

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: P367901

Luminaire Tested: **MSA-SA3B-830-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-830-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 9574 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

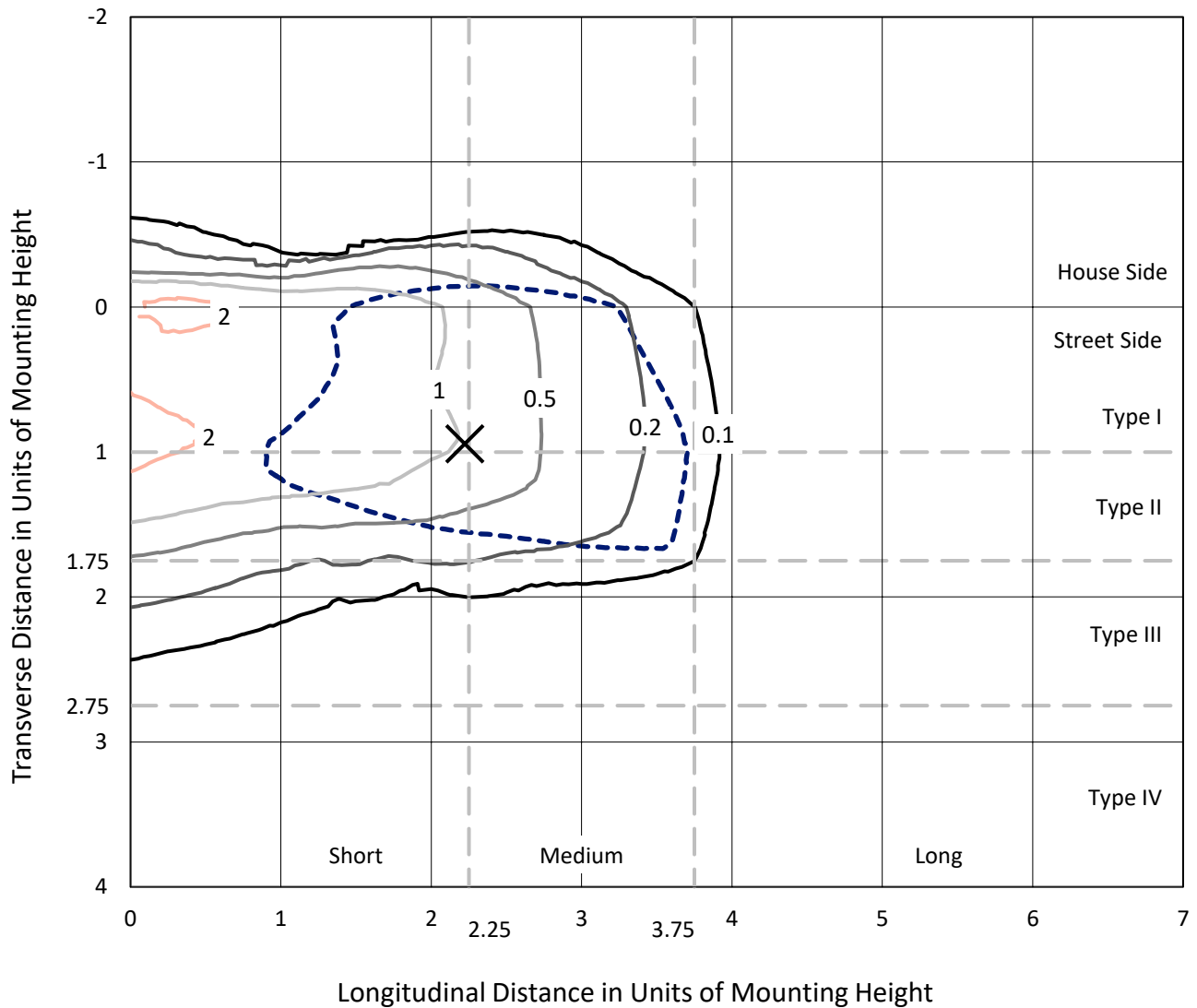
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

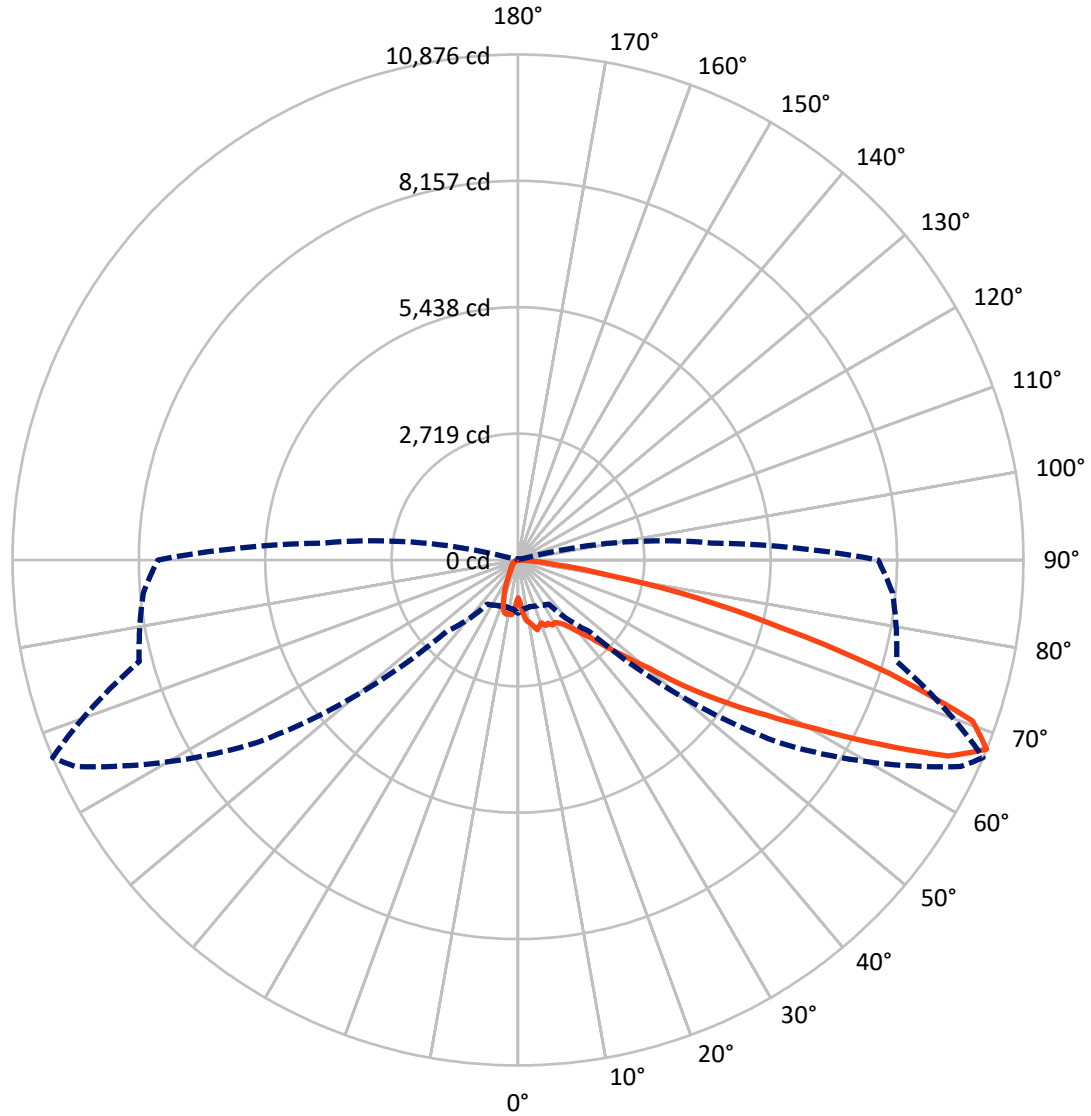
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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

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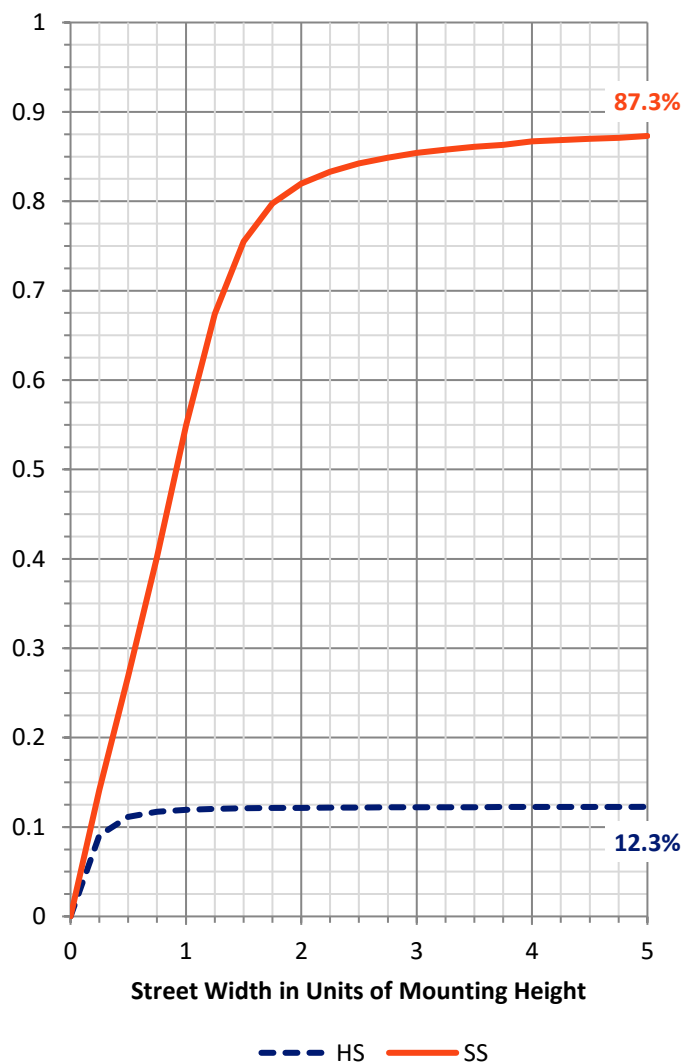
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1184.0	0.0	1184.0
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	8390.0	0.0	8390.0
	% Fixture	87.6	0.0	87.6
Total	Lumens	9574.0	0.0	9574.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	1.1
10°-20°	302.9	3.2
20°-30°	474.6	5.0
30°-40°	765.3	8.0
40°-50°	1406.3	14.7
50°-60°	2375.0	24.8
60°-70°	2625.7	27.4
70°-80°	1374.3	14.4
80°-90°	147.6	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°	9574.0	100.0
0°-180°	9574.0	100.0

Coefficient of Utilization



