

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: P597076

Luminaire Tested: **MSA-SA3D-835-U-SL3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597076
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3D-835-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16101 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

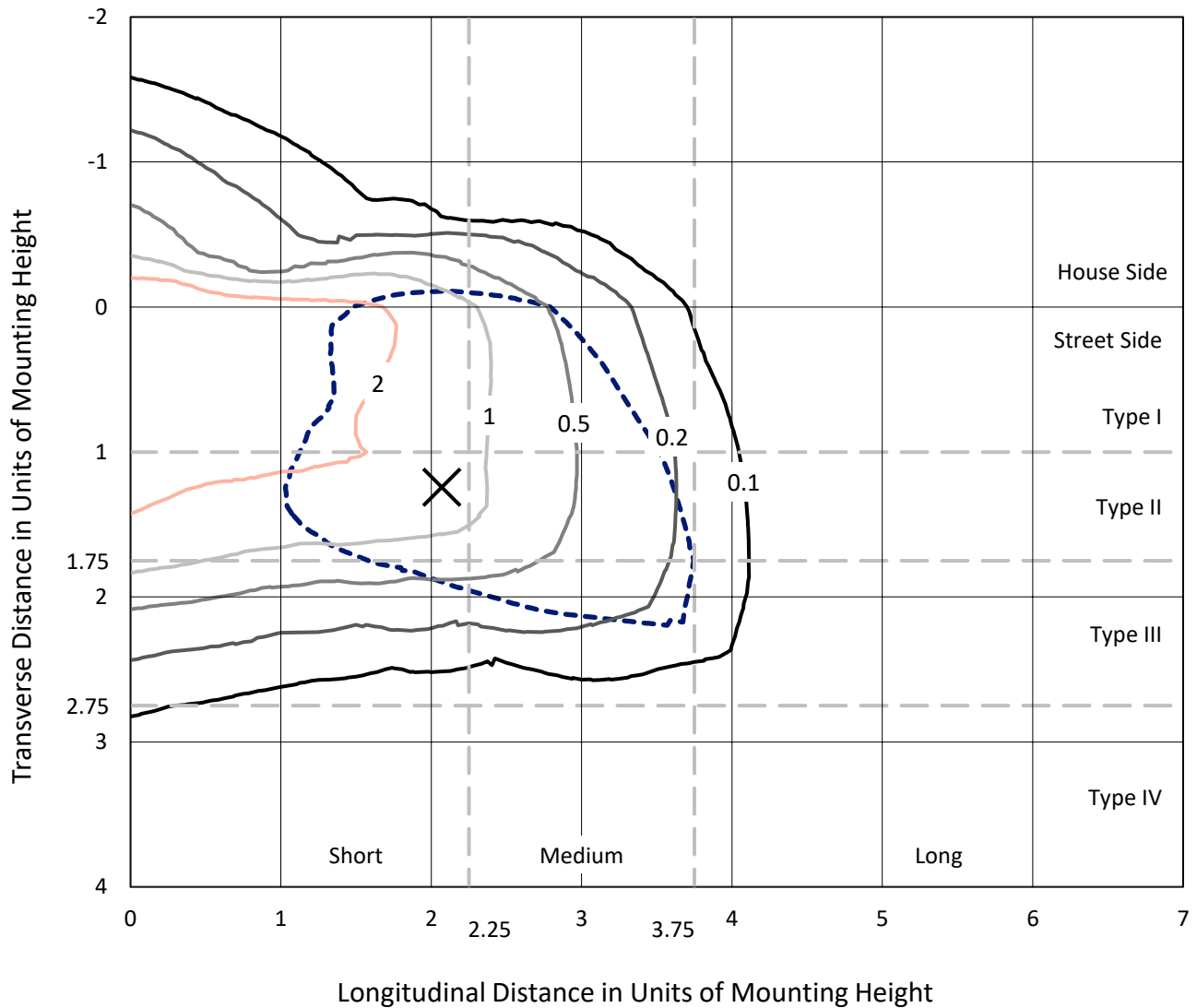
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

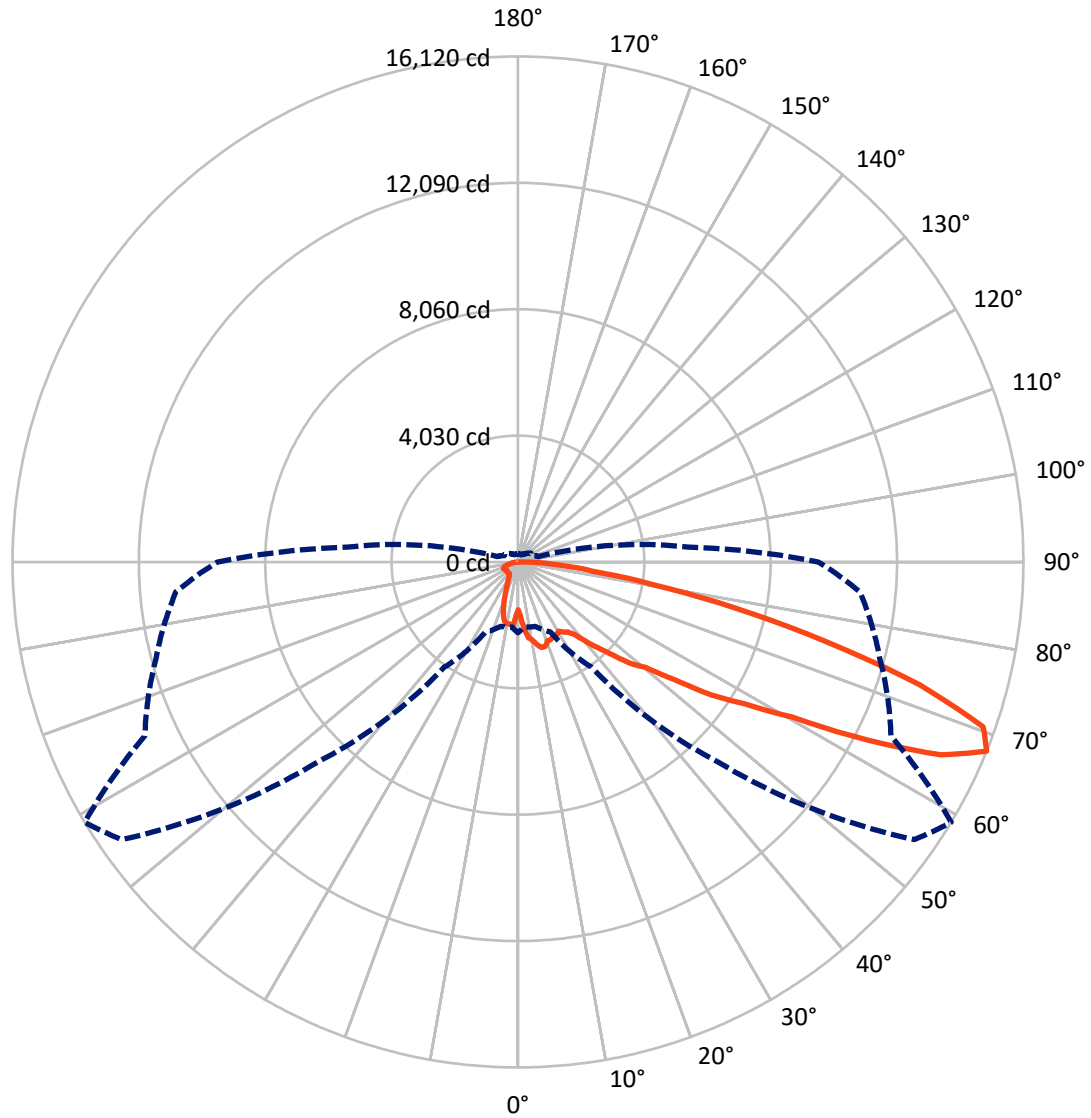
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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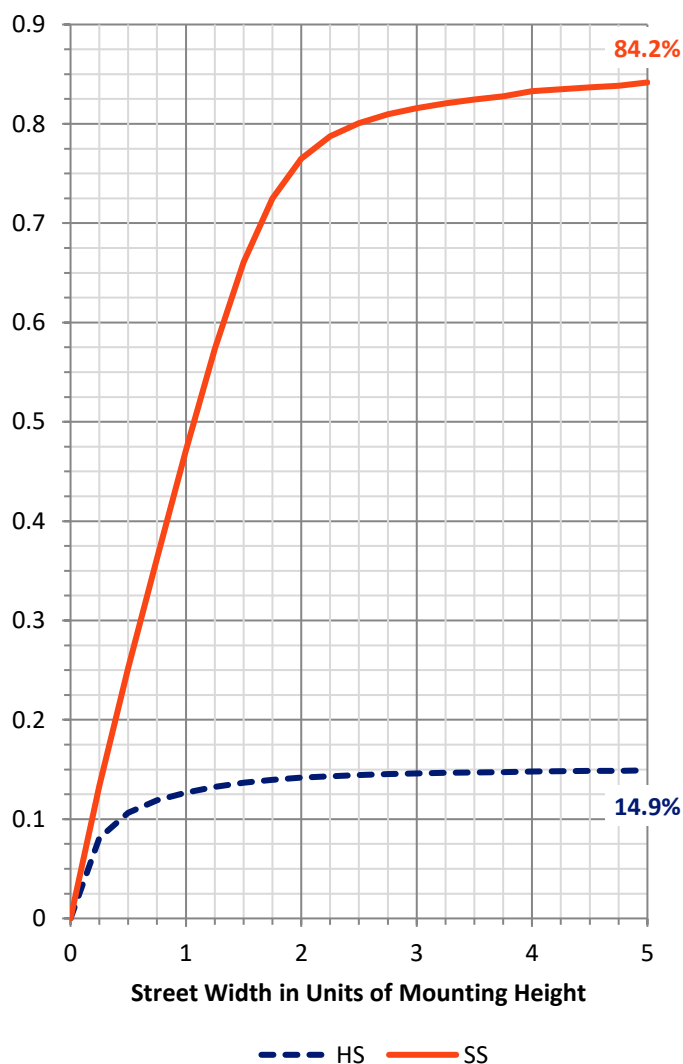
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2423.5	0.0	2423.5
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	13677.5	0.0	13677.5
	% Fixture	84.9	0.0	84.9
Total	Lumens	16101.0	0.0	16101.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.0	1.2
10°-20°	588.8	3.7
20°-30°	840.9	5.2
30°-40°	1239.2	7.7
40°-50°	2093.6	13.0
50°-60°	3643.2	22.6
60°-70°	4642.6	28.8
70°-80°	2458.3	15.3
80°-90°	395.5	2.5
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°	16101.0	100.0
0°-180°	16101.0	100.0

Coefficient of Utilization



