

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: P368089

Luminaire Tested: **MSA-SA3D-730-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368089
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3D-730-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: 13387 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

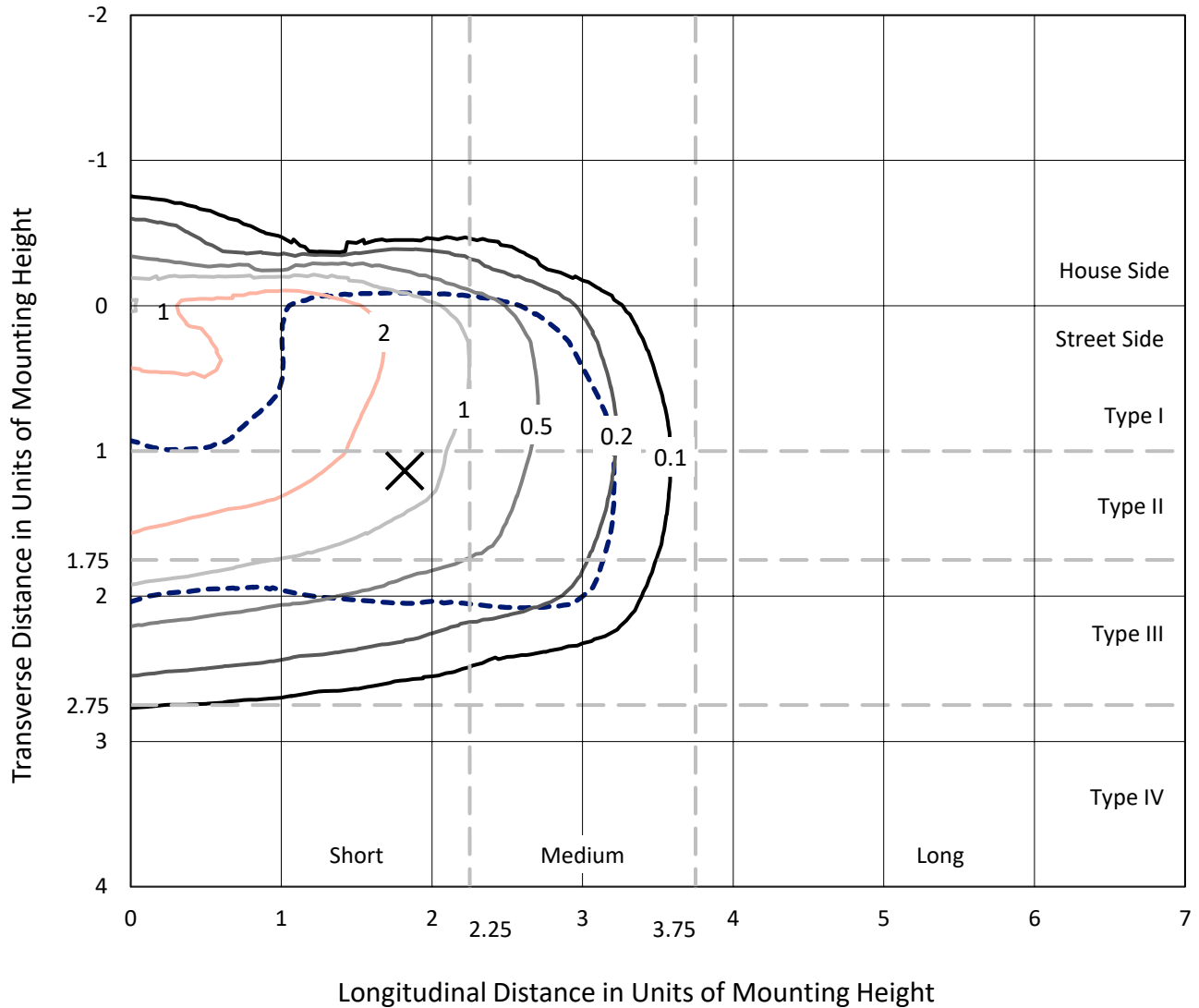
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

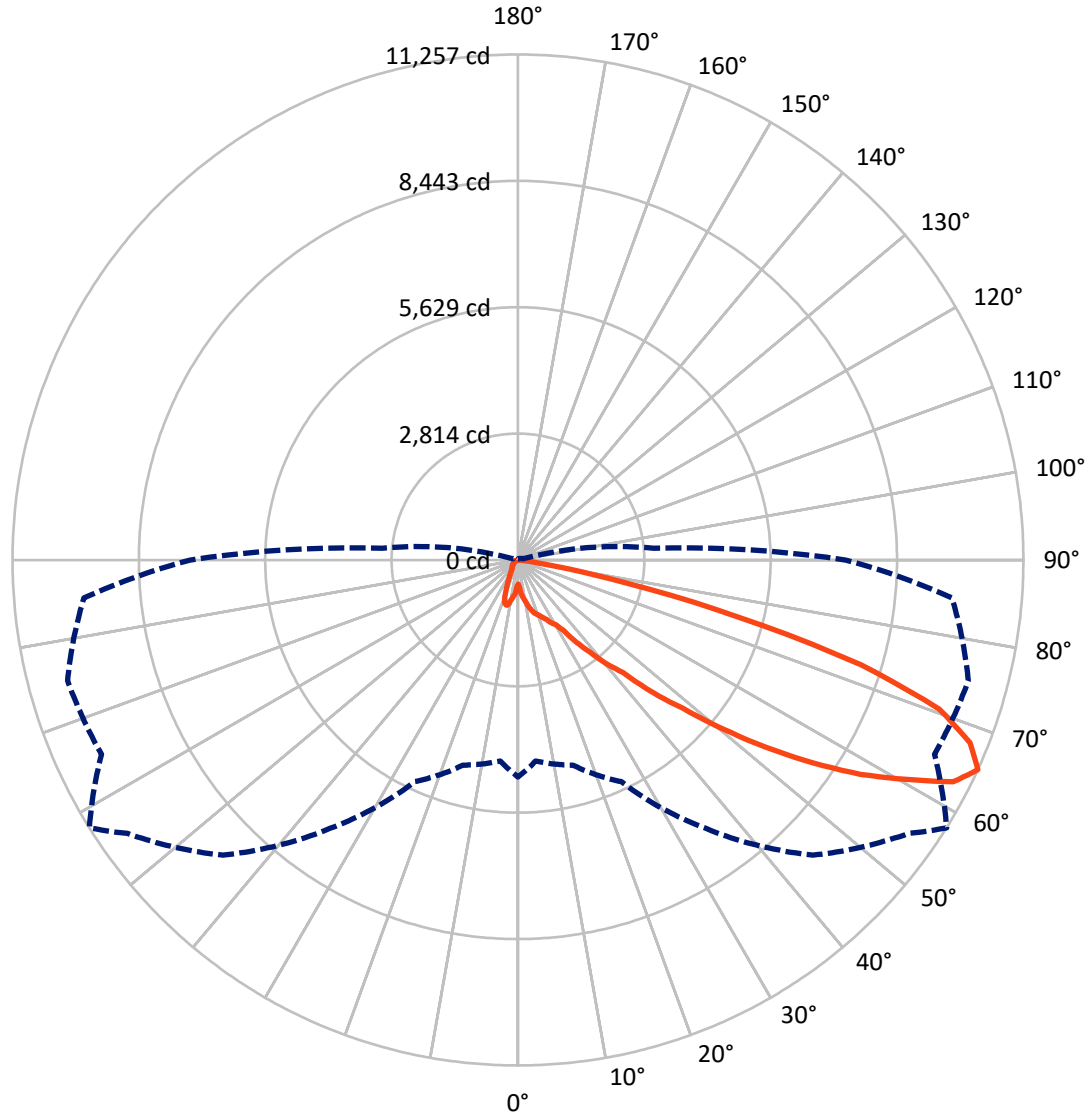
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 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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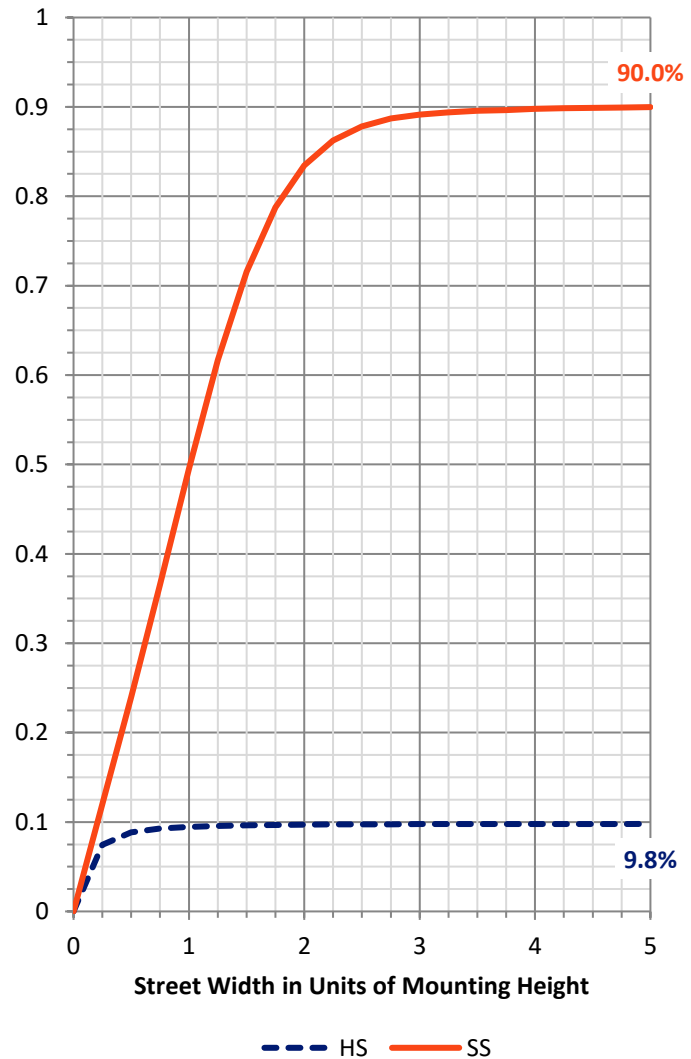
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1321.0	0.0	1321.0
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	12066.0	0.0	12066.0
	% Fixture	90.1	0.0	90.1
Total	Lumens	13387.0	0.0	13387.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	0.6
10°-20°	274.8	2.1
20°-30°	531.9	4.0
30°-40°	1061.2	7.9
40°-50°	2169.5	16.2
50°-60°	3848.1	28.7
60°-70°	4057.0	30.3
70°-80°	1315.3	9.8
80°-90°	53.8	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°	13387.0	100.0
