

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: P231016

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231016
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-AF48-100-D-U-T2R-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11862 lumens
Efficiency: N/A
Efficacy: 117.4 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): 101
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

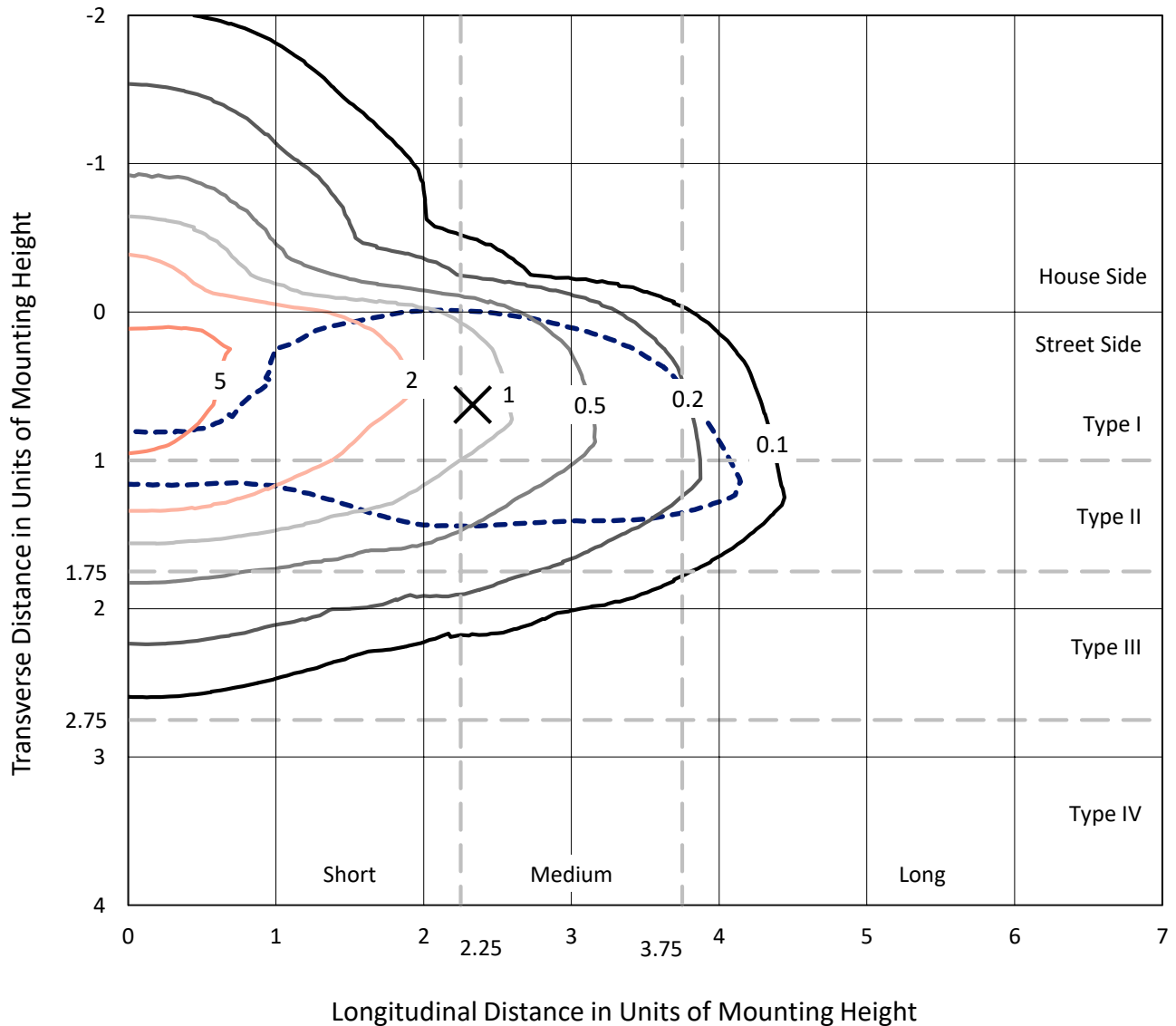


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

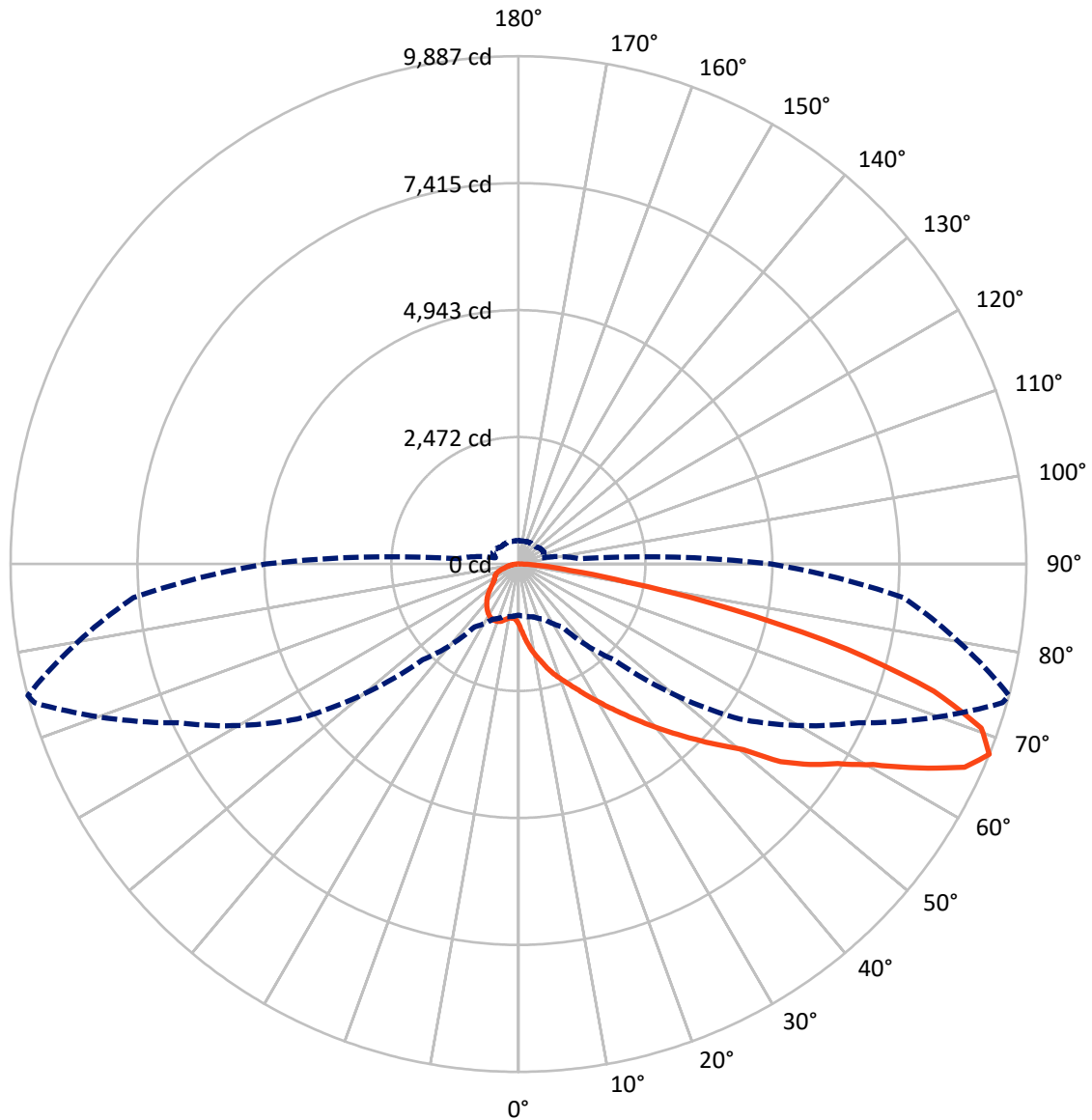


Based on 20 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - Semi-Cutoff

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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	2025.6	0.0	2025.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	9836.4	0.0	9836.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	11862.0	0.0	11862.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	1.2
10°-20°	499.0	4.2
20°-30°	910.2	7.7
30°-40°	1494.0	12.6
40°-50°	2160.5	18.2
50°-60°	2546.2	21.5
60°-70°	2474.3	20.9
70°-80°	1375.3	11.6
80°-90°	264.5	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°	11862.0	100.0
0°-180°	11862.0	100.0



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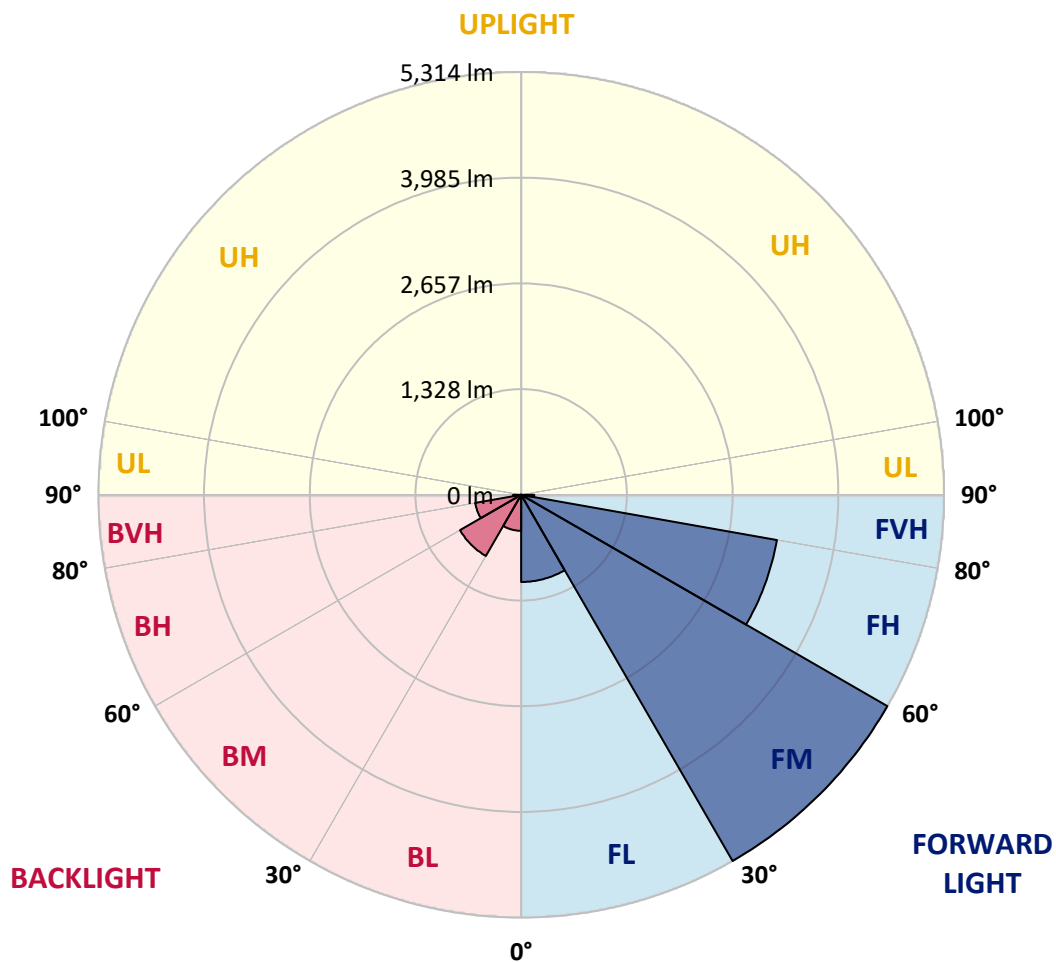
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1095.2	9.2			
FM	(30°-60°)	5313.5	44.8			
FH	(60°-80°)	3263.1	27.5			G2/5000
FVH	(80°-90°)	164.6	1.4			G2/225
