

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: P271501

Luminaire Tested: **ISS-AF-450-LED-E1-RW-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271501  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISS-AF-450-LED-E1-RW-7027  
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I  
Light Source: (16) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

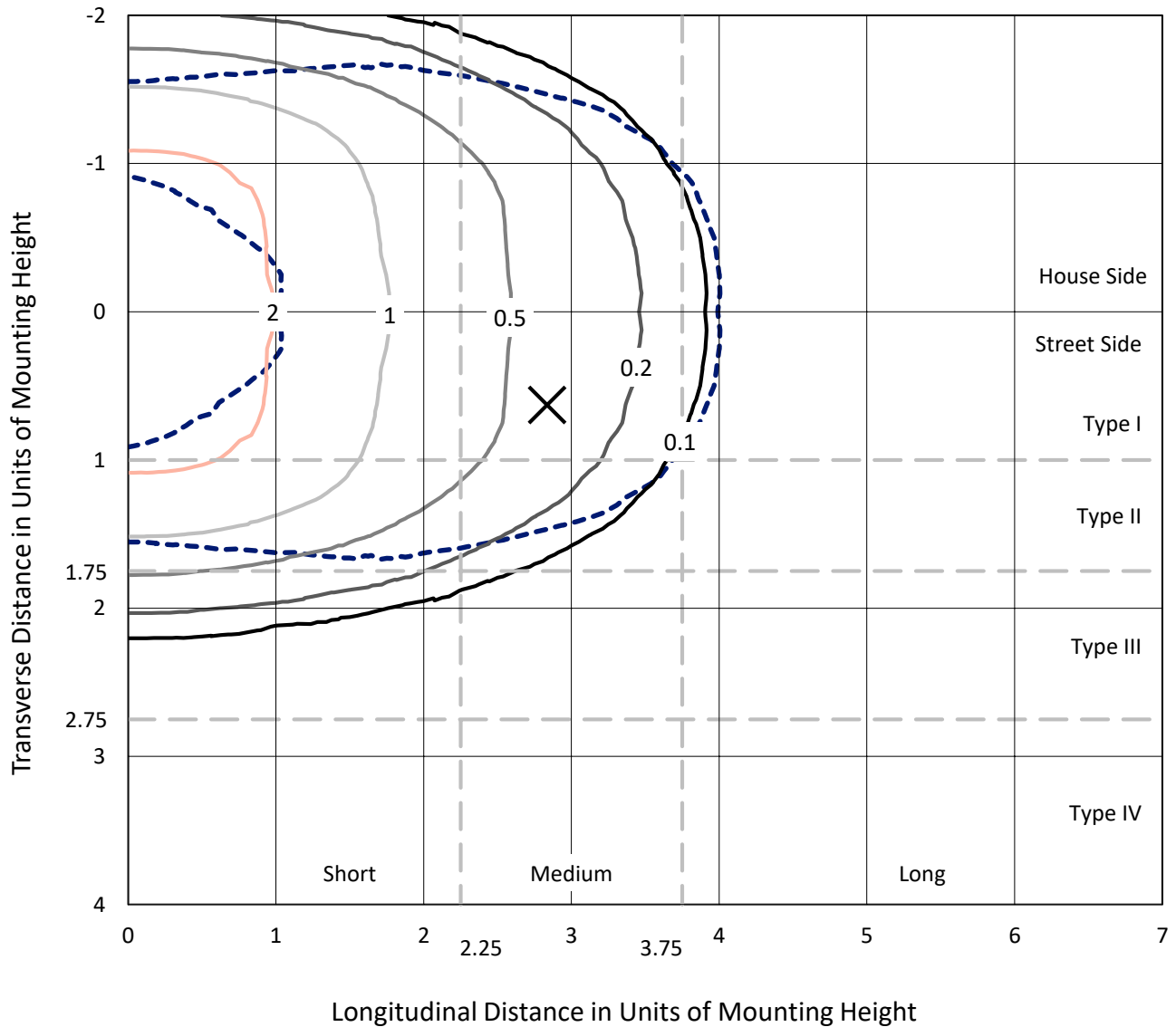
Lumens per Lamp: N/A  
Luminaire Lumens: 2596 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 25.31  
Input Voltage (V): 120  
Input 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: P271501  
 CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7027

