

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: P368035

Luminaire Tested: **MSA-SA3C-830-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368035
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-830-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11880 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

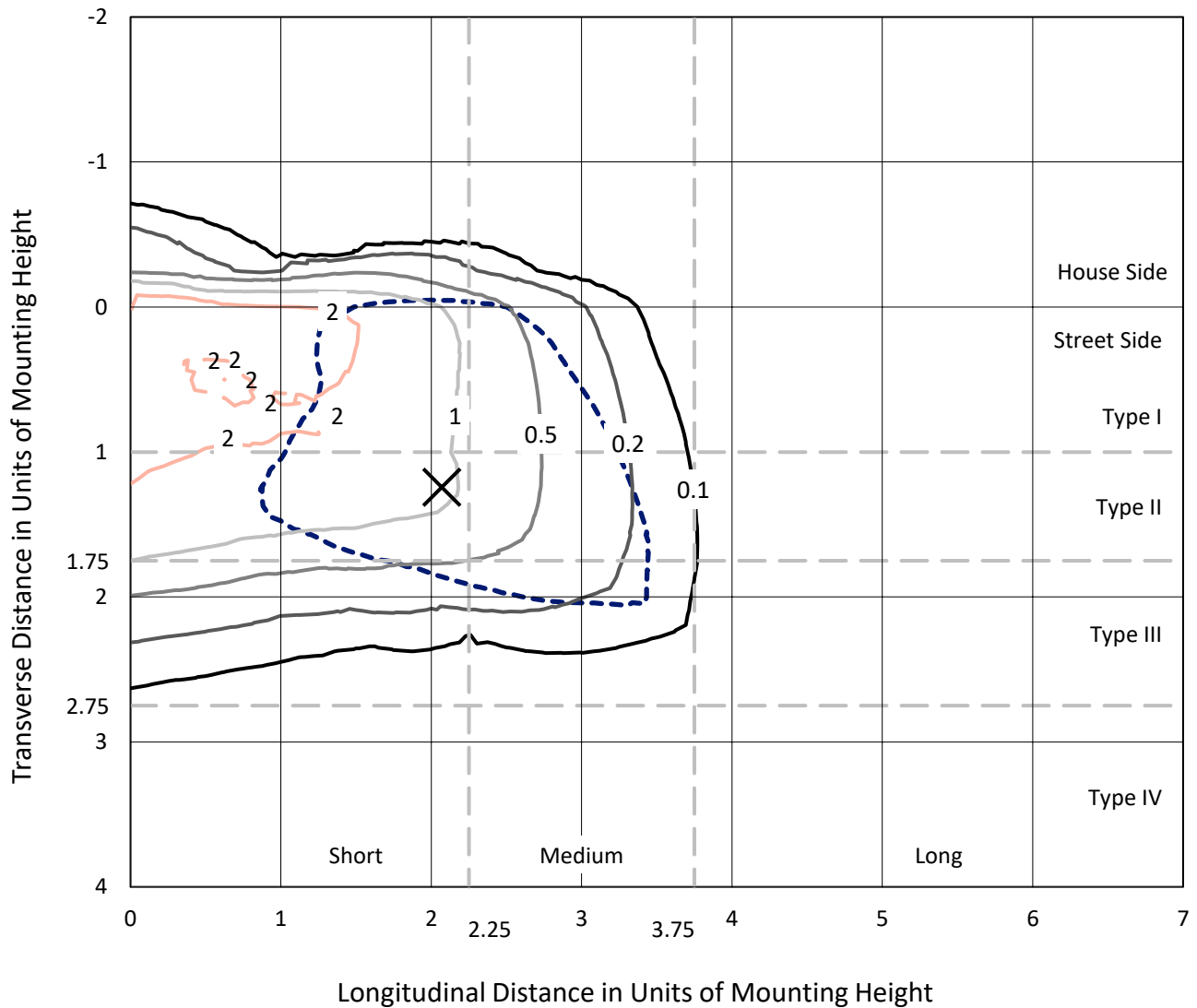
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368035
 CATALOG NUMBER: MSA-SA3C-830-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

