

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: P299593

Luminaire Tested: **GAA-AF-04-LED-U-SL2-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299593
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
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-SL2-7027-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI
2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II w/Spill
Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15696.2 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

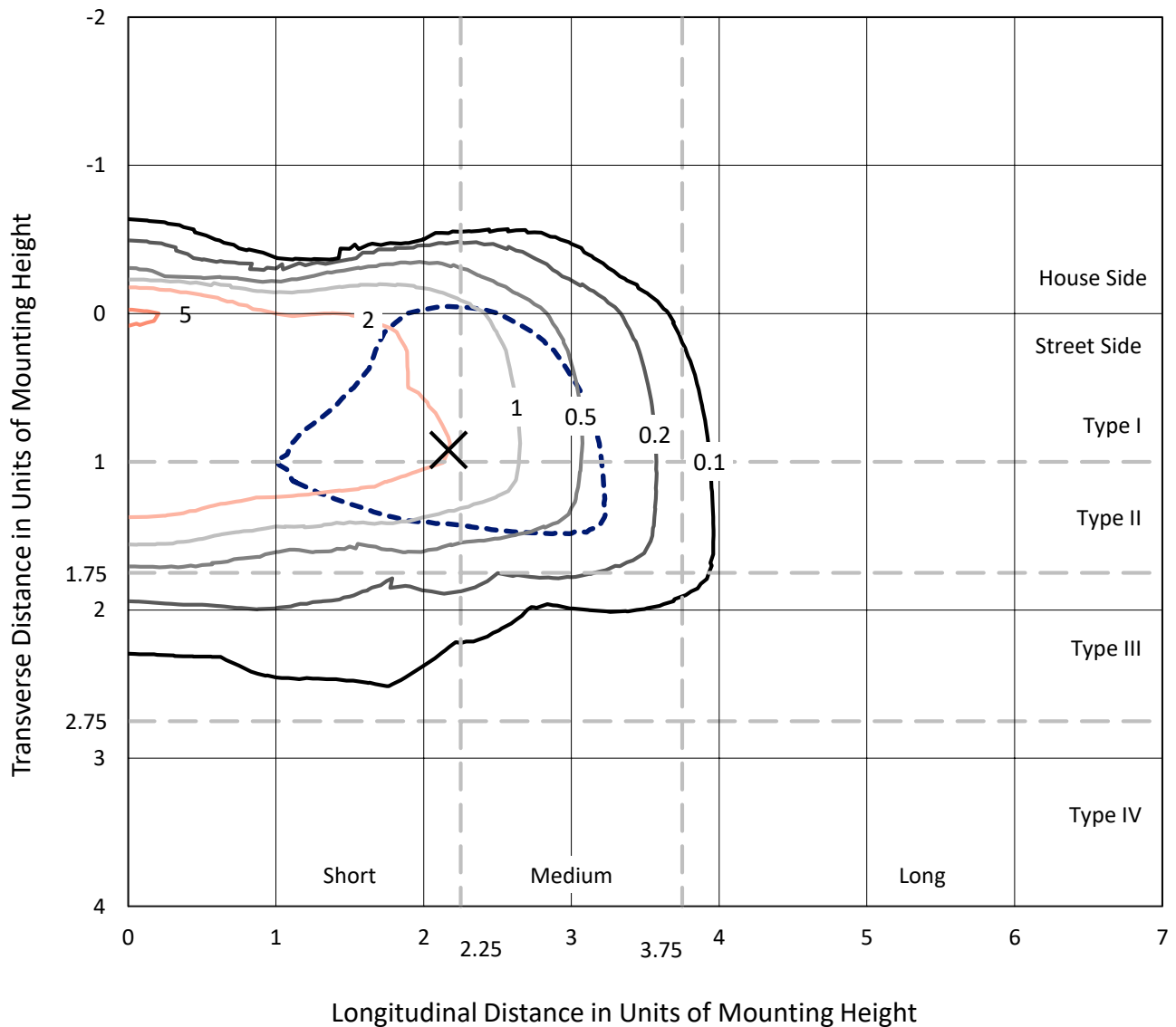
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

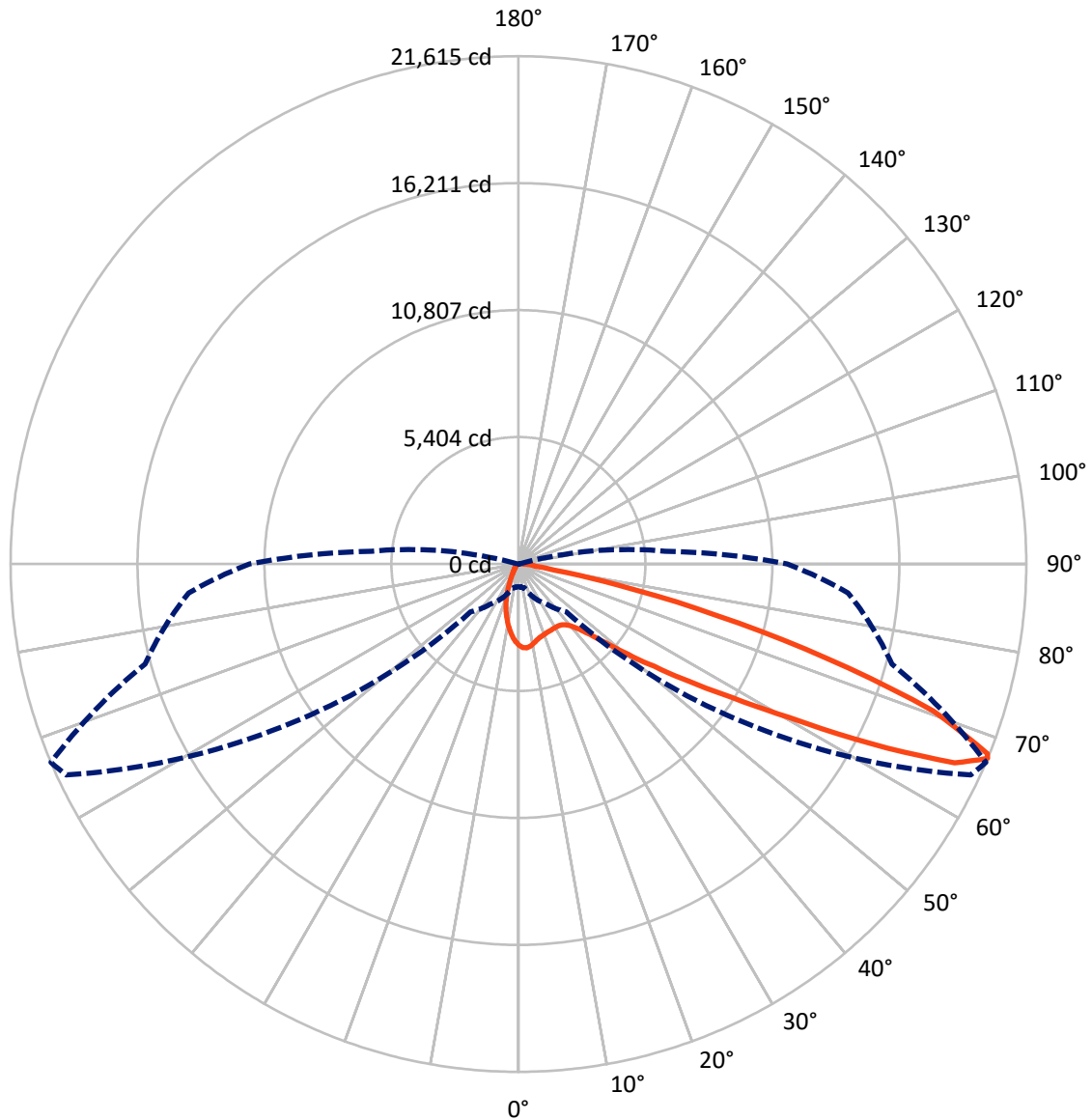
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1629.7	0.0	1629.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	14066.4	0.0	14066.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	15696.2	0.0	15696.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.7	1.8
10°-20°	599.5	3.8
20°-30°	871.6	5.6
30°-40°	1359.7	8.7
40°-50°	2408.7	15.3
50°-60°	3811.5	24.3
60°-70°	4365.6	27.8
70°-80°	1810.8	11.5
80°-90°	187.0	1.2
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°	15696.2	100.0
0°-180°	15696.2	100.0

Coefficient of Utilization



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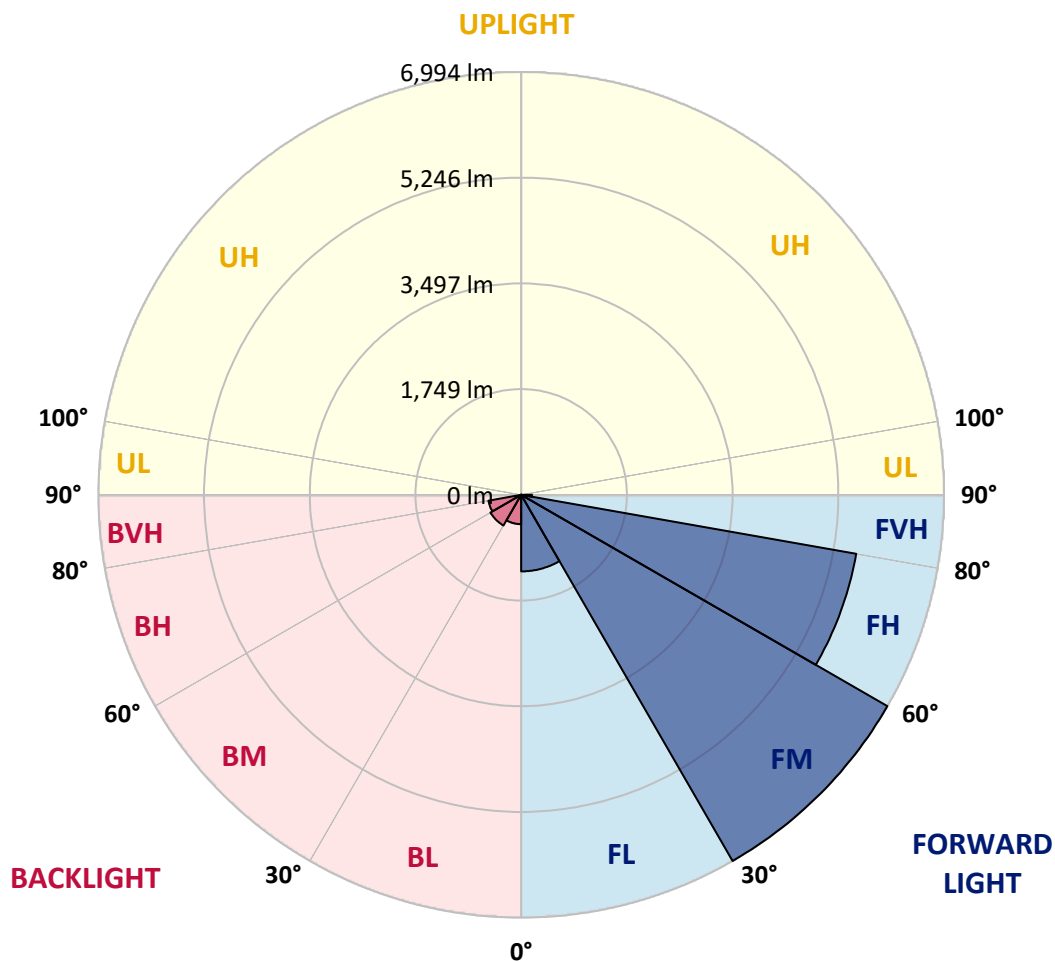
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1266.4	8.1			
FM (30°-60°)	6994.3	44.6			
FH (60°-80°)	5627.1	35.9			G3/7500
