

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: P367035

Luminaire Tested: **MSA-SA1D-730-U-T4FT-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367035
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-730-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4677 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

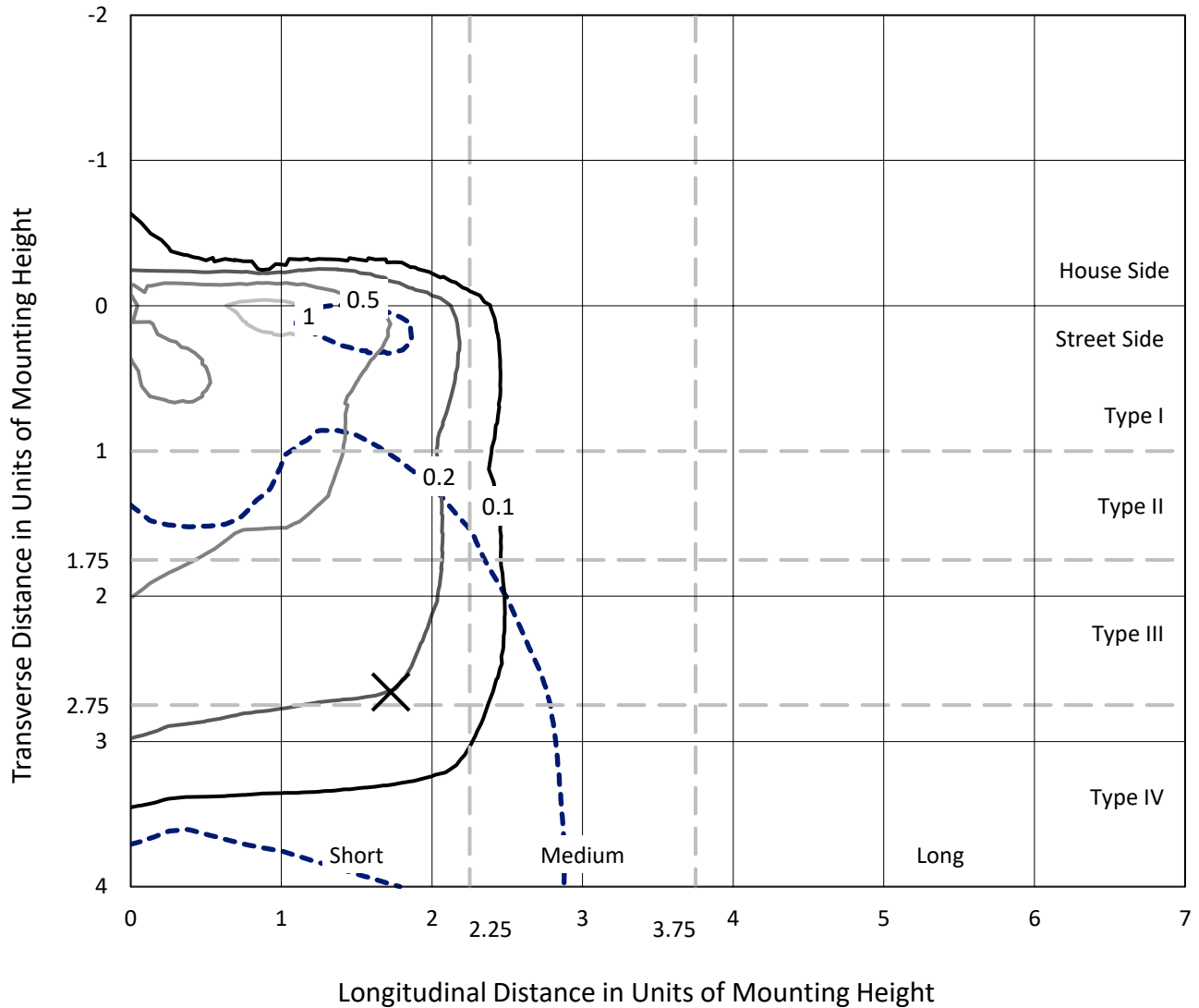
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367035
 CATALOG NUMBER: MSA-SA1D-730-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

