

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: INVUE

Report Number: P565312

Luminaire Tested: **MSA-SA4A-730-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565312
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)
Test Lab: INNOVATIONS CENTER
Issue Date: 8/19/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-730-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12765 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

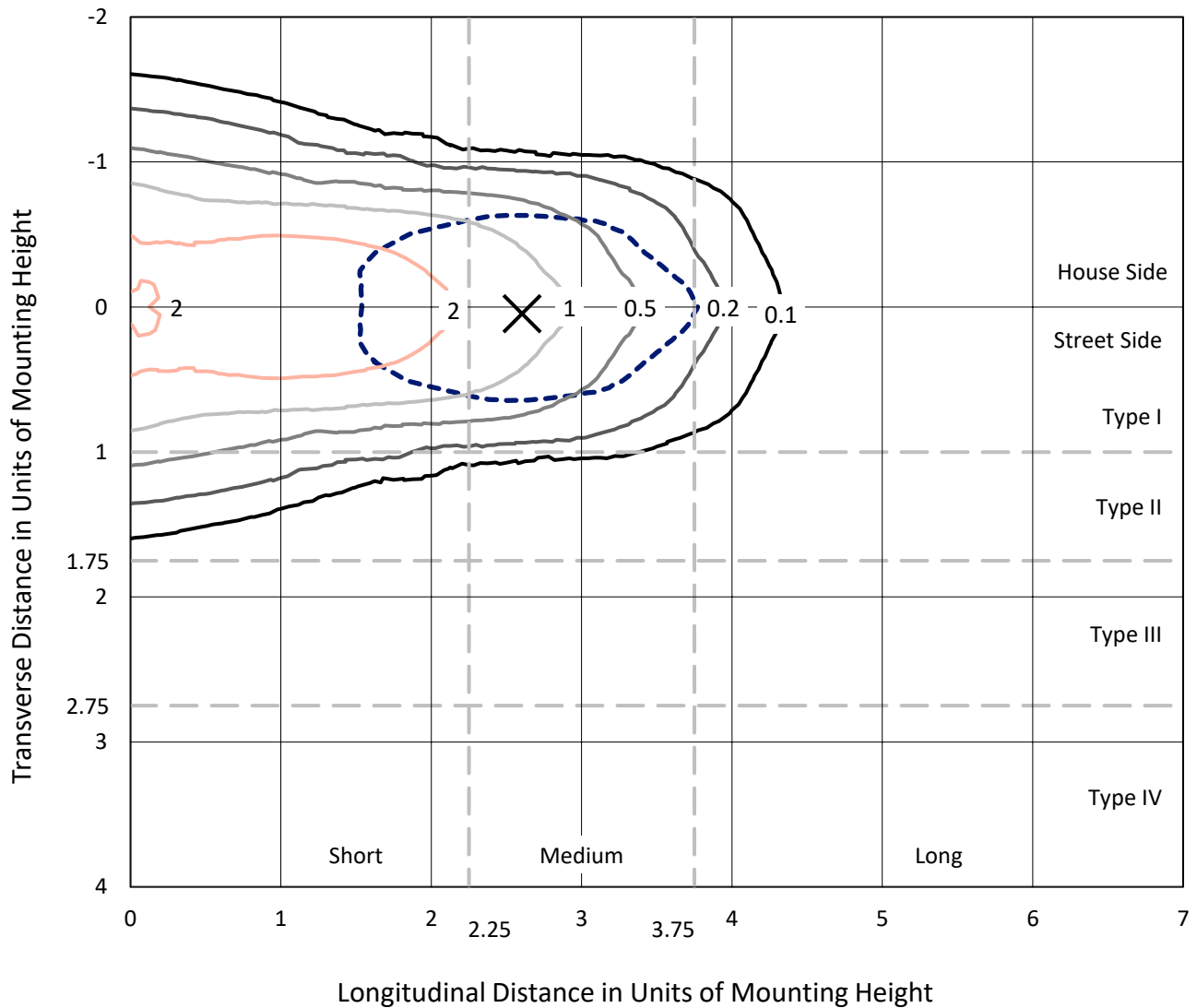
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P565312
 CATALOG NUMBER: MSA-SA4A-730-U-T1