FVH (80°-90°)	178.6	1.1			G2/225
BL (0°-30°)	486.3	3.1	B1/500		
BM (30°-60°)	585.7	3.7	B1/1000		
BH (60°-80°)	549.3	3.5	B2/1000		G2/1000
BVH (80°-90°)	8.4	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6
2.5°	3578.8	3586.1	3585.2	3590.7	3603.5	3604.4	3591.6	3566.9	3561.4	3529.3	3473.5
5°	3300.5	3321.5	3334.3	3386.5	3445.1	3515.6	3568.7	3587.9	3585.2	3562.3	3478.1
7.5°	2982.8	3003.8	3018.5	3079.8	3157.6	3278.5	3416.7	3530.3	3540.3	3565.0	3474.4
10°	2771.3	2774.9	2795.1	2853.7	2935.2	3058.8	3223.6	3422.2	3452.4	3543.1	3465.2
12.5°	2597.3	2600.1	2626.6	2689.8	2776.8	2901.3	3074.3	3304.1	3350.8	3515.6	3463.4
15°	2473.7	2483.8	2507.6	2573.5	2666.0	2789.6	2967.2	3217.1	3273.0	3505.5	3479.9
17.5°	2432.5	2443.5	2450.9	2498.5	2582.7	2703.5	2885.7	3160.4	3223.6	3511.0	3511.9
20°	2475.6	2483.8	2467.3	2479.2	2531.4	2639.4	2817.1	3111.9	3186.9	3517.4	3553.1
22.5°	2635.8	2639.4	2594.6	2542.4	2533.2	2592.8	2763.0	3073.4	3154.0	3534.8	3601.7
25°	2910.4	2904.0	2830.8	2718.2	2612.0	2584.5	2731.0	3049.6	3137.5	3553.1	3652.0
27.5°	3241.9	3251.0	3150.3	2986.4	2784.1	2639.4	2726.4	3039.5	3130.2	3566.0	3696.0
30°	3644.7	3657.5	3542.2	3336.2	3045.9	2774.9	2768.5	3037.7	3125.6	3557.7	3699.6
32.5°	4055.8	4071.3	3980.7	3768.3	3395.7	3002.0	2863.8	3057.8	3134.7	3529.3	3678.6
35°	4486.1	4508.0	4447.6	4265.4	3869.9	3329.8	3031.3	3119.2	3177.8	3526.6	3657.5
37.5°	5080.2	5100.4	4986.8	4793.7	4443.9	3769.2	3300.5	3234.5	3279.4	3570.5	3663.0
