

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: P596590

Luminaire Tested: **MSA-SA2B-827-U-SL2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596590  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2B-827-U-SL2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7274 lumens  
Efficiency: N/A  
Efficacy: 85.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G2

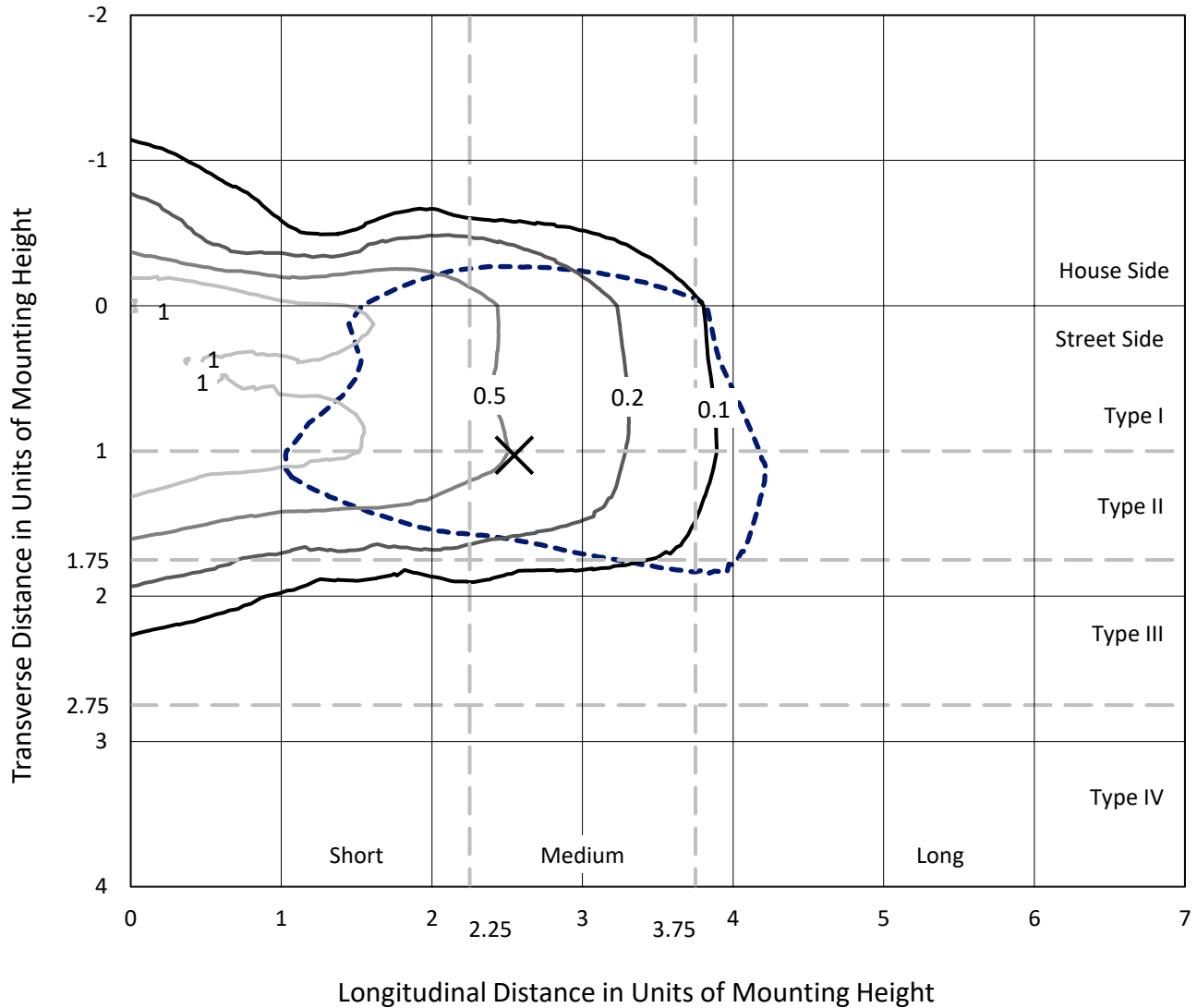
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

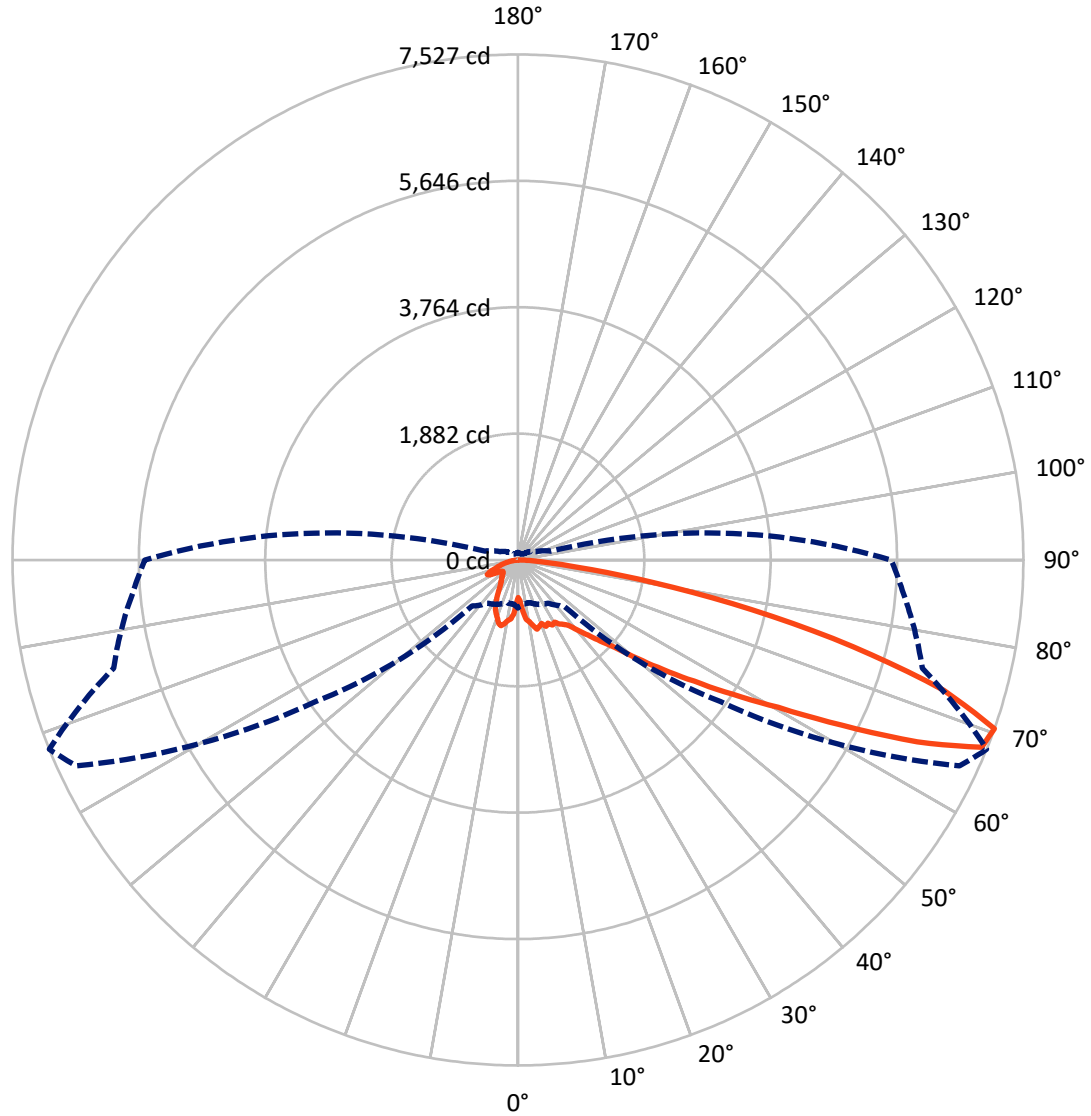
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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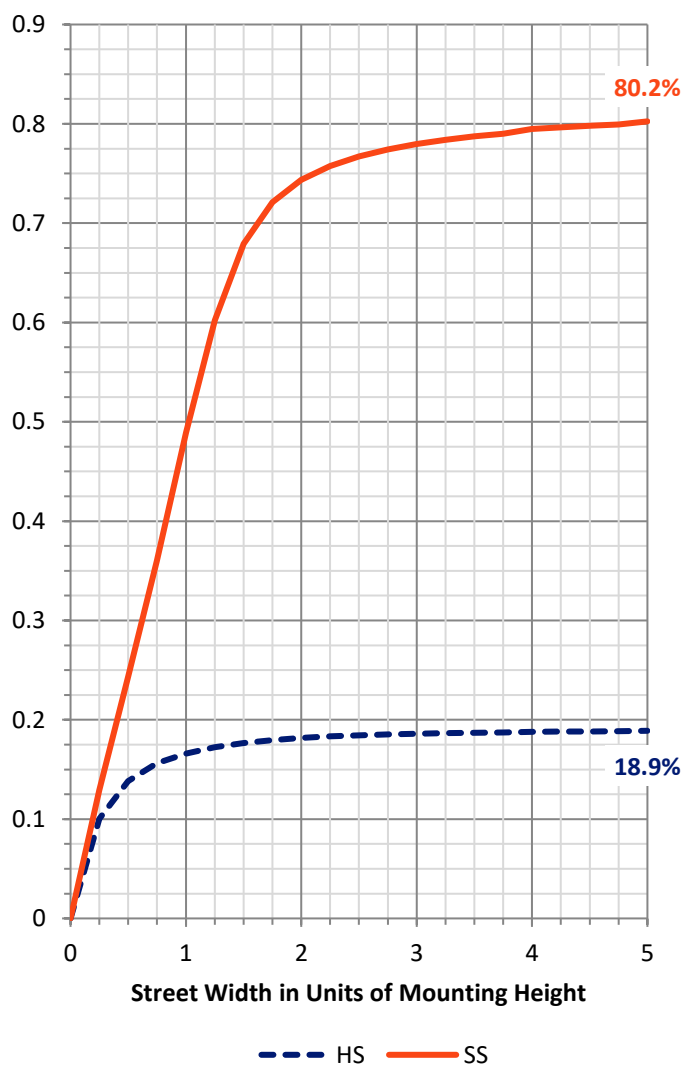
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1388.8	0.0	1388.8
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	5885.2	0.0	5885.2
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	7274.0	0.0	7274.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.5	1.0
10°-20°	242.8	3.3
20°-30°	369.3	5.1
30°-40°	564.1	7.8
40°-50°	969.9	13.3
50°-60°	1605.4	22.1
60°-70°	1979.3	27.2
70°-80°	1271.4	17.5
80°-90°	197.2	2.7
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°	7274.0	100.0
0°-180°	7274.0	100.0

