

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: P231026

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231026  
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-AF48-70-D-U-T2R  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10236.7 lumens  
Efficiency: N/A  
Efficacy: 140.2 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): 73  
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

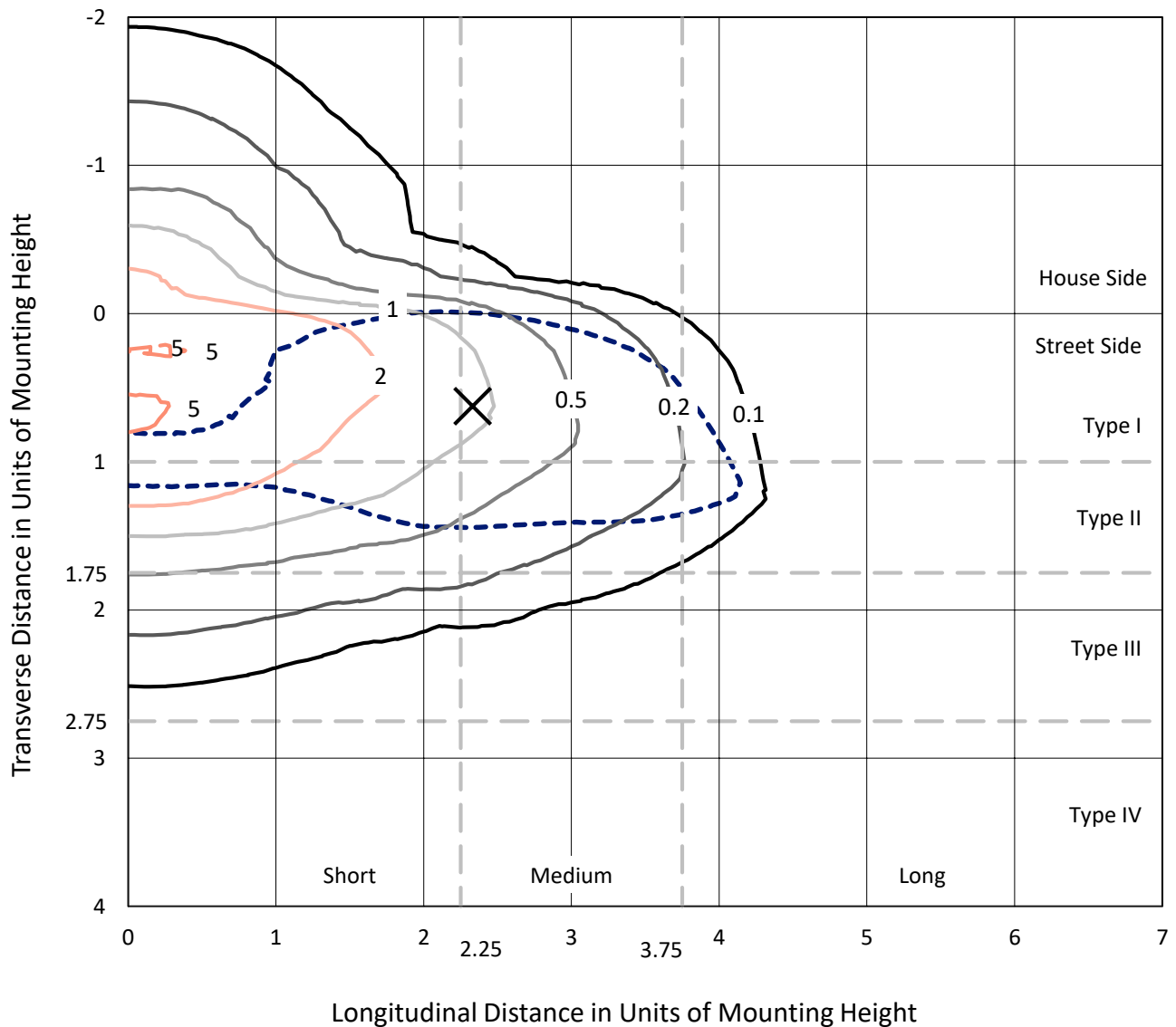


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

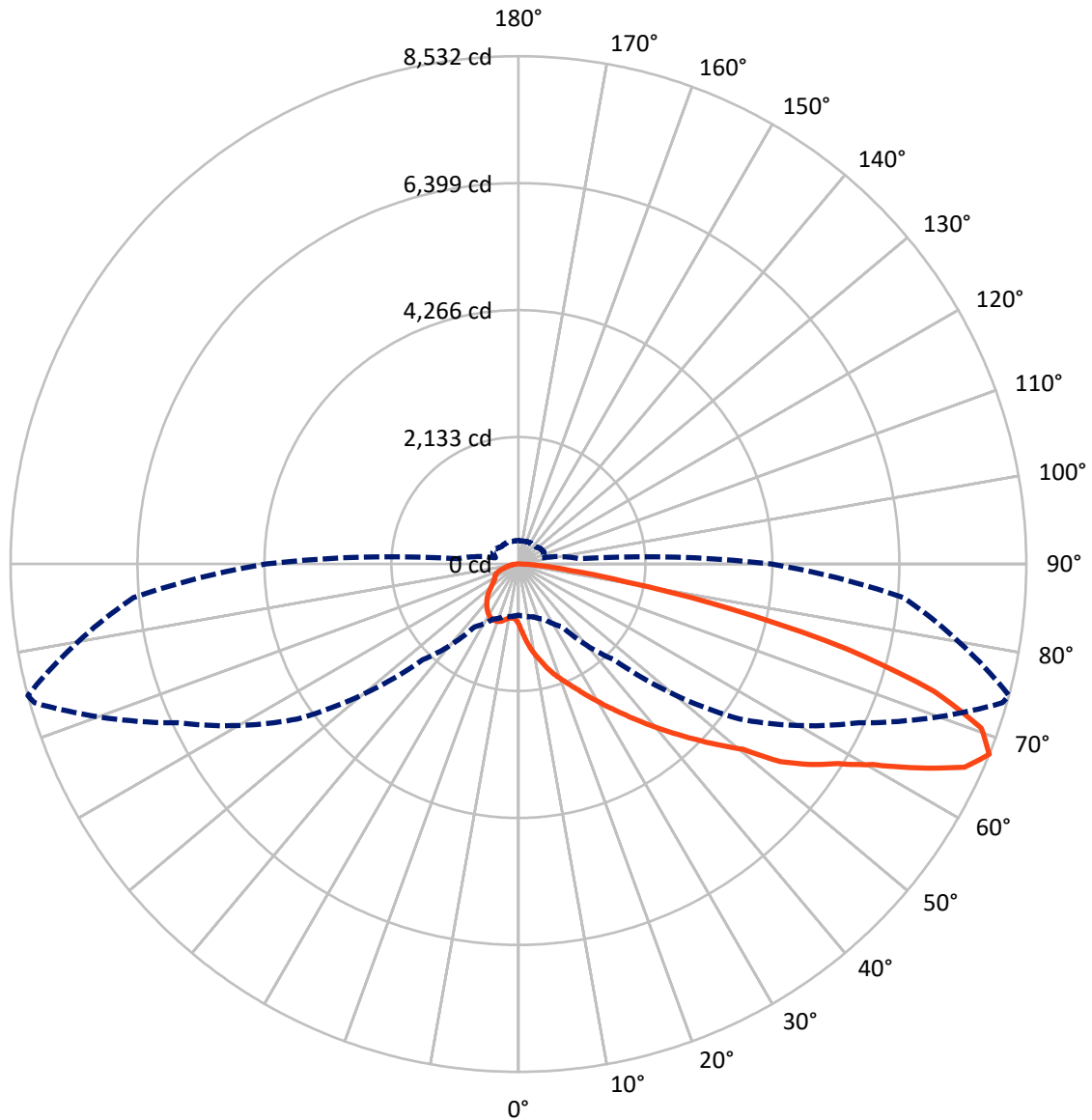


Based on 20 foot mounting height. Maximum calculated value = 5.3 fc  
 Type II - Medium - Semi-Cutoff

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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
<b>House Side</b>	Lumens	1748.0	0.0	1748.0
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	8488.6	0.0	8488.6
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	10236.7	0.0	10236.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.2	1.2
10°-20°	430.6	4.2
20°-30°	785.5	7.7
30°-40°	1289.3	12.6
40°-50°	1864.5	18.2
50°-60°	2197.3	21.5
60°-70°	2135.2	20.9
70°-80°	1186.9	11.6
80°-90°	228.2	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°	10236.7	100.0
0°-180°	10236.7	100.0



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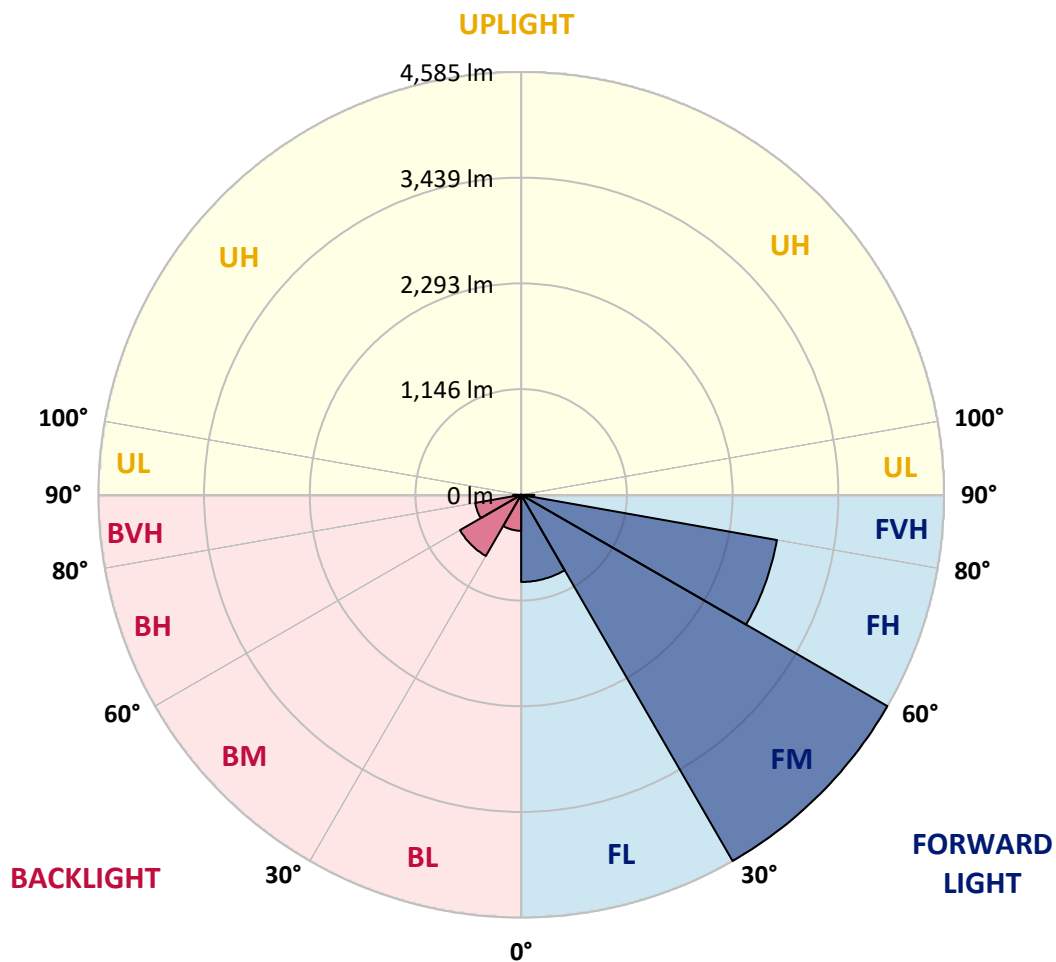
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	945.1	9.2			
FM (30°-60°)	4585.5	44.8			
