

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: McGRAW-EDISON

Report Number: P299995

Luminaire Tested: **GLNA-AF-05-LED-E1-SL3-600-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: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-SL3-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 600mA 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: 15209.2 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 162
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: 25 FT

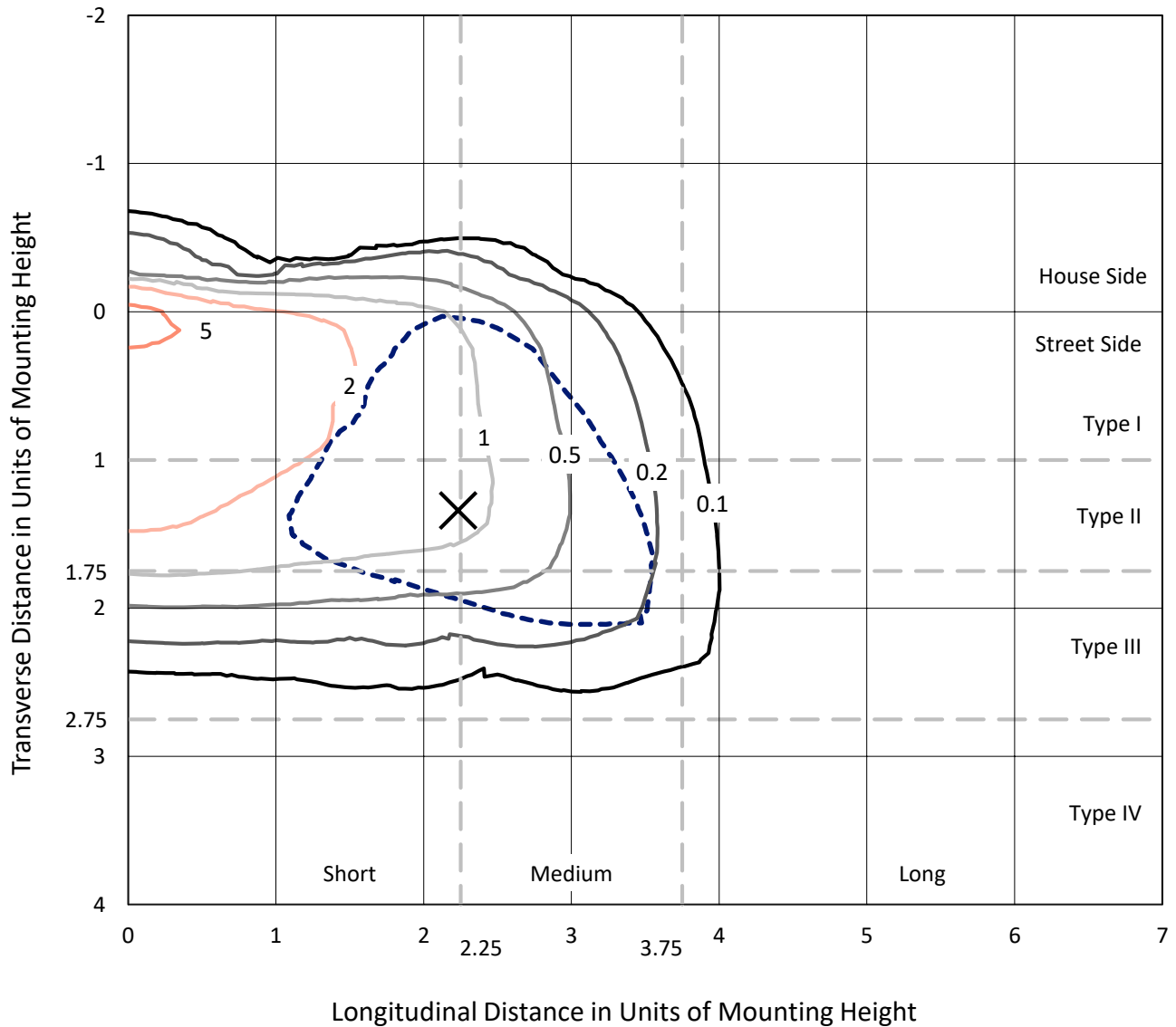


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

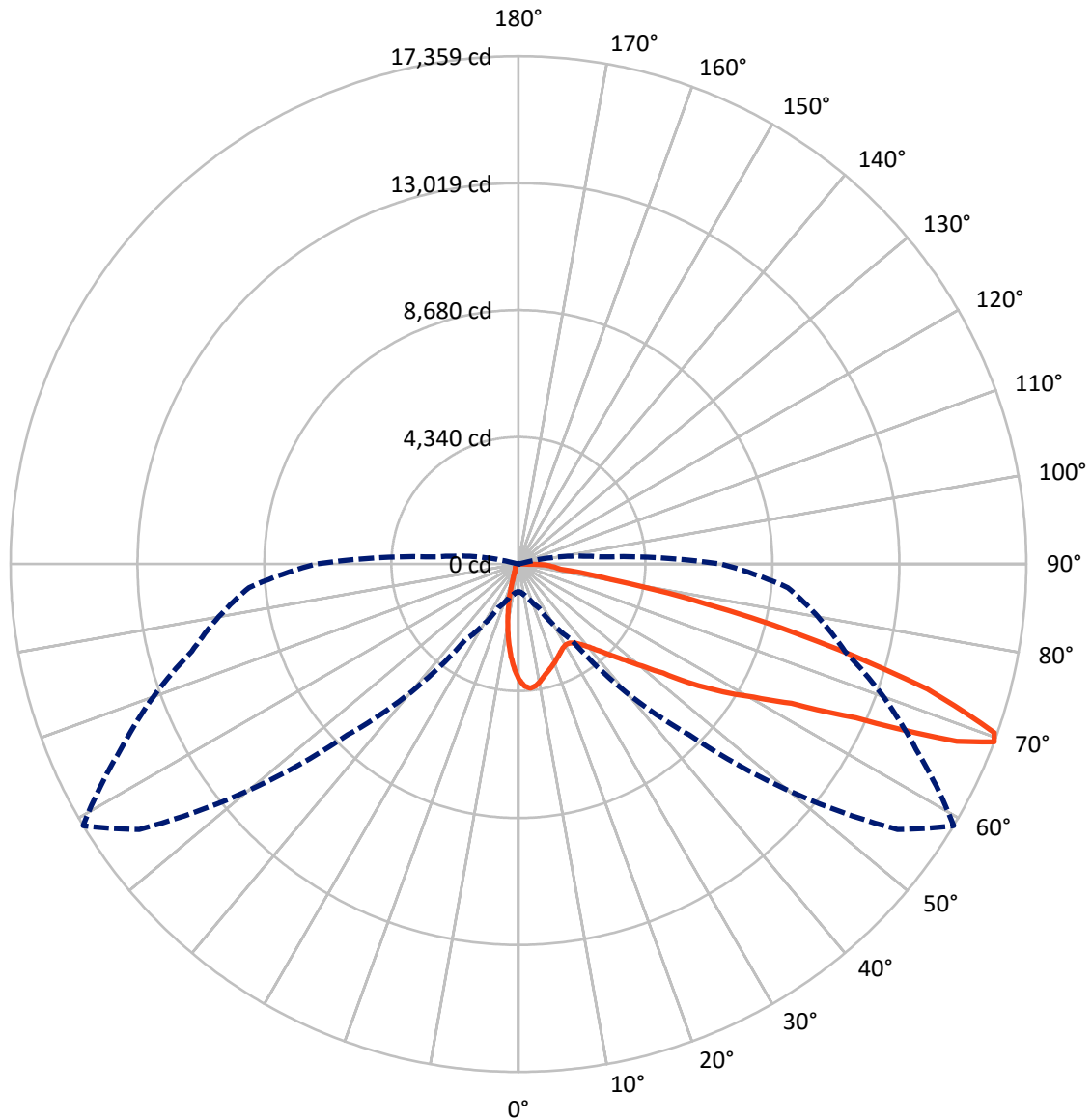


Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
 Type III - Short - Non-Cutoff

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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	1238.6	0.0	1238.6
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	13970.6	0.0	13970.6
	% Fixture	91.9	0.0	91.9
Total	Lumens	15209.2	0.0	15209.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.3	2.1
10°-20°	664.0	4.4
20°-30°	893.4	5.9
30°-40°	1297.2	8.5
40°-50°	2160.0	14.2
50°-60°	3369.5	22.2
60°-70°	4169.5	27.4
70°-80°	2113.1	13.9
80°-90°	221.1	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°	15209.2	100.0
0°-180°	15209.2	100.0



