

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: P271530

Luminaire Tested: **ISS-AF-800-LED-E1-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271530
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-800-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: 4250.8 lumens
Efficiency: N/A
Efficacy: 97.7 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

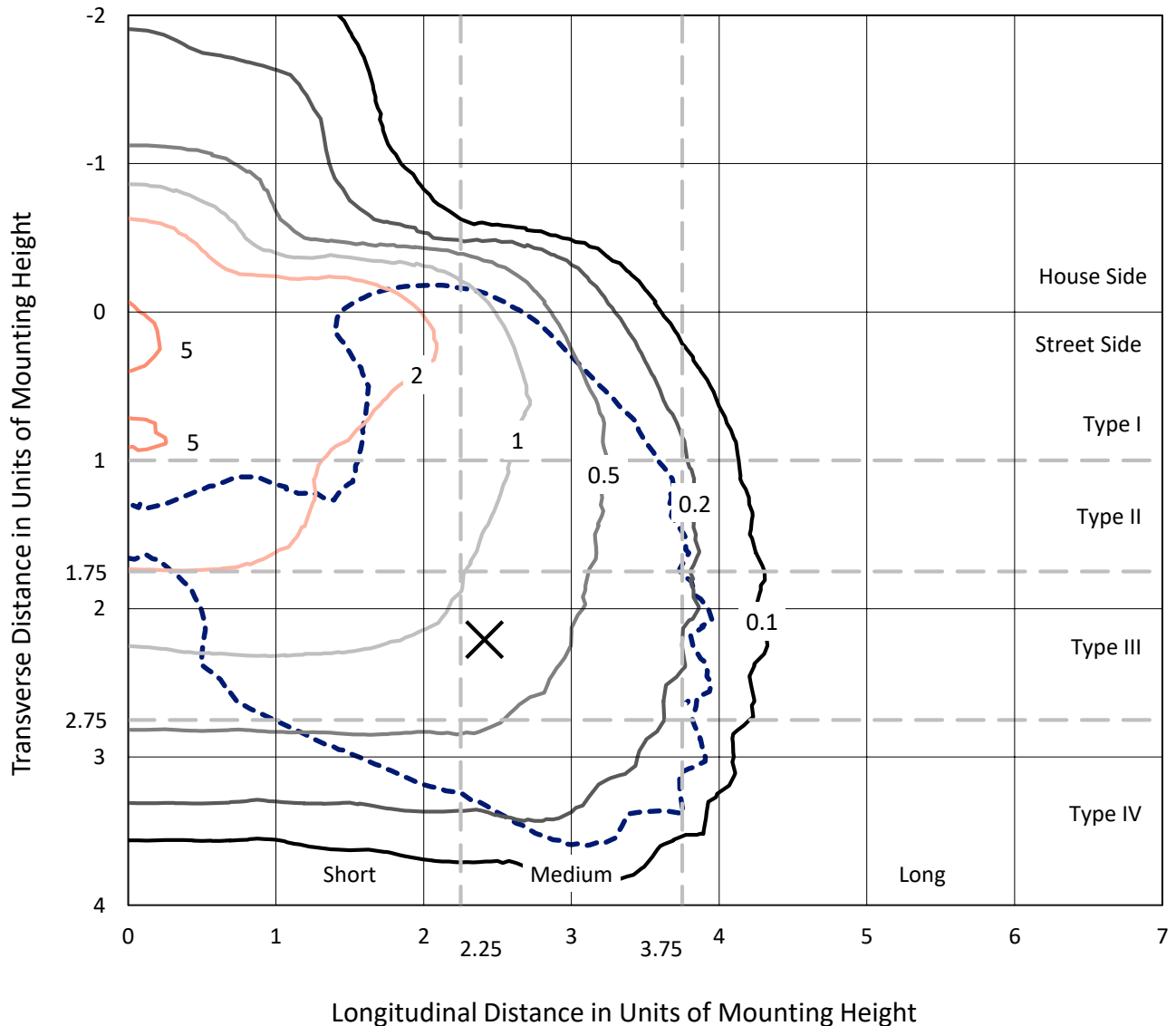
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P271530
 CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

Iso-Footcandle Lines of Horizontal Illumination

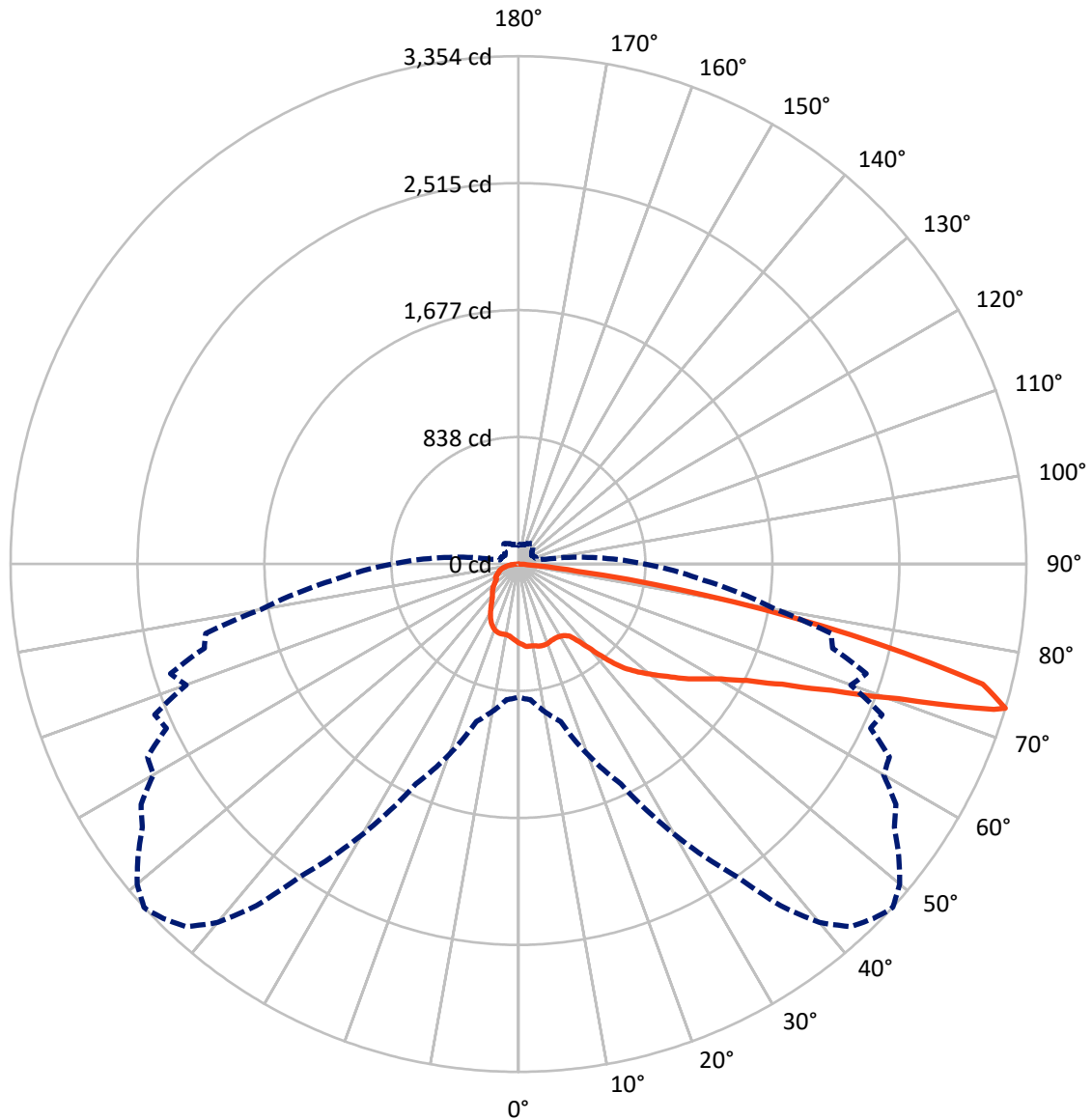
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P271530
CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P271530
 CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

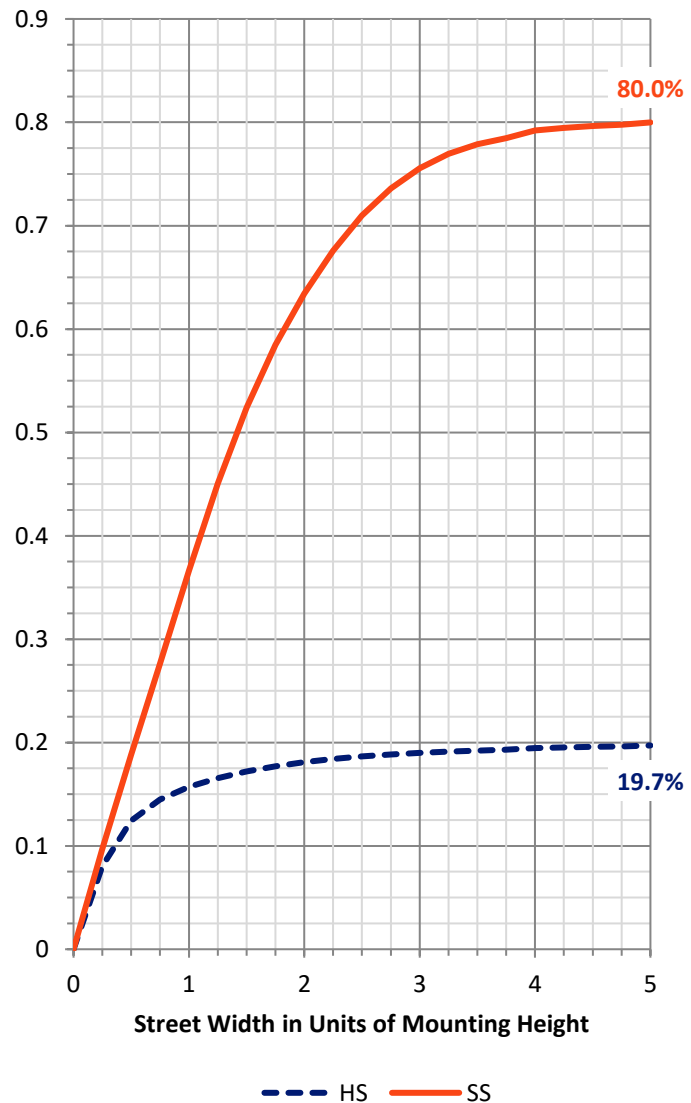
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	849.3	0.0	849.3
	% Fixture	20.0	0.0	20.0
Street Side	Lumens	3401.5	0.0	3401.5
	% Fixture	80.0	0.0	80.0
Total	Lumens	4250.8	0.0	4250.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.7	1.2
10°-20°	147.9	3.5
20°-30°	227.4	5.3
30°-40°	331.7	7.8
40°-50°	546.9	12.9
50°-60°	856.2	20.1
60°-70°	1161.5	27.3
70°-80°	860.1	20.2
80°-90°	69.5	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°	4250.8	100.0
0°-180°	4250.8	100.0



REPORT NUMBER: P271530

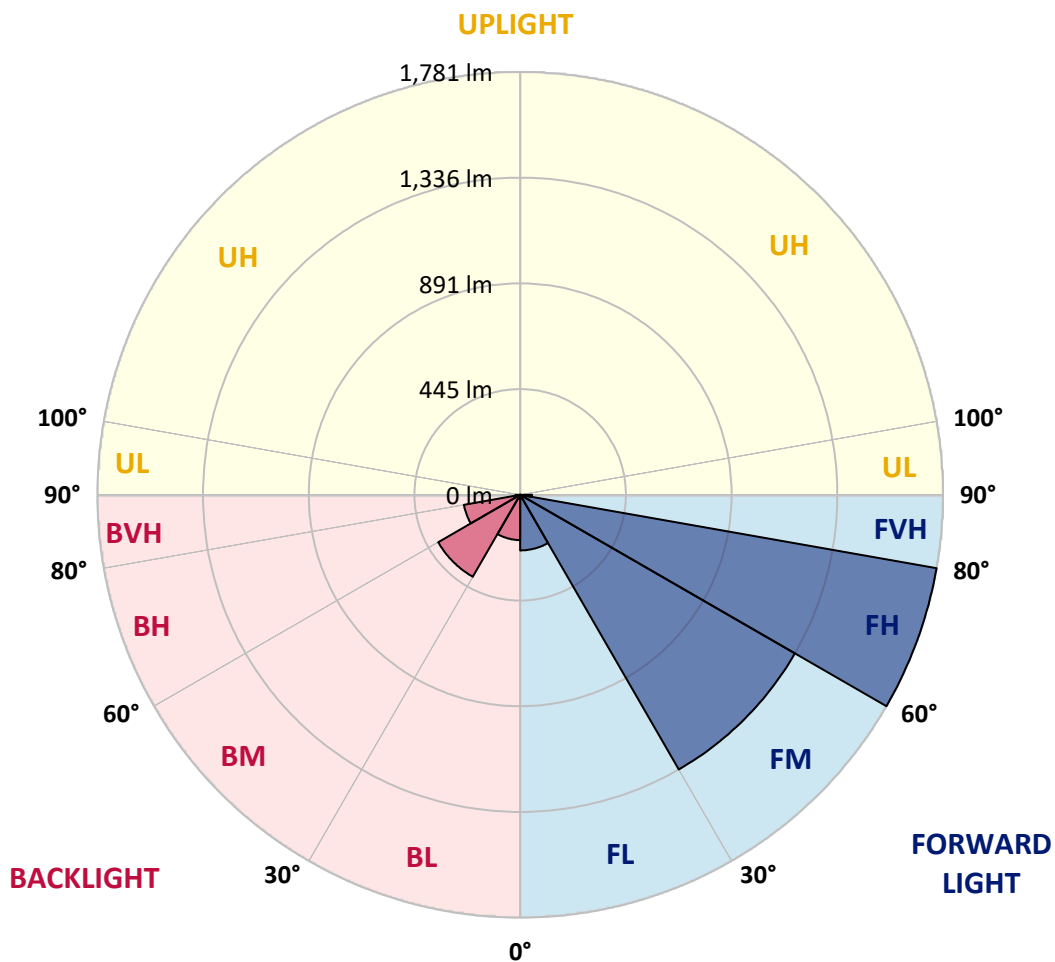
CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	234.3	5.5			
FM	(30°-60°)	1336.0	31.4			
FH	(60°-80°)	1781.1	41.9			G1/1800
FVH	(80°-90°)	50.1	1.2			G1/100
BL	(0°-30°)	190.6	4.5	B1/500		
BM	(30°-60°)	398.8	9.4	B1/1000		
BH	(60°-80°)	240.5	5.7	B1/500		G1/500
