

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: P299893

Luminaire Tested: **GLNA-AF-04-LED-E1-SL3-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299893  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)  
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-SL3-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16797.1 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

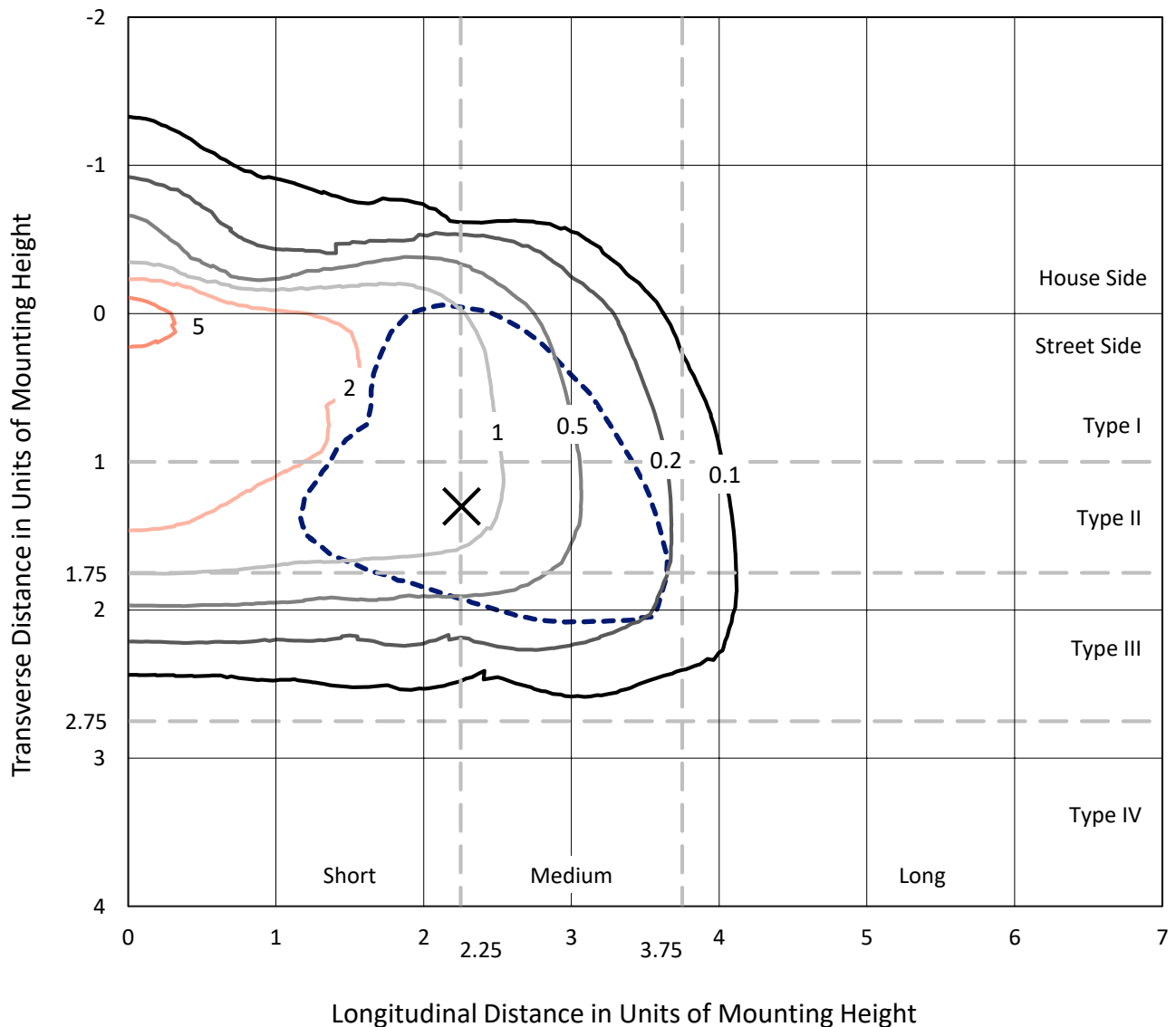
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

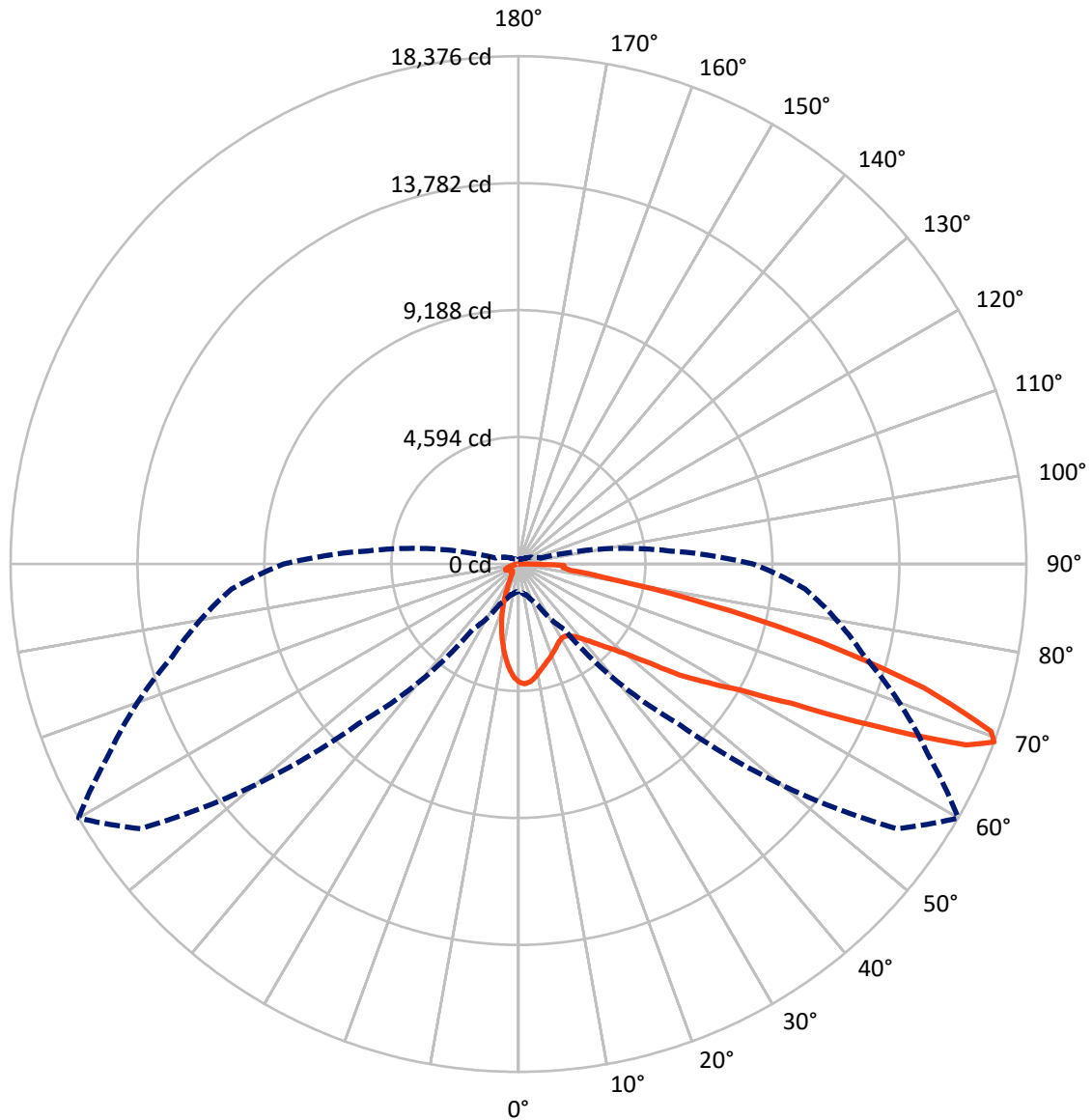
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2389.7	0.0	2389.7
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	14407.4	0.0	14407.4
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	16797.1	0.0	16797.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	361.9	2.2
10°-20°	771.1	4.6
20°-30°	982.5	5.8
30°-40°	1350.6	8.0
40°-50°	2191.5	13.0
50°-60°	3514.7	20.9
60°-70°	4677.8	27.8
70°-80°	2525.6	15.0
80°-90°	421.4	2.5
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°	16797.1	100.0
0°-180°	16797.1	100.0

**Coefficient of Utilization**



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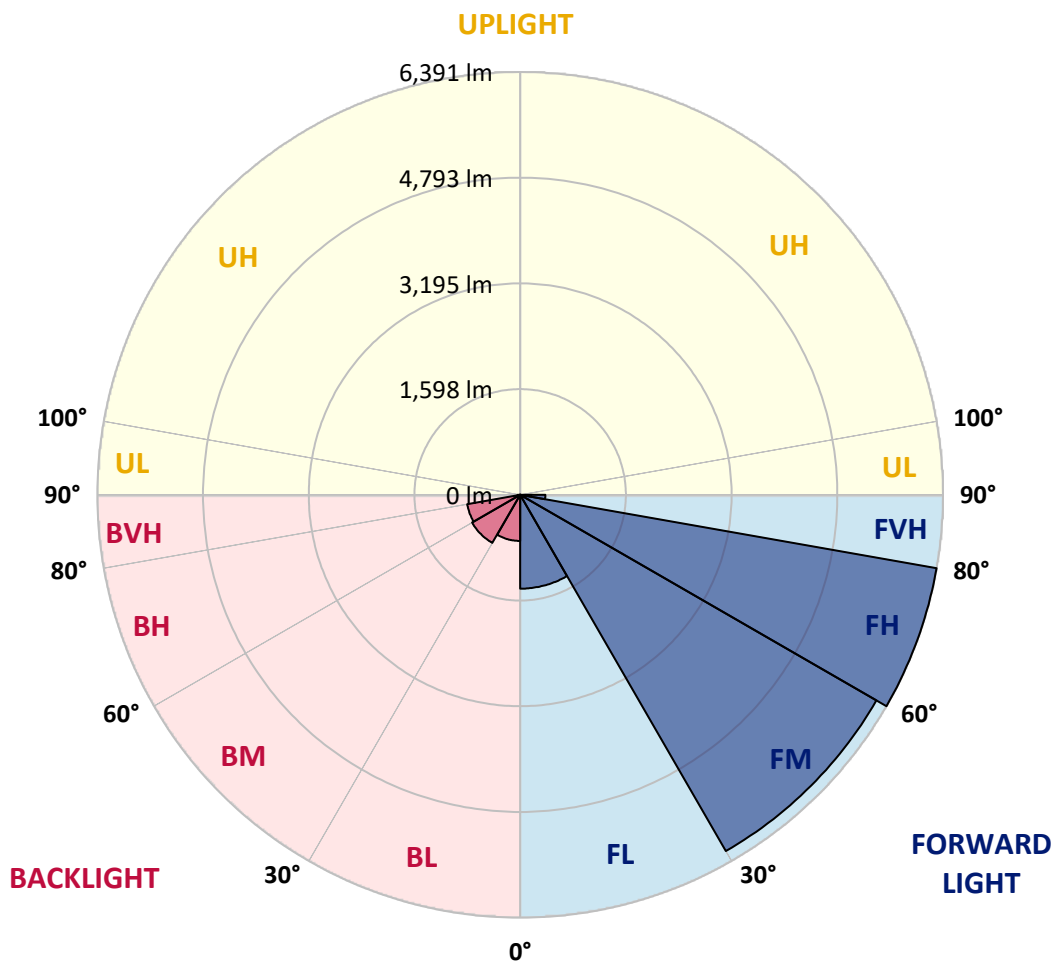
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1418.3	8.4			
FM (30°-60°)	6217.3	37.0			
FH (60°-80°)	6391.0	38.0			G3/7500
FVH (80°-90°)	380.8	2.3			G3/500
BL (0°-30°)	697.1	4.2	B2/1000		
BM (30°-60°)	839.5	5.0	B1/1000		
BH (60°-80°)	812.4	4.8	B2/1000		G2/1000
