

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: P234749

Luminaire Tested: **ARCH-AF24-80-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234749
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-AF24-80-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7071 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 83
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

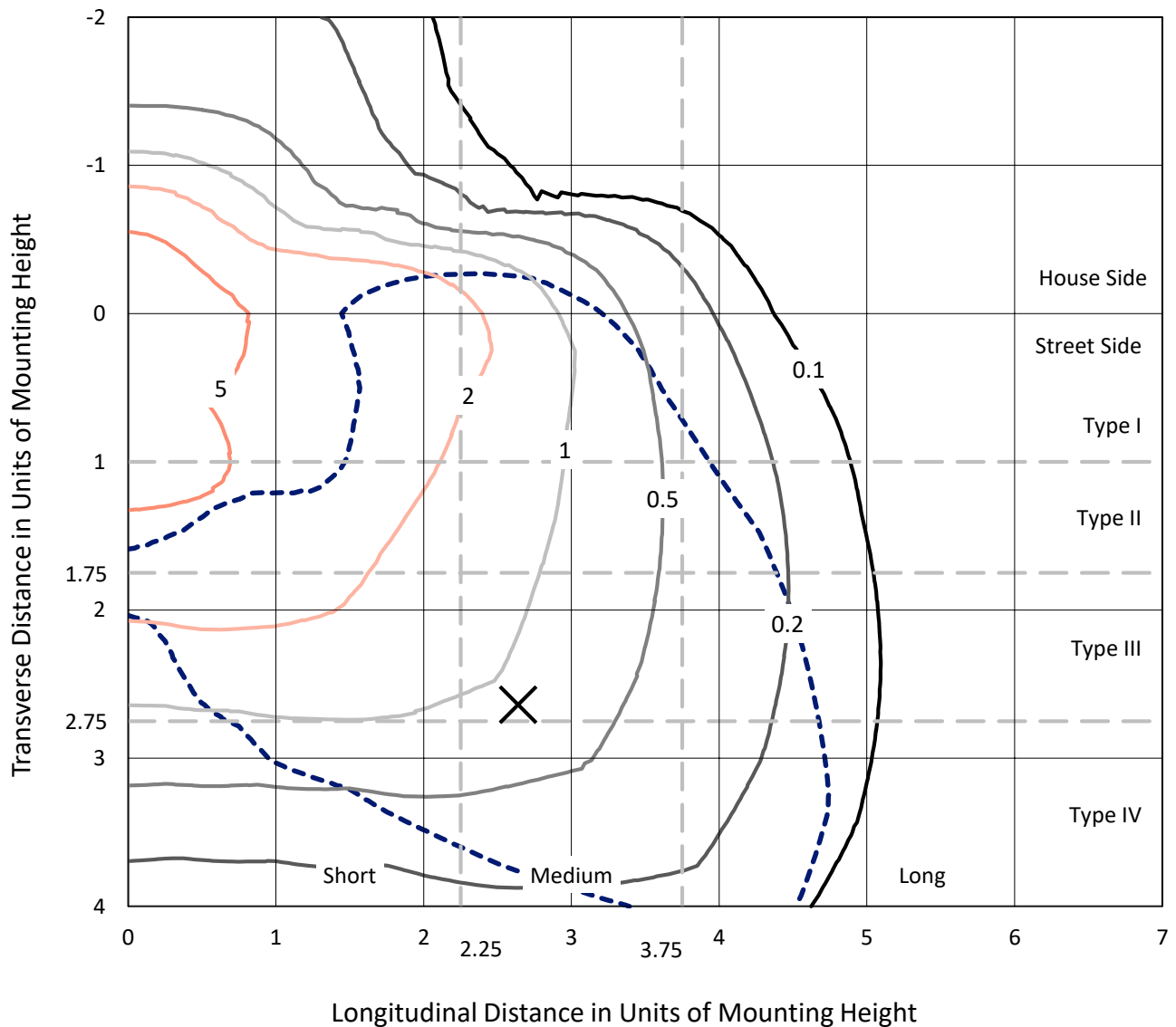


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

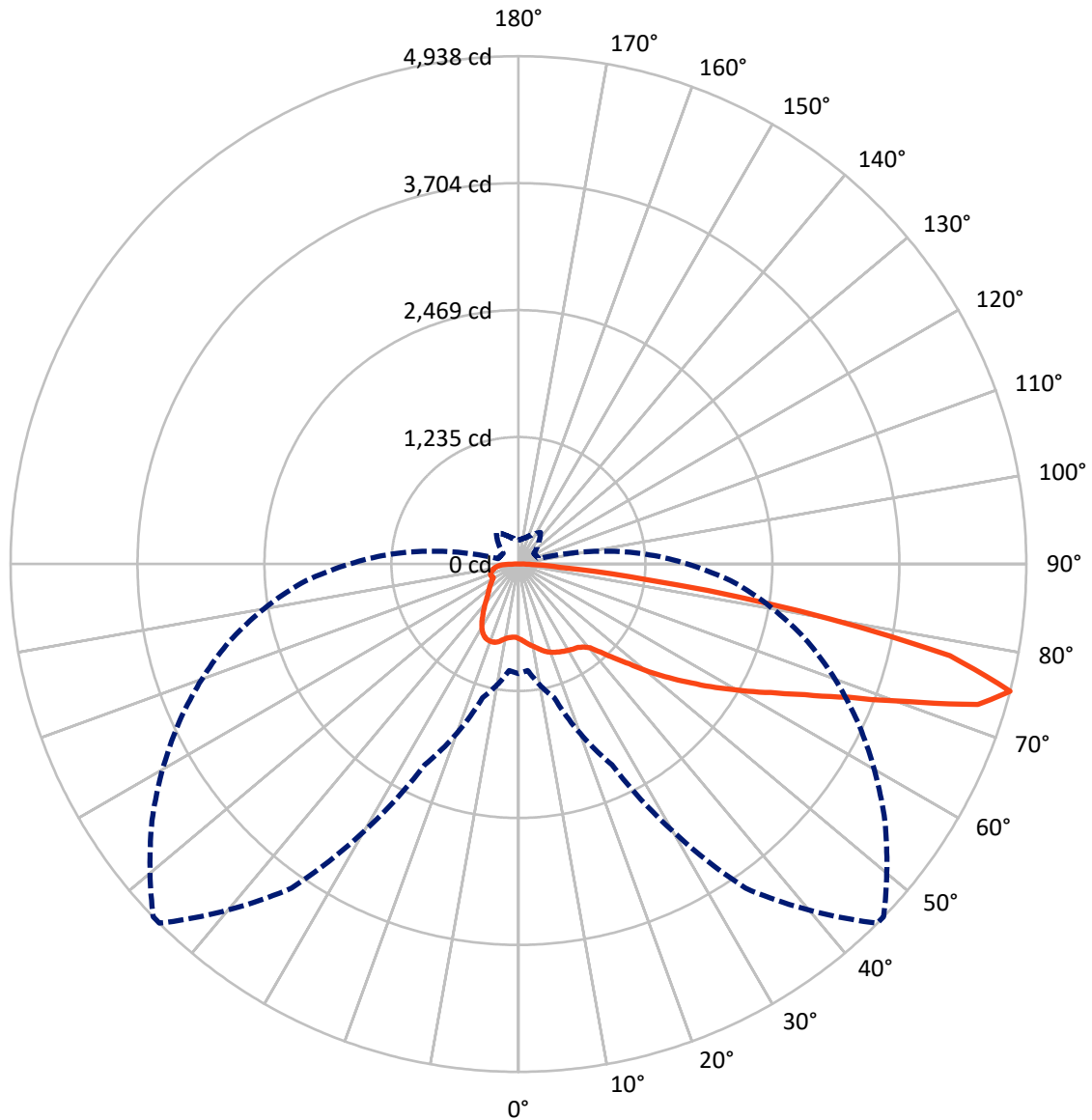


Based on 10 foot mounting height. Maximum calculated value = 8.5 fc
 Type IV - Medium - Non-Cutoff

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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	1638.1	0.0	1638.1
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	5432.9	0.0	5432.9
	% Fixture	76.8	0.0	76.8
Total	Lumens	7071.0	0.0	7071.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	1.0
10°-20°	232.8	3.3
20°-30°	399.5	5.6
30°-40°	558.7	7.9
40°-50°	819.6	11.6
50°-60°	1276.6	18.1
60°-70°	1837.0	26.0
70°-80°	1600.2	22.6
80°-90°	274.8	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°	7071.0	100.0
0°-180°	7071.0	100.0



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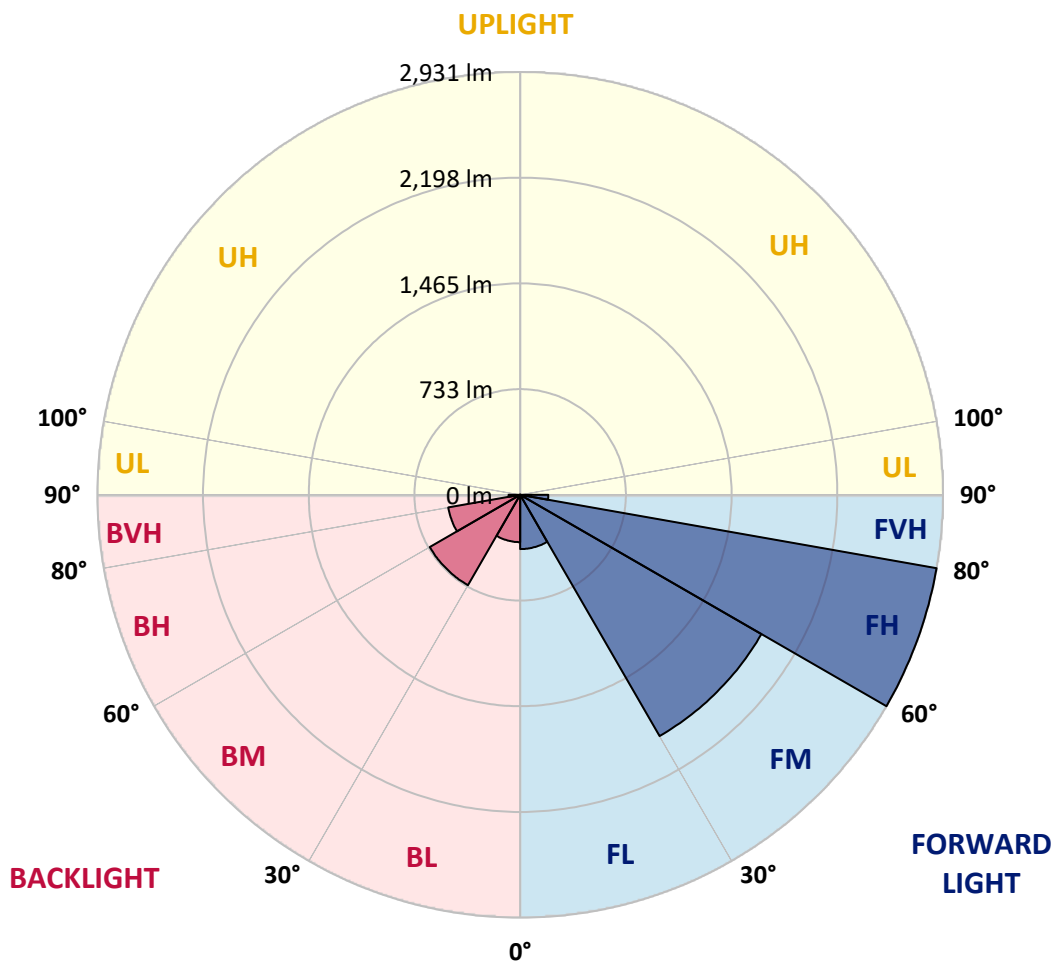
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	376.0	5.3			
FM	(30°-60°)	1931.0	27.3			
FH	(60°-80°)	2931.0	41.5			G2/5000