40°	5967.4	5964.6	5671.7	5375.9	5074.7	4327.7	3678.6	3443.3	3466.2	3703.3	3730.8
42.5°	6934.2	6929.6	6496.5	6047.0	5775.1	5015.2	4175.7	3804.0	3788.4	3947.7	3906.5
45°	7679.4	7678.5	7325.1	6818.8	6618.3	5804.4	4818.4	4305.7	4281.9	4345.1	4230.6
47.5°	7997.1	8002.6	7825.0	7468.8	7553.1	6871.9	5628.6	5032.6	4996.9	4971.3	4797.3
50°	7749.9	7760.9	7775.5	7705.9	8238.8	8306.5	6715.4	6057.1	6039.7	5925.3	5653.3
52.5°	6942.4	6998.2	7170.4	7391.0	8476.8	9683.5	8419.1	7329.7	7236.3	7114.5	6815.1
55°	5581.9	5643.3	5970.1	6505.7	8122.5	10588.0	10806.8	8970.3	8814.6	8451.2	8019.1
57.5°	3694.1	3789.3	4263.6	4944.7	7093.5	10733.6	13189.0	11247.2	10705.2	9710.0	9223.0
60°	2035.2	2126.8	2641.3	3258.3	5123.3	10014.0	14791.2	14211.6	13254.0	11117.2	10685.1
62.5°	1253.3	1302.8	1682.7	2256.8	3072.5	7903.7	15122.6	17936.9	16828.2	12929.0	12451.1
65°	997.9	1019.0	1204.8	1844.8	2202.7	4701.2	14052.3	20776.9	20407.0	15122.6	14032.2
67°	968.6	976.9	1064.8	1583.9	2076.4	2882.1	11772.7	21239.2	21614.6	16450.1	14081.6
67.5°	975.0	984.2	1067.5	1511.5	2072.7	2648.6	10987.2	21057.0	21531.2	16555.4	13862.8
70°	940.2	968.6	1222.2	1510.6	1971.1	2200.9	6579.9	18244.5	18738.0	15382.6	11762.6
72.5°	333.2	335.1	528.3	1222.2	2143.2	2224.7	3304.1	13374.9	13740.2	11767.2	8480.5
75°	197.8	168.5	175.8	347.9	2048.0	2160.6	1906.1	8546.4	8682.8	6742.8	4294.7
77.5°	136.4	119.0	122.7	153.8	780.0	2130.4	1514.3	4456.8	4311.2	2364.8	914.6