BVH	(80°-90°)	19.4	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: P271530

CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47°	47.5°
0°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	552.9	551.5	547.2	545.9	541.7	538.8	537.5	536.0	540.2	537.5	533.2
5°	587.9	585.2	579.6	571.1	562.7	557.1	555.7	552.9	552.9	550.0	547.2
7.5°	613.3	611.7	603.4	590.7	576.7	566.9	561.4	557.1	558.5	555.7	547.2
10°	637.1	634.2	620.2	604.8	583.8	572.5	565.6	558.5	564.0	559.8	548.7
12.5°	655.3	652.5	632.9	613.3	589.4	576.7	569.7	565.6	571.1	568.3	555.7
15°	665.1	662.3	642.6	618.8	593.6	579.6	576.7	573.8	578.1	572.5	561.4
17.5°	659.5	659.5	641.3	616.0	594.9	580.9	576.7	573.8	579.6	573.8	561.4
20°	638.4	641.3	628.6	602.0	586.5	576.7	572.5	566.9	572.5	566.9	558.5
22.5°	611.7	614.6	607.6	583.8	572.5	565.6	564.0	558.5	562.7	558.5	550.0
25°	587.9	587.9	585.2	564.0	562.7	557.1	558.5	555.7	558.5	552.9	547.2
27.5°	589.4	589.4	578.1	557.1	555.7	555.7	555.7	555.7	557.1	552.9	547.2
30°	672.1	675.0	642.6	583.8	562.7	559.8	561.4	559.8	561.4	559.8	552.9
32.5°	797.1	797.1	766.2	675.0	600.6	582.3	575.4	573.8	569.7	568.3	562.7
35°	920.5	919.1	888.2	787.3	693.2	658.1	635.7	614.6	604.8	594.9	585.2
37.5°	1024.3	1020.1	1015.9	900.9	802.6	761.9	735.4	704.5	684.8	667.9	645.5
40°	1121.2	1128.2	1143.6	1006.1	912.0	874.2	847.6	808.3	788.6	767.5	740.9
42.5°	1254.4	1264.4	1265.7	1119.7	1011.7	986.5	965.4	935.9	914.9	889.6	865.8
45°	1383.6	1385.0	1389.2	1241.9	1133.8	1101.5	1086.1	1058.0	1031.3	999.0	979.4
47.5°	1472.1	1467.8	1486.0	1382.2	1276.9	1240.5	1218.0	1175.9	1135.2	1094.6	1065.0
50°	1580.0	1575.9	1575.9	1542.1	1442.5	1400.4	1361.1	1282.5	1239.0	1188.5	1146.5
52.5°	1675.5	1660.0	1669.8	1689.5	1616.5	1563.2	1494.4	1406.0	1348.4	1286.7	1233.5
