

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: P596589

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

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596589
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-SA2B-827-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 6001 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

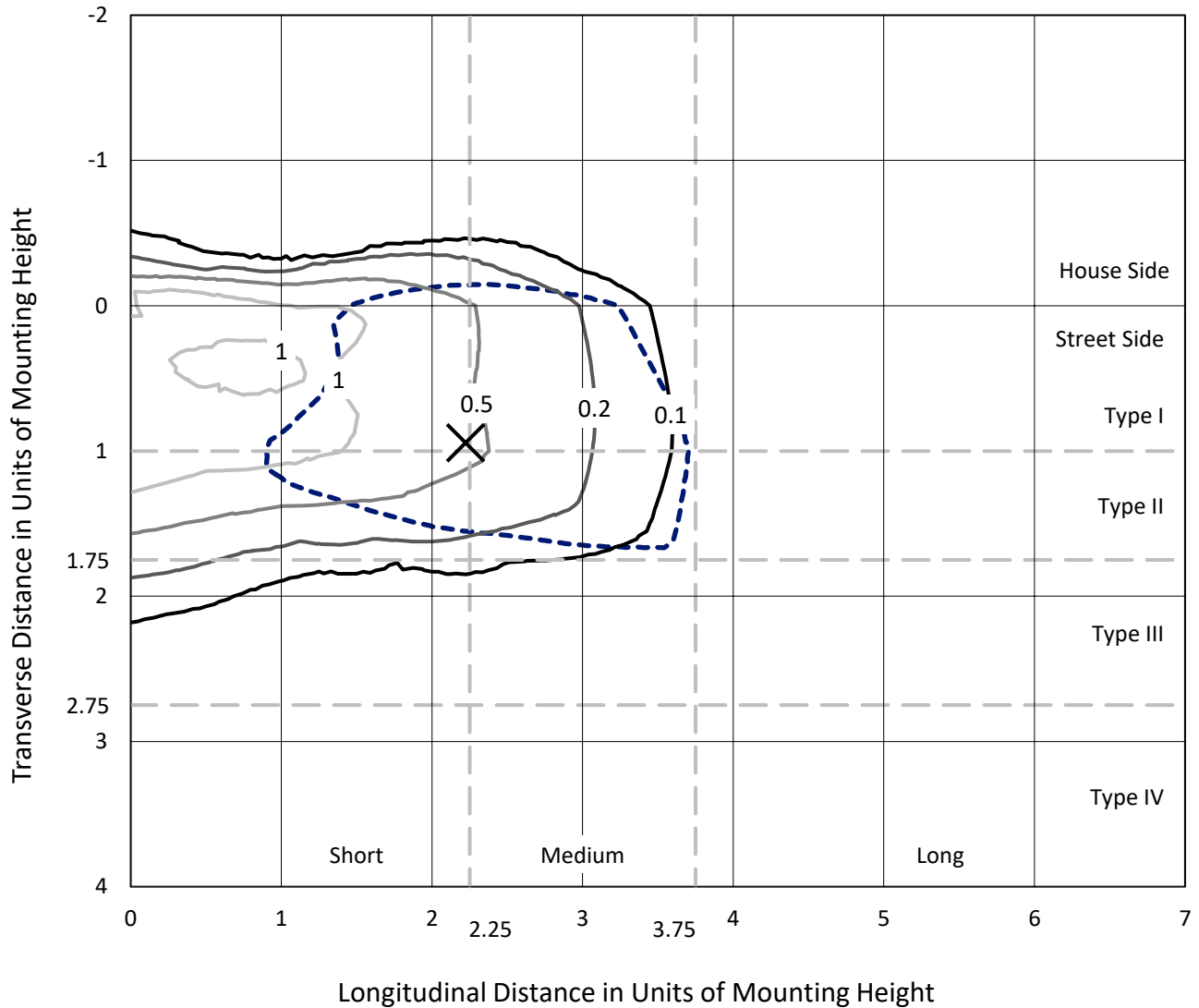
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596589
 CATALOG NUMBER: MSA-SA2B-827-U-SL2-HSS

