

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: P265900

Luminaire Tested: **ARCH-AF16-50-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265900
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-AF16-50-D-U-T3-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5197 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

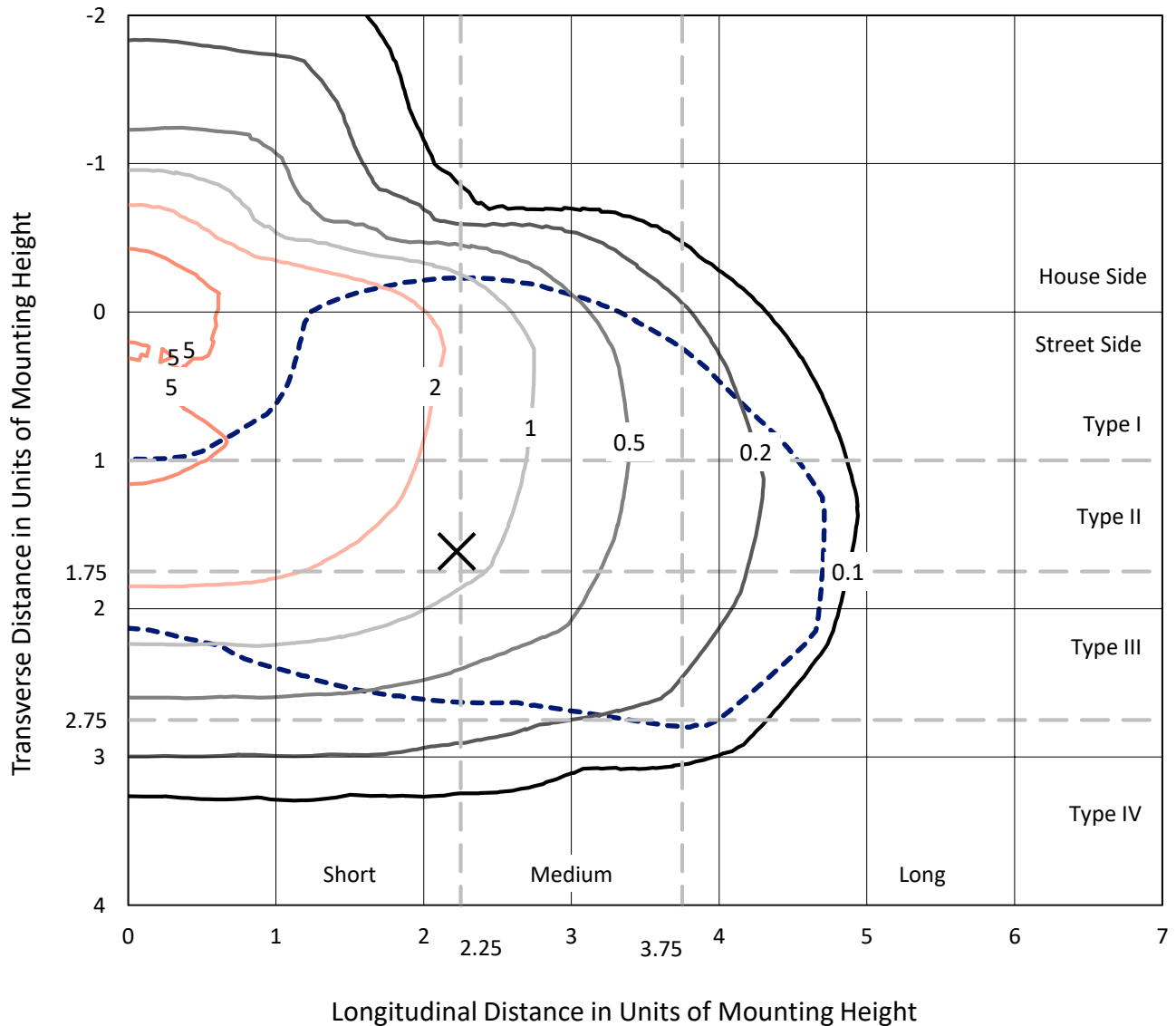
Input Watts (W): 53
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

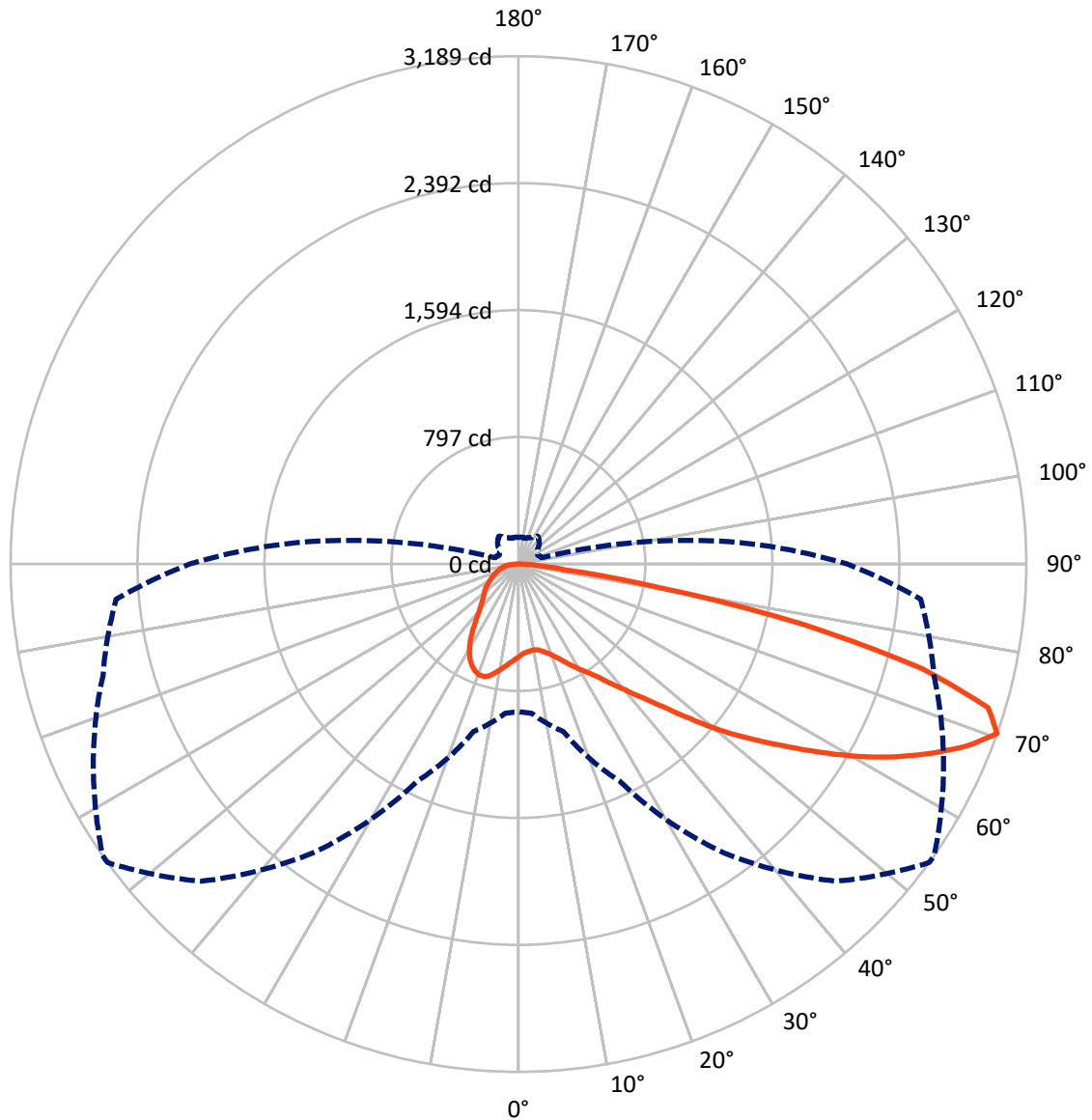
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.8 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
House Side	Lumens	1178.7	0.0	1178.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	4018.3	0.0	4018.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	5197.0	0.0	5197.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	1.1
10°-20°	182.3	3.5
20°-30°	316.8	6.1
30°-40°	462.9	8.9
40°-50°	726.5	14.0
50°-60°	1117.2	21.5
60°-70°	1365.0	26.3
70°-80°	846.3	16.3
80°-90°	123.0	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°	5197.0	100.0
0°-180°	5197.0	100.0



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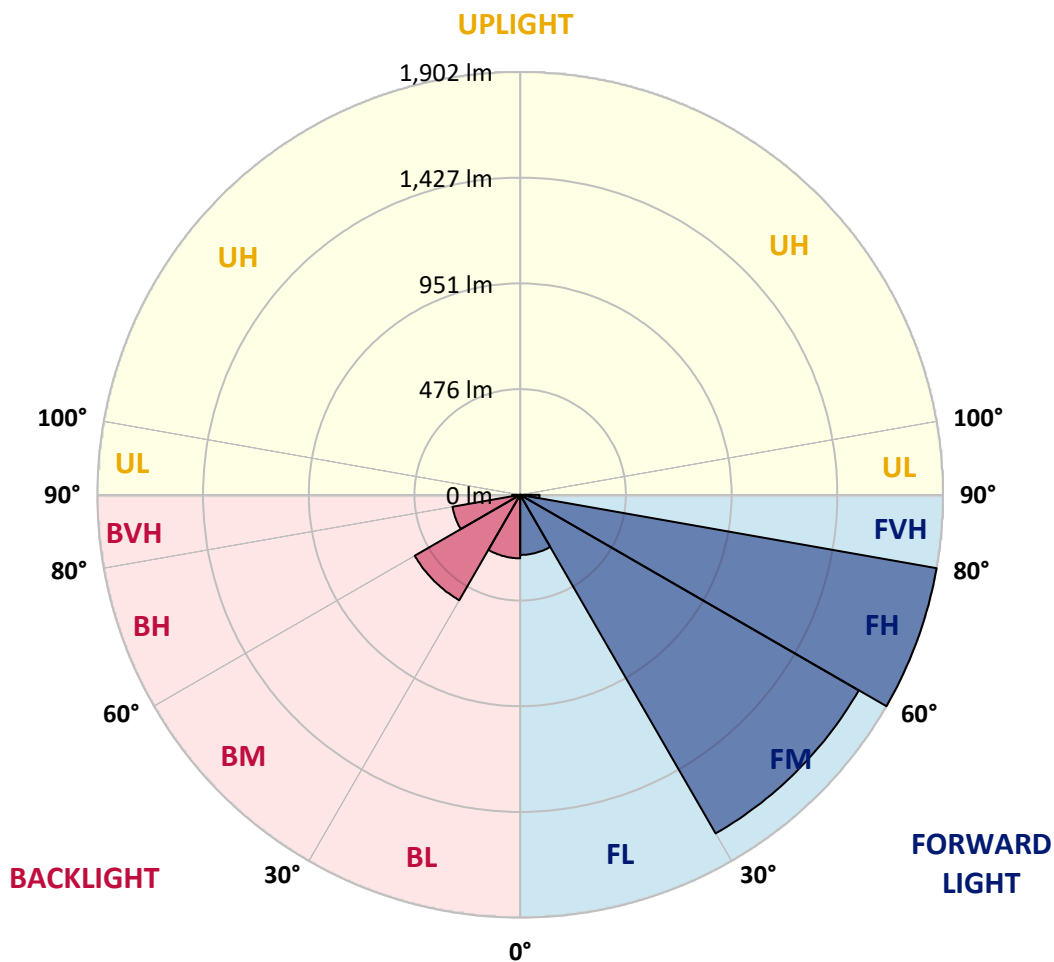
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	270.4	5.2			
FM	(30°-60°)	1758.9	33.8			
FH	(60°-80°)	1902.2	36.6			G2/5000
FVH	(80°-90°)	86.8	1.7			G1/100
BL	(0°-30°)	285.8	5.5	B1/500		
