

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: P300864

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300864  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
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-SL4-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

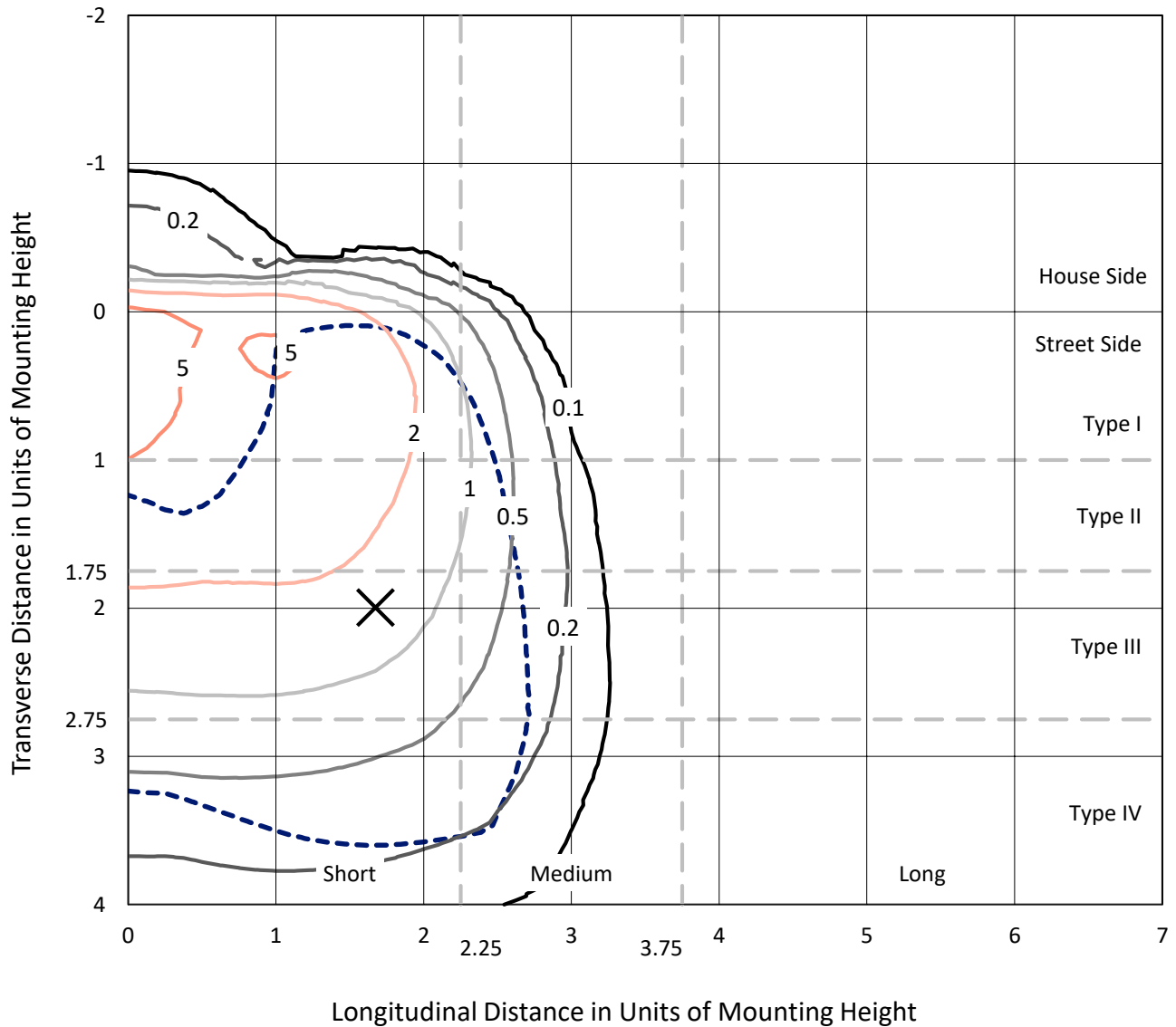
Lumens per Lamp: N/A  
Luminaire Lumens: 24475.6 lumens  
Efficiency: N/A  
Efficacy: 87.7 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G4  
  
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (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

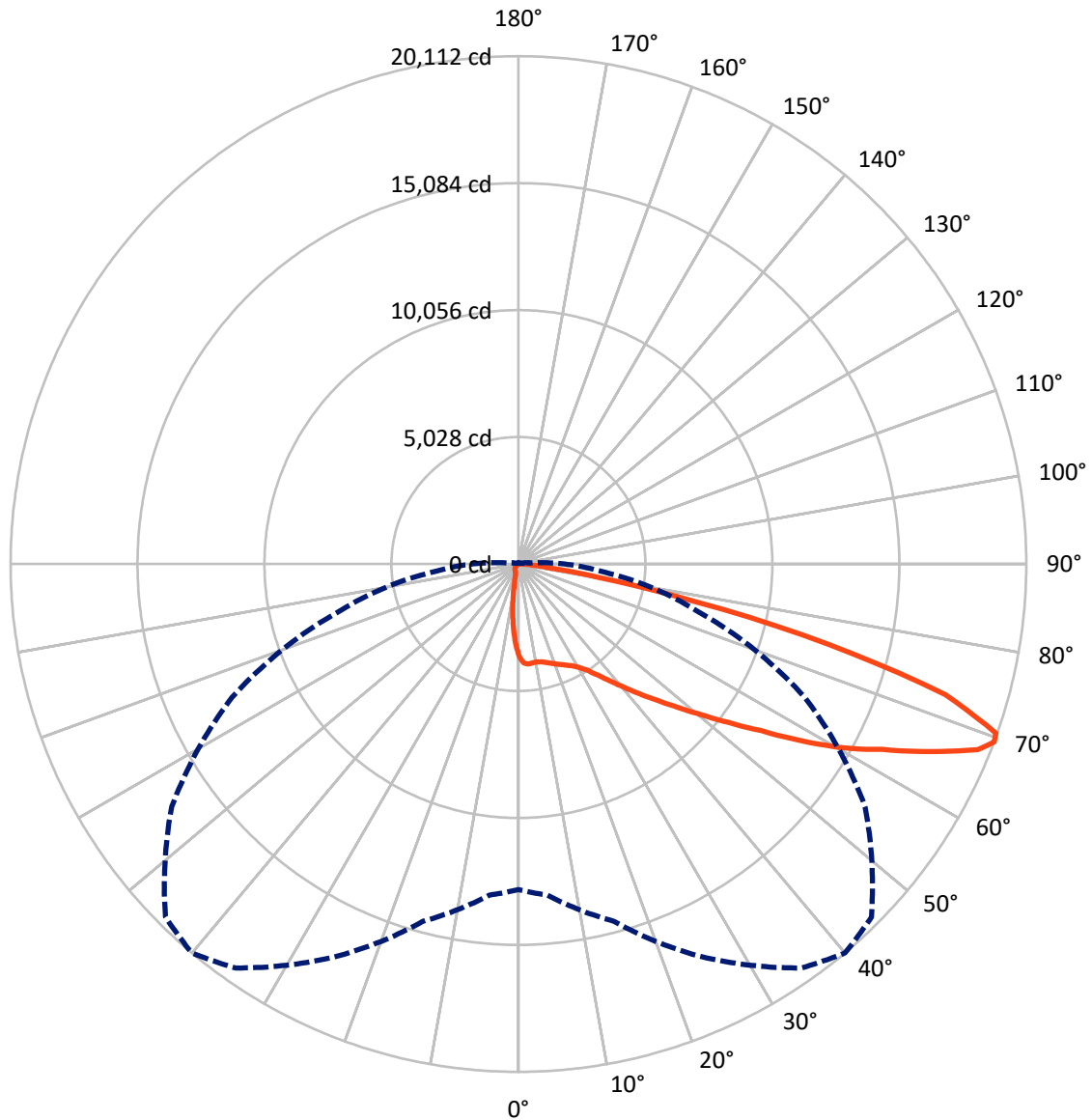
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1432.0	0.0	1432.0
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	23043.6	0.0	23043.6
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	24475.6	0.0	24475.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	296.5	1.2
10°-20°	729.1	3.0
20°-30°	1228.1	5.0
30°-40°	2010.4	8.2
40°-50°	3481.0	14.2
50°-60°	5483.0	22.4
60°-70°	7160.5	29.3
70°-80°	3688.0	15.1
80°-90°	398.9	1.6
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°	24475.6	100.0
0°-180°	24475.6	100.0



REPORT NUMBER: P300864

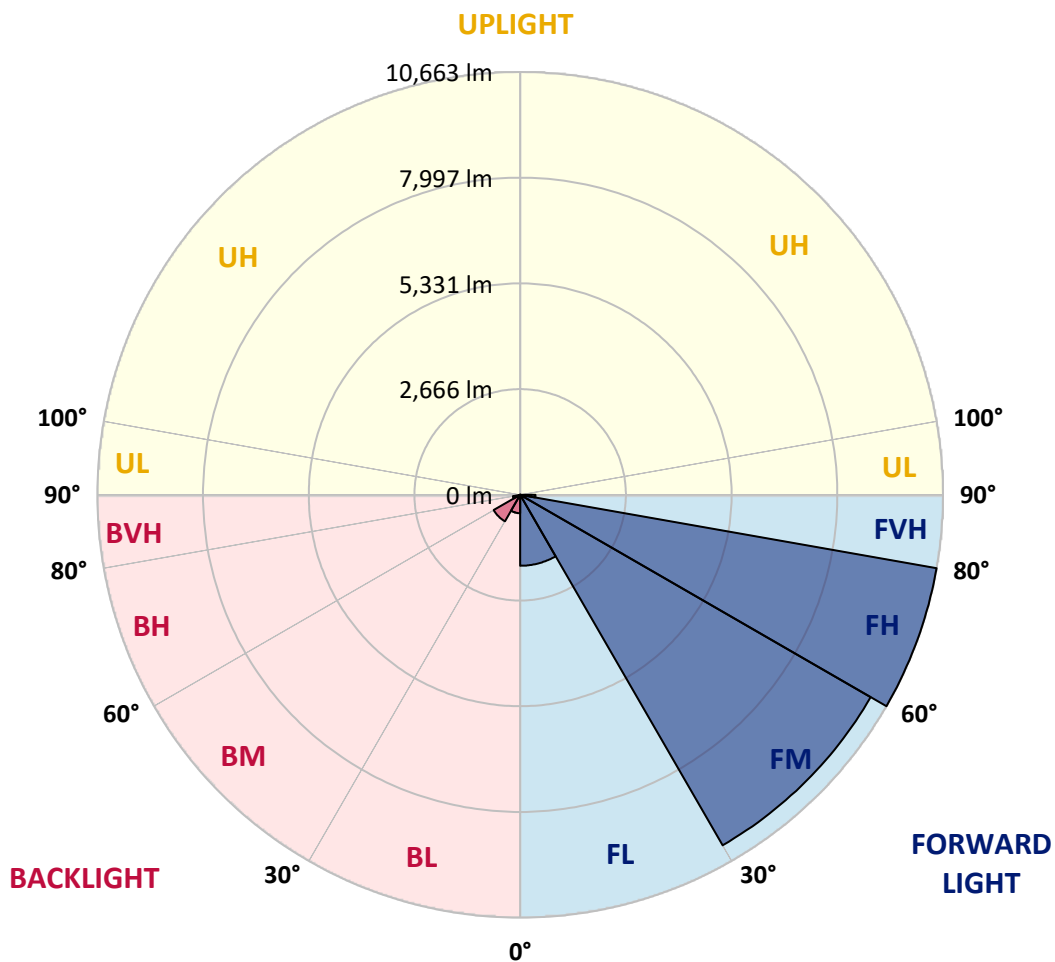
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1789.9	7.3			
FM	(30°-60°)	10204.8	41.7			
FH	(60°-80°)	10662.6	43.6			G4/12000
FVH	(80°-90°)	386.4	1.6			G3/500
BL	(0°-30°)	463.9	1.9	B1/500		
BM	(30°-60°)	769.6	3.1	B1/1000		
