

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-SL3-7027-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-SL3-7027-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

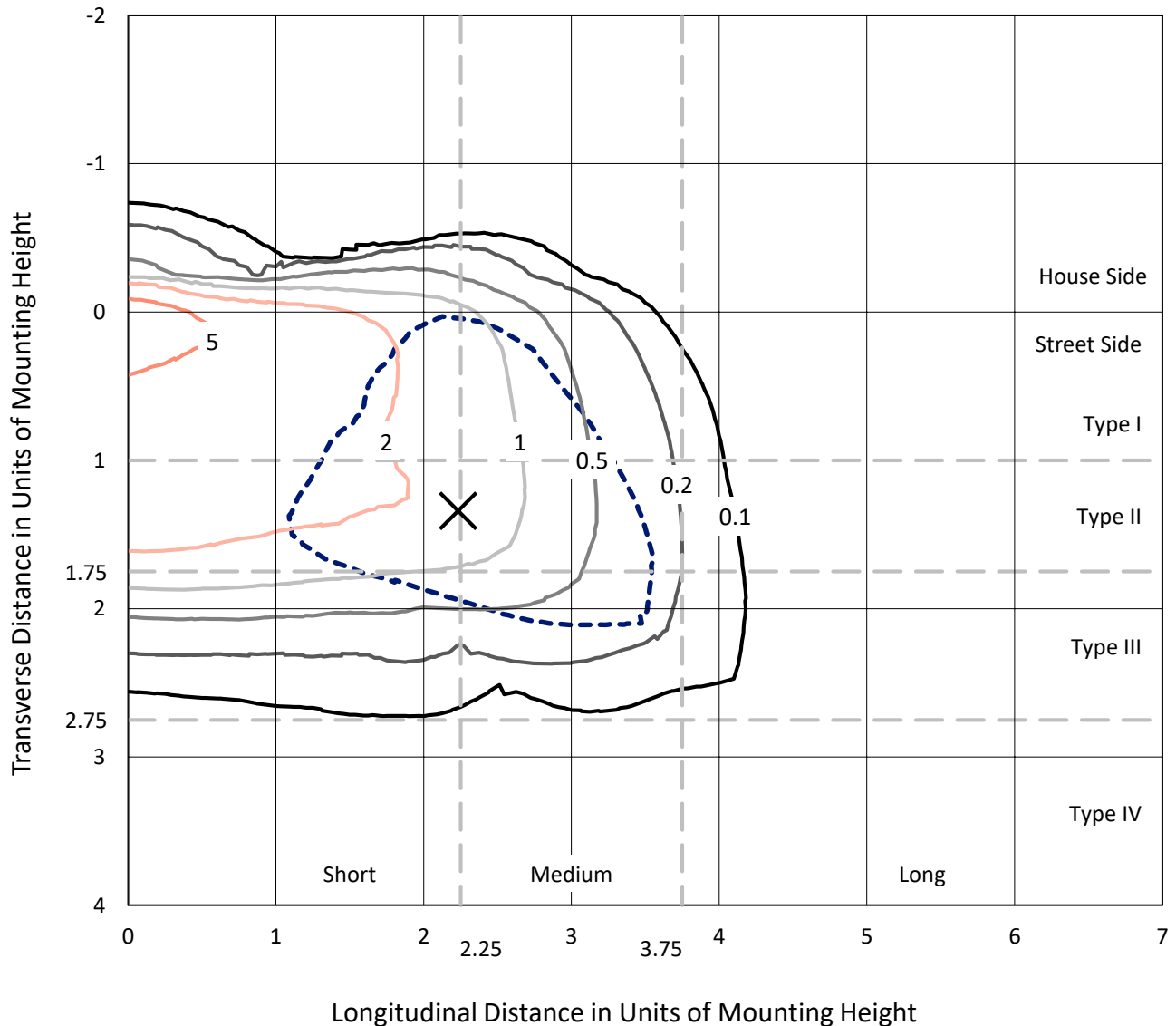
Lumens per Lamp: N/A  
Luminaire Lumens: 20059.3 lumens  
Efficiency: N/A  
Efficacy: 71.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (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

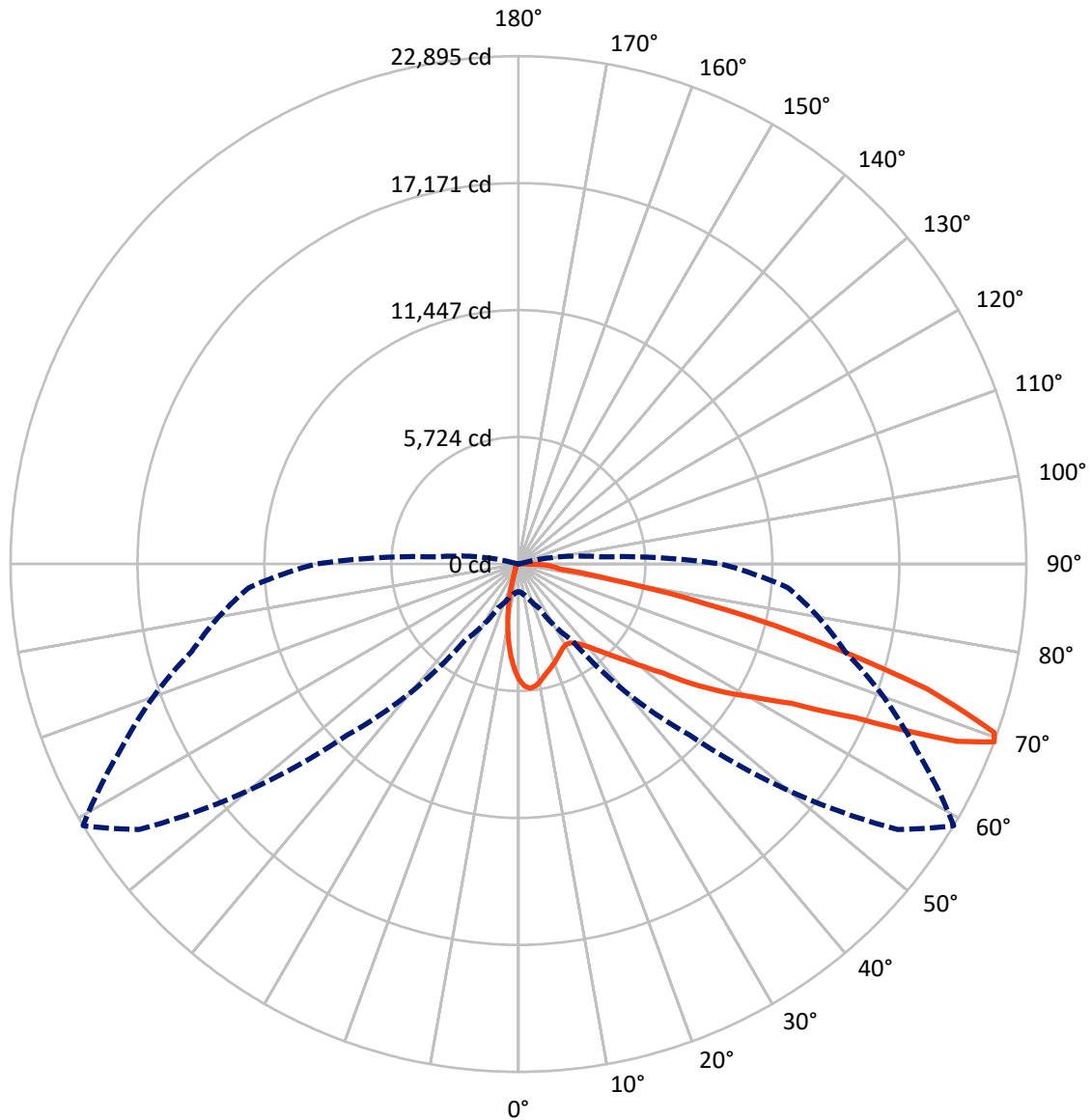
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 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
<b>House Side</b>	Lumens	1633.5	0.0	1633.5
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	18425.8	0.0	18425.8
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	20059.3	0.0	20059.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	423.8	2.1
10°-20°	875.7	4.4
20°-30°	1178.4	5.9
30°-40°	1710.9	8.5
40°-50°	2848.8	14.2
50°-60°	4444.0	22.2
60°-70°	5499.2	27.4
70°-80°	2786.9	13.9
80°-90°	291.6	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°	20059.3	100.0
0°-180°	20059.3	100.0



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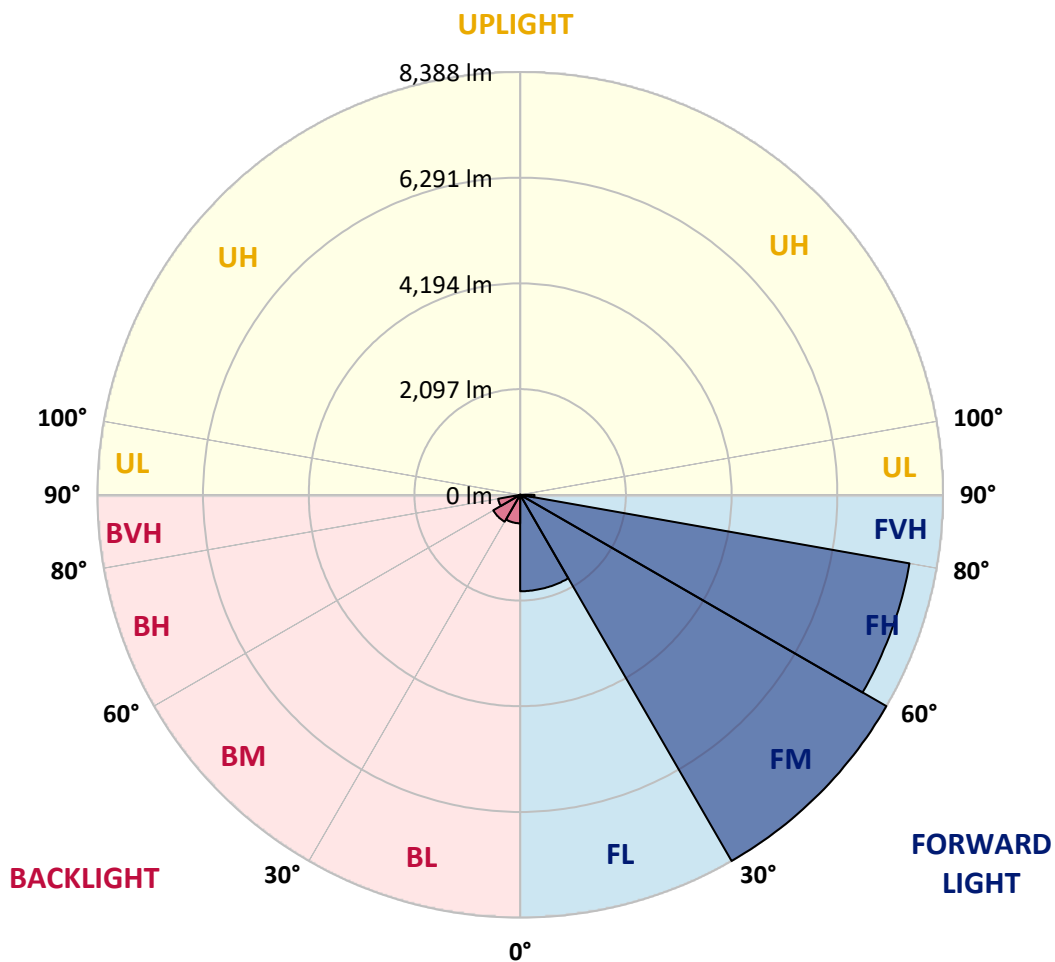
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1912.4	9.5			
FM	(30°-60°)	8388.2	41.8			
FH	(60°-80°)	7842.5	39.1			G4/12000
FVH	(80°-90°)	282.6	1.4			G3/500
BL	(0°-30°)	565.4	2.8	B2/1000		
BM	(30°-60°)	615.5	3.1	B1/1000		
BH	(60°-80°)	443.6	2.2	B1/500		G1/500
