

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: P231020

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231020
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-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 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: 15135 lumens
Efficiency: N/A
Efficacy: 107.3 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

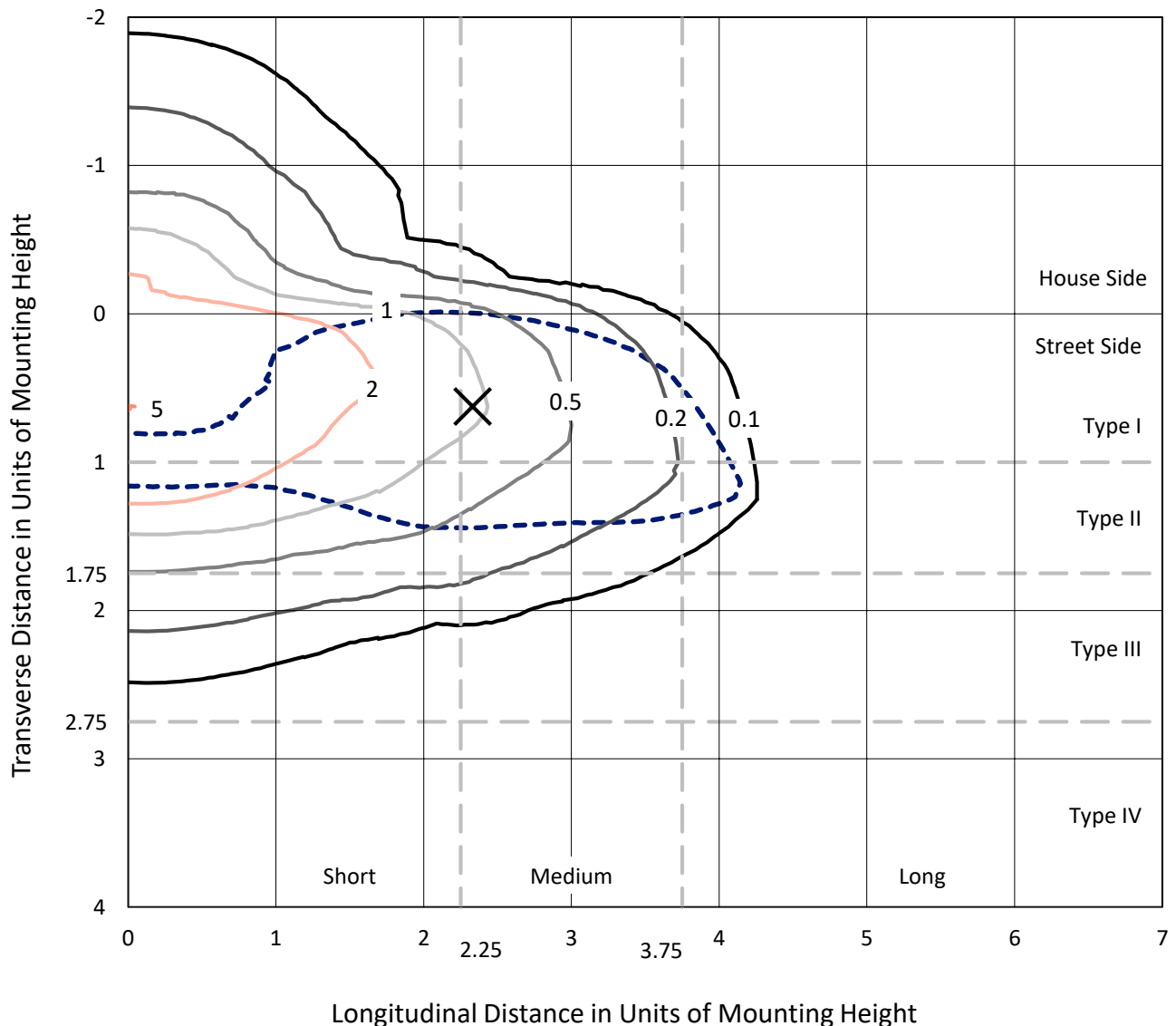


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

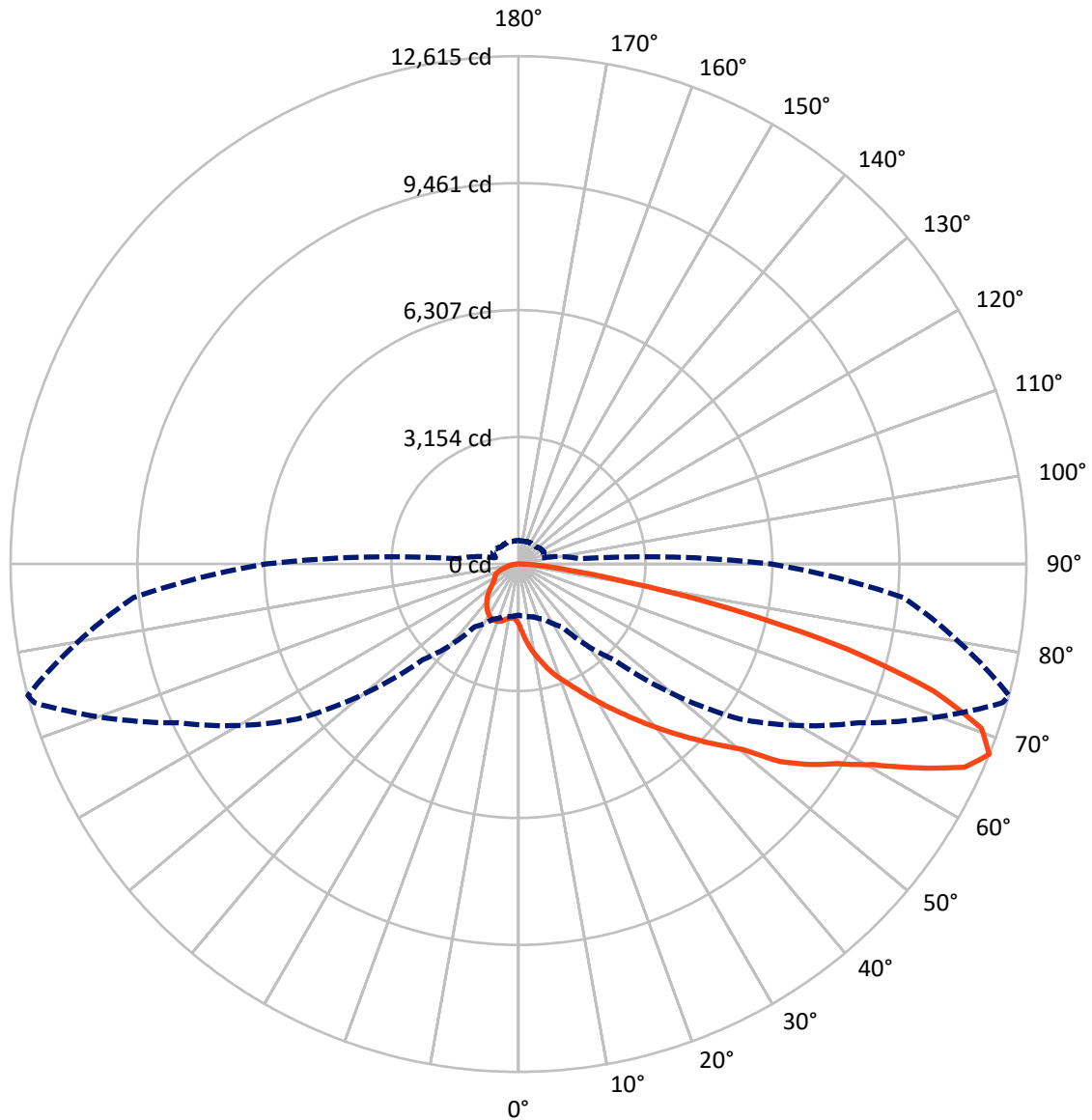


Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type II - Medium - Semi-Cutoff

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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	2584.5	0.0	2584.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	12550.5	0.0	12550.5
	% Fixture	82.9	0.0	82.9
Total	Lumens	15135.0	0.0	15135.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.2	1.2
10°-20°	636.7	4.2
20°-30°	1161.3	7.7
30°-40°	1906.2	12.6
40°-50°	2756.6	18.2
50°-60°	3248.7	21.5
60°-70°	3157.0	20.9
70°-80°	1754.8	11.6
80°-90°	337.4	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°	15135.0	100.0
0°-180°	15135.0	100.0



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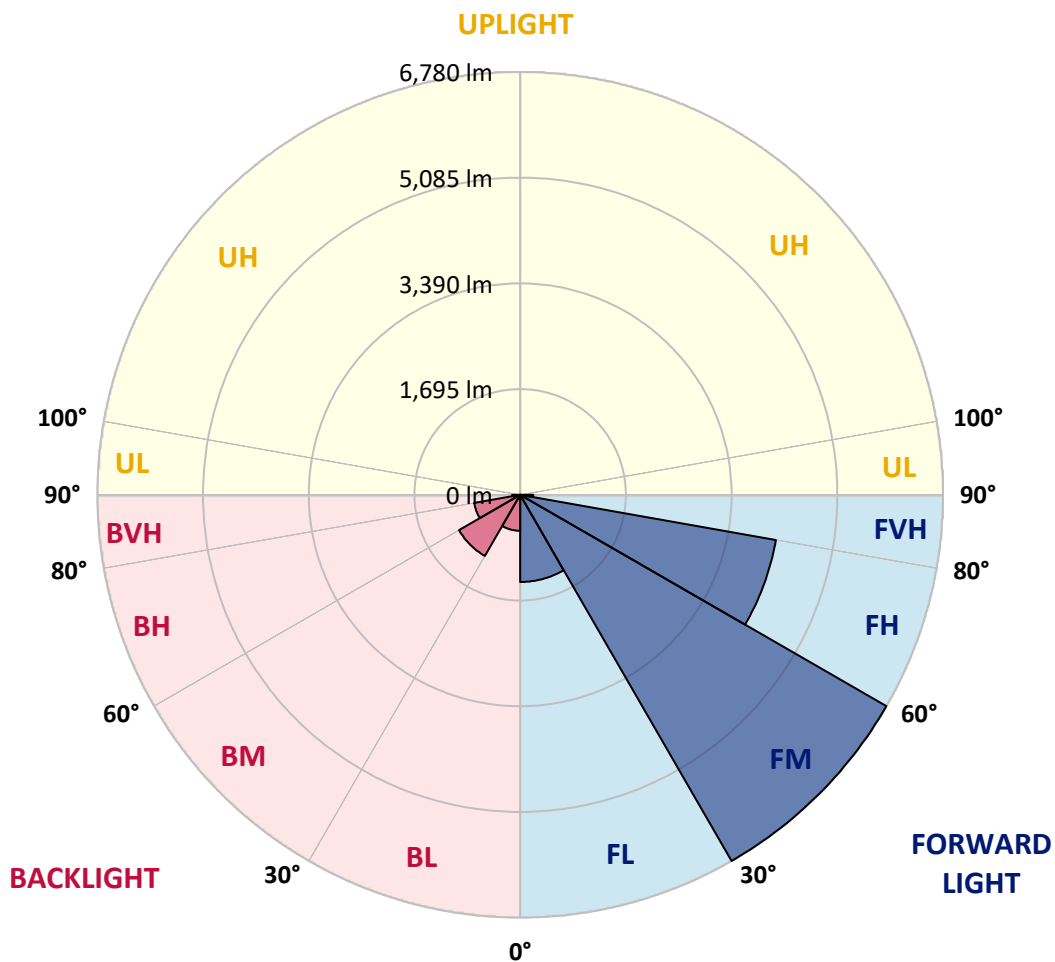
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1397.4	9.2			
FM	(30°-60°)	6779.7	44.8			
FH	(60°-80°)	4163.5	27.5			G2/5000
FVH	(80°-90°)	210.0	1.4			G2/225
BL	(0°-30°)	576.9	3.8	B2/1000		
