

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: STREETWORKS

Report Number: P265806

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265806
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-100-D-U-T2R-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11642.3 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 101
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

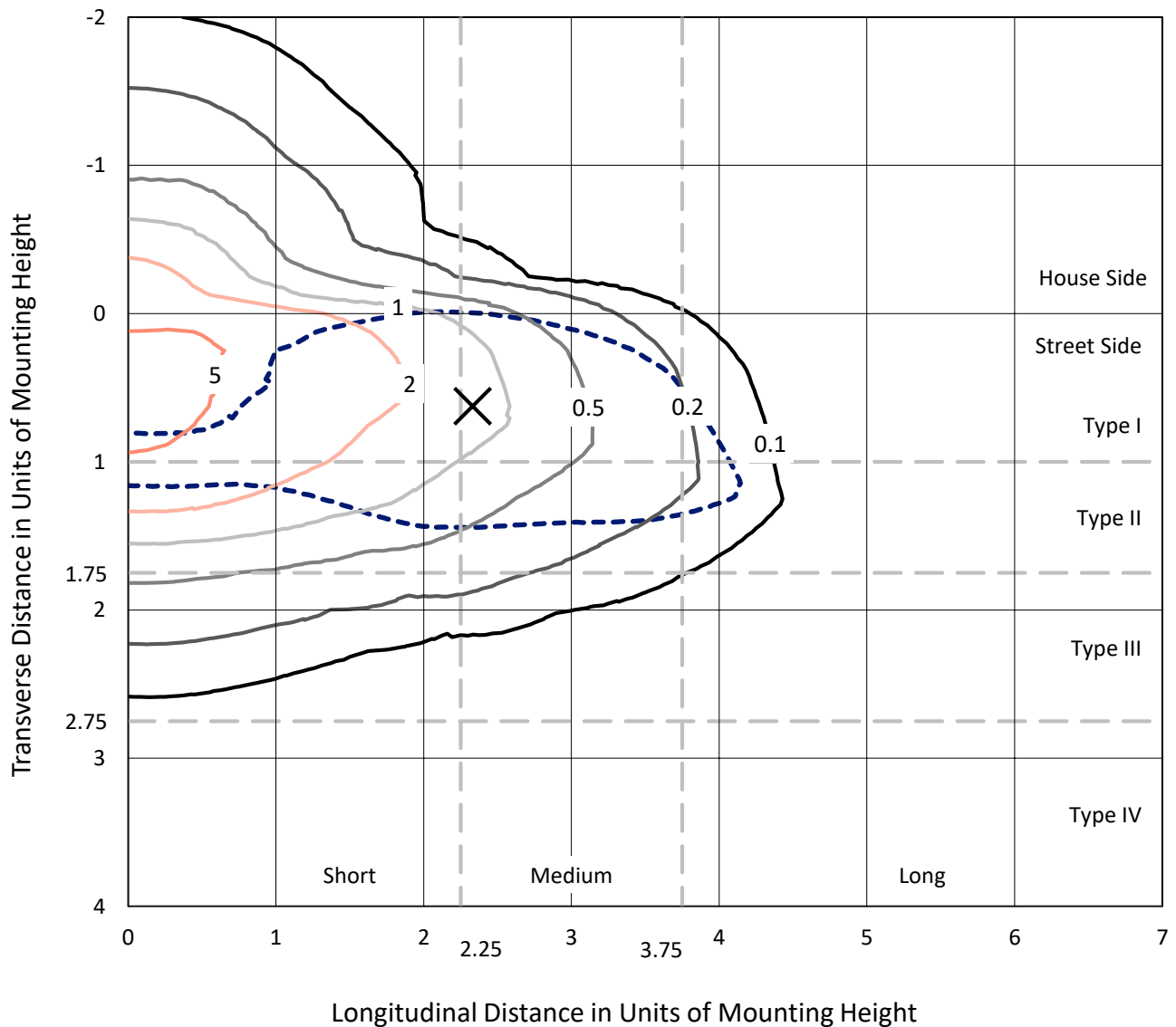


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

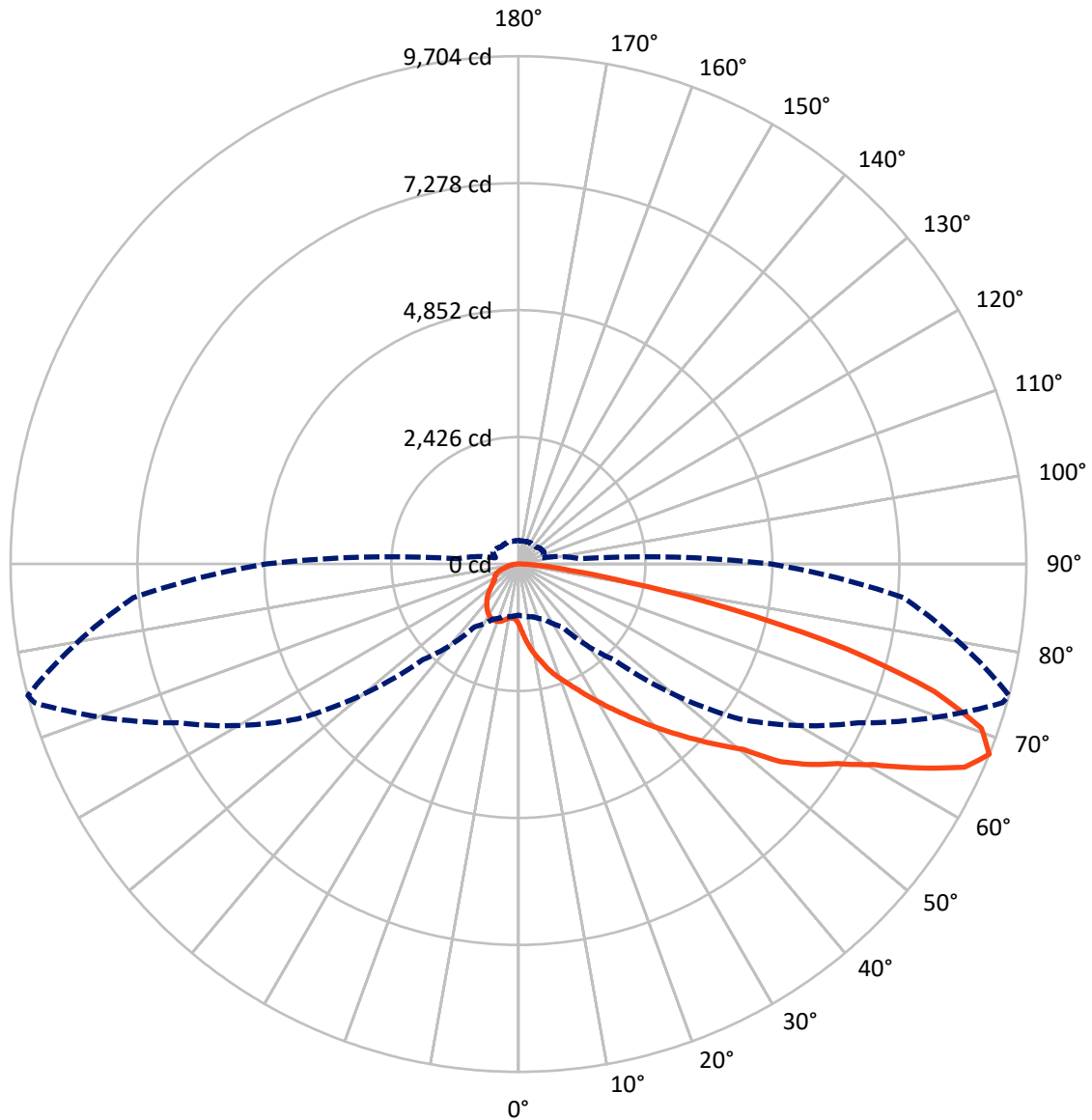


Based on 20 foot mounting height. Maximum calculated value = 6 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1988.1	0.0	1988.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	9654.3	0.0	9654.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	11642.3	0.0	11642.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.5	1.2
10°-20°	489.8	4.2
20°-30°	893.3	7.7
30°-40°	1466.3	12.6
40°-50°	2120.5	18.2
50°-60°	2499.0	21.5
60°-70°	2428.4	20.9
70°-80°	1349.9	11.6
80°-90°	259.6	2.2
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°	11642.3	100.0
0°-180°	11642.3	100.0