55°	1806.0	1725.9	1748.4	1817.2	1789.2	1706.3	1615.2	1521.1	1455.2	1385.0	1335.9
57.5°	1761.0	1706.3	1772.3	1893.0	1891.5	1814.4	1737.2	1622.1	1556.1	1490.2	1429.9
60°	1599.7	1627.7	1770.9	1944.9	1951.8	1891.5	1828.4	1721.7	1669.8	1601.0	1540.8
62.5°	1474.7	1515.5	1711.9	1940.7	2020.6	1964.5	1912.6	1849.4	1813.0	1755.5	1693.7
65°	1467.8	1491.6	1682.4	1936.5	2117.5	2088.0	2064.1	2034.8	2027.7	1985.5	1914.0
67.5°	1535.1	1557.6	1733.0	2044.5	2260.6	2248.0	2283.0	2277.5	2308.4	2287.3	2228.3
70°	1403.2	1415.9	1632.0	2082.5	2587.6	2643.7	2722.2	2718.0	2783.9	2733.5	2664.7
72.5°	985.0	1010.3	1201.1	1720.3	2594.6	2894.9	3077.2	3231.7	3303.2	3315.8	3283.6
73°	879.8	899.5	1076.3	1602.5	2524.3	2844.3	3089.9	3248.5	3311.6	3350.9	3353.7
75°	306.0	315.8	470.0	971.1	2017.9	2482.3	2798.0	2941.1	2925.7	3040.9	3167.1
77.5°	98.3	99.6	122.1	251.2	973.9	1540.8	1893.0	2024.9	1949.1	2074.0	2242.3
80°	60.4	63.2	79.9	113.6	255.4	467.3	791.4	990.7	950.0	1066.5	1246.1
82.5°	36.5	37.9	49.0	70.2	102.5	113.6	148.7	202.1	248.4	298.9	391.5
85°	16.9	18.2	23.9	32.2	42.1	43.5	42.1	39.3	44.9	51.9	60.4
87.5°	0.0	0.0	1.3	2.9	1.3	0.0	0.0	0.0	0.0	1.3	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: P271530

CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	537.5	533.2	533.2	527.7	530.4	524.8	527.7	521.9	524.8	517.9	521.9
5°	545.9	538.8	538.8	530.4	531.9	521.9	526.1	515.0	520.6	508.0	516.3
7.5°	550.0	537.5	543.0	527.7	534.6	517.9	526.1	508.0	519.2	499.5	513.7
10°	555.7	537.5	547.2	530.4	538.8	519.2	530.4	508.0	521.9	498.1	510.8
12.5°	564.0	544.5	552.9	533.2	544.5	521.9	533.2	510.8	524.8	498.1	513.7
15°	569.7	550.0	558.5	538.8	547.2	521.9	536.0	509.4	524.8	496.8	513.7
