

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: P271510

Luminaire Tested: **ISS-AF-450-LED-E1-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271510  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29757)  
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-T4W-7027  
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE  
Light Source: (16) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2602.9 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1

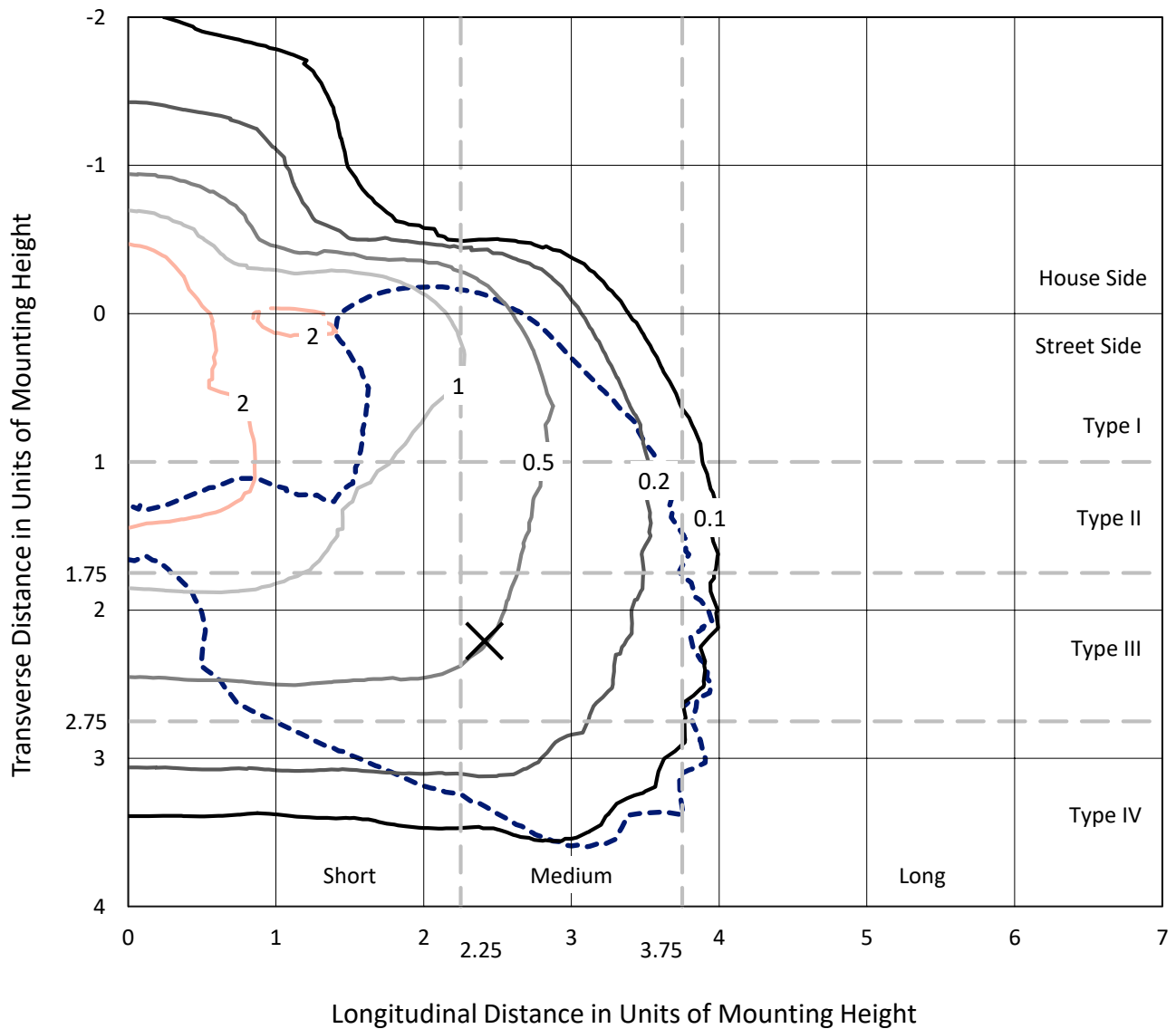
Input Watts (W): 25.31  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P271510  
 CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

