

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: P228148

Luminaire Tested: **ISC-AF-600-LED-E1-SL2-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P228148  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29761)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISC-AF-600-LED-E1-SL2-8030  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II W/SPILL CONTROL  
Light Source: (16) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

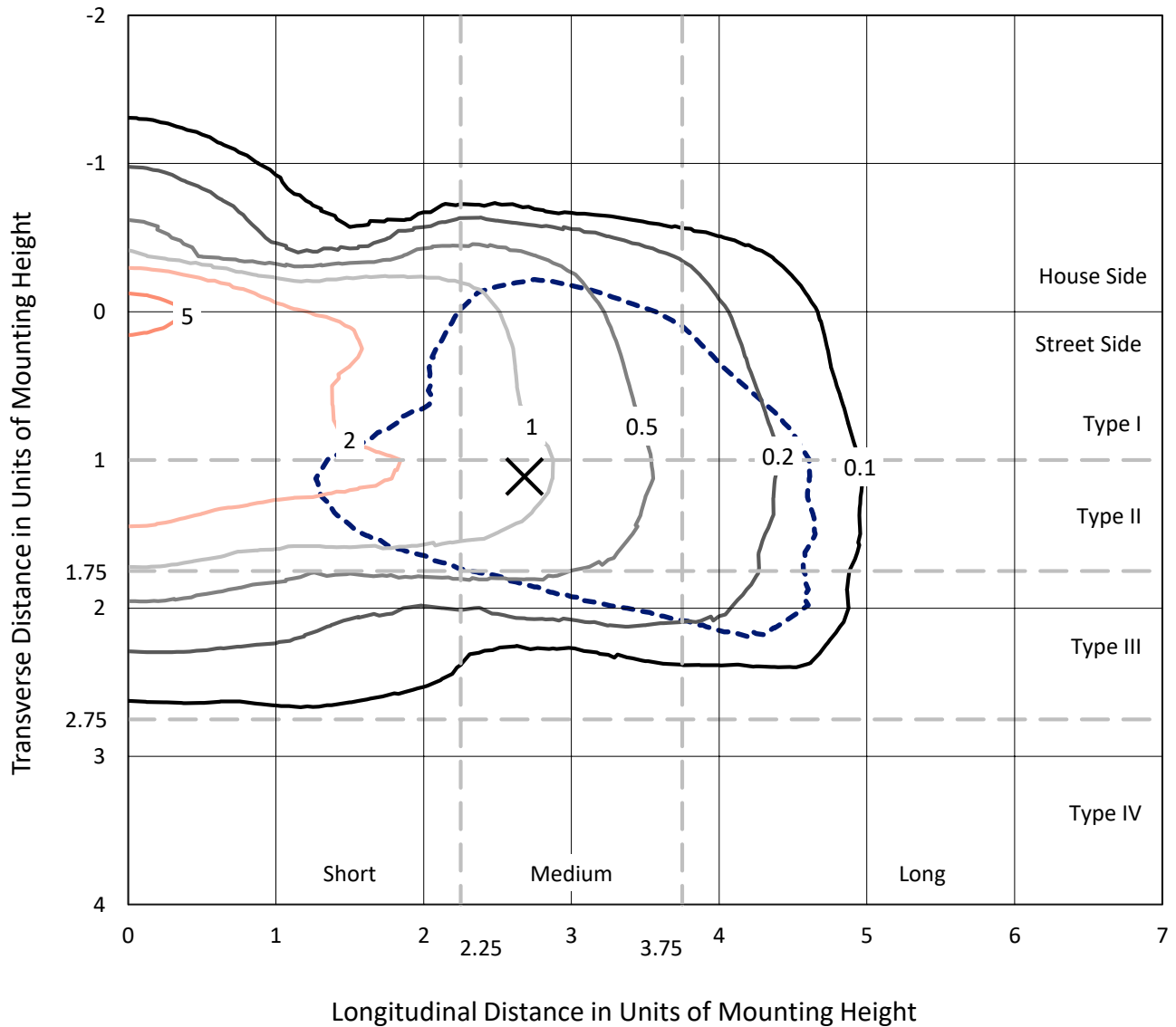
Lumens per Lamp: N/A  
Luminaire Lumens: 3017 lumens  
Efficiency: N/A  
Efficacy: 89.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 33.7  
Input Voltage (V): 120  
Input Current (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: P228148  
 CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

