

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: P234789

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234789
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-AF48-140-D-U-T2R-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13285 lumens
Efficiency: N/A
Efficacy: 94.2 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): 141
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

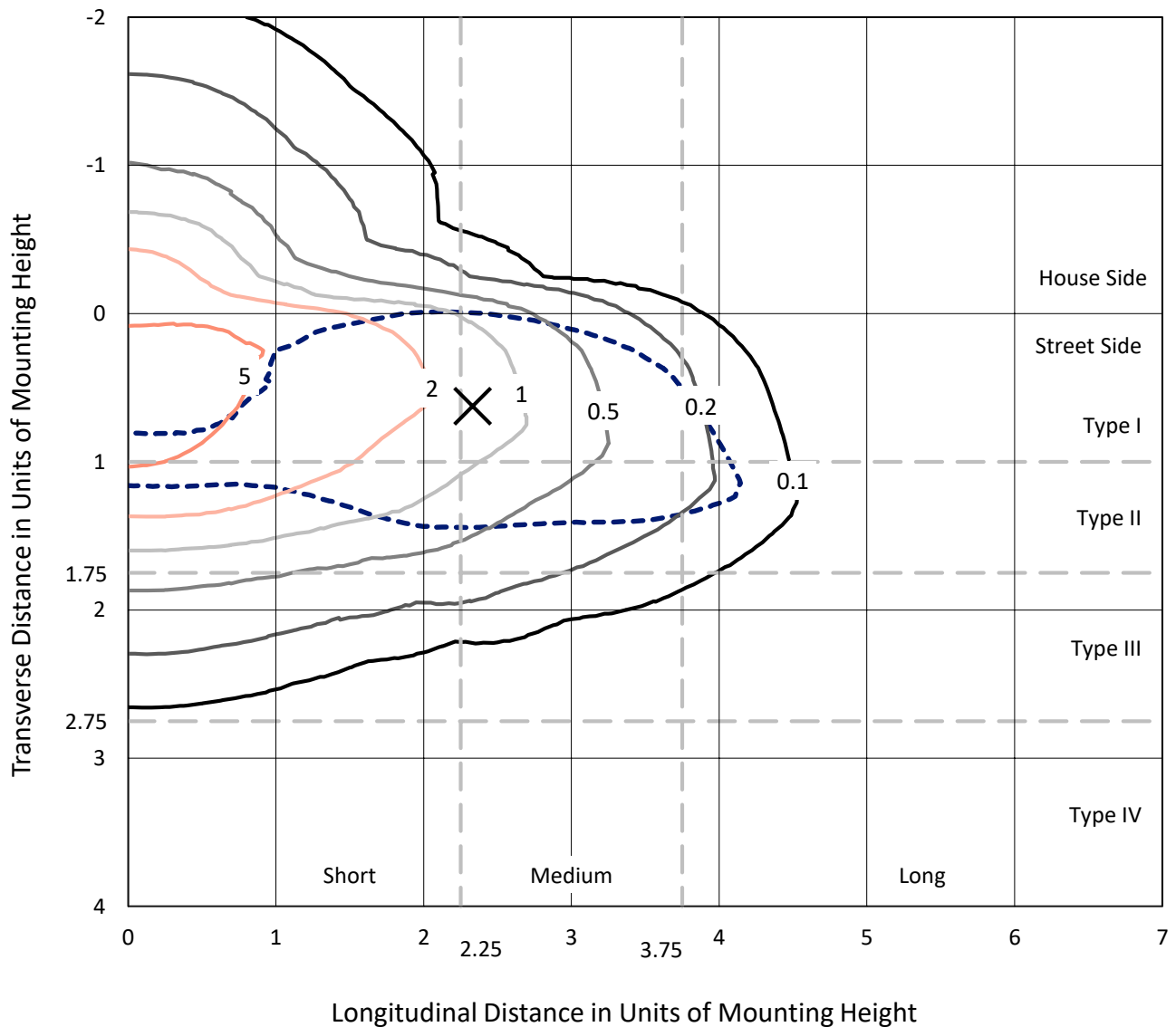


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

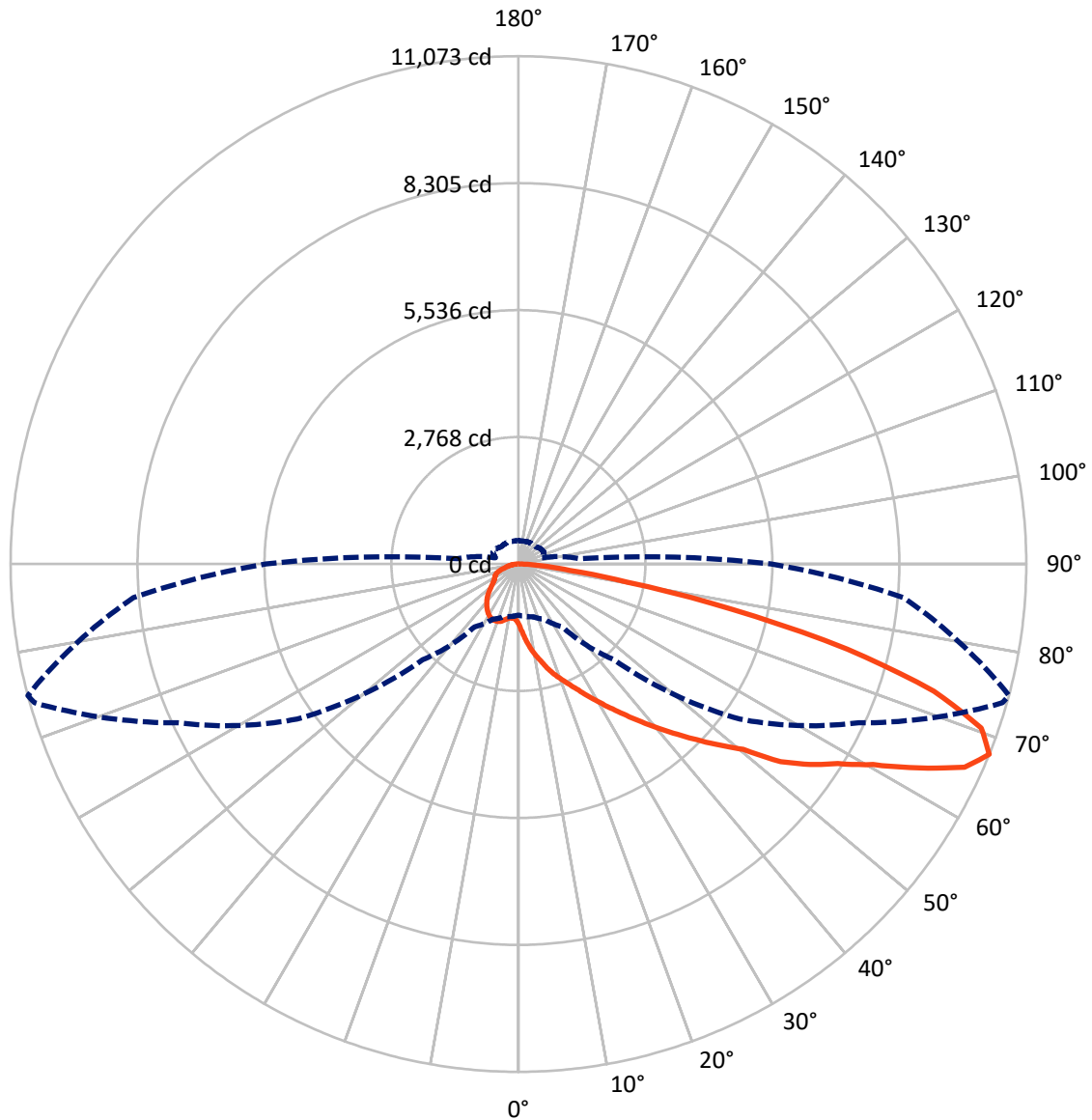


Based on 20 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Medium - Semi-Cutoff

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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	2268.6	0.0	2268.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	11016.4	0.0	11016.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	13285.0	0.0	13285.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.7	1.2
10°-20°	558.9	4.2
20°-30°	1019.4	7.7
30°-40°	1673.2	12.6
40°-50°	2419.7	18.2
50°-60°	2851.6	21.5
60°-70°	2771.1	20.9
70°-80°	1540.3	11.6
80°-90°	296.2	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°	13285.0	100.0
0°-180°	13285.0	100.0

