

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: P299995

Luminaire Tested: **GAA-AF-04-LED-U-SL3-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-04-LED-U-SL3-7027-800-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI
2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III w/Spill
Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13079.3 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 171
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

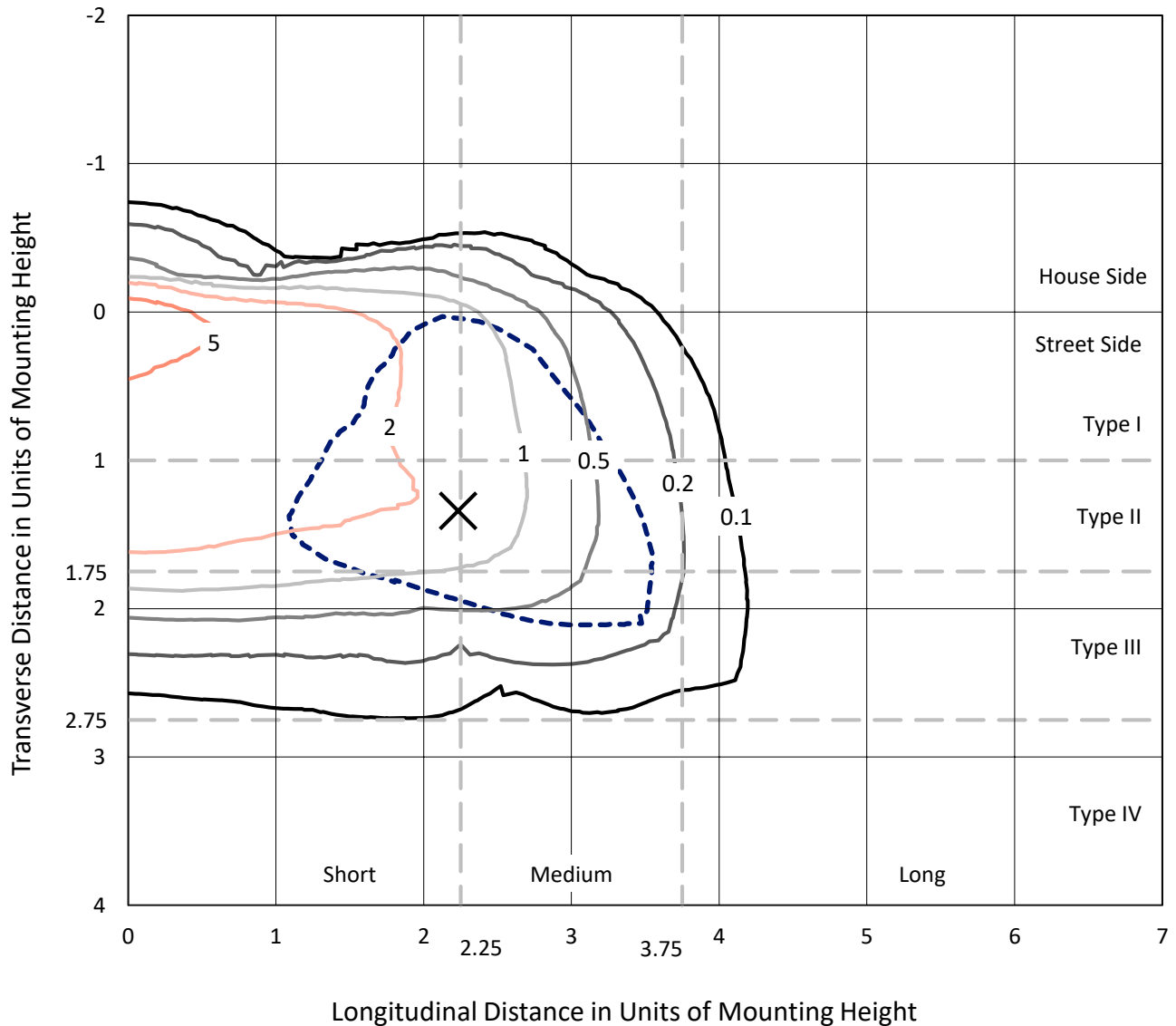


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

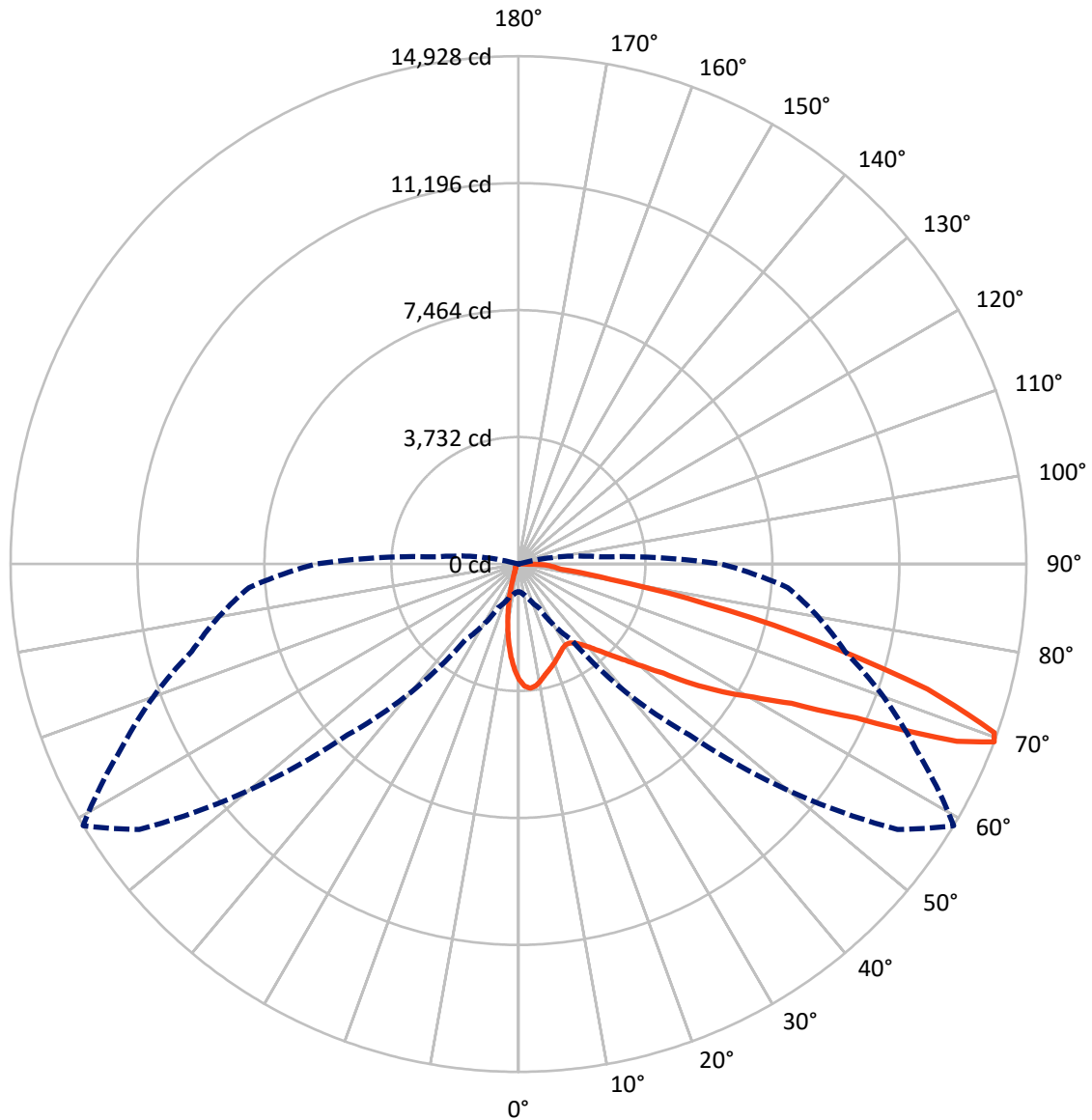


Based on 20 foot mounting height. Maximum calculated value = 8.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1065.1	0.0	1065.1
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	12014.2	0.0	12014.2
	% Fixture	91.9	0.0	91.9
Total	Lumens	13079.3	0.0	13079.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.3	2.1
10°-20°	571.0	4.4
20°-30°	768.3	5.9
30°-40°	1115.6	8.5
40°-50°	1857.5	14.2
50°-60°	2897.7	22.2
60°-70°	3585.6	27.4
70°-80°	1817.2	13.9
80°-90°	190.1	1.5
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°	13079.3	100.0
0°-180°	13079.3	100.0



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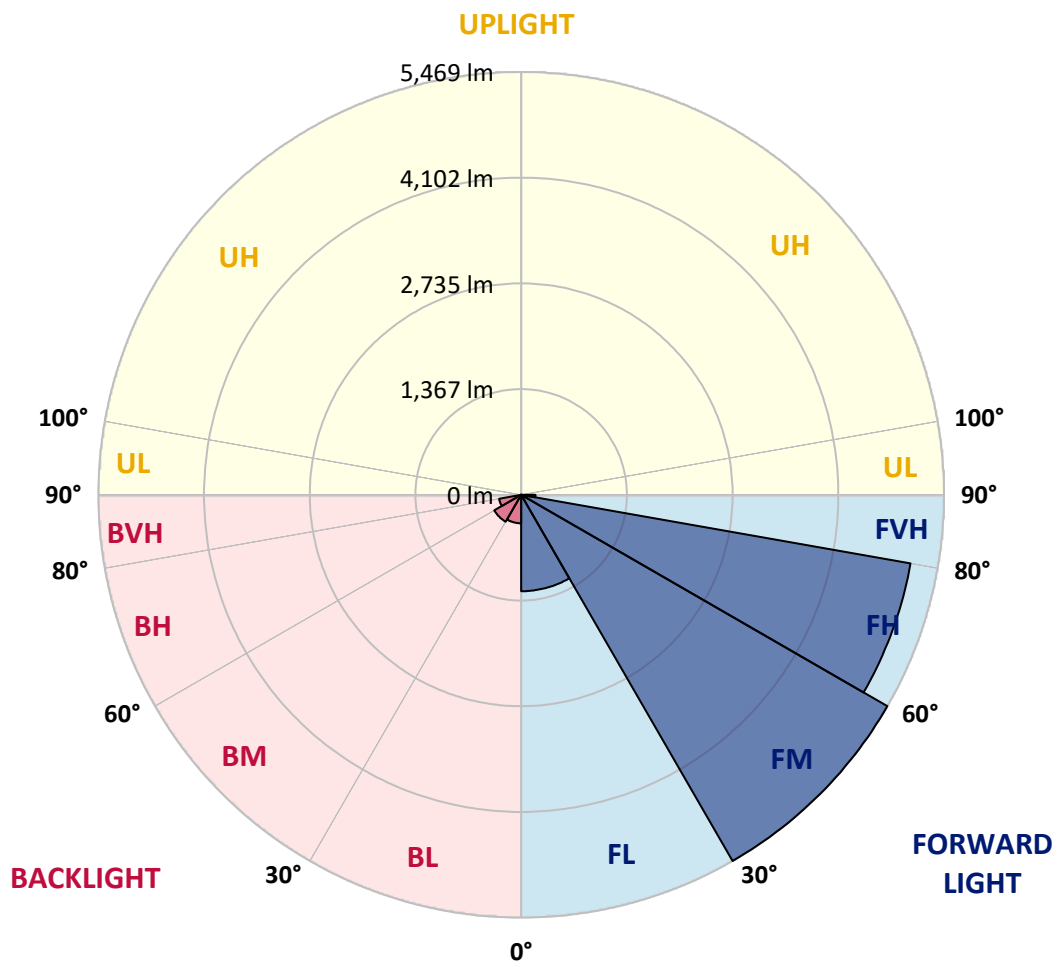
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1247.0	9.5			
FM	(30°-60°)	5469.4	41.8			
FH	(60°-80°)	5113.5	39.1			G3/7500