0°-180°	13387.0	100.0

Coefficient of Utilization



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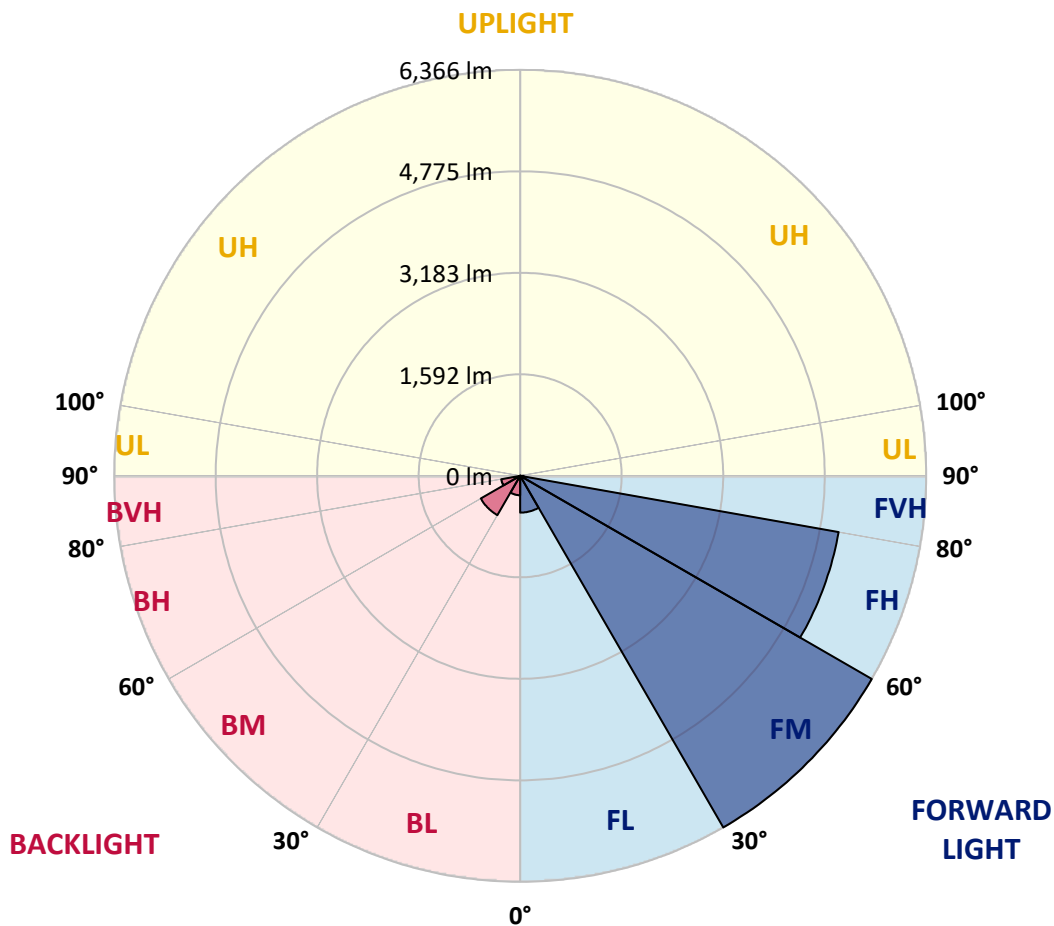
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	577.5	4.3			
FM (30°-60°)	6366.2	47.6			
FH (60°-80°)	5070.8	37.9			G3/7500
FVH (80°-90°)	51.5	0.4			G1/100
BL (0°-30°)	304.5	2.3	B1/500		
BM (30°-60°)	712.7	5.3	B1/1000		
BH (60°-80°)	301.5	2.3	B1/500		G1/500
BVH (80°-90°)	2.3	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9
2.5°	654.2	634.6	603.7	609.0	615.0	627.1	617.3	608.3	598.5	585.6	634.6
5°	789.9	757.5	754.5	747.7	742.4	741.7	753.7	750.0	755.2	779.4	804.2
7.5°	839.7	826.1	800.5	811.0	794.4	781.6	835.1	852.5	885.6	896.9	961.8
10°	834.4	814.8	825.3	830.6	841.9	888.6	922.6	941.4	970.1	1031.9	1019.0
12.5°	858.5	875.8	887.1	887.9	945.9	1031.9	1056.0	1071.8	1123.1	1147.2	1210.5
15°	939.1	967.8	949.7	957.2	976.1	1080.8	1137.4	1172.1	1244.4	1322.8	1338.6
17.5°	1054.5	1072.6	1034.9	1007.7	1059.7	1117.0	1219.5	1255.7	1301.7	1484.8	1518.8
20°	1199.9	1230.8	1149.4	1041.7	1110.2	1178.1	1289.6	1307.0	1356.0	1594.9	1648.4
22.5°	1539.9	1493.9	1369.5	1201.4	1181.1	1211.2	1317.5	1385.4	1468.3	1656.7	1781.1