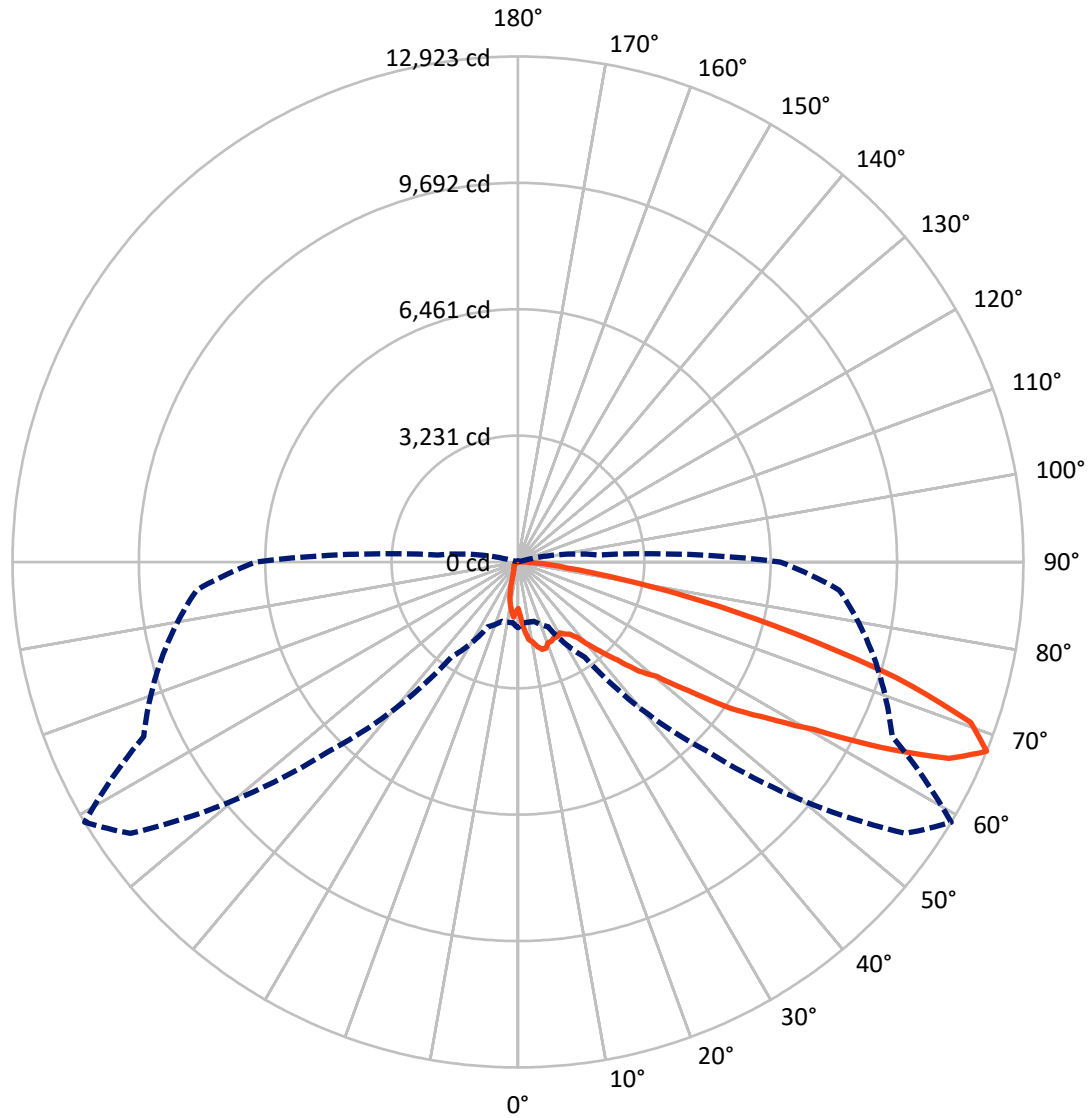
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - N/A

REPORT NUMBER: P368035
CATALOG NUMBER: MSA-SA3C-830-U-SL3-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P368035
 CATALOG NUMBER: MSA-SA3C-830-U-SL3-HSS