FH (60°-80°)	2816.0	27.5			G2/5000
FVH (80°-90°)	142.0	1.4			G2/225
BL (0°-30°)	390.2	3.8	B1/500		
BM (30°-60°)	765.6	7.5	B1/1000		
BH (60°-80°)	506.1	4.9	B2/1000		G2/1000
BVH (80°-90°)	86.2	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°	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4
2.5°	1438.1	1442.4	1433.8	1414.5	1386.7	1335.4	1290.5	1211.3	1140.6	1132.1	1057.1
5°	1690.6	1694.8	1684.2	1660.7	1630.7	1575.0	1512.9	1410.2	1296.8	1275.4	1117.1
7.5°	1863.9	1866.1	1853.2	1829.6	1806.1	1750.5	1688.5	1572.9	1433.8	1416.7	1194.1
10°	2011.6	2015.8	1998.7	1983.8	1958.1	1902.5	1838.2	1716.3	1572.9	1549.4	1273.3
12.5°	2148.5	2152.8	2142.2	2129.3	2120.7	2069.3	1998.7	1853.2	1699.1	1673.4	1367.5
15°	2240.6	2244.9	2247.0	2264.1	2274.8	2238.4	2167.8	2009.5	1836.1	1812.6	1478.8
17.5°	2214.9	2225.6	2257.7	2319.7	2386.1	2388.2	2330.5	2163.5	1970.9	1945.2	1592.1
20°	2140.0	2148.5	2187.1	2281.2	2411.8	2486.7	2482.4	2319.7	2097.2	2069.3	1697.0
22.5°	2202.0	2212.7	2212.7	2270.5	2398.9	2538.0	2593.7	2473.8	2223.5	2197.8	1801.8
25°	2467.4	2473.8	2428.9	2405.4	2452.4	2580.8	2685.7	2640.7	2377.5	2347.6	1915.3
27.5°	2837.7	2826.9	2771.3	2677.2	2625.8	2660.0	2767.0	2799.1	2555.1	2518.8	2033.0
30°	3205.7	3199.3	3135.0	3008.8	2893.2	2820.5	2856.9	2940.4	2747.7	2705.0	2146.4
32.5°	3550.3	3539.5	3468.9	3321.2	3190.7	3055.9	2985.3	3068.8	2953.2	2904.0	2272.7
35°	3867.0	3839.1	3768.6	3614.4	3479.6	3351.2	3177.9	3190.7	3175.8	3124.4	2411.8