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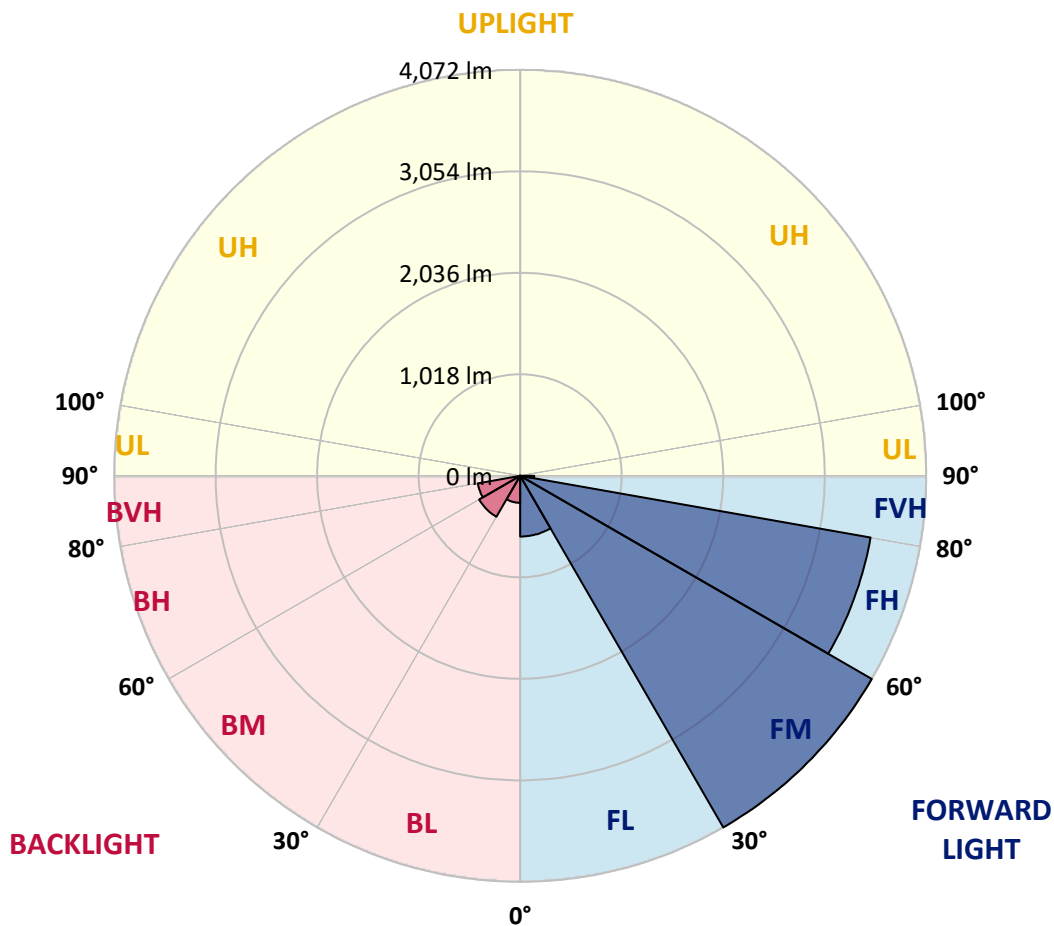
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	608.8	6.4			
FM (30°-60°)	4071.9	42.5			
FH (60°-80°)	3568.1	37.3			G2/5000
FVH (80°-90°)	141.3	1.5			G2/225
BL (0°-30°)	271.1	2.8	B1/500		
BM (30°-60°)	474.8	5.0	B1/1000		
BH (60°-80°)	431.9	4.5	B1/500		G1/500
BVH (80°-90°)	6.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4
2.5°	962.6	930.1	874.7	890.7	922.8	949.5	936.9	912.1	912.6	887.3	978.1
5°	1119.9	1076.2	1044.2	1055.4	1053.9	1052.9	1112.7	1135.5	1145.2	1187.0	1248.7
7.5°	1165.1	1149.6	1116.1	1126.3	1092.8	1095.2	1200.1	1299.2	1314.7	1340.4	1450.2
10°	1147.6	1117.5	1129.7	1129.7	1130.1	1184.5	1255.0	1349.7	1368.6	1467.7	1479.3
12.5°	1128.7	1130.1	1178.2	1169.5	1235.5	1333.2	1357.0	1463.3	1454.1	1540.1	1667.8
15°	1199.1	1236.0	1204.9	1217.1	1223.4	1338.0	1376.4	1517.7	1558.5	1667.3	1750.3
17.5°	1320.0	1324.9	1260.3	1242.8	1288.5	1321.0	1398.2	1466.2	1493.4	1779.0	1896.5
20°	1341.9	1373.0	1307.4	1206.4	1303.0	1347.7	1401.6	1434.2	1445.8	1813.5	1979.1
22.5°	1473.5	1439.0	1334.1	1257.4	1285.1	1333.6	1367.2	1465.3	1535.2	1748.4	2058.3