### Iso-Footcandle Lines of Horizontal Illumination

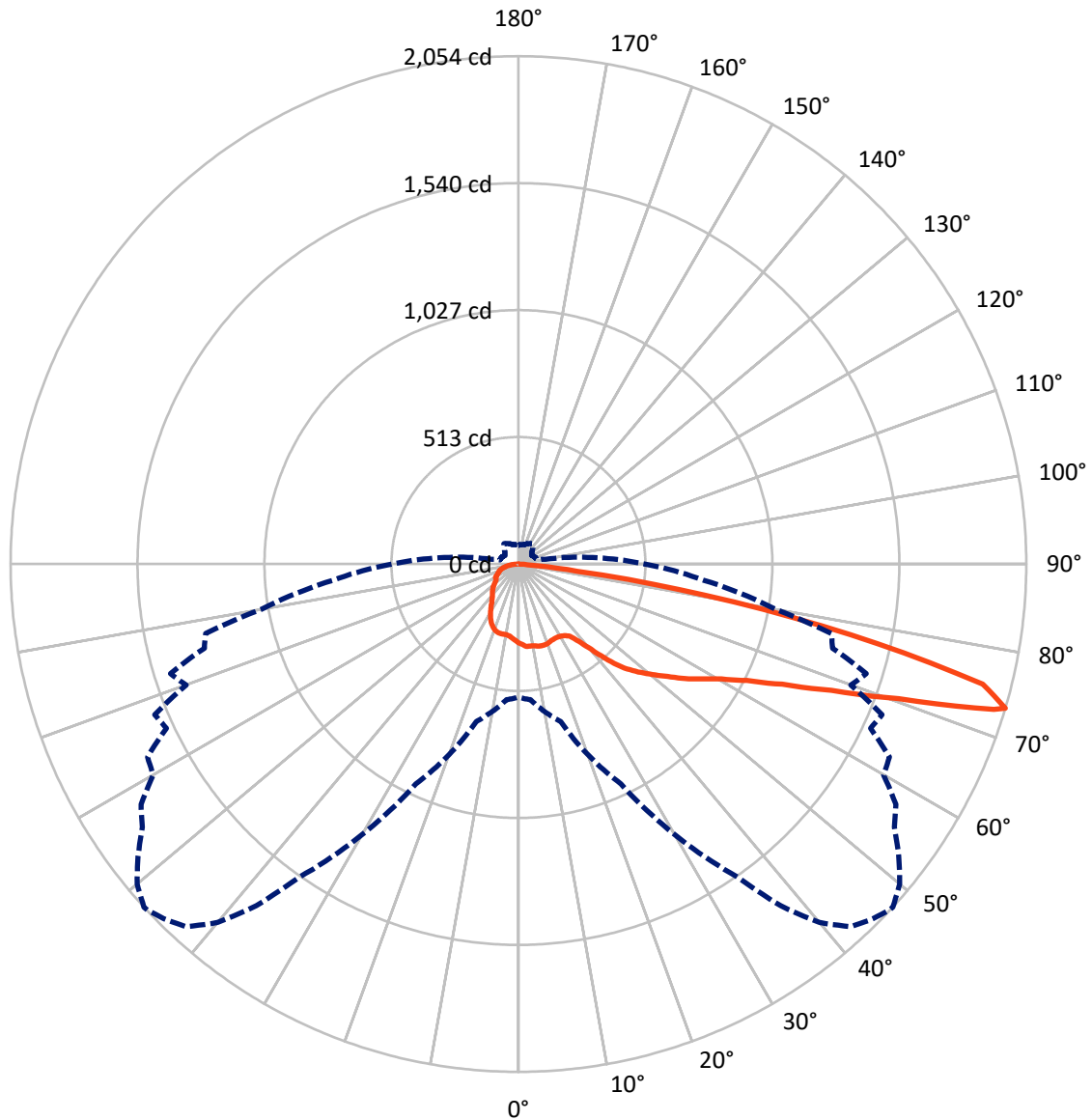
× Max cd  
 - - - 1/2 Max cd



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

REPORT NUMBER: P271510  
CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

REPORT NUMBER: P271510  
 CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

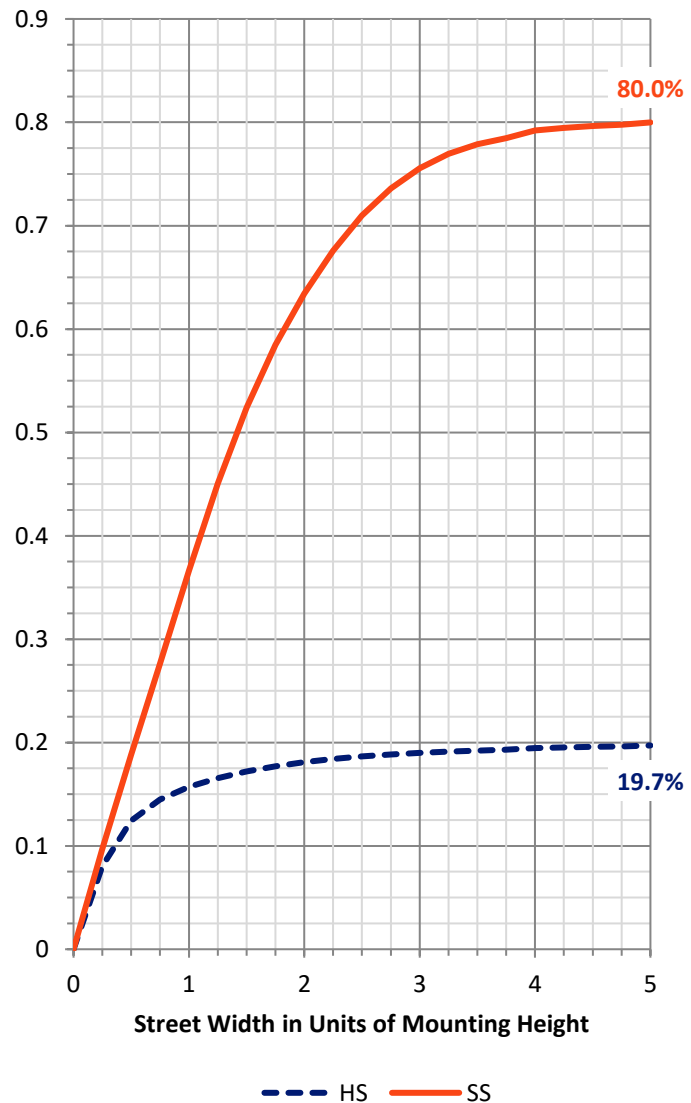
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	520.0	0.0	520.0
	% Fixture	20.0	0.0	20.0
<b>Street Side</b>	Lumens	2082.9	0.0	2082.9
	% Fixture	80.0	0.0	80.0
<b>Total</b>	Lumens	2602.9	0.0	2602.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.4	1.2
10°-20°	90.6	3.5
20°-30°	139.2	5.3
30°-40°	203.1	7.8
40°-50°	334.9	12.9
50°-60°	524.3	20.1
60°-70°	711.2	27.3
70°-80°	526.7	20.2
80°-90°	42.6	1.6
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°	2602.9	100.0
0°-180°	2602.9	100.0



