

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: P231153

Luminaire Tested: **ARCH-M-AF48-40-D-U-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231153  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-40-D-U-T3-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5427 lumens  
Efficiency: N/A  
Efficacy: 142.8 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

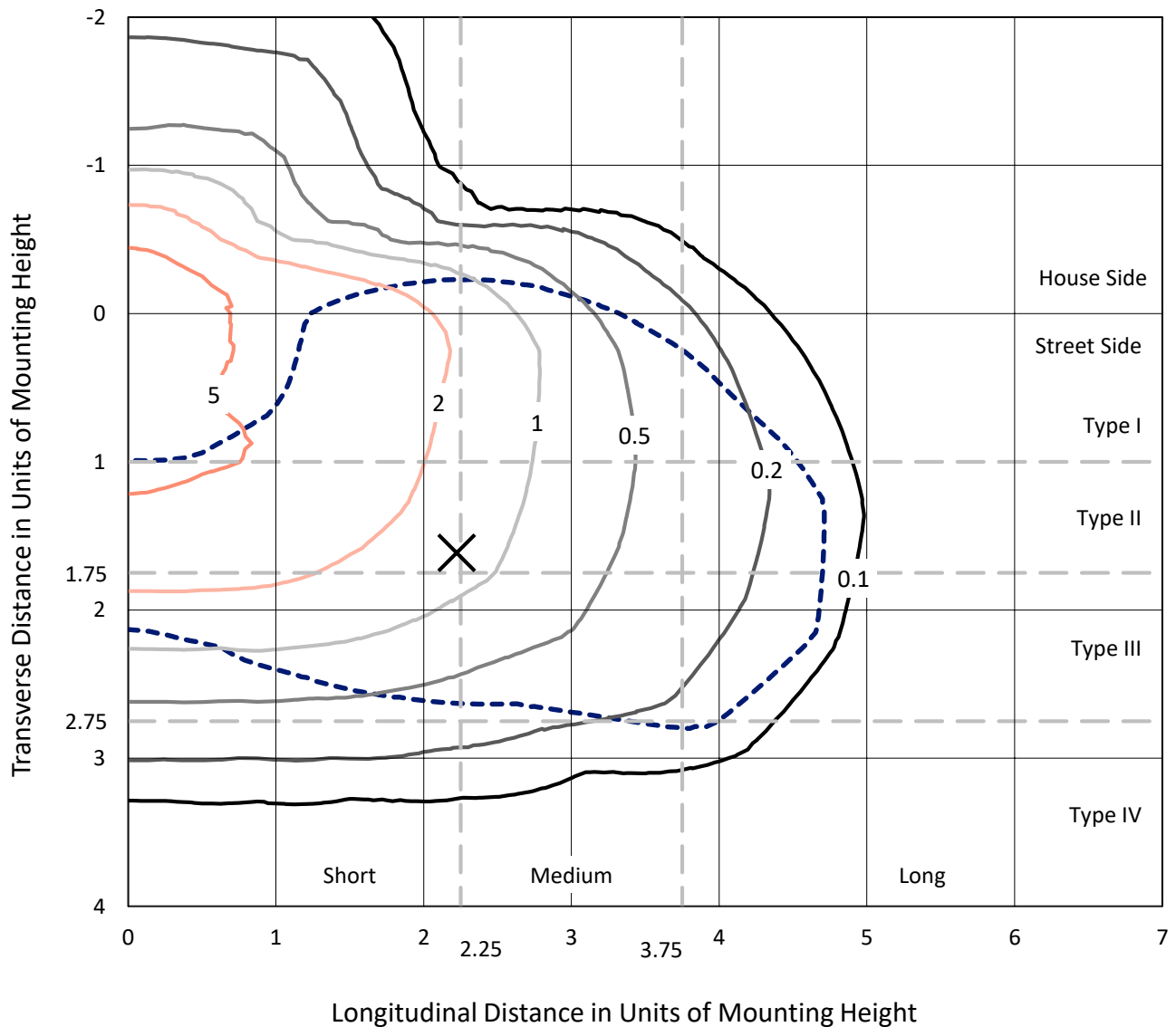
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

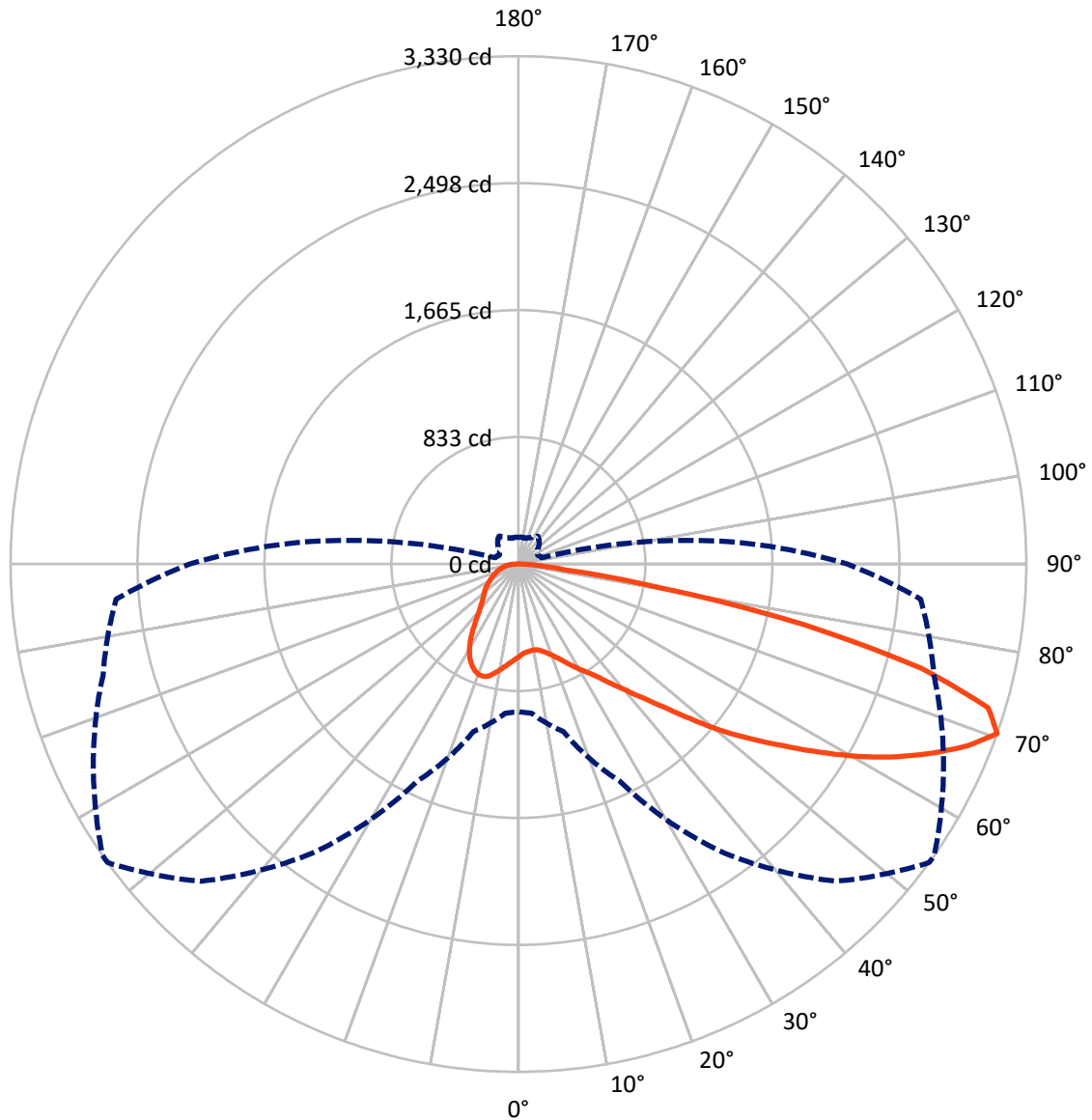
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1230.8	0.0	1230.8
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	4196.2	0.0	4196.2
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	5427.0	0.0	5427.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.6	1.1
10°-20°	190.4	3.5
20°-30°	330.8	6.1
30°-40°	483.4	8.9
40°-50°	758.7	14.0
50°-60°	1166.7	21.5
60°-70°	1425.4	26.3
70°-80°	883.7	16.3
80°-90°	128.4	2.4
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°	5427.0	100.0
0°-180°	5427.0	100.0

**Coefficient of Utilization**



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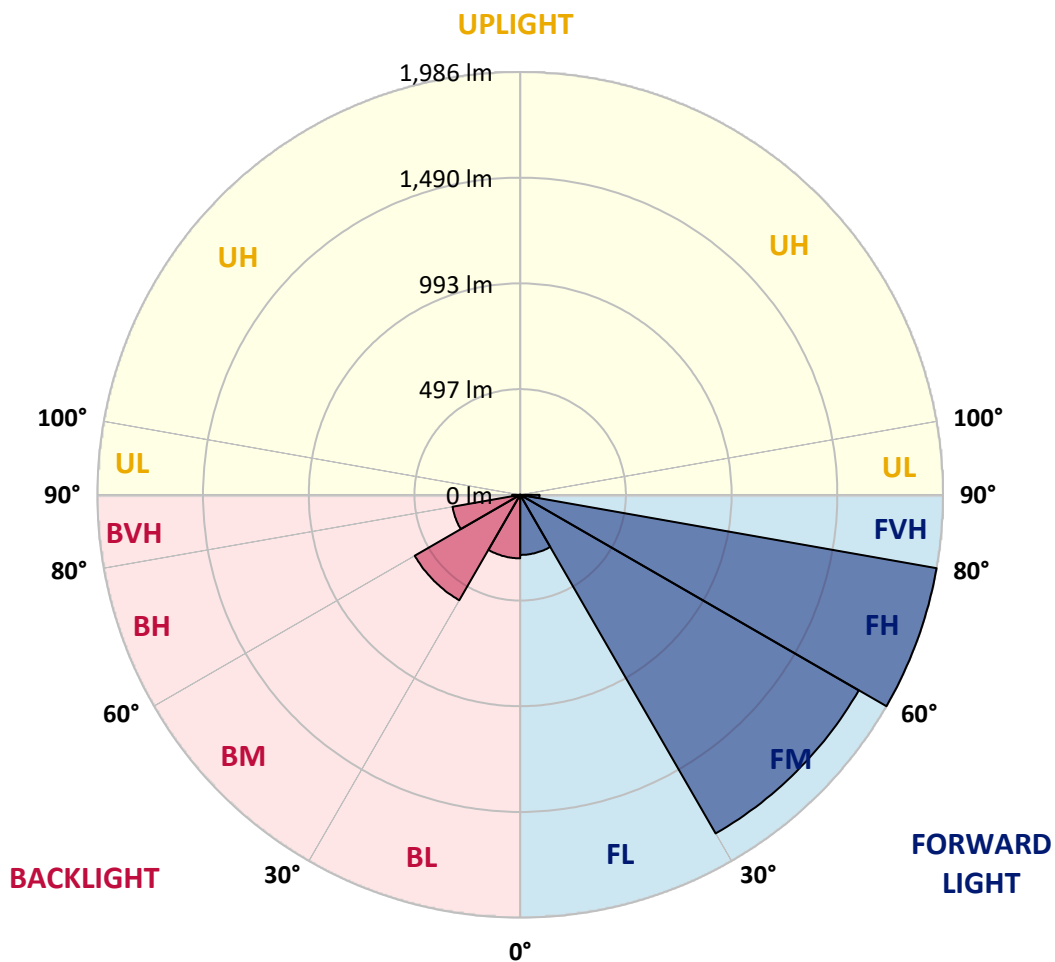
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	282.4	5.2			
FM	(30°-60°)	1836.8	33.8			
FH	(60°-80°)	1986.4	36.6			G2/5000
FVH	(80°-90°)	90.7	1.7			G1/100
BL	(0°-30°)	298.4	5.5	B1/500		