Iso-Footcandle Lines of Horizontal Illumination

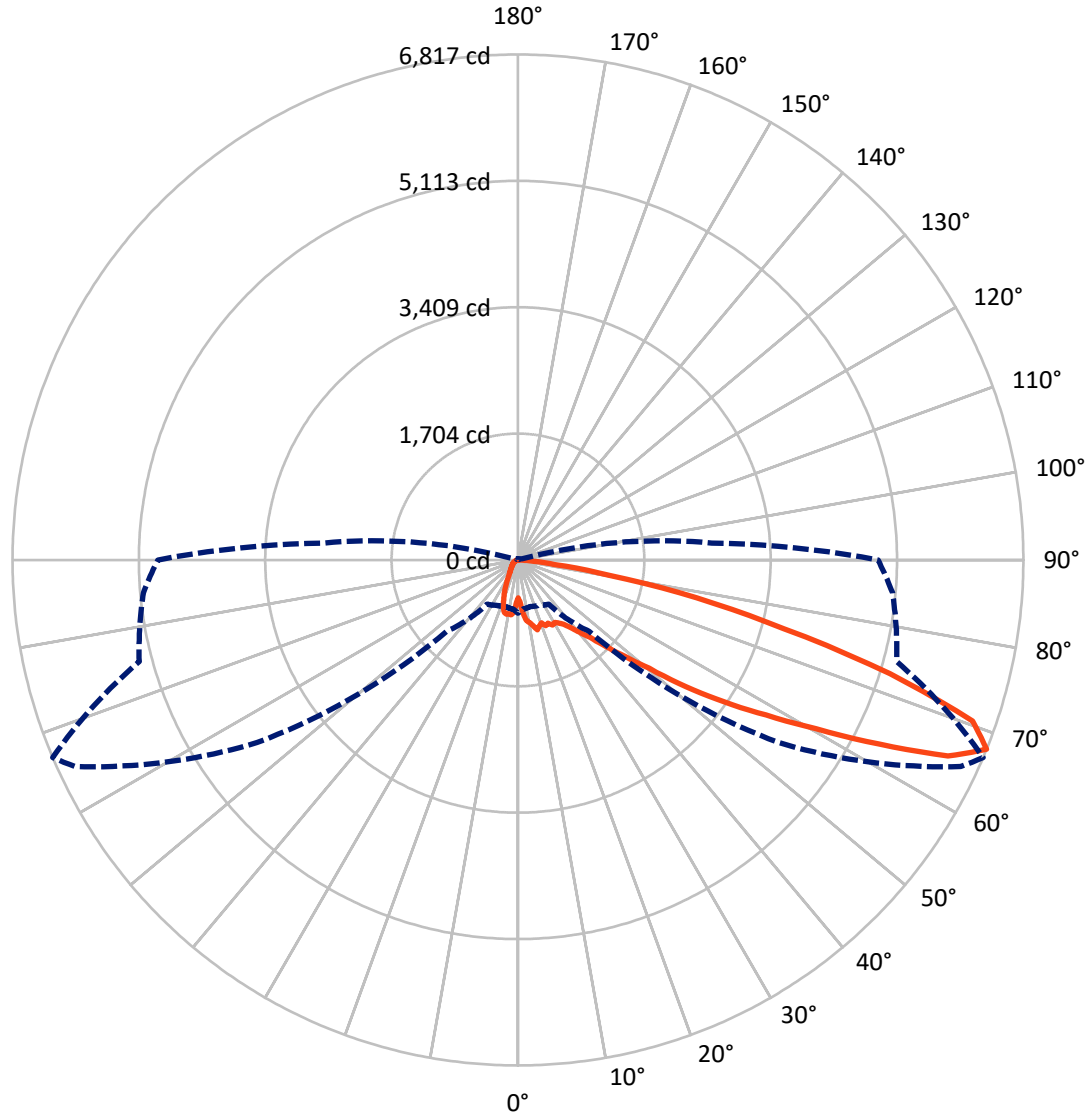
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type II - Short - N/A