REPORT NUMBER: P271510

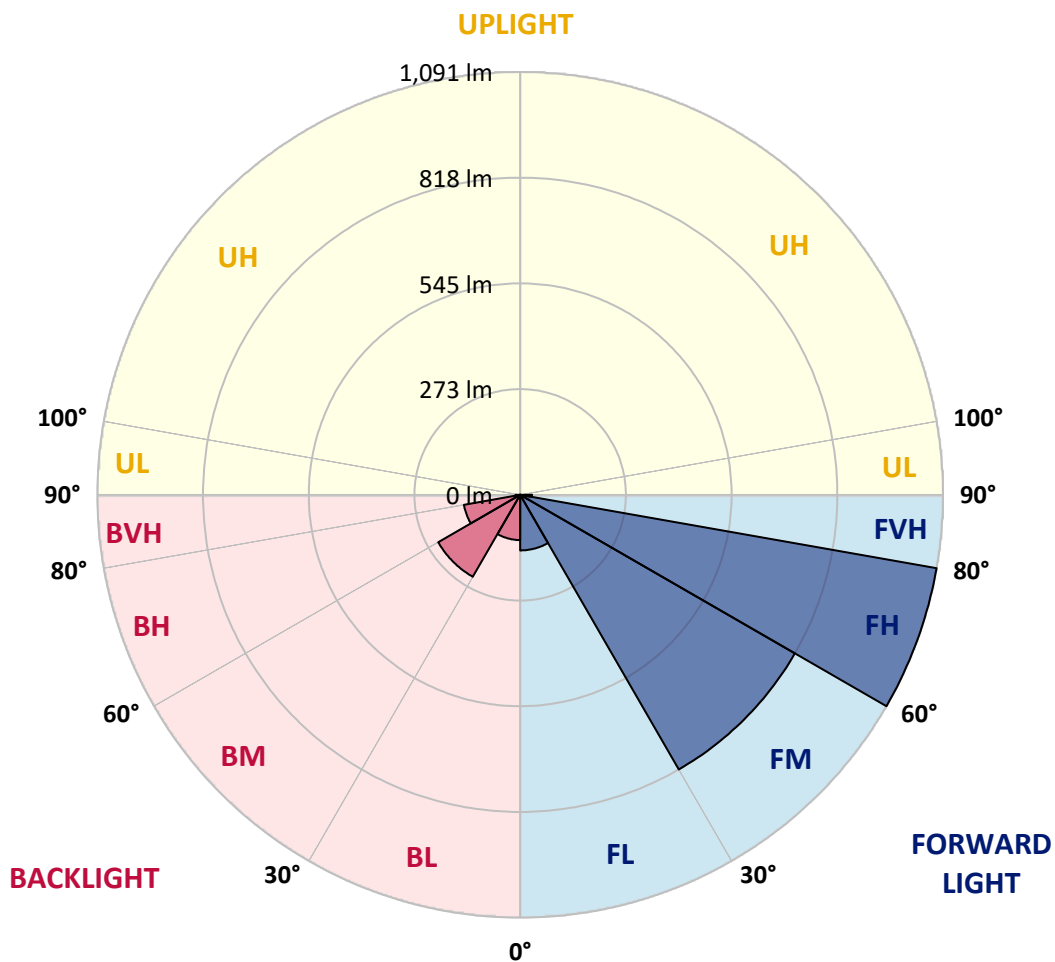
CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	143.5	5.5			
FM	(30°-60°)	818.1	31.4			
FH	(60°-80°)	1090.6	41.9			G1/1800
FVH	(80°-90°)	30.7	1.2			G1/100
BL	(0°-30°)	116.7	4.5	B1/500		
BM	(30°-60°)	244.2	9.4	B1/1000		
BH	(60°-80°)	147.3	5.7	B1/500		G1/500
BVH	(80°-90°)	11.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