FVH	(80°-90°)	195.0	2.8			G2/225
BL	(0°-30°)	328.1	4.6	B1/500		
BM	(30°-60°)	723.9	10.2	B1/1000		
BH	(60°-80°)	506.2	7.2	B2/1000		G2/1000
BVH	(80°-90°)	79.8	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9
2.5°	760.6	755.1	755.1	751.0	751.0	744.1	741.4	740.0	733.1	729.0	724.9
5°	804.7	797.8	796.4	786.8	782.6	767.5	766.1	756.5	744.1	731.8	722.1
7.5°	844.5	840.4	833.5	823.9	811.5	792.3	790.9	775.8	755.1	738.6	724.9
10°	873.4	870.7	861.1	848.7	834.9	815.7	814.3	797.8	773.0	753.8	734.5
12.5°	907.8	903.7	891.3	874.8	859.7	841.8	840.4	826.7	799.2	774.4	749.6
15°	940.8	935.3	920.2	903.7	887.2	872.1	872.1	856.9	828.0	799.2	770.3
17.5°	957.3	954.6	939.5	921.6	907.8	896.8	895.4	881.7	852.8	822.5	790.9
20°	962.8	964.2	950.5	931.2	921.6	916.1	914.7	905.1	873.4	844.5	814.3
22.5°	961.5	965.6	954.6	934.0	931.2	931.2	931.2	920.2	895.4	866.6	836.3
25°	967.0	972.5	964.2	939.5	939.5	945.0	945.0	939.5	917.4	892.7	862.4
27.5°	986.2	990.3	983.5	949.1	950.5	958.7	957.3	958.7	945.0	921.6	891.3
30°	1009.6	1015.1	1006.9	964.2	962.8	971.1	971.1	978.0	968.3	943.6	918.8
32.5°	1072.9	1071.5	1045.4	980.7	976.6	984.8	984.8	991.7	986.2	967.0	943.6
35°	1261.3	1240.7	1182.9	1034.4	993.1	997.2	997.2	1009.6	1012.4	997.2	976.6
37.5°	1453.9	1447.0	1403.0	1177.4	1053.6	1023.4	1022.0	1039.9	1052.2	1039.9	1026.1
40°	1647.8	1642.3	1632.7	1368.6	1180.2	1070.1	1066.0	1081.1	1103.1	1094.9	1086.6