REPORT NUMBER: P596589
CATALOG NUMBER: MSA-SA2B-827-U-SL2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596589

CATALOG NUMBER: MSA-SA2B-827-U-SL2-HSS

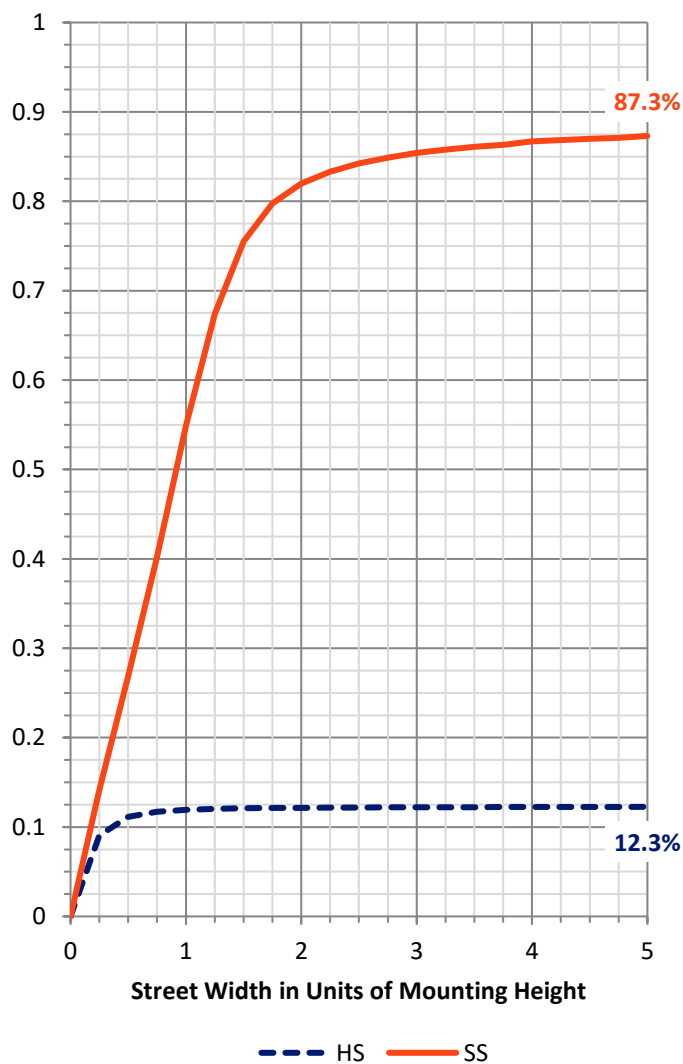
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	742.2	0.0	742.2
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	5258.8	0.0	5258.8
	% Fixture	87.6	0.0	87.6
Total	Lumens	6001.0	0.0	6001.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	1.1
10°-20°	189.8	3.2
20°-30°	297.5	5.0
30°-40°	479.7	8.0
40°-50°	881.5	14.7
50°-60°	1488.7	24.8
60°-70°	1645.8	27.4
70°-80°	861.4	14.4
80°-90°	92.5	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°	6001.0	100.0
0°-180°	6001.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596589