### Iso-Footcandle Lines of Horizontal Illumination

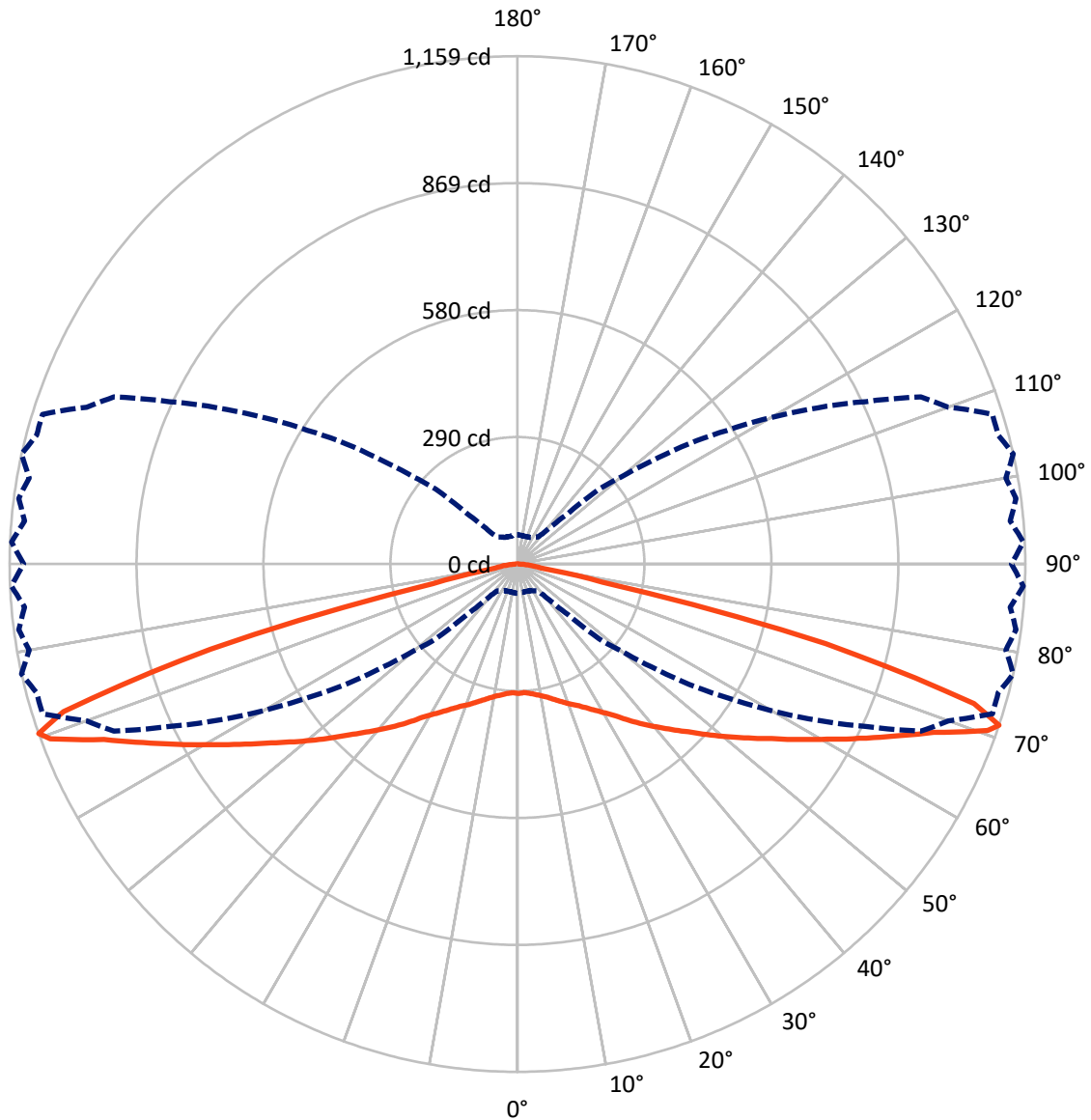
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P271501  
CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P271501

CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1298.0	0.0	1298.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	1298.0	0.0	1298.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	2596.0	0.0	2596.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.6	1.1
10°-20°	89.2	3.4
20°-30°	167.0	6.4
30°-40°	290.7	11.2
40°-50°	474.3	18.3
50°-60°	654.5	25.2
60°-70°	620.8	23.9
70°-80°	255.6	9.8
80°-90°	15.4	0.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2596.0	100.0
0°-180°	2596.0	100.0



REPORT NUMBER: P271501

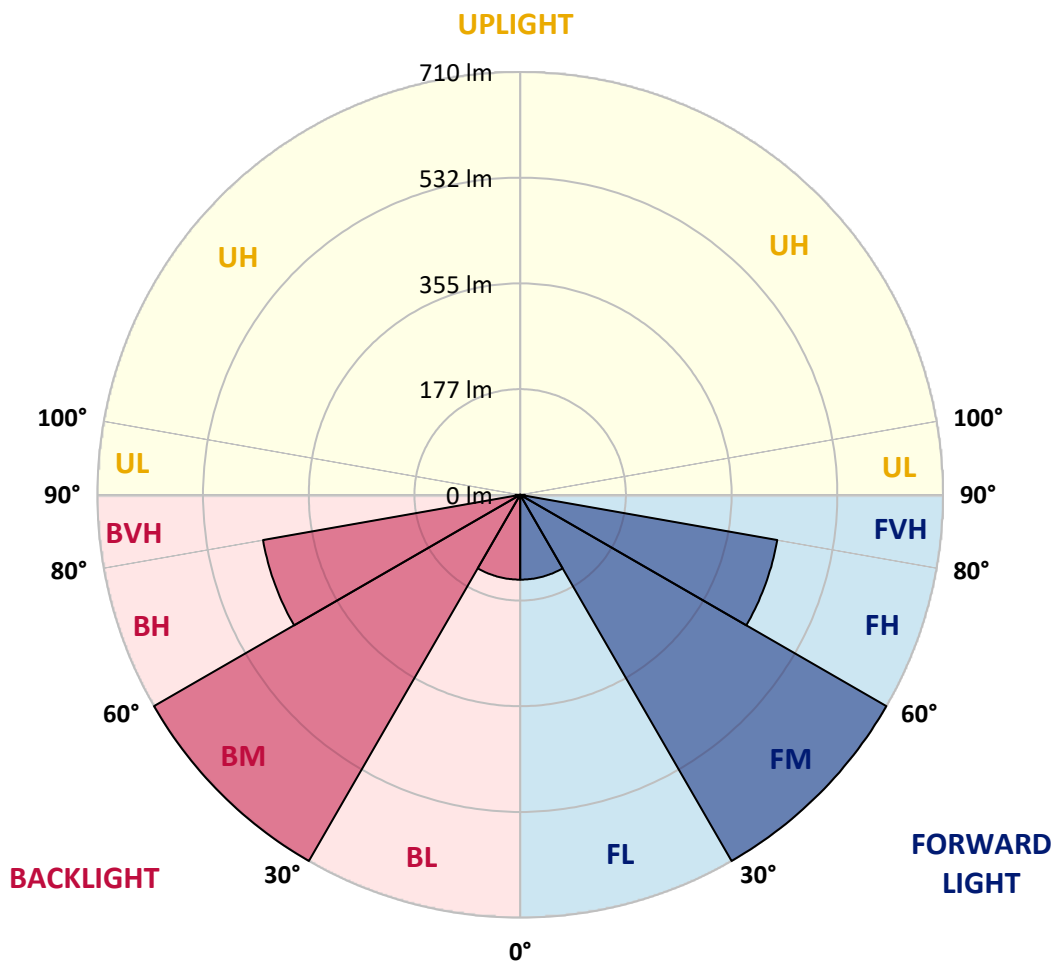
CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7027

