

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: P231051

Luminaire Tested: **ARCH-M-AF48-60-D-U-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231051  
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-AF48-60-D-U-T2R-7050  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8780 lumens  
Efficiency: N/A  
Efficacy: 139.4 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

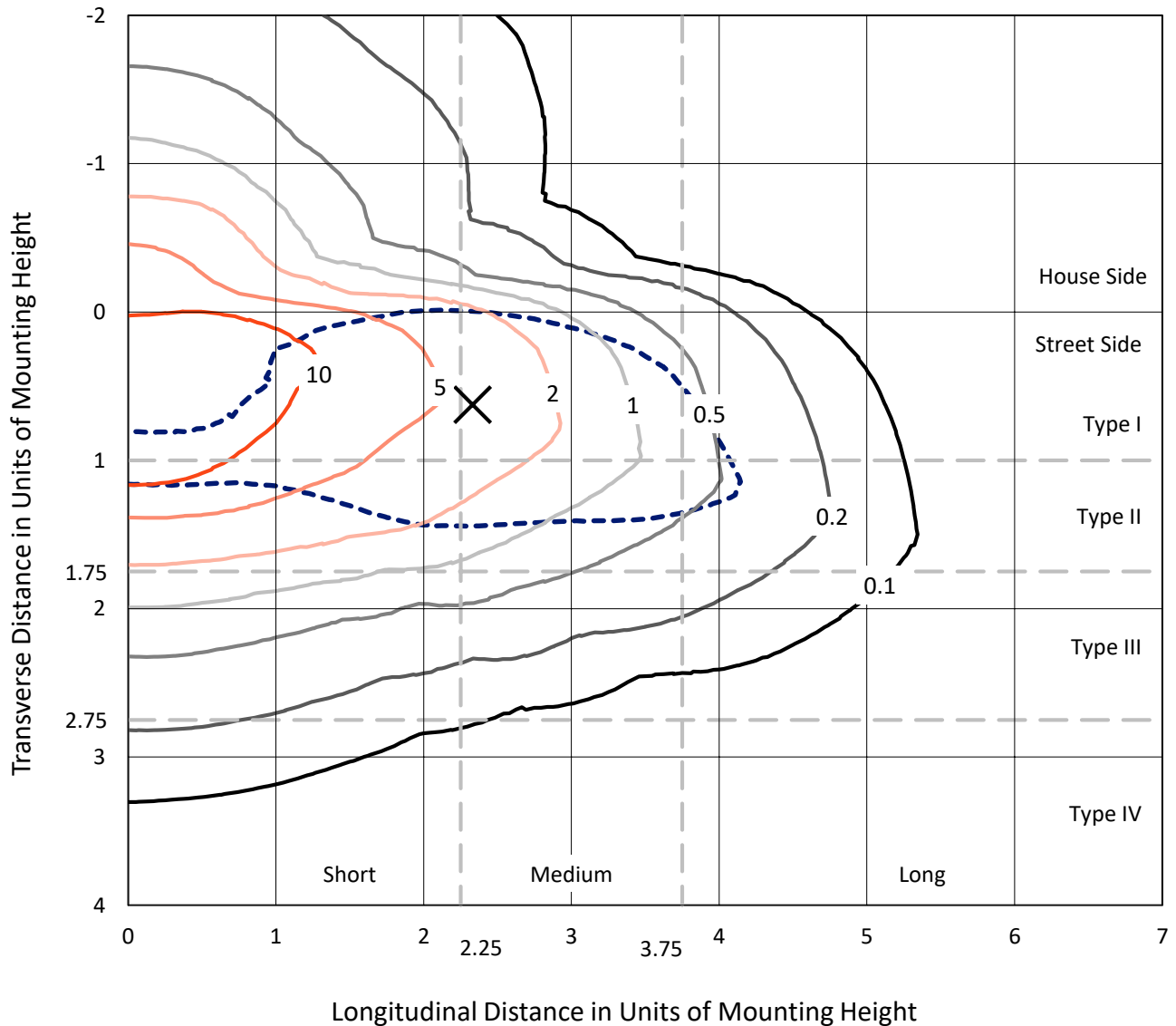
Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

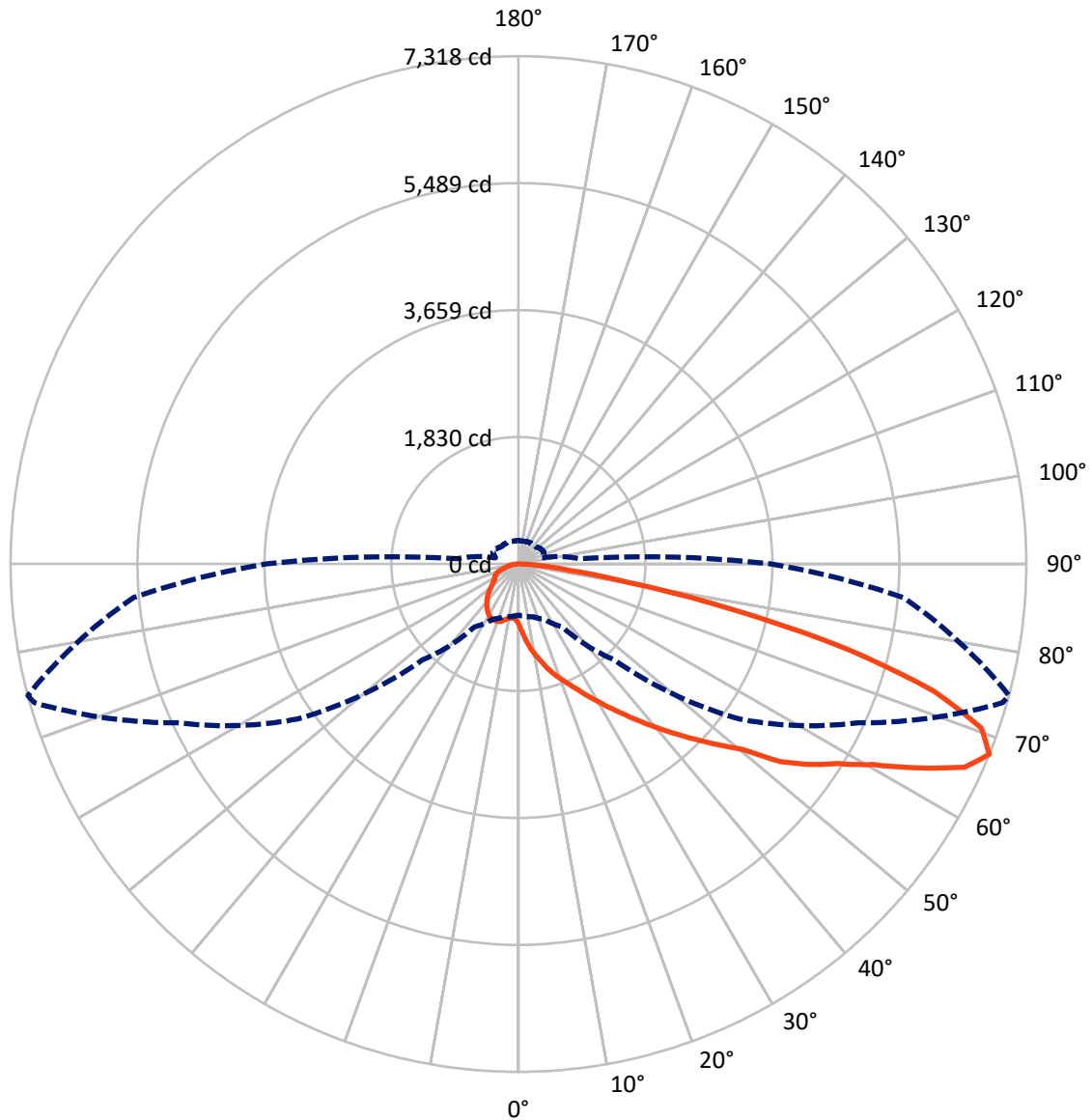
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.2 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	1499.3	0.0	1499.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	7280.7	0.0	7280.7
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	8780.0	0.0	8780.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.2	1.2
10°-20°	369.4	4.2
20°-30°	673.7	7.7
30°-40°	1105.8	12.6
40°-50°	1599.2	18.2
50°-60°	1884.6	21.5
60°-70°	1831.4	20.9
70°-80°	1018.0	11.6
80°-90°	195.7	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°	8780.0	100.0
0°-180°	8780.0	100.0

**Coefficient of Utilization**



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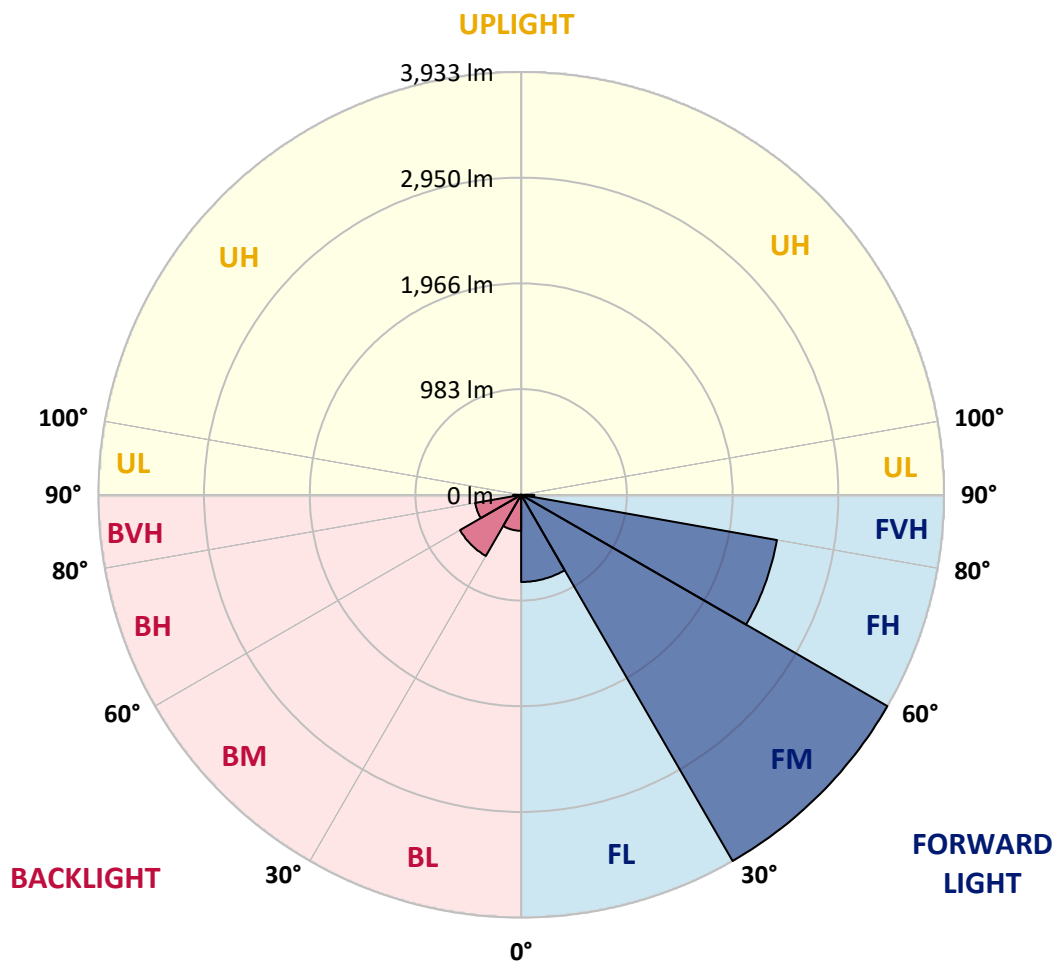
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	810.6	9.2			
FM	(30°-60°)	3933.0	44.8			
FH	(60°-80°)	2415.3	27.5			G2/5000
FVH	(80°-90°)	121.8	1.4			G2/225
BL	(0°-30°)	334.6	3.8	B1/500		
