

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: P597033

Luminaire Tested: **MSA-SA3B-835-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-835-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10023 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

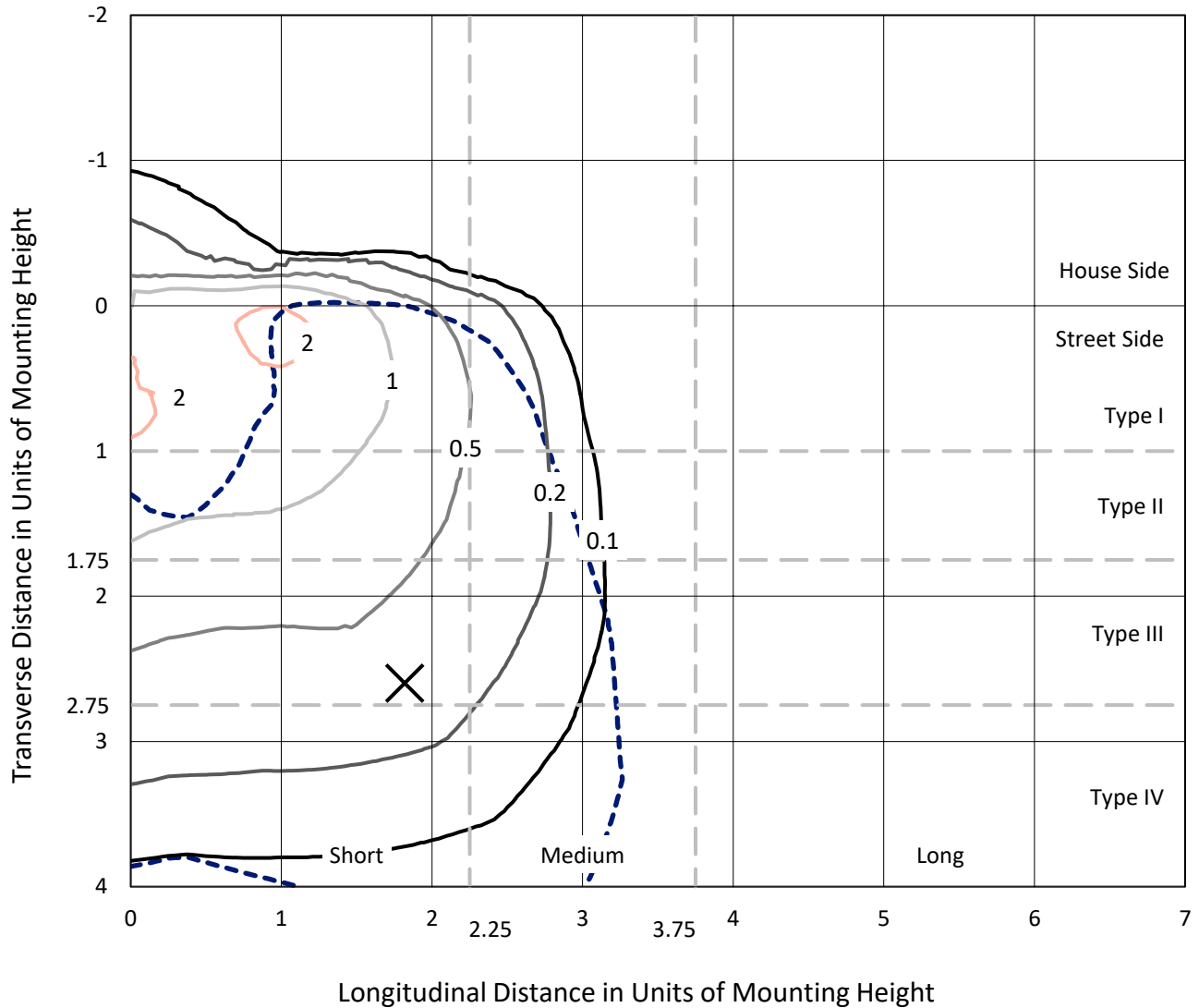
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

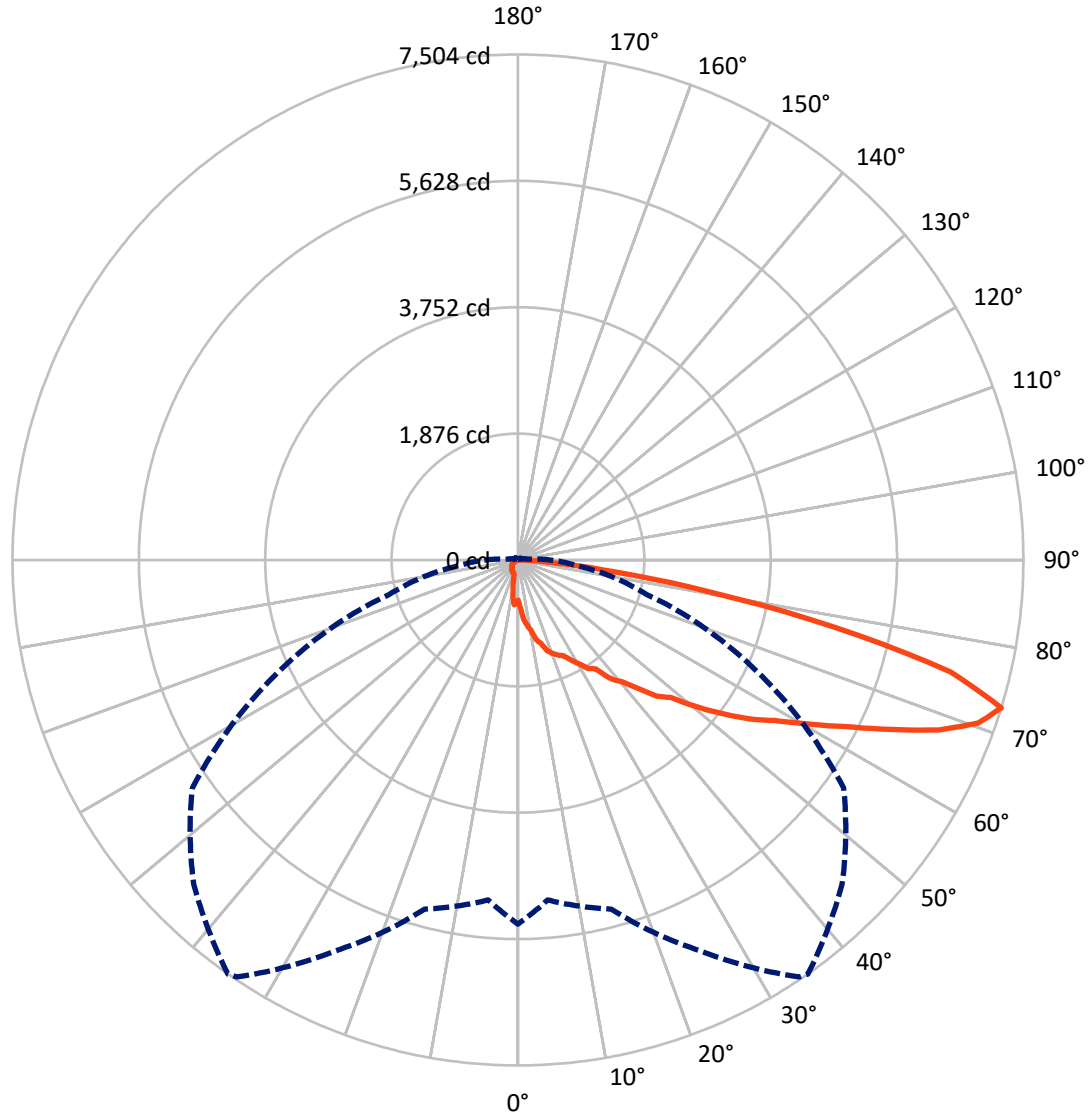
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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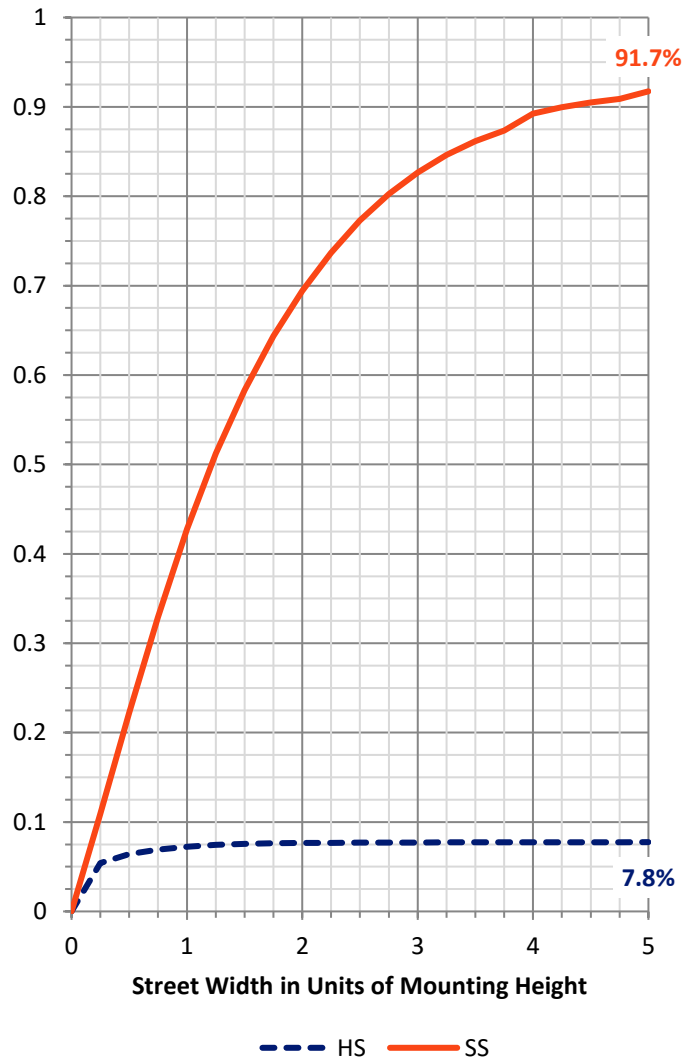
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	781.8	0.0	781.8
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	9241.2	0.0	9241.2
	% Fixture	92.2	0.0	92.2
Total	Lumens	10023.0	0.0	10023.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	0.8
10°-20°	256.5	2.6
20°-30°	467.1	4.7
30°-40°	805.7	8.0
40°-50°	1432.3	14.3
50°-60°	2137.3	21.3
60°-70°	2730.7	27.2
70°-80°	1899.8	19.0
80°-90°	217.3	2.2
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°	10023.0	100.0
0°-180°	10023.0	100.0

Coefficient of Utilization

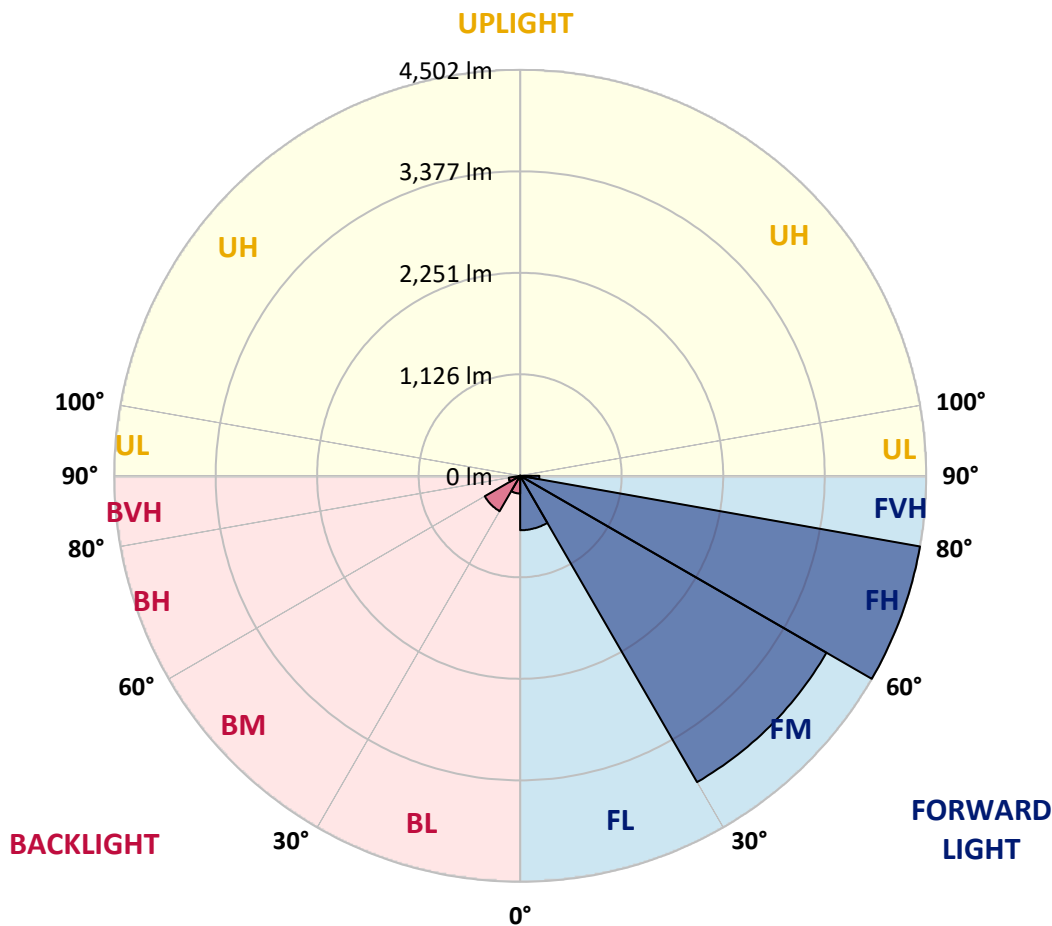


