

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: P597139

Luminaire Tested: **MSA-SA4C-835-U-SL2-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597139  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4C-835-U-SL2-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16258 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G3

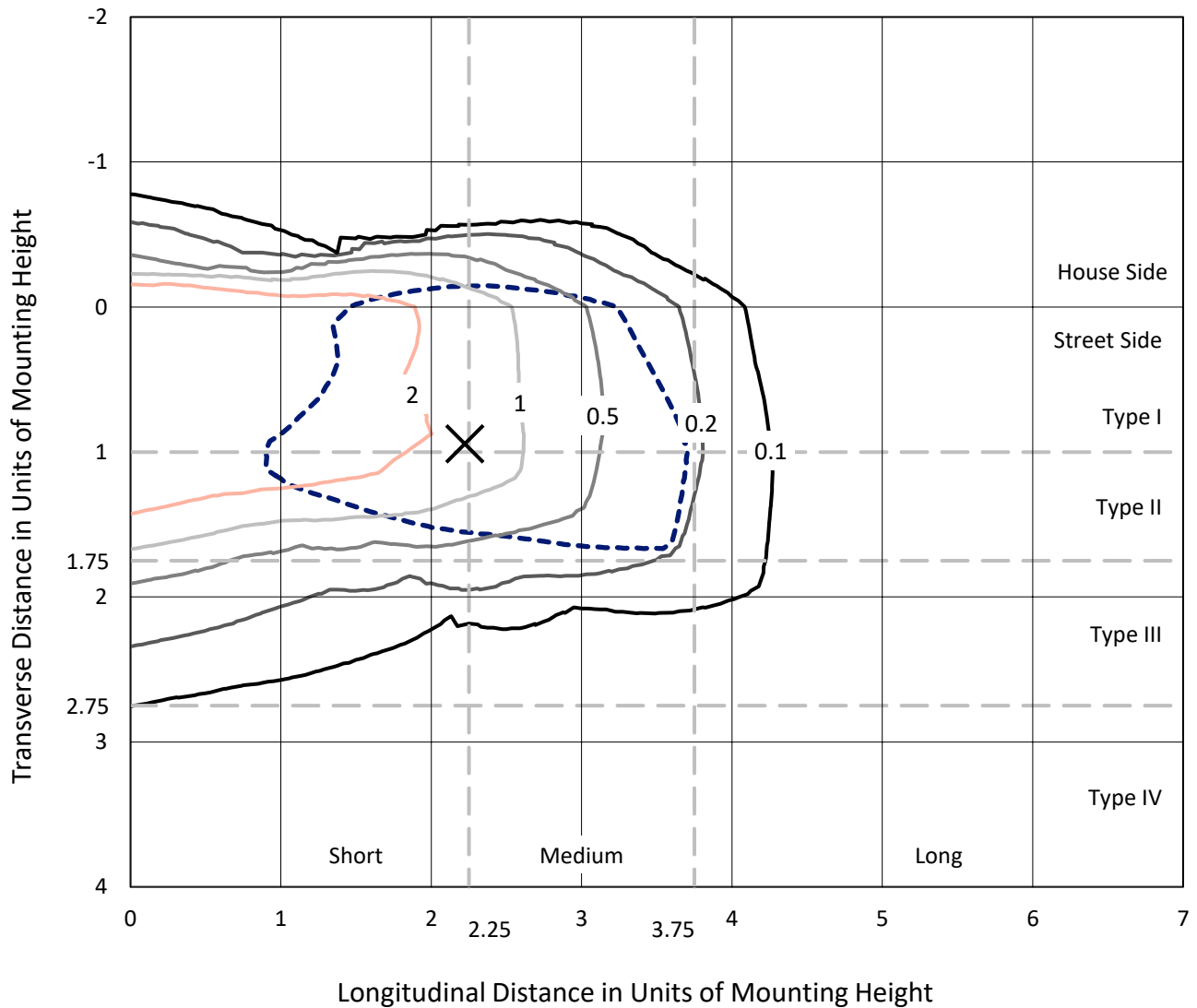
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

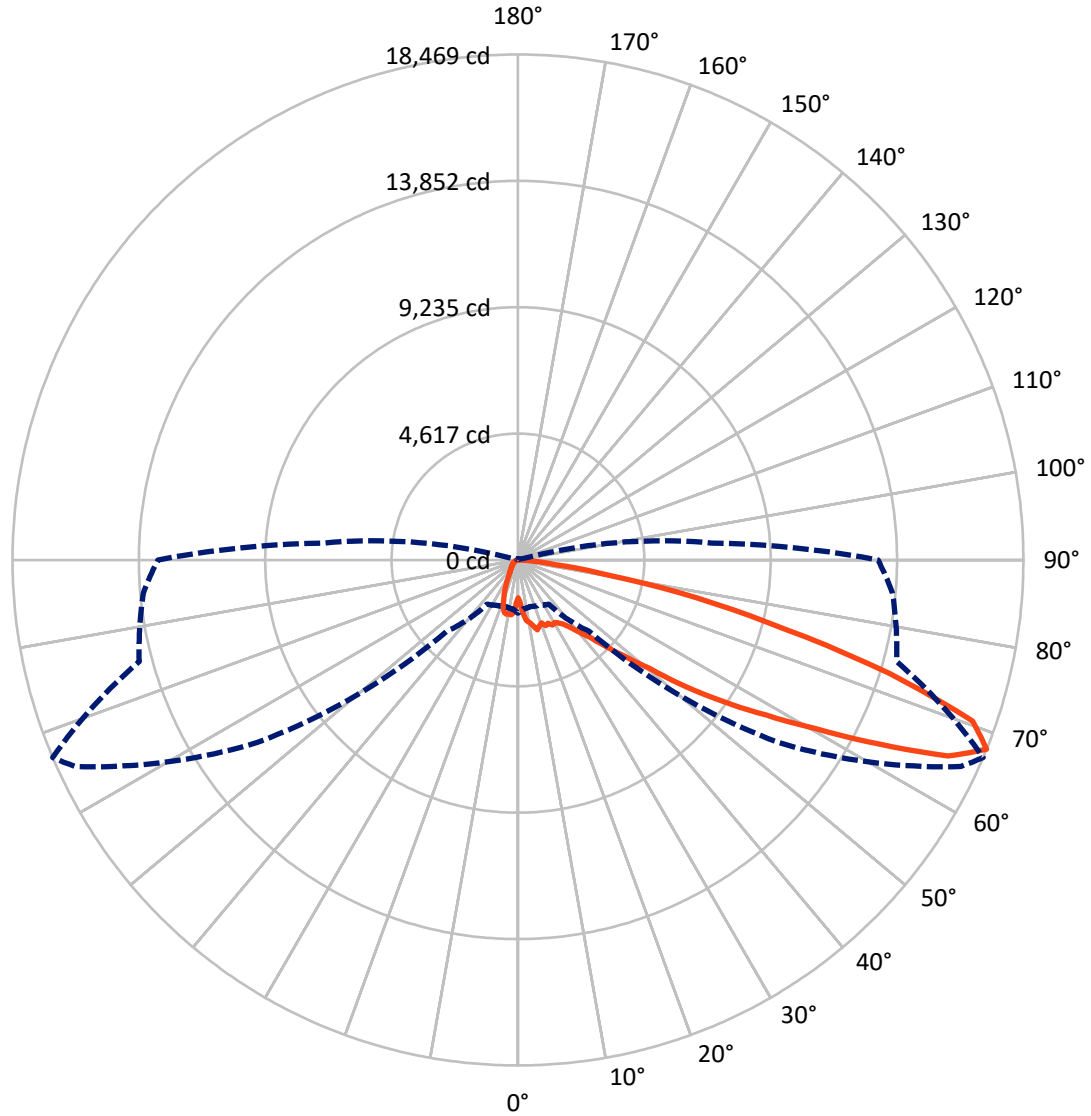
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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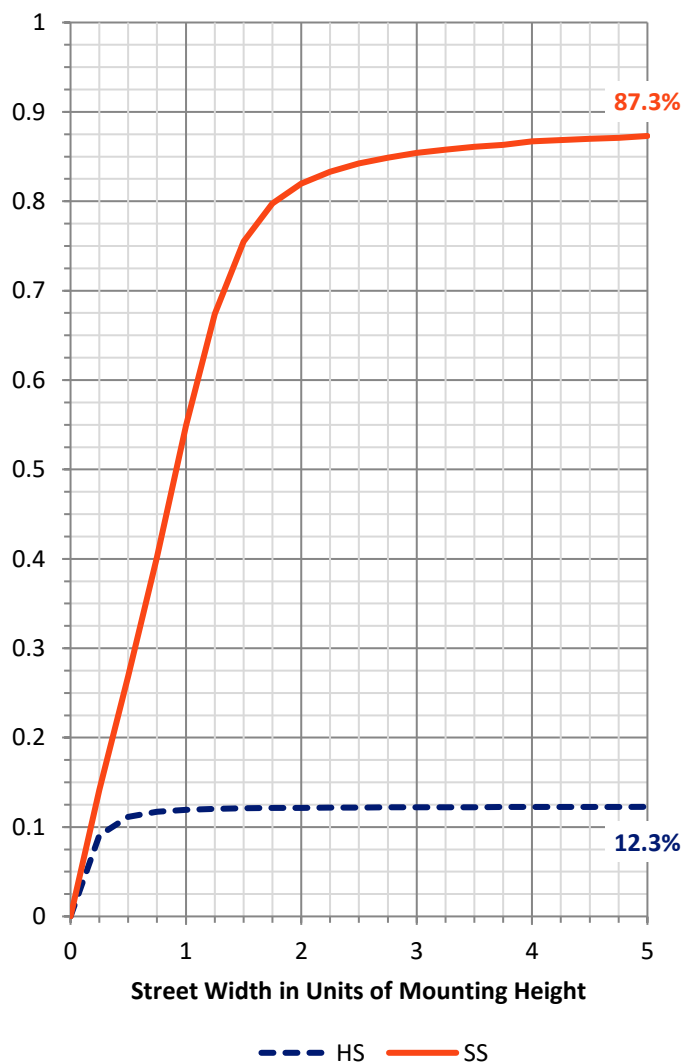
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2010.7	0.0	2010.7
	% Fixture	12.4	0.0	12.4
<b>Street Side</b>	Lumens	14247.3	0.0	14247.3
	% Fixture	87.6	0.0	87.6
<b>Total</b>	Lumens	16258.0	0.0	16258.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.8	1.1
10°-20°	514.3	3.2
20°-30°	806.0	5.0
30°-40°	1299.6	8.0
40°-50°	2388.1	14.7
50°-60°	4033.1	24.8
60°-70°	4458.8	27.4
70°-80°	2333.7	14.4
80°-90°	250.6	1.5
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°	16258.0	100.0
0°-180°	16258.0	100.0