BVH (80°-90°)	40.6	0.2			G1/100
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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1
2.5°	4367.8	4377.5	4373.5	4371.0	4378.3	4367.0	4343.4	4336.1	4324.8	4298.0	4252.6
5°	4203.9	4233.1	4231.5	4253.4	4289.9	4299.6	4289.1	4290.7	4269.6	4236.3	4160.9
7.5°	3920.7	3932.9	3939.4	3987.2	4053.8	4107.3	4152.8	4167.4	4157.6	4129.2	4031.9
10°	3628.6	3638.3	3653.7	3709.7	3794.1	3868.0	3954.0	4003.5	4024.6	4019.7	3911.0
12.5°	3377.9	3387.6	3407.9	3471.2	3571.8	3662.7	3787.6	3849.3	3899.6	3929.6	3812.8
15°	3153.1	3174.2	3193.7	3266.7	3379.5	3498.8	3639.9	3717.8	3795.7	3863.1	3726.0
17.5°	2977.8	2998.9	3010.3	3076.8	3196.9	3343.0	3508.5	3600.2	3697.6	3807.9	3639.9
20°	2876.4	2886.2	2881.3	2918.6	3026.5	3181.5	3377.9	3484.2	3601.8	3756.0	3553.9
22.5°	2848.0	2848.8	2831.0	2826.9	2896.7	3027.3	3238.3	3367.3	3511.7	3721.9	3480.1
25°	2917.0	2914.6	2865.9	2826.1	2833.4	2909.7	3103.6	3253.7	3436.3	3714.6	3423.3
27.5°	3070.3	3077.6	3005.4	2930.8	2856.9	2854.5	3001.4	3159.6	3374.6	3747.9	3399.0
30°	3285.4	3297.5	3220.5	3125.5	2986.8	2872.4	2961.6	3103.6	3336.5	3816.8	3394.9
32.5°	3520.7	3533.7	3475.2	3375.4	3193.7	2982.7	2989.2	3108.5	3334.9	3913.4	3422.5
35°	3771.4	3786.0	3756.0	3671.6	3469.6	3186.4	3094.7	3187.2	3387.6	4061.1	3496.3
37.5°	4051.3	4074.0	4082.2	4001.8	3786.0	3454.9	3267.5	3336.5	3506.9	4266.4	3631.8
40°	4454.6	4486.2	4483.8	4368.6	4148.7	3817.6	3534.5	3552.3	3692.7	4540.6	3848.5