BM	(30°-60°)	1131.9	7.5	B2/2500		
BH	(60°-80°)	748.3	4.9	B2/1000		G2/1000
BVH	(80°-90°)	127.4	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°	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7
2.5°	2126.2	2132.5	2119.9	2091.4	2050.3	1974.3	1907.9	1790.8	1686.4	1673.7	1563.0
5°	2499.6	2505.9	2490.1	2455.3	2411.0	2328.7	2236.9	2085.1	1917.4	1885.7	1651.6
7.5°	2755.8	2759.0	2740.0	2705.2	2670.4	2588.1	2496.4	2325.5	2119.9	2094.6	1765.5
10°	2974.1	2980.5	2955.2	2933.0	2895.0	2812.8	2717.9	2537.5	2325.5	2290.7	1882.6
12.5°	3176.6	3183.0	3167.2	3148.2	3135.5	3059.6	2955.2	2740.0	2512.2	2474.2	2021.8
15°	3312.7	3319.0	3322.2	3347.5	3363.3	3309.5	3205.1	2971.0	2714.7	2679.9	2186.3
17.5°	3274.7	3290.5	3338.0	3429.8	3527.8	3531.0	3445.6	3198.8	2914.0	2876.1	2354.0
20°	3164.0	3176.6	3233.6	3372.8	3565.8	3676.6	3670.2	3429.8	3100.7	3059.6	2509.0
22.5°	3255.7	3271.6	3271.6	3357.0	3546.8	3752.5	3834.8	3657.6	3287.4	3249.4	2664.1
25°	3648.1	3657.6	3591.1	3556.3	3625.9	3815.8	3970.8	3904.4	3515.2	3470.9	2831.8
27.5°	4195.4	4179.6	4097.4	3958.1	3882.2	3932.8	4091.0	4138.5	3777.8	3724.0	3005.8
30°	4739.7	4730.2	4635.2	4448.6	4277.7	4170.1	4223.9	4347.3	4062.6	3999.3	3173.5
32.5°	5249.1	5233.2	5128.8	4910.5	4717.5	4518.2	4413.8	4537.2	4366.3	4293.5	3360.2
35°	5717.3	5676.2	5571.8	5344.0	5144.6	4954.8	4698.5	4717.5	4695.4	4619.4	3565.8
37.5°	6097.0	6065.4	5951.5	5739.5	5527.5	5347.1	5078.2	4923.2	5049.7	4977.0	3803.1