BM	(30°-60°)	547.7	10.5	B1/1000		
BH	(60°-80°)	309.1	5.9	B1/500		G1/500
BVH	(80°-90°)	36.1	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°	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5
2.5°	558.6	556.7	556.7	559.6	560.5	563.3	563.3	564.3	567.2	572.0	577.6
5°	541.5	540.5	541.5	545.4	547.2	552.8	554.9	555.7	561.4	569.0	577.6
7.5°	524.3	523.4	525.2	531.0	536.6	545.4	550.0	551.0	559.6	570.1	581.5
10°	518.6	517.7	520.6	525.2	531.0	540.5	548.1	549.0	561.4	573.7	589.9
12.5°	526.2	525.2	528.2	533.0	538.7	545.4	553.9	554.9	571.0	587.1	604.3
15°	545.4	545.4	546.2	549.0	554.9	560.5	568.1	569.0	586.2	605.2	622.3
17.5°	574.7	572.8	572.8	572.0	575.8	578.6	588.1	589.1	607.2	624.2	641.4
20°	610.9	609.9	606.1	601.4	600.4	602.4	611.8	612.9	630.9	645.3	661.3
22.5°	654.8	655.7	647.0	636.5	631.9	634.7	643.2	644.3	657.6	670.0	684.1
25°	712.7	709.9	697.5	682.4	672.8	672.8	681.4	681.4	693.8	701.3	710.9
27.5°	768.0	762.2	750.9	729.0	713.8	716.6	725.1	725.1	736.5	739.5	744.2
30°	827.9	822.2	807.9	780.3	760.3	758.3	768.9	768.0	783.2	782.2	778.4
32.5°	901.2	898.3	874.5	839.3	812.6	806.0	815.5	816.5	826.0	823.1	810.8
35°	1003.9	1003.0	981.0	919.2	884.0	871.6	877.4	877.4	884.0	876.4	855.5
37.5°	1133.4	1135.3	1116.2	1024.8	975.4	954.4	955.3	954.4	956.3	947.8	926.0
40°	1262.7	1267.6	1266.6	1156.2	1093.3	1057.2	1043.9	1042.0	1046.7	1042.9	1022.0
