

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: P596887

Luminaire Tested: **MSA-SA1C-835-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596887
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-835-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3818 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

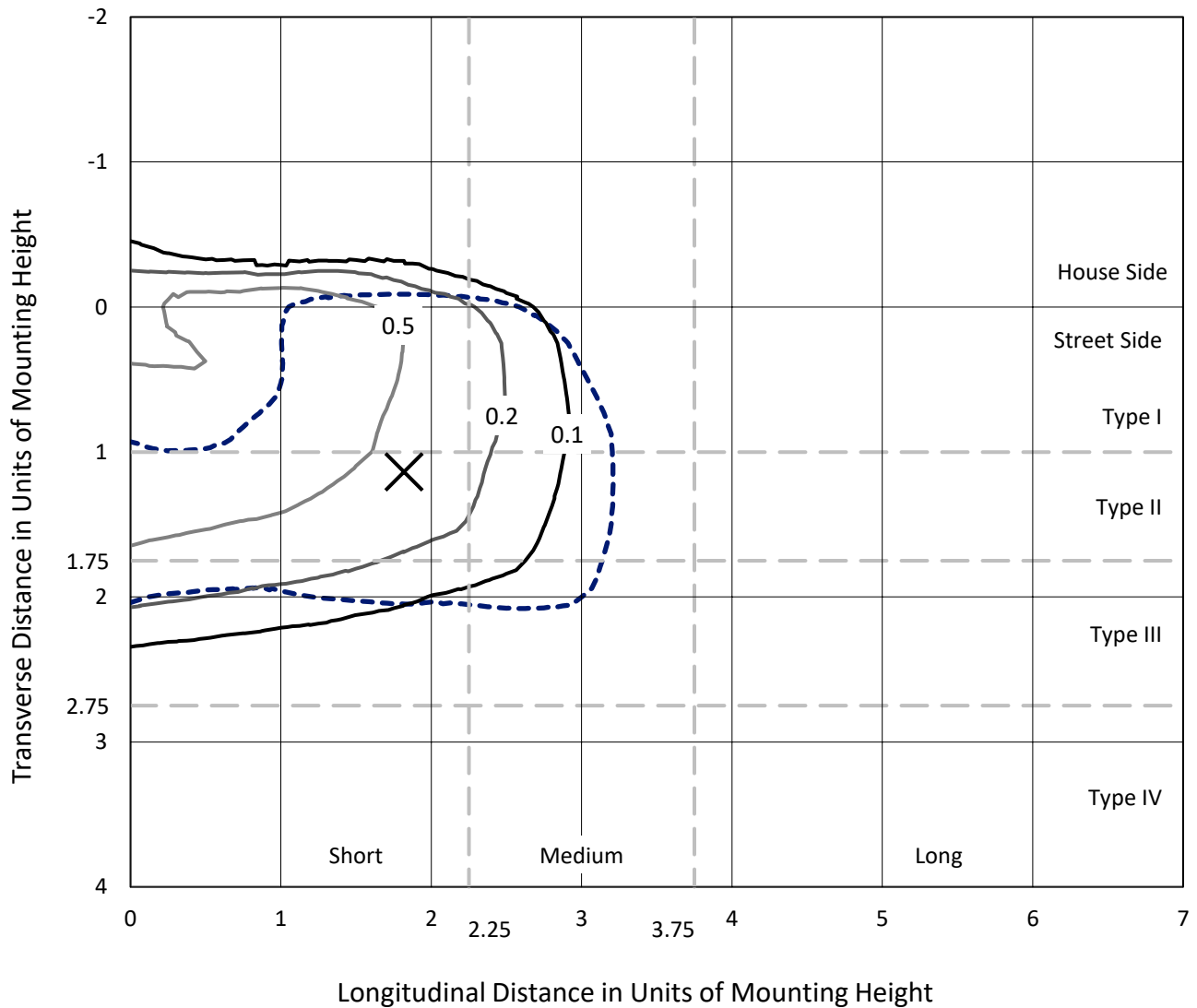
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

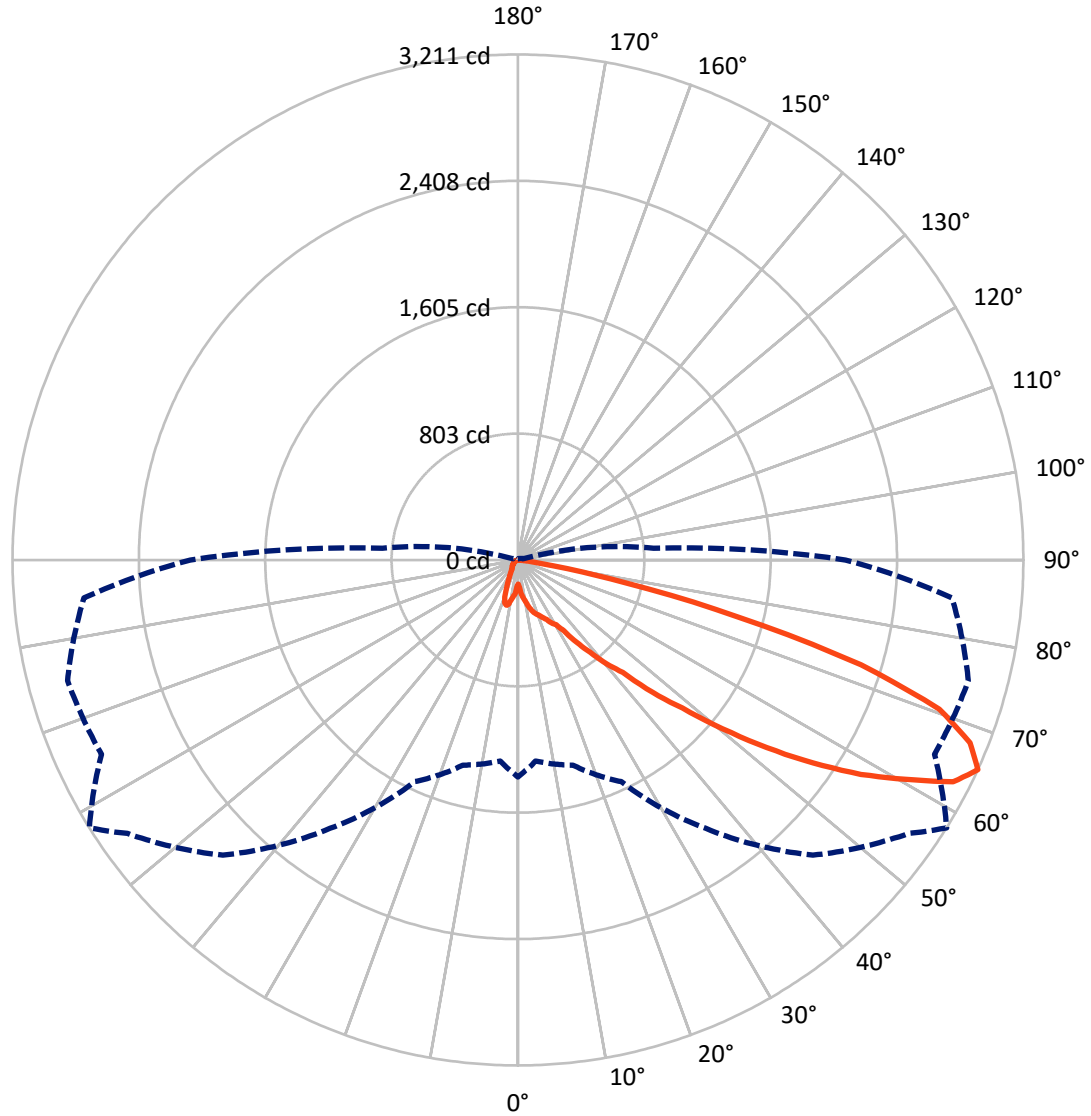
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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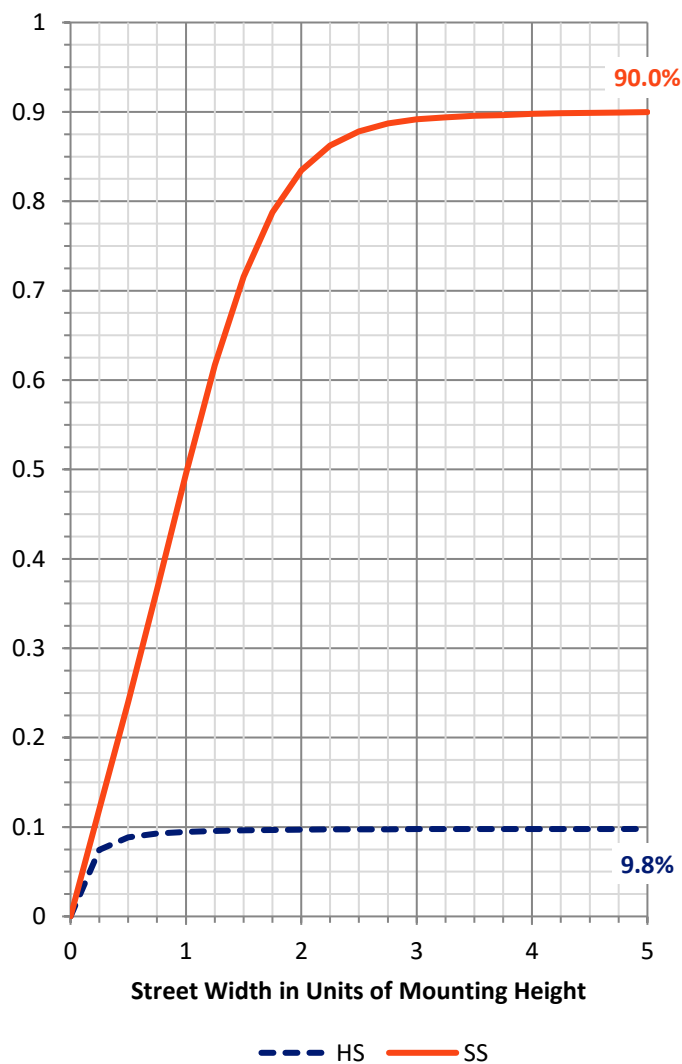
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	376.7	0.0	376.7
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	3441.3	0.0	3441.3
	% Fixture	90.1	0.0	90.1
Total	Lumens	3818.0	0.0	3818.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.5	0.6
10°-20°	78.4	2.1
20°-30°	151.7	4.0
30°-40°	302.7	7.9
40°-50°	618.8	16.2
50°-60°	1097.5	28.7
60°-70°	1157.1	30.3
70°-80°	375.1	9.8
80°-90°	15.3	0.4
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°	3818.0	100.0
