

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: P265788

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265788  
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-AF48-80-D-U-T2R-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9723.5 lumens  
Efficiency: N/A  
Efficacy: 117.2 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): 83  
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

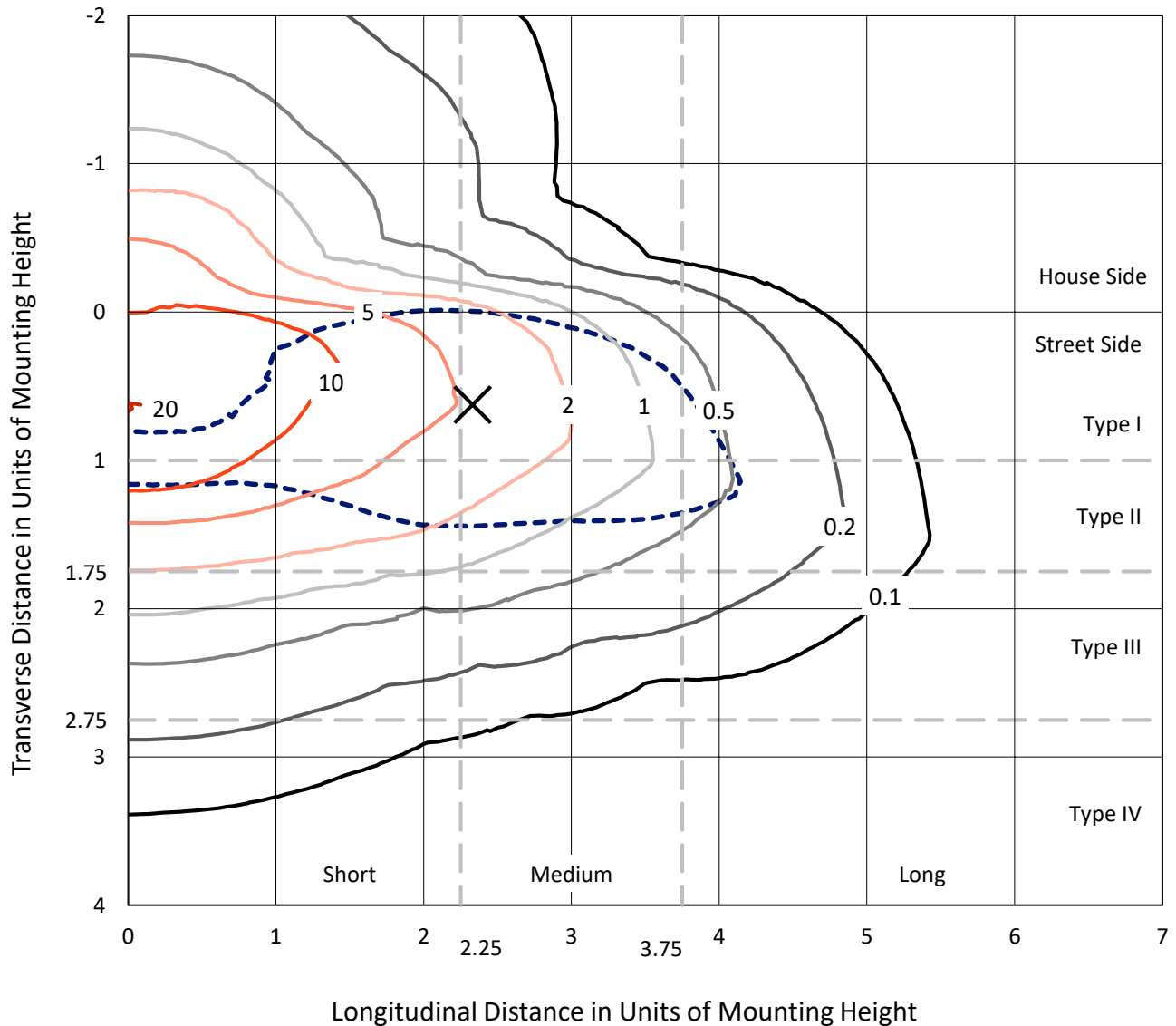


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

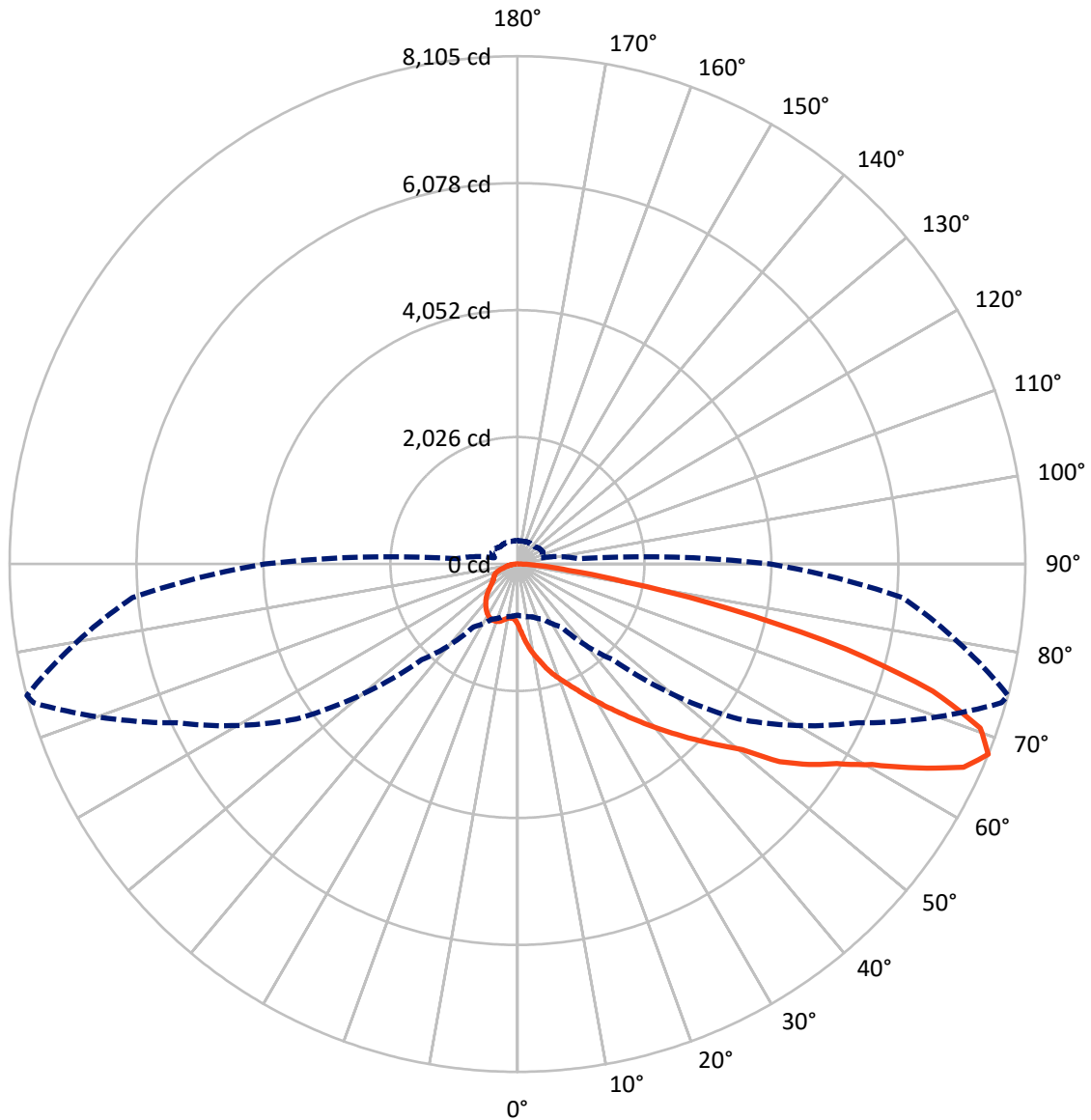


Based on 10 foot mounting height. Maximum calculated value = 20.2 fc  
 Type II - Medium - Semi-Cutoff

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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	1660.4	0.0	1660.4
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	8063.1	0.0	8063.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	9723.5	0.0	9723.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	1.2
10°-20°	409.1	4.2
20°-30°	746.1	7.7
30°-40°	1224.7	12.6
40°-50°	1771.0	18.2
50°-60°	2087.1	21.5
60°-70°	2028.2	20.9
70°-80°	1127.4	11.6
80°-90°	216.8	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°	9723.5	100.0
0°-180°	9723.5	100.0



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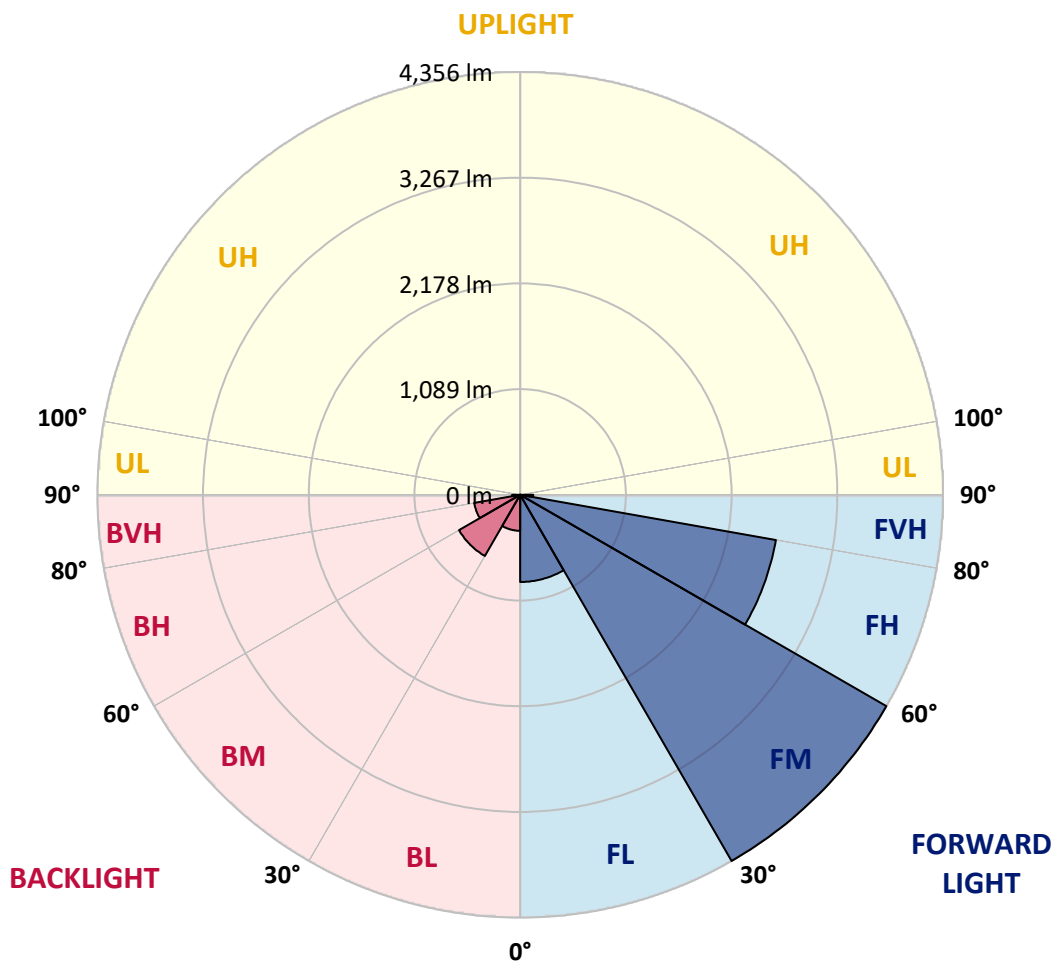
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	897.7	9.2			
FM (30°-60°)	4355.6	44.8			
FH (60°-80°)	2674.8	27.5			G2/5000