25°	1875.3	1859.5	1676.3	1488.6	1352.9	1285.1	1426.1	1463.7	1599.4	1803.7	1872.3
27.5°	2248.4	2280.0	1974.0	1860.2	1594.1	1372.5	1493.9	1588.1	1748.7	1857.2	2022.3
30°	2740.6	2690.1	2331.3	2217.5	1913.7	1613.0	1669.5	1675.5	1911.5	2033.6	2190.3
32.5°	3126.5	3158.9	2708.2	2533.3	2290.6	1983.1	1801.4	1879.8	2048.6	2320.7	2469.2
35°	3544.0	3541.0	3101.6	2866.4	2549.1	2285.3	2192.6	2249.9	2461.7	2770.0	2809.2
37.5°	4168.1	4114.6	3596.0	3251.6	2981.8	2756.4	2685.5	2609.4	2828.0	3122.0	3268.9
40°	4756.8	4572.1	4092.8	3684.2	3339.0	3247.1	2990.8	3037.5	3102.4	3490.5	3896.8
42.5°	5351.5	5236.9	4596.2	4254.1	3829.7	3611.1	3443.8	3421.9	3730.2	4190.0	4609.8
45°	6136.1	5785.6	5273.1	4972.4	4480.9	4261.6	4126.7	4207.3	4484.7	5156.3	5435.9
47.5°	6794.9	6472.3	6032.1	5575.3	5059.8	5306.3	5053.0	4925.6	5306.3	6000.4	6372.0
50°	7360.9	7001.4	6555.9	6217.5	6133.9	6370.5	5858.0	5904.7	6151.9	6967.5	7177.0
52.5°	7772.5	7394.1	7005.2	6841.6	7184.6	7303.6	7046.6	6943.4	7168.0	7792.1	7893.8
55°	8082.3	7694.8	7391.1	7616.4	8279.7	8240.5	8331.0	7978.2	8193.1	8652.1	8603.8
57.5°	8101.1	7642.1	7464.2	7826.7	8737.2	9344.0	9608.6	9008.6	9130.7	9324.4	9215.9