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	603.1	6.0			
FM (30°-60°)	3922.0	39.1			
FH (60°-80°)	4502.4	44.9			G2/5000
FVH (80°-90°)	213.7	2.1			G2/225
BL (0°-30°)	196.6	2.0	B1/500		
BM (30°-60°)	453.3	4.5	B1/1000		
BH (60°-80°)	128.2	1.3	B1/500		G1/500
BVH (80°-90°)	3.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1
2.5°	759.8	730.1	681.7	685.2	706.9	711.4	718.0	700.9	685.7	659.0	710.9
5°	973.4	930.6	903.4	894.8	882.3	883.3	852.5	863.6	860.6	880.2	903.9
7.5°	1093.9	1070.2	1035.9	1026.4	980.0	975.0	937.2	988.1	993.1	986.0	1024.8
10°	1141.7	1110.5	1114.5	1078.8	1055.6	1061.6	1067.7	1071.7	1078.3	1084.8	1037.4
12.5°	1170.0	1175.5	1230.4	1193.1	1216.3	1216.3	1257.1	1213.8	1215.3	1167.9	1176.0
15°	1296.9	1327.7	1303.0	1302.5	1277.3	1283.8	1331.2	1296.9	1314.6	1300.5	1246.0
17.5°	1456.1	1462.2	1415.3	1394.7	1417.3	1417.8	1397.7	1396.2	1334.7	1438.5	1372.5
20°	1507.0	1541.3	1474.8	1394.2	1488.4	1483.9	1482.3	1458.7	1356.4	1500.5	1446.1
22.5°	1645.6	1596.7	1551.4	1498.5	1535.2	1535.2	1529.7	1477.8	1438.0	1494.9	1518.1
25°	1688.9	1695.0	1636.0	1618.9	1619.9	1574.5	1570.5	1548.3	1510.1	1607.3	1560.9