25°	1541.0	1531.8	1431.7	1366.2	1338.0	1334.1	1410.9	1485.2	1507.5	1815.9	2077.7
27.5°	1702.8	1681.9	1488.1	1479.8	1387.1	1305.5	1412.3	1545.9	1587.6	1752.3	2150.5
30°	1922.8	1915.0	1657.1	1651.8	1504.1	1357.4	1491.0	1583.3	1558.0	1784.8	2199.1
32.5°	2144.2	2207.4	1943.6	1793.1	1682.4	1548.3	1468.7	1571.6	1616.8	1864.0	2288.5
35°	2411.8	2457.5	2188.9	2079.6	1833.4	1637.7	1616.8	1682.8	1702.3	1958.2	2390.0
37.5°	2880.0	2811.0	2582.3	2396.3	2267.1	1956.8	1853.8	1801.3	1846.5	2085.9	2597.4
40°	3225.8	3182.1	2900.4	2789.2	2492.0	2310.3	2041.3	1992.2	2042.7	2217.1	2741.6
42.5°	3643.0	3552.2	3287.0	3211.7	2905.8	2555.6	2282.6	2299.6	2268.1	2475.9	2994.6
45°	4020.4	3815.4	3667.8	3684.8	3521.6	3048.5	2685.3	2677.0	2650.8	2850.9	3260.8
47.5°	4274.4	4095.2	3951.4	3904.3	3884.9	3915.5	3267.1	3120.4	3101.0	3244.7	3679.9
50°	4410.8	4214.6	4036.9	4046.6	4440.9	4737.7	3867.4	3659.0	3666.3	3816.4	4253.0
52.5°	4319.0	4097.1	3909.6	4091.8	4872.2	5286.0	4861.0	4362.8	4531.8	4493.4	5021.8
55°	3895.1	3702.2	3569.2	3895.1	4919.3	5876.1	6084.4	5422.0	5384.1	5296.7	5805.7
57.5°	3181.6	3015.5	2933.4	3277.3	4404.0	6351.6	7313.2	6619.2	6296.2	5930.0	6456.5
