

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: P271532

Luminaire Tested: **ISS-AF-1000-LED-E1-SL2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271532
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: ISS-AF-1000-LED-E1-SL2-7027
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II W/SPILL CONTROL
Light Source: (16) 2700K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4752.3 lumens
Efficiency: N/A
Efficacy: 87.0 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

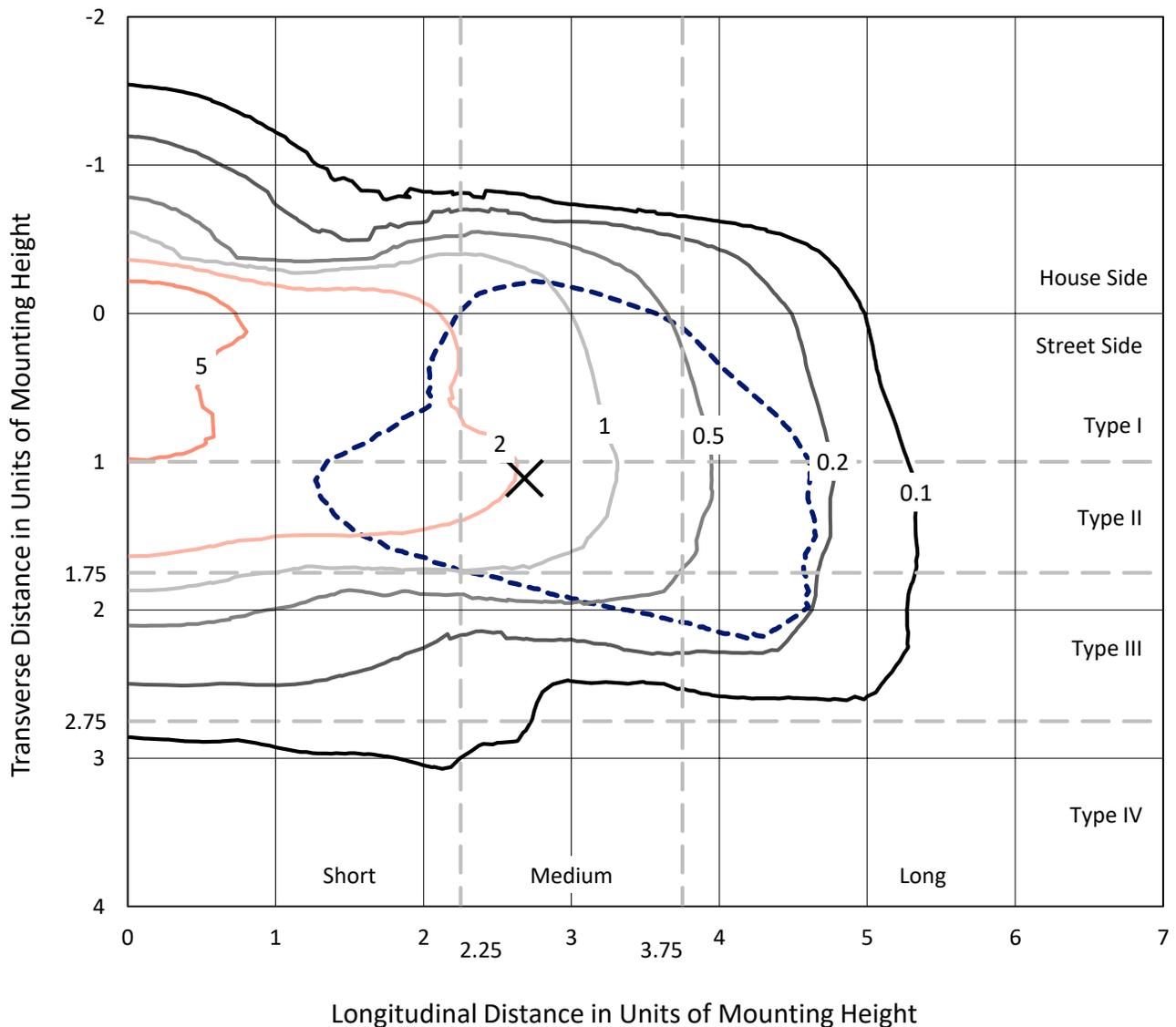
Input Watts (W): 54.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P271532
 CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