BM	(30°-60°)	656.6	7.5	B1/1000		
BH	(60°-80°)	434.1	4.9	B1/500		G1/500
BVH	(80°-90°)	73.9	0.8			G1/100
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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0
2.5°	1233.4	1237.1	1229.8	1213.2	1189.4	1145.3	1106.8	1038.9	978.3	971.0	906.7
5°	1450.0	1453.7	1444.5	1424.3	1398.6	1350.9	1297.7	1209.6	1112.3	1093.9	958.1
7.5°	1598.7	1600.5	1589.5	1569.3	1549.1	1501.4	1448.2	1349.1	1229.8	1215.1	1024.2
10°	1725.3	1729.0	1714.3	1701.5	1679.5	1631.7	1576.7	1472.0	1349.1	1328.9	1092.1
12.5°	1842.8	1846.5	1837.3	1826.3	1818.9	1774.9	1714.3	1589.5	1457.4	1435.3	1172.9
15°	1921.7	1925.4	1927.2	1941.9	1951.1	1919.9	1859.3	1723.5	1574.8	1554.6	1268.3
17.5°	1899.7	1908.9	1936.4	1989.6	2046.5	2048.4	1998.8	1855.7	1690.5	1668.4	1365.6
20°	1835.5	1842.8	1875.8	1956.6	2068.6	2132.8	2129.1	1989.6	1798.8	1774.9	1455.5
22.5°	1888.7	1897.9	1897.9	1947.4	2057.6	2176.9	2224.6	2121.8	1907.1	1885.0	1545.5
25°	2116.3	2121.8	2083.3	2063.1	2103.4	2213.6	2303.5	2265.0	2039.2	2013.5	1642.7
27.5°	2433.8	2424.7	2376.9	2296.2	2252.1	2281.5	2373.3	2400.8	2191.5	2160.3	1743.7
30°	2749.5	2744.0	2689.0	2580.7	2481.6	2419.1	2450.4	2521.9	2356.7	2320.0	1841.0
32.5°	3045.0	3035.9	2975.3	2848.6	2736.7	2621.0	2560.5	2632.1	2532.9	2490.7	1949.3
35°	3316.7	3292.8	3232.3	3100.1	2984.5	2874.3	2725.7	2736.7	2723.8	2679.8	2068.6
37.5°	3536.9	3518.6	3452.5	3329.5	3206.6	3101.9	2945.9	2856.0	2929.4	2887.2	2206.2