FVH (80°-90°)	134.9	1.4			G2/225
BL (0°-30°)	370.6	3.8	B1/500		
BM (30°-60°)	727.2	7.5	B1/1000		
BH (60°-80°)	480.8	4.9	B1/500		G1/500
BVH (80°-90°)	81.9	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°	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5
2.5°	1366.1	1370.0	1361.9	1343.7	1317.3	1268.3	1225.7	1150.5	1083.4	1075.4	1004.1
5°	1605.8	1609.9	1599.7	1577.3	1548.9	1496.0	1437.1	1339.6	1231.8	1211.5	1061.1
7.5°	1770.5	1772.5	1760.3	1738.0	1715.7	1662.8	1603.8	1494.1	1361.9	1345.7	1134.3
10°	1910.8	1914.7	1898.6	1884.4	1859.9	1807.1	1746.0	1630.2	1494.1	1471.8	1209.5
12.5°	2040.9	2044.9	2034.8	2022.5	2014.4	1965.6	1898.6	1760.3	1614.0	1589.6	1298.9
15°	2128.3	2132.3	2134.4	2150.6	2160.8	2126.2	2059.2	1908.7	1744.1	1721.7	1404.6
17.5°	2103.9	2114.0	2144.6	2203.5	2266.5	2268.5	2213.7	2055.1	1872.2	1847.8	1512.3
20°	2032.8	2040.9	2077.4	2166.9	2290.9	2362.1	2358.0	2203.5	1992.0	1965.6	1612.0
22.5°	2091.7	2101.9	2101.9	2156.7	2278.7	2410.8	2463.6	2349.8	2111.9	2087.7	1711.5
25°	2343.7	2349.8	2307.1	2284.7	2329.5	2451.5	2551.0	2508.3	2258.3	2230.0	1819.2
27.5°	2695.4	2685.3	2632.4	2542.9	2494.1	2526.7	2628.4	2658.9	2427.1	2392.5	1931.0
30°	3045.1	3038.8	2977.9	2858.0	2748.3	2679.1	2713.7	2792.9	2610.0	2569.3	2038.9
32.5°	3372.2	3362.0	3295.1	3154.8	3030.8	2902.8	2835.6	2914.9	2805.1	2758.3	2158.7
35°	3673.1	3646.7	3579.7	3433.2	3305.3	3183.2	3018.6	3030.8	3016.6	2967.8	2290.9