### Iso-Footcandle Lines of Horizontal Illumination

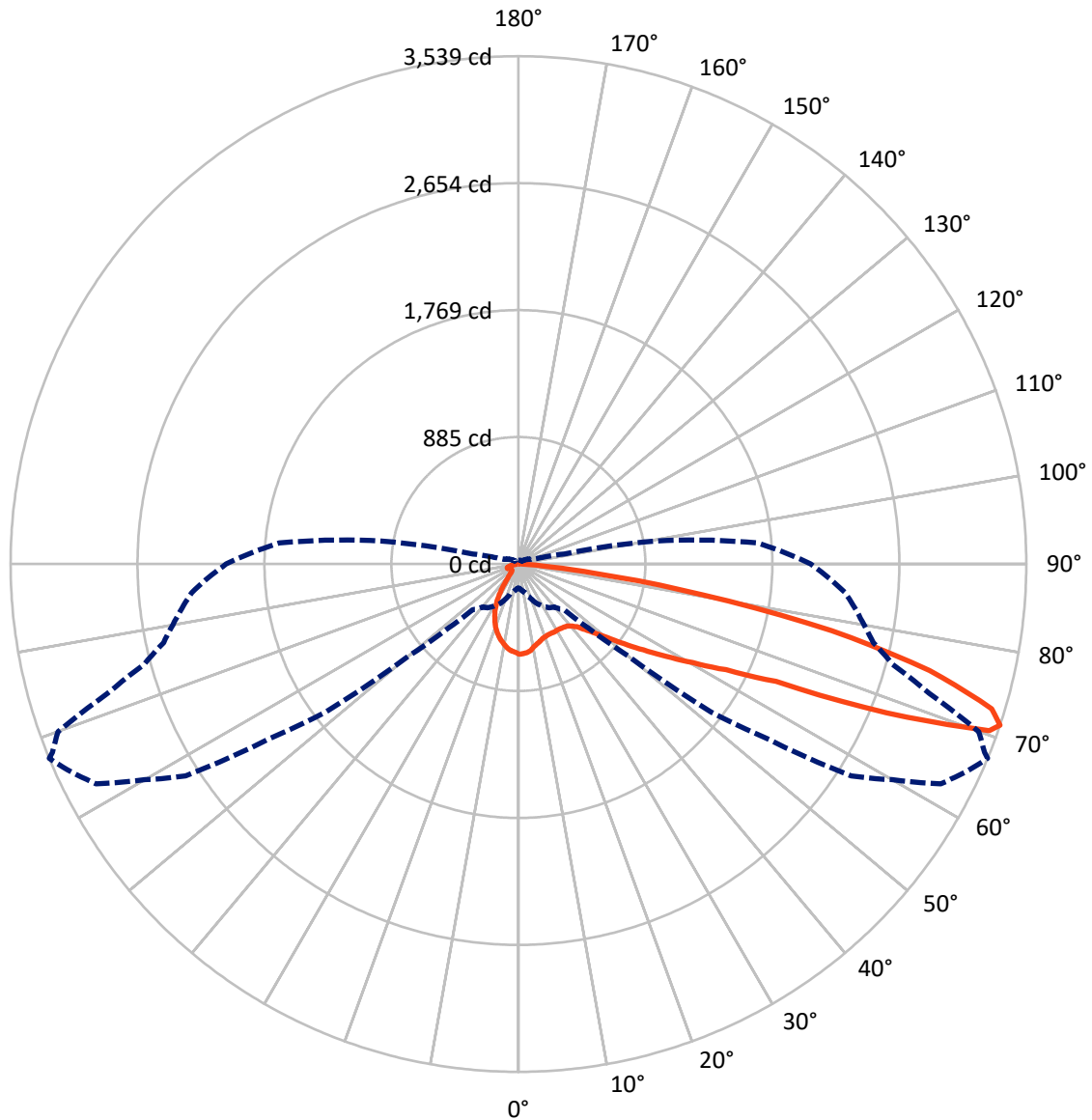
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P228148  
CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P228148

CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	508.4	0.0	508.4
	% Fixture	16.9	0.0	16.9
<b>Street Side</b>	Lumens	2508.6	0.0	2508.6
	% Fixture	83.1	0.0	83.1
<b>Total</b>	Lumens	3017.0	0.0	3017.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.9	1.8
10°-20°	131.2	4.4
20°-30°	178.5	5.9
30°-40°	243.9	8.1
40°-50°	367.6	12.2
50°-60°	582.5	19.3
60°-70°	771.2	25.6
70°-80°	614.4	20.4
80°-90°	72.8	2.4
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°	3017.0	100.0
0°-180°	3017.0	100.0



REPORT NUMBER: P228148

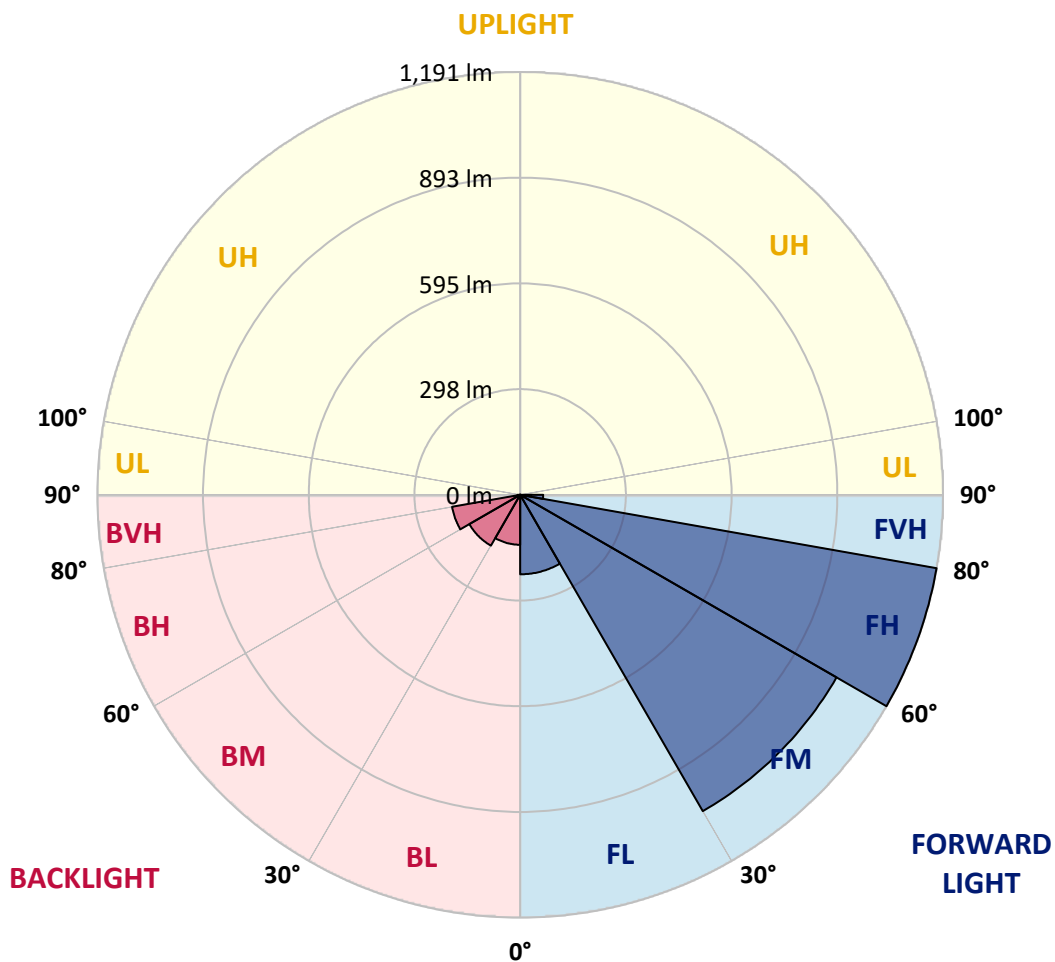
CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	223.9	7.4			
FM (30°-60°)	1028.8	34.1			
FH (60°-80°)	1190.9	39.5			G1/1800
FVH (80°-90°)	65.0	2.2			G1/100
BL (0°-30°)	140.7	4.7	B1/500		
BM (30°-60°)	165.2	5.5	B0/220		
BH (60°-80°)	194.6	6.4	B1/500		G1/500
BVH (80°-90°)	7.9	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 III Medium