BM	(30°-60°)	571.9	10.5	B1/1000		
BH	(60°-80°)	322.8	5.9	B1/500		G1/500
BVH	(80°-90°)	37.7	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2
2.5°	583.3	581.3	581.3	584.3	585.3	588.3	588.3	589.3	592.3	597.2	603.2
5°	565.4	564.4	565.4	569.4	571.4	577.4	579.3	580.3	586.3	594.3	603.2
7.5°	547.5	546.6	548.5	554.5	560.5	569.4	574.4	575.4	584.3	595.2	607.2
10°	541.6	540.6	543.6	548.5	554.5	564.4	572.4	573.4	586.3	599.2	616.1
12.5°	549.5	548.5	551.5	556.5	562.5	569.4	578.4	579.3	596.2	613.1	631.0
15°	569.4	569.4	570.4	573.4	579.3	585.3	593.3	594.3	612.1	632.0	649.9
17.5°	600.2	598.2	598.2	597.2	601.2	604.2	614.1	615.1	634.0	651.9	669.8
20°	638.0	637.0	633.0	628.0	627.0	629.0	639.0	640.0	658.8	673.8	690.6
22.5°	683.7	684.7	675.7	664.8	659.8	662.8	671.8	672.8	686.7	699.6	714.5
25°	744.3	741.3	728.4	712.5	702.6	702.6	711.5	711.5	724.4	732.4	742.3
27.5°	801.9	796.0	784.1	761.2	745.3	748.3	757.2	757.2	769.2	772.1	777.1
30°	864.5	858.6	843.7	814.9	794.0	792.0	802.9	801.9	817.8	816.8	812.9
32.5°	941.1	938.1	913.2	876.5	848.6	841.7	851.6	852.6	862.6	859.6	846.7
35°	1048.4	1047.4	1024.5	959.9	923.2	910.3	916.2	916.2	923.2	915.2	893.4
37.5°	1183.5	1185.5	1165.7	1070.3	1018.6	996.7	997.7	996.7	998.7	989.8	966.9
40°	1318.7	1323.7	1322.7	1207.4	1141.8	1104.0	1090.1	1088.1	1093.1	1089.1	1067.3
42.5°	1496.6	1508.5	1480.7	1376.3	1302.8	1239.2	1201.4	1196.5	1207.4	1212.4	1191.5