Iso-Footcandle Lines of Horizontal Illumination

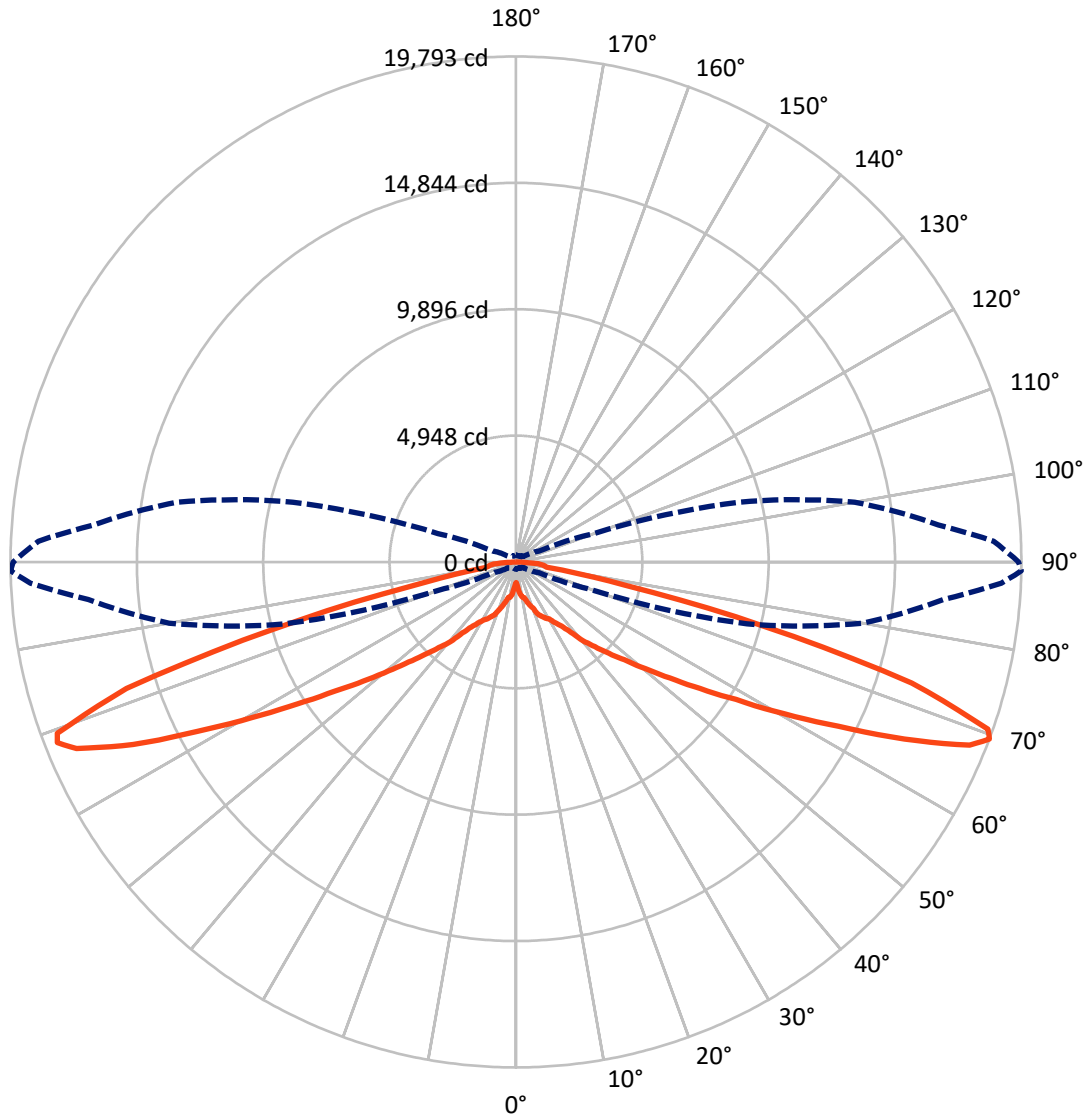
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type I - Medium - N/A

REPORT NUMBER: P565312
CATALOG NUMBER: MSA-SA4A-730-U-T1

Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P565312
 CATALOG NUMBER: MSA-SA4A-730-U-T1

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6382.4	0.0	6382.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6382.6	0.0	6382.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	12765.0	0.0	12765.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	0.8
10°-20°	468.1	3.7
20°-30°	933.8	7.3
30°-40°	1412.4	11.1
40°-50°	2050.2	16.1
50°-60°	2693.6	21.1
60°-70°	3285.8	25.7
70°-80°	1661.2	13.0
80°-90°	158.3	1.2
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°	12765.0	100.0
0°-180°	12765.0	100.0

