

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-03-LED-E1-SL3-7050-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-03-LED-E1-SL3-7050-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5000K CCT 1050mA 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: 14102.4 lumens
Efficiency: N/A
Efficacy: 85.0 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

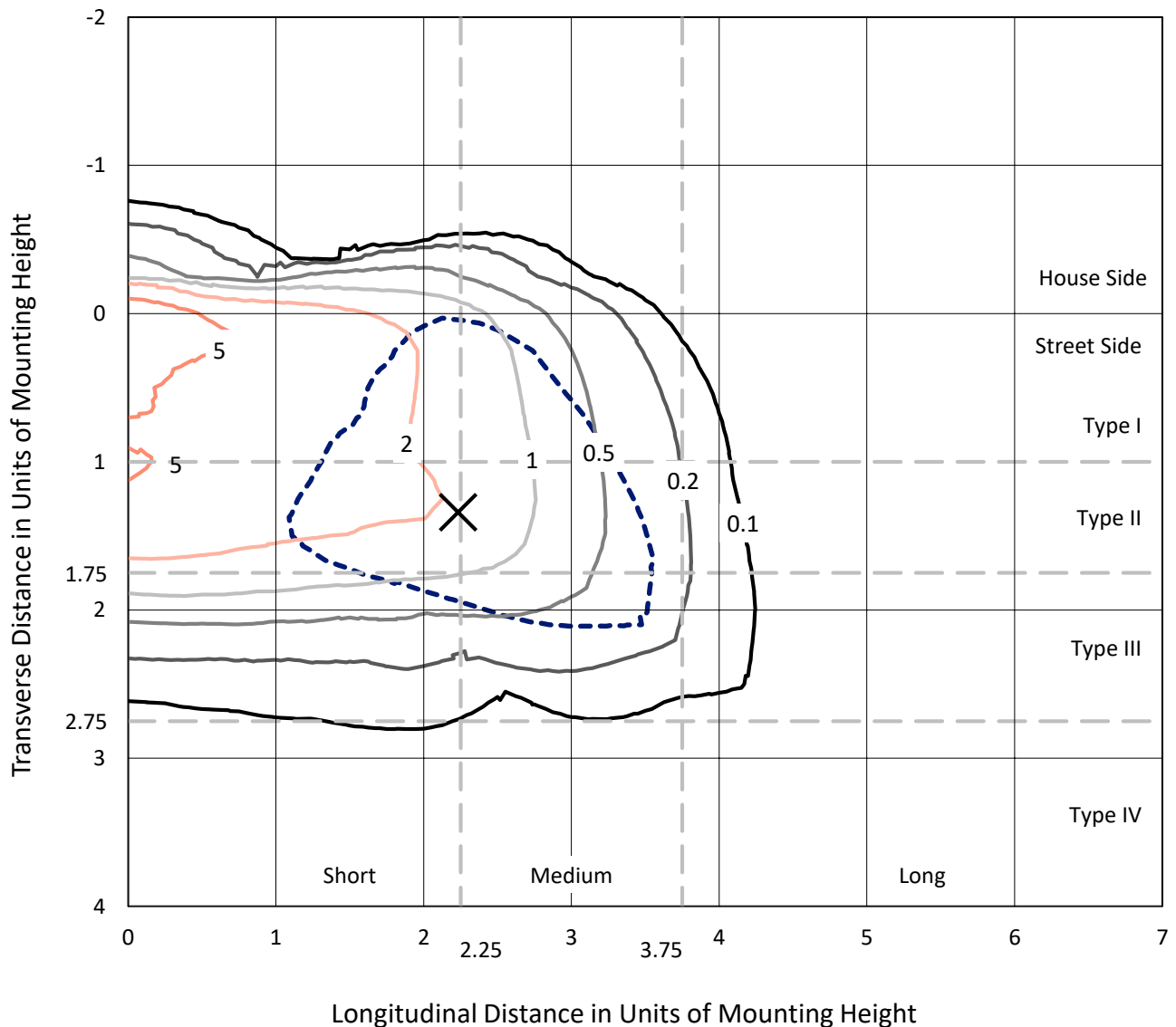
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

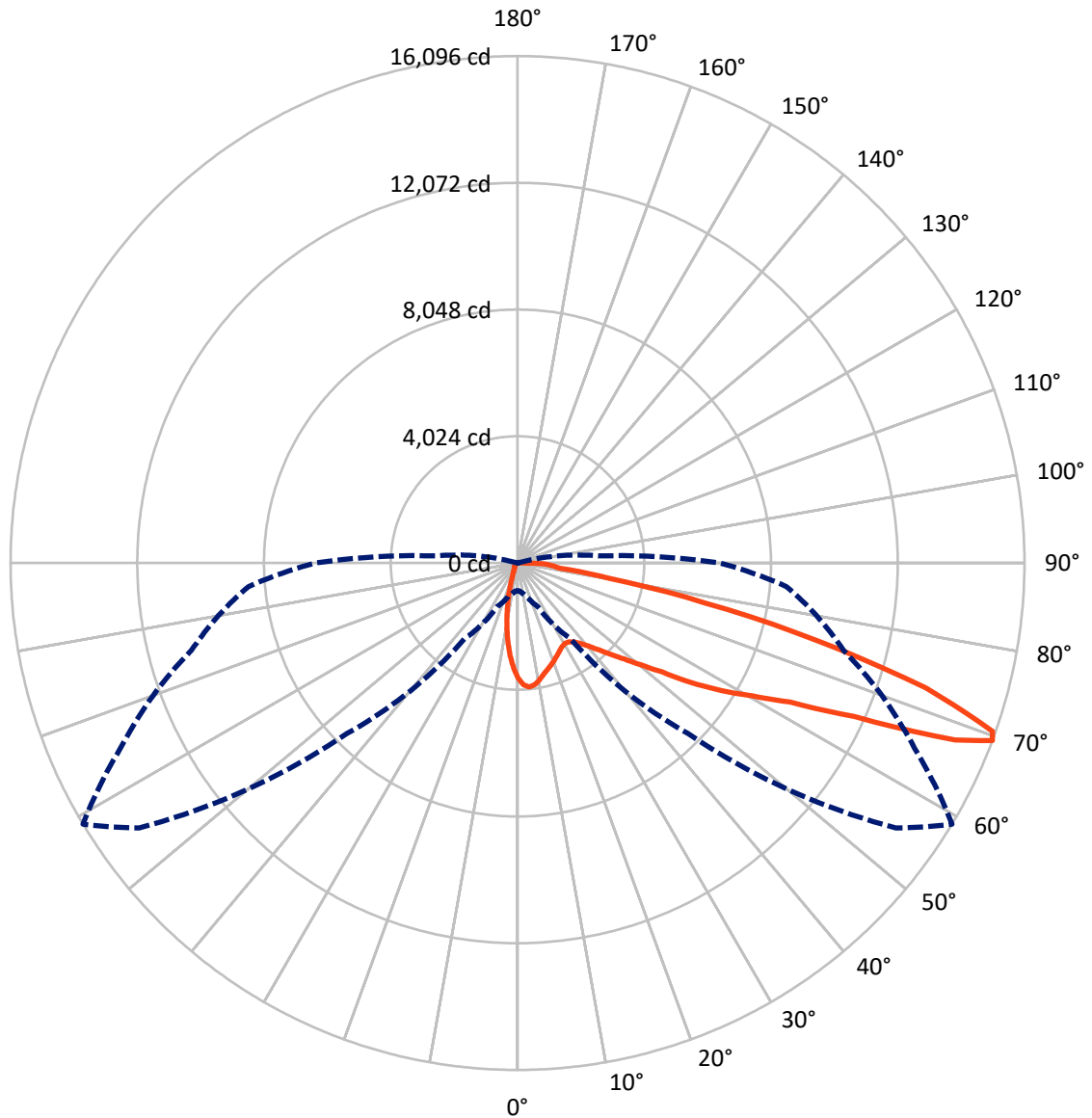
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.2 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	1148.4	0.0	1148.4
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	12953.9	0.0	12953.9
	% Fixture	91.9	0.0	91.9
Total	Lumens	14102.4	0.0	14102.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.9	2.1
10°-20°	615.6	4.4
20°-30°	828.4	5.9
30°-40°	1202.8	8.5
40°-50°	2002.8	14.2
50°-60°	3124.3	22.2
60°-70°	3866.1	27.4
70°-80°	1959.3	13.9
80°-90°	205.0	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°	14102.4	100.0
0°-180°	14102.4	100.0



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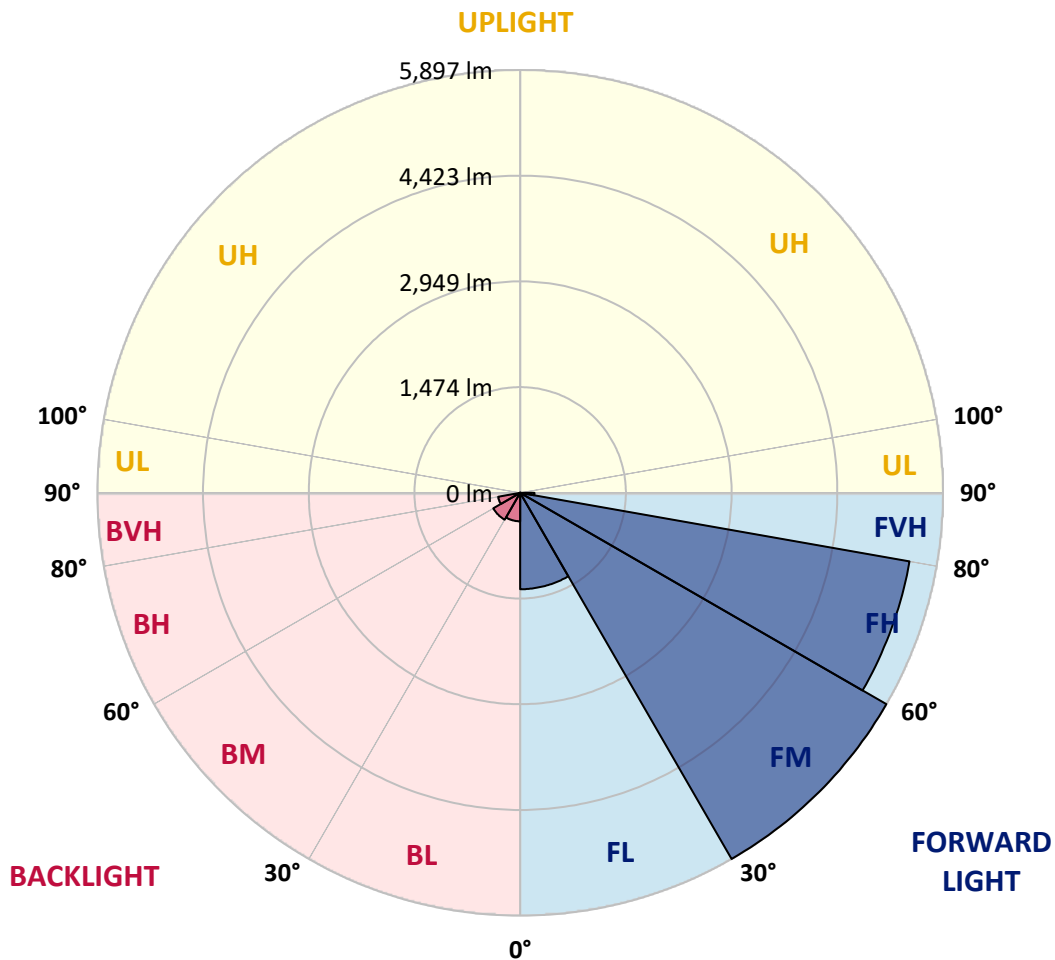
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1344.5	9.5			
FM	(30°-60°)	5897.2	41.8			
FH	(60°-80°)	5513.5	39.1			G3/7500
FVH	(80°-90°)	198.7	1.4			G2/225
BL	(0°-30°)	397.5	2.8	B1/500		
BM	(30°-60°)	432.7	3.1	B1/1000		
BH	(60°-80°)	311.9	2.2	B1/500		G1/500