17.5°	568.3	550.0	558.5	536.0	545.9	520.6	534.6	508.0	521.9	492.5	510.8
20°	562.7	547.2	552.9	533.2	541.7	516.3	529.0	502.3	517.9	488.3	506.6
22.5°	555.7	540.2	547.2	529.0	537.5	512.1	523.4	499.5	515.0	485.5	502.3
25°	551.5	538.8	543.0	524.8	536.0	513.7	524.8	498.1	515.0	485.5	505.2
27.5°	550.0	538.8	547.2	530.4	540.2	520.6	531.9	508.0	521.9	491.1	510.8
30°	558.5	548.7	555.7	541.7	550.0	530.4	541.7	519.2	533.2	503.8	526.1
32.5°	568.3	558.5	565.6	552.9	565.6	545.9	559.8	537.5	554.3	524.8	545.9
35°	589.4	578.1	587.9	573.8	587.9	572.5	587.9	564.0	585.2	555.7	578.1
37.5°	644.1	613.3	623.1	607.6	621.6	602.0	628.6	604.8	628.6	600.6	631.5
40°	731.1	676.3	686.1	653.9	675.0	645.5	677.7	659.5	691.8	656.8	696.0
42.5°	844.8	792.8	783.1	733.8	752.2	717.0	749.4	717.0	760.5	726.9	776.0
45°	948.6	893.8	878.5	830.8	843.3	797.1	837.7	792.8	850.3	811.1	872.8
47.5°	1034.2	969.6	957.1	902.3	924.7	881.2	931.7	884.0	954.2	914.9	986.5
50°	1112.8	1032.8	1030.0	971.1	1009.0	965.4	1036.9	1004.8	1073.5	1034.2	1118.4
52.5°	1202.7	1101.5	1115.5	1062.2	1122.6	1086.1	1168.9	1122.6	1212.4	1170.3	1262.8
55°	1298.1	1191.3	1227.8	1195.6	1267.1	1243.3	1313.4	1271.3	1359.8	1317.6	1415.9
57.5°	1403.2	1312.1	1376.6	1361.1	1424.3	1394.8	1473.4	1435.5	1524.0	1488.9	1587.0
60°	1540.8	1480.4	1543.6	1542.1	1596.8	1595.5	1646.0	1623.6	1707.7	1692.2	1782.1
62.5°	1719.0	1671.3	1738.6	1720.3	1786.3	1775.1	1836.9	1836.9	1897.2	1918.2	2008.0
65°	1958.9	1895.7	1975.7	1947.6	2013.6	2016.4	2055.7	2062.8	2135.7	2159.5	2236.7
67.5°	2284.4	2211.4	2274.6	2221.3	2297.1	2292.8	2326.5	2340.5	2350.3	2408.0	2416.4
70°	2753.1	2643.7	2701.2	2628.2	2642.3	2652.1	2588.9	2635.3	2523.0	2614.2	2490.7