60°	7508.7	7051.9	7037.6	7552.4	8869.9	9629.7	10208.5	9916.1	9752.5	9896.5	9690.7
62.5°	6328.3	6008.7	6158.0	6727.0	8376.2	9472.1	10528.1	10880.1	10243.2	10275.6	9983.2
65°	4832.2	4496.8	4730.4	5447.2	7296.9	9295.8	10618.6	11257.0	10234.2	10383.4	9702.8
67.5°	3200.3	3005.9	3270.4	4060.3	5801.5	8205.9	10571.8	10861.3	9909.3	9962.1	8661.9
70°	1652.2	1604.7	1818.8	2442.1	3900.6	6304.2	10112.8	9954.5	9249.8	8582.0	6681.1
72.5°	529.1	531.4	737.1	1115.5	2102.9	3838.0	7773.2	7990.3	7401.6	6277.8	4079.2
75°	234.4	230.6	308.3	468.1	876.6	1720.8	4829.2	5063.6	4608.3	3453.6	1714.7
77.5°	168.8	163.6	197.5	273.6	434.1	583.4	2264.2	2443.6	2089.3	1196.9	392.7
80°	119.1	118.3	143.2	192.2	271.3	259.3	715.3	802.0	642.2	290.2	115.3
82.5°	67.1	69.3	99.5	135.7	165.1	129.6	201.2	221.6	216.3	154.5	50.5
85°	32.4	36.2	64.8	98.0	86.7	50.5	71.6	77.6	90.4	89.7	25.6
87.5°	0.0	0.0	26.4	44.5	23.4	7.5	21.9	24.9	24.1	28.6	6.0
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°	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9	535.9
2.5°	644.4	639.9	582.6	587.2	600.0	594.7	599.2	588.7	576.6	625.6	624.8
5°	814.8	780.9	762.8	746.2	749.2	715.3	734.9	743.9	742.4	770.3	777.8