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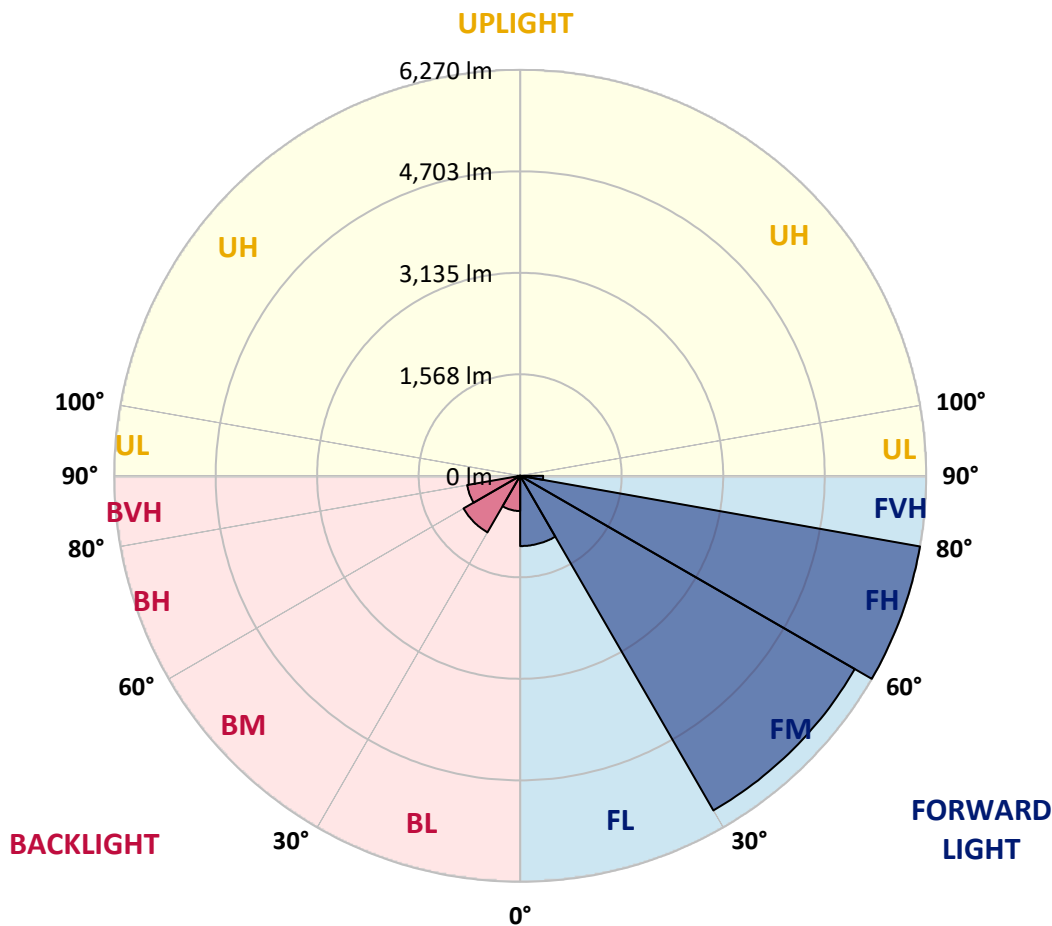
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1085.2	6.7			
FM (30°-60°)	5966.8	37.1			
FH (60°-80°)	6270.2	38.9			G3/7500
FVH (80°-90°)	355.2	2.2			G3/500
BL (0°-30°)	543.5	3.4	B2/1000		
BM (30°-60°)	1009.1	6.3	B2/2500		
BH (60°-80°)	830.6	5.2	B2/1000		G2/1000
BVH (80°-90°)	40.3	0.3			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6
2.5°	1902.3	1813.6	1719.4	1746.0	1799.9	1824.5	1797.9	1771.9	1738.5	1698.9	1834.0
5°	2306.9	2175.2	2156.1	2155.4	2136.3	2059.9	2158.1	2151.3	2190.9	2231.8	2336.9
7.5°	2422.2	2373.0	2319.8	2345.1	2248.9	2244.8	2397.6	2441.3	2517.7	2492.4	2633.7
10°	2362.8	2307.5	2335.5	2325.3	2334.2	2435.1	2528.6	2531.3	2613.2	2693.7	2603.0
12.5°	2258.4	2262.5	2373.7	2369.6	2512.9	2700.5	2728.5	2706.7	2840.4	2785.8	2863.6
15°	2332.8	2382.6	2354.6	2378.5	2435.1	2673.9	2751.7	2830.9	2957.8	3006.9	2929.1
17.5°	2451.5	2478.1	2352.6	2339.6	2456.3	2569.5	2762.6	2830.2	2850.0	3200.0	3090.1
20°	2401.0	2454.9	2332.1	2174.5	2368.3	2518.4	2708.7	2688.3	2784.5	3215.0	3123.6
22.5°	2544.3	2454.9	2298.7	2186.8	2255.0	2392.8	2554.5	2688.9	2802.9	3127.0	3172.0
25°	2571.6	2529.3	2383.3	2272.1	2248.9	2298.0	2528.6	2616.6	2809.0	3247.1	3146.1
