

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: P597078

Luminaire Tested: **MSA-SA3D-835-U-SL4**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597078
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3D-835-U-SL4
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15984 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

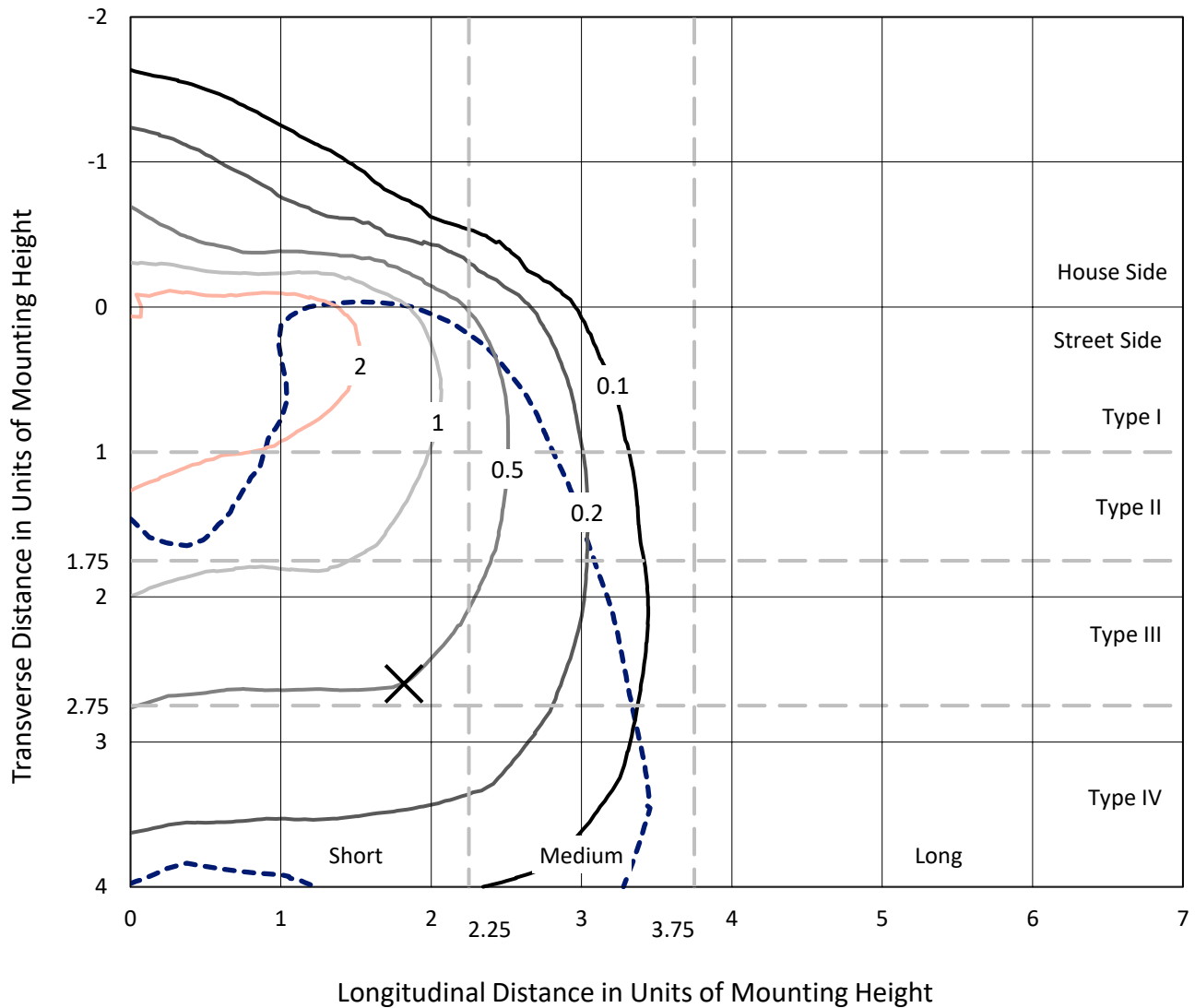
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

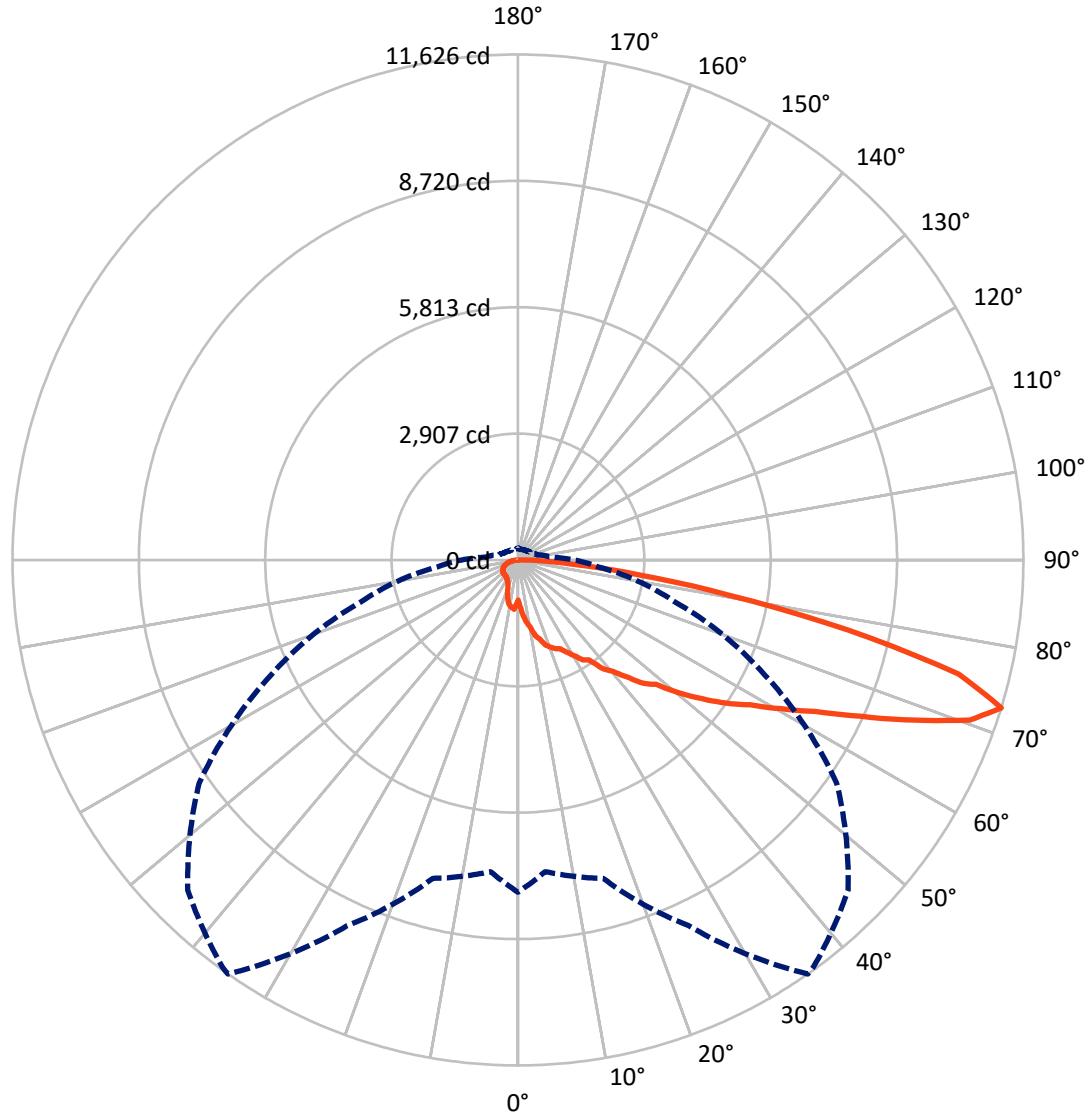
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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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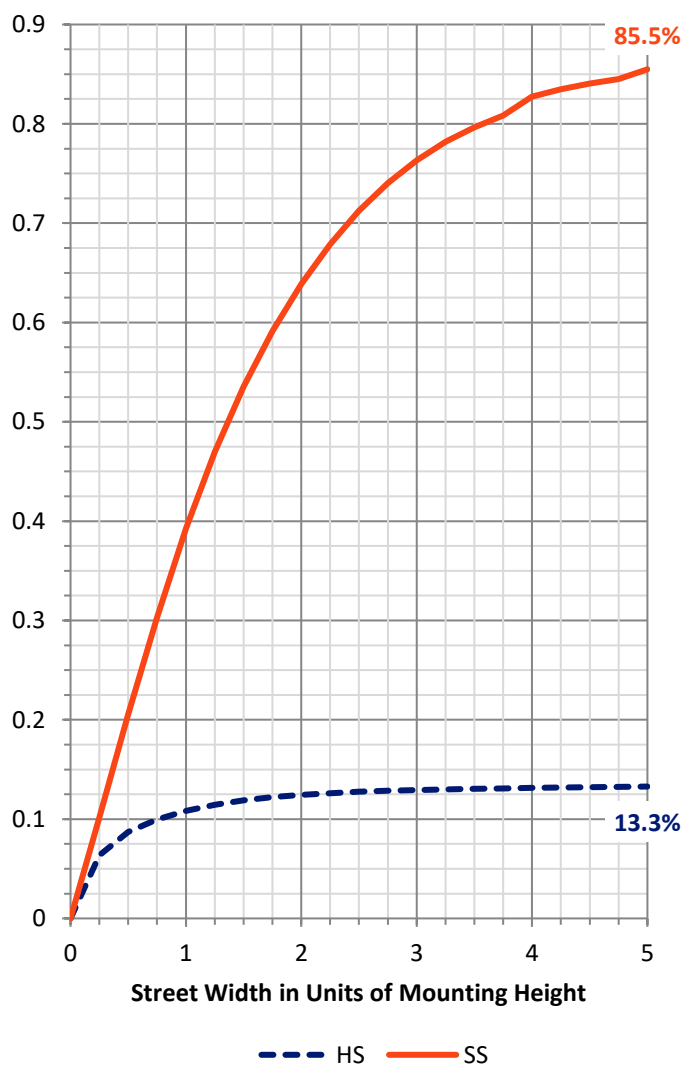
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2145.0	0.0	2145.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	13839.0	0.0	13839.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	15984.0	0.0	15984.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	0.8
10°-20°	432.4	2.7
20°-30°	751.4	4.7
30°-40°	1255.9	7.9
40°-50°	2179.7	13.6
50°-60°	3295.1	20.6
60°-70°	4268.8	26.7
70°-80°	3149.9	19.7
80°-90°	527.9	3.3
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°	15984.0	100.0
0°-180°	15984.0	100.0

