

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: P228177

Luminaire Tested: **ISC-AF-800-LED-E1-SL2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228177
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-800-LED-E1-SL2
Description: IMPACT ELITE LED CYLINDER LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II W/SPILL CONTROL
Light Source: (16) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4734.2 lumens
Efficiency: N/A
Efficacy: 108.8 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 - G2

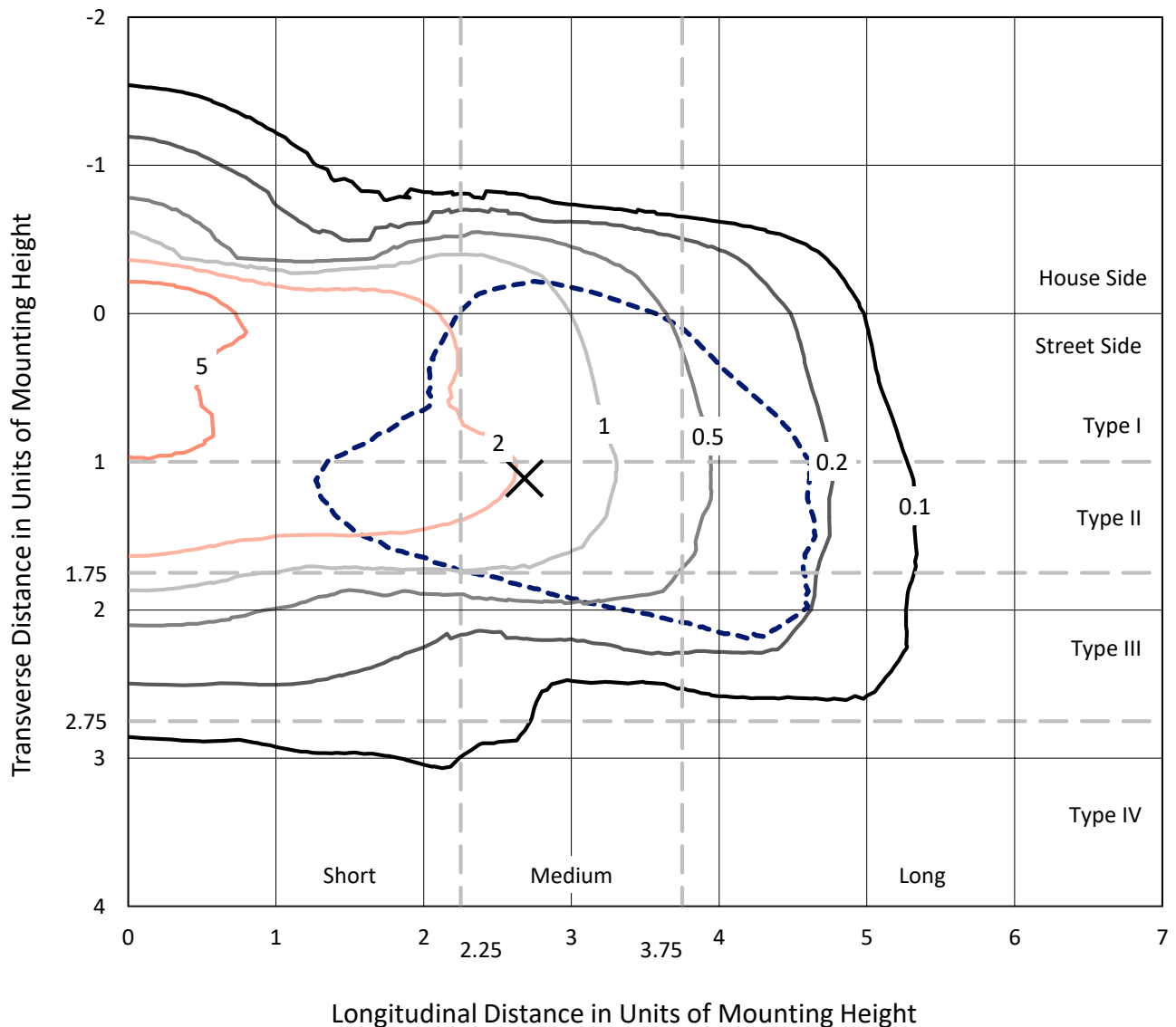
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P228177
 CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

