

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: P228537

Luminaire Tested: **ISC-AF-450-LED-E1-SLL-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29764)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISC-AF-450-LED-E1-SLL-8030
Description: IMPACT ELITE LED CYLINDER LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2039 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

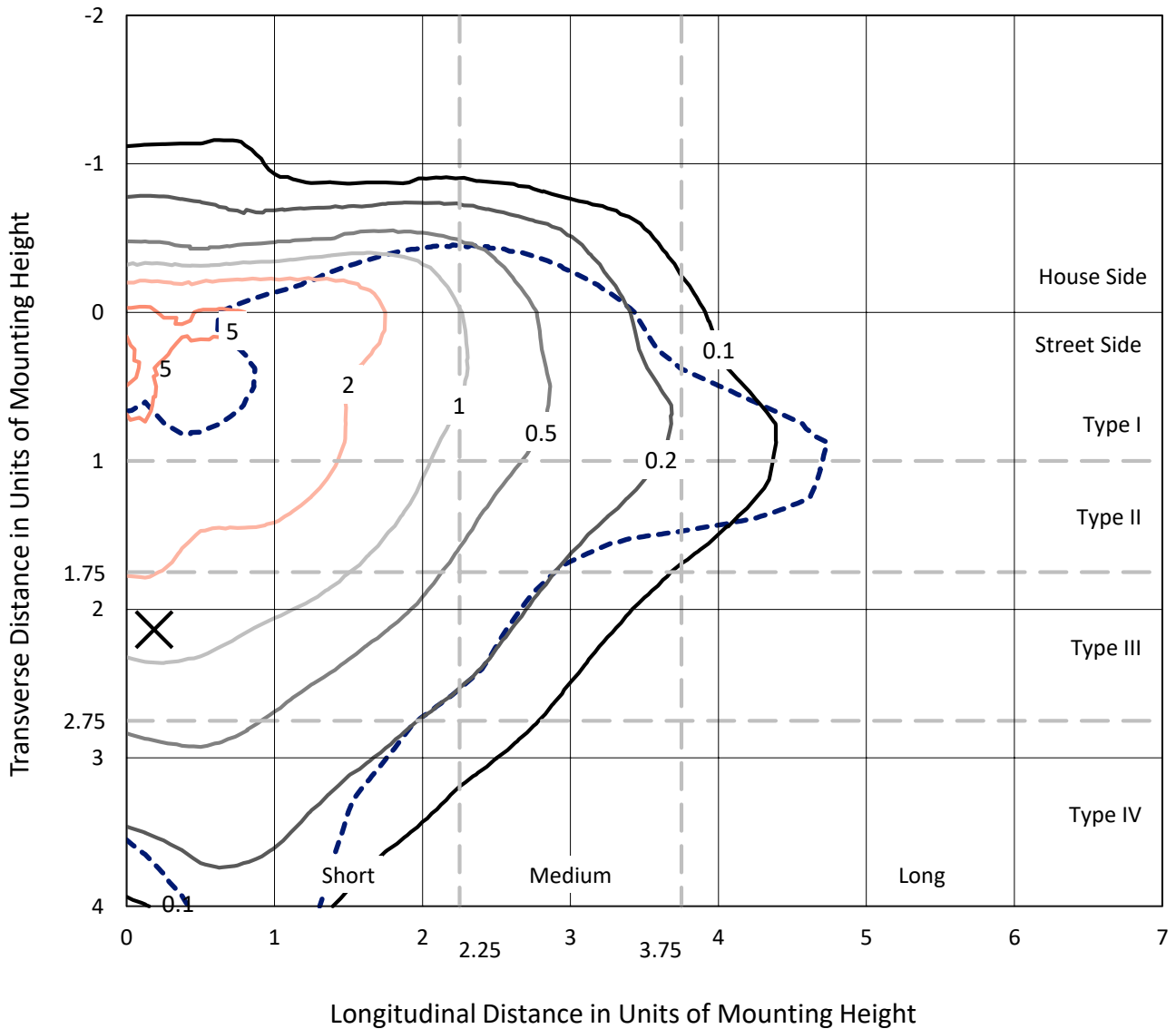
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P228537
 CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