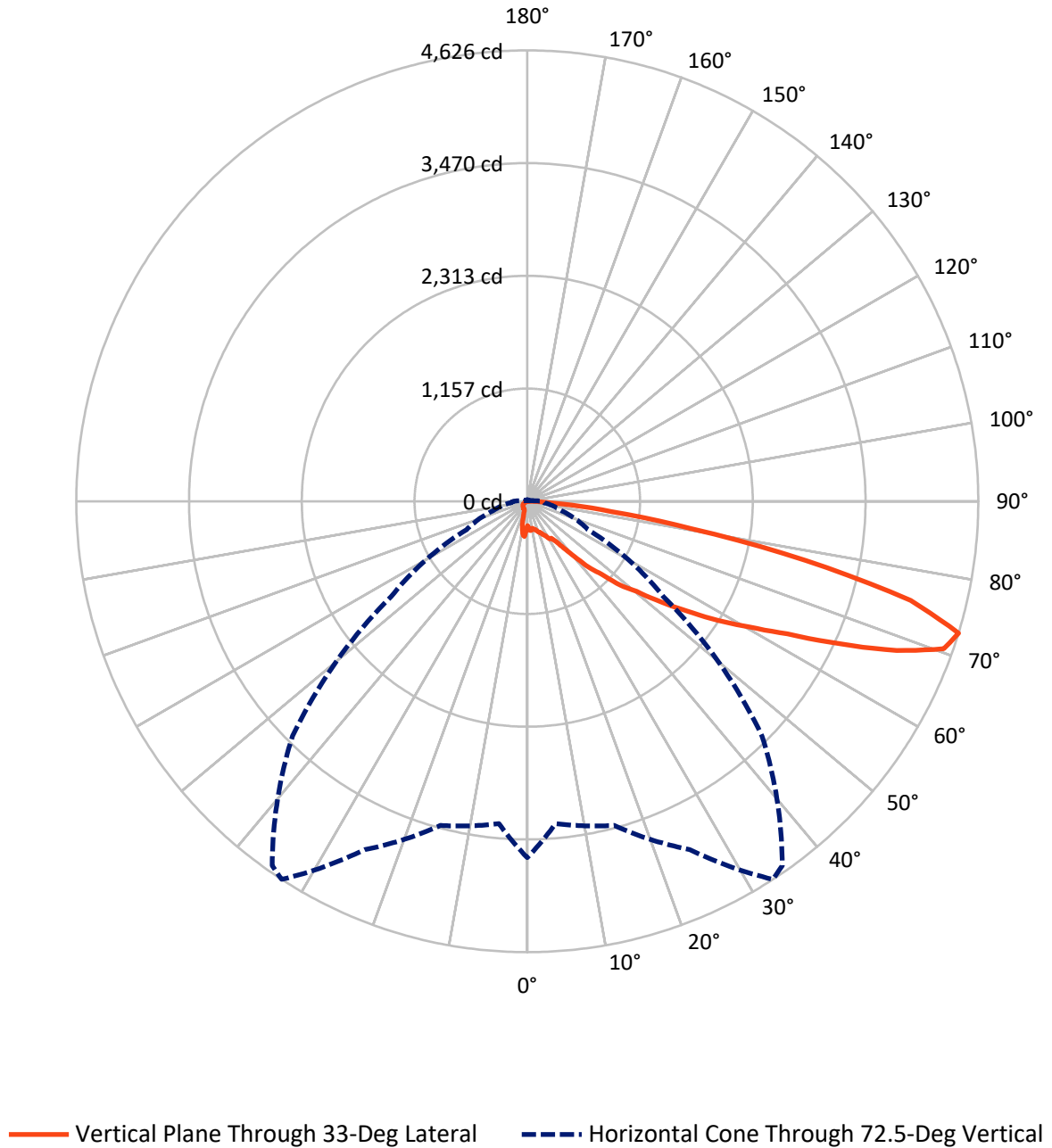
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P367035
CATALOG NUMBER: MSA-SA1D-730-U-T4FT-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P367035
 CATALOG NUMBER: MSA-SA1D-730-U-T4FT-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	432.4	0.0	432.4
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	4244.5	0.0	4244.5
	% Fixture	90.8	0.0	90.8
Total	Lumens	4677.0	0.0	4677.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.2	0.7
10°-20°	95.9	2.1
20°-30°	162.7	3.5
30°-40°	297.8	6.4
40°-50°	628.5	13.4
50°-60°	1051.5	22.5
60°-70°	1407.5	30.1
70°-80°	919.4	19.7
80°-90°	81.5	1.7
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°	4677.0	100.0
0°-180°	4677.0	100.0