Iso-Footcandle Lines of Horizontal Illumination

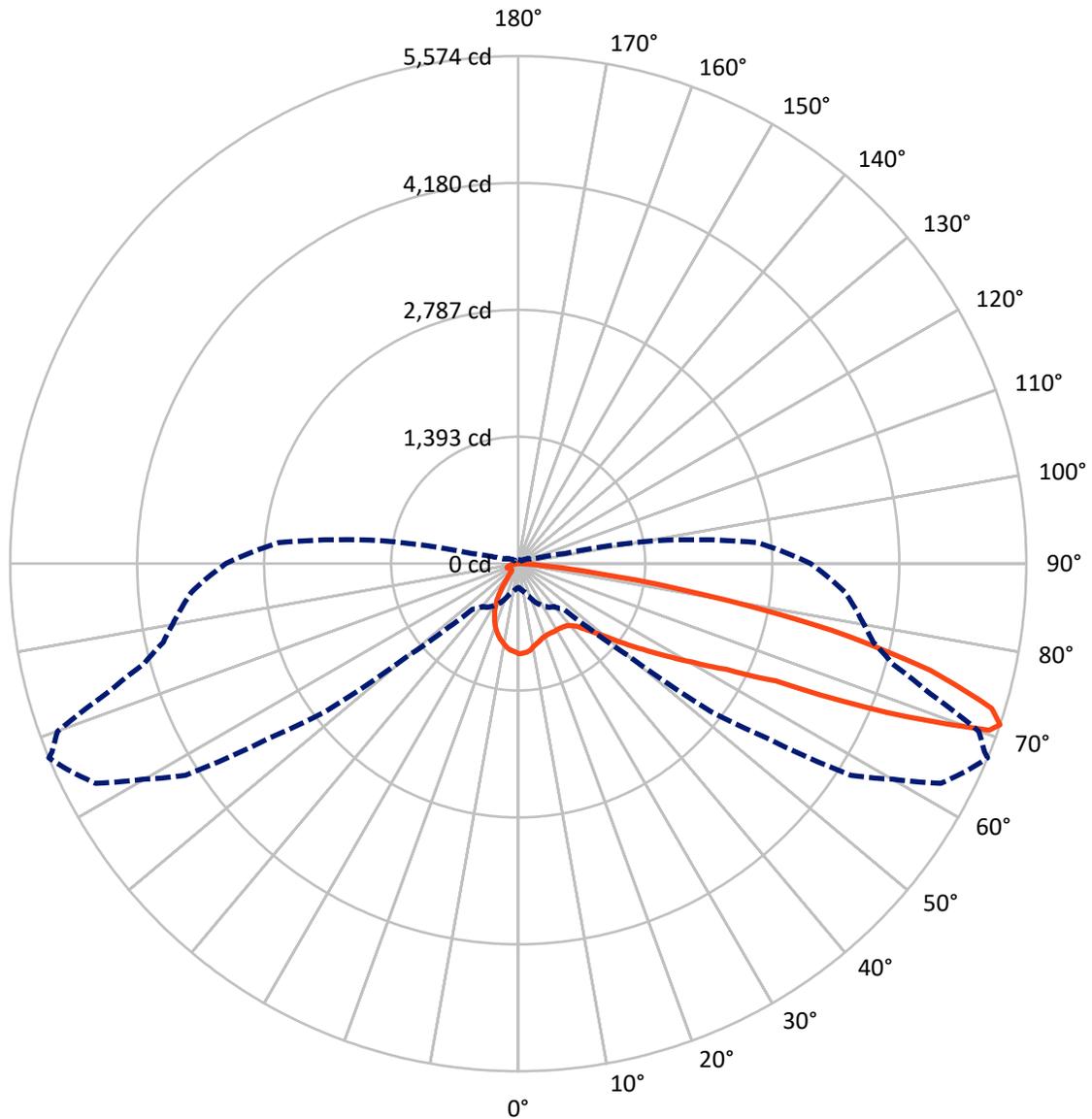
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P271532
CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P271532

CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

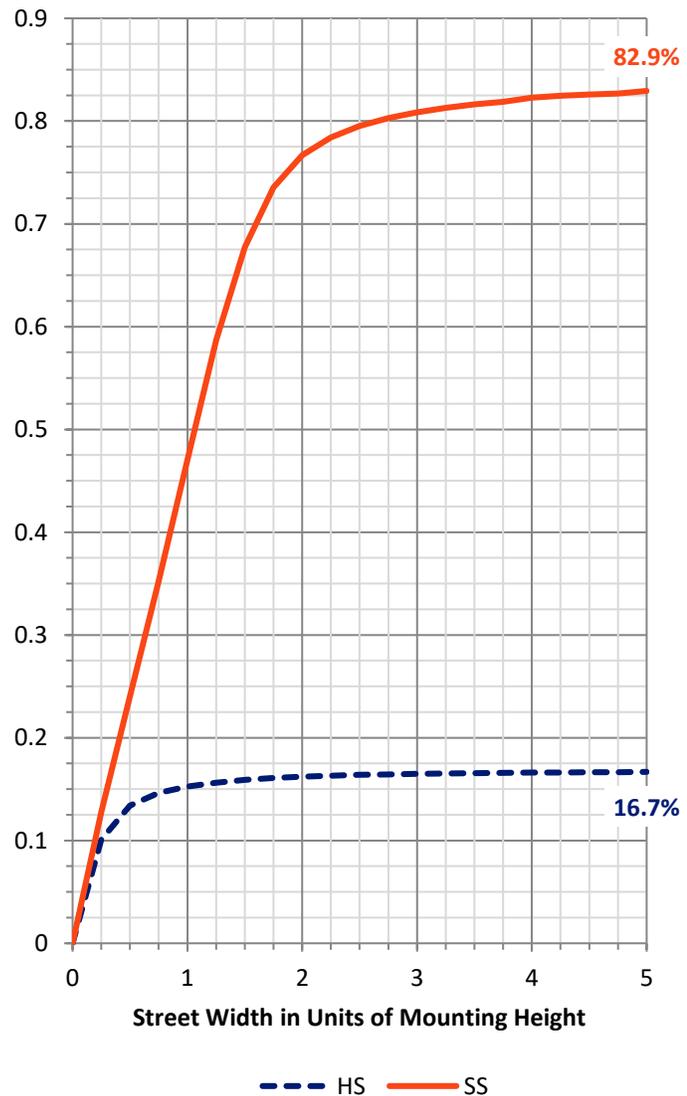
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	800.8	0.0	800.8
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	3951.5	0.0	3951.5
	% Fixture	83.1	0.0	83.1
Total	Lumens	4752.3	0.0	4752.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	1.8
10°-20°	206.7	4.4
20°-30°	281.1	5.9
30°-40°	384.2	8.1
40°-50°	579.0	12.2
50°-60°	917.6	19.3
60°-70°	1214.7	25.6
70°-80°	967.7	20.4
80°-90°	114.7	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°	4752.3	100.0
0°-180°	4752.3	100.0