40°	3731.5	3711.3	3643.4	3520.4	3406.6	3307.5	3184.5	3001.0	3160.7	3113.0	2360.4
42.5°	3878.3	3863.7	3808.6	3687.5	3577.3	3487.4	3426.8	3184.5	3401.1	3355.2	2529.3
45°	3957.3	3942.6	3913.2	3815.9	3715.0	3645.2	3650.7	3403.0	3652.6	3614.0	2729.3
47.5°	3860.0	3871.0	3896.7	3878.3	3815.9	3782.9	3850.8	3628.7	3933.4	3896.7	2945.9
50°	3599.4	3610.4	3713.2	3839.8	3861.8	3902.2	4030.7	3889.4	4230.8	4201.4	3213.9
52.5°	2958.8	3019.3	3303.8	3606.7	3814.1	3981.1	4230.8	4276.6	4731.8	4731.8	3687.5
55°	2235.6	2288.8	2613.7	3142.3	3628.7	3988.5	4377.6	4539.1	5093.4	5100.8	3935.2
57.5°	1811.6	1844.6	2004.3	2545.8	3239.6	3896.7	4552.0	4764.9	5394.4	5427.5	4254.6
60°	1470.2	1488.6	1593.2	1969.5	2701.8	3648.9	4676.8	5087.9	5823.9	5869.8	4662.1
62.5°	1182.0	1200.4	1270.1	1495.9	2120.0	3184.5	4654.7	5423.8	6396.6	6471.9	5196.2
65°	943.4	963.6	1009.5	1149.0	1571.2	2608.2	4429.0	5596.3	6989.5	7062.9	5550.5
67.5°	736.0	754.4	785.6	877.4	1106.8	1951.1	3894.9	5414.6	7255.6	7318.0	5568.8
70°	556.1	565.3	591.0	649.8	791.1	1295.8	3048.7	4805.3	7017.0	7073.9	5201.7
72.5°	431.3	429.5	444.2	473.6	552.5	892.0	2020.9	3907.7	6203.9	6262.6	4438.2
75°	352.4	350.6	359.8	368.9	400.1	598.4	1193.1	2942.3	5007.2	4895.2	3329.5
77.5°	297.3	295.5	304.7	306.5	319.4	413.0	679.1	1936.4	3340.6	3147.8	1875.8
80°	251.5	249.6	260.6	264.3	273.5	302.9	391.0	1048.1	1677.6	1589.5	895.7
82.5°	189.1	196.4	216.6	225.8	236.8	223.9	242.3	462.5	778.2	743.4	389.1