BVH	(80°-90°)	9.0	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-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1
2.5°	5722.4	5720.4	5695.3	5684.0	5663.4	5620.5	5553.5	5518.5	5461.8	5362.9	5230.3
5°	5670.2	5697.7	5712.1	5713.5	5728.3	5712.1	5652.0	5622.9	5544.6	5385.5	5147.6
7.5°	5316.5	5326.5	5368.7	5404.8	5475.2	5542.2	5563.8	5551.1	5504.7	5334.7	5018.1
10°	4937.7	4947.7	4997.8	5045.2	5140.7	5243.7	5352.6	5375.6	5394.8	5261.9	4893.4
12.5°	4610.8	4621.1	4672.3	4734.4	4845.7	4972.8	5141.7	5179.2	5264.3	5192.9	4793.5
15°	4329.5	4334.0	4384.1	4461.1	4594.0	4757.1	4949.1	5009.2	5139.7	5144.1	4706.3
17.5°	4090.2	4101.5	4132.4	4205.9	4351.2	4553.1	4776.7	4862.9	5015.7	5103.3	4621.1
20°	3943.9	3955.2	3954.2	3995.0	4125.5	4340.9	4604.3	4707.3	4893.4	5061.4	4545.2
22.5°	3915.7	3915.7	3886.2	3880.3	3957.6	4137.9	4425.0	4550.7	4783.2	5043.2	4492.0
25°	4016.7	4011.9	3938.4	3878.3	3881.7	3989.2	4251.2	4401.0	4690.5	5055.5	4463.5
27.5°	4229.9	4224.1	4131.0	4016.7	3924.6	3923.6	4119.7	4280.8	4616.6	5114.6	4474.8
30°	4524.6	4522.5	4421.6	4277.3	4110.8	3957.6	4074.4	4220.7	4568.9	5221.1	4500.9
32.5°	4846.7	4843.3	4767.4	4615.6	4404.4	4110.8	4122.1	4244.7	4582.6	5362.9	4564.4
35°	5188.4	5182.6	5149.6	5017.1	4784.6	4393.1	4278.7	4373.8	4668.8	5575.1	4689.1
37.5°	5557.9	5563.8	5587.5	5460.4	5216.6	4789.0	4540.7	4605.3	4842.3	5863.3	4892.1
40°	6103.6	6102.6	6110.5	5943.6	5709.1	5273.3	4906.8	4927.4	5132.8	6245.5	5200.8