**Coefficient of Utilization**

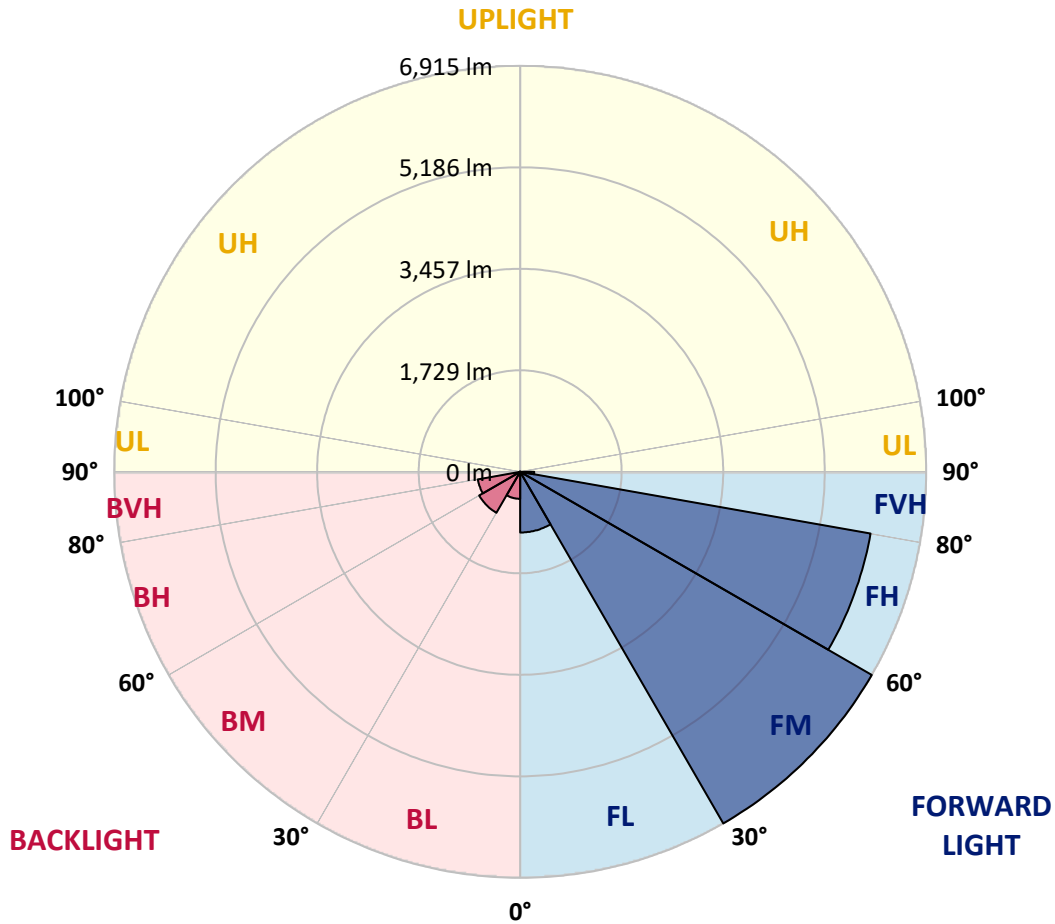


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1033.7	6.4			
FM (30°-60°)	6914.6	42.5			
FH (60°-80°)	6059.1	37.3			G3/7500
FVH (80°-90°)	239.9	1.5			G3/500
BL (0°-30°)	460.4	2.8	B1/500		
BM (30°-60°)	806.2	5.0	B1/1000		
BH (60°-80°)	733.4	4.5	B2/1000		G2/1000
BVH (80°-90°)	10.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7
2.5°	1634.6	1579.4	1485.3	1512.6	1567.0	1612.4	1590.9	1548.8	1549.7	1506.8	1661.0
5°	1901.8	1827.6	1773.2	1792.1	1789.7	1788.0	1889.5	1928.2	1944.7	2015.6	2120.4
7.5°	1978.5	1952.1	1895.2	1912.6	1855.6	1859.8	2037.9	2206.2	2232.6	2276.3	2462.7
10°	1948.8	1897.7	1918.3	1918.3	1919.2	2011.5	2131.1	2291.9	2324.1	2492.3	2512.1
12.5°	1916.7	1919.2	2000.8	1986.0	2098.1	2263.9	2304.3	2484.9	2469.2	2615.2	2832.1
15°	2036.3	2098.9	2046.2	2066.8	2077.5	2272.1	2337.3	2577.3	2646.6	2831.3	2972.3
17.5°	2241.6	2249.9	2140.2	2110.5	2188.0	2243.3	2374.4	2489.9	2536.1	3021.0	3220.6
20°	2278.7	2331.5	2220.2	2048.6	2212.8	2288.6	2380.2	2435.4	2455.2	3079.6	3360.8
22.5°	2502.2	2443.7	2265.5	2135.2	2182.2	2264.7	2321.6	2488.2	2607.0	2969.0	3495.2
25°	2616.9	2601.2	2431.3	2320.0	2272.1	2265.5	2395.8	2522.0	2560.0	3083.7	3528.2