85°	91.8	108.3	163.4	181.7	194.6	141.3	165.2	218.4	350.6	334.1	157.9
87.5°	31.2	27.5	97.3	115.6	126.6	64.2	91.8	121.1	145.0	132.2	49.6
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°	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0	870.0
2.5°	879.2	851.7	811.3	780.1	759.9	743.4	736.0	734.2	730.5	728.7	728.7
5°	897.5	848.0	785.6	752.5	743.4	736.0	739.7	741.5	741.5	741.5	741.5
7.5°	925.1	855.3	780.1	758.0	756.2	756.2	767.2	772.7	776.4	776.4	776.4
10°	961.8	868.2	789.3	770.9	776.4	780.1	792.9	800.3	803.9	805.8	807.6
12.5°	1011.3	895.7	807.6	792.9	800.3	802.1	811.3	814.9	818.6	820.5	820.5
15°	1077.4	936.1	837.0	818.6	820.5	818.6	818.6	814.9	813.1	813.1	816.8
17.5°	1145.3	974.6	862.7	837.0	829.6	814.9	803.9	794.8	789.3	785.6	787.4
20°	1213.2	1009.5	877.4	840.6	820.5	796.6	776.4	763.6	756.2	748.9	752.5
22.5°	1281.2	1042.5	882.9	829.6	800.3	765.4	743.4	723.2	706.7	695.6	697.5
25°	1356.4	1079.3	882.9	816.8	772.7	736.0	708.5	675.5	651.6	642.4	646.1
27.5°	1431.7	1110.5	873.7	792.9	741.5	704.8	664.4	625.9	611.2	605.7	607.5
30°	1506.9	1134.3	853.5	763.6	708.5	668.1	614.9	589.2	570.8	556.1	558.0
32.5°	1582.2	1150.8	826.0	726.8	673.6	622.2	578.2	548.8	515.8	497.4	499.2
35°	1668.4	1163.7	792.9	690.1	635.1	581.8	548.8	501.1	466.2	451.5	447.9
37.5°	1758.4	1172.9	758.0	649.8	596.5	552.5	519.4	460.7	427.7	407.5	405.6
40°	1855.7	1176.5	715.8	607.5	559.8	534.1	480.9	436.8	379.9	367.1	367.1