27.5°	1838.1	1835.5	1694.0	1741.8	1680.9	1681.4	1570.0	1619.9	1626.4	1612.8	1664.7
30°	1984.7	2025.5	1811.9	1872.3	1808.3	1789.2	1680.4	1724.7	1736.3	1720.7	1786.2
32.5°	2171.6	2231.6	2024.0	1964.5	1866.8	1921.2	1846.1	1741.3	1798.8	1938.3	1975.1
35°	2369.6	2398.9	2177.7	2094.5	1984.2	1983.7	1981.2	1989.7	2053.2	2210.4	2241.7
37.5°	2725.4	2656.3	2456.3	2265.8	2290.5	2235.6	2197.3	2237.6	2303.6	2562.6	2696.1
40°	2923.9	2874.0	2592.3	2479.5	2357.0	2377.2	2481.0	2476.4	2652.3	2923.4	3123.4
42.5°	3116.8	3069.5	2792.4	2701.2	2544.0	2598.9	2644.2	2701.7	3061.9	3499.3	3609.1
45°	3288.7	3149.6	2954.1	2957.6	2876.0	2882.6	2962.7	3015.6	3536.6	3985.0	4062.1
47.5°	3392.5	3278.1	3090.6	3087.1	3082.1	3051.3	3428.7	3477.1	3915.0	4447.5	4454.6
50°	3538.6	3395.5	3231.2	3234.2	3350.6	3415.6	3866.1	3861.0	4280.3	4833.5	4670.7
52.5°	3720.5	3545.6	3364.7	3499.3	3679.2	3785.0	4150.8	4299.9	4672.8	5075.8	4755.4
55°	3953.3	3734.6	3560.2	3732.6	4125.1	4165.9	4429.4	4744.3	5100.5	5323.2	4782.6
57.5°	4226.3	3965.3	3824.3	4101.9	4493.4	4494.4	4835.0	5217.9	5363.0	5424.0	4751.9
60°	4520.6	4216.3	4074.2	4324.1	4899.5	4940.8	5285.9	5479.4	5629.6	5474.9	4696.9