BH	(60°-80°)	185.9	0.8	B1/500		G1/500
BVH	(80°-90°)	12.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8
2.5°	4015.2	3993.3	3980.2	3962.7	3940.9	3921.9	3914.6	3860.7	3809.8	3739.8	3659.7
5°	4089.5	4082.2	4058.9	4035.6	4009.3	3980.2	3964.2	3900.1	3827.2	3725.3	3585.4
7.5°	4096.8	4088.0	4058.9	4026.8	3990.4	3955.4	3927.8	3863.7	3796.6	3693.2	3522.7
10°	4085.1	4074.9	4053.0	4018.1	3972.9	3939.4	3911.7	3850.5	3793.7	3700.5	3511.1
12.5°	4072.0	4061.8	4051.6	4034.1	3994.8	3971.5	3948.2	3889.9	3838.9	3760.2	3553.3
15°	4085.1	4079.3	4090.9	4083.6	4061.8	4041.4	4018.1	3965.6	3919.0	3853.5	3630.6
17.5°	4140.5	4140.5	4176.9	4181.3	4160.9	4131.7	4098.2	4045.8	4006.4	3951.1	3722.3
20°	4270.1	4265.8	4312.4	4321.1	4271.6	4226.4	4176.9	4112.8	4082.2	4047.2	3812.7
22.5°	4493.0	4472.6	4500.3	4491.6	4394.0	4324.0	4262.8	4184.2	4168.1	4152.1	3913.2
25°	4782.9	4771.3	4790.2	4704.3	4532.4	4437.7	4364.8	4276.0	4276.0	4292.0	4026.8
27.5°	5204.0	5160.3	5096.2	4944.7	4686.8	4565.9	4487.2	4392.5	4417.3	4477.0	4176.9
30°	5635.2	5587.1	5440.0	5206.9	4874.7	4748.0	4656.2	4557.1	4615.4	4724.7	4377.9
32.5°	6060.6	6006.7	5798.4	5504.1	5144.3	5017.5	4928.6	4819.4	4917.0	5100.5	4672.2
35°	6472.9	6424.9	6184.5	5837.7	5502.6	5397.8	5316.2	5221.5	5346.8	5603.2	5087.4
37.5°	6936.2	6883.8	6590.9	6215.1	5938.3	5862.5	5802.8	5708.1	5926.6	6302.5	5665.8
40°	7505.9	7417.0	7022.2	6647.8	6442.3	6405.9	6365.1	6352.0	6691.5	7211.6	6436.5