Coefficient of Utilization

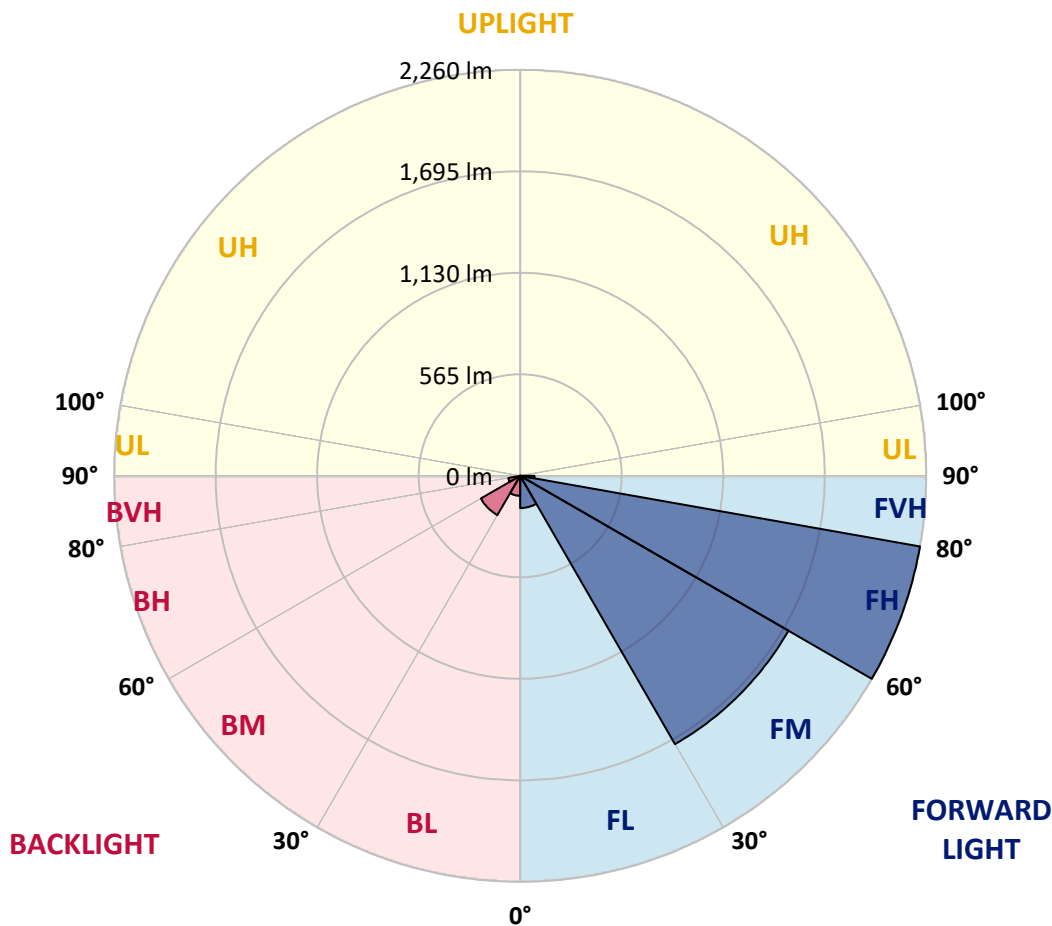


REPORT NUMBER: P367035
 CATALOG NUMBER: MSA-SA1D-730-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	179.5	3.8			
FM (30°-60°)	1724.9	36.9			
FH (60°-80°)	2260.1	48.3			G2/5000
FVH (80°-90°)	79.9	1.7			G1/100
BL (0°-30°)	111.3	2.4	B1/500		
BM (30°-60°)	252.8	5.4	B1/1000		
BH (60°-80°)	66.7	1.4	B0/110		G0/110
BVH (80°-90°)	1.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