BVH	(80°-90°)	6.3	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°	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6
2.5°	4023.1	4021.6	4004.0	3996.0	3981.6	3951.4	3904.3	3879.7	3839.8	3770.3	3677.1
5°	3986.4	4005.7	4015.8	4016.8	4027.2	4015.8	3973.6	3953.1	3898.0	3786.2	3618.9
7.5°	3737.7	3744.7	3774.4	3799.7	3849.2	3896.3	3911.5	3902.6	3870.0	3750.5	3527.9
10°	3471.4	3478.4	3513.6	3547.0	3614.1	3686.5	3763.1	3779.2	3792.7	3699.3	3440.2
12.5°	3241.5	3248.8	3284.8	3328.5	3406.7	3496.0	3614.8	3641.1	3701.0	3650.8	3370.0
15°	3043.8	3046.9	3082.2	3136.3	3229.7	3344.4	3479.4	3521.6	3613.4	3616.5	3308.7
17.5°	2875.5	2883.5	2905.2	2956.9	3059.0	3201.0	3358.2	3418.8	3526.2	3587.8	3248.8
20°	2772.7	2780.6	2779.9	2808.6	2900.4	3051.8	3237.0	3309.4	3440.2	3558.3	3195.4
22.5°	2752.9	2752.9	2732.1	2728.0	2782.3	2909.1	3110.9	3199.3	3362.7	3545.5	3158.0
25°	2823.9	2820.5	2768.8	2726.6	2729.0	2804.5	2988.8	3094.0	3297.6	3554.2	3138.0
27.5°	2973.8	2969.7	2904.3	2823.9	2759.2	2758.4	2896.3	3009.5	3245.6	3595.7	3145.9
30°	3180.9	3179.5	3108.5	3007.1	2890.0	2782.3	2864.4	2967.3	3212.1	3670.6	3164.3
32.5°	3407.4	3405.0	3351.6	3244.9	3096.4	2890.0	2898.0	2984.2	3221.7	3770.3	3209.0
35°	3647.6	3643.5	3620.4	3527.2	3363.7	3088.5	3008.1	3075.0	3282.3	3919.5	3296.6
37.5°	3907.4	3911.5	3928.2	3838.9	3667.4	3366.9	3192.3	3237.7	3404.3	4122.1	3439.3
40°	4291.1	4290.4	4295.9	4178.6	4013.7	3707.3	3449.7	3464.2	3608.5	4390.8	3656.3