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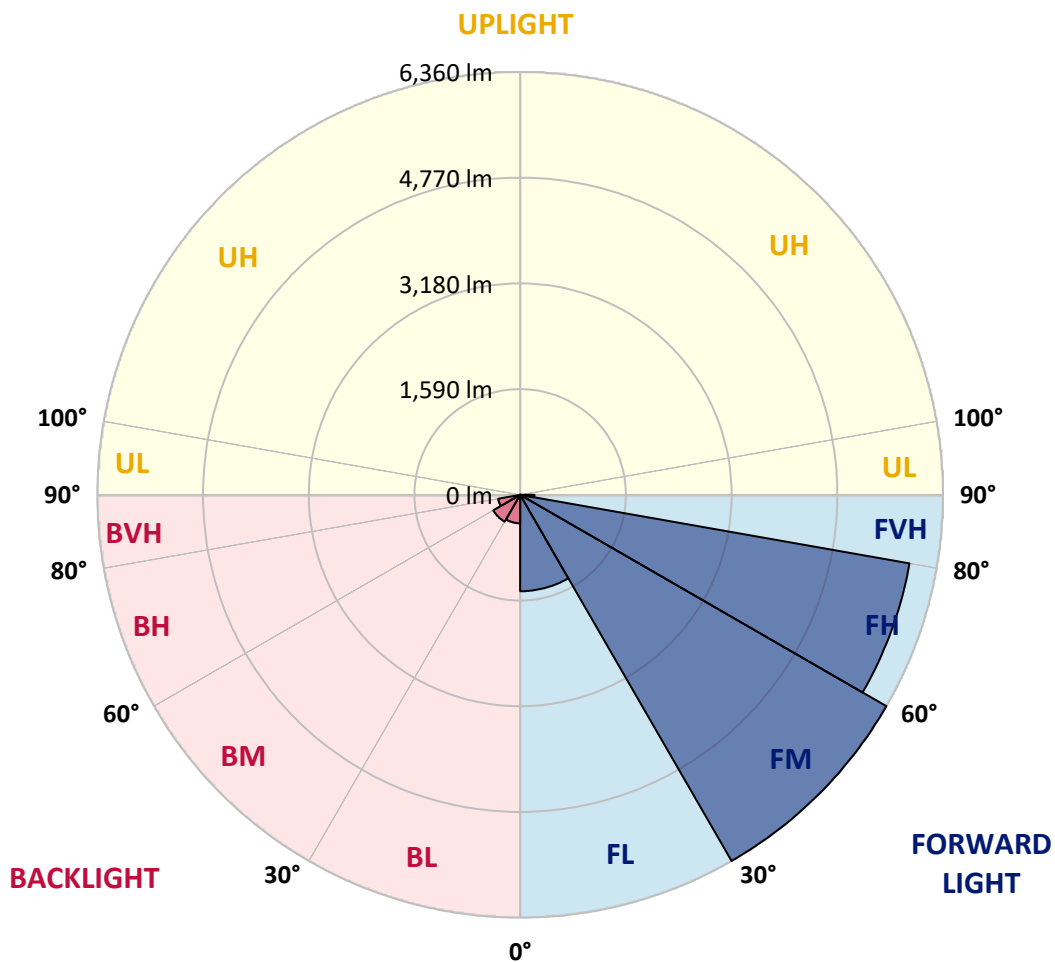
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1450.0	9.5			
FM	(30°-60°)	6360.0	41.8			
FH	(60°-80°)	5946.2	39.1			G3/7500
FVH	(80°-90°)	214.3	1.4			G2/225
BL	(0°-30°)	428.7	2.8	B1/500		
BM	(30°-60°)	466.7	3.1	B1/1000		
BH	(60°-80°)	336.4	2.2	B1/500		G1/500
BVH	(80°-90°)	6.8	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°	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7
2.5°	4338.8	4337.3	4318.3	4309.7	4294.0	4261.5	4210.7	4184.2	4141.2	4066.2	3965.7
5°	4299.2	4320.1	4331.0	4332.1	4343.3	4331.0	4285.4	4263.3	4203.9	4083.4	3902.9
7.5°	4031.1	4038.6	4070.6	4098.0	4151.3	4202.1	4218.5	4208.9	4173.7	4044.9	3804.8
10°	3743.8	3751.4	3789.4	3825.3	3897.7	3975.8	4058.4	4075.8	4090.4	3989.6	3710.3
12.5°	3496.0	3503.8	3542.6	3589.7	3674.1	3770.4	3898.5	3926.9	3991.5	3937.3	3634.5
15°	3282.7	3286.1	3324.1	3382.4	3483.2	3606.9	3752.4	3798.0	3897.0	3900.3	3568.3
17.5°	3101.2	3109.8	3133.2	3189.0	3299.1	3452.2	3621.7	3687.1	3803.0	3869.3	3503.8
20°	2990.3	2998.9	2998.1	3029.1	3128.0	3291.3	3491.0	3569.1	3710.3	3837.6	3446.2
22.5°	2968.9	2968.9	2946.5	2942.1	3000.7	3137.4	3355.1	3450.4	3626.7	3823.8	3405.9
25°	3045.5	3041.8	2986.1	2940.5	2943.2	3024.7	3223.3	3336.9	3556.4	3833.2	3384.2
27.5°	3207.2	3202.8	3132.2	3045.5	2975.7	2974.9	3123.6	3245.7	3500.4	3877.9	3392.8
30°	3430.6	3429.0	3352.5	3243.1	3116.8	3000.7	3089.2	3200.2	3464.2	3958.7	3412.6
32.5°	3674.8	3672.2	3614.7	3499.6	3339.5	3116.8	3125.4	3218.4	3474.6	4066.2	3460.8
35°	3933.9	3929.5	3904.5	3804.0	3627.7	3330.9	3244.2	3316.3	3540.0	4227.1	3555.3
37.5°	4214.1	4218.5	4236.5	4140.2	3955.3	3631.1	3442.8	3491.8	3671.5	4445.6	3709.2
40°	4627.9	4627.1	4633.1	4506.5	4328.7	3998.2	3720.4	3736.0	3891.7	4735.4	3943.3
42.5°	5378.6	5326.2	5167.1	4909.1	4730.2	4418.0	4070.6	4054.2	4161.0	5093.9	4270.9
45°	6387.6	6275.6	5862.9	5368.4	5139.5	4891.1	4501.3	4449.0	4516.9	5524.9	4675.2
47.5°	7255.2	7139.0	6555.2	5846.5	5573.8	5340.0	5006.2	4911.7	4934.1	6007.4	5187.7