42.5°	7093.7	7024.7	6814.9	6474.5	6238.6	5826.8	5368.7	5347.1	5487.9	6718.4	5632.8
45°	8424.5	8276.8	7732.5	7080.3	6778.5	6450.8	5936.7	5867.7	5957.3	7286.7	6166.1
47.5°	9568.8	9415.6	8645.7	7710.9	7351.3	7042.9	6602.6	6478.0	6507.5	7923.1	6842.0
50°	9957.9	9883.0	9210.6	8260.0	7905.9	7788.1	7375.3	7223.2	7181.3	8659.1	7625.7
52.5°	9822.9	9817.4	9369.2	8616.1	8414.2	8559.5	8347.2	8171.4	8017.2	9435.2	8423.1
55°	9606.2	9634.7	9433.8	8928.0	8921.1	9263.8	9676.6	9530.3	9083.5	10277.9	9110.7
57.5°	9008.7	9129.9	9397.8	9518.0	9796.8	10147.4	10783.8	10870.0	10341.5	10923.2	9681.1
60°	7309.4	7575.9	8451.6	9602.8	10925.6	11799.0	12120.1	12193.6	11373.5	11459.7	10451.4
62.5°	5188.4	5460.4	6571.0	8518.6	10942.5	13968.7	14110.5	13821.4	12510.2	12255.0	11779.7
65°	2753.9	2964.1	3871.4	6149.0	9487.4	14472.5	17591.8	16729.8	14515.4	13819.0	13495.8
67.5°	1408.7	1472.3	1833.2	3009.4	6522.3	12855.0	20712.1	21319.0	17971.6	15370.9	13413.0
69°	1246.6	1284.1	1523.4	2175.6	4176.4	10888.2	20864.3	22894.6	19781.1	15241.4	12189.1
70°	1206.8	1239.8	1457.5	1969.2	3264.6	9130.9	20282.2	22756.2	20243.7	14749.3	11274.9
72.5°	1024.4	1052.6	1297.8	1740.1	2653.3	4532.5	16475.7	19283.2	18165.7	12286.6	8161.1
75°	685.1	778.2	1245.6	1631.3	2468.2	2575.0	10862.1	13934.7	12944.6	8287.1	4251.2
77.5°	164.5	176.9	351.7	1297.8	2257.3	2266.2	5586.5	8662.5	7065.6	2953.8	1004.9
80°	88.6	85.2	98.6	257.6	2101.7	2126.8	2514.9	4204.9	2522.8	490.1	331.1