Iso-Footcandle Lines of Horizontal Illumination

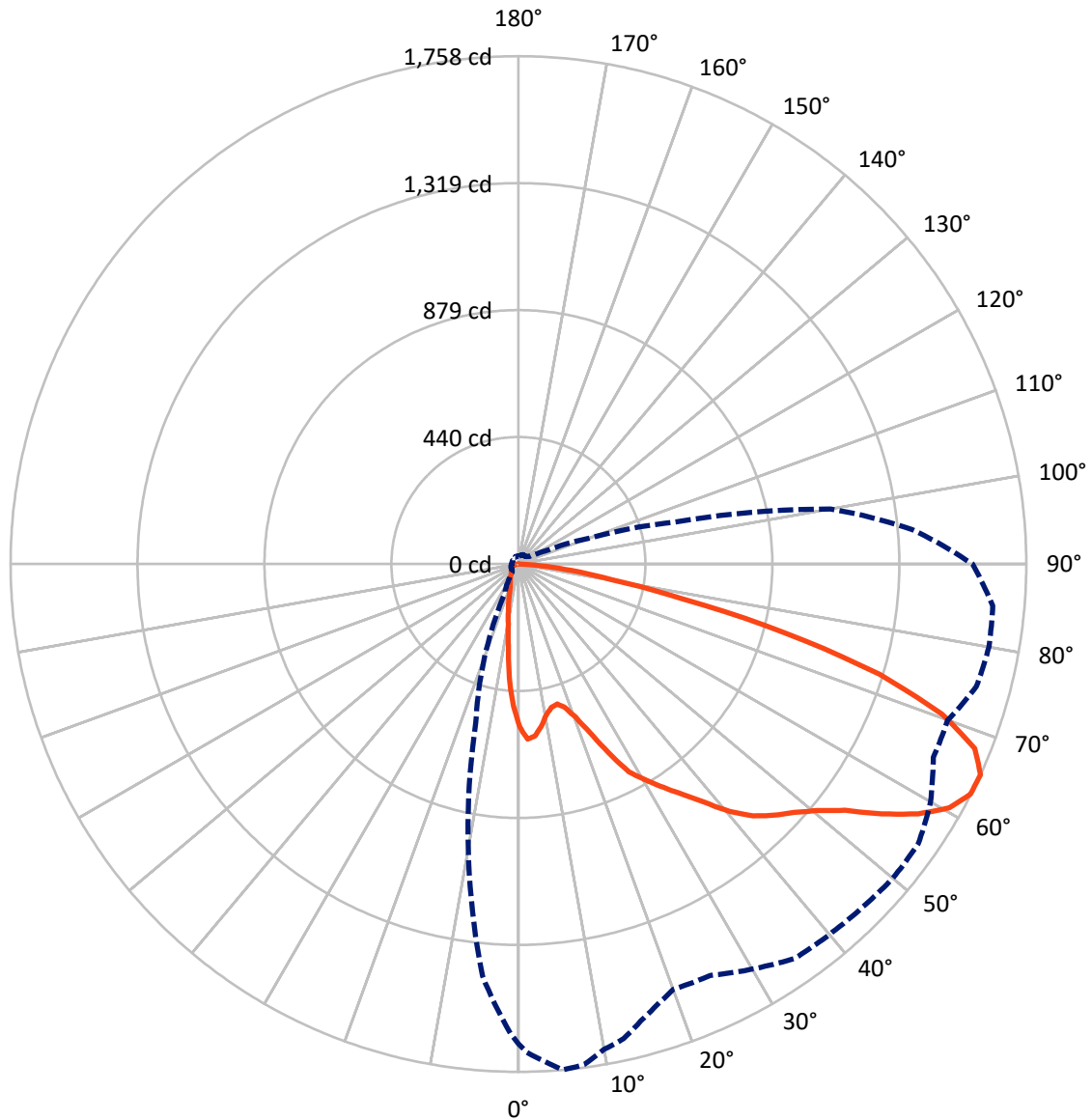
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P228537
CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P228537

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	339.0	0.0	339.0
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	1700.0	0.0	1700.0
	% Fixture	83.4	0.0	83.4
Total	Lumens	2039.0	0.0	2039.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	2.1
10°-20°	89.3	4.4
20°-30°	129.8	6.4
30°-40°	192.0	9.4
40°-50°	279.7	13.7
50°-60°	419.3	20.6
60°-70°	522.4	25.6
70°-80°	306.0	15.0
80°-90°	57.2	2.8
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°	2039.0	100.0
0°-180°	2039.0	100.0



REPORT NUMBER: P228537

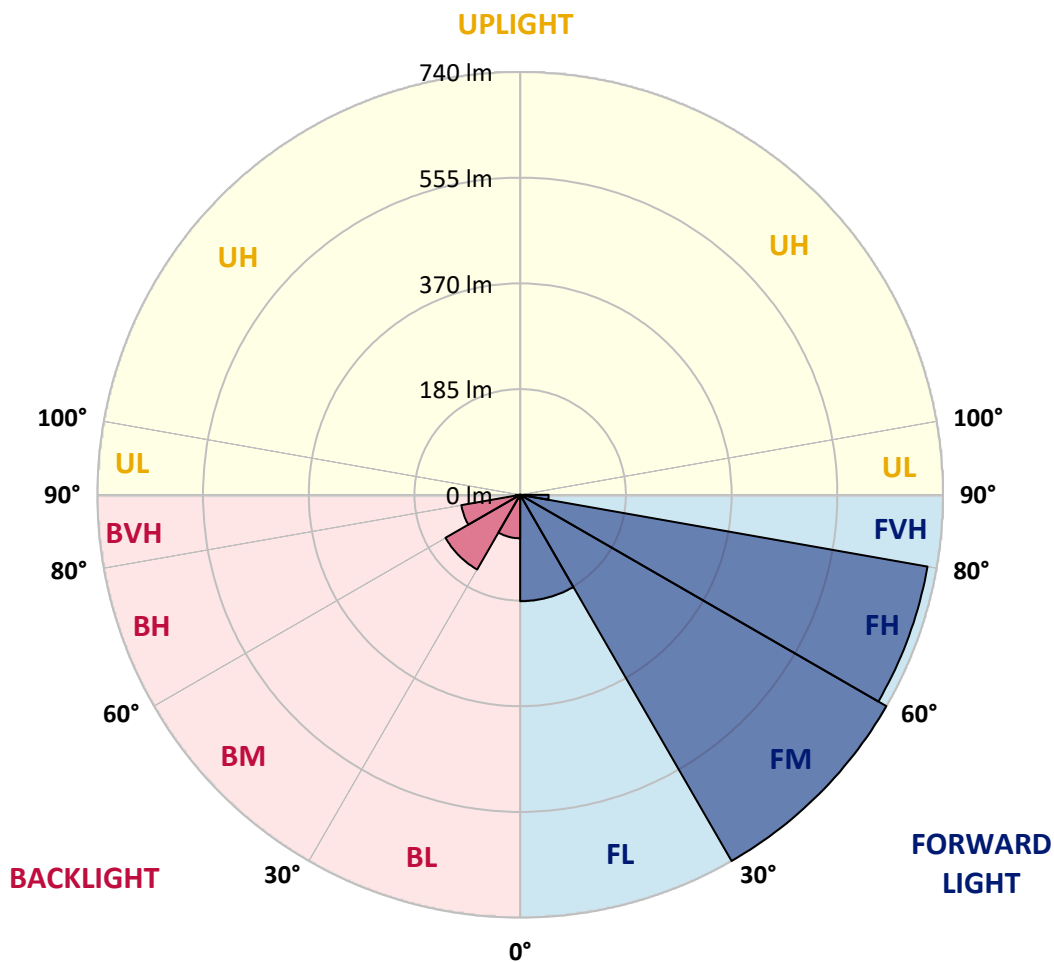
CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	186.3	9.1			
FM	(30°-60°)	740.0	36.3			
FH	(60°-80°)	723.8	35.5			G1/1800
FVH	(80°-90°)	49.9	2.4			G1/100
BL	(0°-30°)	76.1	3.7	B0/110		
BM	(30°-60°)	150.9	7.4	B0/220		
BH	(60°-80°)	104.6	5.1	B0/110		G0/110
BVH	(80°-90°)	7.4	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