7.5°	964.0	918.8	882.6	847.9	795.2	747.7	777.1	795.9	808.8	857.0	875.8
10°	1034.1	997.2	982.9	915.0	877.3	847.9	812.5	786.9	797.4	784.6	797.4
12.5°	1187.9	1163.0	1108.0	1039.4	994.2	933.9	802.0	691.9	624.1	624.8	620.3
15°	1328.1	1326.6	1244.4	1130.6	999.4	827.6	621.8	483.1	419.1	401.0	395.0
17.5°	1511.2	1488.6	1338.6	1170.5	934.6	640.7	423.6	330.9	324.9	335.4	330.9
20°	1628.1	1594.9	1385.4	1112.5	770.3	433.4	319.6	293.2	311.3	326.4	322.6
22.5°	1744.9	1695.1	1420.8	1041.7	548.0	317.3	288.7	284.2	295.5	314.3	317.3
25°	1809.0	1799.2	1490.1	909.0	375.4	278.1	278.1	276.6	280.4	294.0	291.7
27.5°	1995.1	1862.5	1438.1	709.3	290.2	255.5	259.3	257.8	244.2	257.8	258.5
30°	2111.2	2050.1	1441.9	505.0	255.5	226.1	235.9	223.9	203.5	214.8	212.6
32.5°	2344.9	2192.6	1430.6	340.7	232.9	215.6	200.5	183.2	168.1	172.6	168.8
35°	2617.0	2500.9	1277.6	273.6	217.1	190.7	166.6	149.2	133.4	137.2	136.4
37.5°	3158.1	2789.6	1150.9	246.5	206.5	174.9	147.0	122.9	114.6	116.8	119.1
40°	3659.4	3271.2	915.0	234.4	188.4	156.0	121.4	104.0	98.7	100.2	102.5
42.5°	4408.6	3654.1	691.2	222.4	170.3	131.9	101.0	89.7	84.4	87.4	88.9