45°	1681.4	1677.4	1633.7	1558.2	1491.6	1410.1	1338.6	1330.6	1338.6	1353.5	1331.6
47.5°	1777.8	1774.8	1763.9	1726.1	1716.2	1622.8	1514.5	1507.5	1492.6	1513.5	1487.6
50°	1936.8	1939.8	1895.1	1891.1	1932.8	1881.1	1713.2	1697.3	1670.5	1687.4	1665.5
52.5°	2052.1	2039.1	2011.3	2046.1	2176.3	2148.5	1900.0	1893.1	1868.2	1864.2	1854.3
55°	2098.8	2098.8	2103.7	2184.2	2370.1	2333.3	2102.7	2109.7	2075.9	2048.1	2061.0
57.5°	2112.7	2118.6	2161.4	2294.5	2597.6	2477.4	2326.3	2336.3	2287.6	2231.9	2272.7
60°	2044.1	2062.0	2164.4	2357.1	2725.8	2630.4	2561.8	2564.8	2494.3	2412.8	2484.3
62.5°	1868.2	1890.1	2072.9	2383.0	2704.9	2787.4	2784.4	2791.4	2695.0	2593.6	2683.1
65°	1652.6	1674.4	1869.2	2310.4	2689.0	2899.7	2988.2	3007.0	2882.8	2746.7	2807.3
67.5°	1335.6	1364.4	1549.2	2066.0	2611.5	2992.1	3179.0	3198.8	3027.9	2826.2	2796.4
70°	967.9	981.8	1136.8	1570.1	2295.5	2941.5	3330.0	3329.0	3075.6	2820.2	2647.3
72.5°	466.1	477.0	611.1	974.9	1641.6	2496.3	3220.7	3239.6	3010.0	2733.8	2306.5
75°	191.8	202.7	247.4	411.4	861.6	1649.6	2729.8	2774.5	2733.8	2453.5	1804.6
77.5°	119.2	123.2	145.1	212.7	393.5	770.1	1911.0	1971.6	2166.3	1965.6	1191.5
80°	89.4	92.4	108.3	149.1	248.4	284.2	949.0	1025.5	1312.7	1127.9	539.6
82.5°	74.5	75.5	86.5	108.3	168.9	163.0	304.1	338.9	612.1	430.3	185.8
85°	69.6	71.5	77.5	77.5	107.3	102.4	126.2	132.2	177.9	147.1	64.6
