

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: P265779

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265779  
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-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 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: 8694 lumens  
Efficiency: N/A  
Efficacy: 119.1 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

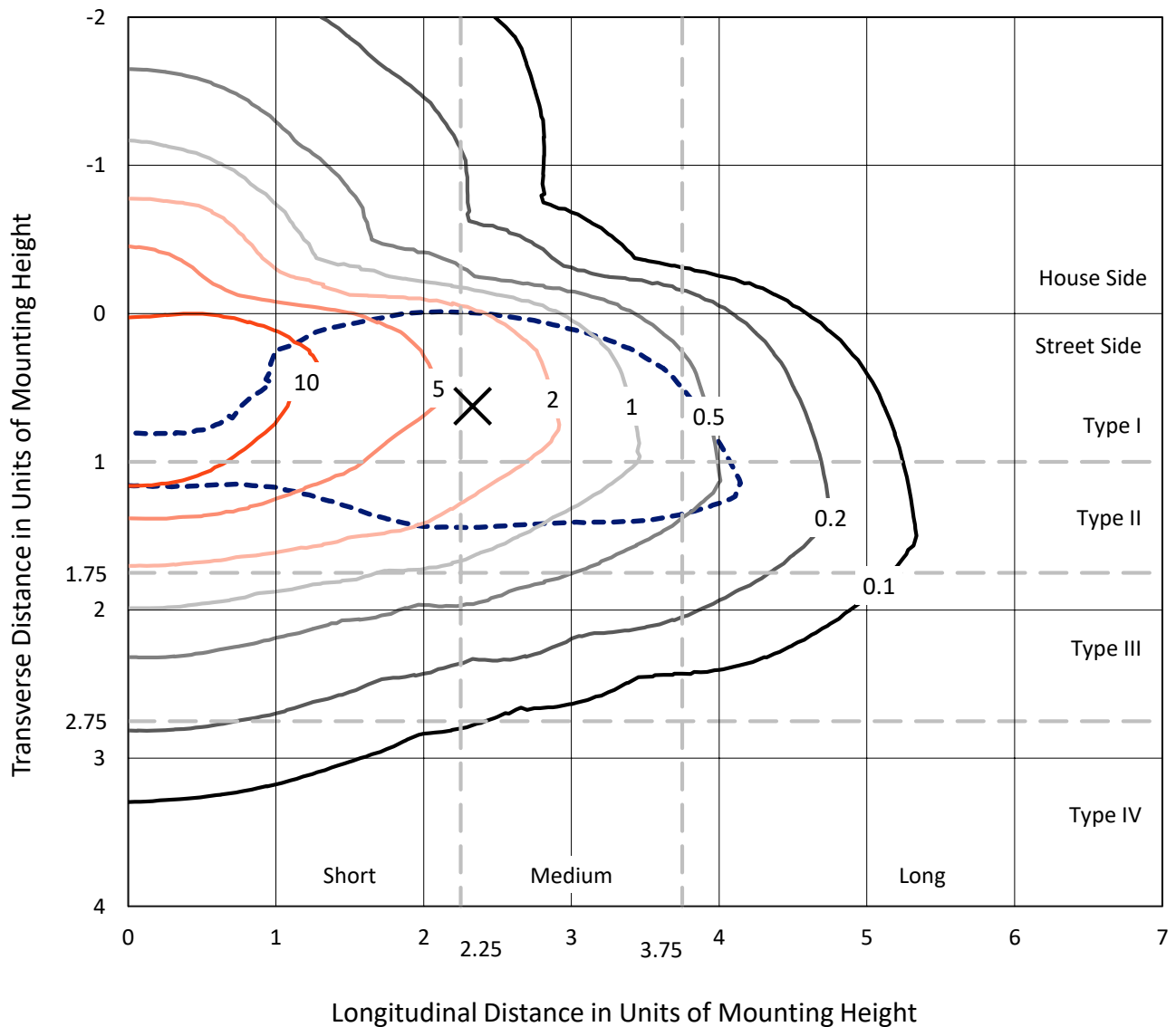
Input Watts (W): 73  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P265779  
 CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2R-7027

