

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-04-LED-E1-SL3-7030-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-04-LED-E1-SL3-7030-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

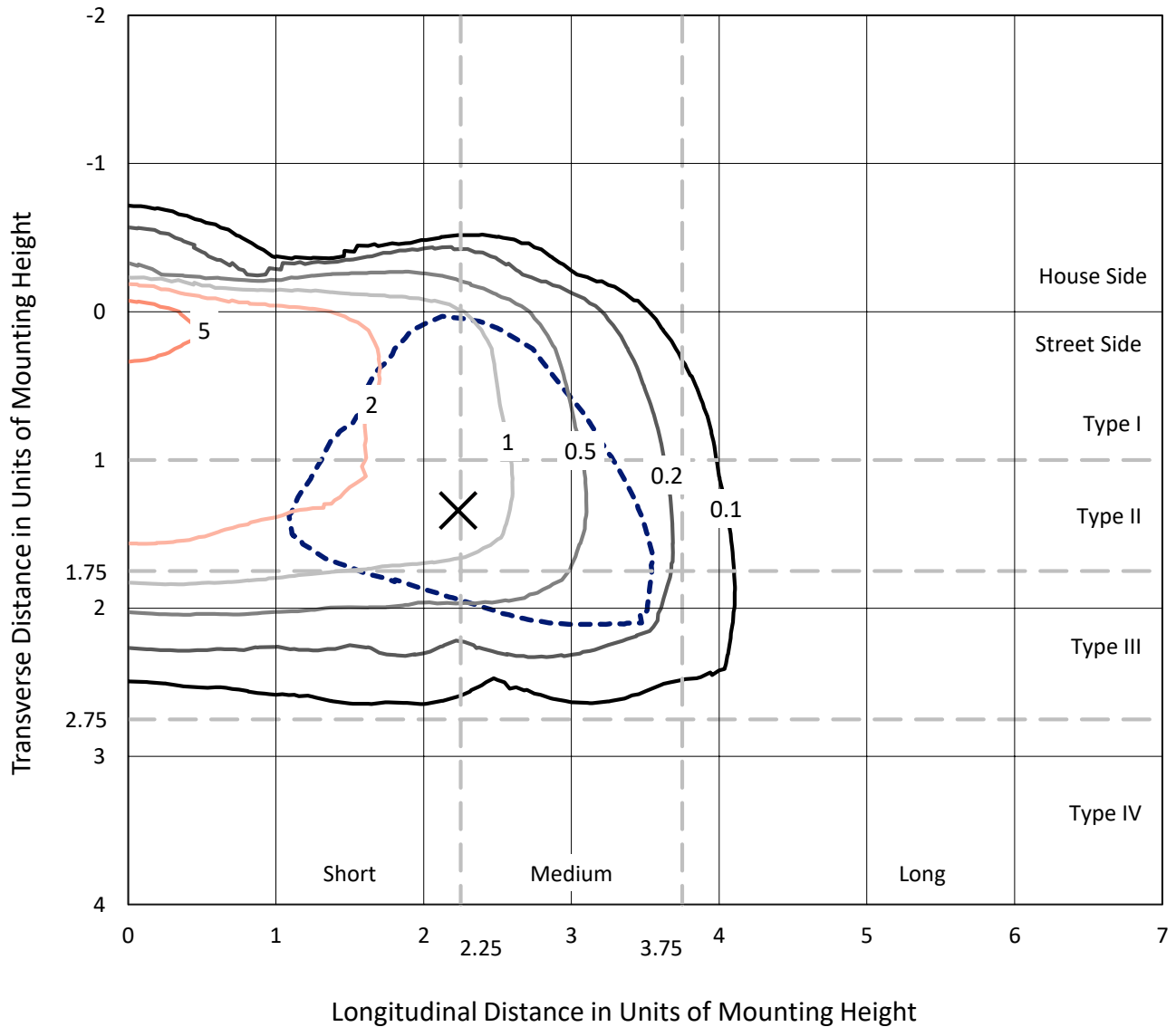
Lumens per Lamp: N/A  
Luminaire Lumens: 18024 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (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: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

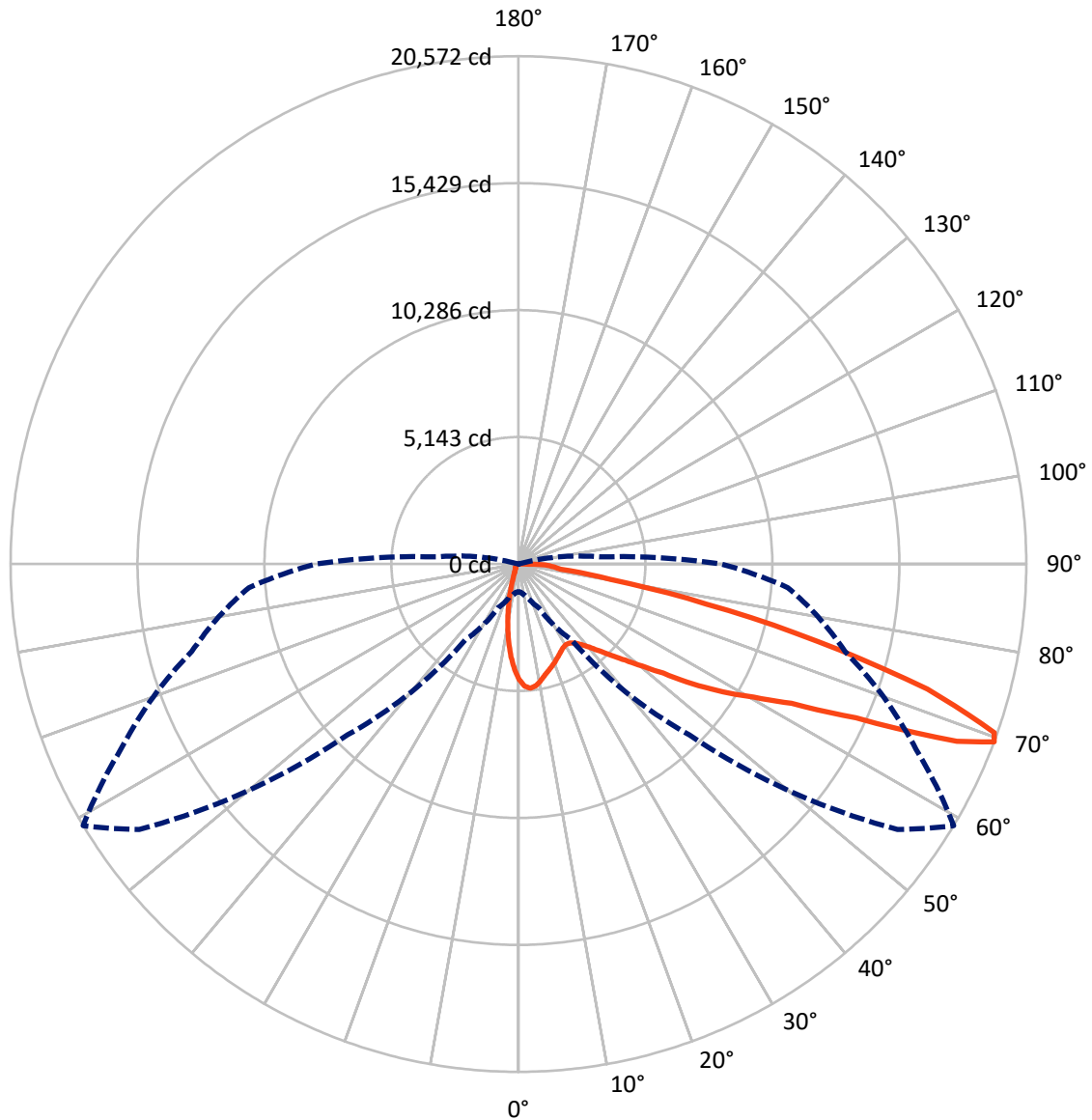
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 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
<b>House Side</b>	Lumens	1467.8	0.0	1467.8
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	16556.2	0.0	16556.2
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	18024.0	0.0	18024.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	380.8	2.1
10°-20°	786.8	4.4
20°-30°	1058.8	5.9
30°-40°	1537.3	8.5
40°-50°	2559.7	14.2
50°-60°	3993.1	22.2
60°-70°	4941.2	27.4
70°-80°	2504.2	13.9
80°-90°	262.0	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°	18024.0	100.0
0°-180°	18024.0	100.0



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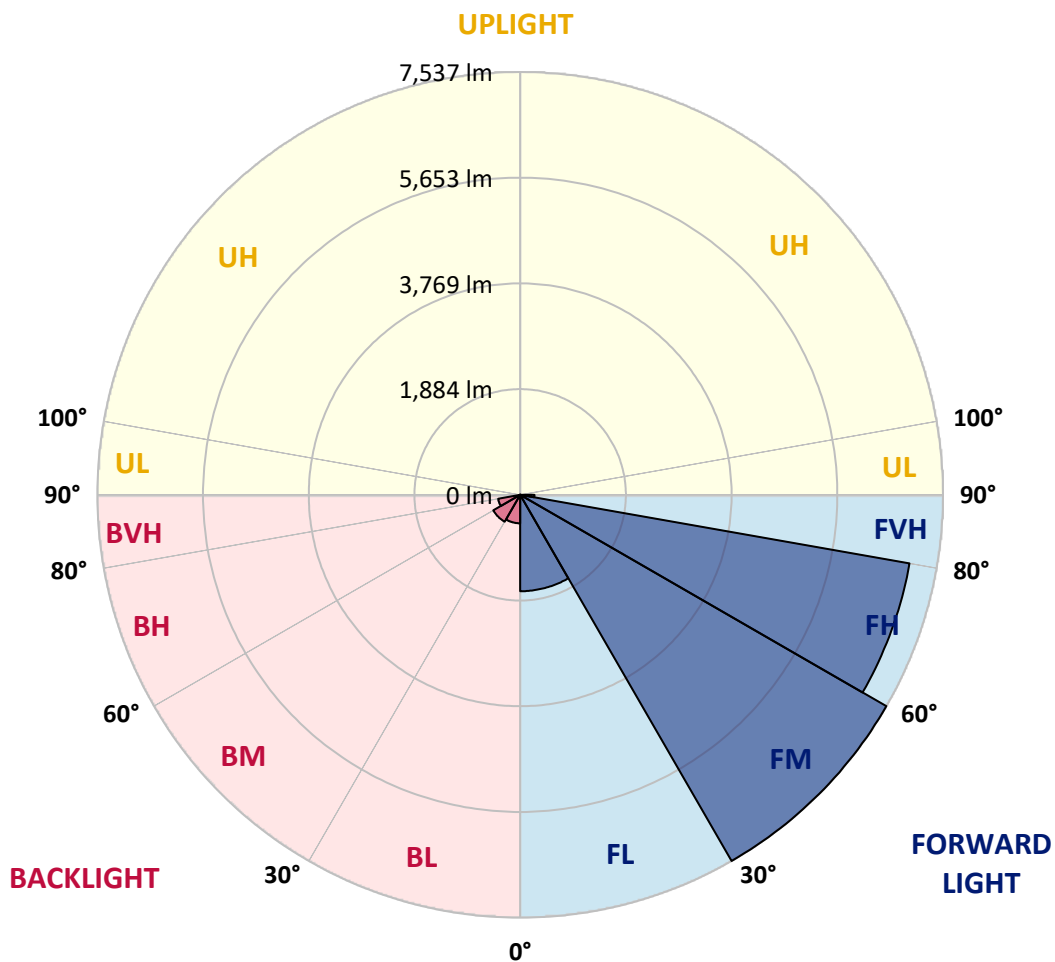
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1718.4	9.5			
FM	(30°-60°)	7537.1	41.8			
FH	(60°-80°)	7046.7	39.1			G3/7500
FVH	(80°-90°)	254.0	1.4			G3/500
BL	(0°-30°)	508.1	2.8	B2/1000		
BM	(30°-60°)	553.1	3.1	B1/1000		