42.5°	1433.2	1444.6	1418.0	1318.0	1247.6	1186.7	1150.5	1145.8	1156.2	1161.0	1140.9
45°	1610.1	1606.3	1564.5	1492.2	1428.3	1350.3	1281.8	1274.2	1281.8	1296.1	1275.1
47.5°	1702.4	1699.6	1689.2	1652.9	1643.4	1554.0	1450.3	1443.5	1429.4	1449.2	1424.5
50°	1854.7	1857.5	1814.8	1811.0	1850.9	1801.5	1640.6	1625.4	1599.6	1615.8	1594.9
52.5°	1965.0	1952.6	1926.1	1959.4	2084.0	2057.4	1819.4	1812.8	1789.1	1785.2	1775.7
55°	2009.8	2009.8	2014.5	2091.7	2269.6	2234.4	2013.6	2020.3	1987.9	1961.3	1973.7
57.5°	2023.2	2028.8	2069.8	2197.3	2487.4	2372.3	2227.6	2237.1	2190.5	2137.2	2176.4
60°	1957.4	1974.6	2072.6	2257.3	2610.3	2518.8	2453.2	2456.1	2388.6	2310.5	2379.0
62.5°	1789.1	1809.9	1985.1	2282.0	2590.4	2669.3	2666.3	2673.0	2580.8	2483.8	2569.3
65°	1582.5	1603.5	1790.0	2212.4	2575.0	2776.8	2861.6	2879.5	2760.6	2630.2	2688.3
67.5°	1278.9	1306.6	1483.6	1978.3	2500.8	2865.4	3044.1	3063.2	2899.5	2706.4	2677.8
70°	927.0	940.2	1088.7	1503.6	2198.2	2816.7	3188.9	3187.8	2945.3	2700.7	2535.0
72.5°	446.3	456.8	585.2	933.5	1572.0	2390.4	3084.2	3102.2	2882.4	2617.9	2208.8
75°	183.7	194.2	237.0	393.9	825.1	1579.7	2614.1	2656.8	2617.9	2349.5	1728.1
77.5°	114.2	117.9	139.0	203.6	376.7	737.5	1829.9	1888.0	2074.5	1882.3	1140.9
80°	85.7	88.6	103.8	142.7	238.0	272.1	908.7	982.0	1257.1	1080.1	516.7
82.5°	71.3	72.4	82.9	103.8	161.8	156.0	291.2	324.5	586.2	412.1	178.0
85°	66.7	68.5	74.2	74.2	102.8	98.1	120.8	126.7	170.4	140.9	61.9