27.5°	2891.5	2856.0	2527.0	2513.0	2355.4	2216.9	2398.3	2625.1	2696.0	2975.6	3651.9
30°	3265.1	3251.9	2814.0	2804.9	2554.2	2305.1	2531.9	2688.6	2645.7	3030.9	3734.4
32.5°	3641.2	3748.4	3300.6	3044.9	2856.9	2629.2	2494.0	2668.8	2745.5	3165.3	3886.1
35°	4095.6	4173.1	3717.1	3531.5	3113.4	2781.0	2745.5	2857.7	2890.7	3325.3	4058.5
37.5°	4890.7	4773.6	4385.1	4069.2	3849.9	3322.8	3148.0	3058.9	3135.6	3542.2	4410.7
40°	5477.9	5403.6	4925.3	4736.4	4231.7	3923.3	3466.3	3383.1	3468.8	3764.9	4655.6
42.5°	6186.3	6032.1	5581.8	5454.0	4934.4	4339.7	3876.2	3905.1	3851.5	4204.5	5085.3
45°	6827.1	6479.1	6228.4	6257.2	5980.1	5176.8	4559.9	4545.9	4501.4	4841.2	5537.3
47.5°	7258.5	6954.1	6710.0	6630.0	6597.0	6649.0	5548.0	5298.9	5265.9	5510.0	6249.0
50°	7490.2	7157.0	6855.2	6871.7	7541.4	8045.3	6567.3	6213.5	6225.9	6480.7	7222.2
52.5°	7334.3	6957.4	6639.1	6948.4	8273.7	8976.4	8254.7	7408.6	7695.6	7630.4	8527.7
55°	6614.4	6286.9	6061.0	6614.4	8353.7	9978.4	10332.2	9207.3	9143.0	8994.5	9858.8
57.5°	5402.8	5120.8	4981.4	5565.3	7478.7	10785.8	12418.8	11240.3	10691.8	10070.0	10964.0
60°	4025.5	3817.7	3672.5	3981.0	5892.7	10001.5	13785.4	13156.1	12521.1	11106.7	11957.0