72.5°	3259.7	3134.7	3035.1	2962.3	2817.6	2796.6	2612.8	2652.1	2413.6	2492.1	2242.3
73°	3286.4	3165.6	3030.9	2955.2	2783.9	2761.5	2565.1	2598.8	2335.0	2409.3	2146.9
75°	2987.4	3019.7	2695.5	2726.4	2428.9	2464.1	2156.7	2196.1	1871.9	1928.0	1589.8
77.5°	2013.6	2121.7	1758.3	1894.3	1525.3	1661.4	1244.6	1257.3	917.7	857.3	582.3
80°	997.7	1090.4	773.2	844.8	566.9	557.1	339.6	282.1	239.9	245.6	252.5
82.5°	287.6	324.2	200.6	199.2	141.8	134.7	134.7	143.1	146.0	162.8	158.6
85°	54.8	65.9	57.5	77.2	68.8	75.7	70.2	81.4	75.7	94.1	81.4
87.5°	1.3	0.0	1.3	4.2	4.2	9.8	7.0	11.2	11.2	19.7	18.2
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: P271530

CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	516.3	523.4	520.6	517.9	515.0	513.7	508.0	510.8	503.8	509.4	503.8
5°	505.2	513.7	509.4	503.8	501.0	498.1	488.3	495.3	484.1	494.0	485.5
7.5°	492.5	506.6	502.3	496.8	491.1	488.3	468.6	484.1	467.3	481.3	467.3
10°	488.3	503.8	498.1	491.1	485.5	482.7	458.9	477.1	458.9	474.2	456.1
12.5°	485.5	503.8	495.3	488.3	482.7	478.4	451.8	474.2	450.4	472.9	451.8
15°	482.7	503.8	492.5	484.1	478.4	474.2	446.2	471.5	444.8	470.0	446.2
17.5°	480.0	499.5	489.8	480.0	474.2	471.5	440.6	467.3	439.2	467.3	443.4
20°	475.7	495.3	484.1	474.2	468.6	464.4	433.6	461.7	432.2	460.2	433.6
22.5°	470.0	491.1	481.3	471.5	466.0	458.9	425.2	454.6	423.8	451.8	426.5
25°	471.5	494.0	481.3	471.5	463.1	456.1	419.6	451.8	416.7	444.8	416.7
27.5°	478.4	498.1	485.5	477.1	466.0	457.5	419.6	449.1	414.0	437.8	408.3
30°	492.5	512.1	501.0	488.3	478.4	467.3	426.5	450.4	414.0	429.4	399.9
32.5°	516.3	534.6	523.4	513.7	502.3	485.5	440.6	457.5	416.7	423.8	392.9
35°	547.2	569.7	564.0	557.1	543.0	513.7	464.4	467.3	422.3	418.1	383.0