37.5°	3917.0	3896.7	3823.5	3687.4	3551.2	3435.3	3262.6	3162.9	3244.1	3197.4	2443.3
40°	4132.6	4110.1	4034.9	3898.7	3772.7	3663.0	3526.7	3323.5	3500.3	3447.4	2614.1
42.5°	4295.2	4278.8	4217.9	4083.8	3961.7	3862.2	3795.1	3526.7	3766.7	3715.7	2801.1
45°	4382.6	4366.3	4333.8	4226.0	4114.1	4037.0	4043.1	3768.7	4045.1	4002.4	3022.6
47.5°	4274.9	4287.0	4315.5	4295.2	4226.0	4189.4	4264.7	4018.7	4356.2	4315.5	3262.6
50°	3986.1	3998.4	4112.3	4252.4	4276.8	4321.6	4463.9	4307.4	4685.4	4653.0	3559.3
52.5°	3276.7	3343.9	3658.8	3994.4	4224.0	4408.9	4685.4	4736.3	5240.4	5240.4	4083.8
55°	2475.9	2534.7	2894.6	3480.0	4018.7	4417.1	4848.1	5026.9	5640.7	5648.9	4358.1
57.5°	2006.3	2042.8	2219.7	2819.4	3587.7	4315.5	5041.2	5277.0	5974.2	6010.7	4711.8
60°	1628.2	1648.5	1764.5	2181.2	2992.2	4041.0	5179.4	5634.7	6449.8	6500.7	5163.1
62.5°	1309.1	1329.4	1406.7	1656.7	2347.8	3526.7	5155.0	6006.6	7084.0	7167.3	5754.6
65°	1044.8	1067.1	1118.0	1272.4	1739.9	2888.5	4904.9	6197.8	7740.5	7821.9	6146.9
67.5°	815.1	835.5	870.0	971.6	1225.7	2160.8	4313.4	5996.5	8035.2	8104.5	6167.3
70°	615.9	626.1	654.5	719.6	876.0	1435.1	3376.3	5321.6	7771.1	7834.1	5760.7
72.5°	477.7	475.7	491.9	524.4	611.8	987.9	2237.9	4327.7	6870.5	6935.6	4915.0
75°	390.3	388.2	398.4	408.5	443.1	662.7	1321.2	3258.4	5545.2	5421.2	3687.4
77.5°	329.3	327.3	337.5	339.5	353.8	457.3	752.2	2144.6	3699.5	3486.1	2077.4
80°	278.5	276.5	288.6	292.7	302.9	335.3	433.0	1160.7	1858.0	1760.3	992.0
