

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: P596689

Luminaire Tested: **MSA-SA3B-827-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596689
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-SA3B-827-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 7980 lumens
Efficiency: N/A
Efficacy: 63.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

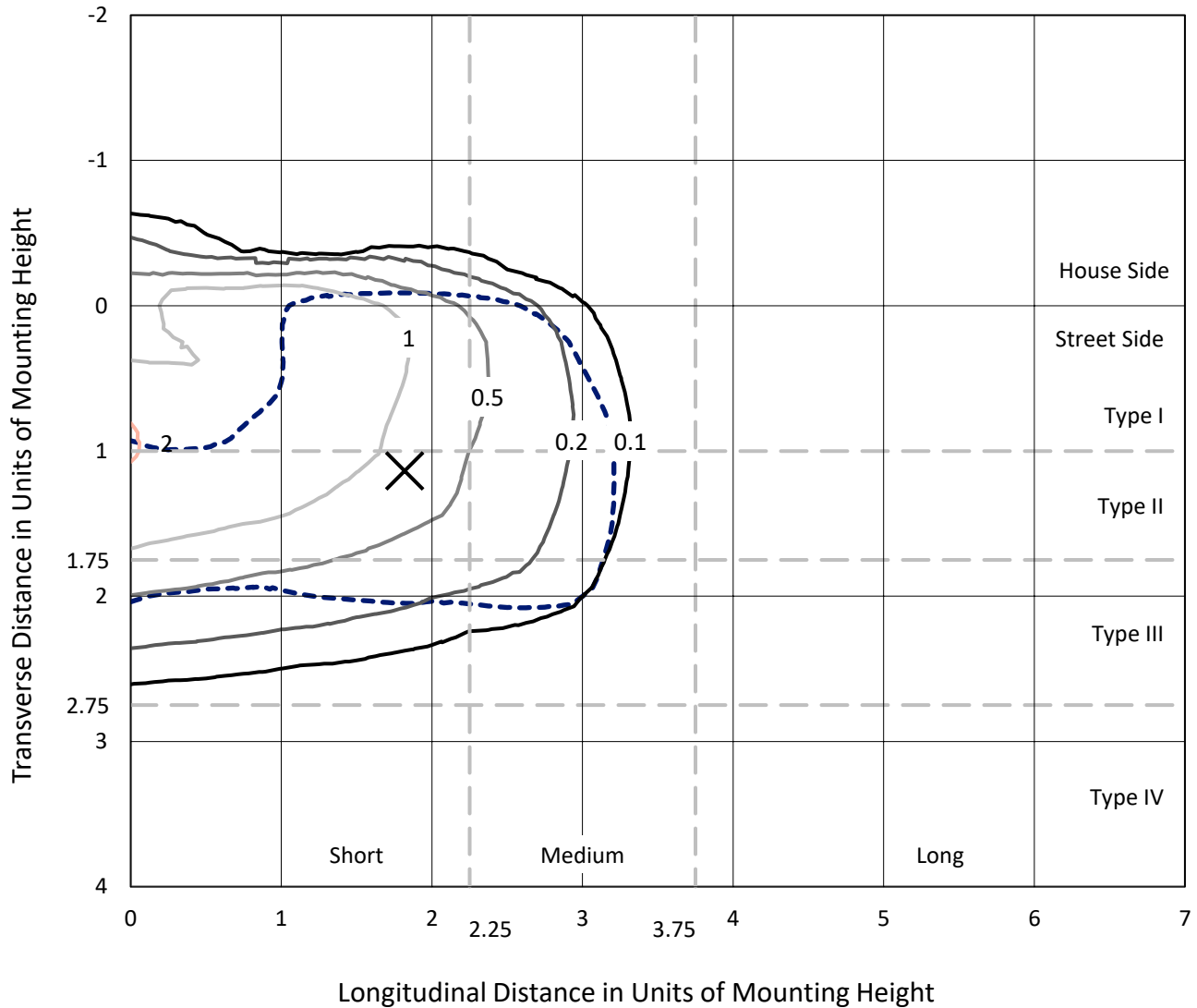
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

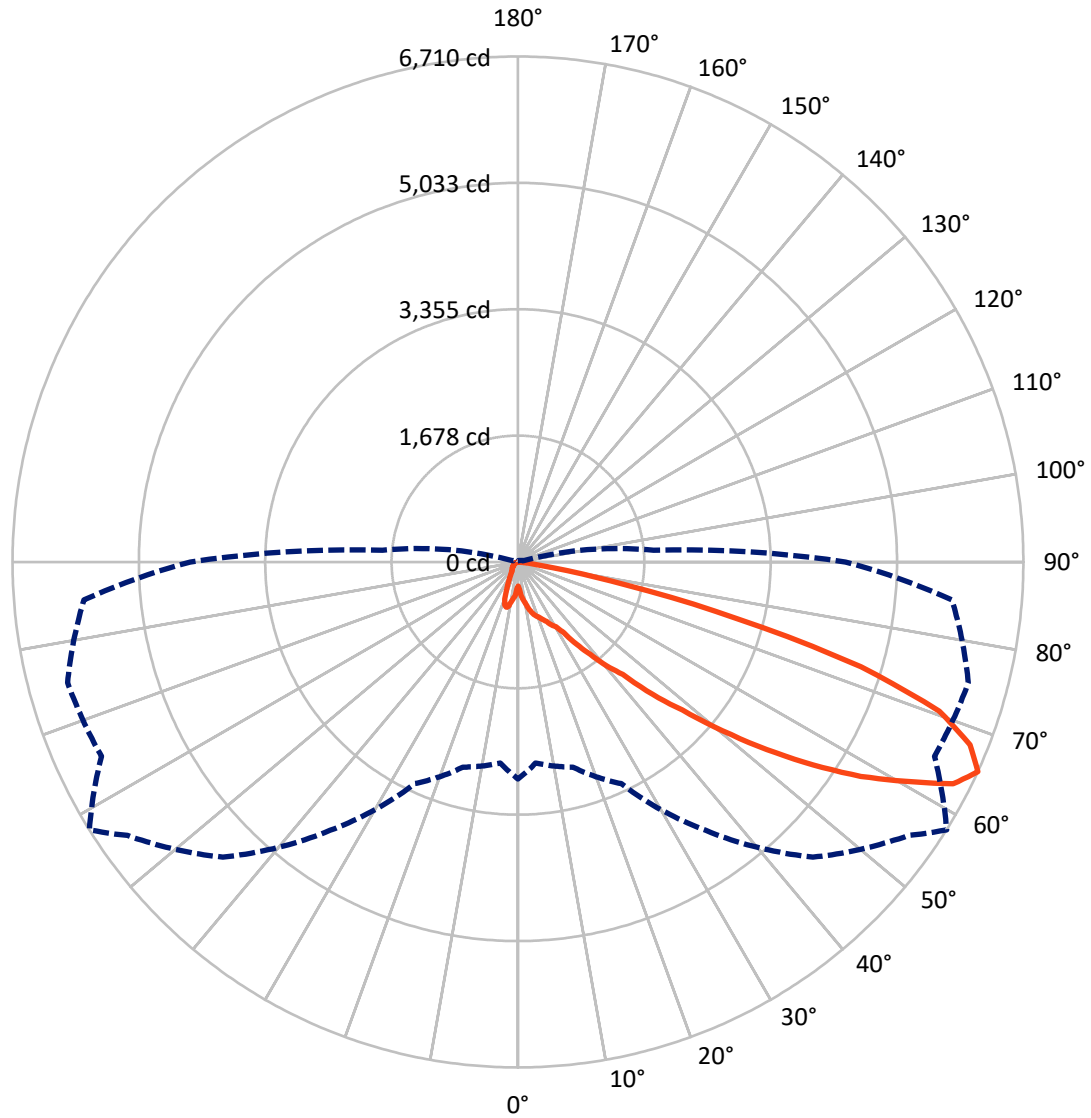
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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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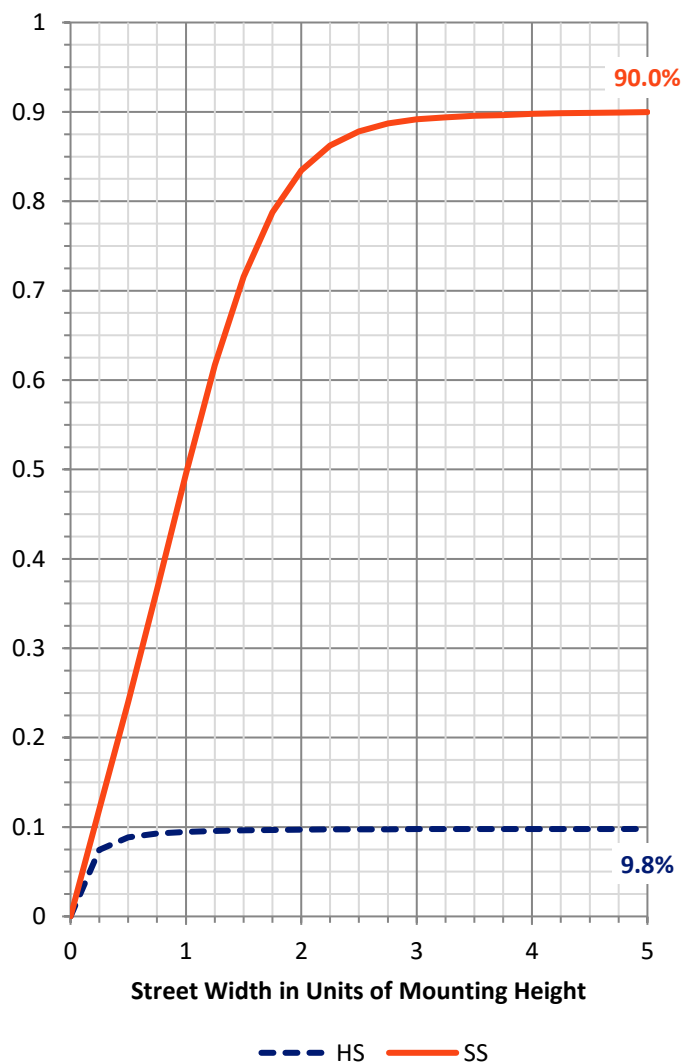
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	787.4	0.0	787.4
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	7192.6	0.0	7192.6
	% Fixture	90.1	0.0	90.1
Total	Lumens	7980.0	0.0	7980.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	0.6
10°-20°	163.8	2.1
20°-30°	317.1	4.0
30°-40°	632.6	7.9
40°-50°	1293.3	16.2
50°-60°	2293.9	28.7
60°-70°	2418.4	30.3
70°-80°	784.1	9.8
