

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: P214851

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214851
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-50-D-U-T4W-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5766.7 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 53
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

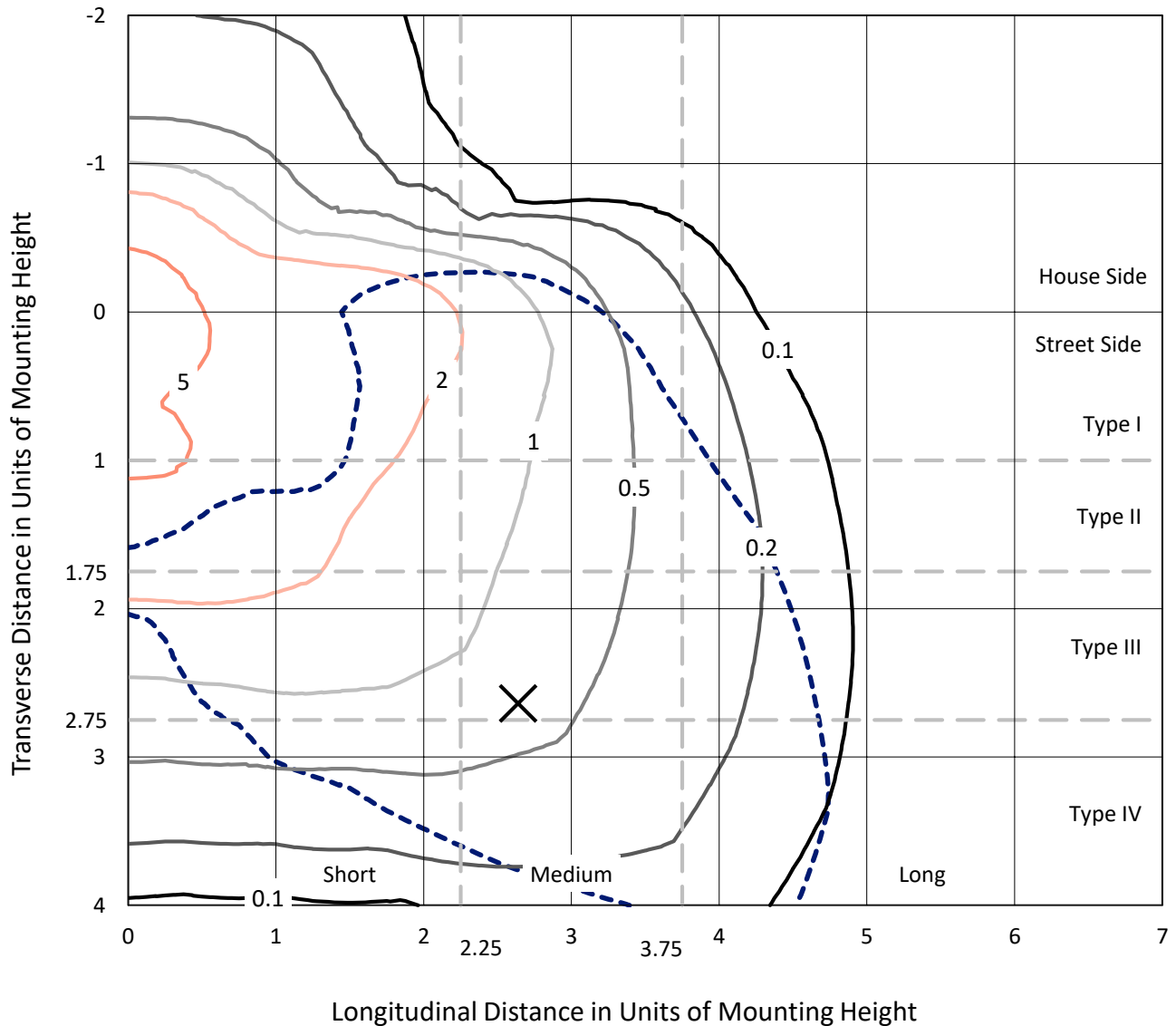


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

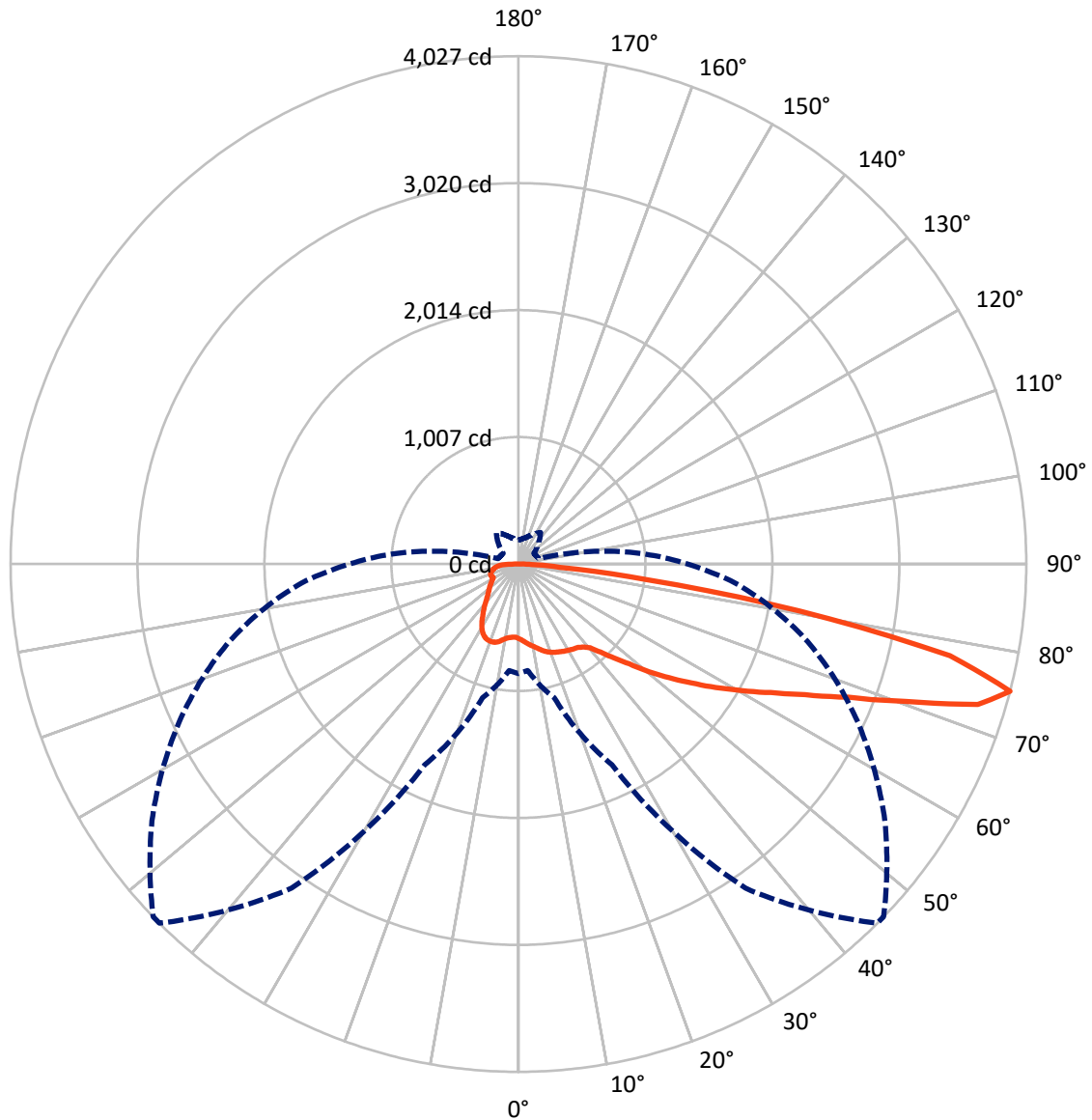


Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1335.9	0.0	1335.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	4430.8	0.0	4430.8
	% Fixture	76.8	0.0	76.8
Total	Lumens	5766.7	0.0	5766.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.6	1.0
10°-20°	189.8	3.3
20°-30°	325.8	5.6
30°-40°	455.6	7.9
40°-50°	668.4	11.6
50°-60°	1041.2	18.1
60°-70°	1498.1	26.0
70°-80°	1305.0	22.6
80°-90°	224.1	3.9
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°	5766.7	100.0
0°-180°	5766.7	100.0

Coefficient of Utilization



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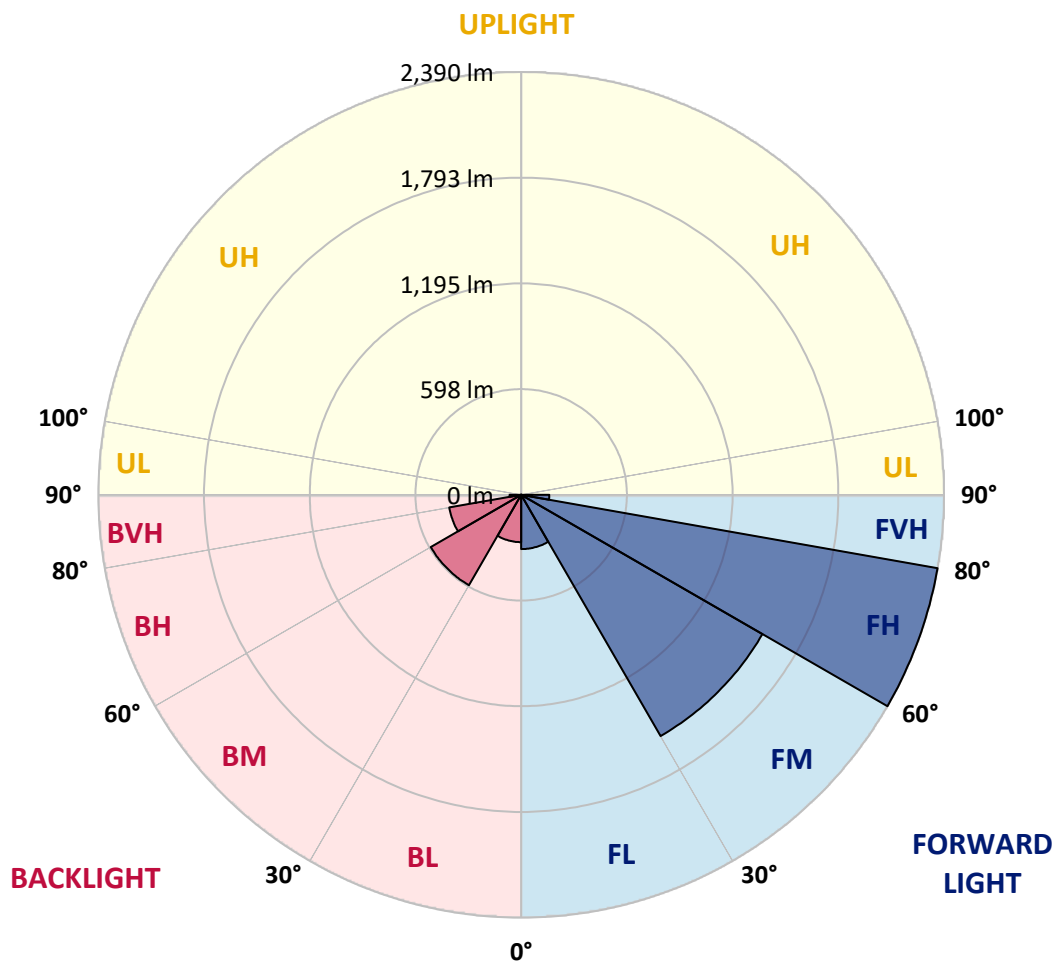
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	306.6	5.3			
FM	(30°-60°)	1574.8	27.3			
FH	(60°-80°)	2390.3	41.5			G2/5000
FVH	(80°-90°)	159.0	2.8			G2/225
BL	(0°-30°)	267.6	4.6	B1/500		
BM	(30°-60°)	590.4	10.2	B1/1000		