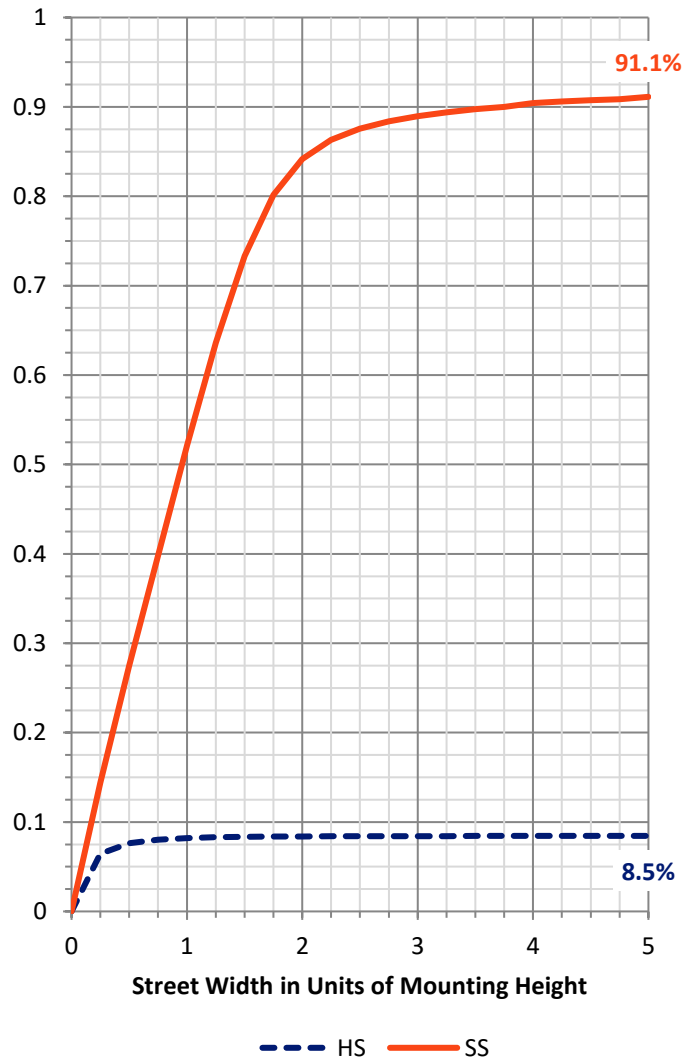
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1010.3	0.0	1010.3
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	10869.7	0.0	10869.7
	% Fixture	91.5	0.0	91.5
Total	Lumens	11880.0	0.0	11880.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	1.2
10°-20°	406.9	3.4
20°-30°	605.3	5.1
30°-40°	933.9	7.9
40°-50°	1666.6	14.0
50°-60°	2965.8	25.0
60°-70°	3454.1	29.1
70°-80°	1536.1	12.9
80°-90°	166.8	1.4
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°	11880.0	100.0
0°-180°	11880.0	100.0