45°	5133.7	3979.7	516.3	211.8	155.3	113.8	85.2	77.6	71.6	73.9	76.9
47.5°	5858.0	4341.5	385.2	195.2	138.7	98.0	73.1	67.8	64.1	64.8	68.6
50°	6506.2	4510.3	303.0	174.9	125.1	85.2	66.3	61.1	59.5	60.3	63.3
52.5°	6982.6	4511.8	255.5	156.8	112.3	75.4	62.6	56.5	55.8	57.3	60.3
55°	7412.9	4391.2	221.6	140.9	101.0	68.6	59.5	54.3	54.3	55.8	58.8
57.5°	7698.6	4169.6	192.2	124.4	91.2	64.8	57.3	52.0	51.3	50.5	52.8
60°	7838.0	3867.4	162.8	109.3	82.2	62.6	55.8	46.0	45.2	43.7	45.2
62.5°	7749.9	3489.0	136.4	94.2	73.1	59.5	49.0	39.9	38.4	35.4	37.7
65°	7299.1	3029.2	115.3	80.6	63.3	50.5	41.5	33.9	30.1	26.4	25.6
67.5°	6377.3	2460.9	96.5	69.3	54.3	41.5	33.9	30.1	23.4	20.4	19.6
70°	4779.4	1680.1	79.9	59.5	45.2	35.4	28.6	27.1	21.9	19.6	18.1
72.5°	2803.9	906.7	67.1	52.0	38.4	29.4	23.4	24.9	21.9	18.1	16.6
75°	1120.0	301.5	53.5	41.5	30.9	21.1	19.6	20.4	19.6	16.6	13.6
77.5°	255.5	95.0	41.5	32.4	24.1	13.6	15.8	17.3	17.3	13.6	9.8
80°	79.9	37.7	24.1	20.4	17.3	7.5	11.3	12.1	8.3	3.8	0.0
82.5°	25.6	10.6	8.3	8.3	7.5	1.5	2.3	1.5	0.0	0.0	0.0
85°	9.8	6.8	5.3	5.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	3.0	2.3	3.0	1.5	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)