REPORT NUMBER: P228148

CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
2.5°	617.1	615.0	615.0	618.2	623.4	619.2	622.4	622.4	623.4	626.6	627.7
5°	571.8	567.6	571.8	576.1	587.6	585.5	588.7	591.8	598.2	599.2	607.6
7.5°	530.8	528.7	531.8	540.2	555.0	550.8	555.0	559.2	566.6	569.7	578.2
10°	499.2	496.0	500.2	506.5	521.3	520.2	522.3	527.6	536.0	538.1	548.7
12.5°	476.0	476.0	478.1	486.5	499.2	498.1	504.4	507.6	515.0	517.1	528.7
15°	464.4	461.3	465.5	472.8	485.5	485.5	489.7	492.9	503.4	504.4	515.0
17.5°	453.9	454.9	456.0	464.4	476.0	473.9	479.2	481.3	492.9	490.8	503.4
20°	453.9	456.0	454.9	460.2	468.6	464.4	470.7	471.8	484.4	481.3	495.0
22.5°	466.5	468.6	465.5	464.4	467.6	464.4	467.6	469.7	479.2	477.1	489.7
25°	488.6	492.9	488.6	481.3	478.1	469.7	471.8	475.0	482.3	477.1	488.6
27.5°	523.4	526.6	519.2	511.8	497.1	487.6	484.4	483.4	491.8	483.4	492.9
30°	563.4	567.6	561.3	547.6	526.6	510.8	504.4	501.3	506.5	493.9	503.4
32.5°	606.6	610.8	606.6	596.1	567.6	544.5	536.0	528.7	532.9	516.0	520.2
35°	650.8	655.0	659.2	652.9	616.1	589.7	576.1	569.7	568.7	547.6	548.7
37.5°	689.8	694.0	707.7	714.0	680.3	644.5	631.9	618.2	619.2	589.7	589.7
40°	737.2	742.4	760.3	775.1	753.0	709.8	695.1	680.3	680.3	641.3	642.4
42.5°	801.4	807.7	819.3	839.3	832.0	787.7	771.9	751.9	754.0	707.7	706.6
45°	892.0	896.2	896.2	908.8	909.9	867.8	857.2	837.2	841.4	782.5	785.6
47.5°	1009.9	1004.7	983.6	991.0	999.4	955.2	945.7	933.1	938.3	875.1	881.5
50°	1119.5	1115.2	1072.1	1074.2	1104.7	1059.4	1056.3	1040.5	1047.8	984.7	994.1
52.5°	1160.5	1153.2	1110.0	1133.1	1218.5	1193.2	1198.4	1191.1	1195.3	1127.9	1125.8
55°	1114.2	1114.2	1087.9	1130.0	1303.8	1317.4	1360.6	1377.5	1395.4	1328.0	1313.2
57.5°	985.7	994.1	998.3	1073.1	1290.1	1349.0	1431.2	1502.8	1594.4	1590.2	1612.3
60°	773.0	787.7	811.9	934.1	1231.1	1328.0	1434.3	1541.8	1668.1	1749.2	1869.3
62.5°	542.4	555.0	575.0	659.2	1059.4	1225.8	1379.6	1544.9	1706.0	1833.5	1991.4
65°	368.6	381.2	423.4	469.7	639.2	881.5	1116.3	1390.1	1635.5	1872.4	2085.2
67.5°	265.4	272.8	305.4	383.3	425.5	469.7	557.1	879.3	1181.6	1658.7	1969.3
70°	199.0	206.4	235.9	322.3	373.9	385.4	406.5	463.4	540.2	932.0	1339.6
71°	166.4	176.9	212.7	303.3	371.7	381.2	390.7	424.4	449.7	659.2	994.1
72.5°	116.9	124.3	158.0	280.1	357.0	379.1	401.2	400.2	398.1	449.7	601.3
75°	74.8	74.8	74.8	158.0	381.2	367.5	376.0	421.2	398.1	378.1	396.0
77.5°	59.0	57.9	54.8	79.0	298.0	372.8	394.9	406.5	428.6	394.9	377.0
80°	44.2	43.2	43.2	49.5	138.0	241.2	333.8	370.7	386.5	420.2	383.3
82.5°	23.2	23.2	25.3	29.5	51.6	84.2	172.7	284.3	318.0	320.1	323.3
85°	7.4	6.3	8.4	13.7	22.1	27.4	48.4	114.8	170.6	206.4	218.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	4.2	7.4	9.5
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: P228148

CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

**CANDELA DISTRIBUTION (continued):**

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	68°	70°	72.5°	75°
0°	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
2.5°	624.5	628.7	625.5	629.8	624.5	630.8	625.5	628.7	629.8	625.5	630.8
5°	602.4	615.0	610.8	620.3	616.1	624.5	620.3	628.7	628.7	625.5	632.9
7.5°	575.0	587.6	588.7	598.2	598.2	608.7	608.7	617.1	621.3	621.3	631.9
10°	547.6	559.2	561.3	571.8	573.9	586.6	586.6	598.2	606.6	609.8	622.4
12.5°	526.6	541.3	541.3	552.9	550.8	569.7	571.8	582.4	590.8	598.2	615.0
15°	513.9	527.6	527.6	539.2	537.1	556.0	559.2	569.7	582.4	586.6	609.8
17.5°	501.3	515.0	511.8	527.6	526.6	547.6	545.5	561.3	571.8	578.2	604.5
20°	490.8	506.5	504.4	520.2	516.0	539.2	539.2	555.0	565.5	570.8	601.3
22.5°	485.5	502.3	498.1	513.9	510.8	533.9	533.9	549.7	561.3	569.7	600.3
25°	485.5	500.2	496.0	513.9	508.7	533.9	532.9	548.7	560.3	567.6	601.3
27.5°	487.6	502.3	499.2	516.0	511.8	533.9	536.0	549.7	561.3	569.7	603.4
30°	495.0	508.7	501.3	517.1	513.9	535.0	533.9	548.7	560.3	570.8	603.4
32.5°	510.8	518.1	508.7	522.3	516.0	537.1	537.1	547.6	561.3	573.9	603.4
35°	532.9	538.1	523.4	532.9	521.3	542.4	541.3	552.9	563.4	573.9	605.5
37.5°	564.5	570.8	547.6	556.0	537.1	553.9	549.7	563.4	573.9	580.3	616.1
40°	611.9	614.0	583.4	589.7	563.4	578.2	567.6	586.6	591.8	596.1	631.9
42.5°	669.8	671.9	632.9	637.1	603.4	616.1	598.2	618.2	625.5	624.5	663.5
45°	741.4	742.4	698.2	701.4	662.4	672.9	650.8	667.7	672.9	669.8	709.8
47.5°	819.3	827.7	778.2	782.5	741.4	746.7	719.3	738.2	738.2	735.1	776.1
50°	922.5	935.2	877.2	883.6	836.2	840.4	808.8	828.8	826.7	818.3	864.6
52.5°	1051.0	1062.6	1001.5	1009.9	959.4	961.5	922.5	945.7	939.4	925.7	979.4
55°	1207.9	1209.0	1152.1	1159.5	1108.9	1105.8	1057.3	1085.8	1076.3	1057.3	1106.8
57.5°	1459.6	1429.1	1335.3	1333.2	1278.5	1274.3	1212.1	1246.9	1231.1	1191.1	1256.4
60°	1865.1	1874.5	1635.5	1598.6	1496.5	1477.5	1395.4	1435.4	1416.4	1351.1	1415.4
62.5°	2093.6	2244.2	2229.4	2096.7	1833.5	1761.9	1622.8	1670.2	1620.7	1524.9	1584.9
65°	2263.1	2467.4	2585.4	2712.8	2594.9	2302.1	1973.5	2039.9	1918.8	1736.6	1794.5
67.5°	2326.3	2572.8	2821.3	3002.4	3125.6	3147.8	2767.6	2785.5	2487.4	2123.1	2130.4
70°	1995.6	2359.0	2845.5	3075.1	3319.4	3439.5	3479.5	3460.5	3267.8	2751.8	2554.8
71°	1691.3	2131.5	2748.6	3004.5	3317.3	3433.1	3538.5	3502.6	3413.1	3001.4	2699.1
72.5°	1145.8	1698.7	2465.3	2789.7	3206.7	3291.0	3448.9	3385.8	3366.8	3187.8	2833.9
75°	539.2	846.7	1603.9	2094.6	2713.9	2795.0	2960.3	2882.4	2832.9	2894.0	2696.0
77.5°	397.0	462.3	880.4	1301.6	1973.5	2088.3	2230.5	2134.7	2071.5	2132.6	1994.6
80°	361.2	363.3	456.0	686.6	1177.4	1245.8	1299.5	1221.6	1125.8	1121.6	994.1
82.5°	332.8	314.9	295.9	363.3	603.4	573.9	530.8	491.8	382.3	306.5	221.2
85°	211.7	231.7	210.6	199.0	240.1	198.0	156.9	150.6	106.4	71.6	66.3
87.5°	14.7	16.8	20.0	23.2	28.4	23.2	14.7	17.9	10.5	0.0	5.3
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: P228148

CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

**CANDELA DISTRIBUTION (continued):**

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
2.5°	623.4	628.7	630.8	629.8	627.7	625.5	618.2	623.4	616.1	621.3	615.0
5°	626.6	634.0	635.0	632.9	630.8	626.6	614.0	621.3	612.9	617.1	607.6
7.5°	625.5	637.1	638.2	636.1	631.9	624.5	611.9	617.1	603.4	606.6	594.0
10°	620.3	637.1	638.2	632.9	626.6	615.0	600.3	602.4	588.7	588.7	571.8
12.5°	615.0	635.0	640.3	632.9	622.4	606.6	589.7	587.6	571.8	570.8	551.8
15°	615.0	637.1	644.5	635.0	619.2	597.1	577.1	572.9	555.0	549.7	528.7
17.5°	614.0	637.1	647.7	635.0	616.1	587.6	562.4	558.1	535.0	526.6	502.3
20°	612.9	639.2	649.8	632.9	606.6	576.1	547.6	539.2	513.9	500.2	471.8
22.5°	611.9	643.5	651.9	630.8	600.3	561.3	531.8	517.1	487.6	469.7	436.0
25°	617.1	648.7	652.9	628.7	590.8	545.5	513.9	493.9	461.3	438.1	398.1
27.5°	619.2	654.0	655.0	624.5	579.2	528.7	495.0	467.6	430.7	402.3	357.0
30°	625.5	655.0	651.9	616.1	565.5	507.6	472.8	439.1	398.1	361.2	307.5
32.5°	627.7	658.2	649.8	606.6	551.8	486.5	447.6	408.6	359.1	315.9	250.6
35°	631.9	660.3	647.7	601.3	537.1	464.4	421.2	377.0	320.1	265.4	190.6
37.5°	638.2	669.8	652.9	599.2	529.7	445.5	391.8	344.4	273.8	209.6	126.4
40°	654.0	688.7	662.4	602.4	524.4	429.7	363.3	310.7	221.2	154.8	87.4
42.5°	685.6	721.4	686.6	618.2	527.6	416.0	333.8	274.9	167.4	110.6	72.7
45°	733.0	763.5	726.6	644.5	540.2	408.6	306.5	238.0	120.1	88.5	66.3
47.5°	802.5	832.0	785.6	686.6	562.4	405.4	278.0	199.0	92.7	80.0	64.2
50°	894.1	928.8	870.9	753.0	603.4	408.6	247.5	162.2	81.1	77.9	63.2
52.5°	1006.8	1040.5	982.6	850.9	670.8	426.5	214.8	141.1	76.9	76.9	62.1
55°	1134.2	1181.6	1124.7	986.8	775.1	465.5	194.8	133.7	76.9	77.9	61.1
57.5°	1284.8	1324.8	1274.3	1117.4	900.4	529.7	196.9	141.1	76.9	77.9	60.0
60°	1432.2	1481.7	1423.8	1283.7	1043.6	626.6	240.1	179.0	80.0	81.1	60.0
62.5°	1586.0	1623.9	1576.5	1429.1	1205.8	746.7	326.5	259.1	92.7	95.8	64.2
65°	1754.5	1816.6	1767.1	1646.0	1435.4	938.3	490.8	388.6	136.9	111.6	70.6
67.5°	2046.2	2071.5	2047.2	1936.7	1703.9	1096.3	584.5	394.9	136.9	108.5	79.0
70°	2441.1	2384.2	2275.8	2069.4	1732.4	983.6	419.1	241.2	116.9	103.2	83.2
71°	2532.7	2445.3	2285.3	2036.7	1673.4	887.8	325.4	190.6	109.5	101.1	83.2
72.5°	2588.5	2458.0	2215.7	1940.9	1557.6	699.3	214.8	149.5	100.0	95.8	80.0
75°	2515.9	2274.7	1956.7	1679.7	1275.3	363.3	134.8	113.7	85.3	83.2	69.5
77.5°	1997.8	1786.1	1443.8	1220.6	820.4	161.1	96.9	86.4	67.4	65.3	53.7
80°	932.0	747.7	438.1	376.0	258.0	94.8	66.3	59.0	48.4	46.3	37.9
82.5°	169.6	127.4	99.0	95.8	86.4	55.8	39.0	35.8	30.5	29.5	24.2
85°	57.9	55.8	42.1	42.1	43.2	29.5	22.1	21.1	15.8	15.8	10.5
87.5°	1.1	5.3	5.3	7.4	6.3	5.3	2.1	3.2	1.1	3.2	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: P228148

CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

**CANDELA DISTRIBUTION (continued):**

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
2.5°	620.3	611.9	619.2	611.9	616.1	607.6	612.9	609.8	609.8	606.6	604.5
5°	610.8	600.3	605.5	597.1	601.3	588.7	591.8	586.6	576.1	569.7	561.3
7.5°	597.1	581.3	585.5	572.9	576.1	559.2	562.4	552.9	532.9	520.2	507.6
10°	572.9	558.1	559.2	543.4	542.4	525.5	522.3	509.7	480.2	459.2	442.3
12.5°	548.7	531.8	529.7	510.8	507.6	487.6	483.4	463.4	420.2	379.1	352.8
15°	523.4	502.3	496.0	476.0	464.4	447.6	436.0	406.5	344.4	290.7	255.9
17.5°	495.0	467.6	458.1	434.9	418.1	392.8	376.0	335.9	255.9	198.0	173.8
20°	458.1	428.6	411.8	382.3	360.2	329.6	308.6	257.0	170.6	141.1	138.0
22.5°	417.0	382.3	361.2	324.4	297.0	264.3	230.6	173.8	121.1	114.8	119.0
25°	373.9	330.7	303.3	258.0	221.2	183.2	151.6	115.8	99.0	97.9	104.3
27.5°	322.3	272.8	233.8	180.1	146.4	116.9	103.2	91.6	84.2	85.3	91.6
30°	265.4	201.1	160.1	112.7	97.9	85.3	83.2	79.0	75.8	77.9	82.1
32.5°	198.0	128.5	103.2	81.1	80.0	72.7	74.8	72.7	71.6	72.7	75.8
35°	133.7	85.3	81.1	69.5	71.6	66.3	69.5	68.5	67.4	67.4	69.5
37.5°	92.7	70.6	72.7	64.2	67.4	63.2	66.3	65.3	64.2	63.2	64.2
40°	76.9	64.2	67.4	61.1	64.2	60.0	63.2	62.1	61.1	59.0	59.0
42.5°	70.6	61.1	64.2	57.9	62.1	56.9	61.1	59.0	56.9	54.8	55.8
45°	68.5	59.0	62.1	55.8	60.0	54.8	57.9	56.9	52.7	51.6	52.7
47.5°	66.3	57.9	61.1	54.8	57.9	52.7	55.8	53.7	49.5	48.4	49.5
50°	65.3	55.8	59.0	52.7	55.8	51.6	53.7	51.6	47.4	46.3	46.3
52.5°	64.2	54.8	57.9	50.5	53.7	47.4	50.5	48.4	44.2	43.2	43.2
55°	64.2	53.7	55.8	48.4	51.6	45.3	47.4	45.3	43.2	41.1	41.1