BH	(60°-80°)	398.6	2.2	B1/500		G1/500
BVH	(80°-90°)	8.1	0.0			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3
2.5°	5141.8	5140.0	5117.4	5107.3	5088.7	5050.2	4990.0	4958.5	4907.6	4818.7	4699.6
5°	5094.9	5119.6	5132.6	5133.8	5147.1	5132.6	5078.6	5052.3	4982.0	4839.1	4625.3
7.5°	4777.1	4786.0	4824.0	4856.4	4919.6	4979.8	4999.3	4987.8	4946.2	4793.4	4508.9
10°	4436.7	4445.7	4490.7	4533.3	4619.1	4711.7	4809.5	4830.2	4847.4	4728.0	4396.9
12.5°	4143.0	4152.2	4198.2	4254.0	4354.0	4468.2	4620.0	4653.6	4730.2	4666.0	4307.1
15°	3890.2	3894.2	3939.3	4008.4	4127.8	4274.4	4446.9	4500.9	4618.2	4622.2	4228.7
17.5°	3675.2	3685.3	3713.1	3779.1	3909.7	4091.1	4292.0	4369.4	4506.8	4585.5	4152.2
20°	3543.7	3553.9	3553.0	3589.7	3706.9	3900.4	4137.1	4229.7	4396.9	4547.8	4084.0
22.5°	3518.4	3518.4	3491.9	3486.6	3556.0	3718.0	3976.0	4089.0	4297.9	4531.5	4036.2
25°	3609.1	3604.8	3538.8	3484.8	3487.8	3584.4	3819.9	3954.4	4214.5	4542.6	4010.6
27.5°	3800.7	3795.5	3711.9	3609.1	3526.4	3525.5	3701.7	3846.4	4148.2	4595.6	4020.8
30°	4065.5	4063.6	3972.9	3843.3	3693.7	3556.0	3661.0	3792.4	4105.3	4691.3	4044.2
32.5°	4354.9	4351.9	4283.7	4147.3	3957.5	3693.7	3703.8	3814.0	4117.7	4818.7	4101.3
35°	4662.0	4656.7	4627.1	4508.0	4299.1	3947.3	3844.6	3930.0	4195.1	5009.4	4213.3
37.5°	4994.0	4999.3	5020.5	4906.4	4687.3	4303.1	4080.0	4138.0	4350.9	5268.3	4395.7
40°	5484.3	5483.4	5490.5	5340.5	5129.8	4738.2	4408.9	4427.5	4612.0	5611.8	4673.1