42.5°	1828.0	1825.3	1834.9	1557.0	1341.1	1170.5	1158.2	1140.3	1171.9	1169.2	1169.2
45°	1969.7	1976.6	1982.1	1733.1	1515.8	1299.8	1284.7	1224.2	1266.8	1277.8	1286.1
47.5°	2049.5	2055.0	2074.2	1905.0	1690.5	1449.8	1438.8	1339.7	1396.1	1429.1	1452.5
50°	2163.6	2148.5	2165.0	2072.8	1900.9	1645.1	1614.8	1495.1	1566.7	1624.4	1679.5
52.5°	2273.7	2248.9	2262.7	2266.8	2140.2	1836.3	1804.6	1678.1	1767.5	1858.3	1955.9
55°	2372.7	2371.3	2385.1	2455.2	2371.3	2041.2	2005.4	1880.3	2009.6	2107.2	2272.3
57.5°	2452.5	2466.2	2526.8	2673.9	2638.2	2264.0	2224.2	2115.5	2268.2	2365.8	2639.5
60°	2546.0	2568.0	2668.4	2859.6	2881.6	2497.9	2456.6	2378.2	2533.6	2632.7	3064.6
62.5°	2577.6	2609.3	2815.6	3054.9	3136.1	2753.7	2716.6	2664.3	2812.9	2902.3	3488.2
65°	2367.2	2427.7	2896.8	3155.4	3409.8	3061.8	3030.2	2984.8	3090.7	3149.8	3775.7
67.5°	2309.4	2336.9	2738.6	3299.8	3667.0	3458.0	3426.3	3347.9	3350.7	3325.9	3869.2
70°	2228.3	2258.5	2576.3	3408.4	4035.7	3999.9	3961.4	3730.3	3588.6	3438.7	3684.9
72.5°	1898.2	1888.5	2220.0	3115.5	4213.1	4671.1	4625.7	4141.6	3764.7	3341.0	3110.0
75°	1066.0	1038.5	1346.6	2155.4	3847.2	4938.0	4936.6	4349.3	3640.9	2910.5	2116.9
77.5°	309.5	301.2	444.3	903.7	2590.0	4290.1	4342.4	3922.9	3038.4	2090.7	1162.3
80°	145.8	148.6	191.2	298.5	1105.9	2768.8	2918.8	2583.2	1815.6	964.2	480.0
82.5°	92.2	93.5	130.7	192.6	467.7	1257.2	1381.0	1162.3	719.4	416.8	211.8