Coefficient of Utilization

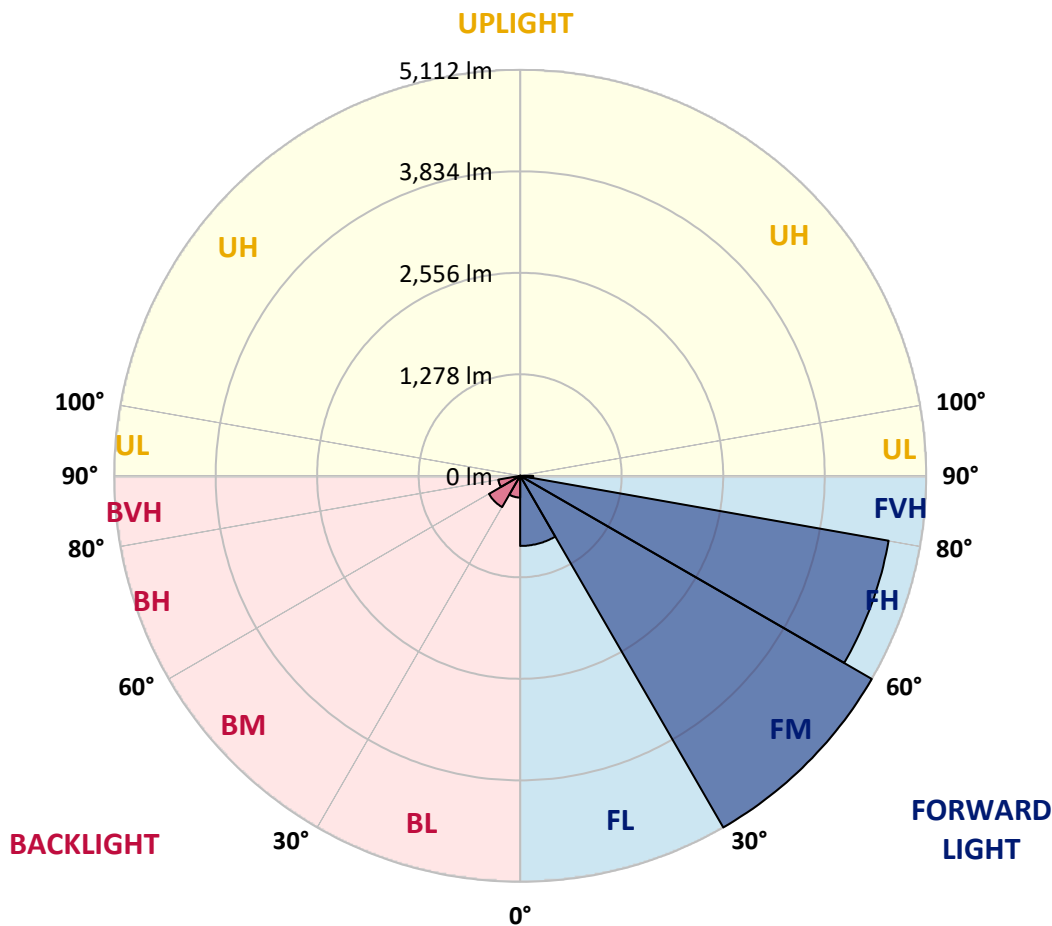


REPORT NUMBER: P368035
 CATALOG NUMBER: MSA-SA3C-830-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	883.5	7.4			
FM (30°-60°)	5112.0	43.0			
FH (60°-80°)	4710.3	39.6			G2/5000
FVH (80°-90°)	163.8	1.4			G2/225
BL (0°-30°)	273.2	2.3	B1/500		
BM (30°-60°)	454.3	3.8	B1/1000		
BH (60°-80°)	279.8	2.4	B1/500		G1/500
BVH (80°-90°)	3.0	0.0			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 III Short