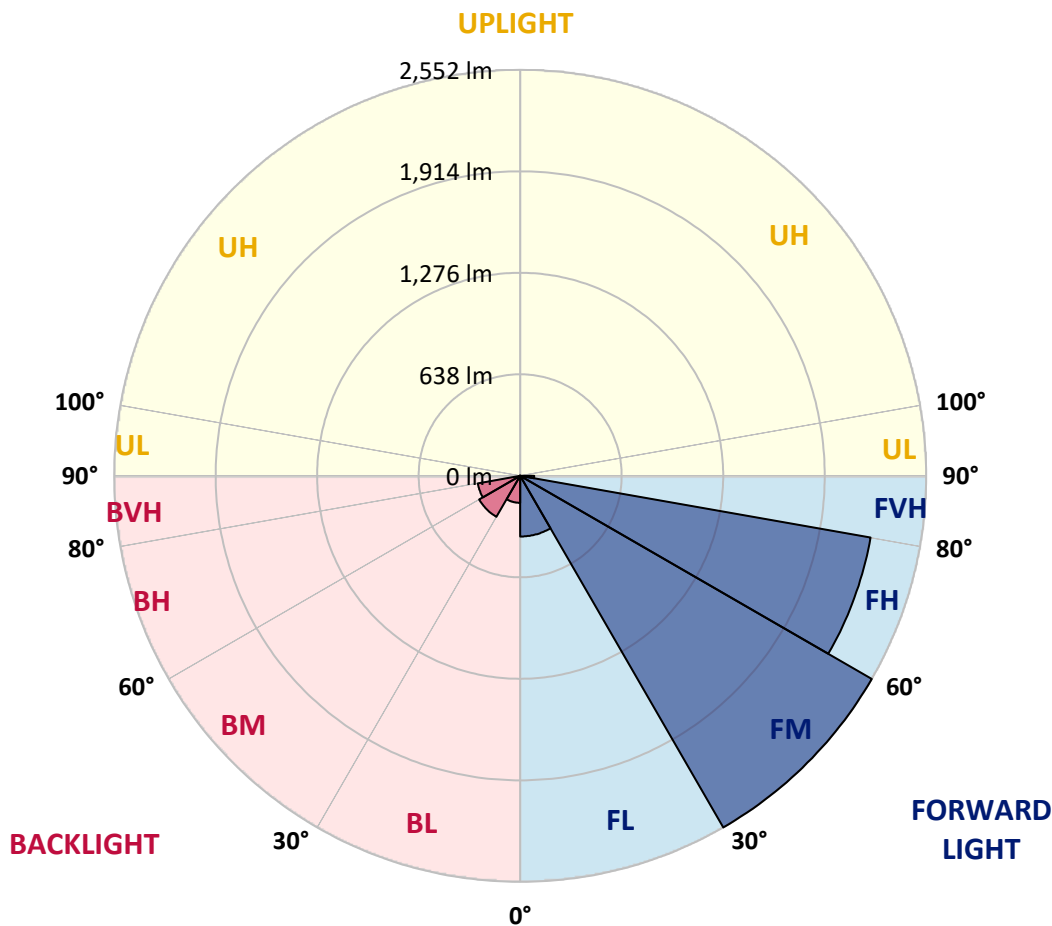
CATALOG NUMBER: MSA-SA2B-827-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	381.6	6.4			
FM (30°-60°)	2552.2	42.5			
FH (60°-80°)	2236.5	37.3			G2/5000
FVH (80°-90°)	88.6	1.5			G1/100
BL (0°-30°)	169.9	2.8	B1/500		
BM (30°-60°)	297.6	5.0	B1/1000		
BH (60°-80°)	270.7	4.5	B1/500		G1/500
BVH (80°-90°)	3.9	0.1			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 II Short