87.5°	34.2	32.3	65.7	58.0	53.3	47.6	51.5	55.2	63.8	67.6	27.6
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°	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5
2.5°	579.5	582.5	587.1	592.0	597.6	604.3	608.2	612.9	616.6	614.7	613.8
5°	582.5	587.1	597.6	607.2	618.6	631.9	640.4	650.0	657.6	659.4	656.7
7.5°	587.1	595.7	609.9	627.0	642.4	659.4	672.8	686.1	695.6	697.5	697.5
10°	598.6	608.2	627.0	650.0	668.0	686.1	701.3	711.7	720.4	724.2	724.2
12.5°	614.7	626.2	648.9	676.7	696.5	713.8	722.2	727.0	730.9	734.6	735.6
15°	633.8	646.2	673.8	703.3	724.2	732.7	732.7	731.8	731.8	733.6	735.6
17.5°	652.8	666.2	694.7	726.1	739.5	734.6	727.9	725.1	723.2	722.2	725.1
20°	672.8	686.1	714.6	744.2	740.4	720.4	710.9	704.2	698.5	695.6	699.4
22.5°	694.7	707.1	736.5	756.6	727.9	697.5	679.5	669.0	659.4	653.7	657.6
25°	720.4	732.7	761.4	760.3	706.1	663.3	634.7	617.6	607.2	601.4	601.4
27.5°	750.9	761.4	788.9	750.9	675.6	617.6	575.8	559.6	556.7	551.9	551.9
30°	782.2	790.8	814.6	729.0	633.8	557.7	511.9	504.4	505.2	500.5	501.6
32.5°	814.6	823.1	829.9	696.5	579.5	490.0	459.7	454.0	452.9	449.2	445.4
35°	860.2	872.7	831.7	652.8	513.9	433.9	412.1	406.4	400.6	387.3	387.3
37.5°	929.7	943.0	827.0	598.6	446.3	390.1	370.2	362.6	353.0	339.6	335.0
40°	1024.8	1024.8	816.5	537.6	392.1	354.9	336.0	326.4	315.9	302.5	299.8