Coefficient of Utilization



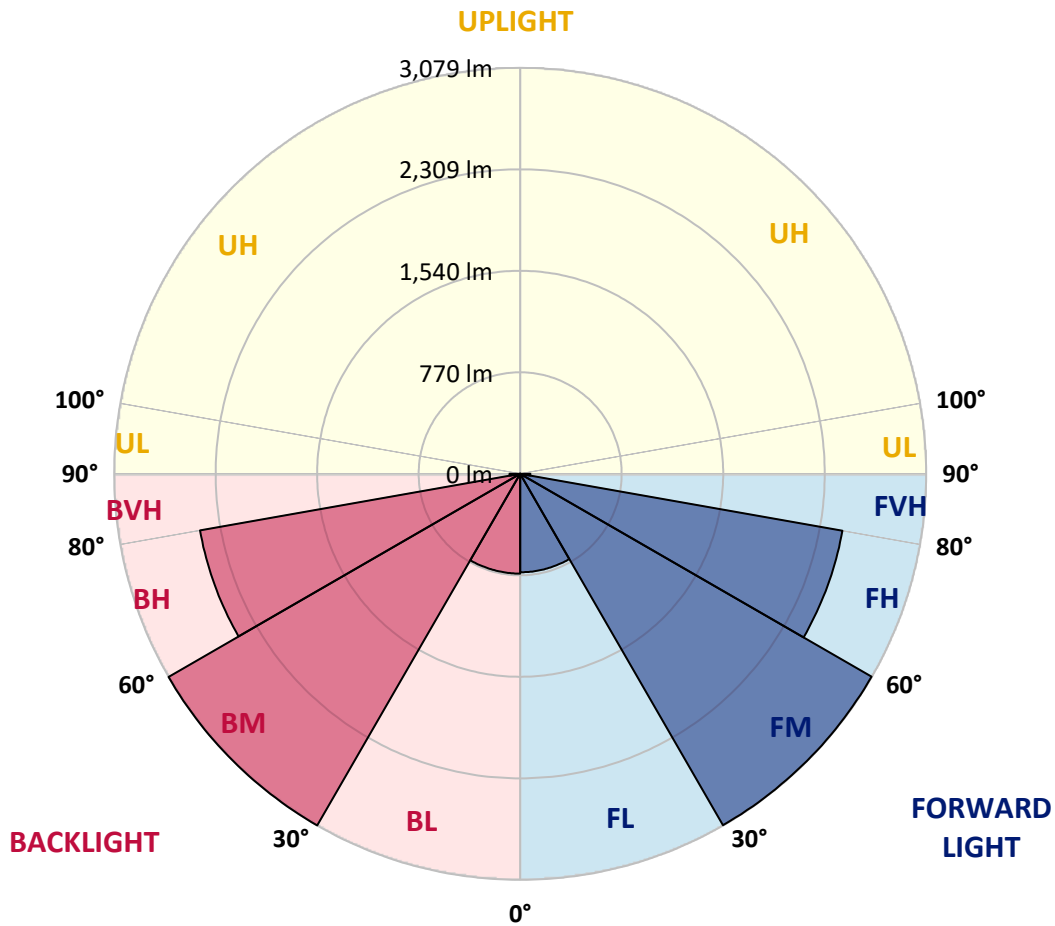
REPORT NUMBER: P565312
 CATALOG NUMBER: MSA-SA4A-730-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	746.5	5.8			
FM (30°-60°)	3077.1	24.1			
FH (60°-80°)	2481.4	19.4			G2/5000
FVH (80°-90°)	77.7	0.6			G1/100
BL (0°-30°)	757.0	5.9	B2/1000		
BM (30°-60°)	3079.1	24.1	B3/5000		
BH (60°-80°)	2465.6	19.3	B3/2500		G3/2500
BVH (80°-90°)	80.7	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Medium