82.5°	209.3	217.5	239.8	250.0	262.2	248.0	268.4	512.3	861.8	823.2	430.9
85°	101.7	120.0	180.9	201.2	215.5	156.6	183.0	242.0	388.2	369.9	174.8
87.5°	34.6	30.5	107.7	128.1	140.2	71.1	101.7	134.1	160.5	146.3	54.8
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°	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5
2.5°	973.7	943.2	898.5	863.9	841.5	823.2	815.1	813.1	809.1	806.9	806.9
5°	994.1	939.1	870.0	833.4	823.2	815.1	819.2	821.2	821.2	821.2	821.2
7.5°	1024.4	947.3	863.9	839.6	837.5	837.5	849.6	855.7	859.9	859.9	859.9
10°	1065.1	961.5	874.1	853.7	859.9	863.9	878.2	886.3	890.3	892.3	894.4
12.5°	1120.0	992.0	894.4	878.2	886.3	888.3	898.5	902.5	906.6	908.6	908.6
15°	1193.2	1036.6	927.0	906.6	908.6	906.6	906.6	902.5	900.6	900.6	904.6
17.5°	1268.3	1079.4	955.3	927.0	918.7	902.5	890.3	880.2	874.1	870.0	872.1
20°	1343.7	1118.0	971.6	931.0	908.6	882.1	859.9	845.7	837.5	829.3	833.4
22.5°	1418.9	1154.6	977.7	918.7	886.3	847.6	823.2	800.8	782.7	770.3	772.5
25°	1502.1	1195.3	977.7	904.6	855.7	815.1	784.6	748.1	721.6	711.5	715.5
27.5°	1585.5	1229.8	967.6	878.2	821.2	780.5	735.8	693.1	677.0	670.9	672.8
30°	1668.8	1256.2	945.1	845.7	784.6	739.9	680.9	652.4	632.1	615.9	617.9
32.5°	1752.2	1274.5	914.7	804.9	746.0	689.1	640.3	607.8	571.2	550.9	552.8
35°	1847.8	1288.8	878.2	764.3	703.4	644.4	607.8	555.0	516.3	500.0	496.0
37.5°	1947.3	1298.9	839.6	719.6	660.7	611.8	575.3	510.1	473.6	451.3	449.2
40°	2055.1	1303.0	792.8	672.8	620.0	591.5	532.5	483.7	420.8	406.6	406.6