REPORT NUMBER: P368035

CATALOG NUMBER: MSA-SA3C-830-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6
2.5°	1549.6	1491.2	1408.2	1432.9	1455.1	1476.2	1441.3	1421.4	1411.8	1326.4	1433.5
5°	1902.7	1829.9	1792.0	1782.3	1758.3	1704.7	1793.8	1754.1	1767.3	1784.2	1819.0
7.5°	2010.3	1977.2	1922.5	1943.0	1851.5	1843.7	1967.0	2001.3	2046.4	2015.7	2057.8
10°	1955.0	1897.8	1923.7	1916.5	1912.9	1993.5	2080.1	2081.9	2149.3	2181.8	2039.2
12.5°	1845.5	1852.1	1944.8	1937.5	2057.8	2219.1	2238.9	2217.9	2327.9	2271.4	2249.7
15°	1918.3	1972.4	1921.3	1938.7	1981.5	2183.0	2253.3	2318.3	2422.4	2456.1	2309.9
17.5°	2006.1	2011.5	1918.3	1896.6	2004.3	2098.2	2264.2	2317.7	2327.9	2623.3	2445.2
20°	1958.6	2004.9	1893.6	1757.1	1924.3	2051.8	2220.3	2203.4	2272.0	2672.6	2475.9
22.5°	2084.9	2018.7	1876.2	1773.3	1829.9	1946.0	2088.5	2198.6	2301.5	2554.7	2515.6
25°	2096.9	2072.9	1946.0	1854.5	1844.9	1874.4	2072.9	2143.9	2305.1	2660.6	2481.9
27.5°	2232.3	2204.6	1944.8	1953.8	1863.6	1772.7	1997.1	2163.7	2370.6	2596.2	2553.5
30°	2406.7	2409.1	2074.1	2102.4	1973.6	1827.5	2059.1	2104.8	2415.2	2699.1	2606.4
32.5°	2583.6	2656.4	2329.7	2180.0	2139.7	2035.0	1982.1	2193.2	2366.4	2874.7	2738.8
35°	2852.5	2901.8	2540.3	2406.1	2247.9	2128.8	2191.4	2267.2	2541.5	3107.5	2912.6
37.5°	3307.8	3218.8	2918.0	2684.6	2646.8	2471.1	2502.4	2434.4	2720.1	3381.8	3256.7
40°	3564.1	3483.5	3170.7	3057.0	2815.2	2842.3	2743.6	2783.3	2979.4	3667.6	3570.1
42.5°	3831.2	3754.2	3479.9	3399.3	3168.9	3057.0	3012.5	3155.0	3377.0	4143.4	4019.5
45°	4099.5	3904.0	3787.9	3828.2	3724.7	3503.3	3451.6	3578.5	3811.3	4728.1	4493.5
47.5°	4325.6	4160.8	4073.6	4054.9	4014.6	4322.0	4111.5	4167.4	4270.3	5245.4	5084.2
50°	4733.5	4571.1	4434.5	4396.6	4592.7	5028.8	4704.0	4595.7	4801.4	5870.4	5768.7
52.5°	5322.4	5115.4	4898.3	4898.9	5268.8	5508.3	5662.2	5472.2	5510.7	6557.9	6512.8
55°	5795.8	5532.9	5353.1	5495.0	6046.6	6180.8	6768.5	6601.8	6551.9	7195.6	7140.2
57.5°	5860.8	5545.5	5460.1	5709.2	6464.1	7320.7	7952.9	7536.6	7460.2	7729.1	7839.2
60°	5254.4	4920.0	4984.3	5384.9	6600.0	8015.4	9040.5	8700.6	8215.2	8354.1	8429.9
62.5°	3919.0	3651.9	3832.4	4362.9	6076.1	8481.0	10299.5	10457.1	9091.0	8823.3	8807.1
65°	2542.7	2375.5	2494.0	2928.9	4598.1	8428.1	11424.3	12107.7	9781.0	9205.9	8925.6
67.5°	1681.9	1555.0	1571.8	1829.3	2973.4	6854.5	12096.9	12922.8	10556.9	9423.0	8246.4
70°	1253.6	1153.7	1159.8	1299.3	1764.9	4520.5	11159.1	12279.7	10840.3	8670.5	6656.0
72.5°	904.1	837.3	893.3	1048.5	1406.4	2390.5	8317.4	10113.0	9452.5	6838.8	4484.4
75°	626.2	582.3	673.7	877.0	1283.7	1484.0	5496.2	7279.8	6625.3	4290.7	2027.2
77.5°	347.1	333.9	465.6	714.6	1165.2	1216.3	3366.8	4783.4	3674.8	1538.1	482.4
80°	151.6	146.8	225.6	536.6	979.3	1099.0	1895.4	2652.2	1445.5	274.3	155.8