37.5°	4123.7	4102.3	4025.3	3881.9	3738.6	3616.5	3434.7	3329.8	3415.4	3366.2	2572.3
40°	4350.6	4327.1	4247.9	4104.5	3971.8	3856.2	3712.9	3498.9	3685.1	3629.4	2752.0
42.5°	4521.7	4504.7	4440.4	4299.3	4170.9	4066.0	3995.3	3712.9	3965.4	3911.9	2948.9
45°	4613.8	4596.7	4562.5	4449.0	4331.4	4250.1	4256.4	3967.5	4258.5	4213.6	3182.2
47.5°	4500.4	4513.3	4543.2	4521.7	4449.0	4410.6	4489.7	4230.7	4586.0	4543.2	3434.7
50°	4196.6	4209.3	4329.2	4476.8	4502.5	4549.6	4699.4	4534.6	4932.7	4898.4	3747.1
52.5°	3449.7	3520.3	3852.0	4205.0	4446.9	4641.6	4932.7	4986.2	5516.9	5516.9	4299.3
55°	2606.5	2668.6	3047.4	3663.7	4230.7	4650.2	5103.9	5292.2	5938.4	5947.0	4588.1
57.5°	2112.2	2150.7	2336.8	2968.2	3777.0	4543.2	5307.2	5555.4	6289.4	6328.0	4960.5
60°	1714.2	1735.5	1857.5	2296.2	3150.1	4254.2	5452.6	5932.1	6790.1	6843.6	5435.6
62.5°	1378.1	1399.6	1480.8	1744.1	2471.7	3712.9	5427.0	6323.7	7457.8	7545.6	6058.3
65°	1100.0	1123.5	1177.0	1339.7	1831.8	3040.9	5163.8	6524.8	8149.0	8234.7	6471.3
67.5°	858.2	879.5	916.0	1023.0	1290.5	2274.8	4541.1	6312.9	8459.4	8532.1	6492.7
70°	648.4	659.1	689.1	757.6	922.3	1510.8	3554.5	5602.5	8181.2	8247.5	6064.8
72.5°	502.9	500.7	517.9	552.1	644.2	1040.0	2356.2	4556.0	7233.2	7301.6	5174.5
75°	410.9	408.8	419.4	430.2	466.6	697.7	1391.0	3430.4	5837.9	5707.3	3881.9
77.5°	346.7	344.5	355.3	357.4	372.4	481.5	791.8	2257.7	3894.8	3670.0	2187.1
80°	293.2	291.0	303.9	308.1	318.9	353.1	455.8	1221.9	1956.0	1853.2	1044.3