87.5°	35.8	33.8	68.6	60.6	55.6	49.7	53.7	57.6	66.6	70.6	28.8
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°	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2	607.2
2.5°	605.2	608.2	613.1	618.1	624.1	631.0	635.0	640.0	643.9	642.0	641.0
5°	608.2	613.1	624.1	634.0	645.9	659.8	668.8	678.7	686.7	688.7	685.7
7.5°	613.1	622.1	637.0	654.9	670.8	688.7	702.6	716.5	726.4	728.4	728.4
10°	625.1	635.0	654.9	678.7	697.6	716.5	732.4	743.3	752.3	756.2	756.2
12.5°	642.0	653.9	677.7	706.5	727.4	745.3	754.2	759.2	763.2	767.2	768.2
15°	661.8	674.7	703.6	734.4	756.2	765.2	765.2	764.2	764.2	766.2	768.2
17.5°	681.7	695.6	725.4	758.2	772.1	767.2	760.2	757.2	755.2	754.2	757.2
20°	702.6	716.5	746.3	777.1	773.1	752.3	742.3	735.4	729.4	726.4	730.4
22.5°	725.4	738.3	769.2	790.0	760.2	728.4	709.5	698.6	688.7	682.7	686.7
25°	752.3	765.2	795.0	794.0	737.4	692.6	662.8	644.9	634.0	628.0	628.0
27.5°	784.1	795.0	823.8	784.1	705.6	644.9	601.2	584.3	581.3	576.4	576.4
30°	816.8	825.8	850.6	761.2	661.8	582.3	534.6	526.7	527.7	522.7	523.7
32.5°	850.6	859.6	866.5	727.4	605.2	511.8	480.0	474.0	473.0	469.0	465.1
35°	898.3	911.3	868.5	681.7	536.6	453.1	430.3	424.3	418.4	404.4	404.4
37.5°	970.9	984.8	863.6	625.1	466.1	407.4	386.6	378.6	368.7	354.8	349.8
40°	1070.3	1070.3	852.6	561.5	409.4	370.7	350.8	340.9	329.9	316.0	313.0
42.5°	1187.5	1159.7	835.7	496.9	367.7	345.8	327.9	317.0	304.1	288.2	286.2
