

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: P234787

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234787
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-AF48-120-D-U-T2R-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11952 lumens
Efficiency: N/A
Efficacy: 98.0 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): 122
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

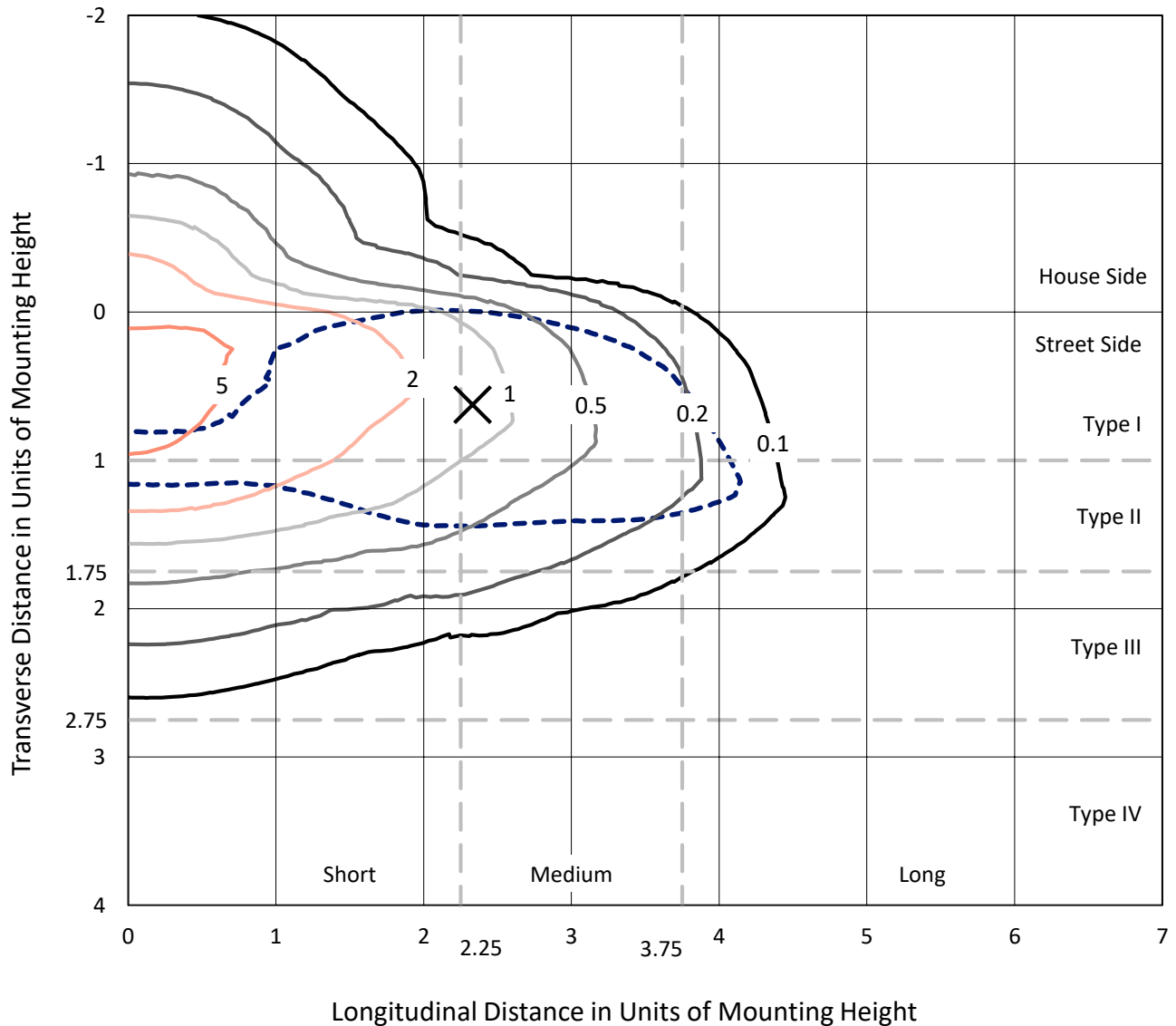


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

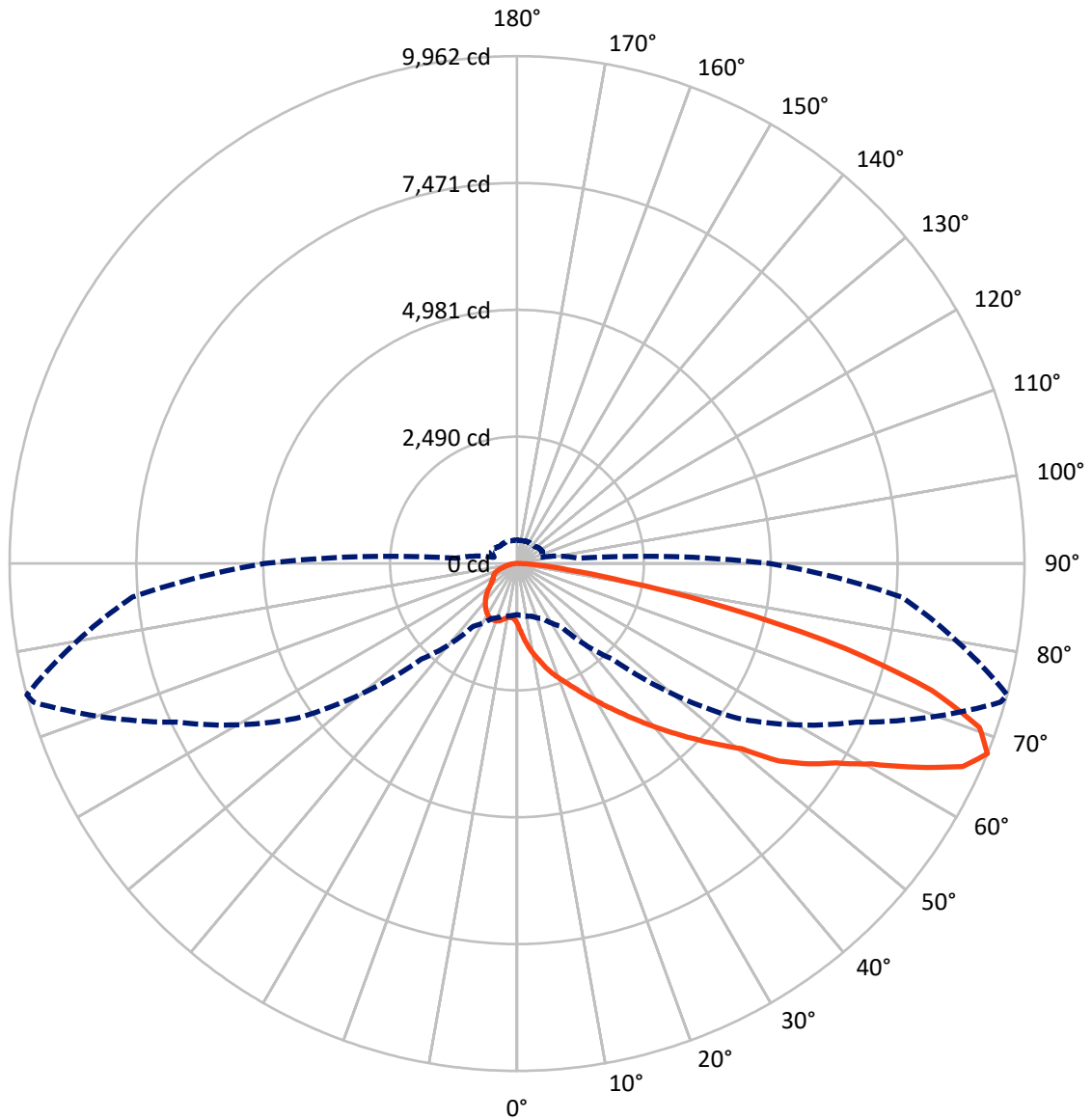


Based on 20 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - Semi-Cutoff

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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
House Side	Lumens	2041.0	0.0	2041.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	9911.0	0.0	9911.0
	% Fixture	82.9	0.0	82.9
Total	Lumens	11952.0	0.0	11952.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.1	1.2
10°-20°	502.8	4.2
20°-30°	917.1	7.7
30°-40°	1505.3	12.6
40°-50°	2176.9	18.2
50°-60°	2565.5	21.5
60°-70°	2493.0	20.9
70°-80°	1385.8	11.6
80°-90°	266.5	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°	11952.0	100.0
0°-180°	11952.0	100.0