80°-90°	32.1	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°	7980.0	100.0
0°-180°	7980.0	100.0

Coefficient of Utilization



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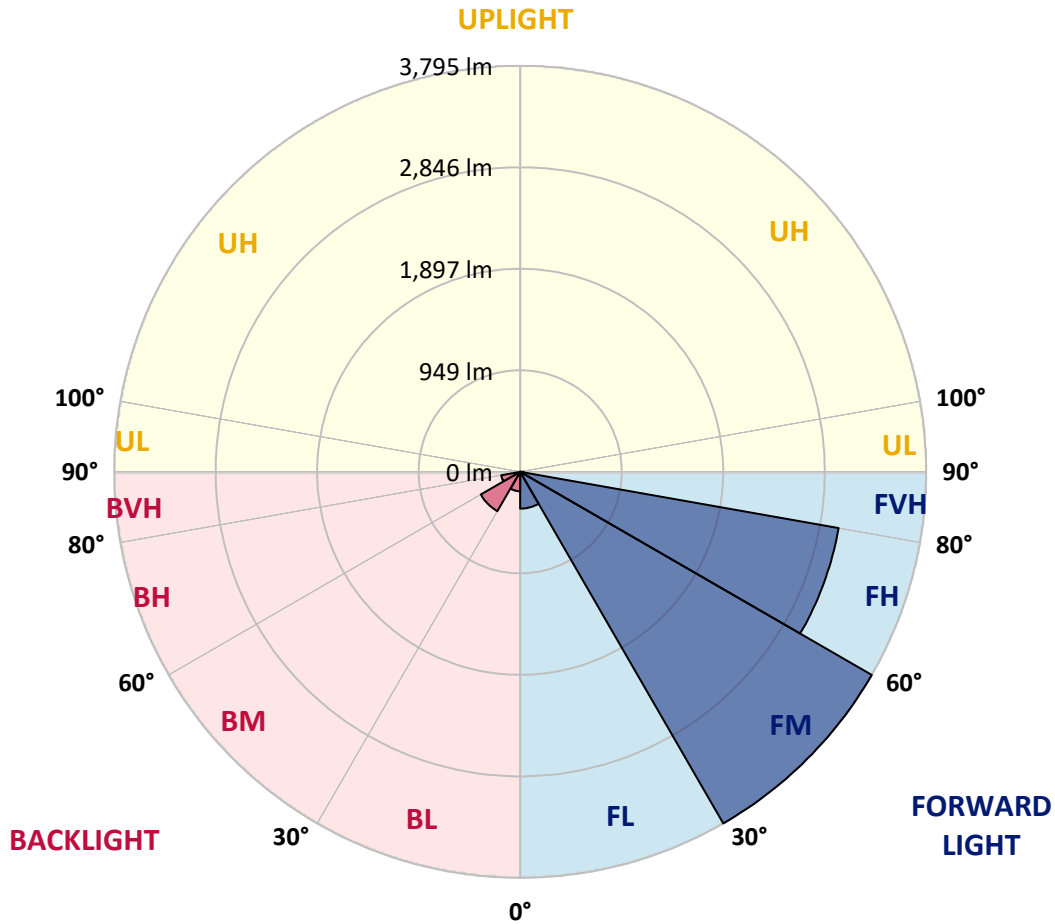
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	344.3	4.3			
FM (30°-60°)	3794.9	47.6			
FH (60°-80°)	3022.7	37.9			G2/5000
FVH (80°-90°)	30.7	0.4			G1/100
BL (0°-30°)	181.5	2.3	B1/500		
BM (30°-60°)	424.8	5.3	B1/1000		
BH (60°-80°)	179.7	2.3	B1/500		G1/500
BVH (80°-90°)	1.4	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5
2.5°	390.0	378.3	359.9	363.0	366.6	373.8	368.0	362.6	356.7	349.1	378.3
5°	470.9	451.5	449.7	445.7	442.6	442.1	449.3	447.1	450.2	464.6	479.4
7.5°	500.5	492.4	477.2	483.4	473.6	465.9	497.8	508.2	527.9	534.7	573.3
10°	497.4	485.7	492.0	495.1	501.9	529.7	549.9	561.2	578.2	615.1	607.5
12.5°	511.8	522.1	528.8	529.3	563.9	615.1	629.5	638.9	669.5	683.8	721.6
15°	559.8	576.9	566.1	570.6	581.8	644.3	678.0	698.7	741.8	788.5	798.0
17.5°	628.6	639.4	616.9	600.7	631.7	665.9	727.0	748.5	775.9	885.1	905.3
20°	715.3	733.7	685.2	620.9	661.8	702.3	768.8	779.1	808.3	950.7	982.6