42.5°	1971.3	1174.7	673.6	565.3	519.4	491.9	453.4	433.2	383.6	370.8	363.4
45°	2103.4	1174.7	627.7	515.8	479.1	438.7	422.2	409.3	376.3	381.8	385.4
47.5°	2254.0	1171.0	572.7	475.4	446.0	411.1	402.0	374.4	361.6	365.3	368.9
50°	2461.4	1176.5	523.1	442.3	422.2	392.8	381.8	367.1	361.6	363.4	361.6
52.5°	2749.5	1158.2	475.4	422.2	403.8	365.3	365.3	363.4	365.3	363.4	363.4
55°	2907.4	1117.8	440.5	411.1	391.0	352.4	359.8	363.4	367.1	365.3	365.3
57.5°	3131.3	1090.3	413.0	403.8	383.6	348.7	356.1	363.4	365.3	363.4	363.4
60°	3395.6	1071.9	394.6	405.6	378.1	348.7	357.9	363.4	361.6	359.8	359.8
62.5°	3702.1	1064.6	381.8	411.1	372.6	350.6	357.9	363.4	356.1	354.2	354.2
65°	3817.8	998.5	365.3	414.8	376.3	350.6	356.1	357.9	348.7	346.9	345.1
67.5°	3639.7	884.7	341.4	407.5	387.3	350.6	350.6	348.7	337.7	335.9	332.2
70°	3241.4	734.2	304.7	383.6	394.6	352.4	343.2	334.1	323.0	323.0	315.7
72.5°	2654.1	578.2	257.0	341.4	389.1	357.9	328.5	315.7	302.9	302.9	295.5
75°	1912.6	431.3	205.6	284.5	365.3	356.1	310.2	293.7	279.0	277.2	268.0
77.5°	1090.3	302.9	167.0	222.1	324.9	346.9	293.7	268.0	251.5	246.0	240.4
80°	559.8	203.7	135.8	174.4	269.8	321.2	280.8	238.6	220.3	211.1	201.9
82.5°	266.1	135.8	104.6	128.5	203.7	280.8	264.3	205.6	185.4	174.4	163.4
85°	119.3	80.8	69.7	82.6	145.0	218.4	233.1	168.9	145.0	181.7	134.0
87.5°	38.5	36.7	36.7	38.5	69.7	95.4	170.7	124.8	115.6	95.4	80.8
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)