45°	1324.6	1249.1	811.9	439.2	336.9	330.9	320.0	301.1	279.2	262.3	259.4
47.5°	1457.8	1329.6	789.0	398.5	311.0	325.0	316.0	284.2	254.4	230.5	227.6
50°	1603.9	1401.2	762.2	364.7	291.2	321.0	311.0	259.4	226.6	209.7	207.7
52.5°	1750.0	1473.7	733.4	328.9	274.3	313.0	299.1	241.5	225.6	202.7	199.7
55°	1904.0	1558.2	699.6	289.2	254.4	297.1	283.2	240.5	232.5	202.7	195.8
57.5°	2054.0	1651.6	644.9	250.4	232.5	273.3	277.3	234.5	217.6	200.7	192.8
60°	2220.0	1751.0	554.5	217.6	213.7	253.4	269.3	221.6	200.7	194.8	190.8
62.5°	2353.2	1840.4	433.3	194.8	197.8	237.5	259.4	213.7	193.8	188.8	187.8
65°	2410.8	1842.4	311.0	174.9	181.9	222.6	249.4	206.7	187.8	185.8	184.8
67.5°	2350.2	1741.0	218.6	156.0	165.0	208.7	236.5	199.7	181.9	182.8	180.9
70°	2154.4	1527.4	160.0	138.1	149.1	193.8	222.6	190.8	174.9	176.9	173.9
72.5°	1802.6	1190.5	128.2	123.2	136.1	177.9	208.7	180.9	164.0	165.0	159.0
75°	1331.6	789.0	107.3	110.3	121.2	163.0	190.8	167.9	152.0	148.1	144.1
77.5°	792.0	405.4	88.4	96.4	108.3	145.1	170.9	152.0	139.1	132.2	129.2
80°	326.9	164.0	72.5	81.5	94.4	129.2	151.0	133.2	124.2	117.3	113.3
82.5°	130.2	80.5	57.6	66.6	79.5	112.3	132.2	117.3	108.3	103.3	92.4
85°	49.7	39.7	38.8	46.7	59.6	86.5	109.3	98.4	91.4	78.5	75.5
87.5°	19.9	17.9	17.9	22.9	33.8	54.7	78.5	68.6	71.5	56.6	57.6
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)