22.5°	917.9	890.5	816.4	716.2	704.1	722.0	785.4	825.8	875.2	987.6	1061.7
25°	1117.9	1108.4	999.2	887.4	806.5	766.1	850.1	872.5	953.4	1075.2	1116.1
27.5°	1340.3	1359.1	1176.7	1108.9	950.3	818.2	890.5	946.7	1042.4	1107.1	1205.5
30°	1633.7	1603.5	1389.7	1321.8	1140.8	961.5	995.2	998.8	1139.4	1212.2	1305.7
32.5°	1863.7	1883.0	1614.3	1510.1	1365.4	1182.1	1073.8	1120.6	1221.2	1383.4	1471.9
35°	2112.6	2110.8	1848.9	1708.7	1519.5	1362.3	1307.0	1341.2	1467.4	1651.2	1674.5
37.5°	2484.6	2452.7	2143.6	1938.3	1777.4	1643.1	1600.9	1555.5	1685.8	1861.0	1948.6
40°	2835.5	2725.4	2439.7	2196.2	1990.4	1935.6	1782.8	1810.7	1849.3	2080.7	2322.9
42.5°	3190.0	3121.7	2739.8	2535.8	2282.9	2152.6	2052.8	2039.8	2223.6	2497.7	2747.9
45°	3657.7	3448.8	3143.3	2964.0	2671.1	2540.3	2459.9	2508.0	2673.3	3073.7	3240.3
47.5°	4050.4	3858.1	3595.7	3323.5	3016.1	3163.1	3012.1	2936.2	3163.1	3576.9	3798.4
50°	4387.9	4173.5	3908.0	3706.3	3656.4	3797.5	3492.0	3519.8	3667.2	4153.3	4278.2
52.5°	4633.2	4407.6	4175.8	4078.3	4282.7	4353.7	4200.5	4138.9	4272.8	4644.9	4705.5
55°	4817.8	4586.9	4405.8	4540.2	4935.6	4912.2	4966.1	4755.8	4883.9	5157.5	5128.8