### Iso-Footcandle Lines of Horizontal Illumination

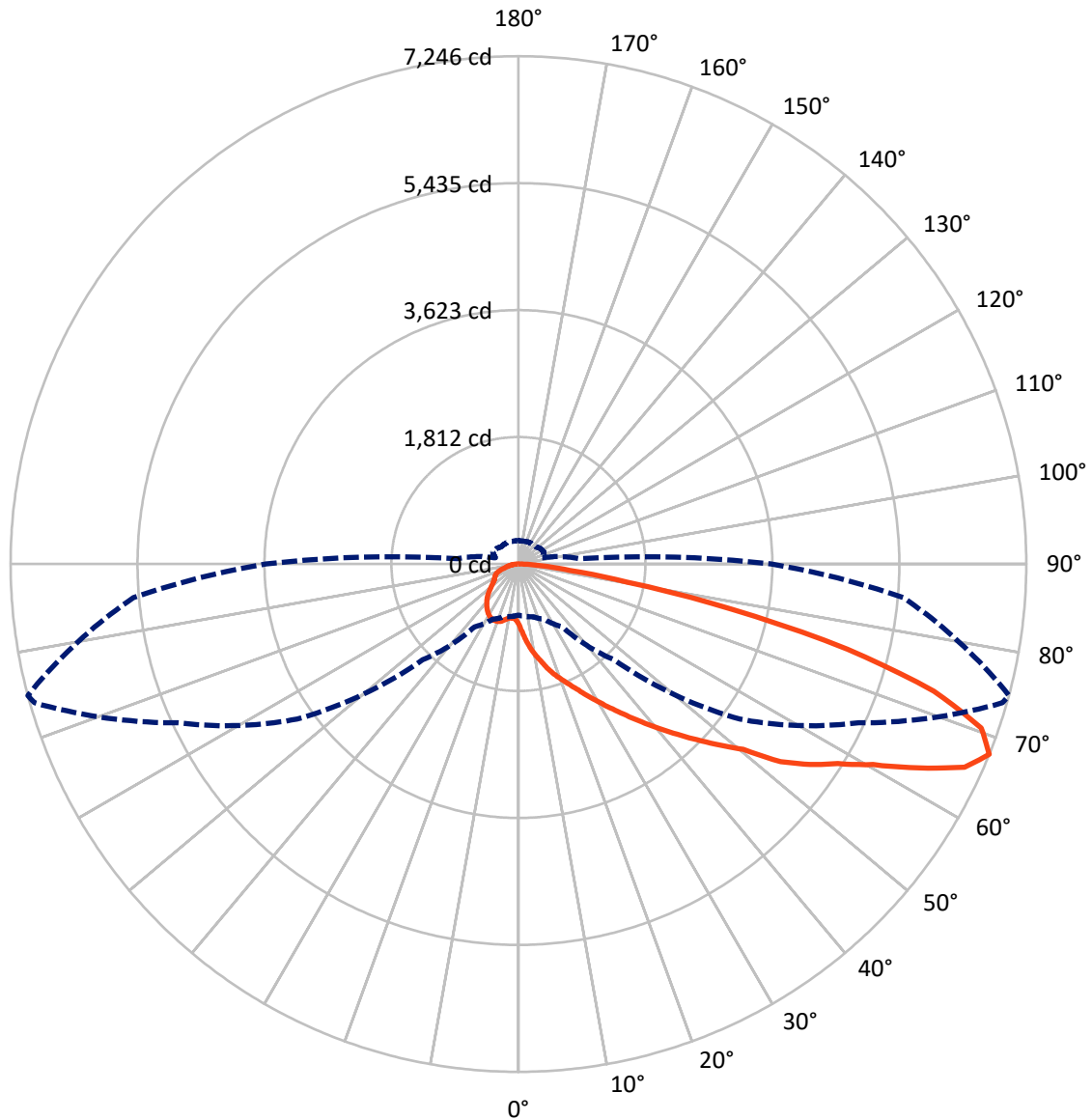
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18 fc  
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P265779  
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2R-7027

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P265779

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2R-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1484.6	0.0	1484.6
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	7209.4	0.0	7209.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	8694.0	0.0	8694.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	1.2
10°-20°	365.7	4.2
20°-30°	667.1	7.7
30°-40°	1095.0	12.6
40°-50°	1583.5	18.2
50°-60°	1866.2	21.5
60°-70°	1813.4	20.9
70°-80°	1008.0	11.6
80°-90°	193.8	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°	8694.0	100.0
0°-180°	8694.0	100.0