REPORT NUMBER: P565312

CATALOG NUMBER: MSA-SA4A-730-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5
2.5°	948.8	839.4	829.9	803.8	822.8	829.9	813.3	789.5	815.7	829.9	803.8
5°	1196.2	1034.4	979.8	934.6	844.2	806.2	844.2	941.7	953.6	1013.0	996.4
7.5°	1317.4	1291.3	1222.3	1072.5	927.4	846.6	948.8	1089.1	1160.5	1217.6	1277.0
10°	1407.8	1393.5	1272.3	1165.2	1105.8	1110.5	1112.9	1158.1	1219.9	1315.1	1348.4
12.5°	1429.2	1424.4	1443.5	1419.7	1424.4	1450.6	1424.4	1412.6	1448.2	1479.1	1445.9
15°	1567.1	1564.8	1571.9	1576.6	1671.8	1712.2	1671.8	1636.1	1609.9	1583.8	1638.5
17.5°	1662.3	1650.4	1652.7	1697.9	1804.9	1916.7	1895.3	1847.7	1788.3	1824.0	1869.1
20°	1714.6	1693.2	1707.4	1726.5	1907.2	2030.8	2045.1	1980.9	1945.2	1990.4	2028.5
22.5°	1764.5	1731.2	1681.3	1700.3	1866.8	2045.1	2114.1	2097.4	2123.6	2137.9	2130.7
25°	1705.1	1726.5	1671.8	1726.5	1895.3	2059.4	2197.3	2294.8	2297.2	2290.1	2342.4
27.5°	1669.4	1652.7	1560.0	1700.3	1840.6	1942.9	2294.8	2458.9	2508.8	2356.6	2458.9
30°	1607.6	1633.7	1507.7	1624.2	1802.6	1973.8	2406.6	2642.0	2568.3	2549.3	2573.0
32.5°	1569.5	1552.9	1493.4	1557.6	1693.2	2066.5	2477.9	2749.0	2841.8	2796.6	2791.8
35°	1507.7	1519.6	1426.8	1495.8	1686.0	1988.0	2525.5	3017.7	3160.4	3124.7	3096.2
37.5°	1517.2	1476.8	1410.2	1460.1	1640.9	2030.8	2644.4	3276.9	3502.9	3521.9	3391.1
40°	1445.9	1422.1	1322.2	1405.4	1555.2	2004.7	2672.9	3571.8	3954.7	4040.3	3852.4
42.5°	1343.6	1312.7	1255.6	1348.4	1505.3	1876.3	2713.3	3926.1	4413.6	4592.0	4420.8
45°	1196.2	1155.7	1127.2	1250.9	1395.9	1843.0	2670.5	4221.0	4853.6	5098.5	5093.8
47.5°	1017.8	991.6	977.4	1108.2	1305.5	1759.8	2582.6	4406.5	5160.4	5788.2	5693.0
50°	815.7	796.6	794.3	932.2	1153.4	1588.5	2482.7	4499.3	5626.5	6420.7	6503.9
52.5°	654.0	639.7	637.3	749.1	965.5	1357.9	2273.4	4570.6	6071.1	7138.9	7566.9
55°	511.3	497.0	499.4	592.1	768.1	1110.5	1954.8	4489.7	6461.1	7873.7	8684.6
57.5°	418.5	404.3	406.6	459.0	587.4	849.0	1557.6	4313.8	6637.1	8782.1	9987.8
60°	368.6	354.3	347.2	371.0	451.8	639.7	1158.1	3628.9	6665.7	9536.0	11402.7
62.5°	342.4	328.2	321.0	328.2	373.4	489.9	834.7	2875.1	6501.6	10180.4	12698.8
65°	318.7	306.8	297.3	304.4	328.2	390.0	608.8	1969.0	5643.1	10475.3	13640.5
67.5°	292.5	283.0	273.5	283.0	299.6	328.2	473.2	1246.1	4230.5	10092.4	14032.8
69°	278.2	264.0	259.2	266.3	283.0	302.0	409.0	994.0	3217.5	9364.7	13795.0
70°	264.0	254.5	247.3	259.2	273.5	287.7	368.6	844.2	2523.1	8430.2	13205.3
72.5°	233.0	225.9	221.2	233.0	244.9	254.5	302.0	601.6	1462.5	5740.6	10472.9
75°	204.5	197.4	195.0	204.5	214.0	218.8	254.5	413.8	863.2	3003.5	6282.8
77.5°	171.2	161.7	164.1	176.0	183.1	185.5	214.0	297.3	508.9	1360.2	2910.7
80°	126.0	126.0	135.5	145.1	145.1	145.1	171.2	216.4	309.1	625.4	1208.0
82.5°	88.0	90.4	92.7	107.0	109.4	99.9	130.8	157.0	192.6	273.5	418.5
85°	49.9	52.3	54.7	64.2	66.6	59.5	85.6	99.9	111.8	135.5	218.8
87.5°	19.0	21.4	28.5	33.3	35.7	26.2	40.4	47.6	47.6	57.1	97.5
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: P565312