57.5°	4829.1	4555.4	4449.4	4665.5	5208.3	5570.0	5727.7	5370.0	5442.8	5558.3	5493.6
60°	4475.9	4203.6	4195.1	4502.0	5287.4	5740.2	6085.3	5911.0	5813.5	5899.3	5776.6
62.5°	3772.3	3581.8	3670.8	4010.0	4993.1	5646.3	6275.8	6485.6	6106.0	6125.3	5951.0
65°	2880.5	2680.5	2819.8	3247.1	4349.7	5541.2	6329.7	6710.3	6100.6	6189.5	5783.8
67.5°	1907.7	1791.8	1949.5	2420.4	3458.3	4891.5	6301.9	6474.4	5906.9	5938.4	5163.3
70°	984.9	956.6	1084.2	1455.7	2325.1	3757.9	6028.2	5933.9	5513.8	5115.7	3982.6
72.5°	315.4	316.8	439.4	665.0	1253.5	2287.8	4633.6	4763.0	4412.1	3742.2	2431.6
75°	139.7	137.5	183.8	279.0	522.5	1025.8	2878.7	3018.4	2747.0	2058.7	1022.2
77.5°	100.6	97.5	117.7	163.1	258.8	347.8	1349.7	1456.6	1245.5	713.5	234.1
80°	71.0	70.5	85.4	114.6	161.7	154.6	426.4	478.1	382.8	173.0	68.7
82.5°	40.0	41.3	59.3	80.9	98.4	77.3	120.0	132.1	128.9	92.1	30.1
85°	19.3	21.6	38.6	58.4	51.7	30.1	42.7	46.3	53.9	53.5	15.3
87.5°	0.0	0.0	15.7	26.5	13.9	4.5	13.0	14.8	14.4	17.1	3.6
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°	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5	319.5
2.5°	384.2	381.5	347.3	350.0	357.6	354.5	357.2	350.9	343.7	372.9	372.5