62.5°	2981.4	2812.3	2658.1	2686.2	4057.7	8602.0	14309.9	15185.8	14821.3	12201.1	12893.9
65°	2379.4	2225.1	2117.1	2055.2	2513.0	6471.7	13580.0	16849.3	17269.9	13232.0	13570.1
67.5°	1943.1	1812.8	1759.2	1830.1	1971.1	3689.0	11630.4	17858.8	18469.1	14325.6	13736.7
70°	1581.0	1473.8	1468.0	1659.4	1815.2	2249.0	8554.9	17161.9	17621.2	14512.0	12738.0
72.5°	1101.8	1054.8	1129.9	1401.2	1798.7	1873.0	4912.9	14201.9	14218.4	12817.2	10477.4
75°	623.5	616.1	734.8	1117.5	1751.7	1854.0	2738.9	10036.2	10043.6	9693.9	7258.5
77.5°	343.1	320.8	428.0	755.5	1504.3	1811.1	1766.6	6852.7	6677.0	5394.6	3315.4
80°	158.3	149.3	231.7	484.1	1100.2	1713.0	1416.1	3766.6	3396.2	1757.5	809.1
82.5°	65.2	61.9	106.4	310.9	695.2	1379.8	1193.4	1670.9	1341.0	334.0	249.9
85°	11.5	12.4	43.7	188.0	389.3	635.9	967.4	793.4	583.1	92.4	136.9
87.5°	0.0	0.0	9.1	45.4	94.0	174.0	392.6	221.9	152.6	27.2	40.4
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°	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7	1384.7
2.5°	1691.5	1677.5	1535.7	1542.2	1552.1	1543.1	1541.4	1501.8	1465.5	1585.1	1583.5
5°	2139.4	2039.6	1941.4	1903.5	1821.8	1714.6	1715.4	1681.6	1647.0	1695.6	1695.6