FVH	(80°-90°)	184.3	1.4			G2/225
BL	(0°-30°)	368.7	2.8	B1/500		
BM	(30°-60°)	401.3	3.1	B1/1000		
BH	(60°-80°)	289.3	2.2	B1/500		G1/500
BVH	(80°-90°)	5.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3
2.5°	3731.2	3729.9	3713.5	3706.1	3692.7	3664.7	3621.1	3598.2	3561.3	3496.8	3410.3
5°	3697.2	3715.1	3724.5	3725.4	3735.0	3724.5	3685.3	3666.3	3615.2	3511.6	3356.4
7.5°	3466.5	3473.0	3500.6	3524.1	3570.0	3613.7	3627.8	3619.5	3589.3	3478.4	3272.0
10°	3219.6	3226.1	3258.7	3289.6	3351.9	3419.1	3490.1	3505.1	3517.6	3430.9	3190.7
12.5°	3006.4	3013.1	3046.5	3087.0	3159.5	3242.4	3352.6	3377.0	3432.5	3385.9	3125.5
15°	2823.0	2825.9	2858.6	2908.8	2995.4	3101.8	3226.9	3266.1	3351.2	3354.1	3068.6
17.5°	2666.9	2674.3	2694.5	2742.4	2837.1	2968.8	3114.5	3170.7	3270.4	3327.5	3013.1
20°	2571.5	2578.9	2578.2	2604.9	2690.0	2830.4	3002.1	3069.3	3190.7	3300.2	2963.6
22.5°	2553.2	2553.2	2533.9	2530.1	2580.5	2698.0	2885.2	2967.2	3118.8	3288.3	2928.9
25°	2619.0	2615.9	2567.9	2528.8	2531.0	2601.1	2771.9	2869.6	3058.3	3296.4	2910.3
27.5°	2758.1	2754.2	2693.6	2619.0	2559.0	2558.3	2686.2	2791.2	3010.2	3334.9	2917.7
30°	2950.2	2948.8	2883.0	2789.0	2680.4	2580.5	2656.6	2752.0	2979.1	3404.3	2934.7
32.5°	3160.2	3158.0	3108.5	3009.5	2871.8	2680.4	2687.7	2767.7	2988.0	3496.8	2976.2
35°	3383.0	3379.2	3357.7	3271.3	3119.7	2864.4	2789.9	2851.9	3044.2	3635.2	3057.4
37.5°	3624.0	3627.8	3643.2	3560.4	3401.4	3122.6	2960.7	3002.8	3157.3	3823.0	3189.8