60°	2370.5	2248.2	2162.7	2344.3	3470.1	5889.7	8117.9	7747.4	7373.4	6540.5	7041.2
62.5°	1755.7	1656.1	1565.3	1581.8	2389.5	5065.5	8426.8	8942.6	8727.9	7185.0	7592.9
65°	1401.2	1310.3	1246.7	1210.3	1479.8	3811.0	7997.0	9922.2	10169.9	7792.1	7991.2
67.5°	1144.2	1067.5	1035.9	1077.7	1160.7	2172.4	6848.9	10516.7	10876.0	8436.0	8089.3
70°	931.0	867.9	864.5	977.2	1069.0	1324.4	5037.8	10106.3	10376.8	8545.8	7501.1
72.5°	648.9	621.2	665.4	825.1	1059.2	1103.0	2893.1	8363.2	8372.9	7547.8	6169.9
75°	367.2	362.8	432.7	658.1	1031.6	1091.8	1612.9	5910.1	5914.5	5708.5	4274.4
77.5°	202.0	188.9	252.1	444.9	885.9	1066.5	1040.3	4035.4	3932.0	3176.8	1952.4
80°	93.2	87.9	136.5	285.1	647.9	1008.7	833.9	2218.0	2000.0	1035.0	476.4
82.5°	38.4	36.4	62.7	183.1	409.4	812.5	702.8	984.0	789.7	196.7	147.2
85°	6.8	7.3	25.7	110.7	229.2	374.4	569.7	467.2	343.4	54.4	80.6
87.5°	0.0	0.0	5.3	26.7	55.4	102.5	231.2	130.6	89.8	16.0	23.8
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°	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4	815.4
2.5°	996.1	987.8	904.3	908.2	914.0	908.7	907.7	884.4	863.0	933.5	932.5
5°	1259.8	1201.1	1143.3	1120.9	1072.8	1009.7	1010.2	990.3	969.9	998.5	998.5