37.5°	597.8	628.6	627.3	625.8	610.4	557.1	491.1	486.9	428.0	414.0	370.4
40°	663.7	700.2	710.0	719.8	687.7	609.1	521.9	506.6	430.7	405.6	350.8
42.5°	740.9	790.0	819.4	837.7	778.8	666.5	557.1	529.0	430.7	392.9	328.3
45°	836.3	893.8	950.0	969.6	879.8	728.3	593.6	547.2	425.2	373.2	298.9
47.5°	952.8	1020.1	1097.3	1107.1	989.2	794.2	618.8	559.8	406.9	346.6	272.3
50°	1081.9	1163.2	1276.9	1269.9	1105.7	863.0	635.7	568.3	374.6	315.8	239.9
52.5°	1226.5	1328.9	1490.2	1457.9	1247.5	948.6	651.1	579.6	335.3	279.2	207.7
55°	1407.5	1529.5	1731.6	1662.9	1404.6	1042.7	673.5	580.9	283.4	235.7	183.8
57.5°	1602.5	1733.0	1991.1	1866.3	1551.9	1115.5	663.7	536.0	231.5	199.2	165.6
60°	1836.9	1995.3	2250.7	2055.7	1675.5	1140.8	594.9	442.1	197.9	179.6	157.1
62.5°	2099.2	2256.5	2464.1	2187.6	1745.6	1098.8	442.1	306.0	169.8	160.0	144.5
65°	2378.4	2527.2	2566.5	2198.8	1699.3	913.5	273.6	200.6	147.3	143.1	133.3
67.5°	2635.3	2649.3	2469.7	2016.4	1474.7	637.1	186.6	160.0	136.1	134.7	129.1
70°	2701.2	2458.4	2052.9	1570.1	1065.0	378.8	151.5	138.9	130.5	130.5	126.3
72.5°	2256.5	1871.9	1372.3	951.3	580.9	202.1	129.1	126.3	123.4	123.4	120.7
73°	2116.0	1724.6	1229.2	830.8	491.1	181.0	126.3	123.4	122.1	120.7	119.3
75°	1406.0	1083.3	697.4	420.9	228.7	130.5	112.3	112.3	110.9	112.3	110.9
77.5°	541.7	408.3	269.4	181.0	130.5	102.5	95.4	96.7	95.4	98.3	96.7
80°	238.5	235.7	178.2	127.6	95.4	77.2	77.2	77.2	78.6	79.9	79.9
82.5°	162.8	137.5	105.2	78.6	57.5	56.1	57.5	57.5	58.9	60.4	58.9
85°	89.8	75.7	56.1	35.0	30.9	37.9	37.9	37.9	36.5	36.5	35.0
87.5°	28.0	21.0	15.5	4.2	7.0	7.0	9.8	8.4	8.4	9.8	9.8
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: P271530

CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