40°	3979.8	3979.1	3984.3	3875.4	3722.5	3438.3	3199.4	3212.8	3346.7	4072.3	3391.1
42.5°	4625.3	4580.3	4443.5	4221.6	4067.8	3799.3	3500.6	3486.5	3578.3	4380.6	3672.8
45°	5493.0	5396.8	5041.8	4616.6	4419.8	4206.2	3871.0	3825.9	3884.4	4751.2	4020.5
47.5°	6239.2	6139.3	5637.3	5027.7	4793.3	4592.2	4305.1	4223.9	4243.1	5166.1	4461.2
50°	6492.9	6444.0	6005.6	5385.8	5154.9	5078.1	4809.0	4709.8	4682.4	5646.0	4972.2
52.5°	6404.9	6401.3	6109.1	5618.0	5486.3	5581.0	5442.7	5328.0	5227.5	6152.1	5492.2
55°	6263.6	6282.2	6151.2	5821.3	5816.8	6040.3	6309.5	6214.1	5922.8	6701.6	5940.4
57.5°	5873.9	5953.0	6127.6	6206.0	6387.8	6616.5	7031.4	7087.6	6743.0	7122.3	6312.4
60°	4766.0	4939.7	5510.7	6261.3	7123.9	7693.3	7902.7	7950.6	7415.9	7472.1	6814.6
62.5°	3383.0	3560.4	4284.5	5554.4	7134.8	9108.1	9200.5	9012.0	8157.1	7990.7	7680.8
65°	1795.6	1932.7	2524.3	4009.3	6186.1	9436.5	11470.4	10908.4	9464.5	9010.4	8799.7
67.5°	918.5	960.0	1195.3	1962.2	4252.7	8381.9	13505.0	13900.7	11718.1	10022.3	8745.7
69°	812.8	837.2	993.3	1418.6	2723.1	7099.5	13604.2	14928.0	12897.9	9937.9	7947.7
70°	786.9	808.4	950.3	1284.0	2128.6	5953.7	13224.6	14837.8	13199.6	9617.0	7351.6
72.5°	668.0	686.3	846.2	1134.6	1730.0	2955.3	10742.7	12573.3	11844.6	8011.3	5321.3
75°	446.7	507.4	812.2	1063.6	1609.3	1679.0	7082.5	9085.9	8440.3	5403.5	2771.9
77.5°	107.3	115.3	229.3	846.2	1471.8	1477.7	3642.6	5648.2	4607.0	1926.0	655.2