27.5°	2738.1	2674.6	2377.1	2380.5	2265.2	2178.6	2446.7	2631.6	2878.6	3172.7	3209.5
30°	2944.8	2896.4	2523.2	2536.8	2377.1	2217.5	2502.7	2558.6	2918.9	3288.7	3289.4
32.5°	3099.7	3185.0	2810.4	2624.8	2568.2	2448.8	2416.7	2668.5	2871.8	3498.8	3425.8
35°	3378.8	3444.9	3031.5	2882.7	2691.0	2556.6	2650.1	2740.8	3067.6	3775.2	3628.5
37.5°	3895.3	3818.8	3442.2	3208.2	3136.5	2942.8	2994.6	2931.2	3280.5	4085.6	4025.6
40°	4194.1	4127.9	3731.5	3601.9	3318.0	3342.6	3277.8	3324.2	3565.0	4415.9	4396.8
42.5°	4488.9	4400.2	4065.2	3975.1	3691.9	3571.8	3583.4	3733.6	4003.7	4949.4	4886.0
45°	4780.2	4553.0	4406.3	4430.2	4293.7	4047.4	4064.5	4205.7	4482.7	5559.4	5413.4
47.5°	5003.3	4815.7	4701.1	4671.7	4604.2	4933.7	4786.3	4843.7	4965.8	6102.5	6047.2
50°	5425.7	5206.6	5057.2	5014.9	5244.2	5702.7	5402.5	5279.0	5538.9	6804.6	6775.9
52.5°	6101.8	5828.9	5579.9	5577.1	5908.7	6206.2	6417.7	6204.8	6300.4	7523.7	7605.6
55°	6692.0	6376.1	6152.3	6275.8	6748.0	6930.1	7648.6	7482.1	7401.6	8249.7	8483.7
57.5°	6912.4	6543.3	6397.3	6579.4	7275.4	8211.5	8970.9	8532.9	8454.4	9071.2	9561.8
60°	6428.6	6038.4	6047.2	6390.4	7596.1	9152.4	10416.7	10044.8	9585.0	10094.0	10572.9