BH	(60°-80°)	412.8	7.2	B1/500		G1/500
BVH	(80°-90°)	65.1	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2
2.5°	620.4	615.9	615.9	612.5	612.5	606.8	604.6	603.5	597.8	594.5	591.2
5°	656.2	650.6	649.5	641.7	638.3	625.9	624.9	617.0	606.8	596.8	588.9
7.5°	688.8	685.4	679.8	672.0	661.9	646.2	645.0	632.7	615.9	602.3	591.2
10°	712.4	710.0	702.2	692.1	680.9	665.2	664.1	650.6	630.4	614.7	599.1
12.5°	740.3	737.0	726.9	713.5	701.1	686.4	685.4	674.1	651.7	631.5	611.5
15°	767.3	762.8	750.5	737.0	723.6	711.2	711.2	698.8	675.3	651.7	628.2
17.5°	780.7	778.5	766.1	751.6	740.3	731.4	730.3	719.0	695.6	670.9	645.0
20°	785.2	786.3	775.0	759.5	751.6	747.2	746.0	738.1	712.4	688.8	664.1
22.5°	784.2	787.4	778.5	761.6	759.5	759.5	759.5	750.5	730.3	706.7	682.0
25°	788.7	793.1	786.3	766.1	766.1	770.6	770.6	766.1	748.2	728.0	703.3
27.5°	804.2	807.7	802.1	774.0	775.0	781.9	780.7	781.9	770.6	751.6	726.9
30°	823.4	827.8	821.1	786.3	785.2	791.9	791.9	797.6	789.7	769.5	749.3
32.5°	874.9	873.8	852.6	799.8	796.5	803.2	803.2	808.7	804.2	788.7	769.5
35°	1028.6	1011.8	964.8	843.6	809.9	813.3	813.3	823.4	825.6	813.3	796.5
37.5°	1185.7	1180.1	1144.2	960.3	859.4	834.6	833.4	848.1	858.1	848.1	836.8
40°	1343.9	1339.4	1331.6	1116.2	962.5	872.8	869.3	881.7	899.6	892.9	886.2
42.5°	1490.9	1488.5	1496.5	1269.8	1093.6	954.6	944.5	929.9	955.7	953.5	953.5