CATALOG NUMBER: MSA-SA4A-730-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5	808.5
2.5°	858.5	875.1	906.0	913.2	887.0	858.5	794.3	834.7	851.3	820.4	829.9
5°	1063.0	1098.7	1136.7	1091.5	1063.0	1044.0	1013.0	1015.4	998.8	944.1	853.7
7.5°	1293.7	1253.2	1281.8	1312.7	1267.5	1269.9	1298.4	1239.0	1193.8	1101.0	932.2
10°	1400.7	1400.7	1407.8	1407.8	1388.8	1388.8	1386.4	1291.3	1236.6	1196.2	1148.6
12.5°	1407.8	1405.4	1434.0	1412.6	1417.3	1422.1	1434.0	1476.8	1462.5	1410.2	1453.0
15°	1605.2	1595.7	1605.2	1602.8	1609.9	1631.3	1621.8	1612.3	1614.7	1652.7	1716.9
17.5°	1790.7	1795.4	1785.9	1802.6	1802.6	1816.8	1850.1	1816.8	1788.3	1859.6	1909.6
20°	2004.7	1988.0	1950.0	1978.5	1985.7	1988.0	2042.7	2002.3	1961.9	1988.0	2047.5
22.5°	2221.1	2218.7	2223.5	2225.8	2235.4	2199.7	2126.0	2114.1	2140.2	2104.6	2111.7
25°	2354.3	2356.6	2368.5	2370.9	2330.5	2368.5	2394.7	2316.2	2316.2	2309.1	2261.5
27.5°	2516.0	2480.3	2494.6	2513.6	2496.9	2506.5	2475.5	2361.4	2482.7	2499.3	2309.1
30°	2625.4	2608.7	2592.1	2611.1	2627.7	2670.5	2582.6	2570.7	2580.2	2668.2	2418.5
32.5°	2856.0	2879.8	2848.9	2818.0	2848.9	2839.4	2801.3	2784.7	2903.6	2787.1	2494.6
35°	3070.1	3079.6	3081.9	3077.2	3096.2	3062.9	3062.9	3124.7	3160.4	3034.4	2518.3
37.5°	3586.1	3552.8	3483.8	3450.5	3510.0	3559.9	3412.5	3486.2	3471.9	3257.9	2696.7
40°	3957.1	4033.2	4054.6	4045.1	4054.6	3911.9	3942.8	3997.5	3933.3	3579.0	2634.9
42.5°	4499.3	4546.8	4530.2	4508.8	4518.3	4492.1	4399.4	4601.5	4370.8	3938.0	2730.0
45°	4993.9	5100.9	5108.0	5034.3	5093.8	5001.0	5039.1	5110.4	4877.4	4206.8	2703.8
47.5°	5583.6	5804.8	5721.6	5721.6	5781.0	5581.3	5671.6	5766.8	5148.5	4387.5	2561.2
50°	6456.4	6575.3	6570.5	6549.1	6575.3	6468.3	6454.0	6442.1	5564.6	4558.7	2473.2
52.5°	7443.3	7605.0	7543.2	7566.9	7602.6	7400.5	7559.8	7124.6	6085.4	4622.9	2273.4
55°	8703.6	8815.4	8753.6	8632.3	8794.0	8665.6	8717.9	7868.9	6446.9	4439.8	1940.5
57.5°	10204.2	10261.3	10159.0	10147.1	10254.1	10116.2	10028.2	8706.0	6634.7	4301.9	1550.5
60°	11956.8	12135.2	12070.9	11968.7	12066.2	11944.9	11279.1	9417.1	6596.7	3657.4	1200.9
62.5°	14059.0	14239.7	14168.4	14099.4	14161.2	13845.0	12453.8	9978.3	6425.5	2898.8	877.5
65°	15795.0	16610.6	16717.6	16720.0	16420.4	15688.0	13390.8	10197.1	5521.8	2023.7	642.1
67.5°	16936.4	18632.0	19159.9	18969.7	18282.4	16610.6	13768.9	9769.0	4263.8	1279.4	480.4
69°	16805.6	19029.1	19792.5	19685.4	18720.0	16596.4	13474.0	9048.5	3257.9	1017.8	406.6
70°	16201.6	18703.3	19609.3	19656.9	18441.7	15959.0	12948.4	8220.9	2634.9	868.0	373.4
72.5°	12929.4	15412.1	16208.7	16520.3	15314.6	12779.6	10618.0	5800.0	1526.7	606.4	302.0
75°	8009.3	9345.7	10006.8	10187.5	9457.5	7959.3	6444.5	3227.0	929.8	428.0	254.5
77.5°	3590.8	3978.5	4359.0	4359.0	4073.6	3633.7	2953.5	1560.0	527.9	304.4	214.0
80°	1203.3	1248.5	1215.2	1227.1	1179.5	1134.3	1186.6	673.0	325.8	228.3	173.6
82.5°	818.0	1027.3	1091.5	1091.5	1024.9	808.5	456.6	309.1	199.8	164.1	133.2
85°	665.9	813.3	872.7	898.9	846.6	682.5	240.2	149.8	118.9	104.6	90.4
87.5°	223.5	209.3	197.4	192.6	202.1	211.6	118.9	64.2	54.7	49.9	47.6
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: P565312