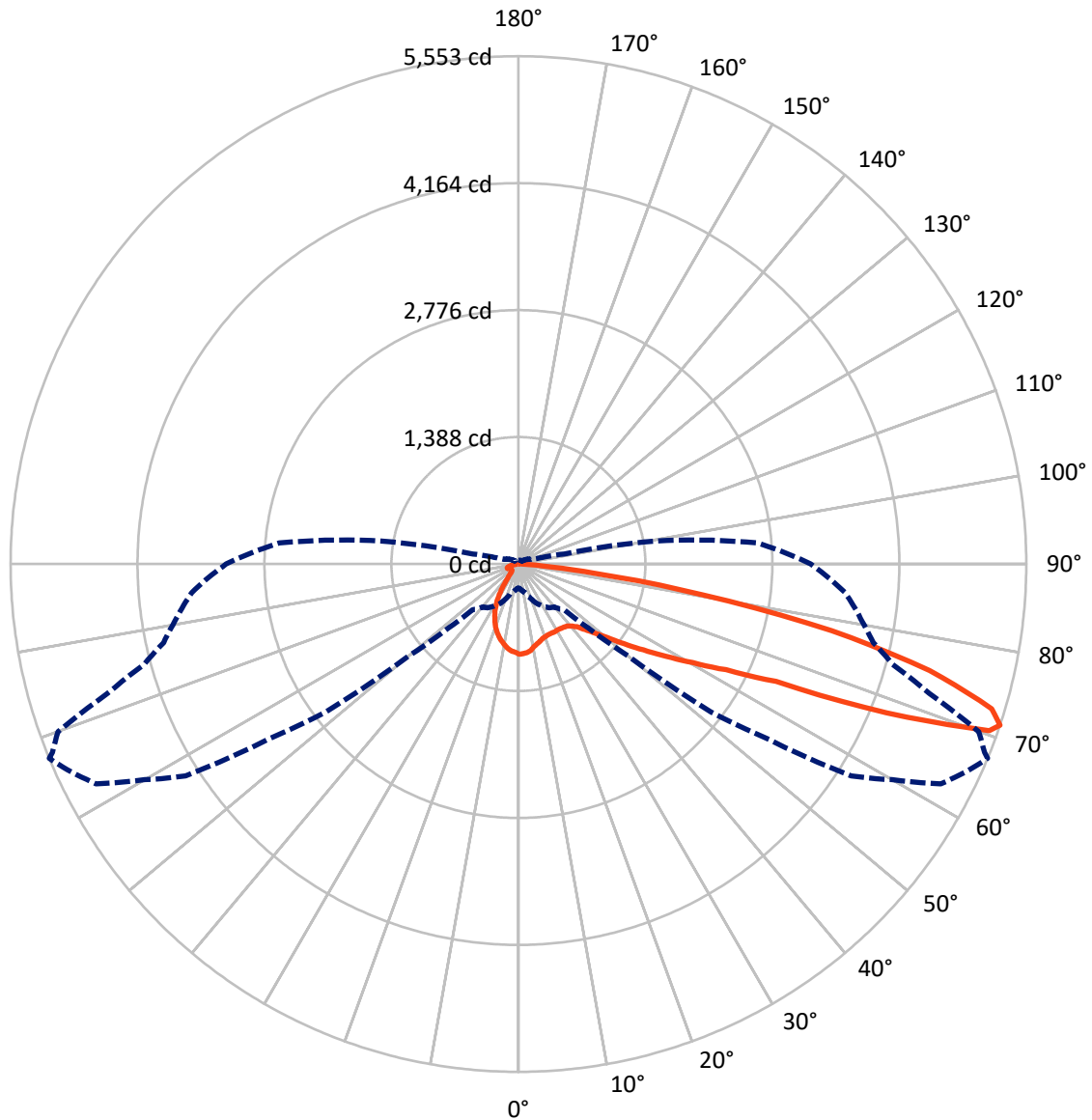


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P228177

CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P228177

CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	797.8	0.0	797.8
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	3936.4	0.0	3936.4
	% Fixture	83.1	0.0	83.1
Total	Lumens	4734.2	0.0	4734.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	1.8
10°-20°	206.0	4.4
20°-30°	280.1	5.9
30°-40°	382.8	8.1
40°-50°	576.8	12.2
50°-60°	914.1	19.3
60°-70°	1210.1	25.6
70°-80°	964.0	20.4