82.5°	65.0	62.6	96.2	323.0	711.6	919.1	1168.8	1276.5	497.5	84.8	88.4
85°	11.4	12.6	38.5	170.2	433.1	466.8	846.4	755.5	250.2	40.3	63.2
87.5°	0.0	0.0	6.0	33.1	81.2	133.5	366.9	264.7	47.5	13.2	10.8
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: P368035
 CATALOG NUMBER: MSA-SA3C-830-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6	1188.6
2.5°	1448.5	1414.8	1286.7	1270.4	1253.0	1227.1	1217.5	1162.2	1154.9	1225.9	1225.9
5°	1802.8	1682.5	1560.4	1464.1	1378.1	1259.0	1225.3	1190.4	1162.2	1154.9	1177.2
7.5°	1989.9	1843.1	1651.2	1406.4	1207.9	1035.2	963.1	912.5	856.0	872.8	881.8
10°	1979.6	1823.9	1579.0	1264.4	1044.3	853.6	670.1	563.0	503.5	474.0	470.4
12.5°	2080.1	1933.3	1530.3	1151.3	870.4	606.9	421.7	345.3	301.4	302.0	298.4
15°	2138.5	1978.4	1473.8	1008.2	613.0	390.4	292.3	275.5	269.5	276.1	272.5
17.5°	2241.3	2026.0	1345.6	794.6	421.7	294.8	268.9	262.3	270.1	283.9	280.3
20°	2233.5	1943.6	1163.4	560.0	311.6	265.3	254.4	244.2	260.5	274.9	272.5
22.5°	2226.3	1863.0	991.9	413.3	260.5	241.8	232.8	228.6	237.0	253.8	257.5
25°	2162.5	1823.3	818.1	310.4	235.8	219.6	215.3	211.7	214.7	228.6	228.0
27.5°	2240.7	1722.8	631.6	260.5	218.4	199.1	195.5	189.5	183.5	195.5	197.3
30°	2224.5	1736.6	495.1	229.2	200.9	175.0	176.2	163.6	152.8	163.6	163.6
32.5°	2283.4	1635.6	396.4	208.1	183.5	164.8	149.8	136.5	128.7	135.3	136.5
35°	2369.4	1639.8	310.4	194.9	168.4	146.8	128.7	115.5	108.3	111.3	113.1
37.5°	2657.6	1610.9	259.3	184.7	163.0	135.9	117.3	99.9	95.0	98.7	100.5
40°	2845.3	1687.9	228.6	179.3	149.2	125.1	100.5	87.8	83.6	85.4	88.4
42.5°	3199.0	1730.6	213.5	173.2	136.5	107.1	86.0	78.8	72.8	75.2	77.6
45°	3577.3	1803.4	202.1	166.6	126.9	93.8	75.8	69.8	62.0	62.6	65.0
47.5°	4042.3	1976.6	188.9	155.2	113.7	85.4	67.4	58.3	51.1	50.5	53.5
50°	4666.7	2208.2	176.9	140.8	105.3	78.2	59.0	47.5	41.5	39.7	42.1
52.5°	5333.2	2507.8	164.2	130.5	95.0	68.6	50.5	38.5	33.1	31.9	33.7
55°	5993.7	2795.3	152.2	123.9	84.2	59.0	42.7	31.9	27.1	25.9	27.1
57.5°	6746.2	3106.3	136.5	110.7	74.0	51.1	35.5	26.5	22.3	21.1	21.7
60°	7312.9	3215.8	123.3	96.2	64.4	45.1	30.1	21.1	18.0	16.8	17.4
62.5°	7581.7	3037.1	110.7	83.6	56.5	39.1	25.3	17.4	15.0	13.8	13.8
65°	7512.0	2641.3	98.1	71.6	48.7	32.5	19.9	15.0	13.2	11.4	10.8
67.5°	6705.9	2066.9	83.6	60.2	40.9	26.5	16.8	14.4	12.0	10.8	9.0
70°	5318.2	1496.6	68.0	49.9	34.3	21.7	13.2	13.2	11.4	10.8	8.4
72.5°	3485.9	942.0	55.3	40.3	28.3	16.8	10.2	12.0	10.8	10.8	7.8
75°	1510.5	336.9	44.5	32.5	23.5	11.4	9.0	10.8	11.4	10.8	9.0
77.5°	353.7	104.7	34.9	25.9	19.2	7.8	9.0	10.8	11.4	10.2	7.8
80°	132.9	44.5	22.9	16.8	15.0	4.8	7.8	6.6	6.0	4.2	1.2
82.5°	80.6	18.6	12.0	8.4	7.2	1.2	3.6	2.4	1.2	1.2	0.0
85°	57.1	9.0	6.6	6.0	3.6	0.0	0.6	0.0	0.0	0.6	0.0
87.5°	7.8	2.4	3.0	3.0	2.4	0.0	0.0	0.0	0.0	0.0	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)