45°	1606.3	1612.0	1616.5	1413.4	1236.2	1060.1	1047.7	998.4	1033.1	1042.2	1048.9
47.5°	1671.4	1675.9	1691.7	1553.6	1378.7	1182.3	1173.3	1092.6	1138.6	1165.5	1184.6
50°	1764.5	1752.2	1765.6	1690.5	1550.3	1341.6	1316.9	1219.4	1277.7	1324.8	1369.7
52.5°	1854.2	1834.1	1845.3	1848.6	1745.4	1497.5	1471.7	1368.6	1441.4	1515.5	1595.1
55°	1935.1	1933.9	1945.2	2002.4	1933.9	1664.7	1635.5	1533.5	1638.9	1718.5	1853.1
57.5°	2000.1	2011.4	2060.6	2180.7	2151.6	1846.4	1813.9	1725.3	1849.8	1929.4	2152.6
60°	2076.4	2094.3	2176.2	2332.1	2350.0	2037.1	2003.5	1939.6	2066.3	2147.1	2499.3
62.5°	2102.1	2128.0	2296.3	2491.4	2557.6	2245.8	2215.4	2172.8	2294.0	2366.9	2844.8
65°	1930.5	1979.9	2362.4	2573.3	2780.8	2497.0	2471.2	2434.2	2520.6	2568.8	3079.3
67.5°	1883.4	1905.9	2233.5	2691.0	2990.7	2820.1	2794.3	2730.4	2732.6	2712.5	3155.5
70°	1817.3	1841.9	2101.0	2779.8	3291.2	3262.1	3230.7	3042.3	2926.7	2804.3	3005.1
72.5°	1547.9	1540.2	1810.5	2540.9	3435.9	3809.6	3772.5	3377.6	3070.3	2724.7	2536.4
75°	869.3	847.0	1098.2	1757.8	3137.6	4027.1	4025.9	3547.0	2969.3	2373.6	1726.4
77.5°	252.4	245.7	362.3	737.0	2112.3	3498.8	3541.4	3199.2	2478.0	1705.1	948.0
80°	118.9	121.2	155.9	243.4	901.9	2258.1	2380.4	2106.6	1480.7	786.3	391.4
82.5°	75.2	76.3	106.5	157.0	381.5	1025.3	1126.3	948.0	586.7	339.9	172.7
85°	47.1	47.1	70.7	103.2	227.7	327.6	355.6	323.1	251.3	185.0	94.2