42.5°	4987.1	4938.6	4791.1	4551.8	4386.0	4096.5	3774.4	3759.2	3858.2	4723.2	3960.1
45°	5922.7	5818.9	5436.2	4977.7	4765.5	4535.2	4173.7	4125.2	4188.2	5122.8	4335.0
47.5°	6727.2	6619.5	6078.2	5421.0	5168.2	4951.4	4641.9	4554.2	4575.0	5570.2	4810.2
50°	7000.7	6948.1	6475.4	5807.1	5558.1	5475.3	5185.1	5078.2	5048.7	6087.6	5361.1
52.5°	6905.8	6902.0	6586.9	6057.4	5915.5	6017.6	5868.4	5744.8	5636.4	6633.3	5921.7
55°	6753.5	6773.5	6632.3	6276.7	6271.8	6512.8	6803.0	6700.1	6386.0	7225.8	6405.1
57.5°	6333.4	6418.6	6606.9	6691.4	6887.5	7134.0	7581.4	7642.0	7270.4	7679.4	6806.1
60°	5138.8	5326.1	5941.8	6751.1	7681.1	8295.1	8520.8	8572.5	7995.9	8056.5	7347.7
62.5°	3647.6	3838.9	4619.7	5988.9	7692.9	9820.5	9920.2	9716.9	8795.1	8615.7	8281.6
65°	1936.1	2083.8	2721.7	4322.9	6670.0	10174.7	12367.7	11761.6	10204.9	9715.2	9488.0
67.5°	990.4	1035.0	1288.8	2115.7	4585.4	9037.5	14561.4	14988.0	12634.7	10806.3	9429.8
69°	876.4	902.7	1071.0	1529.5	2936.1	7654.8	14668.3	16095.7	13906.8	10715.3	8569.4
70°	848.4	871.6	1024.7	1384.4	2295.1	6419.3	14259.1	15998.4	14232.0	10369.3	7926.6
72.5°	720.2	740.0	912.4	1223.4	1865.3	3186.5	11583.0	13556.7	12771.1	8637.9	5737.5
75°	481.7	547.1	875.7	1146.8	1735.2	1810.3	7636.4	9796.6	9100.5	5826.1	2988.8
77.5°	115.6	124.3	247.2	912.4	1587.0	1593.2	3927.5	6090.0	4967.3	2076.6	706.4
80°	62.3	59.9	69.3	181.1	1477.6	1495.2	1768.0	2956.2	1773.6	344.5	232.7