80°	77.8	68.7	73.2	134.6	283.8	1987.6	1428.2	1807.2	1540.8	401.0	252.7
82.5°	41.2	34.8	42.1	110.8	197.8	1238.7	1431.0	873.4	692.1	135.5	172.1
85°	14.6	11.9	20.1	76.0	131.8	379.9	1326.6	734.2	576.8	65.9	130.9
87.5°	2.7	2.7	8.2	31.1	53.1	116.3	784.6	435.8	292.1	39.4	89.7
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°	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6	3461.6
2.5°	3450.6	3411.2	3358.1	3293.1	3216.2	3148.5	3098.1	3045.9	3035.0	3016.6	3013.9
5°	3427.7	3360.0	3228.1	3077.1	2915.9	2770.4	2652.3	2547.0	2500.3	2460.0	2455.4
7.5°	3393.8	3292.2	3067.9	2824.4	2572.6	2343.7	2149.6	2012.3	1886.0	1825.6	1816.4
10°	3354.5	3208.9	2887.6	2549.7	2201.8	1878.7	1590.3	1348.6	1202.1	1115.1	1104.1
12.5°	3317.9	3127.4	2703.5	2265.0	1802.7	1370.5	999.7	769.0	615.2	553.0	545.7
15°	3300.5	3061.5	2531.4	1973.9	1385.2	872.5	546.6	423.0	372.6	358.0	357.1
17.5°	3298.6	3005.7	2363.0	1672.7	970.5	507.2	356.1	325.0	314.9	311.3	311.3
20°	3297.7	2952.6	2194.5	1360.5	616.1	337.8	296.6	289.3	282.0	277.4	277.4
22.5°	3307.8	2905.0	2018.7	1041.9	388.2	273.7	260.9	253.6	244.4	238.0	237.1
25°	3317.9	2868.3	1839.3	741.6	281.1	238.0	225.2	215.1	202.3	194.1	193.2
27.5°	3319.7	2822.6	1647.0	496.2	235.3	207.8	191.3	175.8	161.1	152.9	152.0
30°	3292.2	2745.6	1433.7	335.1	207.8	180.4	158.4	141.9	128.2	121.8	121.8
32.5°	3238.2	2650.4	1199.3	252.7	184.9	154.7	130.9	115.4	106.2	103.5	102.5
35°	3189.7	2547.9	958.6	214.2	165.7	130.9	107.1	97.0	91.6	90.6	89.7