42.5°	8158.5	8012.9	7473.8	7103.8	6996.0	7022.2	7012.0	7070.3	7648.6	8342.1	7374.7
45°	8811.2	8623.3	7976.4	7590.4	7604.9	7696.7	7753.5	7986.6	8847.7	9638.7	8384.4
47.5°	9364.8	9179.8	8458.7	8116.3	8291.1	8471.8	8626.2	9067.6	10080.2	10915.0	9169.6
50°	9838.3	9663.5	8970.0	8694.7	9088.0	9379.4	9630.0	10284.1	11405.9	11886.7	9720.3
52.5°	10225.9	10109.3	9500.3	9357.6	9998.6	10425.5	10792.6	11576.4	12580.2	12676.3	10148.7
55°	10603.2	10520.2	10070.0	10145.7	11067.9	11649.2	12114.0	12947.3	13591.3	13334.9	10559.5
57.5°	11037.3	10961.6	10719.7	11145.2	12473.8	13205.2	13712.2	14162.4	14481.4	14007.9	10947.0
60°	11480.2	11436.5	11442.4	12255.3	14088.1	14790.3	15070.0	15186.6	15355.6	14641.7	10968.9
62.5°	11902.7	11985.8	12268.4	13490.7	15633.8	16172.9	16314.2	16429.3	16231.1	14742.2	10134.1
65°	12618.1	12753.6	13428.1	15144.3	17334.0	17910.9	18056.6	17661.8	16369.5	13442.7	8243.0
67.5°	12967.7	13215.4	14418.8	16685.7	18983.2	19624.2	19570.3	17741.9	14689.8	10250.6	5289.9
69°	12894.9	13158.6	14647.5	17157.7	19531.0	20112.3	19769.9	16761.4	12514.6	7425.7	3247.4
70°	12606.4	12873.0	14529.5	17140.2	19600.9	20061.3	19399.9	15550.8	10581.3	5429.8	2030.9
72.5°	10527.4	10757.6	12899.2	15492.5	18056.6	17682.2	16229.7	10773.7	5155.9	1478.7	457.5
75°	6480.2	6608.4	9255.6	11671.1	13637.9	12676.3	10813.0	5359.9	1537.0	418.1	253.5
77.5°	3423.7	3482.0	5067.0	6879.4	8645.1	7153.3	5542.0	2090.6	708.0	262.2	183.6
80°	2023.6	2067.3	2728.7	3145.4	3741.3	3125.0	2215.9	1283.5	507.0	164.6	163.2
