	561.4	592.8	766.7
70°	86.5	86.0	84.7	88.8	111.1	90.1	99.7	130.2	261.3	260.0	442.1
72.5°	79.7	78.3	74.7	74.2	77.4	71.0	71.9	73.8	104.7	87.9	170.3
75°	73.3	70.6	66.0	64.6	64.6	59.6	59.6	60.1	67.8	63.7	77.4
77.5°	65.6	62.4	57.8	56.0	54.2	48.7	48.3	48.7	54.6	51.0	57.8
80°	56.5	53.3	50.1	47.3	44.6	39.6	38.2	38.2	43.3	39.6	45.1
82.5°	49.2	45.1	44.2	39.6	35.5	31.0	29.6	27.3	31.9	27.8	33.7
85°	36.4	33.2	41.9	35.1	28.2	25.0	20.0	16.8	20.0	16.4	21.4
87.5°	20.9	19.6	36.9	27.8	25.0	26.9	16.4	11.8	11.4	10.0	11.8
90°	9.1	9.6	12.9	12.1	13.5	10.4	8.9	8.6	9.7	8.8	10.2
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.2	6.5
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	9.0	9.0	9.0	9.0	9.0	9.8	10.5
100°	8.0	8.0	9.0	10.0	12.0	14.2	16.5	18.8	21.0	23.0	25.0
102.5°	11.0	11.0	13.0	18.0	27.0	30.2	33.5	36.8	40.0	42.5	45.0
105°	21.0	22.0	27.0	36.0	48.0	51.8	55.5	59.2	63.0	65.2	67.5
107.5°	41.0	42.0	49.0	58.0	73.0	76.8	80.5	84.2	88.0	89.8	91.5
110°	66.0	68.0	74.0	87.0	102.0	105.0	108.0	111.0	114.0	115.5	117.0



REPORT NUMBER: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
112.5°	99.0	99.0	106.0	121.0	134.0	136.2	138.5	140.8	143.0	144.2	145.5
115°	140.0	139.0	147.0	159.0	168.0	169.5	171.0	172.5	174.0	175.2	176.5
117.5°	184.0	184.0	189.0	197.0	202.0	202.8	203.5	204.2	205.0	206.5	208.0
120°	225.0	223.0	226.0	233.0	237.0	238.5	240.0	241.5	243.0	243.8	244.5
122.5°	263.0	260.0	261.0	267.0	271.0	272.5	274.0	275.5	277.0	277.5	278.0
125°	298.0	294.0	296.0	299.0	305.0	306.2	307.5	308.8	310.0	310.8	311.5
127.5°	330.0	329.0	329.0	333.0	339.0	339.2	339.5	339.8	340.0	341.2	342.5
130°	363.0	361.0	362.0	366.0	370.0	370.5	371.0	371.5	372.0	373.2	374.5
132.5°	396.0	394.0	393.0	401.0	404.0	404.2	404.5	404.8	405.0	406.5	408.0
135°	429.0	426.0	426.0	432.0	435.0	435.5	436.0	436.5	437.0	438.5	440.0
137.5°	460.0	457.0	459.0	460.0	464.0	465.0	466.0	467.0	468.0	469.2	470.5
140°	488.0	485.0	487.0	489.0	491.0	492.5	494.0	495.5	497.0	497.8	498.5
142.5°	518.0	515.0	517.0	518.0	521.0	522.0	523.0	524.0	525.0	525.5	526.0
145°	550.0	546.0	544.0	547.0	550.0	550.2	550.5	550.8	551.0	552.2	553.5
147.5°	575.0	572.0	571.0	574.0	574.0	574.2	574.5	574.8	575.0	576.2	577.5
150°	595.0	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	594.0	595.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	610.0	610.0	610.0	610.2	610.5
155°	629.0	625.0	625.0	627.0	630.0	629.5	629.0	628.5	628.0	627.5	627.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.8	645.5	645.2	645.0	644.8	644.5
160°	663.0	660.0	659.0	656.0	655.0	655.0	655.0	655.0	655.0	655.8	656.5
162.5°	673.0	669.0	669.0	665.0	661.0	661.5	662.0	662.5	663.0	664.0	665.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	673.0	673.0	673.0	672.8	672.5
167.5°	690.0	687.0	684.0	686.0	688.0	687.2	686.5	685.8	685.0	683.2	681.5