82.5°	62.5	59.1	63.5	107.8	661.4	1937.2	1819.5	1903.2	1045.7	188.2	148.7
85°	22.7	21.6	35.0	97.5	207.4	1113.7	1869.2	1569.8	847.2	86.2	108.9
87.5°	7.9	6.9	13.7	53.2	63.5	474.3	1153.6	1186.5	333.5	52.2	51.2
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°	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1	5221.1
2.5°	5174.7	5104.3	4975.2	4842.3	4719.7	4572.3	4498.5	4426.0	4395.5	4384.1	4330.9
5°	5025.0	4905.8	4631.4	4355.6	4101.5	3831.6	3653.7	3510.8	3426.7	3385.8	3321.2
7.5°	4833.3	4638.3	4221.7	3796.5	3400.6	3010.4	2721.3	2498.7	2345.6	2272.1	2205.1
10°	4647.2	4387.6	3795.5	3215.8	2678.0	2160.8	1761.4	1472.3	1287.5	1202.3	1148.1
12.5°	4480.6	4143.7	3383.7	2649.8	1974.7	1369.2	963.0	732.9	618.2	578.3	559.1
15°	4331.9	3919.1	2994.6	2112.0	1337.3	782.7	526.5	448.2	430.0	430.0	427.6
17.5°	4191.1	3699.0	2618.9	1607.2	839.3	478.7	400.4	390.1	390.1	394.6	394.6
20°	4056.2	3489.2	2255.9	1153.6	528.5	379.8	362.0	359.6	362.0	367.5	367.5
22.5°	3940.4	3298.6	1917.0	791.6	392.5	342.4	333.5	330.0	331.1	334.5	336.9
25°	3854.2	3137.5	1597.3	536.4	337.9	311.8	301.9	296.0	291.6	291.6	293.6
27.5°	3800.0	3001.5	1287.5	390.1	303.9	283.7	267.5	258.6	248.3	242.8	244.9
30°	3760.1	2872.0	997.0	318.7	272.3	251.7	231.5	216.7	201.9	195.1	197.5
32.5°	3745.4	2767.6	745.2	281.3	243.8	221.2	196.1	176.9	161.1	155.2	156.6
35°	3785.2	2684.9	545.7	254.1	221.2	192.7	164.5	142.9	130.5	127.1	128.1
37.5°	3889.6	2640.6	408.3	231.5	200.9	169.0	137.4	116.8	108.9	108.9	109.9