80°-90°	114.3	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°	4734.2	100.0
0°-180°	4734.2	100.0

Coefficient of Utilization



REPORT NUMBER: P228177

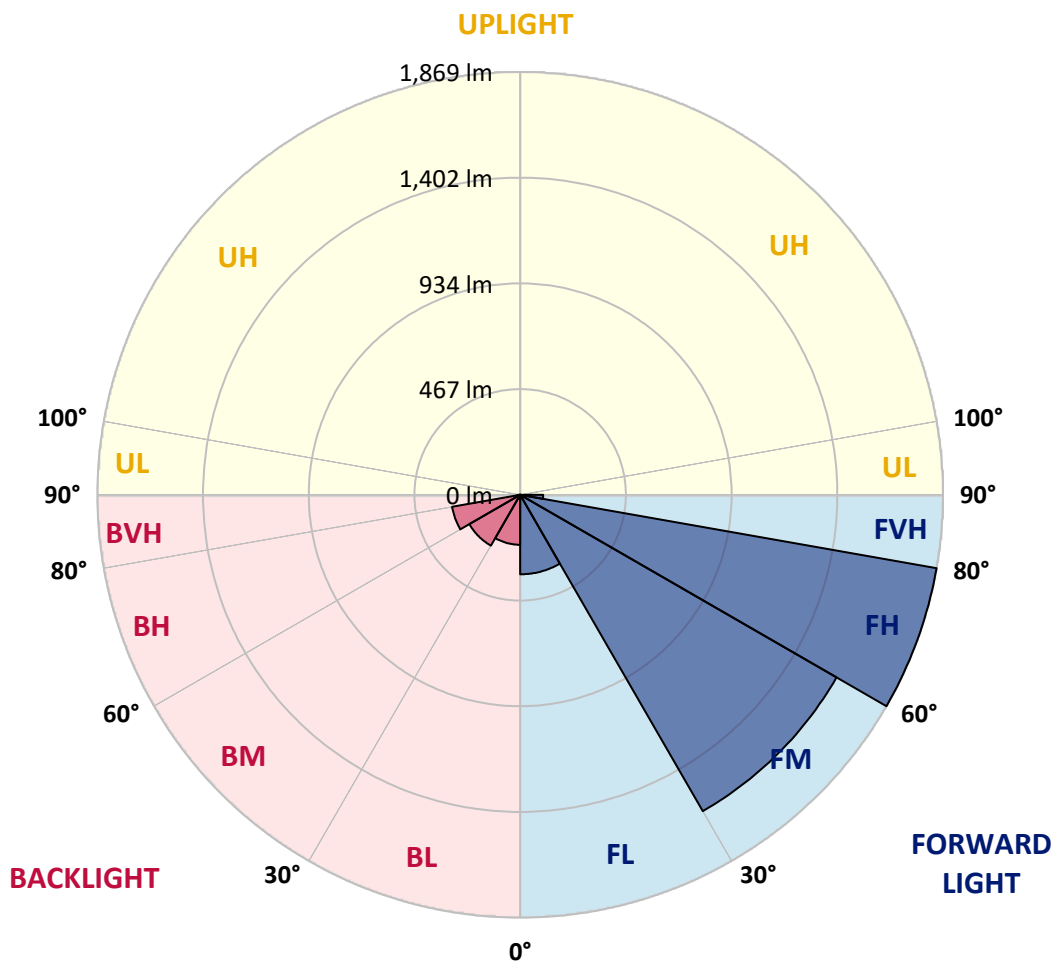
CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	351.3	7.4			
FM (30°-60°)	1614.5	34.1			
FH (60°-80°)	1868.8	39.5			G2/5000
FVH (80°-90°)	101.9	2.2			G2/225
BL (0°-30°)	220.8	4.7	B1/500		
BM (30°-60°)	259.2	5.5	B1/1000		
BH (60°-80°)	305.3	6.4	B1/500		G1/500
BVH (80°-90°)	12.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