50°	7550.2	7493.4	6983.6	6262.8	5994.4	5905.1	5592.1	5476.7	5445.0	6565.4	5781.9
52.5°	7447.8	7443.7	7103.9	6532.8	6379.7	6489.9	6329.0	6195.6	6078.7	7153.9	6386.5
55°	7283.5	7305.2	7152.8	6769.3	6764.1	7023.9	7336.9	7226.0	6887.2	7792.9	6907.8
57.5°	6830.5	6922.4	7125.5	7216.6	7428.1	7693.9	8176.4	8241.8	7841.0	8282.1	7340.3
60°	5542.1	5744.1	6408.1	7280.9	8283.9	8946.1	9189.6	9245.3	8623.5	8688.9	7924.4
62.5°	3933.9	4140.2	4982.2	6458.9	8296.7	10591.2	10698.8	10479.5	9485.4	9291.9	8931.5
65°	2088.0	2247.4	2935.3	4662.2	7193.4	10973.2	13338.3	12684.7	11005.8	10477.7	10232.7
67.5°	1068.1	1116.3	1389.9	2281.8	4945.3	9746.8	15704.2	16164.3	13626.3	11654.4	10169.9
69°	945.2	973.6	1155.1	1649.6	3166.6	8255.6	15819.5	17359.0	14998.3	11556.2	9241.9
70°	915.0	940.0	1105.1	1493.1	2475.2	6923.2	15378.2	17254.0	15349.0	11183.1	8548.8
72.5°	776.7	798.1	984.0	1319.4	2011.7	3436.6	12492.1	14620.7	13773.4	9315.9	6187.8
75°	519.5	590.0	944.4	1236.8	1871.4	1952.4	8235.8	10565.5	9814.8	6283.4	3223.3
77.5°	124.7	134.1	266.6	984.0	1711.5	1718.3	4235.7	6568.0	5357.2	2239.6	761.9
80°	67.2	64.6	74.7	195.3	1593.6	1612.6	1906.8	3188.2	1912.8	371.6	251.0
82.5°	47.4	44.8	48.2	81.8	501.5	1468.8	1379.5	1443.1	792.9	142.7	112.7
85°	17.2	16.4	26.6	73.9	157.3	844.4	1417.3	1190.2	642.4	65.4	82.5
87.5°	6.0	5.2	10.4	40.4	48.2	359.6	874.6	899.6	252.8	39.6	38.8
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°	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7	3958.7
2.5°	3923.5	3870.1	3772.2	3671.5	3578.5	3466.8	3410.8	3355.9	3332.7	3324.1	3283.7
5°	3810.0	3719.6	3511.6	3302.5	3109.8	2905.1	2770.3	2661.9	2598.1	2567.2	2518.2
7.5°	3664.7	3516.8	3200.9	2878.6	2578.4	2282.6	2063.3	1894.6	1778.4	1722.7	1671.9
10°	3523.6	3326.7	2877.8	2438.3	2030.5	1638.4	1335.5	1116.3	976.2	911.6	870.5
12.5°	3397.3	3141.8	2565.6	2009.1	1497.2	1038.2	730.1	555.7	468.7	438.5	423.9
15°	3284.5	2971.5	2270.6	1601.4	1013.9	593.4	399.2	339.8	326.0	326.0	324.2