62.5°	4779.6	4443.5	4333.2	4626.9	5344.9	5442.6	5679.0	5651.2	5822.1	5538.9	4557.4
65°	5087.9	4737.8	4665.2	5099.0	5926.3	6060.9	6120.3	5956.1	5886.5	5489.5	4194.1
67.5°	5393.3	5065.8	5063.7	5622.5	6688.7	6735.0	6672.6	6385.9	5811.5	5054.2	3528.5
70°	5608.4	5256.7	5389.2	6195.9	7381.5	7251.5	6988.5	6588.9	5269.3	3873.6	2305.1
72.5°	5406.4	5067.3	5366.1	6400.0	7467.1	7504.4	6805.6	5902.2	3915.0	1981.2	834.4
75°	4108.4	3900.8	4659.2	5677.9	6629.7	6638.3	5680.5	4162.9	1927.8	538.1	230.8
77.5°	2069.3	2003.3	2949.1	4030.8	4837.0	4822.9	3902.9	2230.1	620.2	178.9	116.4
80°	1047.5	994.6	1255.1	2174.6	2872.5	2893.6	2228.6	998.6	312.9	97.2	80.6
82.5°	643.4	610.7	686.8	984.0	1394.2	1427.9	845.5	632.3	194.0	57.4	73.6
85°	124.5	131.0	394.5	492.8	556.8	543.7	250.4	520.5	58.4	34.3	53.4
87.5°	0.0	2.0	91.2	160.7	161.2	143.1	56.9	115.4	8.1	9.6	6.6
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°	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1	597.1
2.5°	719.5	711.9	649.0	641.9	643.4	632.8	629.3	607.1	601.6	635.9	641.9
5°	893.8	843.5	785.0	763.8	731.1	675.7	667.6	653.5	637.9	643.9	639.4