Coefficient of Utilization



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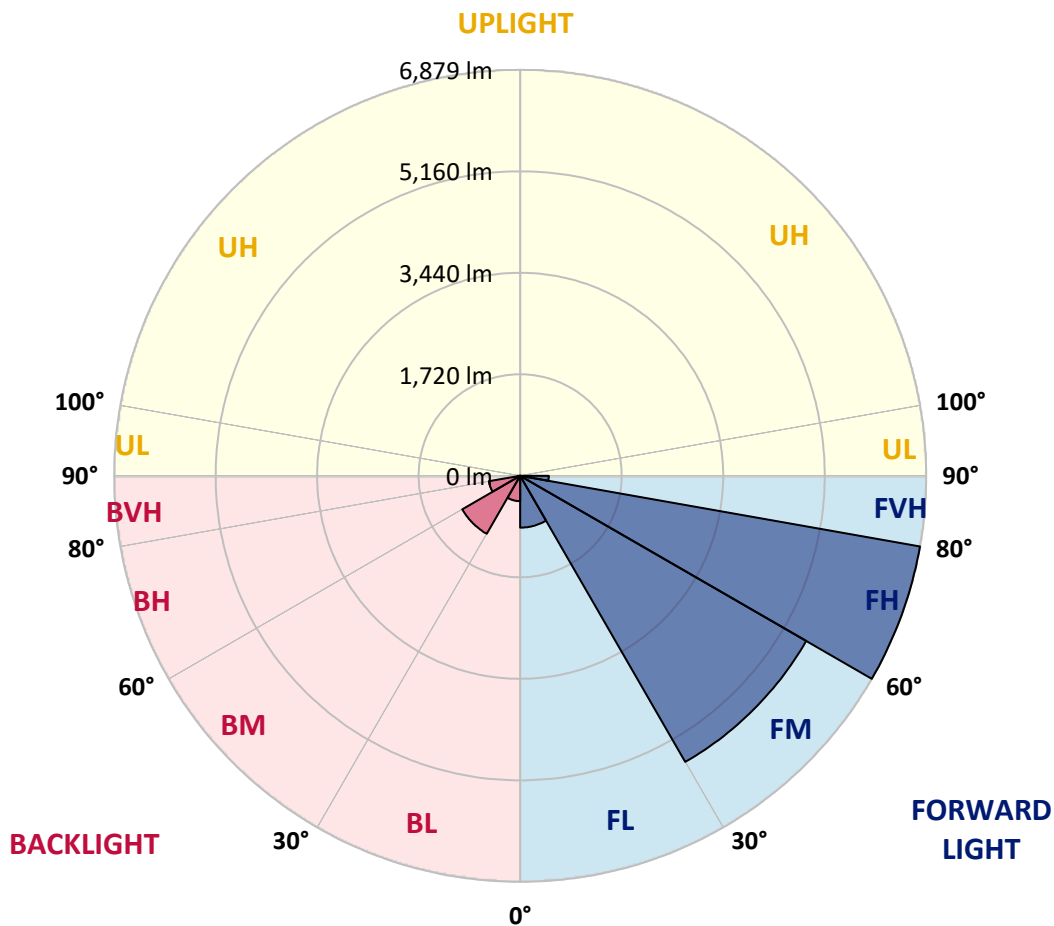
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	877.9	5.5			
FM (30°-60°)	5597.0	35.0			
FH (60°-80°)	6879.4	43.0			G3/7500
FVH (80°-90°)	484.7	3.0			G3/500
BL (0°-30°)	428.8	2.7	B1/500		
BM (30°-60°)	1133.7	7.1	B2/2500		
BH (60°-80°)	539.4	3.4	B2/1000		G2/1000
BVH (80°-90°)	43.2	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7
2.5°	1152.3	1097.0	1049.3	1047.2	1091.5	1108.6	1101.8	1086.8	1069.0	1031.5	1113.4
5°	1443.6	1364.4	1349.4	1331.7	1291.4	1302.4	1236.9	1286.7	1302.4	1338.5	1393.1
7.5°	1615.5	1569.1	1532.9	1517.9	1448.3	1440.2	1391.7	1462.7	1492.7	1487.9	1569.1
10°	1683.0	1640.7	1643.5	1594.3	1571.8	1581.4	1586.8	1588.2	1606.6	1621.6	1580.7
12.5°	1717.8	1734.2	1794.2	1760.8	1789.5	1801.1	1858.4	1799.7	1801.7	1724.6	1766.9
15°	1893.2	1934.1	1899.3	1897.9	1889.1	1908.2	1957.3	1917.7	1948.4	1923.9	1869.3
17.5°	2104.6	2116.9	2050.1	2022.8	2058.2	2052.1	2039.8	2046.0	1969.6	2111.5	2044.6
20°	2169.5	2217.9	2129.9	2022.8	2140.1	2155.8	2153.1	2126.5	1995.5	2200.2	2135.3
22.5°	2357.7	2292.3	2222.7	2154.4	2214.5	2223.3	2208.3	2144.9	2101.2	2179.0	2230.2