57.5°	63.2	51.6	54.8	46.3	48.4	43.2	45.3	43.2	40.0	39.0	39.0
60°	63.2	50.5	53.7	45.3	47.4	41.1	43.2	41.1	37.9	36.9	36.9
62.5°	66.3	52.7	54.8	46.3	47.4	41.1	42.1	39.0	35.8	35.8	34.8
65°	72.7	59.0	59.0	48.4	48.4	41.1	42.1	37.9	33.7	33.7	33.7
67.5°	79.0	65.3	64.2	51.6	50.5	41.1	41.1	35.8	31.6	31.6	31.6
70°	83.2	68.5	66.3	52.7	50.5	40.0	39.0	33.7	29.5	29.5	29.5
71°	82.1	68.5	65.3	51.6	48.4	37.9	37.9	32.6	28.4	28.4	27.4
72.5°	77.9	64.2	61.1	48.4	46.3	35.8	35.8	30.5	26.3	26.3	25.3
75°	66.3	54.8	51.6	41.1	39.0	31.6	30.5	25.3	23.2	22.1	22.1
77.5°	51.6	43.2	40.0	32.6	31.6	25.3	24.2	21.1	19.0	19.0	17.9
80°	36.9	30.5	28.4	22.1	20.0	16.8	17.9	15.8	14.7	14.7	13.7
82.5°	22.1	15.8	15.8	12.6	13.7	10.5	11.6	11.6	10.5	8.4	8.4
85°	11.6	7.4	9.5	5.3	7.4	3.2	5.3	4.2	4.2	3.2	3.2
87.5°	2.1	0.0	1.1	0.0	1.1	0.0	0.0	0.0	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: P228148

CATALOG NUMBER: ISC-AF-600-LED-E1-SL2-8030

**CANDELA DISTRIBUTION (continued):**

	175°	180°
0°	628.7	628.7
2.5°	598.2	599.2
5°	557.1	559.2
7.5°	498.1	501.3
10°	427.6	429.7
12.5°	337.0	337.0
15°	235.9	238.0
17.5°	165.3	166.4
20°	139.0	140.1
22.5°	124.3	125.3
25°	110.6	111.6
27.5°	95.8	96.9
30°	86.4	87.4
32.5°	77.9	79.0
35°	70.6	70.6
37.5°	65.3	65.3
40°	60.0	60.0
42.5°	56.9	56.9
45°	53.7	53.7
47.5°	50.5	50.5
50°	47.4	48.4
52.5°	44.2	44.2
55°	41.1	41.1
57.5°	37.9	39.0
60°	35.8	35.8
62.5°	33.7	33.7
65°	32.6	32.6
67.5°	30.5	30.5
70°	28.4	28.4
71°	27.4	27.4
72.5°	25.3	25.3
75°	22.1	21.1
77.5°	17.9	17.9
80°	13.7	12.6
82.5°	8.4	7.4
85°	3.2	2.1
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)