7.5°	1000.7	933.6	871.2	759.8	667.6	587.0	573.9	549.7	525.5	526.0	541.6
10°	1017.8	961.4	875.2	739.7	634.4	533.6	445.9	382.4	353.7	328.0	335.6
12.5°	1117.0	1064.6	905.9	733.6	586.0	428.8	313.9	251.9	224.7	215.7	214.6
15°	1196.7	1155.3	958.3	715.0	478.7	301.8	224.7	206.6	201.5	210.1	207.6
17.5°	1315.1	1240.5	952.8	637.9	364.8	229.3	207.1	204.6	210.6	215.7	217.2
20°	1367.0	1259.6	915.0	517.0	273.1	210.1	202.0	197.0	208.1	223.2	220.2
22.5°	1419.4	1292.4	870.7	423.2	219.7	201.0	196.5	192.5	201.0	215.7	219.2
25°	1443.0	1344.8	821.3	330.5	204.1	190.5	187.4	188.9	196.0	209.1	207.6
27.5°	1562.5	1350.8	727.1	261.0	197.5	182.9	182.9	186.4	186.4	204.1	202.5
30°	1637.0	1453.1	650.5	219.7	190.0	172.3	178.4	179.9	177.4	196.5	198.0
32.5°	1768.0	1481.3	575.9	201.5	177.9	170.8	169.8	170.8	172.8	191.5	192.0
35°	1969.6	1620.4	474.1	194.5	171.8	163.2	156.2	161.7	166.8	180.4	182.9
37.5°	2363.6	1763.0	386.5	188.9	168.8	156.2	153.7	152.7	161.7	177.4	182.4
40°	2682.5	2015.4	314.4	184.4	162.7	152.2	145.6	146.1	154.2	165.8	173.3
42.5°	3134.0	2197.8	266.5	177.4	154.2	143.6	136.0	140.6	144.1	156.2	161.2
45°	3510.9	2339.4	234.8	172.8	145.6	135.5	129.5	134.5	131.0	137.0	144.1