87.5°	25.7	25.7	42.6	59.4	124.5	105.4	108.8	129.0	157.0	113.3	47.1
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°	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2	591.2
2.5°	590.0	587.9	584.4	583.3	582.3	581.0	582.3	584.4	582.3	582.3	583.3
5°	586.7	584.4	579.9	579.9	581.0	582.3	587.9	591.2	592.3	592.3	592.3
7.5°	586.7	583.3	579.9	581.0	583.3	587.9	596.8	602.3	606.8	608.0	608.0
10°	592.3	587.9	585.5	587.9	594.5	597.8	606.8	615.9	621.4	623.7	623.7
12.5°	602.3	597.8	597.8	602.3	611.5	615.9	623.7	630.4	637.2	640.5	640.5
15°	619.2	613.6	614.7	622.6	632.7	637.2	642.8	645.0	650.6	655.1	655.1
17.5°	634.9	629.4	631.5	640.5	647.3	649.5	652.9	651.7	654.0	657.3	658.5
20°	652.9	647.3	648.4	654.0	655.1	652.9	652.9	649.5	648.4	654.0	656.2
22.5°	670.9	665.2	664.1	660.7	655.1	649.5	646.2	642.8	640.5	646.2	648.4
25°	692.1	684.3	678.7	664.1	649.5	639.3	634.9	632.7	631.5	637.2	639.3
27.5°	715.6	707.8	690.9	659.6	636.0	619.2	615.9	615.9	618.1	621.4	623.7
30°	738.1	730.3	700.1	649.5	612.5	587.9	584.4	587.9	593.4	596.8	600.2
32.5°	760.6	752.7	705.6	633.8	577.7	546.3	544.0	549.7	558.7	560.8	563.1
35°	790.8	783.0	712.4	611.5	533.9	500.3	498.1	501.4	509.2	512.7	516.0
37.5°	833.4	829.0	722.4	586.7	493.6	456.6	449.8	447.6	452.2	450.9	455.4
40°	889.6	892.9	740.3	554.2	454.3	416.2	401.6	394.9	390.4	381.5	385.9
42.5°	971.5	973.7	760.6	517.2	420.6	378.0	358.9	346.6	337.6	323.1	325.3