REPORT NUMBER: P228537

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	7.5°	10°	12.5°	15°	17.5°	20°	25°	35°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	599.0	597.4	607.1	608.7	615.1	615.1	622.4	628.9	631.3	636.9	651.5
5°	579.6	584.5	598.2	611.9	621.6	631.3	641.8	654.7	665.2	682.9	720.1
7.5°	536.8	544.1	567.5	581.2	596.6	613.5	626.4	641.8	657.9	687.8	754.0
10°	494.8	500.5	530.4	547.3	569.1	586.9	605.4	622.4	640.2	677.3	754.0
12.5°	468.2	475.5	509.4	525.5	550.5	569.1	591.7	611.9	632.9	672.4	746.7
15°	462.6	470.6	502.9	523.1	544.9	562.7	582.8	603.8	624.8	663.6	729.8
17.5°	477.9	487.6	522.3	544.9	561.9	582.0	596.6	616.7	630.5	661.1	692.6
20°	514.2	525.5	566.7	588.5	602.2	615.1	626.4	638.5	644.2	651.5	645.8
22.5°	572.3	586.1	632.9	657.9	667.6	677.3	678.1	679.7	675.7	656.3	612.7
25°	655.5	669.2	722.5	746.7	746.7	746.7	737.8	731.4	712.8	676.5	603.8
27.5°	733.0	750.7	814.5	829.9	825.0	817.8	800.8	784.7	758.0	697.5	603.0
30°	791.1	808.9	867.8	879.9	867.8	850.0	823.4	800.0	768.5	708.0	608.7
32.5°	844.4	865.4	921.9	923.5	901.7	881.5	851.7	825.0	791.9	727.3	625.6
35°	900.9	921.9	979.2	967.9	936.4	909.0	878.3	854.9	821.8	752.4	653.1
37.5°	979.2	997.8	1046.2	1019.6	979.2	943.7	910.6	879.9	846.8	786.3	699.1
40°	1055.1	1081.7	1126.1	1083.3	1034.1	986.5	950.1	917.8	881.5	832.3	758.0
42.5°	1126.1	1151.1	1192.3	1137.4	1080.1	1032.5	994.5	959.8	925.1	884.8	829.1
45°	1180.2	1206.0	1240.8	1182.6	1117.2	1068.0	1026.8	996.2	965.5	938.0	918.7
47.5°	1232.7	1258.5	1285.2	1222.2	1157.6	1107.6	1059.1	1030.9	1006.6	992.1	1015.5
50°	1300.5	1318.2	1340.9	1273.0	1204.4	1147.1	1098.7	1076.9	1054.3	1059.1	1137.4
52.5°	1392.5	1407.9	1415.9	1349.7	1273.0	1207.7	1154.4	1124.5	1105.9	1134.2	1266.6
55°	1522.5	1544.3	1526.5	1461.1	1364.3	1290.0	1224.6	1189.1	1177.8	1215.7	1395.7
57.5°	1634.7	1644.4	1631.5	1566.9	1467.6	1384.4	1315.0	1277.9	1265.0	1315.0	1513.6
60°	1683.9	1696.0	1713.8	1658.1	1565.3	1482.9	1423.2	1386.9	1365.1	1423.2	1608.1
62.5°	1692.0	1712.2	1755.8	1727.5	1654.1	1592.7	1538.6	1488.6	1471.6	1516.0	1670.2
65°	1660.5	1691.2	1758.2	1747.7	1706.5	1683.1	1637.9	1599.2	1566.9	1571.7	1667.0
67.5°	1589.5	1625.0	1703.3	1698.5	1703.3	1703.3	1663.8	1631.5	1589.5	1529.7	1544.3
70°	1418.3	1465.2	1555.6	1579.0	1620.2	1620.2	1585.5	1536.2	1487.8	1365.1	1290.8
72.5°	1136.6	1168.1	1306.9	1420.8	1473.2	1452.3	1418.3	1336.0	1229.5	1094.6	993.7
75°	769.3	787.9	958.2	1166.5	1261.7	1244.0	1188.3	1085.8	976.0	825.8	698.3
77.5°	428.7	452.9	580.4	743.5	871.8	869.4	862.1	796.8	709.6	585.3	519.1
80°	251.9	259.9	326.9	445.6	556.2	529.6	511.0	459.3	414.9	358.4	409.3
82.5°	154.2	146.1	185.7	271.2	328.6	317.3	285.8	266.4	245.4	230.1	272.0
85°	42.0	37.9	75.9	113.8	139.7	151.0	151.0	149.3	134.0	100.9	121.1
87.5°	0.0	0.0	0.0	0.0	0.0	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: P228537

