

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: P265968

Luminaire Tested: **ARCH-AF24-80-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265968
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-AF24-80-D-U-T2R-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8001 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

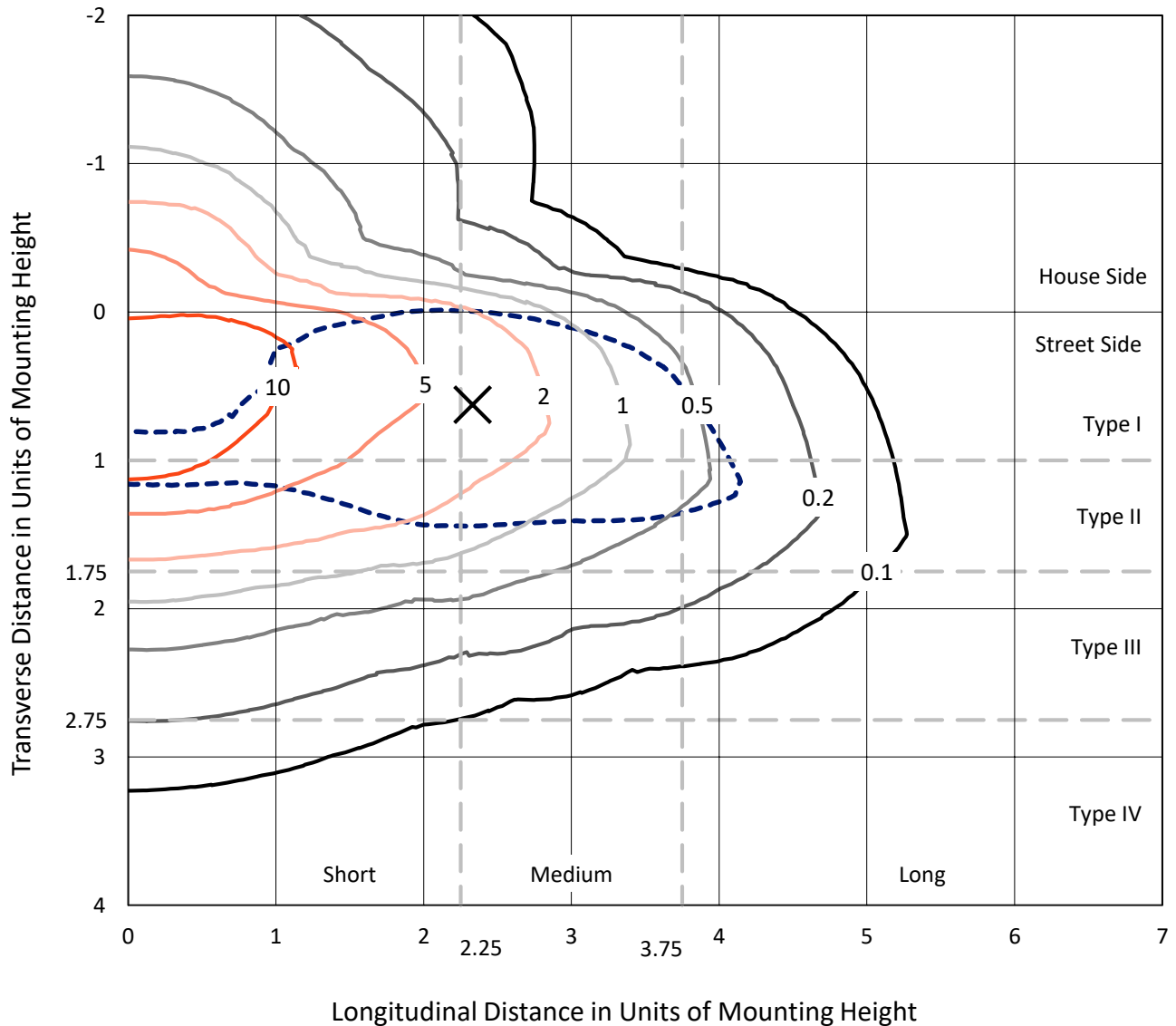
Input Watts (W): 83
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

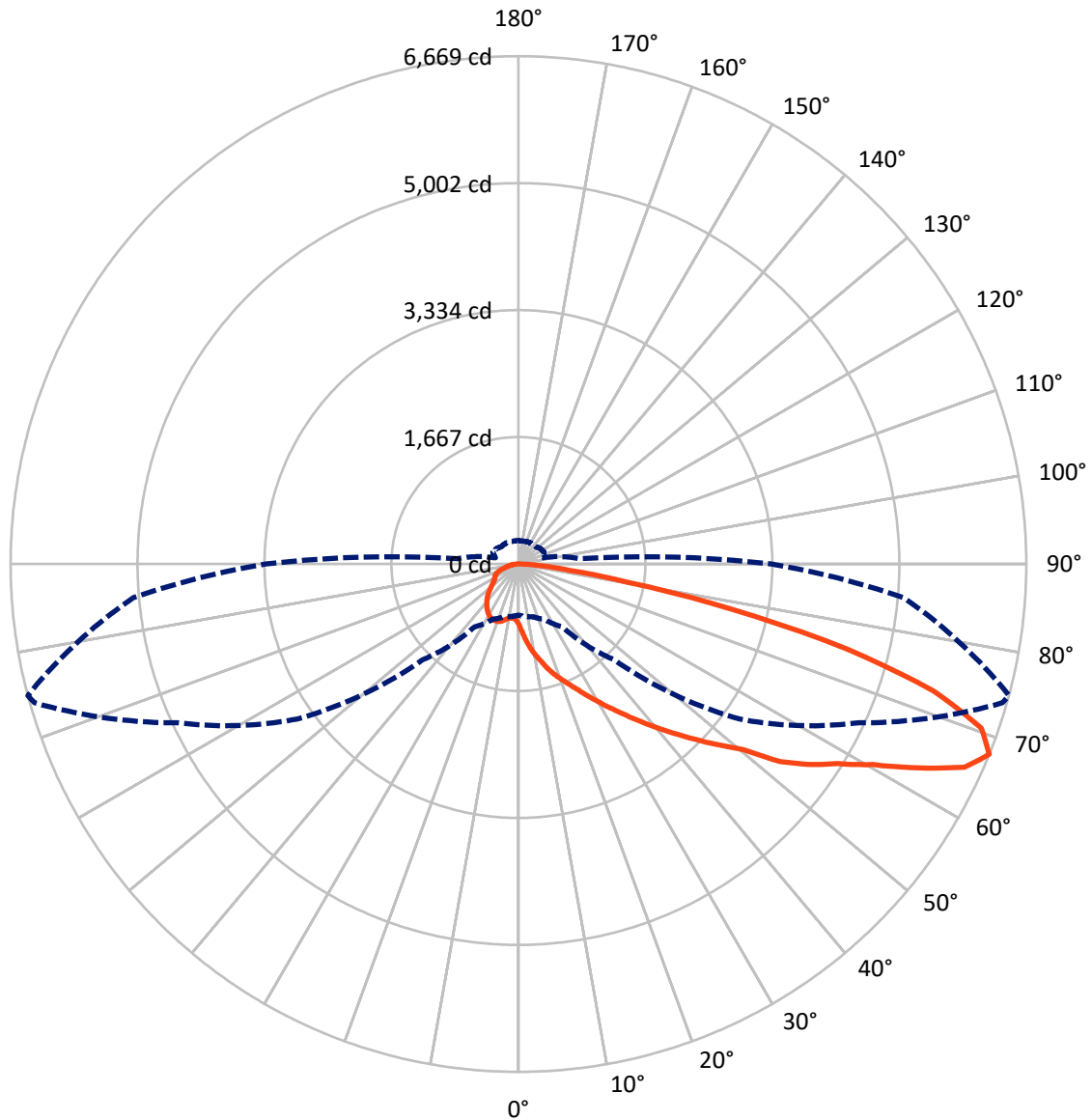
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.6 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	1366.3	0.0	1366.3
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	6634.8	0.0	6634.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	8001.0	0.0	8001.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.1	1.2
10°-20°	336.6	4.2
20°-30°	613.9	7.7
30°-40°	1007.7	12.6
40°-50°	1457.3	18.2
50°-60°	1717.4	21.5
60°-70°	1668.9	20.9
70°-80°	927.7	11.6
80°-90°	178.4	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°	8001.0	100.0
0°-180°	8001.0	100.0



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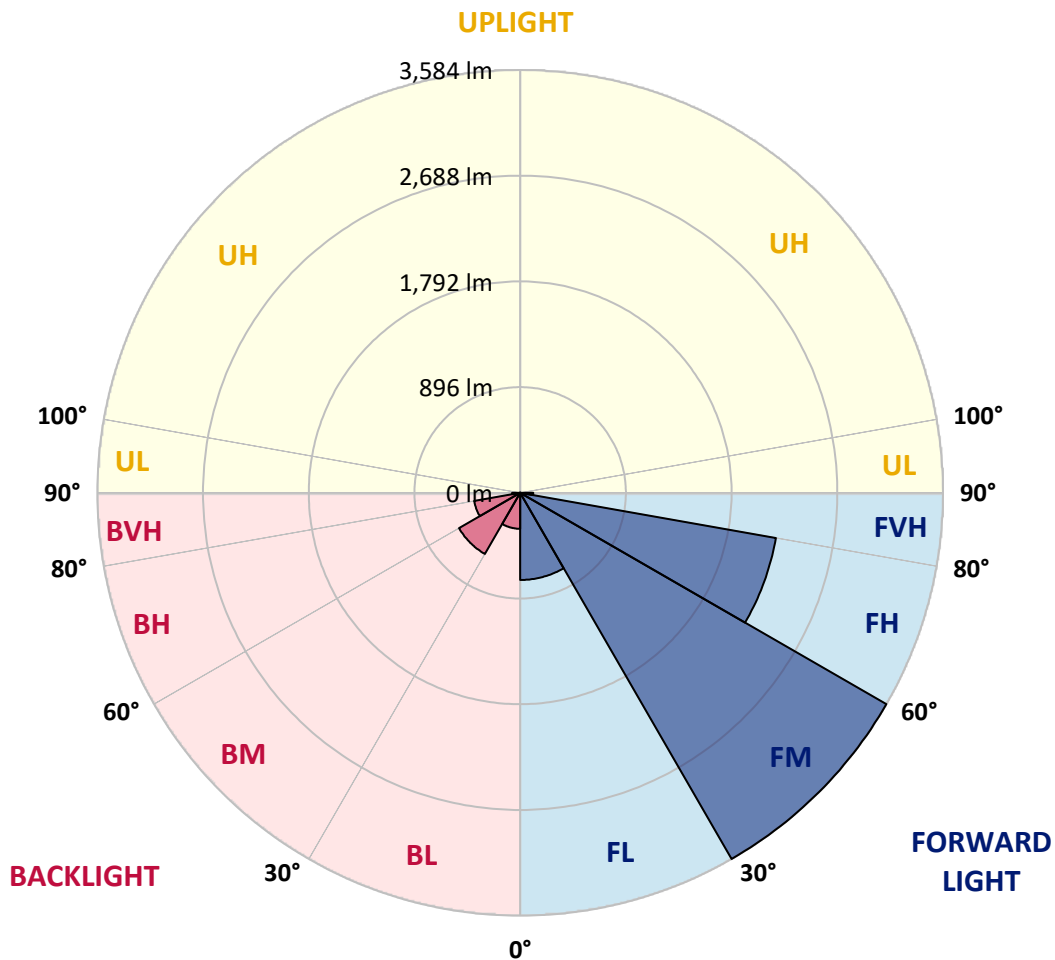
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	738.7	9.2			
FM (30°-60°)	3584.0	44.8			
FH (60°-80°)	2201.0	27.5			G2/5000
FVH (80°-90°)	111.0	1.4			G2/225
BL (0°-30°)	305.0	3.8	B1/500		
BM (30°-60°)	598.3	7.5	B1/1000		