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	142.4	5.5			
FM	(30°-60°)	709.7	27.3			
FH	(60°-80°)	438.2	16.9			G0/660
FVH	(80°-90°)	7.7	0.3			G0/10
BL	(0°-30°)	142.4	5.5	B1/500		
BM	(30°-60°)	709.7	27.3	B1/1000		
BH	(60°-80°)	438.2	16.9	B1/500		G1/500
BVH	(80°-90°)	7.7	0.3			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Medium





REPORT NUMBER: P271501

CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6
2.5°	294.7	293.8	294.7	294.7	295.6	295.6	295.6	295.6	294.7	296.5	296.5
5°	294.7	294.7	295.6	295.6	297.2	299.0	296.5	297.2	298.1	297.2	299.0
7.5°	294.7	294.7	294.7	296.5	299.0	300.8	299.0	299.9	301.7	301.7	303.4
10°	292.2	291.3	293.0	296.5	300.8	303.4	302.5	306.0	305.1	306.0	307.6
12.5°	287.9	287.9	291.3	296.5	304.2	306.0	306.8	308.5	311.0	310.3	312.8
15°	288.7	289.6	293.0	299.9	309.4	311.0	311.9	311.9	316.2	314.5	319.7
17.5°	294.7	295.6	299.0	306.0	317.1	317.1	317.9	319.7	325.6	322.2	329.0
20°	304.2	305.1	308.5	316.2	326.5	326.5	327.4	329.0	336.9	333.5	340.3
22.5°	315.3	317.1	321.3	329.9	341.2	336.0	339.4	342.8	350.6	344.6	354.0
25°	330.8	333.5	337.8	347.1	359.2	353.1	356.5	359.2	367.8	359.2	368.7
27.5°	353.1	354.9	358.3	368.7	378.9	374.6	376.4	378.1	388.3	378.9	389.2
30°	379.8	382.4	385.8	395.3	405.6	398.7	402.1	403.9	412.5	403.0	411.6
32.5°	413.3	415.9	420.1	428.9	437.4	427.1	428.0	430.5	439.1	429.7	439.1
35°	452.8	454.6	460.7	470.9	476.9	460.7	461.5	461.5	472.6	459.8	470.0
37.5°	494.1	495.9	502.7	513.0	519.8	501.8	501.8	502.7	513.0	498.4	507.8
40°	537.1	542.3	549.9	560.3	565.4	544.8	546.5	545.7	557.7	540.5	549.9
42.5°	580.0	584.3	595.5	607.5	613.5	592.9	593.8	591.3	603.2	585.2	592.9
45°	617.0	620.4	634.1	651.3	660.8	639.3	639.3	639.3	651.3	629.0	638.4
47.5°	647.0	649.7	664.3	689.2	704.6	683.1	684.9	681.5	699.5	672.0	684.9
50°	668.6	669.3	688.3	716.7	743.3	723.6	726.1	727.9	745.1	721.0	732.1
52.5°	675.4	677.1	698.6	732.9	771.6	758.8	768.2	771.6	787.2	761.3	776.9
55°	651.3	655.7	688.3	739.0	791.5	787.2	798.3	805.2	824.9	803.4	819.7
57.5°	570.5	575.7	621.3	704.6	795.7	802.5	818.1	829.2	857.6	844.7	862.7
60°	455.4	459.8	506.1	606.6	741.6	783.7	819.0	850.8	879.9	882.6	905.7
62.5°	312.8	318.8	363.5	459.8	623.9	679.7	730.4	782.9	831.8	891.1	921.2
65°	152.9	156.3	194.2	287.0	458.0	529.3	588.6	662.5	708.0	793.1	842.1
67.5°	84.2	84.2	90.2	119.5	244.9	315.3	378.9	471.8	518.1	623.1	685.8
70°	70.4	70.4	68.7	73.0	92.9	110.0	142.7	195.9	260.4	366.1	422.8
71°	67.0	66.1	65.3	67.0	74.8	78.2	92.0	120.4	163.2	252.6	308.5
72.5°	62.7	61.1	58.4	59.3	63.6	63.6	66.1	70.4	86.8	118.6	159.0
75°	54.2	52.4	49.9	49.9	50.8	51.6	52.4	54.2	55.0	56.8	63.6
77.5°	44.6	43.0	40.3	40.3	39.5	40.3	42.1	43.0	41.2	44.6	45.5
80°	34.3	31.8	30.9	30.9	30.0	29.3	29.3	29.3	30.0	31.8	32.7
82.5°	21.5	19.8	20.6	19.8	19.0	19.0	19.0	19.0	19.8	19.8	21.5
85°	10.3	10.3	11.2	10.3	8.6	8.6	7.7	6.8	7.7	6.8	8.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P271501

CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7027

**CANDELA DISTRIBUTION (continued):**

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
0°	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6
2.5°	293.8	295.6	294.7	295.6	293.8	295.6	293.0	295.6	294.7	295.6	293.8
5°	296.5	299.0	296.5	299.9	296.5	299.9	296.5	299.9	297.2	299.9	296.5
7.5°	299.0	304.2	300.8	305.1	300.8	306.0	300.8	306.0	302.5	306.8	300.8
10°	304.2	310.3	305.1	310.3	305.1	311.0	305.1	311.9	306.8	313.7	306.0
12.5°	308.5	315.3	310.3	317.1	309.4	318.8	311.0	321.3	312.8	323.1	312.8
15°	314.5	323.1	317.9	325.6	317.9	328.2	318.8	330.8	321.3	332.6	321.3
17.5°	323.1	332.6	325.6	335.2	326.5	337.8	327.4	340.3	330.8	342.1	330.8
20°	335.2	342.8	336.0	346.3	336.9	347.1	338.6	348.9	341.2	351.5	341.2
22.5°	348.9	355.8	350.6	356.5	348.0	356.5	348.0	356.5	350.6	359.2	350.6
25°	364.4	369.6	363.5	369.6	361.7	368.7	360.8	367.8	361.7	369.6	363.5
27.5°	384.9	387.6	380.7	385.8	376.4	383.3	374.6	381.5	375.5	382.4	378.1
30°	407.3	409.9	403.0	406.4	396.2	400.5	391.0	397.1	391.8	397.1	394.4
32.5°	432.3	435.7	428.0	429.7	421.0	421.9	414.2	416.7	412.5	414.2	413.3
35°	460.7	465.0	456.2	458.9	449.4	449.4	442.5	441.7	440.0	438.2	438.2
37.5°	496.8	498.4	491.6	491.6	480.3	480.3	471.8	471.8	468.4	465.0	463.2
40°	536.2	537.1	525.9	525.0	513.9	513.9	504.4	501.8	495.9	491.6	488.9
42.5°	578.3	577.5	561.1	562.9	546.5	547.3	535.4	532.8	526.8	521.6	516.4
45°	621.3	617.9	601.5	600.7	581.7	582.6	568.0	566.3	557.7	552.5	546.5
47.5°	665.1	663.4	645.3	641.0	621.3	620.4	601.5	601.5	592.9	587.9	581.7
50°	710.6	709.8	689.2	686.6	665.9	662.5	640.2	640.2	629.9	628.2	619.7
52.5°	760.4	757.0	734.7	733.8	714.2	711.5	687.5	685.8	670.2	669.3	660.0
55°	809.5	803.4	788.8	782.0	762.2	761.3	739.8	735.5	715.8	715.8	703.8
57.5°	854.2	849.0	837.0	830.9	812.1	809.5	786.3	786.3	769.1	768.2	755.4
60°	900.6	902.3	889.4	886.8	868.8	867.9	844.7	844.7	827.5	826.7	812.1
62.5°	940.1	957.2	952.1	953.8	938.4	935.8	912.6	910.9	891.1	888.5	876.5
65°	901.4	961.5	1000.3	1026.0	1024.2	1023.3	1001.1	997.7	972.8	965.9	946.2
67.5°	757.0	835.2	905.7	983.0	1039.8	1082.7	1095.7	1090.5	1069.1	1049.2	1025.1
70°	507.0	597.2	686.6	782.9	879.9	974.4	1071.6	1113.7	1158.4	1142.8	1138.6
71°	385.8	478.7	568.0	669.3	772.5	877.4	996.8	1046.6	1136.9	1136.0	1159.3
72.5°	217.4	299.9	395.3	483.7	580.9	689.2	812.1	867.0	996.8	1022.6	1089.6
75°	69.6	95.4	126.3	199.3	259.5	358.3	449.4	504.4	590.4	633.3	727.0
77.5°	46.4	51.6	53.3	61.8	69.6	98.8	134.0	164.1	180.5	189.0	198.4
80°	33.5	36.1	37.8	42.1	43.0	48.1	48.1	53.3	52.4	55.9	53.3
82.5°	21.5	24.1	25.0	26.6	27.5	30.9	32.7	36.1	36.1	37.8	36.9
85°	10.3	12.0	12.0	13.7	13.7	16.3	16.3	19.0	19.0	21.5	20.6
87.5°	0.9	0.9	0.9	1.8	1.8	1.8	2.5	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P271501