82.5°	43.9	41.5	44.7	75.8	465.0	1362.0	1279.1	1338.0	735.2	132.3	104.5
85°	15.9	15.2	24.6	68.6	145.8	783.0	1314.1	1103.6	595.6	60.6	76.5
87.5°	5.6	4.8	9.7	37.4	44.7	333.4	811.0	834.2	234.4	36.7	36.0
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°	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6	3670.6
2.5°	3638.0	3588.5	3497.7	3404.3	3318.1	3214.5	3162.6	3111.7	3090.2	3082.2	3044.8
5°	3532.7	3448.9	3256.0	3062.2	2883.5	2693.7	2568.7	2468.2	2409.1	2380.3	2334.9
7.5°	3398.0	3260.9	2968.0	2669.1	2390.7	2116.4	1913.2	1756.7	1649.0	1597.4	1550.3
10°	3267.1	3084.6	2668.4	2260.8	1882.7	1519.1	1238.3	1035.0	905.2	845.3	807.1
12.5°	3150.0	2913.2	2378.9	1862.9	1388.3	962.6	677.0	515.2	434.6	406.6	393.1
15°	3045.5	2755.3	2105.3	1484.8	940.2	550.2	370.1	315.1	302.3	302.3	300.6
17.5°	2946.5	2600.5	1841.2	1129.9	590.1	336.6	281.5	274.3	274.3	277.4	277.4
20°	2851.6	2453.0	1586.0	811.0	371.6	267.0	254.5	252.8	254.5	258.3	258.3
22.5°	2770.3	2319.0	1347.7	556.5	276.0	240.7	234.4	232.0	232.7	235.2	236.9
25°	2709.7	2205.8	1122.9	377.1	237.6	219.2	212.2	208.1	205.0	205.0	206.4
27.5°	2671.5	2110.2	905.2	274.3	213.7	199.4	188.1	181.8	174.6	170.7	172.1
30°	2643.5	2019.1	700.9	224.1	191.5	177.0	162.7	152.3	142.0	137.1	138.8
32.5°	2633.1	1945.7	523.9	197.7	171.4	155.5	137.9	124.3	113.2	109.1	110.1
35°	2661.1	1887.6	383.6	178.7	155.5	135.4	115.6	100.4	91.7	89.3	90.1