42.5°	6374.0	6311.9	6123.4	5817.6	5605.6	5235.6	4824.0	4804.5	4931.1	6036.7	5061.3
45°	7569.7	7437.0	6947.9	6361.9	6090.7	5796.3	5334.4	5272.3	5352.9	6547.4	5540.5
47.5°	8597.9	8460.3	7768.4	6928.5	6605.4	6328.3	5932.7	5820.7	5847.2	7119.2	6147.8
50°	8947.5	8880.2	8276.0	7421.9	7103.7	6997.9	6627.0	6490.3	6452.7	7780.5	6851.9
52.5°	8826.2	8821.3	8418.6	7741.9	7560.4	7691.0	7500.3	7342.3	7203.7	8477.8	7568.5
55°	8631.5	8657.1	8476.6	8022.1	8015.9	8323.9	8694.8	8563.3	8161.9	9235.1	8186.2
57.5°	8094.6	8203.5	8444.2	8552.2	8802.8	9117.8	9689.6	9767.1	9292.2	9814.9	8698.8
60°	6567.8	6807.2	7594.1	8628.4	9817.1	10601.8	10890.3	10956.3	10219.4	10296.9	9390.9
62.5°	4662.0	4906.4	5904.3	7654.2	9832.2	12551.4	12678.8	12419.0	11240.8	11011.6	10584.5
65°	2474.5	2663.3	3478.6	5525.1	8524.7	13004.0	15806.9	15032.3	13042.6	12416.8	12126.5
67.5°	1265.8	1322.9	1647.2	2704.1	5860.5	11550.7	18610.6	19155.8	16148.1	13811.3	12052.1
69°	1120.1	1153.8	1368.8	1954.8	3752.6	9783.4	18747.3	20571.6	17774.0	13695.0	10952.3
70°	1084.3	1114.0	1309.6	1769.4	2933.3	8204.4	18224.2	20447.2	18189.7	13252.8	10130.9
72.5°	920.5	945.8	1166.1	1563.6	2384.1	4072.6	14804.0	17326.6	16322.5	11040.0	7333.0
75°	615.6	699.2	1119.2	1465.7	2217.7	2313.7	9760.0	12520.8	11631.2	7446.3	3819.9
77.5°	147.8	158.9	316.0	1166.1	2028.3	2036.3	5019.6	7783.5	6348.7	2654.1	902.9
80°	79.6	76.5	88.6	231.4	1888.5	1911.0	2259.7	3778.2	2266.8	440.3	297.5