REPORT NUMBER: P596589

CATALOG NUMBER: MSA-SA2B-827-U-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1
2.5°	603.4	583.0	548.3	558.3	578.4	595.1	587.2	571.7	572.0	556.2	613.1
5°	702.0	674.6	654.5	661.5	660.6	660.0	697.4	711.7	717.8	744.0	782.7
7.5°	730.3	720.6	699.6	705.9	684.9	686.5	752.2	814.3	824.1	840.2	909.0
10°	719.3	700.5	708.1	708.1	708.4	742.5	786.6	846.0	857.8	919.9	927.3
12.5°	707.5	708.4	738.5	733.0	774.4	835.6	850.5	917.2	911.4	965.3	1045.4
15°	751.6	774.7	755.3	762.9	766.8	838.7	862.7	951.3	976.9	1045.1	1097.1
17.5°	827.4	830.5	790.0	779.0	807.6	828.0	876.4	919.0	936.1	1115.1	1188.8
20°	841.1	860.6	819.5	756.2	816.8	844.8	878.5	898.9	906.3	1136.7	1240.5
22.5°	923.6	902.0	836.2	788.1	805.5	835.9	856.9	918.4	962.3	1095.9	1290.1
25°	965.9	960.1	897.4	856.3	838.7	836.2	884.3	930.9	944.9	1138.2	1302.3
27.5°	1067.3	1054.2	932.7	927.6	869.4	818.3	885.2	969.0	995.1	1098.3	1348.0
30°	1205.2	1200.3	1038.7	1035.3	942.8	850.8	934.6	992.4	976.6	1118.7	1378.4
32.5°	1344.0	1383.6	1218.3	1123.9	1054.5	970.5	920.6	985.1	1013.4	1168.4	1434.4
35°	1511.7	1540.4	1372.0	1303.5	1149.2	1026.5	1013.4	1054.8	1067.0	1227.4	1498.0
37.5°	1805.2	1762.0	1618.6	1502.0	1421.0	1226.5	1162.0	1129.1	1157.4	1307.5	1628.0
40°	2021.9	1994.5	1818.0	1748.3	1562.0	1448.1	1279.5	1248.7	1280.4	1389.7	1718.4
42.5°	2283.4	2226.5	2060.3	2013.1	1821.3	1601.8	1430.8	1441.4	1421.6	1551.9	1877.0
45°	2520.0	2391.5	2299.0	2309.6	2207.3	1910.8	1683.1	1677.9	1661.5	1786.9	2043.9
47.5°	2679.2	2566.8	2476.7	2447.2	2435.0	2454.2	2047.8	1955.9	1943.7	2033.8	2306.6
50°	2764.7	2641.7	2530.3	2536.4	2783.6	2969.6	2424.1	2293.5	2298.0	2392.1	2665.8
52.5°	2707.2	2568.1	2450.6	2564.7	3053.9	3313.3	3046.9	2734.6	2840.5	2816.5	3147.7
55°	2441.4	2320.6	2237.2	2441.4	3083.4	3683.1	3813.7	3398.5	3374.8	3320.0	3639.0
57.5°	1994.2	1890.1	1838.7	2054.2	2760.5	3981.2	4583.9	4148.9	3946.5	3716.9	4046.9
60°	1485.9	1409.1	1355.6	1469.4	2175.1	3691.7	5088.3	4856.1	4621.7	4099.6	4413.4
62.5°	1100.5	1038.1	981.1	991.5	1497.7	3175.1	5281.9	5605.2	5470.7	4503.6	4759.3
65°	878.2	821.3	781.4	758.6	927.6	2388.8	5012.5	6219.2	6374.5	4884.1	5008.9
67.5°	717.2	669.1	649.3	675.5	727.6	1361.7	4292.9	6591.9	6817.1	5287.7	5070.4
70°	583.6	544.0	541.9	612.5	670.0	830.1	3157.7	6334.6	6504.2	5356.5	4701.7
72.5°	406.7	389.3	417.1	517.2	663.9	691.3	1813.4	5242.1	5248.2	4731.0	3867.3
75°	230.1	227.4	271.2	412.5	646.6	684.3	1011.0	3704.5	3707.2	3578.1	2679.2
77.5°	126.6	118.4	158.0	278.8	555.3	668.5	652.1	2529.4	2464.6	1991.2	1223.8
80°	58.4	55.1	85.5	178.7	406.1	632.3	522.7	1390.3	1253.6	648.7	298.6
82.5°	24.0	22.8	39.3	114.8	256.6	509.3	440.5	616.7	495.0	123.3	92.2