Coefficient of Utilization



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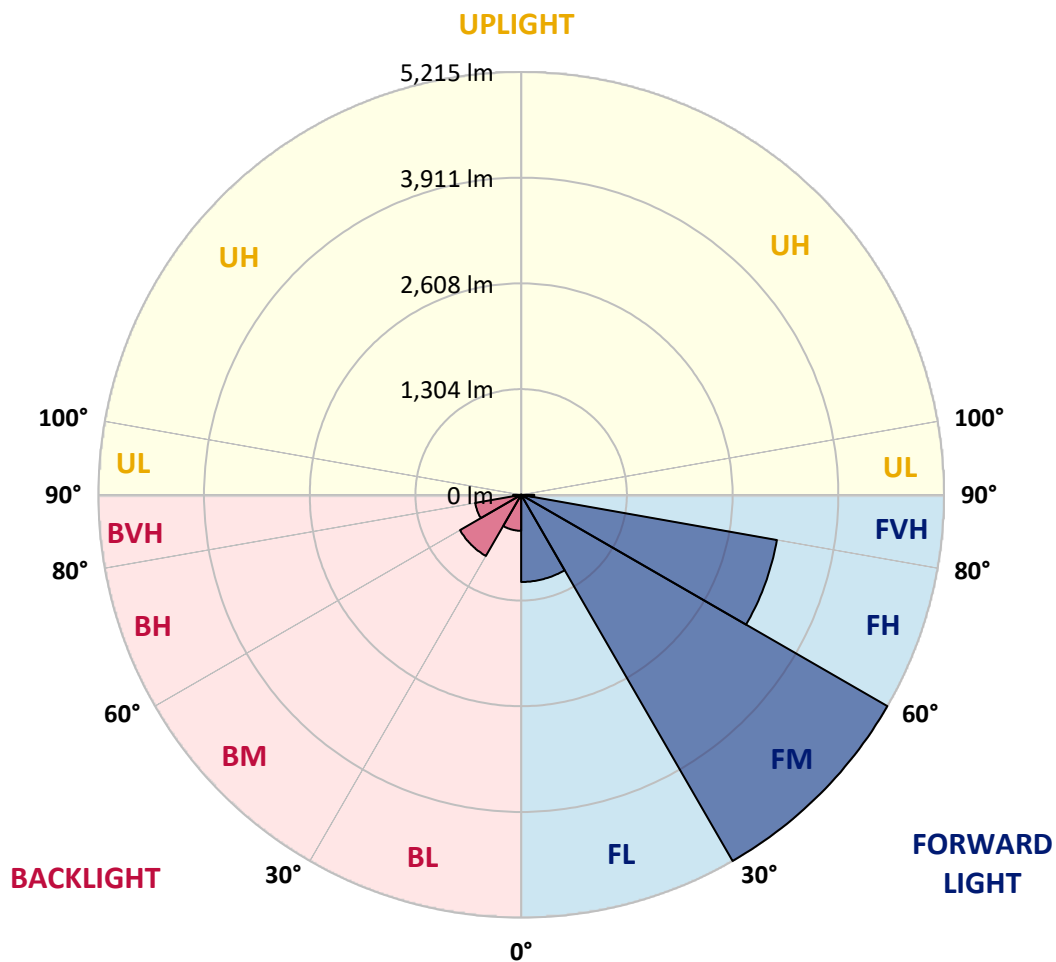
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1074.9	9.2			
FM (30°-60°)	5215.2	44.8			
FH (60°-80°)	3202.7	27.5			G2/5000
FVH (80°-90°)	161.5	1.4			G2/225
BL (0°-30°)	443.7	3.8	B1/500		
BM (30°-60°)	870.7	7.5	B1/1000		
BH (60°-80°)	575.6	4.9	B2/1000		G2/1000
BVH (80°-90°)	98.0	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7
2.5°	1635.5	1640.5	1630.7	1608.8	1577.2	1518.8	1467.7	1377.6	1297.2	1287.5	1202.3
5°	1922.7	1927.7	1915.5	1888.6	1854.6	1791.3	1720.8	1604.0	1474.8	1450.6	1270.5
7.5°	2119.9	2122.3	2107.8	2081.0	2054.2	1990.9	1920.2	1788.9	1630.7	1611.2	1358.1
10°	2287.9	2292.7	2273.3	2256.2	2227.0	2163.7	2090.6	1951.9	1788.9	1762.0	1448.2
12.5°	2443.6	2448.4	2436.3	2421.7	2411.9	2353.5	2273.3	2107.8	1932.4	1903.2	1555.2
15°	2548.2	2553.2	2555.6	2575.0	2587.2	2545.7	2465.5	2285.4	2088.2	2061.5	1681.7
17.5°	2519.0	2531.2	2567.7	2638.3	2713.7	2716.1	2650.4	2460.5	2241.6	2212.3	1810.8
20°	2433.9	2443.6	2487.3	2594.5	2743.0	2828.1	2823.3	2638.3	2385.2	2353.5	1930.1
22.5°	2504.5	2516.6	2516.6	2582.3	2728.3	2886.6	2949.9	2813.5	2528.8	2499.5	2049.4
25°	2806.2	2813.5	2762.4	2735.7	2789.1	2935.2	3054.4	3003.4	2704.0	2669.9	2178.3
27.5°	3227.3	3215.2	3151.9	3044.7	2986.3	3025.2	3146.9	3183.5	2905.9	2864.7	2312.1
30°	3646.0	3638.6	3565.6	3422.0	3290.5	3207.8	3249.2	3344.1	3125.1	3076.3	2441.1
32.5°	4037.7	4025.6	3945.3	3777.4	3628.9	3475.5	3395.2	3490.2	3358.8	3302.7	2584.8
35°	4397.9	4366.3	4286.1	4110.7	3957.5	3811.4	3614.2	3628.9	3611.8	3553.4	2743.0
37.5°	4690.1	4665.6	4578.0	4415.0	4251.9	4113.2	3906.3	3787.1	3884.5	3828.4	2925.5
40°	4948.0	4921.3	4831.2	4668.1	4517.1	4385.7	4222.8	3979.3	4191.1	4127.8	3130.0
42.5°	5142.6	5123.3	5050.2	4889.6	4743.6	4624.4	4543.9	4222.8	4509.9	4449.0	3353.8
45°	5247.4	5227.9	5189.0	5060.0	4926.0	4833.6	4840.8	4512.4	4843.3	4792.3	3619.1
47.5°	5118.4	5132.9	5167.1	5142.6	5060.0	5016.1	5106.1	4811.7	5215.6	5167.1	3906.3