82.5°	56.2	53.1	57.1	96.9	594.3	1740.7	1634.8	1710.1	939.6	169.1	133.6
85°	20.4	19.4	31.5	87.6	186.4	1000.7	1679.6	1410.5	761.3	77.5	97.8
87.5°	7.1	6.2	12.3	47.8	57.1	426.1	1036.5	1066.1	299.6	46.9	46.0
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°	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3	4691.3
2.5°	4649.6	4586.4	4470.4	4350.9	4240.8	4108.4	4042.0	3976.9	3949.5	3939.3	3891.5
5°	4515.1	4408.0	4161.5	3913.7	3685.3	3442.8	3282.9	3154.6	3079.0	3042.3	2984.2
7.5°	4342.9	4167.6	3793.3	3411.3	3055.5	2705.0	2445.2	2245.2	2107.6	2041.5	1981.4
10°	4175.7	3942.4	3410.4	2889.5	2406.3	1941.6	1582.7	1322.9	1156.9	1080.3	1031.6
12.5°	4026.0	3723.3	3040.4	2381.0	1774.3	1230.3	865.2	658.5	555.4	519.6	502.4
15°	3892.4	3521.5	2690.8	1897.7	1201.6	703.2	473.0	402.7	386.3	386.3	384.2
17.5°	3765.9	3323.7	2353.2	1444.1	754.2	430.2	359.8	350.5	350.5	354.6	354.6
20°	3644.6	3135.1	2027.0	1036.5	474.9	341.3	325.2	323.1	325.2	330.2	330.2
22.5°	3540.6	2963.9	1722.5	711.3	352.7	307.7	299.6	296.5	297.5	300.6	302.7
25°	3463.2	2819.2	1435.2	482.0	303.6	280.2	271.2	266.0	262.0	262.0	263.8
27.5°	3414.4	2697.0	1156.9	350.5	273.1	254.9	240.4	232.4	223.1	218.2	220.0
30°	3378.6	2580.6	895.8	286.4	244.7	226.2	208.0	194.7	181.4	175.3	177.4
32.5°	3365.3	2486.8	669.6	252.7	219.1	198.7	176.2	158.9	144.7	139.5	140.7
35°	3401.1	2412.5	490.3	228.3	198.7	173.1	147.8	128.4	117.3	114.2	115.1
37.5°	3494.9	2372.6	366.9	208.0	180.5	151.8	123.4	104.9	97.8	97.8	98.7