42.5°	2183.2	1300.9	746.0	626.1	575.3	544.7	502.2	479.8	424.9	410.6	402.5
45°	2329.5	1300.9	695.2	571.2	530.4	485.9	467.5	453.3	416.8	422.8	426.9
47.5°	2496.2	1296.9	634.3	526.4	494.0	455.4	445.2	414.7	400.5	404.4	408.5
50°	2725.8	1303.0	579.3	489.8	467.5	435.0	422.8	406.6	400.5	402.5	400.5
52.5°	3045.1	1282.6	526.4	467.5	447.1	404.4	404.4	402.5	404.4	402.5	402.5
55°	3219.9	1238.0	487.9	455.4	433.0	390.3	398.4	402.5	406.6	404.4	404.4
57.5°	3467.7	1207.4	457.3	447.1	424.9	386.2	394.4	402.5	404.4	402.5	402.5
60°	3760.6	1187.1	437.0	449.2	418.7	386.2	396.4	402.5	400.5	398.4	398.4
62.5°	4100.0	1178.9	422.8	455.4	412.6	388.2	396.4	402.5	394.4	392.3	392.3
65°	4228.1	1105.9	404.4	459.5	416.8	388.2	394.4	396.4	386.2	384.1	382.1
67.5°	4030.9	979.8	378.0	451.3	428.9	388.2	388.2	386.2	374.1	372.0	367.9
70°	3589.7	813.1	337.5	424.9	437.0	390.3	380.2	369.9	357.7	357.7	349.6
72.5°	2939.3	640.3	284.6	378.0	430.9	396.4	363.9	349.6	335.3	335.3	327.3
75°	2118.2	477.7	227.7	315.0	404.4	394.4	343.5	325.2	308.9	307.0	296.8
77.5°	1207.4	335.3	185.1	246.0	359.9	384.1	325.2	296.8	278.5	272.4	266.3
80°	620.0	225.7	150.5	193.1	298.7	355.6	311.1	264.2	243.9	233.7	223.6
82.5°	294.7	150.5	115.9	142.3	225.7	311.1	292.7	227.7	205.4	193.1	180.9
85°	132.1	89.4	77.3	91.4	160.5	242.0	258.2	186.9	160.5	201.2	148.4
87.5°	42.7	40.7	40.7	42.7	77.3	105.7	189.1	138.2	128.1	105.7	89.4
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)