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

CANDELA DISTRIBUTION (continued):

	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	657.1	657.9	655.5	661.1	654.7	651.5	641.8	641.8	633.7	627.2	620.0
5°	733.8	738.6	734.6	735.4	722.5	709.6	690.2	678.9	658.7	636.9	614.3
7.5°	785.5	793.5	790.3	776.6	756.4	729.0	696.7	666.0	632.9	597.4	564.3
10°	799.2	808.1	800.8	775.0	741.9	703.1	664.4	623.2	582.8	544.9	509.4
12.5°	779.8	786.3	770.9	742.7	710.4	671.6	631.3	595.8	548.1	507.8	466.6
15°	730.6	726.5	724.9	704.7	682.1	650.6	612.7	576.4	532.0	490.8	447.2
17.5°	677.3	672.4	674.1	666.0	662.8	648.2	620.0	589.3	549.7	499.7	452.9
20°	630.5	625.6	628.0	632.1	644.2	645.0	640.2	620.0	590.9	538.4	481.1
22.5°	590.1	590.9	599.0	610.3	630.5	656.3	676.5	680.5	660.3	599.0	527.1
25°	578.0	574.0	582.8	601.4	635.3	685.4	730.6	753.2	741.9	680.5	592.5
27.5°	574.0	568.3	578.0	602.2	656.3	726.5	791.1	825.0	829.1	766.1	662.8
30°	574.0	571.5	581.2	612.7	670.0	740.3	812.1	863.0	879.1	826.6	724.1
32.5°	581.2	582.8	599.8	640.2	699.1	770.9	845.2	900.1	929.2	889.6	773.4
35°	597.4	600.6	624.8	671.6	735.4	808.1	875.9	931.6	978.4	957.4	819.4
37.5°	632.1	636.9	666.8	714.4	772.5	837.9	904.1	963.9	1031.7	1022.8	867.8
40°	693.4	693.4	723.3	764.5	812.1	862.1	927.5	997.8	1080.9	1093.0	927.5
42.5°	770.9	767.7	787.1	816.9	850.0	892.0	950.9	1029.3	1126.9	1153.6	972.7
45°	877.5	861.3	871.8	879.1	895.2	921.1	973.6	1059.1	1164.1	1198.8	1006.6
47.5°	1002.6	980.0	971.1	957.4	951.8	961.4	1006.6	1082.5	1199.6	1237.5	1061.5
50°	1140.7	1118.9	1095.4	1058.3	1026.0	1016.3	1043.8	1114.0	1237.5	1286.0	1122.1
52.5°	1284.3	1269.0	1238.3	1180.2	1118.9	1084.1	1097.1	1166.5	1298.1	1361.0	1193.9
55°	1415.9	1420.8	1383.6	1315.8	1227.8	1174.6	1189.9	1259.3	1407.9	1482.1	1314.2
57.5°	1557.2	1544.3	1515.2	1445.0	1348.9	1291.6	1298.1	1382.0	1530.6	1587.1	1433.7
60°	1650.8	1650.8	1619.4	1566.1	1474.9	1421.6	1431.3	1508.8	1629.0	1634.7	1487.0
62.5°	1711.4	1720.3	1695.2	1657.3	1568.5	1524.1	1557.2	1612.1	1677.5	1630.7	1460.3
65°	1682.3	1692.0	1689.6	1647.6	1584.6	1581.4	1641.2	1654.1	1648.4	1571.7	1368.3
67.5°	1550.7	1531.4	1530.6	1508.8	1495.8	1562.8	1638.7	1642.8	1547.5	1456.3	1223.0
70°	1300.5	1267.4	1254.5	1260.9	1319.9	1445.0	1553.2	1522.5	1370.7	1292.4	1041.4
72.5°	1002.6	963.1	955.0	980.0	1071.2	1247.2	1394.9	1352.2	1126.9	1035.7	806.4
75°	711.2	694.2	695.0	744.3	842.8	1012.3	1184.2	1180.2	834.7	714.4	555.4
77.5°	517.5	520.7	535.2	554.6	639.3	803.2	964.7	954.2	594.1	490.8	388.3
80°	427.0	431.9	431.9	421.4	443.2	530.4	655.5	699.9	398.0	330.2	271.2
82.5°	306.8	331.0	344.7	327.7	319.7	349.5	410.9	440.0	247.8	208.3	189.7
85°	146.1	167.1	171.9	167.9	192.9	220.4	234.9	240.6	135.6	96.9	124.3
87.5°	0.0	0.0	0.8	6.5	17.8	30.7	30.7	46.8	7.3	2.4	5.7
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: P228537