47.5°	3810.7	2462.8	211.1	161.7	140.1	131.0	123.4	121.9	115.9	117.4	123.9
50°	3975.4	2442.2	191.5	150.7	133.0	126.5	115.9	105.3	97.2	96.7	100.8
52.5°	4033.9	2331.8	175.3	141.1	124.5	116.4	104.3	89.7	81.6	79.1	82.6
55°	4050.0	2173.1	160.7	130.5	116.4	103.8	91.2	75.6	67.0	63.0	66.5
57.5°	3997.6	1928.8	146.6	120.4	106.8	91.7	78.1	62.0	53.9	48.9	51.9
60°	3868.1	1618.4	134.0	107.8	96.7	81.1	66.0	49.9	41.3	36.8	38.3
62.5°	3581.4	1268.7	120.4	96.2	86.2	71.0	55.4	39.3	31.2	27.2	27.7
65°	3145.1	945.7	104.8	85.2	76.6	61.5	44.3	30.2	23.7	20.2	19.7
67.5°	2505.7	640.9	89.2	73.6	68.0	51.9	35.3	23.7	18.6	16.1	15.1
70°	1472.8	323.0	74.1	63.5	58.4	43.3	27.7	19.1	17.1	15.1	14.1
72.5°	485.7	139.6	57.9	52.4	48.4	34.8	21.7	17.6	16.6	14.6	13.6
75°	169.3	80.6	42.8	40.3	38.3	26.2	18.1	16.1	16.1	14.1	12.6
77.5°	110.8	62.5	31.7	29.2	28.7	19.1	15.6	15.1	14.1	11.6	9.6
80°	92.2	35.3	22.2	20.7	20.2	12.1	12.6	11.1	8.6	5.0	2.0
82.5°	85.2	21.2	11.6	12.6	11.6	4.5	7.1	6.0	4.5	2.0	0.0
85°	49.9	9.6	6.6	6.6	5.0	1.0	3.5	3.5	2.0	0.5	0.0
87.5°	5.5	4.5	3.5	3.5	2.5	0.0	1.5	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)