25°	2443.0	2427.3	2338.6	2330.5	2264.3	2232.9	2258.8	2240.4	2197.4	2335.9	2279.3
27.5°	2638.1	2619.7	2415.7	2499.6	2403.5	2395.3	2258.1	2319.5	2362.5	2352.3	2436.9
30°	2859.2	2880.3	2582.2	2666.1	2554.9	2539.9	2402.1	2479.9	2509.2	2518.7	2624.5
32.5°	3104.8	3162.8	2866.7	2797.8	2738.4	2748.7	2632.0	2490.1	2604.0	2827.1	2872.8
35°	3370.8	3394.7	3084.3	2980.6	2825.7	2814.8	2816.9	2834.6	2949.9	3204.4	3239.9
37.5°	3862.7	3752.2	3480.0	3217.3	3165.5	3063.8	3132.7	3187.3	3302.6	3692.8	3841.6
40°	4165.6	4083.8	3669.0	3516.8	3373.6	3383.1	3512.1	3511.4	3783.6	4186.1	4413.3
42.5°	4446.0	4356.6	3965.7	3812.9	3677.2	3710.6	3747.4	3812.2	4334.1	4982.9	5086.6
45°	4671.8	4476.0	4195.0	4160.8	4049.0	4004.6	4160.8	4264.5	4992.5	5627.6	5687.6
47.5°	4825.3	4664.3	4389.4	4359.4	4276.8	4385.3	4811.7	4878.5	5502.8	6275.0	6270.3
50°	5058.6	4838.3	4590.0	4574.3	4806.9	4864.9	5384.7	5377.9	5999.4	6812.6	6700.1
52.5°	5327.4	5049.8	4780.3	4948.8	5303.6	5332.2	5783.2	5966.7	6541.8	7331.1	7037.1
55°	5636.5	5326.1	5065.5	5290.6	5818.6	5734.0	6190.4	6638.7	7220.6	7877.6	7280.6
57.5°	6019.2	5642.6	5431.8	5774.3	6288.7	6363.7	6773.7	7337.9	7767.0	8217.3	7458.0
60°	6423.1	5981.0	5787.9	6114.0	6947.0	7033.0	7434.1	7919.2	8379.7	8537.3	7424.6