Coefficient of Utilization



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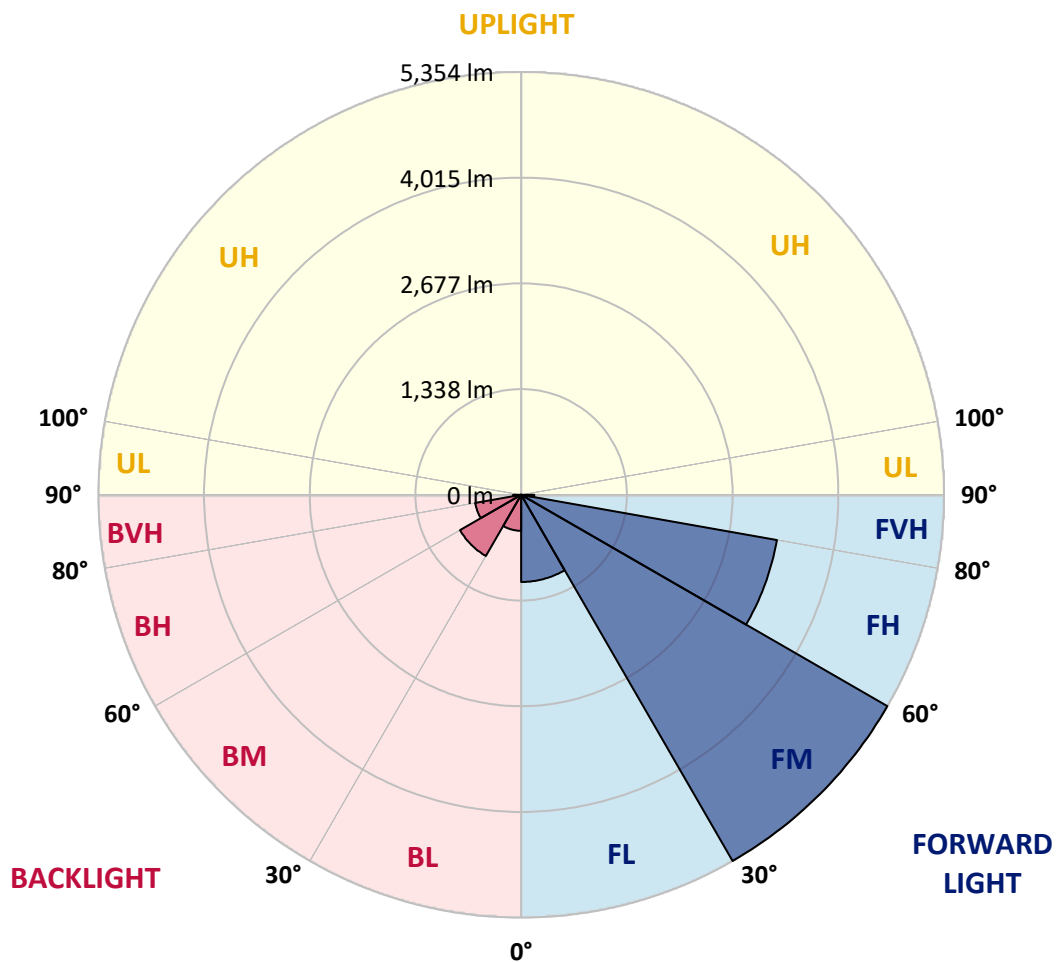
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1103.5	9.2			
FM	(30°-60°)	5353.9	44.8			
FH	(60°-80°)	3287.9	27.5			G2/5000
FVH	(80°-90°)	165.8	1.4			G2/225
BL	(0°-30°)	455.5	3.8	B1/500		
BM	(30°-60°)	893.8	7.5	B1/1000		
BH	(60°-80°)	590.9	4.9	B2/1000		G2/1000
BVH	(80°-90°)	100.6	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°	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3
2.5°	1679.0	1684.0	1674.0	1651.6	1619.1	1559.1	1506.6	1414.2	1331.7	1321.7	1234.3
5°	1973.9	1978.9	1966.4	1938.9	1903.9	1839.0	1766.5	1646.6	1514.1	1489.2	1304.3
7.5°	2176.3	2178.8	2163.8	2136.3	2108.8	2043.8	1971.4	1836.5	1674.0	1654.1	1394.2
10°	2348.7	2353.7	2333.7	2316.2	2286.2	2221.2	2146.3	2003.9	1836.5	1809.0	1486.7
12.5°	2508.6	2513.6	2501.1	2486.1	2476.1	2416.1	2333.7	2163.8	1983.9	1953.9	1596.6
15°	2616.0	2621.0	2623.5	2643.5	2656.0	2613.5	2531.1	2346.2	2143.8	2116.3	1726.5
17.5°	2586.0	2598.5	2636.0	2708.5	2785.9	2788.4	2721.0	2526.1	2301.2	2271.2	1858.9
20°	2498.6	2508.6	2553.5	2663.5	2815.9	2903.3	2898.4	2708.5	2448.6	2416.1	1981.4
22.5°	2571.0	2583.5	2583.5	2651.0	2800.9	2963.3	3028.3	2888.4	2596.0	2566.0	2103.8
25°	2880.9	2888.4	2835.9	2808.4	2863.4	3013.3	3135.7	3083.2	2775.9	2740.9	2236.2
27.5°	3313.1	3300.6	3235.7	3125.7	3065.8	3105.7	3230.7	3268.1	2983.3	2940.8	2373.6
30°	3742.9	3735.4	3660.4	3513.0	3378.1	3293.1	3335.6	3433.0	3208.2	3158.2	2506.1
32.5°	4145.1	4132.6	4050.2	3877.8	3725.4	3568.0	3485.5	3583.0	3448.0	3390.6	2653.5
35°	4514.9	4482.4	4400.0	4220.1	4062.7	3912.8	3710.4	3725.4	3707.9	3647.9	2815.9
37.5°	4814.8	4789.8	4699.8	4532.4	4365.0	4222.6	4010.2	3887.8	3987.7	3930.3	3003.3
40°	5079.6	5052.1	4959.7	4792.3	4637.4	4502.4	4335.0	4085.2	4302.6	4237.6	3213.2
42.5°	5279.5	5259.5	5184.5	5019.6	4869.7	4747.3	4664.8	4335.0	4629.9	4567.4	3443.0
45°	5386.9	5366.9	5327.0	5194.5	5057.1	4962.2	4969.7	4632.4	4972.2	4919.7	3715.4
47.5°	5254.5	5269.5	5304.5	5279.5	5194.5	5149.6	5242.0	4939.7	5354.5	5304.5	4010.2