REPORT NUMBER: P367035

CATALOG NUMBER: MSA-SA1D-730-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8
2.5°	296.5	285.1	268.5	269.5	272.4	274.7	281.0	278.4	273.4	273.2	296.5
5°	314.2	301.5	300.4	302.0	301.2	305.4	300.2	317.1	331.3	348.5	376.0
7.5°	305.6	299.7	292.1	299.9	299.7	297.6	301.0	335.2	369.8	391.6	437.0
10°	281.0	274.2	279.9	282.5	280.7	289.8	312.4	340.4	381.7	427.4	449.5
12.5°	273.9	278.1	280.2	280.2	297.6	302.3	336.8	363.3	412.4	448.4	512.6
15°	301.2	309.3	295.0	291.9	297.3	299.9	338.3	370.3	433.1	499.1	552.8
17.5°	344.6	344.1	322.0	309.8	318.4	324.6	345.9	383.3	420.1	538.8	616.7
20°	374.4	375.0	335.2	309.8	338.1	341.7	365.4	395.2	424.3	558.8	658.5
22.5°	412.9	399.1	355.2	330.6	349.8	353.1	379.1	402.7	445.6	556.5	712.0
25°	444.3	435.5	380.2	363.0	380.2	375.5	399.1	434.7	468.4	593.6	743.4
27.5°	493.1	478.0	397.8	400.9	399.9	403.3	408.7	463.2	508.7	595.4	816.1
30°	538.6	529.7	437.3	437.3	447.4	440.9	444.8	510.8	547.6	637.5	897.9
32.5°	585.6	586.1	483.8	459.1	451.0	477.8	504.0	533.9	594.6	709.7	1023.1
35°	709.9	699.5	572.8	511.3	504.8	503.2	545.3	626.1	678.0	803.7	1191.6
37.5°	960.5	924.4	764.5	629.7	605.3	597.0	644.8	727.6	779.3	941.8	1470.2
40°	1217.6	1151.4	973.8	821.8	742.7	706.8	762.4	832.8	924.7	1094.5	1728.1
42.5°	1443.2	1361.4	1131.4	1029.1	926.0	910.4	858.2	972.7	1132.4	1316.8	1980.7
45°	1663.2	1502.2	1271.6	1190.6	1065.4	1074.2	1056.6	1155.8	1348.2	1560.3	2204.8
47.5°	1814.6	1669.9	1443.5	1338.3	1288.2	1236.5	1376.8	1479.8	1540.4	1715.1	2398.6
50°	1977.6	1831.2	1591.2	1517.8	1451.8	1504.0	1686.0	1699.8	1694.9	1859.5	2530.5
52.5°	2188.2	2015.5	1760.8	1677.7	1715.1	1767.0	1977.1	1979.7	1832.2	1981.0	2625.5
55°	2383.0	2191.6	1986.7	1908.3	1986.5	2030.3	2263.3	2177.8	1912.2	2063.6	2672.2
57.5°	2657.4	2435.9	2287.2	2149.0	2307.4	2265.3	2514.9	2387.9	2002.0	2118.4	2655.1
60°	3004.4	2743.7	2594.6	2448.4	2618.2	2646.8	2760.5	2492.8	2036.8	2136.3	2552.0
62.5°	3357.2	3095.0	2898.9	2799.7	2992.4	3086.4	2988.0	2545.0	1995.0	2101.2	2318.6
65°	3795.0	3459.3	3230.3	3172.1	3529.1	3667.3	3257.0	2557.7	1914.3	1908.3	1864.2
67.5°	4095.0	3768.0	3558.0	3655.3	4086.7	4097.8	3498.5	2561.6	1642.4	1494.1	1223.6
70°	4166.1	3816.1	3722.1	4008.8	4531.5	4391.0	3576.4	2364.3	1218.1	886.8	559.3
72.5°	3657.2	3320.1	3442.4	3942.0	4626.0	4561.6	3404.2	1705.8	685.8	354.7	171.6
75°	2243.3	2039.4	2582.4	3342.2	4060.7	4019.1	2655.9	881.3	276.3	141.8	64.1
77.5°	975.6	906.0	1347.7	2217.6	2917.9	2880.8	1556.2	324.6	142.8	99.7	32.5
80°	322.8	313.2	510.5	1050.1	1709.1	1676.4	655.7	135.0	101.8	80.0	18.2
82.5°	76.6	76.1	178.1	483.2	870.7	843.4	201.2	74.5	73.7	63.1	9.6
85°	19.2	19.7	49.3	197.6	353.7	311.9	52.5	37.1	51.9	42.8	4.9
87.5°	0.0	0.0	12.7	28.3	53.5	33.5	5.7	9.9	14.5	15.3	2.6
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: P367035