40°	6432.4	6397.6	6280.5	6068.5	5872.4	5701.5	5489.5	5173.1	5448.4	5366.1	4068.9
42.5°	6685.5	6660.2	6565.3	6356.5	6166.6	6011.6	5907.2	5489.5	5862.9	5783.8	4360.0
45°	6821.6	6796.2	6745.6	6577.9	6403.9	6283.7	6293.2	5866.0	6296.3	6229.9	4704.8
47.5°	6653.9	6672.8	6717.1	6685.5	6577.9	6521.0	6638.0	6255.2	6780.4	6717.1	5078.2
50°	6204.6	6223.6	6400.7	6619.1	6657.0	6726.6	6948.1	6704.5	7293.0	7242.4	5540.1
52.5°	5100.3	5204.8	5695.2	6217.2	6574.8	6862.7	7293.0	7372.1	8156.8	8156.8	6356.5
55°	3853.7	3945.5	4505.5	5416.7	6255.2	6875.3	7546.1	7824.5	8780.1	8792.7	6783.6
57.5°	3122.9	3179.8	3455.1	4388.5	5584.4	6717.1	7846.7	8213.7	9299.0	9355.9	7334.1
60°	2534.4	2566.0	2746.3	3395.0	4657.4	6290.0	8061.8	8770.6	10039.3	10118.4	8036.5
62.5°	2037.6	2069.2	2189.5	2578.6	3654.4	5489.5	8023.9	9349.6	11026.5	11156.2	8957.2
65°	1626.3	1661.1	1740.2	1980.7	2708.4	4496.0	7634.7	9647.0	12048.5	12175.0	9567.9
67.5°	1268.8	1300.4	1354.2	1512.4	1907.9	3363.3	6714.0	9333.8	12507.2	12614.8	9599.5
70°	958.7	974.5	1018.8	1120.1	1363.7	2233.8	5255.4	8283.3	12095.9	12194.0	8966.7
72.5°	743.5	740.4	765.7	816.3	952.4	1537.7	3483.6	6736.1	10694.3	10795.5	7650.5
75°	607.5	604.3	620.1	636.0	689.7	1031.5	2056.6	5071.9	8631.4	8438.4	5739.5
77.5°	512.6	509.4	525.2	528.4	550.5	711.9	1170.7	3338.0	5758.5	5426.2	3233.6
80°	433.5	430.3	449.3	455.6	471.4	522.1	673.9	1806.6	2891.9	2740.0	1544.0
82.5°	325.9	338.5	373.4	389.2	408.2	386.0	417.6	797.3	1341.5	1281.4	670.8
85°	158.2	186.7	281.6	313.2	335.4	243.6	284.8	376.5	604.3	575.8	272.1