42.5°	1137.2	1110.6	800.3	475.8	352.0	331.1	314.0	303.5	291.2	276.0	274.1
45°	1268.4	1196.2	777.5	420.5	322.6	316.9	306.4	288.4	267.3	251.3	248.4
47.5°	1396.1	1273.3	755.6	381.6	297.9	311.2	302.5	272.1	243.6	220.8	217.8
50°	1535.9	1341.8	730.0	349.3	278.8	307.4	297.9	248.4	217.0	200.9	198.9
52.5°	1675.8	1411.2	702.2	314.9	262.7	299.8	286.4	231.3	216.0	194.2	191.2
55°	1823.3	1492.2	670.0	276.9	243.6	284.6	271.2	230.2	222.7	194.2	187.4
57.5°	1967.0	1581.6	617.6	239.8	222.7	261.6	265.4	224.5	208.3	192.2	184.6
60°	2125.8	1676.7	531.0	208.3	204.6	242.6	258.0	212.2	192.2	186.5	182.7
62.5°	2253.4	1762.4	414.8	186.5	189.4	227.5	248.4	204.6	185.6	180.7	179.8
65°	2308.6	1764.4	297.9	167.4	174.1	213.2	238.9	197.9	179.8	178.0	177.0
67.5°	2250.6	1667.3	209.3	149.4	157.9	199.9	226.6	191.2	174.1	175.1	173.3
70°	2063.0	1462.6	153.3	132.3	142.7	185.6	213.2	182.7	167.4	169.4	166.5
72.5°	1726.3	1139.9	122.8	117.9	130.3	170.4	199.9	173.3	157.1	157.9	152.3
75°	1275.1	755.6	102.8	105.6	116.2	156.0	182.7	160.8	145.5	141.8	138.0
77.5°	758.3	388.2	84.7	92.3	103.8	139.0	163.8	145.5	133.2	126.7	123.6
80°	313.1	157.1	69.4	78.1	90.4	123.6	144.6	127.5	118.9	112.3	108.4
82.5°	124.7	77.1	55.2	63.8	76.1	107.5	126.7	112.3	103.8	99.0	88.6
85°	47.6	38.1	37.1	44.7	57.1	82.9	104.7	94.2	87.6	75.2	72.4
87.5°	19.0	17.2	17.2	21.9	32.3	52.3	75.2	65.7	68.5	54.3	55.2
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)