7.5°	2458.5	2320.8	2196.3	1974.4	1758.3	1562.9	1545.5	1499.4	1446.6	1510.1	1522.5
10°	2532.8	2413.2	2252.3	1926.6	1722.0	1531.5	1322.0	1149.7	1069.7	1032.6	1026.0
12.5°	2761.2	2672.1	2312.5	1952.1	1657.7	1335.2	992.2	787.6	648.2	637.5	622.7
15°	2913.8	2851.1	2371.9	1888.6	1385.6	960.0	623.5	478.3	422.3	417.3	409.9
17.5°	3150.5	3041.6	2315.0	1686.6	1083.7	633.4	419.0	377.7	384.3	399.2	387.6
20°	3247.0	3034.2	2191.3	1393.8	761.2	424.7	363.7	341.4	358.8	372.8	366.2
22.5°	3345.9	3055.6	2081.6	1148.9	497.3	351.3	324.1	312.6	314.2	328.2	329.1
25°	3345.1	3115.0	1954.6	894.8	370.3	312.6	292.8	277.9	272.2	282.1	279.6
27.5°	3507.6	3046.6	1722.9	663.9	325.8	279.6	260.6	242.5	221.9	231.7	231.7
30°	3508.4	3157.9	1561.2	476.7	298.6	249.1	232.6	204.5	180.6	188.9	189.7
32.5°	3601.6	3061.4	1411.9	364.5	277.1	230.9	194.6	169.1	155.0	160.0	160.0
35°	3708.0	3143.9	1182.7	321.6	255.7	205.4	166.6	146.0	135.3	139.4	139.4
37.5°	4059.3	3126.6	1023.5	299.4	241.6	185.6	151.8	128.7	123.7	126.2	129.5
40°	4186.3	3249.4	807.4	286.2	218.6	167.4	133.6	116.3	109.7	111.3	112.2
42.5°	4509.6	3276.7	644.9	275.5	197.9	145.2	118.8	106.4	98.1	98.1	100.6
45°	4866.7	3345.1	513.0	266.4	180.6	130.3	107.2	97.3	84.9	83.3	86.6