45°	1091.5	1072.4	784.2	477.9	390.4	347.8	325.3	310.8	298.4	286.0	287.2
47.5°	1250.8	1192.4	809.9	445.3	360.1	323.1	302.8	286.0	271.5	261.3	262.4
50°	1447.0	1341.6	835.8	415.0	329.8	304.0	286.0	268.1	253.5	243.4	242.3
52.5°	1706.2	1521.1	852.6	381.5	299.5	287.2	271.5	254.7	236.6	224.3	223.2
55°	1975.4	1729.8	867.1	341.0	270.3	268.1	260.2	241.1	219.8	204.2	201.9
57.5°	2271.6	1953.0	878.3	301.8	247.9	252.4	250.2	227.7	204.2	189.6	188.5
60°	2540.9	2184.1	842.5	267.0	227.7	236.6	239.0	219.8	207.5	210.9	212.0
62.5°	2812.3	2362.4	705.6	241.1	214.2	226.6	245.7	244.5	239.0	244.5	245.7
65°	2909.9	2399.5	500.3	219.8	200.8	231.1	267.0	264.7	239.0	228.8	226.6
67.5°	2854.8	2289.5	336.5	203.0	190.6	236.6	289.4	264.7	230.0	216.6	212.0
70°	2593.5	2019.2	246.8	186.2	181.7	235.6	301.8	263.7	225.5	210.9	205.3
72.5°	2068.5	1558.1	198.6	170.6	168.3	230.0	308.4	261.3	221.0	205.3	198.6
75°	1339.4	969.2	167.1	154.8	148.0	221.0	305.2	254.7	215.3	195.1	190.6
77.5°	621.4	417.3	142.5	136.9	129.0	207.5	295.0	241.1	203.0	184.0	178.3
80°	289.4	197.4	120.0	118.9	115.5	196.3	281.6	225.5	188.5	172.7	163.8
82.5°	154.8	118.9	97.6	97.6	100.9	182.9	264.7	206.4	169.4	161.4	138.0
85°	81.8	68.4	70.7	76.3	86.5	161.4	242.3	186.2	148.0	123.4	120.0
87.5°	41.5	43.7	43.7	51.6	66.2	131.2	199.7	153.7	125.6	100.9	98.7
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)