17.5°	3177.8	2804.6	1985.7	1218.6	636.4	363.0	303.6	295.8	295.8	299.2	299.2
20°	3075.4	2645.5	1710.5	874.6	400.7	288.0	274.4	272.6	274.4	278.6	278.6
22.5°	2987.7	2501.0	1453.5	600.2	297.6	259.6	252.8	250.2	251.0	253.6	255.4
25°	2922.3	2378.9	1211.1	406.7	256.2	236.4	228.9	224.5	221.1	221.1	222.6
27.5°	2881.2	2275.8	976.2	295.8	230.4	215.1	202.8	196.1	188.3	184.1	185.7
30°	2851.0	2177.6	755.9	241.6	206.5	190.9	175.5	164.3	153.1	147.9	149.7
32.5°	2839.8	2098.5	565.0	213.3	184.9	167.7	148.7	134.1	122.1	117.7	118.7
35°	2870.0	2035.7	413.8	192.7	167.7	146.1	124.7	108.3	98.9	96.3	97.1
37.5°	2949.1	2002.1	309.6	175.5	152.3	128.1	104.2	88.5	82.5	82.5	83.3
40°	3098.6	2001.3	248.7	163.5	138.5	110.9	85.9	74.7	71.3	73.2	73.9
42.5°	3317.1	2046.9	216.6	152.3	126.5	94.5	71.3	63.5	62.8	64.6	65.4
45°	3615.5	2130.2	199.5	142.7	113.5	79.2	60.1	54.9	54.9	57.5	58.6
47.5°	3981.1	2252.3	184.9	133.3	100.5	66.1	51.6	48.2	49.0	51.6	52.3
50°	4421.4	2406.5	170.3	122.9	91.1	54.9	44.8	42.2	43.0	46.3	47.4
52.5°	4922.9	2613.8	158.3	113.5	79.2	45.6	37.8	36.2	37.8	41.4	42.2
55°	5352.8	2799.4	143.7	105.7	63.5	37.8	31.0	31.0	32.8	37.0	37.8
57.5°	5766.5	2993.7	130.7	91.1	50.0	30.2	25.8	26.6	29.2	33.6	34.4
60°	6373.8	3323.1	115.4	76.6	37.8	24.0	21.6	22.4	25.8	30.2	31.0
62.5°	7404.9	3824.6	99.7	63.5	29.2	19.0	17.2	19.0	23.2	28.4	29.2
65°	8335.5	4028.4	81.8	53.4	22.4	14.6	14.6	17.2	22.4	27.6	28.4
67.5°	7816.8	3391.0	63.5	42.2	17.2	11.2	12.0	16.4	21.6	27.6	28.4
69°	6913.0	2772.9	54.2	33.6	14.6	10.4	11.2	16.4	21.6	26.6	27.6
70°	6208.7	2341.1	48.2	28.4	13.0	10.4	11.2	15.4	21.6	26.6	27.6
72.5°	4158.4	1264.2	38.8	20.6	12.0	9.4	9.4	15.4	20.6	25.8	26.6
75°	1787.0	349.2	31.0	14.6	10.4	8.6	8.6	14.6	19.8	25.0	26.6
77.5°	326.8	88.5	25.0	13.0	10.4	8.6	7.8	13.8	19.0	24.0	25.0
80°	129.9	43.7	19.8	11.2	9.4	7.8	6.8	13.0	18.0	23.2	24.0
82.5°	78.4	25.0	16.4	10.4	9.4	6.8	6.0	11.2	17.2	22.4	23.2
85°	63.5	17.2	13.0	10.4	8.6	6.8	5.2	10.4	15.4	21.6	22.4
87.5°	31.0	12.0	12.0	9.4	8.6	6.8	5.2	9.4	14.6	20.6	21.6
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)