62.5°	6808.5	6330.3	6155.6	6558.2	7677.0	7889.8	8185.9	8495.0	8889.3	8615.0	7020.0
65°	7237.6	6758.7	6648.9	7252.7	8666.9	8878.4	9265.2	9172.4	9063.9	8339.4	6350.8
67.5°	7692.0	7205.6	7226.0	8058.4	9834.2	9870.3	10464.5	9847.8	8858.6	7609.5	5227.1
70°	7936.2	7438.2	7649.0	8917.3	11021.9	10970.1	11091.5	10029.3	8021.5	6015.1	3602.8
72.5°	7640.2	7196.0	7582.2	9278.8	11626.3	11570.4	10739.5	8952.1	6271.6	3740.6	1867.9
75°	6468.8	6040.4	6631.2	8271.2	10466.6	10518.4	9139.7	6657.1	3590.5	1504.3	775.7
77.5°	4395.5	4174.5	4680.7	6165.2	7774.5	7954.0	6781.2	3892.7	1507.7	622.9	469.4
80°	2323.0	2217.9	2591.7	3551.6	4922.9	5056.6	3987.6	1938.9	772.3	403.2	335.0
82.5°	1262.1	1217.8	1418.3	1826.3	2797.1	2913.8	2067.8	1288.0	520.5	252.4	204.7
85°	848.0	830.9	964.0	981.0	1322.8	1361.0	1083.4	991.9	312.5	123.5	135.1
87.5°	424.3	407.3	507.6	448.2	504.8	505.5	496.7	633.1	79.1	40.9	24.6
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°	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7
2.5°	1114.7	1090.9	1008.3	1007.6	1019.9	1011.7	1017.9	984.4	970.1	1035.6	1032.2
5°	1385.6	1314.0	1245.0	1221.2	1193.2	1132.5	1135.9	1136.6	1126.3	1165.2	1168.0
7.5°	1544.5	1458.6	1395.1	1268.2	1168.6	1090.9	1101.1	1112.7	1101.1	1152.9	1172.0