42.5°	5227.1	5233.5	5031.5	4780.8	4547.9	4199.0	3849.3	3834.7	3949.1	4887.9	4167.4
45°	6209.7	6182.9	5733.4	5249.0	4965.0	4637.2	4259.0	4187.6	4274.5	5311.4	4566.6
47.5°	7025.1	6963.5	6395.5	5726.9	5406.4	5113.5	4740.2	4615.3	4663.1	5791.8	5082.6
50°	7308.3	7262.0	6791.4	6124.5	5824.2	5694.4	5332.5	5155.6	5168.6	6364.6	5687.1
52.5°	7247.4	7240.9	6926.9	6386.5	6215.3	6304.6	6171.5	5932.2	5805.6	7000.8	6339.5
55°	7103.8	7117.6	7004.0	6691.6	6662.4	6893.7	7267.7	7090.8	6697.3	7642.6	7013.8
57.5°	6604.8	6640.5	6890.4	7075.4	7382.1	7726.2	8150.5	8100.2	7657.2	8336.3	7815.4
60°	5321.2	5403.9	6074.2	7000.8	8122.9	9198.9	9388.7	9271.9	8647.1	9197.2	8874.3
62.5°	3728.4	3814.4	4611.2	6061.2	8001.2	10862.2	11602.2	11098.4	10068.7	10465.5	10244.8
65°	1996.0	2037.4	2646.0	4205.5	6754.9	11205.5	14837.3	14070.5	12319.5	12029.0	11417.2
67.5°	1101.1	1123.8	1356.7	2123.4	4326.4	9867.5	16898.3	17477.6	15132.6	13070.1	11203.8
69°	995.6	1016.7	1169.2	1608.2	2895.1	8158.6	16697.0	18375.8	16366.0	12967.0	10415.2
70°	973.7	993.2	1130.3	1482.4	2343.3	6724.9	16022.8	18146.2	16659.7	12597.8	9727.1
72.5°	876.3	897.4	1030.5	1331.5	2002.5	3352.7	12691.9	15342.8	15125.3	10923.1	7378.1
75°	817.1	836.6	1062.1	1303.9	1917.3	2121.8	8367.2	11307.7	11118.6	7641.0	3978.3
77.5°	349.7	348.1	492.5	1103.5	1945.7	2054.5	4496.0	7064.1	6445.0	3265.9	1142.5
80°	233.7	229.6	233.7	324.6	1784.3	2065.8	2355.5	3585.6	2708.5	832.5	563.1
82.5°	201.2	198.0	205.3	198.0	627.2	2357.9	2002.5	1906.8	1287.7	473.0	279.1