0°-180°	3818.0	100.0

Coefficient of Utilization



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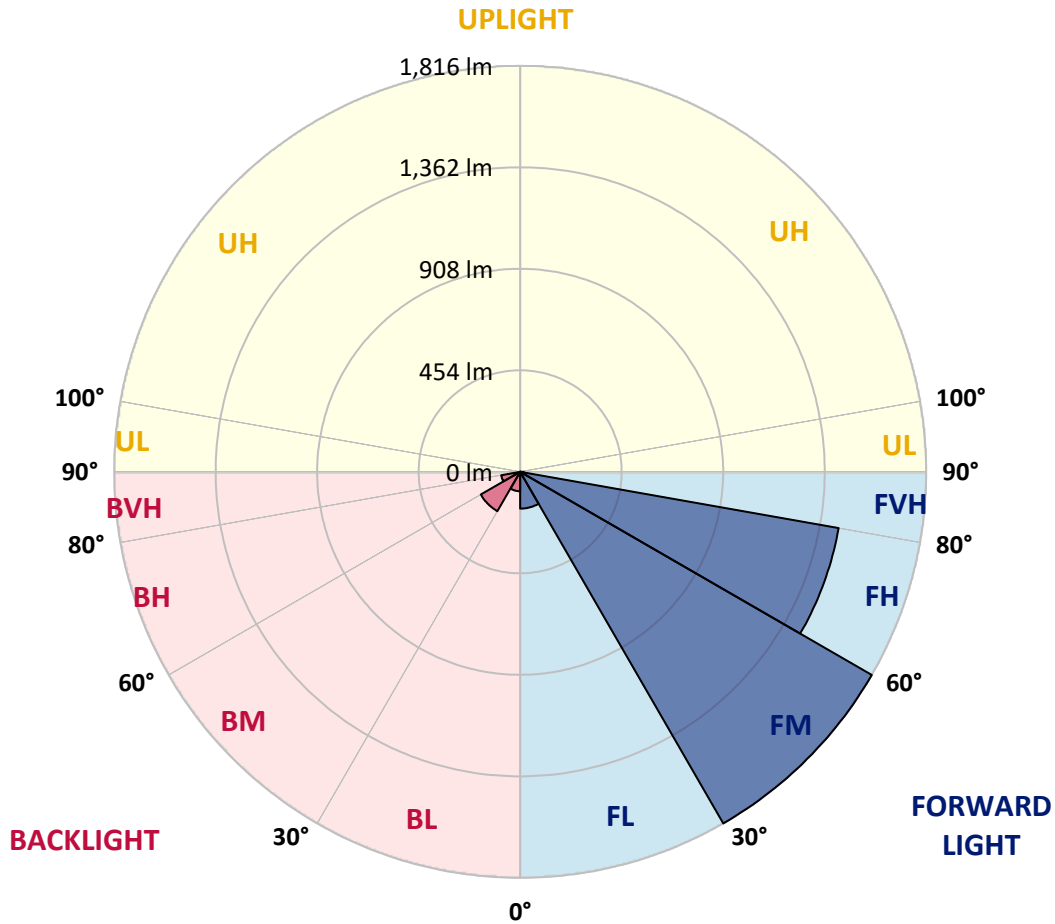
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	164.7	4.3			
FM (30°-60°)	1815.7	47.6			
FH (60°-80°)	1446.2	37.9			G1/1800
FVH (80°-90°)	14.7	0.4			G1/100
BL (0°-30°)	86.8	2.3	B0/110		
BM (30°-60°)	203.3	5.3	B0/220		
BH (60°-80°)	86.0	2.3	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8
2.5°	186.6	181.0	172.2	173.7	175.4	178.9	176.1	173.5	170.7	167.0	181.0
5°	225.3	216.0	215.2	213.2	211.7	211.5	215.0	213.9	215.4	222.3	229.4
7.5°	239.5	235.6	228.3	231.3	226.6	222.9	238.2	243.1	252.6	255.8	274.3
10°	238.0	232.4	235.4	236.9	240.1	253.4	263.1	268.5	276.7	294.3	290.6
12.5°	244.8	249.8	253.0	253.2	269.8	294.3	301.2	305.7	320.3	327.2	345.2
15°	267.8	276.0	270.9	273.0	278.4	308.3	324.4	334.3	354.9	377.3	381.8
17.5°	300.7	305.9	295.1	287.4	302.2	318.6	347.8	358.1	371.2	423.5	433.2
20°	342.2	351.0	327.8	297.1	316.6	336.0	367.8	372.8	386.7	454.9	470.1