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	115°	120°	125°	130°	135°	145°	155°	165°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	610.3	599.8	591.7	582.0	574.0	565.9	560.2	548.1	538.4	516.6	511.0
5°	595.8	573.2	557.8	543.3	524.7	511.8	498.1	481.1	462.6	431.1	421.4
7.5°	538.4	510.2	489.2	468.2	444.0	422.2	402.0	379.4	347.1	313.2	300.3
10°	476.3	446.4	417.4	392.3	363.3	339.0	321.3	305.1	279.3	253.5	236.5
12.5°	425.4	391.5	358.4	333.4	318.1	305.9	293.0	280.1	252.7	223.6	203.4
15°	402.0	362.5	333.4	312.4	298.7	284.2	268.8	254.3	222.0	188.1	163.9
17.5°	405.2	360.0	322.9	294.6	276.1	255.9	238.1	219.6	184.1	143.7	121.9
20°	423.0	362.5	311.6	278.5	251.9	226.0	203.4	180.0	136.4	104.9	89.6
22.5°	445.6	370.5	305.1	262.4	229.3	197.0	167.9	140.5	100.9	82.3	75.1
25°	484.4	389.1	303.5	247.8	207.5	168.7	138.8	109.8	81.5	72.7	68.6
27.5°	532.8	410.1	305.1	237.3	188.9	146.1	113.0	91.2	73.5	68.6	65.4
30°	581.2	431.9	297.9	221.2	167.1	125.1	96.9	83.1	72.7	67.0	61.4
32.5°	624.0	448.0	285.8	204.2	147.7	106.6	82.3	71.0	63.8	57.3	55.7
35°	654.7	455.3	272.0	193.7	134.8	95.3	72.7	63.8	56.5	50.0	46.8
37.5°	683.7	456.1	257.5	184.1	130.0	90.4	67.0	58.9	52.5	46.8	43.6
40°	713.6	452.9	249.4	174.4	122.7	88.0	64.6	54.9	50.9	44.4	41.2
42.5°	735.4	447.2	246.2	168.7	116.2	81.5	63.0	54.1	48.4	43.6	39.6
45°	755.6	441.6	246.2	163.9	111.4	77.5	59.7	54.9	46.8	42.8	37.9
47.5°	779.8	444.0	247.0	159.8	107.4	73.5	56.5	53.3	47.6	42.0	37.1
50°	821.0	471.4	251.1	157.4	104.1	70.2	54.1	50.9	52.5	41.2	36.3
52.5°	892.0	515.0	257.5	155.8	100.9	67.8	50.9	49.2	53.3	41.2	35.5
55°	984.9	559.4	264.0	151.8	96.1	63.0	49.2	46.0	49.2	41.2	34.7
57.5°	1075.3	592.5	269.6	146.1	88.0	58.1	46.8	43.6	45.2	40.4	33.1
60°	1127.7	618.4	275.3	136.4	78.3	52.5	44.4	41.2	40.4	40.4	32.3
62.5°	1142.3	608.7	272.0	124.3	70.2	48.4	42.0	38.7	36.3	41.2	32.3
65°	1096.3	557.8	259.9	113.8	64.6	46.8	39.6	37.1	34.7	35.5	30.7
67.5°	955.0	469.0	226.8	104.1	63.8	46.0	37.9	35.5	32.3	31.5	29.1
70°	779.0	368.1	188.1	96.9	63.0	46.0	36.3	33.1	30.7	28.3	26.6
72.5°	599.0	275.3	158.2	93.6	63.8	45.2	33.9	29.9	27.4	25.8	24.2
75°	421.4	194.5	131.6	84.0	59.7	42.8	31.5	26.6	24.2	22.6	21.0
77.5°	305.1	132.4	97.7	67.8	50.9	37.1	27.4	22.6	20.2	19.4	17.8
80°	194.5	81.5	65.4	50.0	37.1	29.1	21.0	17.8	16.1	14.5	13.7
82.5°	112.2	47.6	39.6	33.9	24.2	19.4	15.3	13.7	10.5	9.7	8.9
85°	68.6	29.9	21.8	17.8	15.3	12.1	8.9	8.1	5.7	4.8	4.0
87.5°	15.3	6.5	5.7	4.0	4.8	4.0	2.4	1.6	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: P228537

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

CANDELA DISTRIBUTION (continued):