BH (60°-80°)	395.6	4.9	B1/500		G1/500
BVH (80°-90°)	67.4	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	1124.0	1127.4	1120.6	1105.6	1083.8	1043.7	1008.5	946.8	891.5	884.8	826.4
5°	1321.3	1324.7	1316.3	1298.0	1274.5	1231.0	1182.6	1102.3	1013.6	996.8	873.2
7.5°	1456.8	1458.5	1448.4	1430.1	1411.6	1368.2	1319.7	1229.4	1120.6	1107.3	933.2
10°	1572.3	1575.5	1562.2	1550.6	1530.4	1487.0	1436.7	1341.4	1229.4	1210.9	995.2
12.5°	1679.3	1682.6	1674.4	1664.3	1657.6	1617.4	1562.2	1448.4	1328.1	1308.0	1068.9
15°	1751.2	1754.6	1756.2	1769.7	1777.9	1749.5	1694.4	1570.5	1435.1	1416.6	1155.8
17.5°	1731.2	1739.6	1764.6	1813.0	1865.1	1866.7	1821.6	1691.0	1540.6	1520.4	1244.4
20°	1672.6	1679.3	1709.5	1783.0	1885.1	1943.7	1940.2	1813.0	1639.1	1617.4	1326.3
22.5°	1721.2	1729.4	1729.4	1774.6	1875.0	1983.7	2027.3	1933.5	1737.9	1717.7	1408.4
25°	1928.5	1933.5	1898.4	1880.1	1916.9	2017.1	2099.2	2064.0	1858.2	1834.9	1496.9
27.5°	2217.8	2209.6	2166.1	2092.4	2052.3	2079.0	2162.7	2187.8	1997.1	1968.6	1589.0
30°	2505.6	2500.6	2450.3	2351.8	2261.5	2204.5	2232.9	2298.1	2147.7	2114.3	1677.7
32.5°	2774.9	2766.5	2711.4	2595.9	2493.9	2388.6	2333.3	2398.6	2308.3	2269.7	1776.3
35°	3022.4	3000.7	2945.5	2825.1	2719.7	2619.4	2483.9	2493.9	2482.1	2442.0	1885.1
37.5°	3223.2	3206.4	3146.3	3034.1	2922.0	2826.7	2684.6	2602.6	2669.6	2631.0	2010.4
40°	3400.4	3382.1	3320.1	3208.0	3104.5	3014.1	2902.1	2734.7	2880.2	2836.8	2151.0