BL	(0°-30°)	452.1	3.8	B1/500		
BM	(30°-60°)	887.1	7.5	B1/1000		
BH	(60°-80°)	586.5	4.9	B2/1000		G2/1000
BVH	(80°-90°)	99.9	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4
2.5°	1666.4	1671.4	1661.4	1639.1	1606.9	1547.4	1495.3	1403.5	1321.7	1311.8	1225.0
5°	1959.0	1964.0	1951.6	1924.3	1889.6	1825.1	1753.2	1634.2	1502.7	1477.9	1294.4
7.5°	2159.9	2162.4	2147.5	2120.2	2092.9	2028.4	1956.5	1822.6	1661.4	1641.6	1383.7
10°	2331.0	2335.9	2316.1	2298.7	2269.0	2204.5	2130.1	1988.8	1822.6	1795.3	1475.5
12.5°	2489.7	2494.6	2482.2	2467.4	2457.4	2397.9	2316.1	2147.5	1968.9	1939.2	1584.6
15°	2596.3	2601.3	2603.8	2623.6	2636.0	2593.8	2512.0	2328.5	2127.6	2100.4	1713.5
17.5°	2566.6	2579.0	2616.2	2688.1	2764.9	2767.4	2700.5	2507.0	2283.9	2254.1	1844.9
20°	2479.8	2489.7	2534.3	2643.4	2794.7	2881.5	2876.5	2688.1	2430.2	2397.9	1966.5
22.5°	2551.7	2564.1	2564.1	2631.0	2779.8	2941.0	3005.5	2866.6	2576.5	2546.7	2088.0
25°	2859.2	2866.6	2814.5	2787.3	2841.8	2990.6	3112.1	3060.0	2755.0	2720.3	2219.4
27.5°	3288.2	3275.8	3211.3	3102.2	3042.7	3082.3	3206.3	3243.5	2960.8	2918.7	2355.8
30°	3714.7	3707.2	3632.9	3486.5	3352.6	3268.3	3310.5	3407.2	3184.0	3134.4	2487.2
32.5°	4113.9	4101.5	4019.7	3848.6	3697.3	3541.1	3459.3	3556.0	3422.1	3365.0	2633.5
35°	4480.9	4448.7	4366.9	4188.3	4032.1	3883.3	3682.4	3697.3	3680.0	3620.5	2794.7
37.5°	4778.5	4753.7	4664.4	4498.3	4332.1	4190.8	3980.0	3858.5	3957.7	3900.7	2980.7