Coefficient of Utilization



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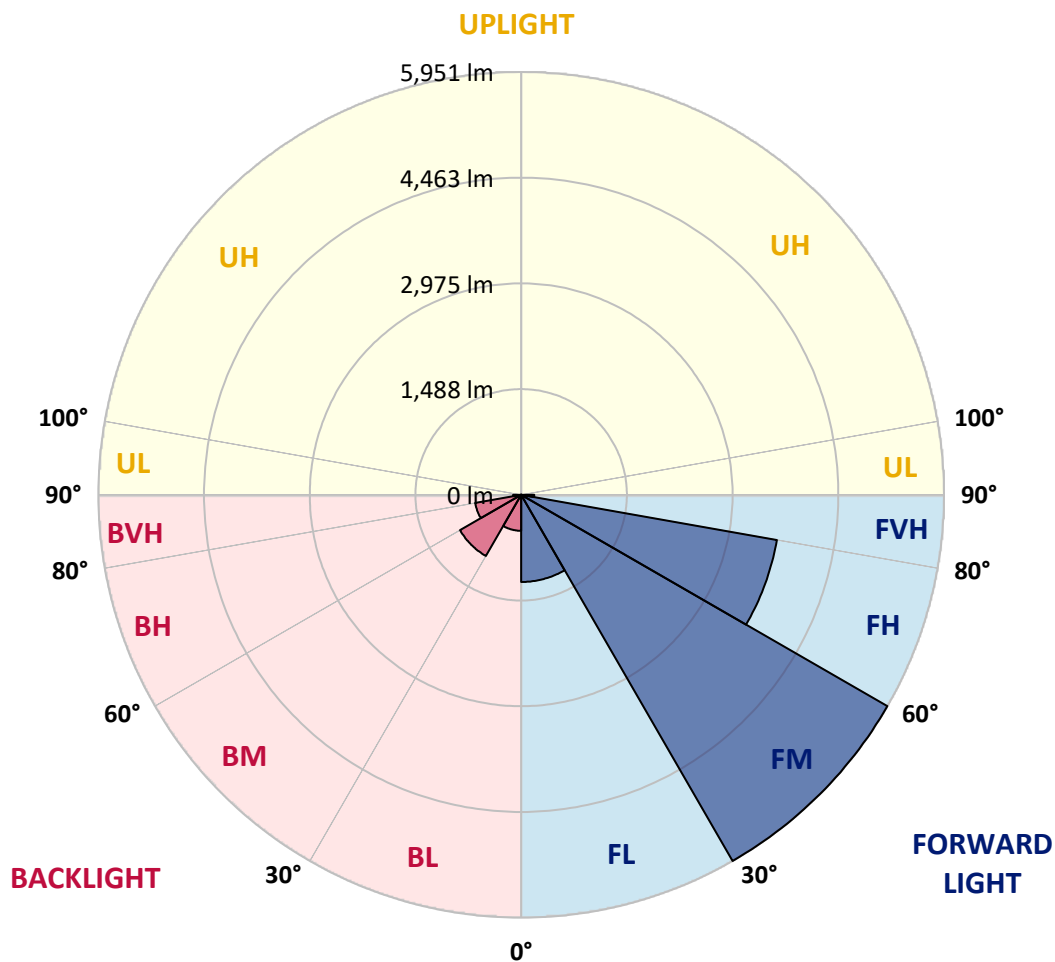
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1226.6	9.2			
FM (30°-60°)	5951.0	44.8			
FH (60°-80°)	3654.6	27.5			G2/5000
FVH (80°-90°)	184.3	1.4			G2/225
BL (0°-30°)	506.4	3.8	B2/1000		
BM (30°-60°)	993.5	7.5	B1/1000		
BH (60°-80°)	656.9	4.9	B2/1000		G2/1000
BVH (80°-90°)	111.8	0.8			G2/225
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°	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4
2.5°	1866.3	1871.9	1860.8	1835.8	1799.7	1733.0	1674.7	1571.9	1480.3	1469.2	1372.0
5°	2194.0	2199.6	2185.7	2155.1	2116.3	2044.1	1963.5	1830.2	1683.0	1655.2	1449.7
7.5°	2419.0	2421.8	2405.1	2374.5	2344.0	2271.8	2191.2	2041.3	1860.8	1838.5	1549.7
10°	2610.6	2616.2	2593.9	2574.5	2541.2	2469.0	2385.7	2227.3	2041.3	2010.7	1652.5
12.5°	2788.4	2793.9	2780.0	2763.4	2752.2	2685.6	2593.9	2405.1	2205.1	2171.8	1774.7
15°	2907.8	2913.3	2916.1	2938.3	2952.2	2905.0	2813.3	2607.8	2382.9	2352.3	1919.1
17.5°	2874.4	2888.3	2930.0	3010.5	3096.6	3099.4	3024.4	2807.8	2557.8	2524.5	2066.3
20°	2777.2	2788.4	2838.3	2960.5	3130.0	3227.2	3221.6	3010.5	2721.7	2685.6	2202.4
22.5°	2857.8	2871.7	2871.7	2946.7	3113.3	3293.8	3366.0	3210.5	2885.6	2852.2	2338.4
25°	3202.2	3210.5	3152.2	3121.6	3182.7	3349.4	3485.4	3427.1	3085.5	3046.6	2485.6
27.5°	3682.6	3668.7	3596.5	3474.3	3407.7	3452.1	3591.0	3632.6	3316.0	3268.8	2638.4
30°	4160.3	4152.0	4068.7	3904.8	3754.8	3660.4	3707.6	3815.9	3566.0	3510.4	2785.6
32.5°	4607.4	4593.6	4501.9	4310.3	4140.9	3965.9	3874.3	3982.6	3832.6	3768.7	2949.4
35°	5018.5	4982.4	4890.7	4690.8	4515.8	4349.2	4124.2	4140.9	4121.4	4054.8	3130.0
37.5°	5351.7	5324.0	5224.0	5037.9	4851.8	4693.5	4457.5	4321.4	4432.5	4368.6	3338.2
40°	5646.1	5615.6	5512.8	5326.8	5154.6	5004.6	4818.5	4540.8	4782.4	4710.2	3571.5
42.5°	5868.3	5846.1	5762.8	5579.5	5412.8	5276.8	5185.1	4818.5	5146.2	5076.8	3827.0
45°	5987.7	5965.5	5921.1	5773.9	5621.1	5515.6	5523.9	5149.0	5526.7	5468.4	4129.8
47.5°	5840.5	5857.2	5896.1	5868.3	5773.9	5723.9	5826.7	5490.6	5951.6	5896.1	4457.5