50°	4772.8	4787.3	4923.7	5091.7	5120.8	5174.3	5344.7	5157.3	5610.1	5571.1	4261.6
52.5°	3923.3	4003.7	4380.9	4782.4	5057.5	5279.0	5610.1	5670.8	6274.4	6274.4	4889.6
55°	2964.4	3035.1	3465.8	4166.8	4811.7	5288.7	5804.7	6019.0	6753.8	6763.7	5218.2
57.5°	2402.2	2446.1	2657.7	3375.7	4295.8	5167.1	6035.9	6318.3	7153.1	7197.0	5641.6
60°	1949.5	1973.8	2112.5	2611.6	3582.6	4838.5	6201.4	6746.6	7722.5	7783.5	6182.0
62.5°	1567.5	1591.7	1684.2	1983.5	2811.1	4222.8	6172.3	7192.0	8481.9	8581.7	6890.2
65°	1251.0	1277.7	1338.7	1523.5	2083.3	3458.5	5872.8	7420.8	9268.1	9365.4	7360.0
67.5°	976.0	1000.4	1041.7	1163.3	1467.7	2587.2	5164.6	7179.9	9620.9	9703.8	7384.2
70°	737.5	749.6	783.7	861.6	1049.0	1718.3	4042.6	6371.8	9304.6	9380.0	6897.5
72.5°	572.0	569.5	589.0	627.9	732.6	1182.9	2679.6	5181.7	8226.4	8304.3	5885.1
75°	467.3	464.9	477.0	489.1	530.5	793.5	1581.9	3901.5	6639.6	6491.1	4415.0
77.5°	394.3	391.8	404.0	406.5	423.6	547.5	900.6	2567.7	4429.6	4174.1	2487.3
80°	333.5	330.9	345.6	350.5	362.6	401.6	518.4	1389.7	2224.6	2107.8	1187.6
82.5°	250.6	260.4	287.2	299.3	314.0	296.9	321.2	613.4	1032.0	985.7	515.9
85°	121.7	143.5	216.6	240.9	258.1	187.3	219.0	289.7	464.9	443.0	209.3
87.5°	41.4	36.6	128.9	153.3	168.0	85.2	121.7	160.6	192.2	175.2	65.8
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°	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7	1153.7
2.5°	1165.8	1129.3	1075.8	1034.4	1007.5	985.7	976.0	973.6	968.6	966.2	966.2
5°	1190.2	1124.5	1041.7	997.8	985.7	976.0	980.8	983.3	983.3	983.3	983.3
7.5°	1226.6	1134.2	1034.4	1005.2	1002.8	1002.8	1017.3	1024.6	1029.5	1029.5	1029.5
10°	1275.4	1151.2	1046.5	1022.2	1029.5	1034.4	1051.5	1061.2	1066.0	1068.4	1070.9
12.5°	1341.0	1187.6	1070.9	1051.5	1061.2	1063.7	1075.8	1080.7	1085.5	1087.9	1087.9
15°	1428.7	1241.3	1109.9	1085.5	1087.9	1085.5	1085.5	1080.7	1078.1	1078.1	1083.0
17.5°	1518.8	1292.4	1143.9	1109.9	1100.2	1080.7	1066.0	1053.8	1046.5	1041.7	1044.1
20°	1608.8	1338.7	1163.3	1114.6	1087.9	1056.2	1029.5	1012.5	1002.8	992.9	997.8