40°	5041.4	5014.1	4922.3	4756.2	4602.4	4468.5	4302.4	4054.4	4270.2	4205.7	3189.0
42.5°	5239.7	5219.9	5145.5	4981.8	4833.1	4711.6	4629.7	4302.4	4595.0	4533.0	3417.1
45°	5346.4	5326.5	5286.9	5155.4	5019.0	4924.8	4932.2	4597.5	4934.7	4882.7	3687.4
47.5°	5214.9	5229.8	5264.5	5239.7	5155.4	5110.8	5202.5	4902.5	5314.1	5264.5	3980.0
50°	4862.8	4877.7	5016.6	5187.7	5217.4	5272.0	5445.6	5254.6	5715.9	5676.2	4342.1
52.5°	3997.4	4079.2	4463.6	4872.7	5152.9	5378.6	5715.9	5777.8	6392.8	6392.8	4981.8
55°	3020.4	3092.3	3531.2	4245.4	4902.5	5388.5	5914.2	6132.5	6881.3	6891.3	5316.6
57.5°	2447.5	2492.2	2707.9	3439.4	4376.8	5264.5	6149.8	6437.5	7288.0	7332.7	5748.1
60°	1986.3	2011.1	2152.4	2660.8	3650.2	4929.8	6318.4	6873.9	7868.3	7930.3	6298.6
62.5°	1597.0	1621.8	1716.0	2021.0	2864.1	4302.4	6288.7	7327.7	8642.0	8743.6	7020.2
65°	1274.6	1301.9	1363.9	1552.3	2122.7	3523.7	5983.7	7560.8	9442.9	9542.1	7498.8
67.5°	994.4	1019.2	1061.3	1185.3	1495.3	2636.0	5262.1	7315.3	9802.5	9886.8	7523.6
70°	751.4	763.8	798.5	877.8	1068.8	1750.7	4118.9	6492.0	9480.1	9557.0	7027.6
72.5°	582.7	580.3	600.1	639.8	746.4	1205.2	2730.2	5279.4	8381.6	8461.0	5996.1
75°	476.1	473.6	486.0	498.4	540.6	808.4	1611.8	3975.1	6764.8	6613.5	4498.3
77.5°	401.7	399.2	411.6	414.1	431.5	557.9	917.5	2616.2	4513.2	4252.8	2534.3
80°	339.7	337.2	352.1	357.1	369.5	409.2	528.2	1415.9	2266.5	2147.5	1210.1
82.5°	255.4	265.3	292.6	305.0	319.9	302.5	327.3	624.9	1051.4	1004.3	525.7