37.5°	2734.5	1856.4	287.1	162.7	141.2	118.8	96.6	82.1	76.5	76.5	77.3
40°	2873.1	1855.7	230.6	151.6	128.4	102.9	79.7	69.3	66.2	67.8	68.6
42.5°	3075.7	1897.9	200.9	141.2	117.3	87.6	66.2	58.9	58.2	59.9	60.6
45°	3352.4	1975.2	184.9	132.3	105.3	73.4	55.8	50.9	50.9	53.4	54.3
47.5°	3691.3	2088.4	171.4	123.6	93.2	61.3	47.8	44.7	45.4	47.8	48.5
50°	4099.6	2231.4	157.9	114.0	84.5	50.9	41.5	39.1	39.8	43.0	43.9
52.5°	4564.6	2423.6	146.8	105.3	73.4	42.3	35.0	33.6	35.0	38.4	39.1
55°	4963.2	2595.7	133.3	98.0	58.9	35.0	28.7	28.7	30.4	34.3	35.0
57.5°	5346.9	2775.8	121.2	84.5	46.4	28.0	23.9	24.6	27.0	31.1	31.9
60°	5909.9	3081.2	107.0	71.0	35.0	22.2	20.0	20.8	23.9	28.0	28.7
62.5°	6866.0	3546.2	92.5	58.9	27.0	17.6	15.9	17.6	21.5	26.3	27.0
65°	7728.9	3735.3	75.8	49.5	20.8	13.5	13.5	15.9	20.8	25.6	26.3
67.5°	7248.0	3144.2	58.9	39.1	15.9	10.4	11.1	15.2	20.0	25.6	26.3
69°	6409.9	2571.1	50.2	31.1	13.5	9.7	10.4	15.2	20.0	24.6	25.6
70°	5756.8	2170.8	44.7	26.3	12.1	9.7	10.4	14.2	20.0	24.6	25.6
72.5°	3855.8	1172.2	36.0	19.1	11.1	8.7	8.7	14.2	19.1	23.9	24.6
75°	1657.0	323.8	28.7	13.5	9.7	8.0	8.0	13.5	18.3	23.2	24.6
77.5°	303.0	82.1	23.2	12.1	9.7	8.0	7.2	12.8	17.6	22.2	23.2
80°	120.5	40.6	18.3	10.4	8.7	7.2	6.3	12.1	16.7	21.5	22.2
82.5°	72.7	23.2	15.2	9.7	8.7	6.3	5.6	10.4	15.9	20.8	21.5
85°	58.9	15.9	12.1	9.7	8.0	6.3	4.8	9.7	14.2	20.0	20.8
87.5°	28.7	11.1	11.1	8.7	8.0	6.3	4.8	8.7	13.5	19.1	20.0
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)