87.5°	53.8	47.5	167.7	199.3	218.3	110.7	158.2	208.8	250.0	227.8	85.4
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°	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7	1499.7
2.5°	1515.6	1468.1	1398.5	1344.7	1309.9	1281.4	1268.8	1265.6	1259.3	1256.1	1256.1
5°	1547.2	1461.8	1354.2	1297.2	1281.4	1268.8	1275.1	1278.3	1278.3	1278.3	1278.3
7.5°	1594.6	1474.4	1344.7	1306.7	1303.6	1303.6	1322.5	1332.0	1338.4	1338.4	1338.4
10°	1657.9	1496.6	1360.5	1328.9	1338.4	1344.7	1366.8	1379.5	1385.8	1389.0	1392.2
12.5°	1743.4	1544.0	1392.2	1366.8	1379.5	1382.7	1398.5	1404.8	1411.1	1414.3	1414.3
15°	1857.3	1613.6	1442.8	1411.1	1414.3	1411.1	1411.1	1404.8	1401.6	1401.6	1408.0
17.5°	1974.3	1680.1	1487.1	1442.8	1430.1	1404.8	1385.8	1370.0	1360.5	1354.2	1357.4
20°	2091.4	1740.2	1512.4	1449.1	1414.3	1373.2	1338.4	1316.2	1303.6	1290.9	1297.2
22.5°	2208.5	1797.1	1521.9	1430.1	1379.5	1319.4	1281.4	1246.6	1218.1	1199.2	1202.3
25°	2338.2	1860.4	1521.9	1408.0	1332.0	1268.8	1221.3	1164.3	1123.2	1107.4	1113.7
27.5°	2467.9	1914.2	1506.1	1366.8	1278.3	1215.0	1145.4	1078.9	1053.6	1044.1	1047.3
30°	2597.6	1955.3	1471.3	1316.2	1221.3	1151.7	1059.9	1015.6	984.0	958.7	961.9
32.5°	2727.4	1983.8	1423.8	1252.9	1161.2	1072.6	996.7	946.0	889.1	857.4	860.6
35°	2876.1	2006.0	1366.8	1189.7	1094.7	1003.0	946.0	863.8	803.7	778.3	772.0
37.5°	3031.1	2021.8	1306.7	1120.1	1028.3	952.4	895.4	794.2	737.2	702.4	699.2
40°	3198.8	2028.1	1234.0	1047.3	965.0	920.7	829.0	753.0	654.9	632.8	632.8