10°	1567.7	1499.5	1423.8	1282.6	1216.4	1146.1	1075.2	1012.4	1004.9	981.0	988.5
12.5°	1705.5	1648.9	1490.6	1335.8	1258.7	1150.9	1021.3	949.6	889.6	899.8	880.7
15°	1818.8	1778.5	1588.9	1386.3	1202.1	1068.4	930.5	832.3	778.4	772.3	753.2
17.5°	1972.3	1915.0	1597.8	1351.5	1129.1	968.7	813.2	702.0	678.8	669.3	659.7
20°	2046.0	1943.0	1565.7	1242.3	1043.8	850.0	697.2	601.7	594.9	611.9	608.5
22.5°	2110.1	1966.2	1537.0	1176.1	910.8	730.0	618.1	555.3	547.8	569.7	573.7
25°	2147.6	2032.3	1505.7	1108.6	828.2	640.6	558.7	523.3	524.6	553.3	549.9
27.5°	2316.8	2055.5	1426.5	1028.8	733.4	574.4	530.1	511.7	504.2	543.7	547.1
30°	2423.2	2207.0	1408.8	944.2	663.1	526.0	504.2	496.7	495.3	543.0	546.5
32.5°	2621.1	2257.5	1417.0	852.1	599.7	511.0	485.1	484.4	498.0	543.7	549.2
35°	2895.3	2470.3	1377.4	799.6	564.9	487.8	470.0	475.5	498.7	548.5	556.0
37.5°	3430.2	2670.9	1389.7	750.4	553.3	480.3	466.0	469.4	506.9	560.8	581.2
40°	3853.8	3034.5	1370.6	725.9	537.6	478.9	457.1	470.7	506.2	567.6	586.0
42.5°	4467.8	3324.4	1372.6	701.3	536.9	473.5	455.7	472.1	504.8	561.5	586.7
45°	4994.5	3584.4	1402.0	687.0	530.1	482.3	453.7	474.1	496.0	539.6	567.6
47.5°	5426.4	3874.3	1432.0	673.3	527.4	490.5	451.6	459.8	481.0	515.1	540.3