85°	4.3	4.6	16.1	69.4	143.7	234.7	357.1	292.8	215.2	34.1	50.5
87.5°	0.0	0.0	3.3	16.7	34.7	64.2	144.9	81.9	56.3	10.0	14.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596589
 CATALOG NUMBER: MSA-SA2B-827-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1	511.1
2.5°	624.4	619.2	566.8	569.3	572.9	569.6	569.0	554.3	540.9	585.1	584.5
5°	789.7	752.8	716.6	702.6	672.5	632.9	633.2	620.7	607.9	625.9	625.9
7.5°	907.5	856.6	810.7	728.8	649.0	576.9	570.5	553.4	533.9	557.4	562.0
10°	934.9	890.7	831.4	711.1	635.6	565.3	488.0	424.4	394.8	381.1	378.7
12.5°	1019.2	986.3	853.6	720.6	611.9	492.9	366.2	290.7	239.3	235.3	229.8
15°	1075.5	1052.4	875.5	697.1	511.4	354.3	230.1	176.6	155.9	154.0	151.3
17.5°	1162.9	1122.7	854.5	622.5	400.0	233.8	154.6	139.4	141.9	147.3	143.1
20°	1198.5	1120.0	808.8	514.5	281.0	156.8	134.2	126.0	132.4	137.6	135.2
22.5°	1235.0	1127.9	768.3	424.1	183.6	129.7	119.6	115.4	116.0	121.2	121.5
25°	1234.7	1149.8	721.5	330.3	136.7	115.4	108.1	102.6	100.5	104.1	103.2
27.5°	1294.7	1124.5	635.9	245.1	120.2	103.2	96.2	89.5	81.9	85.5	85.5
30°	1295.0	1165.6	576.3	176.0	110.2	91.9	85.8	75.5	66.7	69.7	70.0
32.5°	1329.4	1130.0	521.2	134.6	102.3	85.2	71.8	62.4	57.2	59.1	59.1
35°	1368.7	1160.4	436.5	118.7	94.4	75.8	61.5	53.9	49.9	51.4	51.4
37.5°	1498.3	1154.0	377.8	110.5	89.2	68.5	56.0	47.5	45.7	46.6	47.8
40°	1545.2	1199.4	298.0	105.6	80.7	61.8	49.3	42.9	40.5	41.1	41.4
42.5°	1664.6	1209.5	238.1	101.7	73.1	53.6	43.8	39.3	36.2	36.2	37.1
45°	1796.4	1234.7	189.3	98.3	66.7	48.1	39.6	35.9	31.4	30.7	32.0
47.5°	1987.2	1331.5	154.3	91.6	59.1	44.7	36.5	31.1	27.4	26.2	27.4
50°	2306.6	1495.9	136.4	83.4	53.6	42.0	32.3	26.5	23.7	22.2	23.1
52.5°	2757.1	1779.9	126.9	75.8	48.7	37.7	28.9	23.1	20.4	19.2	19.8
55°	3257.6	2105.7	122.4	68.2	44.4	33.2	25.3	20.4	18.0	16.4	16.7
57.5°	3720.3	2411.9	117.8	60.9	40.2	29.5	22.2	18.0	15.5	14.0	14.3
60°	4176.3	2656.3	106.9	52.4	36.2	26.5	19.5	15.5	14.0	12.2	12.2
62.5°	4579.7	2802.5	91.0	45.4	32.6	23.4	17.4	14.0	12.8	11.0	11.0
65°	4854.2	2809.2	73.4	39.0	28.6	20.1	15.2	13.1	11.9	9.7	9.4
67.5°	4858.2	2626.5	58.8	34.7	25.3	17.7	13.7	12.5	11.0	9.1	8.5
70°	4348.3	2169.9	49.0	30.4	21.9	15.5	11.9	11.9	10.7	8.8	7.9
72.5°	3478.3	1658.2	41.1	26.5	19.5	13.4	11.0	11.3	10.4	8.8	7.9
75°	2337.9	951.0	34.1	22.5	17.0	11.3	10.7	11.0	10.7	8.8	7.6
77.5°	1076.7	302.9	26.5	18.6	14.6	9.4	10.4	10.4	9.7	7.9	6.7
80°	242.6	74.6	19.2	13.7	11.9	7.0	9.4	8.5	7.6	5.5	4.0
82.5°	88.3	22.8	11.6	8.5	7.3	2.7	6.1	6.1	5.5	4.0	2.4
85°	50.5	11.9	6.4	5.5	4.0	1.2	3.3	3.7	3.0	2.7	1.2
87.5°	16.4	2.7	3.0	3.3	3.0	0.6	1.2	1.2	0.9	0.6	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)