**Coefficient of Utilization**



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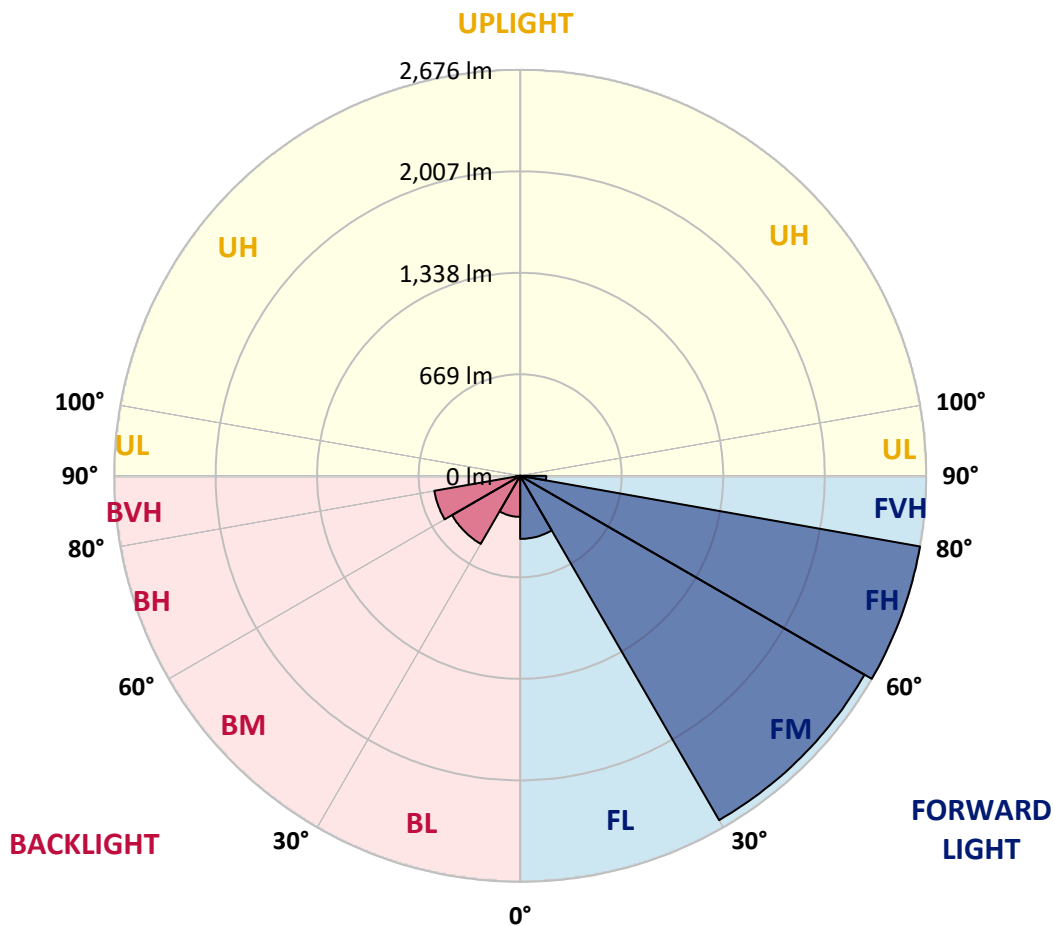
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	415.9	5.7			
FM (30°-60°)	2621.1	36.0			
FH (60°-80°)	2676.3	36.8			G2/5000
FVH (80°-90°)	171.9	2.4			G2/225
BL (0°-30°)	270.6	3.7	B1/500		
BM (30°-60°)	518.4	7.1	B1/1000		
BH (60°-80°)	574.5	7.9	B2/1000		G2/1000
BVH (80°-90°)	25.3	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-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7
2.5°	640.8	615.0	588.8	601.6	622.0	639.9	636.3	638.4	613.7	610.4	675.2
5°	755.0	710.5	709.6	710.2	712.1	691.4	741.9	768.1	773.9	800.7	864.3
7.5°	794.6	776.6	758.3	767.5	744.3	746.5	808.6	876.8	892.9	912.4	999.5
10°	786.4	769.3	774.8	776.3	780.6	815.0	854.9	920.3	934.0	996.1	1018.6
12.5°	787.6	784.5	810.1	811.0	856.7	918.5	934.3	994.6	1000.1	1045.7	1139.8
15°	829.3	850.3	836.0	843.6	852.4	926.4	949.2	1035.7	1068.6	1127.3	1197.9
17.5°	910.6	916.7	873.7	862.5	891.4	913.9	966.0	1003.4	1037.8	1201.9	1299.3
20°	929.4	945.9	894.7	836.6	897.8	929.1	965.4	982.4	1009.2	1212.9	1351.1
22.5°	1010.4	976.3	914.5	864.0	884.1	914.5	940.7	1004.9	1075.3	1181.5	1402.8