80°	57.8	55.5	64.3	167.9	1370.4	1386.8	1639.8	2741.7	1644.9	319.5	215.9
82.5°	40.8	38.5	41.4	70.3	431.3	1263.1	1186.3	1241.0	681.8	122.7	97.0
85°	14.8	14.1	22.8	63.6	135.2	726.2	1218.8	1023.6	552.4	56.2	71.0
87.5°	5.2	4.5	9.0	34.7	41.4	309.2	752.2	773.7	217.4	34.0	33.4
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°	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3	3404.3
2.5°	3374.1	3328.2	3244.0	3157.3	3077.4	2981.3	2933.2	2885.9	2866.0	2858.6	2823.9
5°	3276.4	3198.7	3019.8	2840.0	2674.3	2498.3	2382.3	2289.2	2234.3	2207.7	2165.6
7.5°	3151.5	3024.3	2752.7	2475.5	2217.3	1962.9	1774.4	1629.3	1529.4	1481.5	1437.8
10°	3030.1	2860.8	2474.8	2096.8	1746.1	1408.9	1148.5	960.0	839.5	784.0	748.6
12.5°	2921.5	2701.9	2206.3	1727.8	1287.6	892.8	627.9	477.9	403.1	377.1	364.5
15°	2824.6	2555.4	1952.6	1377.1	872.0	510.3	343.3	292.2	280.4	280.4	278.8
17.5°	2732.8	2411.9	1707.6	1048.0	547.3	312.1	261.1	254.4	254.4	257.3	257.3
20°	2644.8	2275.1	1470.9	752.2	344.6	247.7	236.0	234.4	236.0	239.6	239.6
22.5°	2569.3	2150.8	1249.9	516.1	255.9	223.3	217.4	215.2	215.9	218.1	219.7
25°	2513.1	2045.8	1041.5	349.8	220.3	203.3	196.8	193.0	190.1	190.1	191.5
27.5°	2477.7	1957.1	839.5	254.4	198.2	185.0	174.4	168.6	161.9	158.3	159.7
30°	2451.7	1872.7	650.0	207.8	177.6	164.1	150.9	141.3	131.7	127.2	128.8
32.5°	2442.1	1804.6	485.9	183.4	159.0	144.2	127.9	115.3	105.0	101.2	102.1
35°	2468.1	1750.6	355.8	165.7	144.2	125.6	107.3	93.2	85.1	82.9	83.5