37.5°	3161.3	2465.5	732.4	194.1	147.4	109.9	90.6	83.3	80.6	78.7	79.7
40°	3183.3	2396.8	541.1	177.6	129.1	91.6	76.9	73.2	70.5	69.6	69.6
42.5°	3279.4	2384.9	401.9	163.0	111.7	76.0	66.8	64.1	62.3	61.3	62.3
45°	3532.1	2458.2	312.2	149.2	94.3	64.1	56.8	55.8	54.9	54.9	54.9
47.5°	3912.0	2609.2	260.0	133.7	78.7	54.9	49.4	48.5	47.6	48.5	48.5
50°	4555.6	2885.7	232.5	118.1	65.0	46.7	42.1	42.1	42.1	42.1	43.0
52.5°	5534.3	3429.5	214.2	102.5	53.1	39.4	35.7	35.7	36.6	36.6	37.5
55°	6624.7	4151.0	197.8	87.0	44.9	33.0	29.3	30.2	31.1	32.0	32.0
57.5°	7807.6	4950.2	184.0	71.4	38.5	26.6	24.7	25.6	26.6	28.4	28.4
60°	9234.9	5815.4	163.9	55.8	32.0	21.1	19.2	21.1	23.8	25.6	26.6
62.5°	10802.2	6652.2	138.2	43.9	26.6	16.5	15.6	19.2	22.9	24.7	25.6
65°	11873.4	6914.9	106.2	35.7	20.1	11.9	12.8	17.4	22.0	24.7	24.7
67°	11439.4	6269.5	87.0	30.2	16.5	9.2	11.9	17.4	22.0	23.8	24.7
67.5°	11138.2	6016.8	83.3	29.3	15.6	9.2	11.9	17.4	22.0	24.7	24.7
70°	9062.7	4519.9	69.6	22.0	12.8	8.2	10.1	16.5	21.1	23.8	23.8
72.5°	6297.0	2786.8	62.3	15.6	11.0	7.3	9.2	15.6	20.1	22.9	23.8
75°	2993.8	1008.9	53.1	11.9	10.1	6.4	8.2	15.6	20.1	22.9	22.9
77.5°	610.7	234.4	43.0	10.1	8.2	6.4	7.3	14.6	19.2	22.0	22.0
80°	200.5	90.6	32.0	9.2	8.2	6.4	7.3	13.7	19.2	21.1	22.0
82.5°	144.7	45.8	21.1	9.2	8.2	6.4	6.4	13.7	18.3	21.1	21.1
85°	110.8	32.0	13.7	9.2	8.2	6.4	6.4	12.8	17.4	20.1	20.1
87.5°	73.2	12.8	11.0	9.2	8.2	6.4	6.4	12.8	16.5	19.2	20.1
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)