85°	135.5	129.8	176.9	177.7	296.2	2095.0	2255.7	1610.6	1041.8	280.7	137.9
87.5°	64.9	63.3	103.0	125.8	173.6	851.2	2530.8	1650.4	1050.8	143.6	65.7
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°	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1	4280.1
2.5°	4238.8	4205.5	4173.0	4134.1	4093.5	4048.1	4025.4	4002.6	3997.0	3990.5	3967.8
5°	4121.9	4074.9	3993.7	3904.5	3810.3	3718.7	3648.9	3605.1	3571.8	3554.8	3524.7
7.5°	3971.0	3902.0	3760.0	3605.9	3447.6	3303.2	3178.3	3099.6	3024.9	2990.0	2950.3
10°	3827.4	3724.3	3503.6	3276.4	3049.2	2831.0	2625.7	2480.5	2351.4	2279.2	2228.1
12.5°	3704.0	3562.9	3257.0	2949.4	2637.9	2327.1	2019.6	1777.8	1575.7	1469.4	1415.1
15°	3584.0	3413.6	3022.5	2632.2	2232.2	1809.4	1405.3	1131.1	963.9	897.4	874.7
17.5°	3475.2	3257.0	2787.2	2312.5	1813.5	1302.3	944.5	793.6	729.5	707.5	700.2
20°	3357.6	3098.7	2542.9	1978.2	1376.9	910.4	737.6	671.0	645.1	638.6	635.3
22.5°	3244.0	2943.0	2309.2	1620.4	989.1	702.7	633.7	606.1	602.1	607.7	607.7
25°	3147.4	2803.4	2056.9	1246.3	726.2	591.5	567.2	560.7	576.1	597.2	601.2
27.5°	3075.2	2689.0	1788.3	920.1	578.5	514.4	513.6	524.2	562.3	602.9	611.0
30°	3025.7	2580.3	1501.1	663.7	485.2	452.8	465.7	488.5	544.5	602.1	617.5
32.5°	3000.6	2499.9	1201.7	513.6	415.4	397.6	419.5	447.1	502.3	555.8	576.1
35°	3020.0	2440.7	919.3	428.4	366.8	353.0	375.7	402.5	434.9	457.6	473.0
37.5°	3093.1	2417.2	693.7	383.8	333.5	320.5	338.4	353.8	366.8	373.2	380.5
40°	3250.5	2442.3	555.8	361.1	314.8	298.6	305.9	311.6	319.7	326.2	329.4