85°	124.0	146.3	220.7	245.5	262.9	190.9	223.2	295.1	473.6	451.3	213.3
87.5°	42.2	37.2	131.4	156.2	171.1	86.8	124.0	163.7	195.9	178.5	67.0
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°	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4
2.5°	1187.8	1150.6	1096.1	1053.9	1026.6	1004.3	994.4	991.9	986.9	984.5	984.5
5°	1212.6	1145.7	1061.3	1016.7	1004.3	994.4	999.3	1001.8	1001.8	1001.8	1001.8
7.5°	1249.8	1155.6	1053.9	1024.1	1021.7	1021.7	1036.5	1044.0	1048.9	1048.9	1048.9
10°	1299.4	1172.9	1066.3	1041.5	1048.9	1053.9	1071.3	1081.2	1086.1	1088.6	1091.1
12.5°	1366.3	1210.1	1091.1	1071.3	1081.2	1083.7	1096.1	1101.0	1106.0	1108.5	1108.5
15°	1455.6	1264.7	1130.8	1106.0	1108.5	1106.0	1106.0	1101.0	1098.5	1098.5	1103.5
17.5°	1547.4	1316.8	1165.5	1130.8	1120.9	1101.0	1086.1	1073.7	1066.3	1061.3	1063.8
20°	1639.1	1363.9	1185.3	1135.7	1108.5	1076.2	1048.9	1031.6	1021.7	1011.7	1016.7
22.5°	1730.9	1408.5	1192.8	1120.9	1081.2	1034.1	1004.3	977.0	954.7	939.8	942.3
25°	1832.5	1458.1	1192.8	1103.5	1044.0	994.4	957.2	912.6	880.3	867.9	872.9
27.5°	1934.2	1500.3	1180.4	1071.3	1001.8	952.2	897.7	845.6	825.8	818.3	820.8
30°	2035.9	1532.5	1153.1	1031.6	957.2	902.6	830.7	796.0	771.2	751.4	753.8
32.5°	2137.6	1554.8	1115.9	982.0	910.1	840.6	781.1	741.4	696.8	672.0	674.5
35°	2254.1	1572.2	1071.3	932.4	858.0	786.1	741.4	677.0	629.9	610.0	605.1
37.5°	2375.6	1584.6	1024.1	877.8	805.9	746.4	701.8	622.4	577.8	550.5	548.0
40°	2507.0	1589.5	967.1	820.8	756.3	721.6	649.7	590.2	513.3	496.0	496.0