REPORT NUMBER: P228177

CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5
2.5°	968.4	965.1	965.1	970.1	978.2	971.7	976.6	976.6	978.2	983.3	984.9
5°	897.3	890.7	897.3	903.9	922.1	918.8	923.7	928.7	938.7	940.3	953.5
7.5°	832.9	829.6	834.5	847.7	870.8	864.3	870.8	877.5	889.0	894.1	907.3
10°	783.3	778.4	784.9	794.8	818.0	816.3	819.7	827.9	841.2	844.4	860.9
12.5°	747.0	747.0	750.2	763.4	783.3	781.6	791.6	796.5	808.1	811.4	829.6
15°	728.8	723.8	730.4	741.9	761.8	761.8	768.4	773.4	789.9	791.6	808.1
17.5°	712.3	713.9	715.6	728.8	747.0	743.7	751.9	755.2	773.4	770.1	789.9
20°	712.3	715.6	713.9	722.1	735.4	728.8	738.7	740.3	760.2	755.2	776.7
22.5°	732.0	735.4	730.4	728.8	733.8	728.8	733.8	737.0	751.9	748.6	768.4
25°	766.8	773.4	766.8	755.2	750.2	737.0	740.3	745.3	756.9	748.6	766.8
27.5°	821.3	826.2	814.7	803.1	780.0	765.2	760.2	758.5	771.7	758.5	773.4
30°	884.1	890.7	880.8	859.3	826.2	801.5	791.6	786.6	794.8	775.0	789.9
32.5°	951.9	958.5	951.9	935.3	890.7	854.4	841.2	829.6	836.2	809.8	816.3
35°	1021.2	1027.9	1034.5	1024.6	966.7	925.4	903.9	894.1	892.3	859.3	860.9
37.5°	1082.4	1089.0	1110.5	1120.4	1067.6	1011.4	991.5	970.1	971.7	925.4	925.4
40°	1156.8	1165.0	1193.2	1216.3	1181.5	1113.8	1090.7	1067.6	1067.6	1006.4	1008.0
42.5°	1257.6	1267.4	1285.6	1317.0	1305.5	1236.1	1211.3	1179.9	1183.2	1110.5	1108.9
45°	1399.7	1406.3	1406.3	1426.1	1427.7	1361.6	1345.2	1313.8	1320.3	1227.8	1232.8
47.5°	1584.8	1576.5	1543.4	1555.0	1568.3	1498.8	1484.0	1464.1	1472.4	1373.2	1383.1
50°	1756.6	1750.1	1682.2	1685.6	1733.5	1662.4	1657.5	1632.7	1644.3	1545.1	1560.0
52.5°	1821.1	1809.5	1741.8	1778.1	1912.0	1872.3	1880.6	1869.0	1875.6	1769.8	1766.5
55°	1748.3	1748.3	1707.1	1773.2	2045.8	2067.3	2135.1	2161.5	2189.6	2083.9	2060.7
57.5°	1546.8	1560.0	1566.5	1683.9	2024.3	2116.9	2245.8	2358.1	2501.9	2495.3	2530.0
60°	1212.9	1236.1	1274.1	1465.8	1931.8	2083.9	2250.7	2419.3	2617.6	2744.9	2933.2
62.5°	851.1	870.8	902.2	1034.5	1662.4	1923.6	2164.8	2424.3	2677.1	2877.0	3124.9
65°	578.4	598.2	664.3	737.0	1003.1	1383.1	1751.7	2181.3	2566.4	2938.2	3272.0
67.5°	416.4	428.0	479.3	601.5	667.6	737.0	874.2	1379.9	1854.1	2602.7	3090.2
70°	312.3	323.9	370.2	505.6	586.7	604.9	637.9	727.1	847.7	1462.5	2102.0
71°	261.1	277.6	333.8	475.9	583.4	598.2	613.1	665.9	705.6	1034.5	1560.0
72.5°	183.4	195.0	247.9	439.6	560.2	594.9	629.6	628.0	624.6	705.6	943.6
75°	117.3	117.3	117.3	247.9	598.2	576.7	589.9	661.0	624.6	593.2	621.3
77.5°	92.6	90.8	85.9	124.0	467.7	585.0	619.7	637.9	672.6	619.7	591.6
80°	69.4	67.7	67.7	77.6	216.5	378.4	523.9	581.6	606.5	659.4	601.5
82.5°	36.3	36.3	39.7	46.2	81.0	132.2	271.0	446.2	499.1	502.4	507.3
85°	11.6	9.9	13.2	21.5	34.7	43.0	76.0	180.1	267.7	323.9	342.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	6.6	11.6	14.8
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: P228177

CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	68°	70°	72.5°	75°
0°	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5
2.5°	980.0	986.5	981.6	988.2	980.0	989.9	981.6	986.5	988.2	981.6	989.9
5°	945.2	965.1	958.5	973.3	966.7	980.0	973.3	986.5	986.5	981.6	993.2
7.5°	902.2	922.1	923.7	938.7	938.7	955.1	955.1	968.4	975.0	975.0	991.5
10°	859.3	877.5	880.8	897.3	900.6	920.5	920.5	938.7	951.9	956.8	976.6
12.5°	826.2	849.4	849.4	867.6	864.3	894.1	897.3	913.8	927.1	938.7	965.1
15°	806.4	827.9	827.9	846.1	842.8	872.6	877.5	894.1	913.8	920.5	956.8
17.5°	786.6	808.1	803.1	827.9	826.2	859.3	856.0	880.8	897.3	907.3	948.6
20°	770.1	794.8	791.6	816.3	809.8	846.1	846.1	870.8	887.4	895.7	943.6
22.5°	761.8	788.3	781.6	806.4	801.5	837.8	837.8	862.7	880.8	894.1	941.9
25°	761.8	784.9	778.4	806.4	798.2	837.8	836.2	860.9	879.1	890.7	943.6
27.5°	765.2	788.3	783.3	809.8	803.1	837.8	841.2	862.7	880.8	894.1	946.9
30°	776.7	798.2	786.6	811.4	806.4	839.4	837.8	860.9	879.1	895.7	946.9
32.5°	801.5	813.0	798.2	819.7	809.8	842.8	842.8	859.3	880.8	900.6	946.9
35°	836.2	844.4	821.3	836.2	818.0	851.1	849.4	867.6	884.1	900.6	950.2
37.5°	885.8	895.7	859.3	872.6	842.8	869.2	862.7	884.1	900.6	910.5	966.7
40°	960.1	963.4	915.5	925.4	884.1	907.3	890.7	920.5	928.7	935.3	991.5
42.5°	1051.0	1054.4	993.2	999.7	946.9	966.7	938.7	970.1	981.6	980.0	1041.1
45°	1163.4	1165.0	1095.6	1100.6	1039.4	1056.0	1021.2	1047.7	1056.0	1051.0	1113.8
47.5°	1285.6	1298.8	1221.2	1227.8	1163.4	1171.7	1128.6	1158.4	1158.4	1153.5	1217.9
50°	1447.6	1467.4	1376.6	1386.5	1312.1	1318.7	1269.2	1300.6	1297.2	1284.0	1356.7
52.5°	1649.2	1667.4	1571.6	1584.8	1505.5	1508.8	1447.6	1484.0	1474.1	1452.6	1536.9
55°	1895.4	1897.1	1807.9	1819.4	1740.1	1735.1	1659.1	1703.7	1688.9	1659.1	1736.8
57.5°	2290.4	2242.5	2095.4	2092.1	2006.2	1999.6	1902.1	1956.6	1931.8	1869.0	1971.4
60°	2926.7	2941.5	2566.4	2508.5	2348.2	2318.5	2189.6	2252.4	2222.7	2120.2	2221.0
62.5°	3285.2	3521.5	3498.4	3290.2	2877.0	2764.6	2546.5	2620.9	2543.3	2392.9	2487.0
65°	3551.3	3871.9	4056.9	4256.9	4071.9	3612.4	3096.8	3200.9	3010.9	2725.0	2815.9
67.5°	3650.4	4037.1	4427.1	4711.3	4904.6	4939.4	4342.8	4371.0	3903.3	3331.4	3343.0
70°	3131.6	3701.6	4465.1	4825.4	5208.8	5397.1	5459.9	5430.2	5127.7	4318.1	4009.0
71°	2653.9	3344.7	4313.1	4714.7	5205.5	5387.3	5552.5	5496.3	5355.9	4709.7	4235.4
72.5°	1797.9	2665.5	3868.6	4377.5	5031.9	5164.2	5412.0	5312.9	5283.1	5002.2	4447.0
75°	846.1	1328.6	2516.8	3286.8	4258.5	4385.8	4645.2	4523.0	4445.3	4541.1	4230.4
77.5°	623.0	725.5	1381.5	2042.5	3096.8	3276.9	3500.0	3349.7	3250.5	3346.4	3129.9
80°	566.8	570.1	715.6	1077.5	1847.6	1955.0	2039.3	1916.9	1766.5	1760.0	1560.0
82.5°	522.2	494.1	464.3	570.1	946.9	900.6	832.9	771.7	599.9	480.9	347.0
85°	332.2	363.6	330.5	312.3	376.8	310.7	246.2	236.3	166.9	112.4	104.1
87.5°	23.1	26.4	31.4	36.3	44.6	36.3	23.1	28.1	16.6	0.0	8.3
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: P228177

CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5
2.5°	978.2	986.5	989.9	988.2	984.9	981.6	970.1	978.2	966.7	975.0	965.1
5°	983.3	994.8	996.5	993.2	989.9	983.3	963.4	975.0	961.8	968.4	953.5
7.5°	981.6	999.7	1001.5	998.1	991.5	980.0	960.1	968.4	946.9	951.9	932.0
10°	973.3	999.7	1001.5	993.2	983.3	965.1	941.9	945.2	923.7	923.7	897.3
12.5°	965.1	996.5	1004.7	993.2	976.6	951.9	925.4	922.1	897.3	895.7	865.9
15°	965.1	999.7	1011.4	996.5	971.7	937.0	905.6	899.0	870.8	862.7	829.6
17.5°	963.4	999.7	1016.3	996.5	966.7	922.1	882.4	875.9	839.4	826.2	788.3
20°	961.8	1003.1	1019.6	993.2	951.9	903.9	859.3	846.1	806.4	784.9	740.3
22.5°	960.1	1009.7	1023.0	989.9	941.9	880.8	834.5	811.4	765.2	737.0	684.1
25°	968.4	1017.9	1024.6	986.5	927.1	856.0	806.4	775.0	723.8	687.4	624.6
27.5°	971.7	1026.2	1027.9	980.0	908.9	829.6	776.7	733.8	675.9	631.3	560.2
30°	981.6	1027.9	1023.0	966.7	887.4	796.5	741.9	689.1	624.6	566.8	482.5
32.5°	984.9	1032.9	1019.6	951.9	865.9	763.4	702.4	641.2	563.5	495.7	393.3
35°	991.5	1036.1	1016.3	943.6	842.8	728.8	661.0	591.6	502.4	416.4	299.1
37.5°	1001.5	1051.0	1024.6	940.3	831.2	699.0	614.7	540.4	429.6	328.9	198.4
40°	1026.2	1080.7	1039.4	945.2	823.0	674.2	570.1	487.5	347.0	243.0	137.2
42.5°	1075.8	1132.0	1077.5	970.1	827.9	652.7	523.9	431.3	262.8	173.5	114.1
45°	1150.2	1198.1	1140.3	1011.4	847.7	641.2	480.9	373.5	188.4	138.8	104.1
47.5°	1259.3	1305.5	1232.8	1077.5	882.4	636.2	436.3	312.3	145.5	125.6	100.8
50°	1403.0	1457.5	1366.7	1181.5	946.9	641.2	388.3	254.5	127.3	122.2	99.1
52.5°	1579.8	1632.7	1541.8	1335.3	1052.6	669.3	337.2	221.5	120.6	120.6	97.5
55°	1779.7	1854.1	1764.9	1548.4	1216.3	730.4	305.8	209.9	120.6	122.2	95.9
57.5°	2016.0	2078.8	1999.6	1753.3	1412.9	831.2	309.0	221.5	120.6	122.2	94.2
60°	2247.4	2325.1	2234.2	2014.4	1637.6	983.3	376.8	280.9	125.6	127.3	94.2
62.5°	2488.7	2548.2	2473.8	2242.5	1892.2	1171.7	512.3	406.5	145.5	150.4	100.8
65°	2753.1	2850.6	2772.9	2582.8	2252.4	1472.4	770.1	609.8	214.8	175.1	110.7
67.5°	3210.8	3250.5	3212.5	3039.0	2673.8	1720.3	917.2	619.7	214.8	170.2	124.0
70°	3830.5	3741.3	3571.1	3247.3	2718.4	1543.4	657.7	378.4	183.4	161.9	130.5
71°	3974.3	3837.2	3586.0	3196.0	2625.8	1393.1	510.7	299.1	171.9	158.7	130.5
72.5°	4061.9	3857.0	3476.9	3045.6	2444.0	1097.3	337.2	234.7	157.0	150.4	125.6
75°	3947.9	3569.5	3070.4	2635.7	2001.2	570.1	211.5	178.5	133.9	130.5	109.0
77.5°	3134.8	2802.7	2265.6	1915.3	1287.3	252.9	152.0	135.5	105.8	102.5	84.3
80°	1462.5	1173.3	687.4	589.9	404.9	148.7	104.1	92.6	76.0	72.7	59.5
82.5°	266.1	200.0	155.4	150.4	135.5	87.6	61.2	56.2	47.9	46.2	38.1
85°	90.8	87.6	66.1	66.1	67.7	46.2	34.7	33.0	24.8	24.8	16.6
87.5°	1.6	8.3	8.3	11.6	9.9	8.3	3.3	4.9	1.6	4.9	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: P228177

CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5	986.5
2.5°	973.3	960.1	971.7	960.1	966.7	953.5	961.8	956.8	956.8	951.9	948.6
5°	958.5	941.9	950.2	937.0	943.6	923.7	928.7	920.5	903.9	894.1	880.8
7.5°	937.0	912.2	918.8	899.0	903.9	877.5	882.4	867.6	836.2	816.3	796.5
10°	899.0	875.9	877.5	852.7	851.1	824.6	819.7	799.8	753.5	720.5	694.1
12.5°	860.9	834.5	831.2	801.5	796.5	765.2	758.5	727.1	659.4	594.9	553.6
15°	821.3	788.3	778.4	747.0	728.8	702.4	684.1	637.9	540.4	456.1	401.6
17.5°	776.7	733.8	718.8	682.5	656.0	616.4	589.9	527.1	401.6	310.7	272.6
20°	718.8	672.6	646.1	599.9	565.2	517.2	484.2	403.2	267.7	221.5	216.5
22.5°	654.4	599.9	566.8	509.0	466.1	414.8	361.9	272.6	190.1	180.1	186.7
25°	586.7	518.9	475.9	404.9	347.0	287.6	237.9	181.8	155.4	153.6	163.6
27.5°	505.6	428.0	366.8	282.5	229.7	183.4	161.9	143.7	132.2	133.9	143.7
30°	416.4	315.7	251.1	176.9	153.6	133.9	130.5	124.0	119.0	122.2	128.9
32.5°	310.7	201.6	161.9	127.3	125.6	114.1	117.3	114.1	112.4	114.1	119.0
35°	209.9	133.9	127.3	109.0	112.4	104.1	109.0	107.4	105.8	105.8	109.0
37.5°	145.5	110.7	114.1	100.8	105.8	99.1	104.1	102.5	100.8	99.1	100.8
40°	120.6	100.8	105.8	95.9	100.8	94.2	99.1	97.5	95.9	92.6	92.6
42.5°	110.7	95.9	100.8	90.8	97.5	89.2	95.9	92.6	89.2	85.9	87.6
45°	107.4	92.6	97.5	87.6	94.2	85.9	90.8	89.2	82.7	81.0	82.7
47.5°	104.1	90.8	95.9	85.9	90.8	82.7	87.6	84.3	77.6	76.0	77.6
50°	102.5	87.6	92.6	82.7	87.6	81.0	84.3	81.0	74.4	72.7	72.7
52.5°	100.8	85.9	90.8	79.3	84.3	74.4	79.3	76.0	69.4	67.7	67.7
55°	100.8	84.3	87.6	76.0	81.0	71.1	74.4	71.1	67.7	64.4	64.4