25°	1056.4	1036.6	981.5	927.3	910.3	911.2	961.7	1019.2	1043.6	1227.5	1413.2
27.5°	1167.5	1135.8	1011.9	1001.6	937.4	887.4	965.1	1054.6	1097.2	1191.6	1463.7
30°	1306.6	1282.6	1120.0	1106.3	1008.3	921.2	1007.7	1080.7	1074.7	1215.0	1498.7
32.5°	1419.3	1459.5	1295.4	1187.3	1117.6	1034.2	994.3	1076.2	1136.8	1269.5	1558.1
35°	1580.0	1617.8	1432.1	1359.0	1207.7	1086.5	1087.7	1138.9	1176.3	1333.1	1624.5
37.5°	1858.3	1825.1	1675.6	1560.2	1463.4	1282.6	1228.4	1210.4	1240.6	1411.1	1754.5
40°	2058.9	2030.9	1854.9	1789.2	1600.7	1495.7	1347.1	1330.1	1383.3	1491.4	1860.7
42.5°	2296.7	2246.7	2082.9	2028.7	1831.8	1642.4	1492.6	1502.4	1528.3	1643.0	2004.4
45°	2538.7	2417.5	2324.7	2320.4	2188.9	1927.4	1726.1	1718.2	1719.1	1866.2	2165.7
47.5°	2730.8	2621.8	2515.5	2465.0	2398.6	2420.3	2065.3	1972.4	1944.4	2090.9	2407.8
50°	2860.8	2735.3	2615.1	2603.2	2780.4	2897.0	2383.7	2284.5	2301.8	2412.3	2730.5
52.5°	2863.5	2714.6	2589.2	2672.3	3089.7	3256.5	2932.3	2655.0	2710.4	2785.6	3151.5
55°	2664.4	2510.1	2428.5	2617.8	3210.6	3683.0	3703.1	3248.6	3184.7	3212.4	3654.7
57.5°	2244.6	2088.7	2041.2	2268.0	2981.3	4094.3	4634.1	3957.9	3770.4	3654.7	4170.4