	175°	180°	185°	195°	205°	215°	225°	230°	232.5°	235°	237.5°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	502.1	490.0	490.8	488.4	481.9	471.4	468.2	462.6	463.4	466.6	463.4
5°	410.1	395.6	397.2	396.4	389.9	382.6	377.0	369.7	367.3	369.7	365.7
7.5°	290.6	280.9	284.2	291.4	290.6	286.6	281.7	273.7	272.0	272.9	265.6
10°	222.0	212.3	209.9	209.1	207.5	205.0	198.6	192.1	189.7	190.5	185.7
12.5°	185.7	177.6	167.9	159.0	151.0	147.7	139.7	135.6	134.8	134.8	132.4
15°	146.9	140.5	134.8	125.9	119.5	114.6	109.0	105.8	104.9	105.8	105.8
17.5°	109.8	106.6	104.1	103.3	100.1	96.9	93.6	92.0	91.2	91.2	92.0
20°	84.0	83.1	83.1	83.1	87.2	90.4	91.2	88.8	88.0	87.2	86.4
22.5°	72.7	71.8	72.7	77.5	75.1	72.7	72.7	72.7	72.7	72.7	73.5
25°	67.0	67.8	68.6	66.2	63.8	62.2	61.4	61.4	60.5	60.5	61.4
27.5°	63.8	63.0	62.2	60.5	58.9	56.5	55.7	54.9	54.9	54.9	54.9
30°	59.7	58.9	58.1	56.5	54.1	50.9	50.0	50.0	49.2	50.0	50.0
32.5°	54.9	54.1	53.3	51.7	49.2	47.6	46.8	45.2	45.2	45.2	46.0
35°	44.4	43.6	43.6	44.4	44.4	43.6	43.6	42.0	42.0	42.0	42.0
37.5°	41.2	40.4	40.4	39.6	40.4	41.2	40.4	39.6	39.6	38.7	38.7
40°	38.7	38.7	37.9	37.1	37.1	38.7	37.9	37.1	36.3	36.3	36.3
42.5°	37.1	36.3	36.3	35.5	35.5	35.5	34.7	33.9	33.1	33.1	33.1
45°	35.5	35.5	34.7	33.9	33.1	33.1	31.5	30.7	30.7	30.7	31.5
47.5°	34.7	33.9	33.9	33.1	32.3	30.7	29.9	29.1	29.1	29.1	29.1
50°	33.9	33.1	32.3	32.3	30.7	29.9	29.1	28.3	28.3	28.3	28.3
52.5°	33.1	32.3	31.5	30.7	29.9	29.1	28.3	27.4	27.4	27.4	27.4
55°	31.5	30.7	30.7	29.9	29.9	29.1	28.3	27.4	27.4	27.4	26.6
57.5°	30.7	29.9	29.1	29.1	29.1	28.3	27.4	26.6	26.6	26.6	26.6
60°	29.9	29.1	29.1	28.3	28.3	27.4	27.4	26.6	25.8	25.8	25.0
62.5°	29.1	28.3	28.3	27.4	28.3	27.4	26.6	25.8	25.0	25.0	24.2
65°	28.3	27.4	27.4	27.4	26.6	26.6	25.8	24.2	24.2	24.2	23.4
67.5°	26.6	25.8	25.8	26.6	25.8	25.0	25.0	23.4	23.4	22.6	22.6
70°	24.2	24.2	24.2	25.0	24.2	23.4	23.4	22.6	21.8	21.0	21.0
72.5°	22.6	21.8	22.6	22.6	22.6	21.8	22.6	21.0	20.2	19.4	19.4
75°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	18.6	17.8	17.0
77.5°	15.3	16.1	16.1	16.1	16.1	17.0	16.1	16.1	16.1	15.3	14.5
80°	11.3	11.3	12.1	12.9	12.1	12.9	12.1	12.9	12.1	12.1	12.1
82.5°	6.5	6.5	7.3	8.1	8.1	8.9	7.3	8.1	8.1	8.9	8.1
85°	2.4	2.4	2.4	2.4	3.2	3.2	2.4	3.2	3.2	4.0	4.0
87.5°	0.0	0.0	0.0	0.0	0.0	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: P228537

CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

CANDELA DISTRIBUTION (continued):

	240°	242.5°	245°	247.5°	250°	252.5°	255°	257.5°	260°	265°	270°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	469.8	469.8	460.1	461.8	463.4	466.6	465.0	464.2	463.4	468.2	470.6
5°	368.9	368.1	356.0	355.2	357.6	358.4	356.0	352.0	349.5	350.3	352.8
7.5°	268.0	265.6	254.3	252.7	251.9	252.7	250.2	246.2	243.0	243.8	246.2
10°	187.3	180.8	179.2	180.0	181.6	183.2	183.2	183.2	184.1	188.9	194.5
12.5°	135.6	133.2	134.8	136.4	139.7	142.1	144.5	145.3	146.1	152.6	157.4
15°	107.4	107.4	109.0	109.8	111.4	113.0	114.6	114.6	115.4	117.9	121.9
17.5°	92.8	92.8	92.8	92.8	92.8	92.0	91.2	89.6	88.8	88.0	88.8
20°	85.6	84.8	83.1	82.3	80.7	79.1	78.3	75.9	75.1	72.7	71.8
22.5°	73.5	72.7	72.7	72.7	72.7	71.8	71.0	70.2	68.6	66.2	64.6
25°	60.5	60.5	60.5	61.4	61.4	62.2	63.8	63.8	63.8	63.8	61.4
27.5°	54.9	54.9	54.9	54.9	55.7	55.7	56.5	56.5	56.5	57.3	58.1
30°	50.0	50.9	50.9	51.7	51.7	52.5	52.5	53.3	53.3	54.1	54.1
32.5°	46.0	46.0	46.8	47.6	47.6	47.6	49.2	49.2	48.4	49.2	49.2
35°	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	39.6	38.7	39.6
37.5°	37.9	37.1	37.1	36.3	35.5	35.5	35.5	36.3	35.5	36.3	36.3
40°	34.7	34.7	33.9	33.9	33.9	33.9	33.9	33.9	33.9	34.7	35.5
42.5°	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	33.1	33.1
45°	30.7	30.7	30.7	30.7	31.5	31.5	31.5	31.5	31.5	31.5	32.3
47.5°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	30.7	31.5
50°	28.3	28.3	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.9	30.7
52.5°	27.4	27.4	27.4	28.3	28.3	28.3	28.3	28.3	28.3	28.3	29.1
55°	26.6	27.4	27.4	27.4	27.4	27.4	26.6	26.6	26.6	26.6	27.4
57.5°	25.8	25.8	26.6	26.6	26.6	25.8	25.8	25.0	25.0	25.0	26.6
60°	25.0	25.0	25.0	25.0	25.0	24.2	24.2	24.2	24.2	25.0	25.0
62.5°	24.2	24.2	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
65°	23.4	23.4	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6
67.5°	21.8	21.8	21.8	21.0	21.0	21.0	21.0	21.8	21.0	21.0	21.0
70°	20.2	20.2	20.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
72.5°	18.6	18.6	18.6	18.6	17.8	17.8	17.8	17.8	17.8	17.8	17.8
75°	17.0	16.1	16.1	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
77.5°	14.5	13.7	13.7	13.7	12.9	12.9	12.9	12.9	12.9	12.9	12.9
80°	12.1	11.3	11.3	10.5	10.5	10.5	10.5	10.5	10.5	9.7	9.7
82.5°	8.9	8.1	8.1	8.1	8.1	7.3	7.3	7.3	7.3	6.5	5.7
85°	4.0	4.0	3.2	4.0	4.0	4.8	4.0	4.0	4.0	3.2	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	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: P228537
 CATALOG NUMBER: ISC-AF-450-LED-E1-SLL-8030