50°	5446.2	5462.8	5618.4	5810.0	5843.3	5904.4	6098.8	5885.0	6401.5	6357.1	4863.0
52.5°	4476.9	4568.6	4999.0	5457.3	5771.1	6023.8	6401.5	6471.0	7159.7	7159.7	5579.5
55°	3382.7	3463.2	3954.8	4754.6	5490.6	6034.9	6623.7	6868.1	7706.8	7718.0	5954.4
57.5°	2741.1	2791.1	3032.7	3852.0	4901.8	5896.1	6887.6	7209.7	8162.3	8212.3	6437.6
60°	2224.6	2252.3	2410.6	2980.0	4088.1	5521.2	7076.4	7698.5	8812.2	8881.6	7054.2
62.5°	1788.5	1816.3	1921.9	2263.5	3207.7	4818.5	7043.1	8206.8	9678.7	9792.6	7862.4
65°	1427.5	1458.1	1527.5	1738.6	2377.3	3946.5	6701.5	8467.8	10575.7	10686.8	8398.4
67.5°	1113.7	1141.4	1188.7	1327.5	1674.7	2952.2	5893.3	8192.9	10978.4	11072.9	8426.2
70°	841.5	855.4	894.3	983.1	1197.0	1960.7	4613.0	7270.8	10617.4	10703.5	7870.7
72.5°	652.7	649.9	672.1	716.5	836.0	1349.7	3057.7	5912.8	9387.1	9476.0	6715.4
75°	533.2	530.5	544.3	558.2	605.4	905.4	1805.2	4451.9	7576.3	7406.9	5037.9
77.5°	449.9	447.1	461.0	463.8	483.2	624.9	1027.6	2930.0	5054.6	4763.0	2838.3
80°	380.5	377.7	394.4	399.9	413.8	458.2	591.6	1585.8	2538.4	2405.1	1355.3
82.5°	286.1	297.2	327.7	341.6	358.3	338.8	366.6	699.9	1177.6	1124.8	588.8
85°	138.9	163.9	247.2	274.9	294.4	213.8	250.0	330.5	530.5	505.5	238.8
87.5°	47.2	41.7	147.2	175.0	191.6	97.2	138.9	183.3	219.4	200.0	75.0
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°	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4	1316.4
2.5°	1330.3	1288.6	1227.5	1180.3	1149.8	1124.8	1113.7	1110.9	1105.3	1102.6	1102.6
5°	1358.1	1283.1	1188.7	1138.7	1124.8	1113.7	1119.2	1122.0	1122.0	1122.0	1122.0
7.5°	1399.7	1294.2	1180.3	1147.0	1144.2	1144.2	1160.9	1169.2	1174.8	1174.8	1174.8
10°	1455.3	1313.6	1194.2	1166.4	1174.8	1180.3	1199.8	1210.9	1216.4	1219.2	1222.0
12.5°	1530.3	1355.3	1222.0	1199.8	1210.9	1213.7	1227.5	1233.1	1238.7	1241.4	1241.4
15°	1630.2	1416.4	1266.4	1238.7	1241.4	1238.7	1238.7	1233.1	1230.3	1230.3	1235.9
17.5°	1733.0	1474.7	1305.3	1266.4	1255.3	1233.1	1216.4	1202.5	1194.2	1188.7	1191.4
20°	1835.8	1527.5	1327.5	1272.0	1241.4	1205.3	1174.8	1155.3	1144.2	1133.1	1138.7