62.5°	5050.4	4697.6	4927.6	5449.5	7327.2	10066.7	12354.4	12511.4	10876.6	10942.1	11133.8
65°	3432.7	3188.4	3395.8	3906.9	5942.8	10565.4	14200.1	14829.1	12052.9	11497.5	11376.0
67.5°	2259.1	2086.5	2126.7	2466.5	4091.1	9007.1	15434.3	16120.1	13128.2	11953.2	10948.9
70°	1749.4	1610.2	1592.5	1770.6	2426.3	6257.4	14702.9	15745.5	13783.2	11526.1	9543.3
72.5°	1372.8	1267.0	1276.6	1447.8	1879.1	3471.5	11377.4	13389.5	12796.6	9940.4	7332.0
75°	1070.5	983.9	1032.3	1228.1	1737.8	2157.4	7849.9	10162.2	9893.4	7360.7	4181.8
77.5°	777.1	721.2	790.1	1046.0	1633.4	1851.1	4886.6	7089.8	6337.9	3779.3	1434.9
80°	509.7	478.3	534.9	852.9	1481.3	1781.5	3019.9	4344.2	3131.8	1061.7	543.1
82.5°	300.2	286.6	333.6	577.2	1190.6	1669.6	2014.2	2414.0	1281.4	449.0	288.6
85°	157.6	147.4	197.9	331.6	820.8	1524.3	1585.7	1445.1	618.8	195.1	137.8
87.5°	52.5	51.2	83.9	128.3	310.4	809.2	846.1	686.4	255.2	56.6	30.0
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°	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6
2.5°	1852.4	1825.2	1668.2	1690.1	1710.5	1700.3	1694.2	1623.2	1616.4	1717.4	1709.2
5°	2334.2	2220.9	2087.2	2081.0	1993.0	1902.9	1920.7	1892.0	1900.2	1941.8	1945.9
7.5°	2588.7	2447.4	2319.8	2112.4	1936.4	1793.8	1816.3	1809.5	1791.0	1885.2	1910.4