40°	3672.1	2371.7	294.7	193.8	164.2	131.5	101.8	88.6	84.6	86.7	87.6
42.5°	3931.0	2425.7	256.7	180.5	150.0	112.0	84.6	75.3	74.4	76.5	77.5
45°	4284.6	2524.5	236.4	169.1	134.5	93.8	71.3	65.1	65.1	68.2	69.4
47.5°	4717.8	2669.2	219.1	158.0	119.1	78.4	61.1	57.1	58.0	61.1	62.0
50°	5239.6	2851.9	201.8	145.6	108.0	65.1	53.1	50.0	50.9	54.9	56.2
52.5°	5834.0	3097.5	187.6	134.5	93.8	54.0	44.7	42.9	44.7	49.1	50.0
55°	6343.4	3317.5	170.3	125.3	75.3	44.7	36.7	36.7	38.9	43.8	44.7
57.5°	6833.7	3547.7	154.9	108.0	59.2	35.8	30.5	31.5	34.6	39.8	40.7
60°	7553.3	3938.1	136.7	90.7	44.7	28.4	25.6	26.5	30.5	35.8	36.7
62.5°	8775.3	4532.4	118.2	75.3	34.6	22.5	20.4	22.5	27.5	33.6	34.6
65°	9878.2	4774.0	96.9	63.3	26.5	17.3	17.3	20.4	26.5	32.7	33.6
67.5°	9263.5	4018.6	75.3	50.0	20.4	13.3	14.2	19.4	25.6	32.7	33.6
69°	8192.4	3286.0	64.2	39.8	17.3	12.3	13.3	19.4	25.6	31.5	32.7
70°	7357.7	2774.4	57.1	33.6	15.4	12.3	13.3	18.2	25.6	31.5	32.7
72.5°	4928.0	1498.1	46.0	24.4	14.2	11.1	11.1	18.2	24.4	30.5	31.5
75°	2117.8	413.8	36.7	17.3	12.3	10.2	10.2	17.3	23.5	29.6	31.5
77.5°	387.3	104.9	29.6	15.4	12.3	10.2	9.3	16.4	22.5	28.4	29.6
80°	154.0	51.8	23.5	13.3	11.1	9.3	8.0	15.4	21.3	27.5	28.4
82.5°	92.9	29.6	19.4	12.3	11.1	8.0	7.1	13.3	20.4	26.5	27.5
85°	75.3	20.4	15.4	12.3	10.2	8.0	6.2	12.3	18.2	25.6	26.5
87.5°	36.7	14.2	14.2	11.1	10.2	8.0	6.2	11.1	17.3	24.4	25.6
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)