170°	698.0	695.0	692.0	692.0	693.0	692.5	692.0	691.5	691.0	689.8	688.5
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	690.0	690.0	690.0	689.8	689.5
175°	700.0	698.0	697.0	695.0	691.0	690.8	690.5	690.2	690.0	690.0	690.0
177.5°	707.0	705.0	700.0	699.0	697.0	696.5	696.0	695.5	695.0	694.8	694.5
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: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
0°	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6
2.5°	354.7	356.0	354.2	356.0	352.8	355.6	353.3	356.0	353.8	356.0	353.3
5°	356.9	360.6	356.5	361.5	355.6	361.5	356.5	361.9	357.4	361.9	356.9
7.5°	360.6	367.0	361.5	367.9	360.6	368.8	361.9	369.7	362.9	370.1	362.4
10°	365.1	373.3	366.0	374.2	365.6	375.2	366.5	376.5	367.4	377.4	367.9
12.5°	369.2	379.7	371.5	382.4	372.9	384.3	374.2	387.0	376.1	389.3	377.0
15°	377.0	390.6	380.2	393.4	382.4	395.6	384.7	399.3	387.0	402.0	389.3
17.5°	387.0	402.0	391.1	404.3	392.5	407.0	395.2	409.8	397.5	412.9	398.8
20°	400.6	415.7	404.3	417.0	405.7	418.9	407.0	420.2	409.8	423.0	410.7
22.5°	416.1	430.2	417.9	430.7	417.9	430.2	418.9	430.7	420.2	432.5	421.6
25°	434.8	448.0	435.7	446.6	433.9	444.8	433.9	444.8	435.2	445.7	437.5
27.5°	460.7	470.8	458.0	467.6	453.9	463.5	452.1	461.7	452.5	461.7	453.5
30°	489.9	499.0	484.4	492.2	477.1	484.4	472.1	480.3	470.8	479.4	473.0
32.5°	521.8	529.0	514.5	520.8	505.4	511.7	498.5	504.0	495.8	501.3	497.2
35°	557.3	564.5	549.5	555.4	540.0	545.4	532.2	535.0	526.8	530.4	526.8
37.5°	599.6	606.0	588.7	594.1	577.3	584.1	568.2	570.9	560.9	563.2	555.9
40°	645.1	652.0	631.5	636.9	616.0	623.7	606.0	607.8	594.1	596.4	585.0
42.5°	694.3	700.7	675.2	679.7	655.1	663.3	642.4	646.0	629.7	631.9	617.4
45°	748.5	752.1	723.9	727.1	697.5	705.7	679.3	686.1	666.5	671.1	654.2
47.5°	799.0	806.3	775.3	778.1	746.2	751.2	720.7	729.8	708.9	715.7	695.2
50°	856.8	862.3	832.7	833.2	802.2	804.0	769.9	779.0	756.2	763.5	741.7
52.5°	916.0	919.7	887.8	891.0	860.5	863.7	829.5	833.2	806.8	813.1	791.7
55°	973.4	974.3	947.9	947.0	918.3	924.2	886.4	894.6	863.2	870.0	845.9
57.5°	1030.8	1033.9	1009.4	1010.3	981.6	985.7	951.5	957.5	927.9	936.1	906.0
60°	1091.3	1101.3	1077.2	1080.4	1053.1	1061.3	1019.8	1027.6	995.2	1008.4	976.1
62.5°	1130.0	1167.3	1162.8	1167.8	1141.8	1145.9	1103.1	1115.4	1076.7	1086.3	1053.1
65°	1056.3	1147.8	1194.2	1245.2	1246.6	1259.8	1218.3	1222.9	1184.2	1181.9	1142.8
67.5°	860.9	973.8	1052.2	1156.9	1230.2	1300.7	1326.2	1332.6	1311.7	1289.4	1245.2
70°	519.5	642.9	758.0	881.4	997.1	1124.1	1232.0	1306.7	1371.8	1368.6	1374.9
72.5°	205.3	307.8	384.7	500.4	615.1	755.8	875.0	980.2	1092.2	1161.0	1250.2
75°	81.0	107.0	125.2	189.9	244.5	349.2	454.4	511.3	599.1	659.2	721.2
77.5°	58.3	63.7	64.6	75.1	79.2	109.7	128.4	148.0	166.6	178.5	176.2
80°	45.1	48.7	48.7	53.3	52.8	58.7	57.4	62.8	62.4	66.9	63.7