REPORT NUMBER: P265779

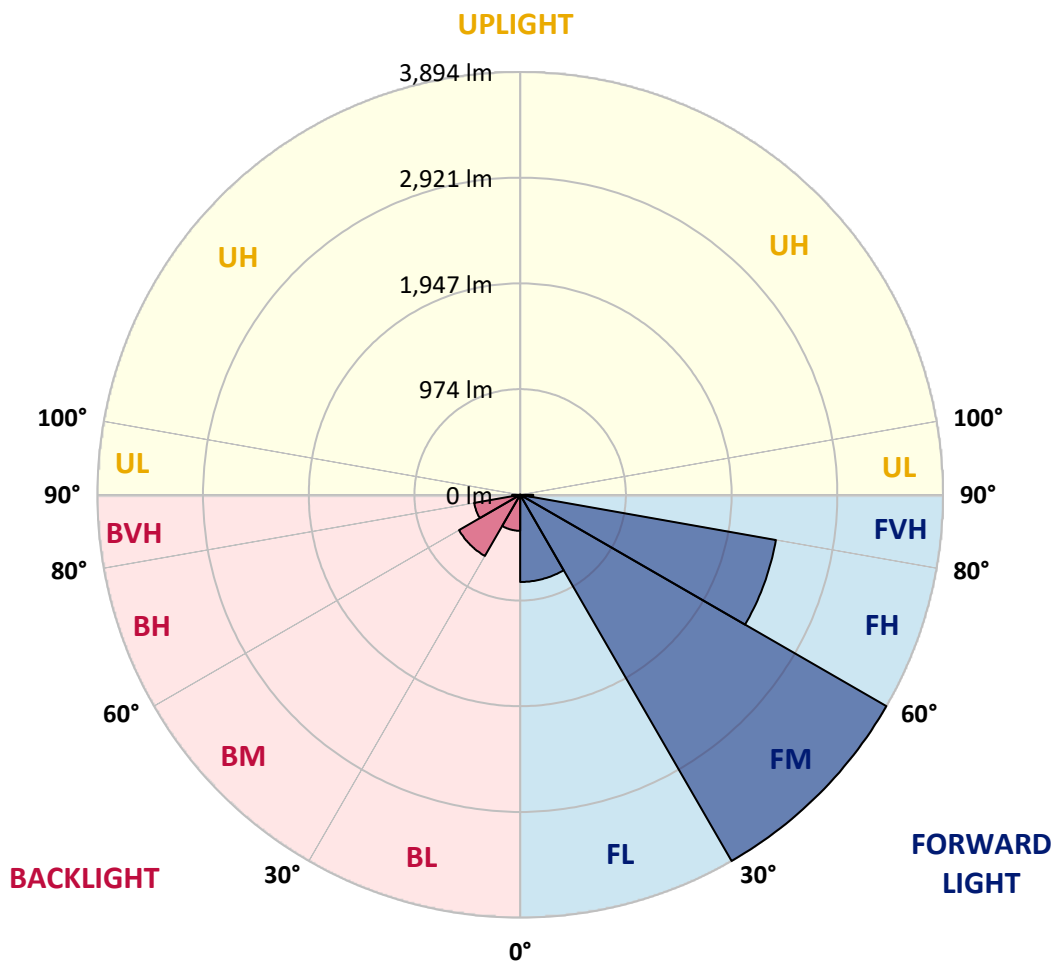
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2R-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	802.7	9.2			
FM	(30°-60°)	3894.4	44.8			
FH	(60°-80°)	2391.6	27.5			G2/5000
FVH	(80°-90°)	120.6	1.4			G2/225
BL	(0°-30°)	331.4	3.8	B1/500		
BM	(30°-60°)	650.2	7.5	B1/1000		
BH	(60°-80°)	429.9	4.9	B1/500		G1/500
BVH	(80°-90°)	73.2	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium





REPORT NUMBER: P265779

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2R-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5
2.5°	1221.3	1225.0	1217.7	1201.4	1177.7	1134.1	1095.9	1028.6	968.7	961.5	897.9
5°	1435.9	1439.4	1430.3	1410.3	1384.9	1337.7	1284.9	1197.7	1101.4	1083.3	948.7
7.5°	1583.1	1584.8	1573.9	1554.0	1533.9	1486.8	1434.0	1335.9	1217.7	1203.2	1014.1
10°	1708.4	1712.1	1697.5	1684.9	1663.0	1615.7	1561.3	1457.6	1335.9	1315.8	1081.4
12.5°	1824.7	1828.4	1819.2	1808.4	1801.1	1757.5	1697.5	1573.9	1443.0	1421.3	1161.4
15°	1902.9	1906.6	1908.4	1922.9	1932.0	1901.2	1841.0	1706.6	1559.4	1539.4	1255.9
17.5°	1881.1	1890.2	1917.4	1970.2	2026.4	2028.4	1979.2	1837.5	1673.9	1652.2	1352.2
20°	1817.5	1824.7	1857.4	1937.5	2048.2	2111.9	2108.3	1970.2	1781.1	1757.5	1441.3
22.5°	1870.2	1879.3	1879.3	1928.3	2037.4	2155.6	2202.9	2101.0	1888.3	1866.6	1530.4
25°	2095.6	2101.0	2062.9	2042.8	2082.8	2191.9	2280.9	2242.8	2019.2	1993.8	1626.7
27.5°	2410.1	2400.9	2353.6	2273.7	2230.0	2259.1	2350.0	2377.3	2170.0	2139.1	1726.6
30°	2722.7	2717.2	2662.5	2555.4	2457.3	2395.4	2426.3	2497.2	2333.6	2297.2	1822.9
32.5°	3015.3	3006.1	2946.1	2820.8	2709.8	2595.4	2535.3	2606.3	2508.1	2466.3	1930.2
35°	3284.3	3260.6	3200.7	3069.7	2955.2	2846.2	2699.0	2709.8	2697.2	2653.6	2048.2
37.5°	3502.3	3484.2	3418.7	3296.9	3175.1	3071.6	2917.1	2828.0	2900.6	2858.9	2184.6
40°	3695.0	3675.0	3607.8	3486.0	3373.2	3275.1	3153.3	2971.7	3129.8	3082.4	2337.3
42.5°	3840.3	3825.8	3771.3	3651.3	3542.2	3453.3	3393.3	3153.3	3367.7	3322.3	2504.5
45°	3918.4	3903.9	3874.8	3778.5	3678.6	3609.5	3615.0	3369.6	3616.8	3578.6	2702.6
47.5°	3822.2	3833.1	3858.5	3840.3	3778.5	3745.8	3813.0	3593.2	3895.0	3858.5	2917.1
50°	3564.0	3575.0	3676.8	3802.2	3823.9	3864.0	3991.2	3851.3	4189.2	4160.2	3182.4
52.5°	2929.8	2989.7	3271.4	3571.3	3776.7	3942.1	4189.2	4234.7	4685.5	4685.5	3651.3
55°	2213.8	2266.5	2588.0	3111.5	3593.2	3949.4	4334.7	4494.6	5043.5	5050.8	3896.7
57.5°	1793.8	1826.6	1984.6	2520.9	3207.8	3858.5	4507.3	4718.2	5341.6	5374.3	4213.0
60°	1455.9	1473.9	1577.6	1950.2	2675.3	3613.2	4630.9	5038.1	5766.8	5812.4	4616.4
62.5°	1170.4	1188.6	1257.6	1481.2	2099.2	3153.3	4609.2	5370.6	6333.9	6408.5	5145.3
65°	934.1	954.2	999.6	1137.8	1555.8	2582.6	4385.5	5541.6	6921.0	6993.7	5496.1
67.5°	728.9	747.0	777.9	868.8	1095.9	1932.0	3856.8	5361.5	7184.6	7246.3	5514.2
70°	550.8	559.7	585.2	643.4	783.3	1283.1	3018.8	4758.1	6948.2	7004.5	5150.7
72.5°	427.1	425.3	439.8	468.9	547.1	883.4	2001.1	3869.4	6143.1	6201.3	4394.7
75°	348.9	347.1	356.2	365.3	396.2	592.5	1181.5	2913.5	4958.0	4847.3	3296.9
77.5°	294.5	292.6	301.7	303.4	316.3	408.9	672.6	1917.4	3307.7	3116.9	1857.4
80°	249.0	247.2	258.2	261.8	270.7	299.9	387.1	1037.8	1661.1	1573.9	886.9
82.5°	187.1	194.5	214.4	223.6	234.5	221.7	239.8	458.0	770.7	736.2	385.4
85°	90.9	107.3	161.8	179.9	192.6	140.0	163.6	216.3	347.1	330.8	156.3
87.5°	30.9	27.3	96.3	114.5	125.5	63.6	90.9	120.0	143.5	130.9	49.0
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: P265779