22.5°	1938.5	1577.5	1335.9	1255.3	1210.9	1158.1	1124.8	1094.2	1069.2	1052.6	1055.4
25°	2052.4	1633.0	1335.9	1235.9	1169.2	1113.7	1072.0	1022.0	985.9	972.0	977.6
27.5°	2166.2	1680.2	1322.0	1199.8	1122.0	1066.5	1005.4	947.0	924.8	916.5	919.3
30°	2280.1	1716.3	1291.4	1155.3	1072.0	1010.9	930.4	891.5	863.7	841.5	844.3
32.5°	2394.0	1741.3	1249.8	1099.8	1019.2	941.5	874.8	830.4	780.4	752.6	755.4
35°	2524.5	1760.8	1199.8	1044.2	960.9	880.4	830.4	758.2	705.4	683.2	677.6
37.5°	2660.6	1774.7	1147.0	983.1	902.6	836.0	786.0	697.1	647.1	616.5	613.8
40°	2807.8	1780.2	1083.1	919.3	847.1	808.2	727.6	661.0	574.9	555.4	555.4
42.5°	2982.8	1777.4	1019.2	855.4	786.0	744.3	686.0	655.4	580.4	561.0	549.9
45°	3182.7	1777.4	949.8	780.4	724.9	663.8	638.8	619.3	569.3	577.7	583.2
47.5°	3410.5	1771.9	866.5	719.3	674.9	622.1	608.2	566.6	547.1	552.7	558.2
50°	3724.3	1780.2	791.5	669.3	638.8	594.3	577.7	555.4	547.1	549.9	547.1
52.5°	4160.3	1752.4	719.3	638.8	611.0	552.7	552.7	549.9	552.7	549.9	549.9
55°	4399.2	1691.3	666.5	622.1	591.6	533.2	544.3	549.9	555.4	552.7	552.7
57.5°	4738.0	1649.7	624.9	611.0	580.4	527.7	538.8	549.9	552.7	549.9	549.9
60°	5137.9	1621.9	597.1	613.8	572.1	527.7	541.6	549.9	547.1	544.3	544.3
62.5°	5601.7	1610.8	577.7	622.1	563.8	530.5	541.6	549.9	538.8	536.0	536.0
65°	5776.7	1510.8	552.7	627.7	569.3	530.5	538.8	541.6	527.7	524.9	522.1
67.5°	5507.3	1338.6	516.6	616.5	586.0	530.5	530.5	527.7	511.0	508.2	502.7
70°	4904.6	1110.9	461.0	580.4	597.1	533.2	519.3	505.5	488.8	488.8	477.7
72.5°	4015.9	874.8	388.8	516.6	588.8	541.6	497.1	477.7	458.2	458.2	447.1
75°	2893.9	652.7	311.1	430.5	552.7	538.8	469.4	444.4	422.1	419.4	405.5
77.5°	1649.7	458.2	252.7	336.0	491.6	524.9	444.4	405.5	380.5	372.2	363.8
80°	847.1	308.3	205.5	263.8	408.3	486.0	424.9	361.0	333.3	319.4	305.5
82.5°	402.7	205.5	158.3	194.4	308.3	424.9	399.9	311.1	280.5	263.8	247.2
85°	180.5	122.2	105.5	125.0	219.4	330.5	352.7	255.5	219.4	274.9	202.7
87.5°	58.3	55.5	55.5	58.3	105.5	144.4	258.3	188.9	175.0	144.4	122.2
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)