85°	57.8	57.8	86.7	126.5	279.2	401.6	436.0	396.1	308.1	227.0	115.5
87.5°	31.6	31.6	52.3	72.9	152.7	129.3	133.4	158.2	192.6	138.9	57.8
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°	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9
2.5°	723.5	720.8	716.6	715.2	713.9	712.5	713.9	716.6	713.9	713.9	715.2
5°	719.4	716.6	711.1	711.1	712.5	713.9	720.8	724.9	726.3	726.3	726.3
7.5°	719.4	715.2	711.1	712.5	715.2	720.8	731.8	738.6	744.1	745.5	745.5
10°	726.3	720.8	718.0	720.8	729.0	733.1	744.1	755.1	762.0	764.8	764.8
12.5°	738.6	733.1	733.1	738.6	749.6	755.1	764.8	773.0	781.3	785.4	785.4
15°	759.3	752.4	753.8	763.4	775.8	781.3	788.1	790.9	797.8	803.3	803.3
17.5°	778.5	771.6	774.4	785.4	793.7	796.4	800.5	799.2	801.9	806.0	807.4
20°	800.5	793.7	795.0	801.9	803.3	800.5	800.5	796.4	795.0	801.9	804.7
22.5°	822.5	815.7	814.3	810.2	803.3	796.4	792.3	788.1	785.4	792.3	795.0
25°	848.7	839.0	832.2	814.3	796.4	784.0	778.5	775.8	774.4	781.3	784.0
27.5°	877.6	867.9	847.3	808.8	779.9	759.3	755.1	755.1	757.9	762.0	764.8
30°	905.1	895.4	858.3	796.4	751.0	720.8	716.6	720.8	727.6	731.8	735.9
32.5°	932.6	922.9	865.2	777.1	708.4	669.9	667.1	674.0	685.0	687.7	690.5
35°	969.7	960.1	873.4	749.6	654.7	613.5	610.7	614.8	624.5	628.6	632.7
37.5°	1022.0	1016.5	885.8	719.4	605.2	559.8	551.6	548.8	554.3	552.9	558.4
40°	1090.8	1094.9	907.8	679.5	557.1	510.3	492.4	484.2	478.7	467.7	473.2