42.5°	3482.5	2517.8	498.2	352.1	305.1	281.6	279.9	282.4	292.9	305.1	307.5
45°	3807.1	2650.8	494.1	357.8	300.2	267.8	260.5	263.7	279.9	298.6	301.8
47.5°	4221.7	2853.7	526.6	374.9	304.3	260.5	248.3	252.3	272.6	297.8	301.8
50°	4724.0	3136.9	581.0	400.0	322.1	262.1	244.2	246.7	267.8	295.4	299.4
52.5°	5317.1	3538.5	640.2	424.4	340.8	272.6	247.5	241.8	261.3	285.6	290.5
55°	5976.8	4053.8	701.1	446.3	350.5	285.6	254.0	235.3	249.1	269.4	273.4
57.5°	6786.6	4774.3	806.5	467.4	357.0	294.5	260.5	228.8	233.7	248.3	251.5
60°	7882.8	5793.4	992.3	502.3	371.6	297.8	259.6	223.1	218.3	226.4	228.0
62.5°	9196.4	6900.2	1147.3	546.1	396.0	300.2	254.8	219.1	205.3	205.3	206.9
65°	9976.2	7196.3	1061.3	582.6	416.2	297.8	249.1	215.0	195.5	186.6	187.4
67.5°	9314.9	6328.9	909.6	589.9	415.4	286.4	240.2	207.7	185.8	172.0	171.2
69°	8486.5	5460.7	841.4	570.4	396.0	271.8	228.8	199.6	178.5	163.9	163.1
70°	7818.7	4930.9	796.8	549.3	374.9	261.3	219.9	192.3	172.8	159.0	157.4
72.5°	5684.7	3231.0	680.8	472.2	309.1	219.1	189.9	168.8	154.2	146.1	144.4
75°	2840.7	1540.9	552.6	383.0	236.9	175.3	155.8	141.2	133.9	132.3	131.4
77.5°	933.1	705.9	395.2	285.6	176.1	137.1	125.8	115.2	113.6	118.5	116.8
80°	512.8	410.6	250.7	189.1	120.1	100.6	99.0	93.3	95.7	103.9	102.2
82.5°	261.3	213.4	155.0	113.6	81.1	72.2	78.7	75.5	78.7	86.0	85.2
85°	129.0	116.8	98.2	69.0	53.6	46.2	56.0	58.4	60.0	65.7	65.7
87.5°	74.6	69.0	51.9	32.5	26.8	24.3	32.5	31.6	37.3	40.6	39.8
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)