22.5°	439.2	426.1	390.6	342.7	336.9	345.4	375.8	395.1	418.8	472.5	508.0
25°	534.8	530.3	478.1	424.6	385.9	366.5	406.7	417.5	456.2	514.4	534.0
27.5°	641.2	650.3	563.0	530.5	454.7	391.5	426.1	452.9	498.7	529.7	576.8
30°	781.6	767.2	664.9	632.4	545.8	460.0	476.1	477.9	545.2	580.0	624.7
32.5°	891.7	900.9	772.4	722.5	653.3	565.6	513.8	536.1	584.3	661.9	704.2
35°	1010.8	1009.9	884.6	817.5	727.0	651.8	625.3	641.7	702.1	790.0	801.2
37.5°	1188.8	1173.5	1025.6	927.4	850.4	786.1	765.9	744.2	806.6	890.4	932.3
40°	1356.6	1304.0	1167.3	1050.8	952.3	926.1	853.0	866.3	884.8	995.5	1111.4
42.5°	1526.3	1493.6	1310.9	1213.3	1092.2	1029.9	982.2	975.9	1063.9	1195.0	1314.7
45°	1750.0	1650.1	1503.9	1418.1	1278.0	1215.4	1176.9	1199.9	1279.0	1470.6	1550.3
47.5°	1937.9	1845.9	1720.4	1590.1	1443.1	1513.4	1441.1	1404.8	1513.4	1711.3	1817.3
50°	2099.4	1996.8	1869.8	1773.3	1749.4	1816.9	1670.7	1684.0	1754.5	1987.1	2046.9
52.5°	2216.7	2108.8	1997.9	1951.2	2049.1	2083.0	2009.7	1980.3	2044.3	2222.3	2251.3
55°	2305.1	2194.6	2108.0	2172.2	2361.4	2350.2	2376.0	2275.4	2336.7	2467.6	2453.8