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2R-7027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5	861.5
2.5°	870.5	843.2	803.4	772.5	752.4	736.2	728.9	727.0	723.3	721.6	721.6
5°	888.8	839.6	777.9	745.1	736.2	728.9	732.5	734.3	734.3	734.3	734.3
7.5°	916.0	846.9	772.5	750.7	748.7	748.7	759.6	765.1	768.8	768.8	768.8
10°	952.4	859.7	781.5	763.3	768.8	772.5	785.2	792.5	796.1	797.9	799.8
12.5°	1001.4	886.9	799.8	785.2	792.5	794.2	803.4	806.9	810.6	812.3	812.3
15°	1066.8	927.0	828.7	810.6	812.3	810.6	810.6	806.9	805.2	805.2	808.7
17.5°	1134.1	965.0	854.2	828.7	821.5	806.9	796.1	786.9	781.5	777.9	779.6
20°	1201.4	999.6	868.8	832.4	812.3	788.8	768.8	756.1	748.7	741.6	745.1
22.5°	1268.5	1032.3	874.2	821.5	792.5	757.9	736.2	716.0	699.7	688.8	690.6
25°	1343.1	1068.7	874.2	808.7	765.1	728.9	701.5	668.9	645.3	636.1	639.8
27.5°	1417.6	1099.5	865.1	785.2	734.3	698.0	657.9	619.8	605.2	599.8	601.5
30°	1492.2	1123.2	845.1	756.1	701.5	661.5	608.8	583.4	565.3	550.8	552.5
32.5°	1566.6	1139.6	817.8	719.7	667.0	616.1	572.5	543.5	510.6	492.5	494.3
35°	1652.2	1152.3	785.2	683.4	628.9	576.2	543.5	496.1	461.6	447.0	443.5
37.5°	1741.2	1161.4	750.7	643.4	590.6	547.1	514.4	456.2	423.6	403.5	401.6
40°	1837.5	1165.0	708.9	601.5	554.3	528.9	476.2	432.5	376.2	363.5	363.5
42.5°	1951.9	1163.1	667.0	559.7	514.4	487.2	449.0	428.9	379.9	367.1	360.0
45°	2082.8	1163.1	621.5	510.6	474.3	434.4	418.0	405.2	372.5	378.0	381.7
47.5°	2231.8	1159.5	567.1	470.7	441.6	407.1	397.9	370.8	358.1	361.7	365.3
50°	2437.2	1165.0	518.1	438.1	418.0	389.0	378.0	363.5	358.1	360.0	358.1
52.5°	2722.7	1146.9	470.7	418.0	399.8	361.7	361.7	360.0	361.7	360.0	360.0
55°	2878.9	1106.8	436.1	407.1	387.1	348.9	356.2	360.0	363.5	361.7	361.7
57.5°	3100.6	1079.7	408.9	399.8	379.9	345.3	352.6	360.0	361.7	360.0	360.0
60°	3362.4	1061.3	390.8	401.6	374.5	345.3	354.4	360.0	358.1	356.2	356.2
62.5°	3665.9	1054.2	378.0	407.1	368.9	347.1	354.4	360.0	352.6	350.8	350.8
65°	3780.3	988.8	361.7	410.7	372.5	347.1	352.6	354.4	345.3	343.5	341.6
67.5°	3604.1	876.0	338.0	403.5	383.4	347.1	347.1	345.3	334.3	332.6	329.0
70°	3209.6	727.0	301.7	379.9	390.8	348.9	339.9	330.8	319.8	319.8	312.6
72.5°	2628.1	572.5	254.4	338.0	385.4	354.4	325.4	312.6	299.9	299.9	292.6
75°	1893.7	427.1	203.6	281.7	361.7	352.6	307.1	290.8	276.3	274.4	265.4
77.5°	1079.7	299.9	165.4	219.9	321.8	343.5	290.8	265.4	249.0	243.5	238.1
80°	554.3	201.7	134.4	172.7	267.2	318.1	278.0	236.3	218.1	209.0	200.0
82.5°	263.6	134.4	103.7	127.2	201.7	278.0	261.8	203.6	183.6	172.7	161.8
85°	118.1	79.9	69.1	81.7	143.5	216.3	230.9	167.3	143.5	179.9	132.7
87.5°	38.2	36.3	36.3	38.2	69.1	94.5	169.1	123.5	114.5	94.5	79.9
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)