60°	1689.6	1554.7	1525.2	1669.8	2471.7	3973.5	5387.9	4840.8	4458.7	4148.8	4687.7
62.5°	1267.1	1170.2	1125.8	1146.5	1710.3	3580.4	5882.9	5956.3	5415.3	4688.3	5193.0
65°	1029.6	951.4	911.8	885.0	1063.7	2768.5	5793.4	6895.1	6532.5	5254.8	5586.4
67.5°	860.0	790.6	772.3	798.5	840.8	1606.2	5093.2	7420.3	7444.9	5813.8	5816.2
70°	713.9	662.4	655.8	730.0	785.7	969.3	3678.8	7255.3	7527.4	6233.0	5762.3
72.5°	551.6	523.9	523.0	639.6	780.6	826.2	2190.7	6267.7	6633.3	6099.0	5235.0
75°	382.7	363.5	378.1	525.8	762.6	838.1	1250.3	4881.9	5155.6	5190.0	4193.6
77.5°	263.3	247.2	263.0	380.2	681.0	858.2	874.6	3529.9	3560.4	3480.3	2402.0
80°	183.3	172.0	184.2	269.1	530.0	849.4	744.6	2222.4	2039.1	1553.2	769.0
82.5°	113.6	110.2	123.6	191.8	373.2	772.7	705.7	1146.8	875.6	428.6	274.6
85°	59.7	54.8	71.8	125.1	233.5	606.4	661.2	523.3	337.9	152.2	110.2
87.5°	17.7	15.8	27.7	50.5	98.9	271.9	378.4	221.9	126.0	44.8	34.4
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°	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7
2.5°	679.8	676.5	631.4	637.2	646.9	649.4	649.1	632.6	615.3	663.7	662.1
5°	865.8	835.7	813.1	808.3	780.6	752.9	762.6	759.3	755.0	776.9	779.7
7.5°	999.8	958.1	931.9	864.6	800.7	745.3	762.9	768.4	757.4	797.0	808.9