82.5°	1158.2	1185.9	1978.4	1748.3	1474.4	1258.7	1102.9	1216.5	304.5	110.7	169.0
85°	425.4	431.2	1113.1	1330.1	877.0	521.6	547.8	1008.2	81.6	69.9	132.6
87.5°	198.1	193.8	572.6	814.4	512.8	330.7	426.9	221.4	32.1	45.2	36.4
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°	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8	3656.8
2.5°	3613.1	3559.2	3461.6	3361.0	3259.0	3180.4	3103.2	3042.0	3021.6	2983.7	2986.6
5°	3502.3	3403.3	3199.3	2992.4	2776.8	2599.1	2431.5	2296.0	2230.5	2163.5	2163.5
7.5°	3406.2	3262.0	2942.9	2606.4	2258.2	1965.3	1701.6	1503.5	1394.2	1306.8	1305.4
10°	3369.8	3174.5	2728.7	2246.5	1761.4	1362.2	1049.0	847.9	744.5	677.5	674.5
12.5°	3385.8	3144.0	2564.1	1914.3	1305.4	875.6	607.5	477.9	434.2	413.8	413.8
15°	3432.4	3135.2	2399.5	1589.5	922.2	547.8	403.6	368.6	365.7	365.7	365.7
17.5°	3489.2	3138.1	2230.5	1273.3	627.9	391.9	348.2	343.8	346.7	346.7	346.7
20°	3547.5	3139.6	2048.4	980.5	442.9	340.9	327.8	326.3	329.3	329.3	330.7
22.5°	3618.9	3146.9	1866.3	732.8	365.7	322.0	311.8	311.8	313.2	313.2	311.8
25°	3700.5	3161.4	1676.9	543.4	333.6	308.9	300.1	298.7	300.1	298.7	297.2
27.5°	3802.5	3181.8	1465.6	425.4	319.1	295.7	288.5	288.5	287.0	285.5	284.1
30°	3930.7	3205.1	1228.2	361.3	304.5	284.1	276.8	275.4	273.9	271.0	271.0
32.5°	4125.9	3256.1	993.6	327.8	288.5	268.1	262.2	262.2	259.3	256.4	255.0
35°	4426.0	3356.7	783.8	307.4	271.0	250.6	243.3	243.3	240.4	238.9	237.5
37.5°	4841.2	3509.6	609.0	288.5	253.5	231.6	224.4	222.9	220.0	217.1	215.6