7.5°	1447.8	1366.7	1293.3	1162.7	1035.4	920.3	910.1	882.9	851.9	889.3	896.5
10°	1491.5	1421.1	1326.4	1134.5	1014.1	901.9	778.5	677.0	629.9	608.1	604.2
12.5°	1626.0	1573.6	1361.8	1149.6	976.2	786.3	584.3	463.8	381.7	375.4	366.7
15°	1715.9	1679.0	1396.8	1112.2	815.9	565.3	367.2	281.7	248.7	245.7	241.4
17.5°	1855.3	1791.1	1363.3	993.2	638.2	373.0	246.7	222.4	226.3	235.1	228.3
20°	1912.1	1786.8	1290.4	820.8	448.3	250.1	214.2	201.1	211.3	219.5	215.6
22.5°	1970.4	1799.4	1225.8	676.5	292.9	206.9	190.9	184.1	185.0	193.3	193.8
25°	1969.9	1834.4	1151.0	526.9	218.1	184.1	172.4	163.7	160.3	166.1	164.6
27.5°	2065.5	1794.1	1014.6	391.0	191.8	164.6	153.5	142.8	130.6	136.5	136.5
30°	2066.0	1859.6	919.4	280.7	175.8	146.7	137.0	120.4	106.4	111.2	111.7
32.5°	2120.9	1802.8	831.5	214.7	163.2	136.0	114.6	99.6	91.3	94.2	94.2
35°	2183.6	1851.4	696.4	189.4	150.6	120.9	98.1	86.0	79.6	82.1	82.1
37.5°	2390.5	1841.2	602.7	176.3	142.3	109.3	89.4	75.8	72.9	74.3	76.2
40°	2465.2	1913.5	475.5	168.5	128.7	98.6	78.7	68.5	64.6	65.6	66.1
42.5°	2655.6	1929.6	379.8	162.2	116.6	85.5	69.9	62.7	57.8	57.8	59.3