40°	4086.7	2639.5	328.0	215.7	182.7	146.3	113.3	98.6	94.1	96.5	97.5
42.5°	4374.9	2699.6	285.7	200.9	166.9	124.7	94.1	83.8	82.8	85.2	86.2
45°	4768.4	2809.5	263.1	188.2	149.7	104.4	79.3	72.5	72.5	75.9	77.3
47.5°	5250.6	2970.6	243.8	175.8	132.6	87.2	68.0	63.5	64.6	68.0	69.0
50°	5831.3	3173.9	224.6	162.1	120.2	72.5	59.1	55.6	56.7	61.1	62.5
52.5°	6492.7	3447.3	208.8	149.7	104.4	60.1	49.8	47.7	49.8	54.6	55.6
55°	7059.7	3692.1	189.6	139.4	83.8	49.8	40.9	40.9	43.3	48.8	49.8
57.5°	7605.4	3948.3	172.4	120.2	65.9	39.8	34.0	35.0	38.5	44.3	45.3
60°	8406.3	4382.8	152.1	101.0	49.8	31.6	28.5	29.5	34.0	39.8	40.9
62.5°	9766.2	5044.2	131.5	83.8	38.5	25.1	22.7	25.1	30.6	37.4	38.5
65°	10993.6	5313.1	107.8	70.4	29.5	19.2	19.2	22.7	29.5	36.4	37.4
67.5°	10309.5	4472.4	83.8	55.6	22.7	14.8	15.8	21.6	28.5	36.4	37.4
69°	9117.5	3657.1	71.4	44.3	19.2	13.7	14.8	21.6	28.5	35.0	36.4
70°	8188.6	3087.7	63.5	37.4	17.2	13.7	14.8	20.3	28.5	35.0	36.4
72.5°	5484.5	1667.3	51.2	27.1	15.8	12.4	12.4	20.3	27.1	34.0	35.0
75°	2356.9	460.5	40.9	19.2	13.7	11.3	11.3	19.2	26.1	33.0	35.0
77.5°	431.0	116.8	33.0	17.2	13.7	11.3	10.3	18.2	25.1	31.6	33.0
80°	171.4	57.7	26.1	14.8	12.4	10.3	8.9	17.2	23.7	30.6	31.6
82.5°	103.4	33.0	21.6	13.7	12.4	8.9	7.9	14.8	22.7	29.5	30.6
85°	83.8	22.7	17.2	13.7	11.3	8.9	6.9	13.7	20.3	28.5	29.5
87.5°	40.9	15.8	15.8	12.4	11.3	8.9	6.9	12.4	19.2	27.1	28.5
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)