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°	302.5°	
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	0°
2.5°	469.0	477.1	477.9	473.1	482.7	484.4	481.9	481.9	483.5	490.0	490.0	2.5°
5°	349.5	360.0	359.2	352.8	365.7	369.7	367.3	368.1	371.3	378.6	382.6	5°
7.5°	247.0	255.9	255.1	254.3	262.4	265.6	267.2	269.6	279.3	280.1	285.0	7.5°
10°	200.2	208.3	210.7	216.3	218.8	223.6	226.8	230.9	238.9	243.0	248.6	10°
12.5°	162.3	171.9	174.4	180.8	184.1	189.7	192.9	201.0	205.9	210.7	218.0	12.5°
15°	125.1	133.2	135.6	140.5	143.7	150.1	153.4	158.2	167.9	172.8	182.4	15°
17.5°	92.0	96.9	98.5	101.7	104.1	106.6	113.0	121.1	126.7	134.8	139.7	17.5°
20°	71.8	73.5	74.3	75.1	76.7	78.3	81.5	87.2	90.4	96.9	101.7	20°
22.5°	64.6	65.4	65.4	66.2	66.2	67.0	68.6	70.2	71.8	74.3	76.7	22.5°
25°	59.7	60.5	60.5	61.4	61.4	62.2	63.0	63.8	65.4	66.2	67.0	25°
27.5°	57.3	57.3	57.3	57.3	58.1	58.1	58.9	60.5	60.5	62.2	63.0	27.5°
30°	54.9	54.9	54.9	55.7	56.5	58.1	59.7	62.2	63.0	64.6	65.4	30°
32.5°	50.9	49.2	50.9	50.0	48.4	48.4	49.2	50.9	50.9	51.7	52.5	32.5°
35°	39.6	39.6	40.4	41.2	41.2	42.0	42.8	43.6	44.4	46.0	46.8	35°
37.5°	37.1	37.9	37.9	38.7	39.6	39.6	40.4	42.0	42.8	43.6	44.4	37.5°
40°	35.5	36.3	37.1	37.9	37.9	38.7	39.6	40.4	41.2	42.8	43.6	40°
42.5°	33.9	35.5	35.5	36.3	37.1	37.9	38.7	39.6	41.2	42.0	42.8	42.5°
45°	33.1	33.9	34.7	35.5	36.3	37.1	37.9	39.6	40.4	42.0	42.8	45°
47.5°	32.3	33.1	33.9	34.7	35.5	36.3	37.1	38.7	40.4	42.0	43.6	47.5°
50°	30.7	32.3	33.1	33.9	34.7	35.5	37.1	38.7	40.4	42.8	46.8	50°
52.5°	29.9	31.5	31.5	33.1	33.9	35.5	37.1	38.7	41.2	44.4	48.4	52.5°
55°	28.3	29.9	29.9	31.5	33.1	34.7	35.5	37.9	40.4	43.6	44.4	55°
57.5°	26.6	28.3	29.1	29.9	31.5	33.1	33.9	36.3	39.6	40.4	39.6	57.5°
60°	25.8	26.6	27.4	28.3	29.9	30.7	33.1	37.9	41.2	37.9	33.9	60°
62.5°	24.2	25.8	26.6	27.4	29.1	29.9	31.5	34.7	35.5	31.5	30.7	62.5°
65°	23.4	25.0	25.0	26.6	27.4	27.4	28.3	28.3	28.3	28.3	28.3	65°
67.5°	21.8	23.4	23.4	24.2	25.0	25.0	25.8	25.8	25.8	25.8	25.8	67.5°
70°	20.2	21.0	21.8	22.6	22.6	22.6	23.4	23.4	23.4	24.2	24.2	70°
72.5°	18.6	19.4	19.4	20.2	20.2	21.0	21.0	21.8	21.8	21.8	22.6	72.5°
75°	15.3	16.1	17.0	17.8	17.8	18.6	18.6	18.6	18.6	19.4	19.4	75°
77.5°	12.9	12.9	14.5	14.5	15.3	15.3	16.1	16.1	16.1	16.1	16.1	77.5°
80°	9.7	9.7	10.5	11.3	12.1	12.1	12.1	12.1	12.1	12.1	12.1	80°
82.5°	5.7	5.7	6.5	6.5	7.3	7.3	8.1	7.3	7.3	6.5	6.5	82.5°
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.0	0.0	85°
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°