57.5°	99.1	81.0	85.9	72.7	76.0	67.7	71.1	67.7	62.8	61.2	61.2
60°	99.1	79.3	84.3	71.1	74.4	64.4	67.7	64.4	59.5	57.8	57.8
62.5°	104.1	82.7	85.9	72.7	74.4	64.4	66.1	61.2	56.2	56.2	54.5
65°	114.1	92.6	92.6	76.0	76.0	64.4	66.1	59.5	52.9	52.9	52.9
67.5°	124.0	102.5	100.8	81.0	79.3	64.4	64.4	56.2	49.6	49.6	49.6
70°	130.5	107.4	104.1	82.7	79.3	62.8	61.2	52.9	46.2	46.2	46.2
71°	128.9	107.4	102.5	81.0	76.0	59.5	59.5	51.2	44.6	44.6	43.0
72.5°	122.2	100.8	95.9	76.0	72.7	56.2	56.2	47.9	41.3	41.3	39.7
75°	104.1	85.9	81.0	64.4	61.2	49.6	47.9	39.7	36.3	34.7	34.7
77.5°	81.0	67.7	62.8	51.2	49.6	39.7	38.1	33.0	29.8	29.8	28.1
80°	57.8	47.9	44.6	34.7	31.4	26.4	28.1	24.8	23.1	23.1	21.5
82.5°	34.7	24.8	24.8	19.8	21.5	16.6	18.2	18.2	16.6	13.2	13.2
85°	18.2	11.6	14.8	8.3	11.6	4.9	8.3	6.6	6.6	4.9	4.9
87.5°	3.3	0.0	1.6	0.0	1.6	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: P228177

CATALOG NUMBER: ISC-AF-800-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	986.5	986.5
2.5°	938.7	940.3
5°	874.2	877.5
7.5°	781.6	786.6
10°	671.0	674.2
12.5°	528.8	528.8
15°	370.2	373.5
17.5°	259.4	261.1
20°	218.1	219.8
22.5°	195.0	196.6
25°	173.5	175.1
27.5°	150.4	152.0
30°	135.5	137.2
32.5°	122.2	124.0
35°	110.7	110.7
37.5°	102.5	102.5
40°	94.2	94.2
42.5°	89.2	89.2
45°	84.3	84.3
47.5°	79.3	79.3
50°	74.4	76.0
52.5°	69.4	69.4
55°	64.4	64.4
57.5°	59.5	61.2
60°	56.2	56.2
62.5°	52.9	52.9
65°	51.2	51.2
67.5°	47.9	47.9
70°	44.6	44.6
71°	43.0	43.0
72.5°	39.7	39.7
75°	34.7	33.0
77.5°	28.1	28.1
80°	21.5	19.8
82.5°	13.2	11.6
85°	4.9	3.3
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)