42.5°	3534.2	3520.8	3470.7	3360.3	3259.9	3177.9	3122.8	2902.1	3099.4	3057.6	2305.0
45°	3606.2	3592.9	3566.0	3477.3	3385.4	3321.8	3326.9	3101.0	3328.5	3293.4	2487.1
47.5°	3517.6	3527.6	3551.0	3534.2	3477.3	3447.2	3509.1	3306.8	3584.4	3551.0	2684.6
50°	3280.0	3290.0	3383.7	3499.2	3519.2	3556.0	3673.1	3544.4	3855.3	3828.7	2928.7
52.5°	2696.3	2751.5	3010.7	3286.7	3475.7	3628.0	3855.3	3897.1	4312.0	4312.0	3360.3
55°	2037.3	2085.8	2381.9	2863.5	3306.8	3634.6	3989.3	4136.3	4641.5	4648.2	3586.2
57.5°	1650.8	1681.0	1826.6	2320.0	2952.2	3551.0	4148.2	4342.1	4915.9	4946.0	3877.2
60°	1339.8	1356.5	1451.8	1794.8	2462.2	3325.2	4261.9	4636.5	5307.2	5349.0	4248.4
62.5°	1077.2	1093.9	1157.5	1363.2	1931.8	2902.1	4241.7	4942.7	5829.1	5897.7	4735.1
65°	859.8	878.2	920.0	1047.1	1431.8	2376.7	4036.1	5099.9	6369.3	6436.3	5058.0
67.5°	670.8	687.5	715.9	799.5	1008.5	1777.9	3549.4	4934.2	6611.9	6668.7	5074.7
70°	506.9	515.2	538.5	592.2	720.9	1180.9	2778.2	4379.0	6394.5	6446.2	4740.3
72.5°	393.1	391.4	404.7	431.5	503.5	812.8	1841.5	3561.1	5653.5	5707.0	4044.3
75°	321.1	319.4	327.8	336.1	364.6	545.4	1087.2	2681.3	4562.9	4461.0	3034.1
77.5°	271.0	269.3	277.7	279.4	291.1	376.3	618.8	1764.6	3044.1	2868.6	1709.5
80°	229.2	227.5	237.5	240.8	249.2	276.0	356.3	955.1	1528.7	1448.4	816.2
82.5°	172.2	178.9	197.4	205.7	215.8	204.1	220.9	421.6	709.2	677.4	354.7