42.5°	1191.2	1193.9	932.6	634.1	515.8	463.5	440.2	425.0	414.0	396.1	398.9
45°	1338.3	1315.0	961.5	586.0	478.7	426.4	398.9	381.0	365.9	350.7	352.1
47.5°	1533.7	1462.1	993.1	546.1	441.5	396.1	371.4	350.7	332.9	320.5	321.9
50°	1774.4	1645.1	1024.7	508.9	404.4	372.8	350.7	328.7	310.9	298.5	297.1
52.5°	2092.1	1865.2	1045.4	467.7	367.3	352.1	332.9	312.2	290.2	275.1	273.7
55°	2422.2	2121.0	1063.2	418.1	331.5	328.7	319.1	295.7	269.6	250.3	247.6
57.5°	2785.3	2394.7	1077.0	370.0	304.0	309.5	306.7	279.2	250.3	232.5	231.1
60°	3115.5	2678.1	1033.0	327.4	279.2	290.2	293.0	269.6	254.5	258.6	260.0
62.5°	3448.3	2896.8	865.2	295.7	262.7	277.8	301.2	299.9	293.0	299.9	301.2
65°	3568.0	2942.2	613.5	269.6	246.2	283.3	327.4	324.6	293.0	280.6	277.8
67.5°	3500.6	2807.4	412.6	249.0	233.8	290.2	354.9	324.6	282.0	265.5	260.0
70°	3180.1	2475.9	302.6	228.3	222.8	288.9	370.0	323.2	276.5	258.6	251.7
72.5°	2536.4	1910.5	243.5	209.1	206.3	282.0	378.3	320.5	271.0	251.7	243.5
75°	1642.3	1188.4	204.9	189.8	181.6	271.0	374.1	312.2	264.1	239.3	233.8
77.5°	762.0	511.7	174.7	167.8	158.2	254.5	361.8	295.7	249.0	225.6	218.7
80°	354.9	242.1	147.2	145.8	141.7	240.7	345.2	276.5	231.1	211.8	200.8
82.5°	189.8	145.8	119.7	119.7	123.8	224.2	324.6	253.1	207.7	198.1	169.2
85°	100.4	83.9	86.7	93.5	105.9	198.1	297.1	228.3	181.6	151.3	147.2
87.5°	50.9	53.6	53.6	63.3	81.2	160.9	244.8	188.4	154.1	123.8	121.0
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)