82.5°	33.7	36.0	36.0	39.6	39.6	43.3	42.3	46.0	44.6	47.8	44.6
85°	21.9	24.1	24.1	26.0	25.0	28.7	28.2	31.0	29.6	31.0	28.7
87.5°	12.3	13.7	14.1	15.5	14.1	16.8	16.4	17.8	16.4	17.8	16.8
90°	8.8	9.7	9.3	10.7	9.9	13.1	11.3	13.6	10.4	14.5	10.8
92.5°	6.8	7.0	7.0	7.0	7.0	7.0	6.8	6.5	6.2	6.0	6.0
95°	7.0	7.0	7.2	7.5	7.8	8.0	7.8	7.5	7.2	7.0	7.0
97.5°	11.2	12.0	11.5	11.0	10.5	10.0	9.8	9.5	9.2	9.0	8.8
100°	27.0	29.0	28.2	27.5	26.8	26.0	25.2	24.5	23.8	23.0	22.0
102.5°	47.5	50.0	49.2	48.5	47.8	47.0	45.8	44.5	43.2	42.0	41.2
105°	69.8	72.0	71.5	71.0	70.5	70.0	68.8	67.5	66.2	65.0	64.0
107.5°	93.2	95.0	94.8	94.5	94.2	94.0	93.0	92.0	91.0	90.0	89.2
110°	118.5	120.0	120.2	120.5	120.8	121.0	120.5	120.0	119.5	119.0	118.2



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CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
112.5°	146.8	148.0	148.5	149.0	149.5	150.0	149.8	149.5	149.2	149.0	148.5
115°	177.8	179.0	179.8	180.5	181.2	182.0	181.2	180.5	179.8	179.0	178.5
117.5°	209.5	211.0	212.0	213.0	214.0	215.0	213.8	212.5	211.2	210.0	209.5
120°	245.2	246.0	247.0	248.0	249.0	250.0	248.8	247.5	246.2	245.0	244.5
122.5°	278.5	279.0	280.0	281.0	282.0	283.0	281.8	280.5	279.2	278.0	277.5
125°	312.2	313.0	313.5	314.0	314.5	315.0	313.8	312.5	311.2	310.0	310.0
127.5°	343.8	345.0	345.2	345.5	345.8	346.0	346.0	346.0	346.0	346.0	345.8
130°	375.8	377.0	378.0	379.0	380.0	381.0	381.0	381.0	381.0	381.0	380.5
132.5°	409.5	411.0	412.2	413.5	414.8	416.0	415.5	415.0	414.5	414.0	414.0
135°	441.5	443.0	444.2	445.5	446.8	448.0	447.8	447.5	447.2	447.0	447.8
137.5°	471.8	473.0	473.5	474.0	474.5	475.0	475.2	475.5	475.8	476.0	477.2
140°	499.2	500.0	500.5	501.0	501.5	502.0	502.5	503.0	503.5	504.0	505.2
142.5°	526.5	527.0	528.5	530.0	531.5	533.0	533.0	533.0	533.0	533.0	533.2
145°	554.8	556.0	557.5	559.0	560.5	562.0	561.8	561.5	561.2	561.0	560.2
147.5°	578.8	580.0	581.2	582.5	583.8	585.0	585.2	585.5	585.8	586.0	585.2
150°	596.0	597.0	597.8	598.5	599.2	600.0	600.8	601.5	602.2	603.0	603.8
152.5°	610.8	611.0	611.8	612.5	613.2	614.0	615.0	616.0	617.0	618.0	619.2
155°	626.5	626.0	627.2	628.5	629.8	631.0	632.2	633.5	634.8	636.0	636.5
157.5°	644.2	644.0	645.0	646.0	647.0	648.0	648.5	649.0	649.5	650.0	650.0
160°	657.2	658.0	659.5	661.0	662.5	664.0	663.2	662.5	661.8	661.0	660.8
162.5°	666.0	667.0	668.0	669.0	670.0	671.0	670.8	670.5	670.2	670.0	669.5
165°	672.2	672.0	673.2	674.5	675.8	677.0	677.8	678.5	679.2	680.0	679.5
167.5°	679.8	678.0	679.5	681.0	682.5	684.0	685.0	686.0	687.0	688.0	688.0
170°	687.2	686.0	686.8	687.5	688.2	689.0	690.2	691.5	692.8	694.0	694.5
172.5°	689.2	689.0	689.8	690.5	691.2	692.0	692.5	693.0	693.5	694.0	694.5
175°	690.0	690.0	691.2	692.5	693.8	695.0	695.2	695.5	695.8	696.0	695.5
177.5°	694.2	694.0	695.2	696.5	697.8	699.0	699.5	700.0	700.5	701.0	700.2