NUMBER: P228537
 NUMBER: ISC-AF-450-LED-E1-SLL-8030

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	335°	345°		355°
564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	0°	564.3
502.1	502.1	503.7	510.2	511.8	515.8	515.0	522.3	525.5	544.9	565.1	2.5°	584.5
397.2	400.4	405.2	413.3	418.2	427.0	425.4	440.0	442.4	477.9	512.6	5°	553.0
296.3	301.1	305.1	314.0	321.3	330.2	332.6	349.5	354.4	401.2	449.6	7.5°	505.3
256.7	260.7	266.4	272.0	279.3	283.3	289.8	297.9	303.5	338.2	393.9	10°	457.7
228.5	234.1	239.8	247.8	255.1	262.4	268.8	276.9	284.2	312.4	356.0	12.5°	429.5
193.7	200.2	206.7	215.5	226.0	233.3	240.6	249.4	258.3	293.0	343.9	15°	418.2
150.1	157.4	166.3	178.4	189.7	198.6	205.9	218.0	229.3	271.2	338.2	17.5°	429.5
110.6	117.1	125.1	135.6	143.7	159.0	167.1	181.6	195.4	247.8	330.2	20°	451.3
81.5	85.6	92.0	100.1	109.0	122.7	131.6	144.5	159.8	226.0	330.2	22.5°	488.4
68.6	70.2	72.7	77.5	83.1	92.8	101.7	114.6	130.0	206.7	339.0	25°	548.9
63.8	64.6	66.2	68.6	71.8	76.7	83.1	93.6	109.0	191.3	352.0	27.5°	613.5
67.0	67.0	67.0	67.8	69.4	71.8	75.1	81.5	91.2	168.7	360.8	30°	670.0
54.1	54.9	54.9	56.5	57.3	60.5	63.8	68.6	77.5	155.0	366.5	32.5°	710.4
48.4	49.2	50.0	50.9	52.5	53.3	56.5	62.2	71.0	146.1	365.7	35°	758.0
46.0	46.8	47.6	47.6	48.4	50.0	52.5	58.1	68.6	142.9	365.7	37.5°	812.9
45.2	45.2	45.2	45.2	46.8	48.4	52.5	58.1	67.0	139.7	368.1	40°	873.5
43.6	43.6	43.6	44.4	46.8	50.0	51.7	54.9	62.2	138.0	372.1	42.5°	928.3
43.6	43.6	44.4	47.6	48.4	48.4	49.2	51.7	58.9	138.0	380.2	45°	971.1
45.2	46.8	47.6	46.8	46.0	46.0	46.0	49.2	56.5	140.5	395.6	47.5°	1020.4
49.2	48.4	45.2	44.4	44.4	42.8	43.6	46.8	55.7	140.5	427.0	50°	1088.2
48.4	45.2	44.4	42.8	41.2	40.4	41.2	46.0	54.9	138.8	472.2	52.5°	1187.5
43.6	42.8	40.4	38.7	37.9	38.7	40.4	44.4	53.3	137.2	527.9	55°	1307.8
37.9	37.1	35.5	35.5	36.3	37.1	39.6	42.8	49.2	133.2	572.3	57.5°	1418.3
33.1	33.1	33.1	33.9	34.7	35.5	37.9	40.4	45.2	125.9	602.2	60°	1489.4
29.9	30.7	30.7	32.3	33.1	33.9	35.5	37.9	41.2	117.9	608.7	62.5°	1490.2
28.3	29.1	29.9	29.9	30.7	31.5	33.9	36.3	41.2	111.4	569.1	65°	1431.3
26.6	26.6	27.4	28.3	29.1	29.9	31.5	35.5	42.0	105.8	482.7	67.5°	1281.9
24.2	25.0	25.8	26.6	26.6	27.4	29.9	35.5	42.8	103.3	383.4	70°	1082.5
22.6	22.6	23.4	24.2	24.2	25.8	28.3	34.7	43.6	99.3	289.0	72.5°	844.4
19.4	20.2	20.2	20.2	21.0	22.6	25.8	31.5	37.9	82.3	195.4	75°	572.3
17.0	16.1	17.0	17.0	17.8	18.6	21.0	24.2	28.3	52.5	103.3	77.5°	364.1
12.1	11.3	11.3	12.1	12.1	12.1	13.7	14.5	16.1	32.3	57.3	80°	214.7
6.5	5.7	6.5	5.7	5.7	6.5	6.5	8.1	8.1	15.3	25.8	82.5°	133.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	5.7	85°	54.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.5°	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°	0.0



'228537

ISC-AF-450-LED-E1-SLL-8030

TION (continued):

359°	360°
564.3	564.3
594.1	599.0
573.2	579.6
527.9	536.8
486.0	494.8
463.4	468.2
452.9	462.6
468.2	477.9
498.9	514.2
553.0	572.3
638.5	655.5
706.3	733.0
769.3	791.1
819.4	844.4
876.7	900.9
946.1	979.2
1017.9	1055.1
1085.0	1126.1
1147.9	1180.2
1196.4	1232.7
1257.7	1300.5
1361.8	1392.5
1487.8	1522.5
1604.8	1634.7
1658.9	1683.9
1660.5	1692.0
1625.0	1660.5
1534.6	1589.5
1357.0	1418.3
1066.4	1136.6
708.0	769.3
408.5	428.7
241.4	251.9
143.7	154.2
38.7	42.0
0.0	0.0
0.0	0.0

(END OF REPORT)