57.5°	2310.4	2179.5	2128.8	2232.2	2491.9	2664.9	2740.4	2569.3	2604.1	2659.3	2628.4
60°	2141.5	2011.2	2007.1	2154.0	2529.7	2746.4	2911.5	2828.1	2781.4	2822.5	2763.8
62.5°	1804.9	1713.7	1756.3	1918.6	2388.9	2701.5	3002.6	3103.0	2921.4	2930.6	2847.2
65°	1378.1	1282.5	1349.1	1553.6	2081.1	2651.2	3028.4	3210.5	2918.8	2961.4	2767.3
67.5°	912.7	857.3	932.7	1158.0	1654.6	2340.3	3015.1	3097.7	2826.2	2841.2	2470.4
70°	471.2	457.7	518.7	696.5	1112.4	1798.0	2884.2	2839.0	2638.1	2447.6	1905.5
72.5°	150.9	151.6	210.2	318.1	599.8	1094.6	2216.9	2278.8	2111.0	1790.4	1163.4
75°	66.9	65.8	87.9	133.5	250.0	490.8	1377.3	1444.1	1314.3	985.0	489.0
77.5°	48.2	46.6	56.3	78.0	123.8	166.4	645.8	696.9	595.9	341.4	112.0
80°	34.0	33.7	40.8	54.8	77.4	73.9	204.0	228.7	183.2	82.8	32.9
82.5°	19.1	19.8	28.4	38.7	47.1	37.0	57.4	63.2	61.7	44.1	14.4
85°	9.2	10.3	18.5	27.9	24.7	14.4	20.4	22.1	25.8	25.6	7.3
87.5°	0.0	0.0	7.5	12.7	6.7	2.1	6.2	7.1	6.9	8.2	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8	152.8
2.5°	183.8	182.5	166.2	167.5	171.1	169.6	170.9	167.9	164.4	178.4	178.2
5°	232.4	222.7	217.5	212.8	213.7	204.0	209.6	212.2	211.7	219.7	221.8