5°	485.7	465.5	454.7	444.8	446.6	426.4	438.1	443.5	442.6	459.2	463.7
7.5°	574.7	547.7	526.1	505.5	474.0	445.7	463.2	474.5	482.1	510.9	522.1
10°	616.4	594.4	585.9	545.4	523.0	505.5	484.3	469.1	475.4	467.7	475.4
12.5°	708.1	693.3	660.5	619.6	592.6	556.7	478.1	412.5	372.0	372.5	369.8
15°	791.7	790.8	741.8	673.9	595.8	493.3	370.7	288.0	249.8	239.0	235.4
17.5°	900.8	887.4	798.0	697.8	557.1	381.9	252.5	197.2	193.6	199.9	197.2
20°	970.5	950.7	825.8	663.2	459.2	258.3	190.5	174.8	185.6	194.5	192.3
22.5°	1040.1	1010.5	846.9	620.9	326.6	189.2	172.1	169.4	176.1	187.4	189.2
25°	1078.3	1072.5	888.3	541.9	223.8	165.8	165.8	164.9	167.1	175.2	173.9
27.5°	1189.3	1110.2	857.3	422.8	173.0	152.3	154.6	153.7	145.6	153.7	154.1
30°	1258.5	1222.1	859.5	301.0	152.3	134.8	140.6	133.4	121.3	128.1	126.7
32.5°	1397.8	1307.0	852.8	203.1	138.8	128.5	119.5	109.2	100.2	102.9	100.6
35°	1560.0	1490.8	761.6	163.1	129.4	113.7	99.3	89.0	79.5	81.8	81.3
37.5°	1882.6	1662.9	686.1	146.9	123.1	104.2	87.6	73.2	68.3	69.6	71.0
40°	2181.3	1950.0	545.4	139.7	112.3	93.0	72.3	62.0	58.9	59.8	61.1
42.5°	2628.0	2178.2	412.0	132.5	101.5	78.6	60.2	53.5	50.3	52.1	53.0