CATALOG NUMBER: MSA-SA4A-730-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	808.5	808.5	808.5	808.5	808.5	808.5
2.5°	846.6	818.0	829.9	841.8	927.4	991.6
5°	841.8	882.3	972.6	1086.8	1139.1	1267.5
7.5°	865.6	1013.0	1181.9	1300.8	1348.4	1388.8
10°	1158.1	1184.3	1241.3	1355.5	1450.6	1467.3
12.5°	1495.8	1488.7	1448.2	1500.5	1453.0	1486.3
15°	1759.8	1681.3	1626.6	1619.4	1602.8	1602.8
17.5°	1904.8	1835.8	1759.8	1740.7	1690.8	1731.2
20°	2076.0	1957.1	1766.9	1747.9	1731.2	1693.2
22.5°	2042.7	1923.8	1726.5	1702.7	1790.7	1785.9
25°	2083.2	1923.8	1736.0	1709.8	1750.2	1750.2
27.5°	1983.3	1852.5	1716.9	1560.0	1683.7	1712.2
30°	1957.1	1809.7	1652.7	1512.4	1638.5	1612.3
32.5°	2095.1	1702.7	1548.1	1505.3	1598.0	1579.0
35°	1988.0	1683.7	1521.9	1443.5	1552.9	1533.8
37.5°	2033.2	1659.9	1476.8	1410.2	1498.2	1526.7
40°	2023.7	1548.1	1424.4	1338.8	1426.8	1441.1
42.5°	1864.4	1462.5	1336.5	1250.9	1296.0	1343.6
45°	1816.8	1410.2	1250.9	1131.9	1134.3	1189.0
47.5°	1728.8	1291.3	1093.9	984.5	984.5	1029.7
50°	1581.4	1131.9	915.5	815.7	813.3	849.0
52.5°	1362.6	977.4	772.9	663.5	656.3	692.0
55°	1115.3	787.1	608.8	537.4	523.2	537.4
57.5°	868.0	613.5	480.4	423.3	420.9	432.8
60°	673.0	480.4	382.9	349.6	354.3	373.4
62.5°	508.9	382.9	325.8	313.9	321.0	340.1
65°	404.3	330.5	297.3	290.1	297.3	316.3
67.5°	328.2	299.6	275.9	266.3	271.1	290.1
69°	302.0	283.0	264.0	252.1	256.8	271.1
70°	287.7	273.5	254.5	242.6	247.3	261.6
72.5°	252.1	244.9	230.7	218.8	221.2	233.0
75°	221.2	216.4	206.9	192.6	192.6	206.9
77.5°	185.5	187.9	178.4	164.1	161.7	168.8
80°	147.4	152.2	147.4	133.2	128.4	128.4
82.5°	107.0	116.5	111.8	97.5	95.1	95.1
85°	66.6	73.7	71.3	61.8	61.8	54.7
87.5°	30.9	40.4	38.0	33.3	30.9	21.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)