CATALOG NUMBER: ISS-AF-450-LED-E1-RW-7027

**CANDELA DISTRIBUTION (continued):**

	80°	82.5°	85°	87.5°	90°
0°	295.6	295.6	295.6	295.6	295.6
2.5°	296.5	295.6	296.5	294.7	296.5
5°	300.8	297.2	301.7	297.2	301.7
7.5°	307.6	303.4	308.5	301.7	307.6
10°	313.7	307.6	314.5	307.6	313.7
12.5°	324.0	314.5	325.6	314.5	325.6
15°	334.3	323.1	336.9	324.7	336.0
17.5°	343.7	333.5	346.3	334.3	345.5
20°	352.3	342.8	354.0	342.1	354.0
22.5°	360.8	354.9	363.5	354.9	363.5
25°	372.1	367.8	373.9	367.8	373.9
27.5°	384.9	383.3	386.7	382.4	387.6
30°	399.6	400.5	401.4	400.5	402.1
32.5°	417.6	421.9	420.1	420.1	420.1
35°	442.5	450.3	445.1	446.9	446.0
37.5°	465.7	476.9	470.0	472.6	470.9
40°	491.6	499.3	497.5	497.5	495.9
42.5°	519.8	529.3	526.8	527.7	525.9
45°	550.8	559.5	556.1	555.2	556.1
47.5°	586.1	595.5	591.3	590.4	591.3
50°	623.1	634.1	630.7	629.0	630.7
52.5°	663.4	677.1	675.4	673.7	676.2
55°	710.6	723.6	721.8	723.6	724.4
57.5°	757.9	772.5	769.1	773.4	775.1
60°	817.2	825.8	826.7	827.5	828.3
62.5°	877.4	880.8	883.3	886.0	886.8
65°	946.9	947.8	949.6	946.9	949.6
67.5°	1014.0	1008.0	1007.1	1009.7	1011.4
70°	1118.0	1118.0	1109.4	1121.4	1111.1
71°	1131.8	1148.0	1129.1	1155.8	1127.5
72.5°	1064.7	1094.8	1073.3	1097.3	1069.1
75°	740.7	810.3	809.5	843.9	816.3
77.5°	205.4	192.5	205.4	177.1	169.3
80°	55.9	50.8	55.0	46.4	52.4
82.5°	36.9	31.8	30.9	25.0	26.6
85°	21.5	16.3	16.3	12.8	13.7
87.5°	3.4	0.9	3.4	1.8	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)