45°	3060.2	2372.3	307.8	126.3	92.6	67.8	50.8	46.3	42.7	44.0	45.8
47.5°	3492.0	2588.0	229.6	116.4	82.7	58.4	43.6	40.4	38.2	38.6	40.9
50°	3878.4	2688.6	180.6	104.2	74.6	50.8	39.5	36.4	35.5	35.9	37.7
52.5°	4162.3	2689.5	152.3	93.5	66.9	44.9	37.3	33.7	33.2	34.1	35.9
55°	4418.9	2617.6	132.1	84.0	60.2	40.9	35.5	32.3	32.3	33.2	35.0
57.5°	4589.1	2485.5	114.6	74.1	54.4	38.6	34.1	31.0	30.6	30.1	31.5
60°	4672.3	2305.4	97.0	65.1	49.0	37.3	33.2	27.4	27.0	26.1	27.0
62.5°	4619.7	2079.8	81.3	56.2	43.6	35.5	29.2	23.8	22.9	21.1	22.5
65°	4351.0	1805.7	68.7	48.1	37.7	30.1	24.7	20.2	18.0	15.7	15.3
67.5°	3801.5	1467.0	57.5	41.3	32.3	24.7	20.2	18.0	13.9	12.1	11.7
70°	2849.0	1001.5	47.6	35.5	27.0	21.1	17.1	16.2	13.0	11.7	10.8
72.5°	1671.4	540.5	40.0	31.0	22.9	17.5	13.9	14.8	13.0	10.8	9.9
75°	667.7	179.7	31.9	24.7	18.4	12.6	11.7	12.1	11.7	9.9	8.1
77.5°	152.3	56.6	24.7	19.3	14.4	8.1	9.4	10.3	10.3	8.1	5.8
80°	47.6	22.5	14.4	12.1	10.3	4.5	6.7	7.2	4.9	2.2	0.0
82.5°	15.3	6.3	4.9	4.9	4.5	0.9	1.3	0.9	0.0	0.0	0.0
85°	5.8	4.0	3.1	3.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	1.8	1.3	1.8	0.9	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)