50°	4899.7	4914.7	5054.6	5227.0	5257.0	5312.0	5486.9	5294.5	5759.2	5719.2	4375.0
52.5°	4027.7	4110.2	4497.4	4909.7	5192.0	5419.4	5759.2	5821.7	6441.3	6441.3	5019.6
55°	3043.3	3115.7	3558.0	4277.6	4939.7	5429.4	5959.1	6179.0	6933.6	6943.5	5357.0
57.5°	2466.1	2511.1	2728.4	3465.5	4410.0	5304.5	6196.5	6486.3	7343.3	7388.3	5791.7
60°	2001.4	2026.3	2168.8	2681.0	3677.9	4967.2	6366.4	6926.1	7928.0	7990.5	6346.4
62.5°	1609.1	1634.1	1729.0	2036.3	2885.9	4335.0	6336.4	7383.3	8707.5	8810.0	7073.5
65°	1284.3	1311.8	1374.2	1564.1	2138.8	3550.5	6029.1	7618.2	9514.6	9614.5	7555.7
67.5°	1001.9	1026.9	1069.4	1194.3	1506.6	2656.0	5302.0	7370.8	9876.9	9961.8	7580.7
70°	757.1	769.6	804.5	884.5	1076.9	1764.0	4150.1	6541.3	9552.1	9629.5	7081.0
72.5°	587.2	584.7	604.7	644.6	752.1	1214.3	2750.9	5319.5	8445.2	8525.1	6041.6
75°	479.7	477.2	489.7	502.2	544.7	814.5	1624.1	4005.2	6816.1	6663.7	4532.4
77.5°	404.8	402.3	414.8	417.3	434.8	562.2	924.5	2636.0	4547.4	4285.1	2553.5
80°	342.3	339.8	354.8	359.8	372.3	412.3	532.2	1426.7	2283.7	2163.8	1219.3
82.5°	257.4	267.3	294.8	307.3	322.3	304.8	329.8	629.6	1059.4	1011.9	529.7
85°	124.9	147.4	222.4	247.4	264.8	192.4	224.9	297.3	477.2	454.7	214.9
87.5°	42.5	37.5	132.4	157.4	172.4	87.5	124.9	164.9	197.4	179.9	67.5
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°	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3	1184.3
2.5°	1196.8	1159.3	1104.4	1061.9	1034.4	1011.9	1001.9	999.4	994.4	991.9	991.9
5°	1221.8	1154.3	1069.4	1024.4	1011.9	1001.9	1006.9	1009.4	1009.4	1009.4	1009.4
7.5°	1259.3	1164.3	1061.9	1031.9	1029.4	1029.4	1044.4	1051.9	1056.9	1056.9	1056.9
10°	1309.3	1181.8	1074.4	1049.4	1056.9	1061.9	1079.4	1089.4	1094.4	1096.9	1099.4
12.5°	1376.7	1219.3	1099.4	1079.4	1089.4	1091.9	1104.4	1109.4	1114.4	1116.9	1116.9
15°	1466.7	1274.3	1139.4	1114.4	1116.9	1114.4	1114.4	1109.4	1106.9	1106.9	1111.9
17.5°	1559.1	1326.7	1174.3	1139.4	1129.4	1109.4	1094.4	1081.9	1074.4	1069.4	1071.9
20°	1651.6	1374.2	1194.3	1144.3	1116.9	1084.4	1056.9	1039.4	1029.4	1019.4	1024.4