Coefficient of Utilization



REPORT NUMBER: P271532

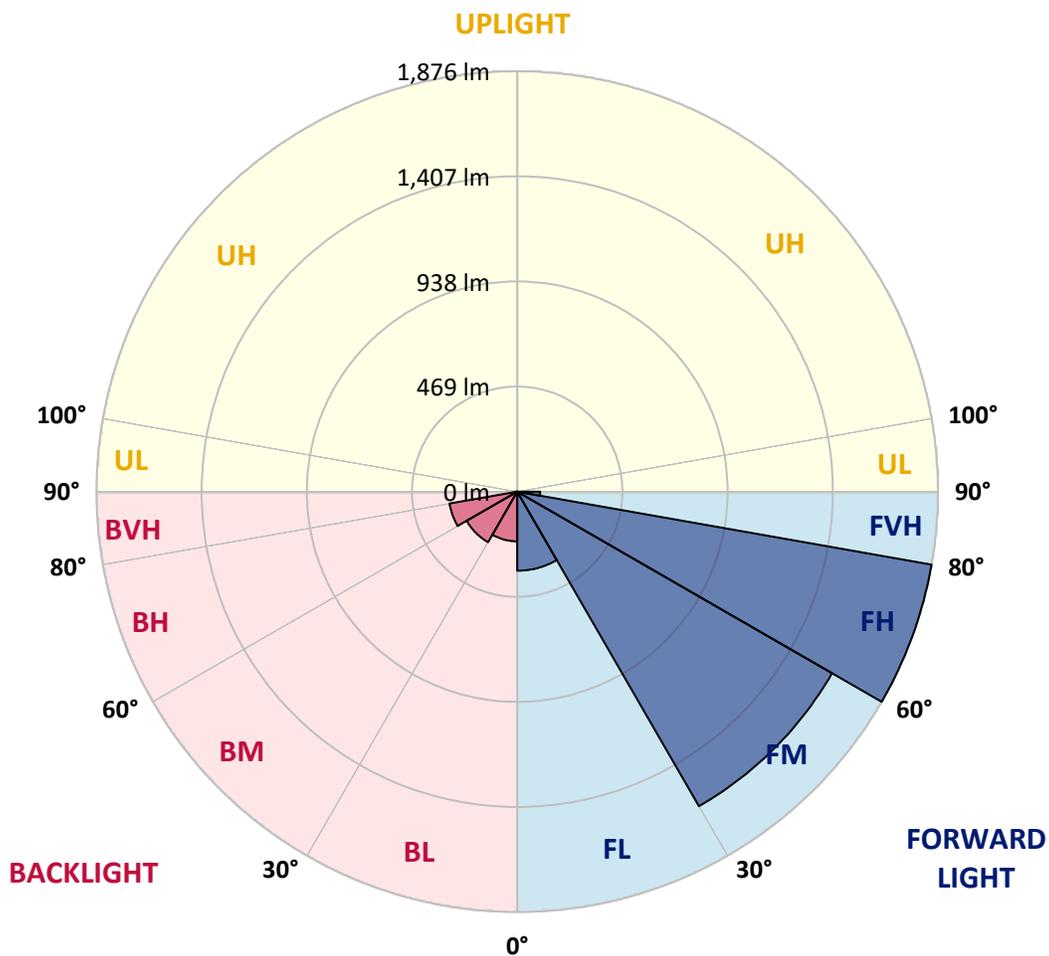
CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	352.6	7.4			
FM (30°-60°)	1620.6	34.1			
FH (60°-80°)	1876.0	39.5			G2/5000
FVH (80°-90°)	102.3	2.2			G2/225
BL (0°-30°)	221.7	4.7	B1/500		
BM (30°-60°)	260.2	5.5	B1/1000		
BH (60°-80°)	306.5	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: P271532

CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3
2.5°	972.1	968.7	968.7	973.8	982.0	975.4	980.4	980.4	982.0	987.0	988.7
5°	900.7	894.2	900.7	907.4	925.6	922.3	927.3	932.4	942.2	943.8	957.1
7.5°	836.1	832.8	837.7	851.0	874.2	867.5	874.2	880.9	892.5	897.5	910.7
10°	786.3	781.3	787.9	798.0	821.1	819.4	822.8	831.1	844.4	847.7	864.3
12.5°	749.7	749.7	753.0	766.3	786.3	784.6	794.6	799.5	811.2	814.5	832.8
15°	731.6	726.5	733.2	744.9	764.7	764.7	771.4	776.3	792.9	794.6	811.2
17.5°	715.1	716.6	718.3	731.6	749.7	746.5	754.8	758.1	776.3	773.0	792.9
20°	715.1	718.3	716.6	724.9	738.1	731.6	741.6	743.2	763.1	758.1	779.7
22.5°	734.8	738.1	733.2	731.6	736.5	731.6	736.5	739.8	754.8	751.4	771.4
25°	769.7	776.3	769.7	758.1	753.0	739.8	743.2	748.2	759.8	751.4	769.7
27.5°	824.5	829.5	817.7	806.2	783.0	768.1	763.1	761.4	774.7	761.4	776.3
30°	887.4	894.2	884.1	862.6	829.5	804.5	794.6	789.6	798.0	778.0	792.9
32.5°	955.4	962.2	955.4	938.9	894.2	857.6	844.4	832.8	839.4	812.9	819.4
35°	1025.1	1031.8	1038.4	1028.5	970.3	928.9	907.4	897.5	895.8	862.6	864.3
37.5°	1086.5	1093.1	1114.8	1124.7	1071.6	1015.3	995.3	973.8	975.4	928.9	928.9
40°	1161.1	1169.5	1197.7	1220.9	1186.1	1118.1	1094.9	1071.6	1071.6	1010.2	1011.9
42.5°	1262.4	1272.3	1290.5	1322.0	1310.4	1240.8	1215.9	1184.4	1187.6	1114.8	1113.1
45°	1405.1	1411.7	1411.7	1431.6	1433.2	1367.0	1350.3	1318.8	1325.4	1232.6	1237.4
47.5°	1590.8	1582.5	1549.4	1561.0	1574.2	1504.6	1489.7	1469.8	1478.0	1378.4	1388.5
50°	1763.4	1756.7	1688.7	1692.0	1740.2	1668.8	1663.8	1639.0	1650.5	1551.0	1565.9
52.5°	1828.1	1816.5	1748.4	1784.9	1919.3	1879.4	1887.8	1876.2	1882.8	1776.6	1773.3
55°	1755.1	1755.1	1713.6	1779.9	2053.6	2075.3	2143.3	2169.8	2198.0	2091.8	2068.5
57.5°	1552.7	1565.9	1572.7	1690.4	2032.1	2125.0	2254.4	2367.1	2511.5	2504.8	2539.7
60°	1217.7	1240.8	1279.0	1471.4	1939.2	2091.8	2259.3	2428.6	2627.6	2755.3	2944.5
62.5°	854.3	874.2	905.7	1038.4	1668.8	1930.9	2173.1	2433.5	2687.3	2888.1	3136.9
65°	580.7	600.4	666.8	739.8	1006.9	1388.5	1758.4	2189.7	2576.2	2949.5	3284.6
67.5°	418.0	429.6	481.0	603.8	670.1	739.8	877.6	1385.2	1861.2	2612.7	3102.0
70°	313.5	325.2	371.6	507.6	588.9	607.2	640.3	730.0	851.0	1468.1	2110.1
71°	262.0	278.7	335.1	477.8	585.5	600.4	615.4	668.5	708.3	1038.4	1565.9
72.5°	184.2	195.7	248.8	441.2	562.4	597.2	632.0	630.4	627.1	708.3	947.3
75°	117.8	117.8	117.8	248.8	600.4	579.0	592.3	663.6	627.1	595.6	623.7
77.5°	92.9	91.3	86.2	124.4	469.5	587.2	622.1	640.3	675.2	622.1	593.9
80°	69.7	68.0	68.0	78.0	217.3	379.8	525.9	583.9	608.8	661.9	603.8
82.5°	36.5	36.5	39.9	46.4	81.3	132.7	272.1	447.9	501.0	504.3	509.2
85°	11.6	9.9	13.3	21.6	34.9	43.1	76.3	180.8	268.8	325.2	343.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	6.6	11.6	14.9
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: P271532

CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	68°	70°	72.5°	75°
0°	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3
2.5°	983.7	990.3	985.4	992.0	983.7	993.6	985.4	990.3	992.0	985.4	993.6
5°	948.9	968.7	962.2	977.1	970.3	983.7	977.1	990.3	990.3	985.4	997.0
7.5°	905.7	925.6	927.3	942.2	942.2	958.9	958.9	972.1	978.7	978.7	995.3
10°	862.6	880.9	884.1	900.7	904.1	924.0	924.0	942.2	955.4	960.5	980.4
12.5°	829.5	852.6	852.6	870.9	867.5	897.5	900.7	917.3	930.6	942.2	968.7
15°	809.6	831.1	831.1	849.3	846.0	875.8	880.9	897.5	917.3	924.0	960.5
17.5°	789.6	811.2	806.2	831.1	829.5	862.6	859.3	884.1	900.7	910.7	952.1
20°	773.0	798.0	794.6	819.4	812.9	849.3	849.3	874.2	890.8	899.1	947.3
22.5°	764.7	791.2	784.6	809.6	804.5	841.0	841.0	866.0	884.1	897.5	945.6
25°	764.7	787.9	781.3	809.6	801.2	841.0	839.4	864.3	882.6	894.2	947.3
27.5°	768.1	791.2	786.3	812.9	806.2	841.0	844.4	866.0	884.1	897.5	950.6
30°	779.7	801.2	789.6	814.5	809.6	842.7	841.0	864.3	882.6	899.1	950.6
32.5°	804.5	816.2	801.2	822.8	812.9	846.0	846.0	862.6	884.1	904.1	950.6
35°	839.4	847.7	824.5	839.4	821.1	854.3	852.6	870.9	887.4	904.1	953.8
37.5°	889.1	899.1	862.6	875.8	846.0	872.5	866.0	887.4	904.1	914.0	970.3
40°	963.8	967.1	919.0	928.9	887.4	910.7	894.2	924.0	932.4	938.9	995.3
42.5°	1055.0	1058.3	997.0	1003.6	950.6	970.3	942.2	973.8	985.4	983.7	1045.1
45°	1167.9	1169.5	1099.9	1104.7	1043.4	1060.0	1025.1	1051.7	1060.0	1055.0	1118.1
47.5°	1290.5	1303.9	1225.8	1232.6	1167.9	1176.2	1133.0	1162.9	1162.9	1157.8	1222.5
50°	1453.2	1473.0	1381.9	1391.7	1317.2	1323.7	1274.0	1305.5	1302.3	1288.9	1361.9
52.5°	1655.6	1673.8	1577.5	1590.8	1511.2	1514.5	1453.2	1489.7	1479.7	1458.1	1542.7
55°	1902.7	1904.4	1814.8	1826.3	1746.8	1741.8	1665.5	1710.2	1695.3	1665.5	1743.4
57.5°	2299.1	2251.1	2103.4	2100.1	2013.8	2007.3	1909.3	1964.1	1939.2	1876.2	1979.0
60°	2937.7	2952.8	2576.2	2518.1	2357.2	2327.4	2198.0	2261.0	2231.1	2128.4	2229.5
62.5°	3297.8	3535.0	3511.7	3302.8	2888.1	2775.2	2556.3	2631.0	2552.9	2402.0	2496.6
65°	3564.8	3886.7	4072.5	4273.1	4087.4	3626.3	3108.7	3213.1	3022.3	2735.4	2826.7
67.5°	3664.4	4052.5	4444.1	4729.4	4923.4	4958.3	4359.5	4387.6	3918.1	3344.2	3355.9
70°	3143.5	3715.7	4482.3	4843.8	5228.7	5417.8	5480.8	5450.9	5147.4	4334.5	4024.4
71°	2664.1	3357.5	4329.7	4732.7	5225.4	5407.9	5573.7	5517.3	5376.4	4727.7	4251.6
72.5°	1804.9	2675.7	3883.4	4394.3	5051.2	5183.8	5432.7	5333.1	5303.3	5021.3	4463.9
75°	849.3	1333.7	2526.4	3299.5	4274.9	4402.5	4663.0	4540.2	4462.3	4558.4	4246.6
77.5°	625.4	728.3	1386.8	2050.3	3108.7	3289.5	3513.5	3362.4	3262.9	3359.1	3141.8
80°	569.0	572.3	718.3	1081.6	1854.6	1962.3	2047.0	1924.3	1773.3	1766.7	1565.9
82.5°	524.3	496.0	466.1	572.3	950.6	904.1	836.1	774.7	602.1	482.7	348.4
85°	333.5	364.9	331.7	313.5	378.3	311.8	247.1	237.2	167.5	112.7	104.6
87.5°	23.3	26.5	31.5	36.5	44.7	36.5	23.3	28.2	16.6	0.0	8.4
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: P271532

CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3
2.5°	982.0	990.3	993.6	992.0	988.7	985.4	973.8	982.0	970.3	978.7	968.7
5°	987.0	998.6	1000.4	997.0	993.6	987.0	967.1	978.7	965.5	972.1	957.1
7.5°	985.4	1003.6	1005.2	1001.9	995.3	983.7	963.8	972.1	950.6	955.4	935.6
10°	977.1	1003.6	1005.2	997.0	987.0	968.7	945.6	948.9	927.3	927.3	900.7
12.5°	968.7	1000.4	1008.5	997.0	980.4	955.4	928.9	925.6	900.7	899.1	869.2
15°	968.7	1003.6	1015.3	1000.4	975.4	940.5	909.1	902.3	874.2	866.0	832.8
17.5°	967.1	1003.6	1020.1	1000.4	970.3	925.6	885.8	879.2	842.7	829.5	791.2
20°	965.5	1006.9	1023.5	997.0	955.4	907.4	862.6	849.3	809.6	787.9	743.2
22.5°	963.8	1013.6	1026.9	993.6	945.6	884.1	837.7	814.5	768.1	739.8	686.8
25°	972.1	1021.8	1028.5	990.3	930.6	859.3	809.6	778.0	726.5	690.1	627.1
27.5°	975.4	1030.2	1031.8	983.7	912.4	832.8	779.7	736.5	678.5	633.7	562.4
30°	985.4	1031.8	1026.9	970.3	890.8	799.5	744.9	691.8	627.1	569.0	484.4
32.5°	988.7	1036.7	1023.5	955.4	869.2	766.3	705.0	643.6	565.7	497.6	394.9
35°	995.3	1040.1	1020.1	947.3	846.0	731.6	663.6	593.9	504.3	418.0	300.2
37.5°	1005.2	1055.0	1028.5	943.8	834.3	701.7	617.0	542.5	431.3	330.0	199.1
40°	1030.2	1085.0	1043.4	948.9	826.1	676.9	572.3	489.4	348.4	243.9	137.7
42.5°	1079.9	1136.3	1081.6	973.8	831.1	655.2	525.9	432.9	263.7	174.2	114.4
45°	1154.5	1202.7	1144.6	1015.3	851.0	643.6	482.7	375.0	189.1	139.3	104.6
47.5°	1264.1	1310.4	1237.4	1081.6	885.8	638.7	437.9	313.5	146.0	126.1	101.1
50°	1408.4	1463.1	1371.8	1186.1	950.6	643.6	389.9	255.5	127.6	122.8	99.5
52.5°	1585.9	1639.0	1547.7	1340.3	1056.7	671.8	338.4	222.3	121.1	121.1	97.8
55°	1786.5	1861.2	1771.6	1554.3	1220.9	733.2	307.0	210.7	121.1	122.8	96.2
57.5°	2023.8	2086.9	2007.3	1760.0	1418.3	834.3	310.3	222.3	121.1	122.8	94.5
60°	2256.0	2334.0	2242.8	2022.2	1643.9	987.0	378.3	282.0	126.1	127.6	94.5
62.5°	2498.3	2557.9	2483.3	2251.1	1899.4	1176.2	514.2	408.1	146.0	150.9	101.1
65°	2763.6	2861.6	2783.6	2592.8	2261.0	1478.0	773.0	612.1	215.6	175.9	111.1
67.5°	3223.2	3262.9	3224.7	3050.6	2684.0	1726.8	920.7	622.1	215.6	170.9	124.4
70°	3845.3	3755.6	3584.8	3259.6	2728.8	1549.4	660.3	379.8	184.2	162.5	131.1
71°	3989.6	3851.8	3599.7	3208.2	2635.9	1398.4	512.7	300.2	172.6	159.3	131.1
72.5°	4077.5	3871.8	3490.3	3057.2	2453.5	1101.5	338.4	235.5	157.7	150.9	126.1
75°	3963.1	3583.1	3082.2	2645.9	2008.9	572.3	212.3	179.1	134.4	131.1	109.4
77.5°	3146.9	2813.4	2274.3	1922.6	1292.2	253.8	152.6	136.0	106.2	102.9	84.6
80°	1468.1	1177.8	690.1	592.3	406.4	149.3	104.6	92.9	76.3	73.0	59.6
82.5°	267.1	200.7	155.9	150.9	136.0	87.9	61.4	56.4	48.1	46.4	38.2
85°	91.3	87.9	66.4	66.4	68.0	46.4	34.9	33.1	25.0	25.0	16.6
87.5°	1.7	8.4	8.4	11.6	9.9	8.4	3.3	5.0	1.7	5.0	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: P271532

CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

CANDELA DISTRIBUTION (continued):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3	990.3
2.5°	977.1	963.8	975.4	963.8	970.3	957.1	965.5	960.5	960.5	955.4	952.1
5°	962.2	945.6	953.8	940.5	947.3	927.3	932.4	924.0	907.4	897.5	884.1
7.5°	940.5	915.7	922.3	902.3	907.4	880.9	885.8	870.9	839.4	819.4	799.5
10°	902.3	879.2	880.9	855.9	854.3	827.8	822.8	802.8	756.5	723.2	696.7
12.5°	864.3	837.7	834.3	804.5	799.5	768.1	761.4	730.0	661.9	597.2	555.7
15°	824.5	791.2	781.3	749.7	731.6	705.0	686.8	640.3	542.5	457.9	403.1
17.5°	779.7	736.5	721.6	685.0	658.5	618.8	592.3	529.2	403.1	311.8	273.7
20°	721.6	675.2	648.6	602.1	567.3	519.2	486.1	404.8	268.8	222.3	217.3
22.5°	656.9	602.1	569.0	511.0	467.7	416.4	363.3	273.7	190.8	180.8	187.5
25°	588.9	520.8	477.8	406.4	348.4	288.6	238.9	182.4	155.9	154.3	164.2
27.5°	507.6	429.6	368.2	283.7	230.5	184.2	162.5	144.3	132.7	134.4	144.3
30°	418.0	316.8	252.2	177.4	154.3	134.4	131.1	124.4	119.5	122.8	129.4
32.5°	311.8	202.4	162.5	127.6	126.1	114.4	117.8	114.4	112.7	114.4	119.5
35°	210.7	134.4	127.6	109.4	112.7	104.6	109.4	107.9	106.2	106.2	109.4
37.5°	146.0	111.1	114.4	101.1	106.2	99.5	104.6	102.9	101.1	99.5	101.1
40°	121.1	101.1	106.2	96.2	101.1	94.5	99.5	97.8	96.2	92.9	92.9
42.5°	111.1	96.2	101.1	91.3	97.8	89.7	96.2	92.9	89.7	86.2	87.9
45°	107.9	92.9	97.8	87.9	94.5	86.2	91.3	89.7	82.9	81.3	82.9
47.5°	104.6	91.3	96.2	86.2	91.3	82.9	87.9	84.6	78.0	76.3	78.0
50°	102.9	87.9	92.9	82.9	87.9	81.3	84.6	81.3	74.6	73.0	73.0
52.5°	101.1	86.2	91.3	79.6	84.6	74.6	79.6	76.3	69.7	68.0	68.0
55°	101.1	84.6	87.9	76.3	81.3	71.3	74.6	71.3	68.0	64.7	64.7
57.5°	99.5	81.3	86.2	73.0	76.3	68.0	71.3	68.0	63.0	61.4	61.4
60°	99.5	79.6	84.6	71.3	74.6	64.7	68.0	64.7	59.6	58.1	58.1
62.5°	104.6	82.9	86.2	73.0	74.6	64.7	66.4	61.4	56.4	56.4	54.8
65°	114.4	92.9	92.9	76.3	76.3	64.7	66.4	59.6	53.1	53.1	53.1
67.5°	124.4	102.9	101.1	81.3	79.6	64.7	64.7	56.4	49.8	49.8	49.8
70°	131.1	107.9	104.6	82.9	79.6	63.0	61.4	53.1	46.4	46.4	46.4
71°	129.4	107.9	102.9	81.3	76.3	59.6	59.6	51.5	44.7	44.7	43.1
72.5°	122.8	101.1	96.2	76.3	73.0	56.4	56.4	48.1	41.5	41.5	39.9
75°	104.6	86.2	81.3	64.7	61.4	49.8	48.1	39.9	36.5	34.9	34.9
77.5°	81.3	68.0	63.0	51.5	49.8	39.9	38.2	33.1	29.8	29.8	28.2
80°	58.1	48.1	44.7	34.9	31.5	26.5	28.2	25.0	23.3	23.3	21.6
82.5°	34.9	25.0	25.0	19.9	21.6	16.6	18.2	18.2	16.6	13.3	13.3
85°	18.2	11.6	14.9	8.4	11.6	5.0	8.4	6.6	6.6	5.0	5.0
87.5°	3.3	0.0	1.7	0.0	1.7	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: P271532

CATALOG NUMBER: ISS-AF-1000-LED-E1-SL2-7027

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	990.3	990.3
2.5°	942.2	943.8
5°	877.6	880.9
7.5°	784.6	789.6
10°	673.5	676.9
12.5°	530.8	530.8
15°	371.6	375.0
17.5°	260.5	262.0
20°	219.0	220.6
22.5°	195.7	197.4
25°	174.2	175.9
27.5°	150.9	152.6
30°	136.0	137.7
32.5°	122.8	124.4
35°	111.1	111.1
37.5°	102.9	102.9
40°	94.5	94.5
42.5°	89.7	89.7
45°	84.6	84.6
47.5°	79.6	79.6
50°	74.6	76.3
52.5°	69.7	69.7
55°	64.7	64.7
57.5°	59.6	61.4
60°	56.4	56.4
62.5°	53.1	53.1
65°	51.5	51.5
67.5°	48.1	48.1
70°	44.7	44.7
71°	43.1	43.1
72.5°	39.9	39.9
75°	34.9	33.1
77.5°	28.2	28.2
80°	21.6	19.9
82.5°	13.3	11.6
85°	5.0	3.3
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)