50°	5778.4	4078.3	1470.2	670.6	527.4	486.4	446.2	445.5	463.2	490.5	514.4
52.5°	6052.6	4222.2	1496.1	674.0	527.4	470.7	439.3	433.9	444.8	464.6	488.5
55°	6251.2	4266.6	1475.0	682.9	526.7	456.4	427.1	422.3	427.8	441.4	463.9
57.5°	6331.0	4149.9	1348.7	667.2	526.7	446.2	412.1	406.6	412.1	422.3	444.8
60°	6131.1	3774.7	1166.6	627.0	516.4	432.5	395.0	391.6	399.8	408.6	430.5
62.5°	5629.7	3276.0	972.2	579.2	495.3	420.9	378.6	379.3	392.3	404.6	426.4
65°	4850.6	2672.9	810.5	530.8	468.7	402.5	361.6	366.4	384.8	401.1	423.0
67.5°	3817.0	1980.5	682.2	483.7	431.2	372.5	342.5	343.8	356.8	372.5	393.6
70°	2551.5	1260.1	560.8	428.4	382.0	333.6	313.1	308.4	305.0	318.6	337.0
72.5°	1294.2	744.3	460.5	366.4	328.8	291.3	275.6	263.3	253.8	262.0	276.3
75°	678.1	520.5	371.8	304.3	271.5	247.6	236.0	219.7	212.9	217.6	227.9
77.5°	479.6	407.3	300.9	240.8	221.0	196.5	198.5	181.5	176.0	178.7	189.7
80°	368.4	322.7	231.3	182.2	170.6	146.7	153.5	143.3	136.4	135.1	143.3
82.5°	251.1	242.9	164.4	127.6	119.4	102.3	111.9	107.8	98.9	93.5	97.6
85°	169.2	161.0	100.3	73.7	70.3	53.2	68.2	65.5	58.0	49.8	50.5
87.5°	29.3	53.9	28.7	18.4	17.1	6.1	15.7	15.0	13.6	6.8	5.5
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)