10°	2583.9	2458.3	2314.4	2063.3	1944.6	1828.6	1689.4	1557.7	1518.8	1472.4	1476.5
12.5°	2754.5	2643.2	2329.4	2073.5	1912.5	1712.6	1451.9	1308.0	1170.1	1167.4	1132.6
15°	2807.7	2725.8	2361.4	2014.8	1688.0	1401.4	1131.9	975.7	876.1	856.3	826.9
17.5°	2942.1	2813.8	2263.9	1825.2	1427.4	1095.8	850.8	741.7	733.5	747.1	732.1
20°	2951.0	2742.9	2087.8	1544.7	1146.9	830.4	693.9	639.3	668.7	702.1	700.7
22.5°	2943.4	2653.5	1935.7	1305.9	861.7	667.3	607.9	595.6	622.9	672.7	678.9
25°	2867.0	2624.1	1745.3	1072.6	699.4	571.8	555.4	562.9	597.0	655.7	655.7
27.5°	2946.9	2504.7	1506.5	872.7	588.1	509.0	520.6	539.7	564.9	631.8	644.1
30°	2920.9	2544.3	1314.1	702.8	518.5	465.3	491.3	510.4	539.0	608.6	614.8
32.5°	2990.5	2438.5	1152.4	590.9	472.8	448.3	454.4	480.3	517.9	572.5	583.4
35°	3097.0	2477.4	966.8	531.5	450.3	428.5	440.1	460.6	498.1	551.3	560.2
37.5°	3436.8	2475.4	838.5	498.8	446.2	424.4	429.8	444.2	487.8	536.3	556.8
40°	3655.1	2617.3	721.9	491.3	441.4	422.3	417.6	433.3	468.1	525.4	539.7
42.5°	4065.2	2704.0	671.4	488.5	440.8	410.7	406.0	424.4	458.5	511.7	533.6
45°	4498.4	2827.5	631.1	487.2	438.7	408.7	394.4	417.6	446.2	497.4	522.6
47.5°	5008.1	3088.8	608.6	482.4	434.6	411.4	390.3	401.9	433.9	485.1	510.4