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: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
0°	355.6	355.6	355.6	355.6	355.6
2.5°	355.6	354.7	356.5	353.8	356.0
5°	361.9	357.9	362.9	357.9	362.4
7.5°	370.6	363.8	371.1	363.8	371.1
10°	378.8	367.4	379.2	368.3	379.7
12.5°	391.1	377.4	392.9	377.9	392.9
15°	404.7	389.3	406.6	389.7	407.5
17.5°	415.7	400.6	417.5	400.6	417.9
20°	424.8	412.9	427.1	412.9	428.4
22.5°	435.2	426.6	438.0	426.6	440.7
25°	448.9	443.0	452.1	443.9	453.9
27.5°	464.8	460.7	468.0	462.1	469.8
30°	483.5	482.1	485.8	483.1	487.6
32.5°	504.5	507.6	507.6	507.6	509.5
35°	535.0	537.7	537.7	538.6	539.1
37.5°	564.1	568.6	568.2	569.6	569.6
40°	594.6	600.5	600.5	600.5	601.4
42.5°	628.3	634.7	635.6	632.8	634.7
45°	666.1	668.4	670.6	669.3	672.4
47.5°	706.6	708.9	710.7	708.9	713.9
50°	754.4	753.9	759.0	753.9	761.2
52.5°	804.5	808.6	811.8	806.8	811.8
55°	860.9	859.6	870.0	863.2	870.0
57.5°	922.9	922.9	933.3	927.0	934.7
60°	996.2	990.2	1004.8	994.3	1004.8
62.5°	1070.4	1059.9	1076.3	1067.2	1080.8
65°	1156.0	1140.9	1156.4	1144.6	1156.9
67.5°	1242.5	1225.2	1230.2	1224.2	1231.1
70°	1353.5	1351.3	1345.4	1362.7	1347.6
72.5°	1236.1	1262.5	1241.1	1282.5	1254.3
75°	759.4	808.1	835.0	877.3	870.5
77.5°	179.8	159.8	176.2	158.0	178.0
80°	66.5	60.6	63.3	55.1	61.5
82.5°	45.5	39.6	38.2	30.5	32.8
85°	29.1	23.7	21.9	18.2	20.0
87.5°	17.3	13.2	12.3	10.5	10.9
90°	13.0	9.3	10.6	7.9	10.2
92.5°	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.0	7.0	7.0	7.0
97.5°	8.5	8.2	8.0	8.0	8.0
100°	21.0	20.0	19.0	19.0	19.0
102.5°	40.5	39.8	39.0	38.5	38.0
105°	63.0	62.0	61.0	61.0	61.0
107.5°	88.5	87.8	87.0	86.5	86.0
110°	117.5	116.8	116.0	116.5	117.0



REPORT NUMBER: P227477

CATALOG NUMBER: IST-AF-450-LED-E1-RW-7060-ULG

CANDELA DISTRIBUTION (continued):

	80°	82.5°	85°	87.5°	90°
112.5°	148.0	147.5	147.0	147.0	147.0
115°	178.0	177.5	177.0	177.5	178.0
117.5°	209.0	208.5	208.0	208.5	209.0
120°	244.0	243.5	243.0	243.0	243.0
122.5°	277.0	276.5	276.0	276.5	277.0
125°	310.0	310.0	310.0	310.0	310.0
127.5°	345.5	345.2	345.0	346.0	347.0
130°	380.0	379.5	379.0	379.5	380.0
132.5°	414.0	414.0	414.0	414.5	415.0
135°	448.5	449.2	450.0	450.5	451.0
137.5°	478.5	479.8	481.0	481.5	482.0
140°	506.5	507.8	509.0	510.0	511.0
142.5°	533.5	533.8	534.0	535.0	536.0
145°	559.5	558.8	558.0	559.0	560.0
147.5°	584.5	583.8	583.0	584.0	585.0
150°	604.5	605.2	606.0	608.0	610.0
152.5°	620.5	621.8	623.0	625.5	628.0
155°	637.0	637.5	638.0	639.5	641.0
157.5°	650.0	650.0	650.0	652.5	655.0
160°	660.5	660.2	660.0	663.0	666.0
162.5°	669.0	668.5	668.0	671.0	674.0
165°	679.0	678.5	678.0	680.0	682.0
167.5°	688.0	688.0	688.0	691.0	694.0
170°	695.0	695.5	696.0	698.5	701.0
172.5°	695.0	695.5	696.0	698.5	701.0
175°	695.0	694.5	694.0	696.5	699.0
177.5°	699.5	698.8	698.0	700.0	702.0
180°	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)