7.5°	274.9	262.0	251.7	241.8	226.8	213.2	221.6	227.0	230.7	244.4	249.8
10°	294.9	284.4	280.3	261.0	250.2	241.8	231.7	224.4	227.4	223.8	227.4
12.5°	338.8	331.7	316.0	296.4	283.5	266.3	228.7	197.3	178.0	178.2	176.9
15°	378.8	378.3	354.9	322.4	285.0	236.0	177.3	137.8	119.5	114.4	112.6
17.5°	431.0	424.6	381.8	333.8	266.6	182.7	120.8	94.4	92.7	95.7	94.4
20°	464.3	454.9	395.1	317.3	219.7	123.6	91.1	83.6	88.8	93.1	92.0
22.5°	497.6	483.5	405.2	297.1	156.3	90.5	82.3	81.0	84.3	89.6	90.5
25°	515.9	513.1	425.0	259.2	107.1	79.3	79.3	78.9	80.0	83.8	83.2
27.5°	569.0	531.2	410.2	202.3	82.8	72.9	73.9	73.5	69.6	73.5	73.7
30°	602.1	584.7	411.2	144.0	72.9	64.5	67.3	63.8	58.0	61.3	60.6
32.5°	668.8	625.3	408.0	97.2	66.4	61.5	57.2	52.2	47.9	49.2	48.2
35°	746.4	713.3	364.4	78.0	61.9	54.4	47.5	42.6	38.0	39.1	38.9
37.5°	900.7	795.6	328.3	70.3	58.9	49.9	41.9	35.0	32.7	33.3	34.0
40°	1043.7	933.0	261.0	66.9	53.7	44.5	34.6	29.7	28.2	28.6	29.2
42.5°	1257.3	1042.2	197.1	63.4	48.6	37.6	28.8	25.6	24.1	24.9	25.4
45°	1464.1	1135.0	147.3	60.4	44.3	32.5	24.3	22.1	20.4	21.1	21.9