10°	1035.1	1002.2	973.9	887.4	852.1	819.8	772.0	717.6	710.2	687.4	690.2
12.5°	1126.1	1121.5	1025.0	948.9	903.0	838.7	735.5	669.5	612.8	615.6	599.1
15°	1197.9	1200.4	1084.4	977.8	854.5	756.5	635.0	552.9	494.7	483.1	471.3
17.5°	1294.5	1289.6	1089.3	943.1	787.0	643.3	494.4	412.8	403.1	409.8	399.4
20°	1336.5	1293.5	1058.2	857.0	681.3	488.6	373.5	330.3	349.2	376.0	376.6
22.5°	1374.2	1300.8	1042.1	787.6	540.7	355.3	299.9	292.0	314.2	350.4	353.4
25°	1372.7	1334.6	1013.2	717.6	419.2	277.3	260.6	266.4	292.9	330.6	332.7
27.5°	1441.8	1308.8	938.0	625.6	315.7	237.5	241.7	252.4	264.9	300.8	307.8
30°	1441.2	1356.9	900.2	513.9	253.6	217.7	228.6	237.8	248.1	281.0	285.0
32.5°	1475.3	1325.5	877.4	399.7	227.4	212.8	215.5	224.7	239.6	261.8	264.6
35°	1516.4	1361.1	804.3	317.5	217.7	208.5	210.7	215.8	229.5	249.9	252.7
37.5°	1648.2	1367.8	775.4	267.6	217.1	206.7	206.4	209.1	224.7	243.2	251.5
40°	1699.7	1429.0	691.1	249.9	214.9	206.7	202.4	204.0	216.8	240.5	246.9
42.5°	1823.0	1449.4	628.7	243.9	214.9	203.1	196.4	198.8	213.7	234.7	244.8
45°	1949.9	1478.3	554.4	242.6	214.6	202.8	190.0	195.4	207.6	225.3	236.2
47.5°	2130.7	1582.4	480.1	239.0	212.2	204.3	188.4	188.1	198.8	214.0	224.4