85°	83.6	98.6	148.8	165.6	177.2	128.7	150.6	199.1	319.4	304.4	143.9
87.5°	28.4	25.2	88.7	105.5	115.4	58.5	83.6	110.4	132.1	120.5	45.2
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°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	801.2	776.0	739.2	710.9	692.5	677.4	670.8	669.1	665.7	664.0	664.0
5°	817.8	772.7	715.9	685.8	677.4	670.8	674.1	675.7	675.7	675.7	675.7
7.5°	843.0	779.4	710.9	690.7	689.1	689.1	699.2	704.2	707.5	707.5	707.5
10°	876.4	791.1	719.3	702.6	707.5	710.9	722.5	729.2	732.6	734.3	735.9
12.5°	921.7	816.2	735.9	722.5	729.2	731.0	739.2	742.7	746.0	747.7	747.7
15°	981.8	853.0	762.8	746.0	747.7	746.0	746.0	742.7	741.0	741.0	744.3
17.5°	1043.7	888.2	786.1	762.8	756.1	742.7	732.6	724.3	719.3	715.9	717.6
20°	1105.6	920.0	799.5	766.1	747.7	725.9	707.5	695.7	689.1	682.4	685.8
22.5°	1167.4	950.0	804.5	756.1	729.2	697.4	677.4	658.9	643.9	633.9	635.6
25°	1236.1	983.6	804.5	744.3	704.2	670.8	645.6	615.5	593.8	585.4	588.7
27.5°	1304.7	1011.9	796.2	722.5	675.7	642.3	605.5	570.3	556.9	552.0	553.6
30°	1373.1	1033.7	777.8	695.7	645.6	608.8	560.4	536.8	520.2	506.9	508.5
32.5°	1441.8	1048.7	752.7	662.4	613.8	567.0	526.9	500.1	470.1	453.3	454.9
35°	1520.4	1060.4	722.5	629.0	578.7	530.2	500.1	456.6	424.9	411.5	408.1
37.5°	1602.3	1068.9	690.7	592.2	543.7	503.5	473.3	419.9	389.8	371.3	369.7
40°	1691.0	1072.1	652.3	553.6	510.1	486.7	438.3	398.0	346.2	334.4	334.4