82.5°	220.4	228.9	252.6	263.2	276.1	261.1	282.4	539.3	907.4	866.6	453.7
85°	107.0	126.2	190.5	211.9	226.8	164.8	192.6	254.6	408.8	389.4	184.0
87.5°	36.4	32.1	113.4	134.8	147.6	74.9	107.0	141.3	169.1	154.1	57.8
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°	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4	1014.4
2.5°	1025.1	993.0	945.9	909.5	886.0	866.6	858.2	856.0	851.7	849.6	849.6
5°	1046.5	988.7	916.0	877.4	866.6	858.2	862.4	864.6	864.6	864.6	864.6
7.5°	1078.6	997.3	909.5	883.8	881.7	881.7	894.5	900.9	905.2	905.2	905.2
10°	1121.4	1012.2	920.1	898.8	905.2	909.5	924.4	933.0	937.3	939.5	941.6
12.5°	1179.2	1044.3	941.6	924.4	933.0	935.2	945.9	950.1	954.4	956.6	956.6
15°	1256.2	1091.4	975.8	954.4	956.6	954.4	954.4	950.1	948.0	948.0	952.3
17.5°	1335.4	1136.3	1005.8	975.8	967.3	950.1	937.3	926.6	920.1	916.0	918.1
20°	1414.5	1177.0	1023.0	980.1	956.6	928.7	905.2	890.3	881.7	873.1	877.4
22.5°	1493.7	1215.5	1029.3	967.3	933.0	892.4	866.6	843.1	823.9	811.1	813.2
25°	1581.5	1258.3	1029.3	952.3	900.9	858.2	826.0	787.5	759.7	749.0	753.3
27.5°	1669.1	1294.6	1018.7	924.4	864.6	821.7	774.7	729.8	712.6	706.2	708.3
30°	1756.9	1322.5	995.1	890.3	826.0	779.0	716.9	686.9	665.5	648.4	650.6
32.5°	1844.7	1341.8	963.0	847.4	785.4	725.5	674.1	639.9	601.3	579.9	582.1
35°	1945.2	1356.7	924.4	804.7	740.4	678.4	639.9	584.2	543.6	526.4	522.1
37.5°	2050.1	1367.5	883.8	757.6	695.5	644.2	605.6	537.2	498.6	475.1	472.9
40°	2163.5	1371.8	834.6	708.3	652.7	622.8	560.7	509.3	442.9	428.0	428.0