47.5°	5383.9	3607.4	418.1	248.2	160.0	121.2	99.0	84.1	74.2	70.9	74.2
50°	6249.0	4052.7	369.5	226.0	145.2	113.8	87.4	71.8	64.3	60.2	62.7
52.5°	7469.6	4822.2	343.9	205.4	132.0	102.3	78.3	62.7	55.3	52.0	53.6
55°	8825.5	5704.7	331.5	184.7	120.4	89.9	68.5	55.3	48.7	44.5	45.4
57.5°	10079.1	6534.4	319.2	164.9	108.9	80.0	60.2	48.7	42.1	37.9	38.8
60°	11314.5	7196.6	289.5	141.9	98.1	71.8	52.8	42.1	37.9	33.0	33.0
62.5°	12407.3	7592.5	246.6	122.9	88.2	63.5	47.0	37.9	34.6	29.7	29.7
65°	13151.2	7610.6	198.8	105.6	77.5	54.4	41.2	35.5	32.2	26.4	25.6
67.5°	13161.9	7115.8	159.2	94.0	68.5	47.8	37.1	33.8	29.7	24.7	23.1
70°	11780.5	5878.7	132.8	82.5	59.4	42.1	32.2	32.2	28.9	23.9	21.4
72.5°	9423.4	4492.3	111.3	71.8	52.8	36.3	29.7	30.5	28.0	23.9	21.4
75°	6333.9	2576.5	92.4	61.0	46.2	30.5	28.9	29.7	28.9	23.9	20.6
77.5°	2917.1	820.6	71.8	50.3	39.6	25.6	28.0	28.0	26.4	21.4	18.1
80°	657.3	202.1	52.0	37.1	32.2	19.0	25.6	23.1	20.6	14.8	10.7
82.5°	239.2	61.9	31.3	23.1	19.8	7.4	16.5	16.5	14.8	10.7	6.6
85°	136.9	32.2	17.3	14.8	10.7	3.3	9.1	9.9	8.2	7.4	3.3
87.5°	44.5	7.4	8.2	9.1	8.2	1.6	3.3	3.3	2.5	1.6	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)