22.5°	1744.0	1419.2	1201.8	1129.4	1089.4	1041.9	1011.9	984.4	962.0	947.0	949.5
25°	1846.4	1469.2	1201.8	1111.9	1051.9	1001.9	964.5	919.5	887.0	874.5	879.5
27.5°	1948.9	1511.6	1189.3	1079.4	1009.4	959.5	904.5	852.0	832.0	824.5	827.0
30°	2051.3	1544.1	1161.8	1039.4	964.5	909.5	837.0	802.0	777.1	757.1	759.6
32.5°	2153.8	1566.6	1124.4	989.4	917.0	847.0	787.1	747.1	702.1	677.1	679.6
35°	2271.2	1584.1	1079.4	939.5	864.5	792.0	747.1	682.1	634.6	614.7	609.7
37.5°	2393.6	1596.6	1031.9	884.5	812.0	752.1	707.1	627.1	582.2	554.7	552.2
40°	2526.1	1601.6	974.4	827.0	762.1	727.1	654.6	594.7	517.2	499.7	499.7
42.5°	2683.5	1599.1	917.0	769.6	707.1	669.6	617.1	589.7	522.2	504.7	494.7
45°	2863.4	1599.1	854.5	702.1	652.1	597.2	574.7	557.2	512.2	519.7	524.7
47.5°	3068.3	1594.1	779.6	647.1	607.2	559.7	547.2	509.7	492.2	497.2	502.2
50°	3350.6	1601.6	712.1	602.2	574.7	534.7	519.7	499.7	492.2	494.7	492.2
52.5°	3742.9	1576.6	647.1	574.7	549.7	497.2	497.2	494.7	497.2	494.7	494.7
55°	3957.7	1521.6	599.7	559.7	532.2	479.7	489.7	494.7	499.7	497.2	497.2
57.5°	4262.6	1484.2	562.2	549.7	522.2	474.7	484.7	494.7	497.2	494.7	494.7
60°	4622.4	1459.2	537.2	552.2	514.7	474.7	487.2	494.7	492.2	489.7	489.7
62.5°	5039.6	1449.2	519.7	559.7	507.2	477.2	487.2	494.7	484.7	482.2	482.2
65°	5197.0	1359.2	497.2	564.7	512.2	477.2	484.7	487.2	474.7	472.2	469.7
67.5°	4954.7	1204.3	464.7	554.7	527.2	477.2	477.2	474.7	459.7	457.2	452.2
70°	4412.5	999.4	414.8	522.2	537.2	479.7	467.2	454.7	439.7	439.7	429.8
72.5°	3612.9	787.1	349.8	464.7	529.7	487.2	447.2	429.8	412.3	412.3	402.3
75°	2603.5	587.2	279.8	387.3	497.2	484.7	422.3	399.8	379.8	377.3	364.8
77.5°	1484.2	412.3	227.4	302.3	442.2	472.2	399.8	364.8	342.3	334.8	327.3
80°	762.1	277.3	184.9	237.4	367.3	437.3	382.3	324.8	299.8	287.3	274.8
82.5°	362.3	184.9	142.4	174.9	277.3	382.3	359.8	279.8	252.4	237.4	222.4
85°	162.4	109.9	94.9	112.4	197.4	297.3	317.3	229.9	197.4	247.4	182.4
87.5°	52.5	50.0	50.0	52.5	94.9	129.9	232.4	169.9	157.4	129.9	109.9
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)