50°	5675.4	3434.7	613.4	475.6	440.8	412.1	384.1	389.6	418.9	468.7	494.7
52.5°	6486.6	3970.3	644.1	478.3	444.9	408.7	381.4	378.7	403.9	447.6	473.5
55°	7464.4	4730.4	736.2	491.3	444.9	408.0	377.3	365.0	384.1	419.6	444.9
57.5°	8644.1	5610.6	916.3	497.4	441.4	403.9	368.4	346.6	358.2	387.5	411.4
60°	9657.3	6320.8	1101.9	501.5	448.3	394.4	350.7	323.4	330.9	353.4	374.6
62.5°	10173.8	6520.1	1157.9	498.1	466.7	388.2	329.6	298.8	299.5	318.6	337.7
65°	10270.7	6254.7	933.4	494.7	490.6	387.5	314.5	277.7	272.9	286.6	302.9
67.5°	9580.2	5429.1	673.4	487.2	493.3	383.5	304.3	260.6	248.4	257.9	271.6
70°	8134.4	4372.2	565.6	472.2	460.6	363.0	286.6	242.9	226.5	233.3	243.6
72.5°	6064.3	3234.8	493.3	440.1	401.2	310.4	259.3	223.1	206.1	210.8	218.3
75°	3369.2	1725.5	412.8	382.8	327.5	251.1	221.1	197.9	182.9	184.9	193.1
77.5°	1119.0	636.6	302.9	303.6	247.7	193.8	182.2	169.2	157.6	158.3	165.1
80°	506.9	352.1	217.0	218.3	172.6	140.6	139.9	135.8	128.3	126.2	131.0
82.5°	294.1	213.6	148.7	141.9	111.2	91.4	101.7	99.6	97.6	90.1	91.4
85°	144.6	114.6	77.8	73.7	61.4	45.7	54.6	56.6	54.6	46.4	45.7
87.5°	35.5	37.5	19.1	17.7	10.2	4.8	8.2	8.2	10.2	6.8	3.4
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)