42.5°	2663.3	1587.0	910.1	763.8	701.8	664.6	612.5	585.2	518.3	500.9	491.0
45°	2841.8	1587.0	848.1	696.8	647.2	592.7	570.3	553.0	508.4	515.8	520.8
47.5°	3045.1	1582.1	773.7	642.3	602.6	555.5	543.1	505.9	488.5	493.5	498.4
50°	3325.4	1589.5	706.7	597.6	570.3	530.7	515.8	496.0	488.5	491.0	488.5
52.5°	3714.7	1564.7	642.3	570.3	545.5	493.5	493.5	491.0	493.5	491.0	491.0
55°	3927.9	1510.2	595.1	555.5	528.2	476.1	486.0	491.0	496.0	493.5	493.5
57.5°	4230.5	1473.0	557.9	545.5	518.3	471.2	481.1	491.0	493.5	491.0	491.0
60°	4587.6	1448.2	533.1	548.0	510.8	471.2	483.6	491.0	488.5	486.0	486.0
62.5°	5001.7	1438.3	515.8	555.5	503.4	473.6	483.6	491.0	481.1	478.6	478.6
65°	5157.9	1349.0	493.5	560.4	508.4	473.6	481.1	483.6	471.2	468.7	466.2
67.5°	4917.4	1195.2	461.2	550.5	523.2	473.6	473.6	471.2	456.3	453.8	448.8
70°	4379.3	991.9	411.6	518.3	533.1	476.1	463.7	451.3	436.4	436.4	426.5
72.5°	3585.7	781.1	347.2	461.2	525.7	483.6	443.9	426.5	409.2	409.2	399.2
75°	2583.9	582.7	277.7	384.4	493.5	481.1	419.1	396.8	376.9	374.4	362.0
77.5°	1473.0	409.2	225.7	300.1	438.9	468.7	396.8	362.0	339.7	332.3	324.8
80°	756.3	275.3	183.5	235.6	364.5	434.0	379.4	322.4	297.6	285.2	272.8
82.5°	359.6	183.5	141.3	173.6	275.3	379.4	357.1	277.7	250.5	235.6	220.7
85°	161.2	109.1	94.2	111.6	195.9	295.1	314.9	228.1	195.9	245.5	181.0
87.5°	52.1	49.6	49.6	52.1	94.2	128.9	230.6	168.6	156.2	128.9	109.1
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)