45°	2865.9	1969.9	302.1	156.9	106.4	76.7	63.1	57.3	50.0	49.1	51.0
47.5°	3170.4	2124.3	246.2	146.2	94.2	71.4	58.3	49.5	43.7	41.8	43.7
50°	3679.9	2386.6	217.6	133.1	85.5	67.0	51.5	42.3	37.9	35.5	36.9
52.5°	4398.7	2839.7	202.5	120.9	77.7	60.2	46.1	36.9	32.5	30.6	31.6
55°	5197.1	3359.4	195.2	108.8	70.9	52.9	40.3	32.5	28.7	26.2	26.7
57.5°	5935.3	3847.9	188.0	97.1	64.1	47.1	35.5	28.7	24.8	22.3	22.8
60°	6662.9	4237.9	170.5	83.5	57.8	42.3	31.1	24.8	22.3	19.4	19.4
62.5°	7306.4	4471.1	145.2	72.4	52.0	37.4	27.7	22.3	20.4	17.5	17.5
65°	7744.5	4481.7	117.0	62.2	45.7	32.1	24.3	20.9	18.9	15.5	15.1
67.5°	7750.8	4190.3	93.7	55.4	40.3	28.2	21.9	19.9	17.5	14.6	13.6
70°	6937.3	3461.8	78.2	48.6	35.0	24.8	18.9	18.9	17.0	14.1	12.6
72.5°	5549.2	2645.4	65.6	42.3	31.1	21.4	17.5	18.0	16.5	14.1	12.6
75°	3729.9	1517.2	54.4	35.9	27.2	18.0	17.0	17.5	17.0	14.1	12.1
77.5°	1717.8	483.2	42.3	29.6	23.3	15.1	16.5	16.5	15.5	12.6	10.7
80°	387.1	119.0	30.6	21.9	18.9	11.2	15.1	13.6	12.1	8.7	6.3
82.5°	140.8	36.4	18.5	13.6	11.7	4.4	9.7	9.7	8.7	6.3	3.9
85°	80.6	18.9	10.2	8.7	6.3	1.9	5.3	5.8	4.9	4.4	1.9
87.5°	26.2	4.4	4.9	5.3	4.9	1.0	1.9	1.9	1.5	1.0	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)