CANDELA DISTRIBUTION (continued):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	509.4	505.2	509.4	502.3	508.0	502.3	506.6	506.6	505.2	505.2	505.2
5°	492.5	485.5	492.5	488.3	492.5	486.9	491.1	492.5	494.0	498.1	496.8
7.5°	480.0	466.0	481.3	467.3	480.0	467.3	478.4	480.0	484.1	489.8	494.0
10°	474.2	456.1	474.2	457.5	472.9	458.9	472.9	474.2	478.4	485.5	492.5
12.5°	471.5	451.8	471.5	454.6	471.5	457.5	471.5	475.7	478.4	484.1	492.5
15°	468.6	449.1	471.5	453.3	471.5	457.5	472.9	475.7	480.0	485.5	492.5
17.5°	467.3	444.8	468.6	451.8	468.6	454.6	471.5	471.5	477.1	484.1	488.3
20°	461.7	440.6	461.7	444.8	461.7	449.1	463.1	463.1	468.6	471.5	478.4
22.5°	453.3	430.7	450.4	435.0	450.4	437.8	449.1	449.1	453.3	457.5	461.7
25°	440.6	419.6	436.4	422.3	433.6	422.3	430.7	429.4	432.2	435.0	437.8
27.5°	426.5	405.6	419.6	404.1	411.2	399.9	405.6	402.7	404.1	405.6	406.9
30°	411.2	390.1	397.1	383.0	384.5	373.2	376.1	371.9	370.4	369.0	366.3
32.5°	394.3	371.9	371.9	357.9	355.0	345.2	345.2	339.6	335.3	329.8	324.2
35°	373.2	353.7	343.8	332.6	326.9	317.1	315.8	308.7	298.9	289.1	283.4
37.5°	352.2	329.8	315.8	304.4	298.9	291.9	290.4	284.9	273.6	262.5	254.0
40°	324.2	301.7	286.3	282.1	277.8	272.3	273.6	266.5	255.4	242.7	235.7
42.5°	296.1	276.5	263.8	262.5	259.6	258.3	259.6	254.0	241.4	230.1	221.7
45°	272.3	252.5	239.9	238.5	237.2	242.7	244.2	242.7	228.7	217.5	206.3
47.5°	248.4	224.6	216.1	213.3	214.7	223.0	225.9	230.1	217.5	204.8	189.5
50°	220.4	197.9	195.0	192.2	193.7	200.6	207.7	216.1	204.8	186.6	165.6
52.5°	195.0	175.3	176.8	174.0	176.8	182.4	188.0	202.1	188.0	169.8	160.0
55°	175.3	160.0	162.8	160.0	162.8	169.8	174.0	185.2	185.2	181.0	172.7
57.5°	161.3	150.2	152.9	150.2	154.4	160.0	164.2	188.0	202.1	190.8	174.0