42.5°	3398.1	2025.0	1161.2	974.5	895.4	847.9	781.5	746.7	661.3	639.1	626.5
45°	3625.9	2025.0	1082.1	889.1	825.8	756.2	727.7	705.6	648.6	658.1	664.4
47.5°	3885.4	2018.6	987.2	819.5	768.8	708.7	692.9	645.5	623.3	629.6	636.0
50°	4242.9	2028.1	901.7	762.5	727.7	677.1	658.1	632.8	623.3	626.5	623.3
52.5°	4739.7	1996.5	819.5	727.7	696.1	629.6	629.6	626.5	629.6	626.5	626.5
55°	5011.8	1926.9	759.4	708.7	673.9	607.5	620.1	626.5	632.8	629.6	629.6
57.5°	5397.8	1879.4	711.9	696.1	661.3	601.2	613.8	626.5	629.6	626.5	626.5
60°	5853.4	1847.8	680.3	699.2	651.8	601.2	617.0	626.5	623.3	620.1	620.1
62.5°	6381.8	1835.1	658.1	708.7	642.3	604.3	617.0	626.5	613.8	610.6	610.6
65°	6581.1	1721.2	629.6	715.1	648.6	604.3	613.8	617.0	601.2	598.0	594.8
67.5°	6274.2	1525.0	588.5	702.4	667.6	604.3	604.3	601.2	582.2	579.0	572.7
70°	5587.6	1265.6	525.2	661.3	680.3	607.5	591.7	575.8	556.9	556.9	544.2
72.5°	4575.1	996.7	443.0	588.5	670.8	617.0	566.4	544.2	522.1	522.1	509.4
75°	3296.9	743.5	354.4	490.4	629.6	613.8	534.7	506.2	480.9	477.8	461.9
77.5°	1879.4	522.1	287.9	382.8	560.0	598.0	506.2	461.9	433.5	424.0	414.5
80°	965.0	351.2	234.1	300.6	465.1	553.7	484.1	411.3	379.7	363.9	348.0
82.5°	458.8	234.1	180.3	221.5	351.2	484.1	455.6	354.4	319.6	300.6	281.6
85°	205.7	139.2	120.2	142.4	250.0	376.5	401.8	291.1	250.0	313.2	231.0
87.5°	66.4	63.3	63.3	66.4	120.2	164.5	294.3	215.2	199.3	164.5	139.2
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)