CATALOG NUMBER: MSA-SA1D-730-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8
2.5°	301.7	298.9	275.5	281.2	290.0	289.3	295.0	290.6	286.7	305.9	304.1
5°	383.8	368.2	360.9	371.1	365.6	352.9	363.5	361.7	358.6	365.1	370.0
7.5°	445.3	431.0	424.6	403.3	372.4	348.0	351.9	342.8	334.2	344.3	354.7
10°	465.6	457.8	457.0	415.5	386.4	351.1	309.3	273.2	263.6	250.8	256.6
12.5°	520.6	525.3	496.0	447.4	391.3	323.5	249.3	198.1	177.4	163.9	164.6
15°	565.8	582.2	539.6	452.3	344.3	246.7	165.9	120.0	107.0	103.6	102.6
17.5°	633.1	648.9	553.1	417.3	277.6	167.2	106.7	93.5	94.3	96.6	96.1
20°	682.9	680.6	541.4	355.2	204.6	109.6	89.3	87.5	91.7	98.4	96.9
22.5°	731.0	714.9	534.1	297.8	132.4	88.0	86.2	86.0	89.8	96.3	98.2
25°	765.2	767.8	521.9	233.2	96.3	81.8	83.4	85.7	89.6	96.6	95.6
27.5°	863.4	790.7	471.0	169.3	81.3	78.4	82.3	87.0	88.3	97.1	97.4
30°	927.0	876.9	437.8	114.0	75.0	72.4	80.2	86.5	88.0	99.5	100.2
32.5°	1037.9	914.0	399.4	84.7	69.9	70.6	75.6	83.9	91.1	103.3	103.9
35°	1175.8	1033.2	329.8	76.1	68.0	66.7	69.1	78.7	90.6	103.9	106.5
37.5°	1438.3	1104.6	261.5	73.7	68.0	65.7	68.0	73.7	89.1	109.1	114.5
40°	1614.1	1250.0	188.5	73.2	66.7	64.7	65.4	71.1	84.7	105.9	114.0
42.5°	1830.7	1311.3	138.9	71.9	65.4	62.3	62.8	70.1	80.2	99.5	105.4
45°	2008.0	1356.0	109.3	71.4	62.3	61.3	62.3	69.3	76.1	85.4	90.9
47.5°	2142.8	1407.9	87.8	68.0	61.5	61.3	60.0	64.9	69.1	71.4	75.0
50°	2241.5	1396.2	72.7	62.8	58.9	60.5	58.2	58.9	60.0	58.7	62.8
52.5°	2302.0	1354.2	60.5	56.6	55.8	57.1	54.3	51.9	50.1	49.1	51.7
55°	2324.0	1269.8	51.4	48.6	50.4	50.9	48.6	44.4	41.3	39.7	41.8
57.5°	2282.2	1141.2	44.7	40.2	44.4	44.4	41.3	36.9	33.2	30.6	32.7
60°	2176.3	999.2	39.7	33.5	37.9	38.2	34.5	29.9	27.0	24.4	25.7
62.5°	1978.9	844.4	34.8	29.1	32.7	33.0	28.6	24.1	22.1	19.2	20.3
65°	1584.2	645.8	29.6	25.7	28.3	27.5	23.6	20.5	17.9	15.3	15.8
67.5°	1028.3	398.6	25.7	23.4	23.9	23.1	20.0	17.9	15.1	13.0	13.2
70°	460.4	171.6	22.6	21.0	20.8	19.5	16.9	16.6	14.8	13.0	13.0
72.5°	142.0	64.7	19.5	19.0	17.9	16.4	14.8	15.8	14.5	12.5	12.2
75°	56.1	29.6	16.1	16.1	15.6	13.5	13.2	14.3	13.5	11.4	10.9
77.5°	29.3	18.7	13.2	13.8	13.5	10.4	11.9	13.0	12.5	9.6	8.0
80°	17.4	11.4	9.9	11.2	10.9	7.3	9.1	8.3	6.0	2.9	0.8
82.5°	9.6	5.2	4.4	6.5	6.5	2.6	4.7	4.2	2.3	0.0	0.0
85°	4.7	3.6	3.4	3.6	2.6	0.8	2.3	2.3	1.3	0.0	0.0
87.5°	2.3	2.1	1.6	1.3	1.0	0.0	0.8	1.0	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

(END OF REPORT)