22.5°	1698.9	1382.4	1170.8	1100.2	1061.2	1014.9	985.7	958.9	937.0	922.4	924.9
25°	1798.5	1431.1	1170.8	1083.0	1024.6	976.0	939.4	895.7	864.0	851.9	856.8
27.5°	1898.4	1472.5	1158.5	1051.5	983.3	934.5	881.1	829.9	810.5	803.2	805.6
30°	1998.2	1504.1	1131.8	1012.5	939.4	885.9	815.3	781.3	756.9	737.5	739.8
32.5°	2098.0	1526.0	1095.3	963.8	893.3	825.1	766.7	727.6	683.9	659.5	662.1
35°	2212.3	1543.1	1051.5	915.2	842.2	771.6	727.6	664.4	618.3	598.7	593.9
37.5°	2331.6	1555.2	1005.2	861.6	791.0	732.6	688.8	610.8	567.1	540.3	537.8
40°	2460.5	1560.0	949.1	805.6	742.3	708.3	637.6	579.2	503.8	486.8	486.8
42.5°	2614.0	1557.7	893.3	749.6	688.8	652.3	601.1	574.3	508.7	491.6	481.9
45°	2789.1	1557.7	832.4	683.9	635.2	581.7	559.7	542.8	499.0	506.3	511.1
47.5°	2988.8	1552.8	759.3	630.4	591.4	545.2	533.1	496.6	479.4	484.4	489.1
50°	3263.8	1560.0	693.6	586.6	559.7	520.8	506.3	486.8	479.4	481.9	479.4
52.5°	3646.0	1535.7	630.4	559.7	535.4	484.4	484.4	481.9	484.4	481.9	481.9
55°	3855.2	1482.3	584.1	545.2	518.4	467.3	477.0	481.9	486.8	484.4	484.4
57.5°	4152.1	1445.7	547.5	535.4	508.7	462.4	472.1	481.9	484.4	481.9	481.9
60°	4502.7	1421.4	523.3	537.8	501.3	462.4	474.7	481.9	479.4	477.0	477.0
62.5°	4909.1	1411.6	506.3	545.2	494.1	464.9	474.7	481.9	472.1	469.8	469.8
65°	5062.4	1324.0	484.4	550.0	499.0	464.9	472.1	474.7	462.4	460.0	457.5
67.5°	4826.4	1173.0	452.7	540.3	513.6	464.9	464.9	462.4	447.9	445.4	440.4
70°	4298.2	973.6	404.0	508.7	523.3	467.3	455.1	443.0	428.3	428.3	418.6
72.5°	3519.3	766.7	340.7	452.7	515.9	474.7	435.7	418.6	401.6	401.6	391.8
75°	2536.1	572.0	272.5	377.3	484.4	472.1	411.3	389.4	369.9	367.4	355.3
77.5°	1445.7	401.6	221.5	294.6	430.7	460.0	389.4	355.3	333.5	326.2	318.8
80°	742.3	270.2	180.1	231.3	357.7	425.9	372.3	316.5	292.0	279.9	267.8
82.5°	352.9	180.1	138.7	170.4	270.2	372.3	350.5	272.5	245.9	231.3	216.6
85°	158.2	107.1	92.4	109.6	192.2	289.7	309.0	223.9	192.2	240.9	177.7
87.5°	51.2	48.7	48.7	51.2	92.4	126.5	226.4	165.5	153.3	126.5	107.1
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)