40°	5393.4	3699.0	479.3	271.0	236.0	212.7	206.9	204.0	198.1	193.8	193.8
42.5°	6086.9	3914.6	389.0	252.0	215.6	195.2	190.9	186.5	176.3	171.9	170.5
45°	6812.4	4108.4	329.3	230.2	195.2	177.7	174.8	167.5	154.4	150.1	150.1
47.5°	7335.4	4153.6	289.9	209.8	176.3	158.8	157.3	144.2	132.6	129.7	128.2
50°	7661.8	4064.7	257.9	189.4	158.8	141.3	136.9	120.9	113.6	110.7	109.3
52.5°	7881.7	3905.9	231.6	171.9	142.8	125.3	115.1	103.4	97.6	94.7	94.7
55°	8058.0	3681.5	205.4	155.9	129.7	112.2	97.6	88.9	83.0	80.1	80.1
57.5°	8107.6	3377.1	179.2	142.8	116.6	99.1	83.0	77.2	69.9	68.5	68.5
60°	7747.7	2827.8	158.8	126.7	104.9	86.0	72.8	65.6	58.3	56.8	55.4
62.5°	6799.3	2188.2	139.9	112.2	91.8	74.3	62.6	53.9	48.1	48.1	48.1
65°	5186.5	1467.1	122.4	97.6	80.1	62.6	53.9	43.7	40.8	40.8	42.2
67.5°	3104.6	798.4	104.9	83.0	68.5	52.4	45.2	37.9	36.4	37.9	37.9
69°	1819.6	469.1	94.7	74.3	59.7	46.6	39.3	33.5	36.4	37.9	37.9
70°	1123.3	316.1	87.4	67.0	53.9	42.2	36.4	32.1	35.0	36.4	36.4
72.5°	313.2	163.2	69.9	52.4	43.7	35.0	29.1	29.1	33.5	35.0	35.0
75°	204.0	120.9	53.9	39.3	33.5	27.7	24.8	27.7	32.1	33.5	33.5
77.5°	169.0	99.1	43.7	32.1	27.7	26.2	23.3	24.8	29.1	30.6	30.6
80°	154.4	69.9	35.0	29.1	24.8	23.3	21.9	20.4	26.2	27.7	27.7
82.5°	147.1	55.4	30.6	26.2	23.3	20.4	18.9	20.4	23.3	24.8	26.2
85°	91.8	36.4	27.7	24.8	20.4	18.9	18.9	18.9	21.9	23.3	23.3
87.5°	33.5	29.1	24.8	20.4	17.5	17.5	17.5	17.5	18.9	21.9	21.9
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)