47.5°	1670.7	1238.2	109.8	55.7	39.6	27.9	20.9	19.3	18.3	18.5	19.6
50°	1855.6	1286.4	86.4	49.9	35.7	24.3	18.9	17.4	17.0	17.2	18.1
52.5°	1991.4	1286.8	72.9	44.7	32.0	21.5	17.8	16.1	15.9	16.3	17.2
55°	2114.2	1252.4	63.2	40.2	28.8	19.6	17.0	15.5	15.5	15.9	16.8
57.5°	2195.7	1189.2	54.8	35.5	26.0	18.5	16.3	14.8	14.6	14.4	15.0
60°	2235.4	1103.0	46.4	31.2	23.4	17.8	15.9	13.1	12.9	12.5	12.9
62.5°	2210.3	995.1	38.9	26.9	20.9	17.0	14.0	11.4	11.0	10.1	10.7
65°	2081.7	863.9	32.9	23.0	18.1	14.4	11.8	9.7	8.6	7.5	7.3
67.5°	1818.8	701.9	27.5	19.8	15.5	11.8	9.7	8.6	6.7	5.8	5.6
70°	1363.1	479.2	22.8	17.0	12.9	10.1	8.2	7.7	6.2	5.6	5.2
72.5°	799.7	258.6	19.1	14.8	11.0	8.4	6.7	7.1	6.2	5.2	4.7
75°	319.4	86.0	15.3	11.8	8.8	6.0	5.6	5.8	5.6	4.7	3.9
77.5°	72.9	27.1	11.8	9.2	6.9	3.9	4.5	4.9	4.9	3.9	2.8
80°	22.8	10.7	6.9	5.8	4.9	2.1	3.2	3.4	2.4	1.1	0.0
82.5°	7.3	3.0	2.4	2.4	2.1	0.4	0.6	0.4	0.0	0.0	0.0
85°	2.8	1.9	1.5	1.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	0.9	0.6	0.9	0.4	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

(END OF REPORT)