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

Type IV Medium





REPORT NUMBER: P271510

CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47°	47.5°
0°	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7
2.5°	338.5	337.8	335.1	334.2	331.7	329.9	329.0	328.2	330.8	329.0	326.5
5°	360.0	358.3	354.9	349.7	344.6	341.2	340.3	338.5	338.5	336.9	335.1
7.5°	375.5	374.6	369.5	361.7	353.1	347.1	343.7	341.2	342.0	340.3	335.1
10°	390.1	388.3	379.7	370.3	357.4	350.6	346.3	342.0	345.4	342.8	336.0
12.5°	401.3	399.6	387.5	375.5	360.8	353.1	348.8	346.3	349.7	348.0	340.3
15°	407.3	405.6	393.5	378.9	363.5	354.9	353.1	351.5	354.0	350.6	343.7
17.5°	403.9	403.9	392.6	377.2	364.4	355.7	353.1	351.5	354.9	351.5	343.7
20°	390.9	392.6	384.9	368.7	359.1	353.1	350.6	347.1	350.6	347.1	342.0
22.5°	374.6	376.3	372.1	357.4	350.6	346.3	345.4	342.0	344.6	342.0	336.9
25°	360.0	360.0	358.3	345.4	344.6	341.2	342.0	340.3	342.0	338.5	335.1
27.5°	360.8	360.8	354.0	341.2	340.3	340.3	340.3	340.3	341.2	338.5	335.1
30°	411.5	413.3	393.5	357.4	344.6	342.8	343.7	342.8	343.7	342.8	338.5
32.5°	488.0	488.0	469.2	413.3	367.8	356.5	352.2	351.5	348.8	348.0	344.6
35°	563.7	562.8	543.9	482.0	424.4	403.0	389.2	376.3	370.3	364.4	358.3
37.5°	627.3	624.6	622.1	551.6	491.6	466.6	450.2	431.4	419.3	409.0	395.3
40°	686.6	690.9	700.3	616.1	558.5	535.3	519.0	495.0	482.9	470.0	453.6
42.5°	768.1	774.2	775.1	685.7	619.5	604.0	591.2	573.1	560.3	544.7	530.2
45°	847.2	848.1	850.7	760.4	694.3	674.4	665.0	647.9	631.6	611.7	599.8
47.5°	901.3	898.8	909.9	846.3	782.0	759.6	745.9	720.0	695.1	670.1	652.2
50°	967.6	964.9	964.9	944.3	883.3	857.5	833.4	785.4	758.7	727.8	701.9
52.5°	1026.0	1016.5	1022.5	1034.5	989.8	957.1	915.1	860.9	825.7	787.9	755.3
55°	1105.8	1056.9	1070.6	1112.7	1095.6	1044.8	988.9	931.5	891.0	848.1	818.0
57.5°	1078.3	1044.8	1085.2	1159.2	1158.3	1111.0	1063.8	993.3	952.9	912.5	875.6
60°	979.5	996.7	1084.3	1191.0	1195.1	1158.3	1119.6	1054.3	1022.5	980.4	943.4
62.5°	903.1	927.9	1048.2	1188.3	1237.2	1202.9	1171.1	1132.4	1110.1	1074.9	1037.1
65°	898.8	913.4	1030.3	1185.8	1296.5	1278.6	1263.9	1245.9	1241.5	1215.9	1172.0
67.5°	940.0	953.7	1061.2	1251.9	1384.2	1376.6	1398.0	1394.5	1413.4	1400.5	1364.4
70°	859.2	867.0	999.3	1275.1	1584.4	1618.7	1667.0	1664.3	1704.7	1673.8	1631.7
72.5°	603.2	618.7	735.5	1053.4	1588.7	1772.5	1884.4	1978.9	2022.6	2030.3	2010.6
73°	538.7	550.8	659.1	981.3	1545.7	1741.6	1892.0	1989.2	2027.8	2051.9	2053.5
75°	187.3	193.3	287.9	594.6	1235.6	1520.0	1713.2	1800.9	1791.5	1862.0	1939.4
77.5°	60.2	61.1	74.8	153.8	596.4	943.4	1159.2	1239.9	1193.5	1269.9	1373.1
80°	36.9	38.6	49.0	69.6	156.3	286.1	484.6	606.6	581.7	653.0	763.0
82.5°	22.4	23.2	30.0	43.0	62.7	69.6	91.1	123.8	152.2	183.1	239.7
85°	10.3	11.2	14.6	19.8	25.8	26.6	25.8	24.1	27.5	31.8	36.9
87.5°	0.0	0.0	0.9	1.8	0.9	0.0	0.0	0.0	0.0	0.9	0.0
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: P271510

CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

**CANDELA DISTRIBUTION (continued):**

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7
2.5°	329.0	326.5	326.5	323.1	324.7	321.3	323.1	319.7	321.3	317.0	319.7
5°	334.2	329.9	329.9	324.7	325.6	319.7	322.2	315.3	318.8	311.0	316.2
7.5°	336.9	329.0	332.6	323.1	327.3	317.0	322.2	311.0	317.9	306.0	314.5
10°	340.3	329.0	335.1	324.7	329.9	317.9	324.7	311.0	319.7	305.1	312.8
12.5°	345.4	333.5	338.5	326.5	333.5	319.7	326.5	312.8	321.3	305.1	314.5
15°	348.8	336.9	342.0	329.9	335.1	319.7	328.2	311.9	321.3	304.2	314.5
17.5°	348.0	336.9	342.0	328.2	334.2	318.8	327.3	311.0	319.7	301.7	312.8
20°	344.6	335.1	338.5	326.5	331.7	316.2	323.9	307.6	317.0	299.0	310.2
22.5°	340.3	330.8	335.1	323.9	329.0	313.6	320.4	306.0	315.3	297.2	307.6
25°	337.8	329.9	332.6	321.3	328.2	314.5	321.3	305.1	315.3	297.2	309.4
27.5°	336.9	329.9	335.1	324.7	330.8	318.8	325.6	311.0	319.7	300.8	312.8
30°	342.0	336.0	340.3	331.7	336.9	324.7	331.7	317.9	326.5	308.5	322.2
32.5°	348.0	342.0	346.3	338.5	346.3	334.2	342.8	329.0	339.4	321.3	334.2
35°	360.8	354.0	360.0	351.5	360.0	350.6	360.0	345.4	358.3	340.3	354.0
37.5°	394.4	375.5	381.5	372.1	380.6	368.7	384.9	370.3	384.9	367.8	386.7
40°	447.6	414.2	420.1	400.5	413.3	395.3	414.9	403.9	423.6	402.1	426.2
42.5°	517.2	485.4	479.4	449.4	460.5	439.1	458.9	439.1	465.7	445.1	475.1
45°	580.8	547.3	537.8	508.7	516.3	488.0	512.9	485.4	520.7	496.7	534.4
47.5°	633.2	593.7	586.1	552.5	566.2	539.6	570.5	541.3	584.3	560.3	604.0
50°	681.4	632.4	630.7	594.6	617.8	591.2	635.0	615.2	657.3	633.2	684.8
52.5°	736.4	674.4	683.1	650.5	687.5	665.0	715.7	687.5	742.4	716.6	773.4
55°	794.8	729.5	751.8	732.1	775.9	761.2	804.3	778.5	832.5	806.8	867.0
57.5°	859.2	803.4	842.9	833.4	872.2	854.1	902.2	879.0	933.1	911.6	971.8
60°	943.4	906.5	945.2	944.3	977.9	977.0	1007.9	994.2	1045.6	1036.3	1091.2
62.5°	1052.5	1023.3	1064.6	1053.4	1093.8	1086.9	1124.8	1124.8	1161.7	1174.5	1229.6
65°	1199.5	1160.8	1209.7	1192.6	1233.0	1234.7	1258.7	1263.1	1307.8	1322.3	1369.6
67.5°	1398.8	1354.1	1392.8	1360.1	1406.6	1404.1	1424.6	1433.2	1439.3	1474.5	1479.6
70°	1685.8	1618.7	1654.0	1609.3	1617.9	1624.0	1585.3	1613.6	1544.9	1600.8	1525.1
72.5°	1996.0	1919.5	1858.5	1813.9	1725.4	1712.5	1599.9	1624.0	1477.9	1526.0	1373.1
73°	2012.3	1938.5	1856.0	1809.5	1704.7	1691.0	1570.7	1591.3	1429.7	1475.3	1314.6
75°	1829.3	1849.1	1650.5	1669.5	1487.3	1508.8	1320.7	1344.8	1146.1	1180.6	973.5
77.5°	1233.0	1299.2	1076.6	1160.0	934.0	1017.3	762.1	769.8	561.9	525.0	356.5
80°	610.8	667.6	473.5	517.2	347.1	341.2	208.0	172.7	147.0	150.4	154.7
82.5°	176.2	198.4	122.9	122.0	86.8	82.5	82.5	87.7	89.3	99.7	97.1
85°	33.5	40.3	35.2	47.3	42.1	46.4	43.0	49.9	46.4	57.6	49.9
87.5°	0.9	0.0	0.9	2.5	2.5	6.0	4.3	6.8	6.8	12.0	11.2
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: P271510

CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

**CANDELA DISTRIBUTION (continued):**

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7
2.5°	316.2	320.4	318.8	317.0	315.3	314.5	311.0	312.8	308.5	311.9	308.5
5°	309.4	314.5	311.9	308.5	306.7	305.1	299.0	303.3	296.4	302.5	297.2
7.5°	301.7	310.2	307.6	304.2	300.8	299.0	287.0	296.4	286.1	294.7	286.1
10°	299.0	308.5	305.1	300.8	297.2	295.6	281.0	292.2	281.0	290.4	279.2
12.5°	297.2	308.5	303.3	299.0	295.6	292.9	276.7	290.4	275.8	289.5	276.7
15°	295.6	308.5	301.7	296.4	292.9	290.4	273.3	288.6	272.4	287.9	273.3
17.5°	293.8	306.0	299.9	293.8	290.4	288.6	269.9	286.1	269.0	286.1	271.5
20°	291.3	303.3	296.4	290.4	287.0	284.4	265.4	282.7	264.6	281.8	265.4
22.5°	287.9	300.8	294.7	288.6	285.2	281.0	260.4	278.4	259.5	276.7	261.1
25°	288.6	302.5	294.7	288.6	283.5	279.2	256.9	276.7	255.2	272.4	255.2
27.5°	292.9	305.1	297.2	292.2	285.2	280.1	256.9	274.9	253.5	268.1	250.1
30°	301.7	313.6	306.7	299.0	292.9	286.1	261.1	275.8	253.5	262.9	244.9
32.5°	316.2	327.3	320.4	314.5	307.6	297.2	269.9	280.1	255.2	259.5	240.6
35°	335.1	348.8	345.4	341.2	332.6	314.5	284.4	286.1	258.6	256.1	234.5
37.5°	366.0	384.9	384.0	383.1	373.8	341.2	300.8	298.1	262.0	253.5	226.8
40°	406.4	428.7	434.8	440.8	421.0	372.9	319.7	310.2	263.8	248.3	214.9
42.5°	453.6	483.7	501.8	512.9	476.9	408.1	341.2	323.9	263.8	240.6	201.1
45°	512.1	547.3	581.7	593.7	538.7	446.0	363.5	335.1	260.4	228.6	183.1
47.5°	583.4	624.6	671.9	678.0	605.7	486.3	378.9	342.8	249.2	212.2	166.6
50°	662.5	712.3	782.0	777.7	677.1	528.5	389.2	348.0	229.3	193.3	147.0
52.5°	750.9	813.7	912.5	892.7	763.9	580.8	398.7	354.9	205.4	170.9	127.2
55°	861.8	936.6	1060.3	1018.2	860.0	638.4	412.4	355.7	173.6	144.4	112.6
57.5°	981.3	1061.2	1219.3	1142.7	950.2	683.1	406.4	328.2	141.8	122.0	101.4
60°	1124.8	1221.9	1378.2	1258.7	1026.0	698.5	364.4	270.7	121.1	110.0	96.2
62.5°	1285.5	1381.6	1508.8	1339.6	1068.9	672.8	270.7	187.3	103.9	97.9	88.6
65°	1456.4	1547.5	1571.6	1346.4	1040.6	559.4	167.5	122.9	90.2	87.7	81.7
67.5°	1613.6	1622.2	1512.3	1234.7	903.1	390.1	114.3	97.9	83.4	82.5	79.1
70°	1654.0	1505.4	1257.1	961.5	652.2	232.0	92.7	85.1	79.9	79.9	77.3
72.5°	1381.6	1146.1	840.4	582.6	355.7	123.8	79.1	77.3	75.5	75.5	73.9
73°	1295.7	1056.0	752.7	508.7	300.8	110.9	77.3	75.5	74.8	73.9	73.0
75°	860.9	663.3	427.1	257.7	140.0	79.9	68.7	68.7	67.9	68.7	67.9
77.5°	331.7	250.1	165.0	110.9	79.9	62.7	58.4	59.3	58.4	60.2	59.3
80°	146.1	144.4	109.1	78.2	58.4	47.3	47.3	47.3	48.1	49.0	49.0
82.5°	99.7	84.2	64.5	48.1	35.2	34.3	35.2	35.2	36.1	36.9	36.1
85°	55.0	46.4	34.3	21.5	19.0	23.2	23.2	23.2	22.4	22.4	21.5
87.5°	17.2	12.8	9.4	2.5	4.3	4.3	6.0	5.2	5.2	6.0	6.0
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: P271510

CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

**CANDELA DISTRIBUTION (continued):**

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7	319.7
2.5°	311.9	309.4	311.9	307.6	311.0	307.6	310.2	310.2	309.4	309.4	309.4
5°	301.7	297.2	301.7	299.0	301.7	298.1	300.8	301.7	302.5	305.1	304.2
7.5°	293.8	285.2	294.7	286.1	293.8	286.1	292.9	293.8	296.4	299.9	302.5
10°	290.4	279.2	290.4	280.1	289.5	281.0	289.5	290.4	292.9	297.2	301.7
12.5°	288.6	276.7	288.6	278.4	288.6	280.1	288.6	291.3	292.9	296.4	301.7
15°	287.0	274.9	288.6	277.6	288.6	280.1	289.5	291.3	293.8	297.2	301.7
17.5°	286.1	272.4	287.0	276.7	287.0	278.4	288.6	288.6	292.2	296.4	299.0
20°	282.7	269.9	282.7	272.4	282.7	274.9	283.5	283.5	287.0	288.6	292.9
22.5°	277.6	263.8	275.8	266.3	275.8	268.1	274.9	274.9	277.6	280.1	282.7
25°	269.9	256.9	267.2	258.6	265.4	258.6	263.8	262.9	264.6	266.3	268.1
27.5°	261.1	248.3	256.9	247.4	251.7	244.9	248.3	246.7	247.4	248.3	249.2
30°	251.7	238.9	243.2	234.5	235.4	228.6	230.2	227.7	226.8	225.9	224.3
32.5°	241.5	227.7	227.7	219.1	217.4	211.4	211.4	208.0	205.4	201.8	198.4
35°	228.6	216.5	210.6	203.6	200.2	194.2	193.3	189.0	183.1	177.0	173.6
37.5°	215.6	201.8	193.3	186.5	183.1	178.8	177.9	174.5	167.5	160.7	155.6
40°	198.4	184.7	175.3	172.7	170.0	166.6	167.5	163.2	156.3	148.7	144.4
42.5°	181.3	169.3	161.5	160.7	159.0	158.1	159.0	155.6	147.8	140.9	135.7
45°	166.6	154.7	147.0	146.1	145.3	148.7	149.5	148.7	140.0	133.2	126.3
47.5°	152.2	137.5	132.3	130.6	131.4	136.6	138.2	140.9	133.2	125.4	116.0
50°	134.8	121.1	119.5	117.7	118.6	122.9	127.2	132.3	125.4	114.3	101.4
52.5°	119.5	107.3	108.2	106.6	108.2	111.7	115.2	123.8	115.2	103.9	97.9
55°	107.3	97.9	99.7	97.9	99.7	103.9	106.6	113.5	113.5	110.9	105.7
57.5°	98.8	92.0	93.6	92.0	94.5	97.9	100.5	115.2	123.8	116.9	106.6
60°	93.6	87.7	88.6	86.8	88.6	93.6	98.8	116.0	129.7	116.0	108.2
62.5°	85.9	80.8	79.9	79.9	81.7	90.2	92.7	108.2	128.0	115.2	109.1
65°	80.8	76.4	75.5	74.8	76.4	82.5	85.1	100.5	123.8	109.1	98.8
67.5°	78.2	74.8	73.0	71.3	73.0	78.2	80.8	94.5	116.9	103.9	92.7
70°	75.5	72.1	71.3	69.6	70.4	73.9	77.3	86.8	110.9	97.9	86.8
72.5°	72.1	68.7	67.9	65.3	66.1	69.6	71.3	81.7	103.1	92.0	80.8
73°	71.3	67.9	67.0	64.5	65.3	67.9	69.6	79.9	101.4	91.1	79.9
75°	67.0	63.6	62.7	61.1	61.8	61.8	63.6	73.0	96.2	85.9	74.8
77.5°	59.3	56.8	55.9	54.2	53.3	52.4	55.0	64.5	87.7	77.3	60.2
80°	49.0	46.4	45.5	42.1	42.1	42.1	45.5	55.0	65.3	55.9	46.4
82.5°	36.1	34.3	34.3	31.8	30.9	30.0	32.7	37.8	51.6	43.7	36.1
85°	21.5	20.6	21.5	19.0	19.8	19.0	21.5	26.6	28.4	22.4	17.2
87.5°	5.2	6.0	6.0	6.0	5.2	5.2	4.3	3.4	0.0	0.0	0.0
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: P271510  
CATALOG NUMBER: ISS-AF-450-LED-E1-T4W-7027

**CANDELA DISTRIBUTION (continued):**

	175°	180°
0°	319.7	319.7
2.5°	308.5	307.6
5°	304.2	304.2
7.5°	302.5	302.5
10°	303.3	303.3
12.5°	303.3	305.1
15°	306.0	305.1
17.5°	303.3	303.3
20°	296.4	298.1
22.5°	287.0	287.0
25°	271.5	272.4
27.5°	250.9	252.6
30°	225.1	226.8
32.5°	195.9	197.6
35°	172.7	173.6
37.5°	157.2	157.2
40°	144.4	144.4
42.5°	132.3	131.4
45°	120.4	118.6
47.5°	108.2	107.3
50°	97.9	97.9
52.5°	99.7	99.7
55°	107.3	107.3
57.5°	108.2	107.3
60°	117.7	116.9
62.5°	122.9	125.4
65°	107.3	103.9
67.5°	102.2	97.1
70°	92.0	84.2
72.5°	81.7	77.3
73°	79.1	75.5
75°	70.4	68.7
77.5°	53.3	52.4
80°	44.6	43.7
82.5°	30.0	28.4
85°	12.8	12.0
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)