50°	2425.7	1745.0	422.6	234.4	212.5	203.1	185.4	181.1	188.1	201.5	211.6
52.5°	2836.4	2022.1	400.0	232.0	210.1	198.2	180.2	173.5	177.5	188.1	197.9
55°	3313.2	2396.2	422.3	232.0	205.2	190.6	172.9	165.0	167.1	174.4	183.9
57.5°	3870.3	2861.1	529.7	228.6	199.1	181.4	164.1	155.0	155.6	162.0	170.5
60°	4452.0	3380.4	770.5	225.9	194.8	171.4	153.7	144.3	143.4	149.5	157.1
62.5°	5034.7	3859.6	1023.8	232.3	193.6	162.9	142.8	133.3	133.0	138.5	144.9
65°	5498.1	4187.2	1086.8	258.2	201.5	153.1	131.5	122.7	122.1	126.6	133.6
67.5°	5725.5	4234.7	825.6	290.4	218.3	144.0	120.6	112.3	111.7	116.6	122.7
70°	5557.1	3910.2	509.6	293.8	217.4	133.3	109.3	102.3	101.1	106.2	110.8
72.5°	4934.3	3420.3	387.2	260.0	188.1	118.1	98.0	91.9	90.1	94.7	98.9
75°	3960.4	2715.6	310.2	209.8	148.3	99.5	86.8	81.0	78.8	83.1	86.8
77.5°	2307.0	1527.7	226.8	163.8	112.0	81.3	74.0	68.8	66.4	70.9	73.7
80°	750.1	509.0	142.5	117.5	81.9	63.6	60.0	56.3	53.9	56.9	57.8
82.5°	269.4	189.4	78.8	72.2	54.5	45.7	45.4	43.2	40.2	41.4	41.4
85°	119.3	86.5	46.9	38.7	32.6	24.4	28.6	27.1	24.1	23.4	22.5
87.5°	33.5	28.6	17.0	13.1	10.7	4.0	9.1	8.2	6.7	6.1	4.3
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)