42.5°	2298.4	1369.6	785.4	659.1	605.6	573.5	528.6	505.0	447.2	432.3	423.7
45°	2452.4	1369.6	731.9	601.3	558.5	511.5	492.2	477.2	438.7	445.1	449.4
47.5°	2627.9	1365.3	667.7	554.2	520.0	479.4	468.6	436.6	421.6	425.9	430.2
50°	2869.7	1371.8	609.9	515.8	492.2	458.0	445.1	428.0	421.6	423.7	421.6
52.5°	3205.7	1350.3	554.2	492.2	470.8	425.9	425.9	423.7	425.9	423.7	423.7
55°	3389.8	1303.2	513.6	479.4	455.8	410.9	419.4	423.7	428.0	425.9	425.9
57.5°	3650.8	1271.1	481.5	470.8	447.2	406.6	415.1	423.7	425.9	423.7	423.7
60°	3959.0	1249.7	460.1	472.9	440.8	406.6	417.3	423.7	421.6	419.4	419.4
62.5°	4316.3	1241.1	445.1	479.4	434.4	408.8	417.3	423.7	415.1	413.1	413.1
65°	4451.2	1164.1	425.9	483.7	438.7	408.8	415.1	417.3	406.6	404.5	402.3
67.5°	4243.6	1031.4	398.0	475.1	451.5	408.8	408.8	406.6	393.7	391.6	387.3
70°	3779.2	856.0	355.3	447.2	460.1	410.9	400.2	389.4	376.7	376.7	368.1
72.5°	3094.4	674.1	299.6	398.0	453.7	417.3	383.1	368.1	353.1	353.1	344.5
75°	2229.8	502.9	239.7	331.7	425.9	415.1	361.6	342.4	325.3	323.2	312.4
77.5°	1271.1	353.1	194.8	258.9	378.8	404.5	342.4	312.4	293.2	286.7	280.3
80°	652.7	237.5	158.4	203.3	314.6	374.5	327.4	278.2	256.8	246.1	235.4
82.5°	310.3	158.4	121.9	149.8	237.5	327.4	308.1	239.7	216.1	203.3	190.5
85°	139.1	94.1	81.3	96.3	169.1	254.6	271.8	196.9	169.1	211.9	156.2
87.5°	44.9	42.8	42.8	44.9	81.3	111.3	199.1	145.6	134.8	111.3	94.1
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)