42.5°	1796.4	1070.5	613.8	515.2	473.3	448.3	413.1	394.7	349.6	337.9	331.1
45°	1916.9	1070.5	572.0	470.1	436.5	399.7	384.7	372.9	343.0	348.0	351.2
47.5°	2054.0	1067.1	521.8	433.3	406.5	374.7	366.2	341.3	329.5	332.8	336.1
50°	2243.0	1072.1	476.7	403.1	384.7	358.0	348.0	334.4	329.5	331.1	329.5
52.5°	2505.6	1055.4	433.3	384.7	367.9	332.8	332.8	331.1	332.8	331.1	331.1
55°	2649.5	1018.6	401.5	374.7	356.3	321.1	327.8	331.1	334.4	332.8	332.8
57.5°	2853.5	993.5	376.3	367.9	349.6	317.8	324.5	331.1	332.8	331.1	331.1
60°	3094.3	976.7	359.6	369.7	344.6	317.8	326.2	331.1	329.5	327.8	327.8
62.5°	3373.7	970.1	348.0	374.7	339.5	319.4	326.2	331.1	324.5	322.9	322.9
65°	3479.0	910.0	332.8	377.9	343.0	319.4	324.5	326.2	317.8	316.2	314.4
67.5°	3316.8	806.1	311.2	371.3	352.9	319.4	319.4	317.8	307.8	306.1	302.8
70°	2953.8	669.1	277.7	349.6	359.6	321.1	312.8	304.4	294.4	294.4	287.6
72.5°	2418.6	526.9	234.2	311.2	354.7	326.2	299.3	287.6	276.0	276.0	269.3
75°	1742.9	393.1	187.3	259.3	332.8	324.5	282.6	267.6	254.2	252.6	244.2
77.5°	993.5	276.0	152.3	202.4	296.0	316.2	267.6	244.2	229.2	224.1	219.0
80°	510.1	185.7	123.7	158.9	245.9	292.7	255.8	217.4	200.7	192.3	184.1
82.5°	242.5	123.7	95.3	117.0	185.7	255.8	240.8	187.3	168.9	158.9	148.8
85°	108.8	73.7	63.6	75.3	132.1	199.1	212.4	153.9	132.1	165.6	122.1
87.5°	35.2	33.4	33.4	35.2	63.6	87.0	155.5	113.7	105.5	87.0	73.7
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)