60°	152.9	143.1	144.5	141.8	144.5	152.9	161.3	189.5	211.9	189.5	176.8
62.5°	140.3	131.9	130.5	130.5	133.3	147.3	151.5	176.8	209.0	188.0	178.2
65°	131.9	124.9	123.4	122.1	124.9	134.7	138.9	164.2	202.1	178.2	161.3
67.5°	127.6	122.1	119.3	116.5	119.3	127.6	131.9	154.4	190.8	169.8	151.5
70°	123.4	117.9	116.5	113.6	115.1	120.7	126.3	141.8	181.0	160.0	141.8
72.5°	117.9	112.3	110.9	106.7	108.1	113.6	116.5	133.3	168.4	150.2	131.9
73°	116.5	110.9	109.4	105.2	106.7	110.9	113.6	130.5	165.6	148.7	130.5
75°	109.4	103.8	102.5	99.6	101.0	101.0	103.8	119.3	157.1	140.3	122.1
77.5°	96.7	92.6	91.2	88.4	87.0	85.6	89.8	105.2	143.1	126.3	98.3
80°	79.9	75.7	74.4	68.8	68.8	68.8	74.4	89.8	106.7	91.2	75.7
82.5°	58.9	56.1	56.1	51.9	50.6	49.0	53.3	61.7	84.2	71.5	58.9
85°	35.0	33.7	35.0	30.9	32.2	30.9	35.0	43.5	46.4	36.5	28.0
87.5°	8.4	9.8	9.8	9.8	8.4	8.4	7.0	5.6	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: P271530
CATALOG NUMBER: ISS-AF-800-LED-E1-T4W-7027

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	521.9	521.9
2.5°	503.8	502.3
5°	496.8	496.8
7.5°	494.0	494.0
10°	495.3	495.3
12.5°	495.3	498.1
15°	499.5	498.1
17.5°	495.3	495.3
20°	484.1	486.9
22.5°	468.6	468.6
25°	443.4	444.8
27.5°	409.8	412.5
30°	367.7	370.4
32.5°	320.0	322.7
35°	282.1	283.4
37.5°	256.7	256.7
40°	235.7	235.7
42.5°	216.1	214.7
45°	196.5	193.7
47.5°	176.8	175.3
50°	160.0	160.0
52.5°	162.8	162.8
55°	175.3	175.3
57.5°	176.8	175.3
60°	192.2	190.8
62.5°	200.6	204.8
65°	175.3	169.8
67.5°	166.9	158.6
70°	150.2	137.5
72.5°	133.3	126.3
73°	129.1	123.4
75°	115.1	112.3
77.5°	87.0	85.6
80°	72.9	71.5
82.5°	49.0	46.4
85°	21.0	19.7
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)