37.5°	2536.1	1721.7	266.2	150.9	131.0	110.2	89.6	76.1	71.0	71.0	71.7
40°	2664.7	1721.1	213.8	140.6	119.1	95.4	73.9	64.3	61.4	62.9	63.6
42.5°	2852.6	1760.3	186.3	131.0	108.8	81.3	61.4	54.6	54.0	55.5	56.2
45°	3109.2	1831.9	171.5	122.7	97.6	68.1	51.7	47.2	47.2	49.5	50.4
47.5°	3423.6	1936.9	159.0	114.6	86.4	56.9	44.3	41.4	42.1	44.3	45.0
50°	3802.2	2069.5	146.4	105.7	78.4	47.2	38.5	36.3	36.9	39.9	40.8
52.5°	4233.5	2247.7	136.1	97.6	68.1	39.2	32.5	31.1	32.5	35.6	36.3
55°	4603.2	2407.4	123.6	90.9	54.6	32.5	26.6	26.6	28.2	31.8	32.5
57.5°	4959.0	2574.4	112.4	78.4	43.0	26.0	22.2	22.8	25.1	28.9	29.6
60°	5481.2	2857.7	99.2	65.8	32.5	20.6	18.6	19.3	22.2	26.0	26.6
62.5°	6367.9	3289.0	85.8	54.6	25.1	16.3	14.8	16.3	19.9	24.4	25.1
65°	7168.2	3464.3	70.3	45.9	19.3	12.5	12.5	14.8	19.3	23.7	24.4
67.5°	6722.2	2916.1	54.6	36.3	14.8	9.6	10.3	14.1	18.6	23.7	24.4
69°	5944.9	2384.6	46.6	28.9	12.5	9.0	9.6	14.1	18.6	22.8	23.7
70°	5339.2	2013.3	41.4	24.4	11.2	9.0	9.6	13.2	18.6	22.8	23.7
72.5°	3576.0	1087.1	33.4	17.7	10.3	8.1	8.1	13.2	17.7	22.2	22.8
75°	1536.8	300.3	26.6	12.5	9.0	7.4	7.4	12.5	17.0	21.5	22.8
77.5°	281.0	76.1	21.5	11.2	9.0	7.4	6.7	11.9	16.3	20.6	21.5
80°	111.7	37.6	17.0	9.6	8.1	6.7	5.8	11.2	15.5	19.9	20.6
82.5°	67.4	21.5	14.1	9.0	8.1	5.8	5.2	9.6	14.8	19.3	19.9
85°	54.6	14.8	11.2	9.0	7.4	5.8	4.5	9.0	13.2	18.6	19.3
87.5°	26.6	10.3	10.3	8.1	7.4	5.8	4.5	8.1	12.5	17.7	18.6
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)