

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: P299899

Luminaire Tested: **GLNA-AF-05-LED-E1-SL3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299899
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-05-LED-E1-SL3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 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: 20811.9 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

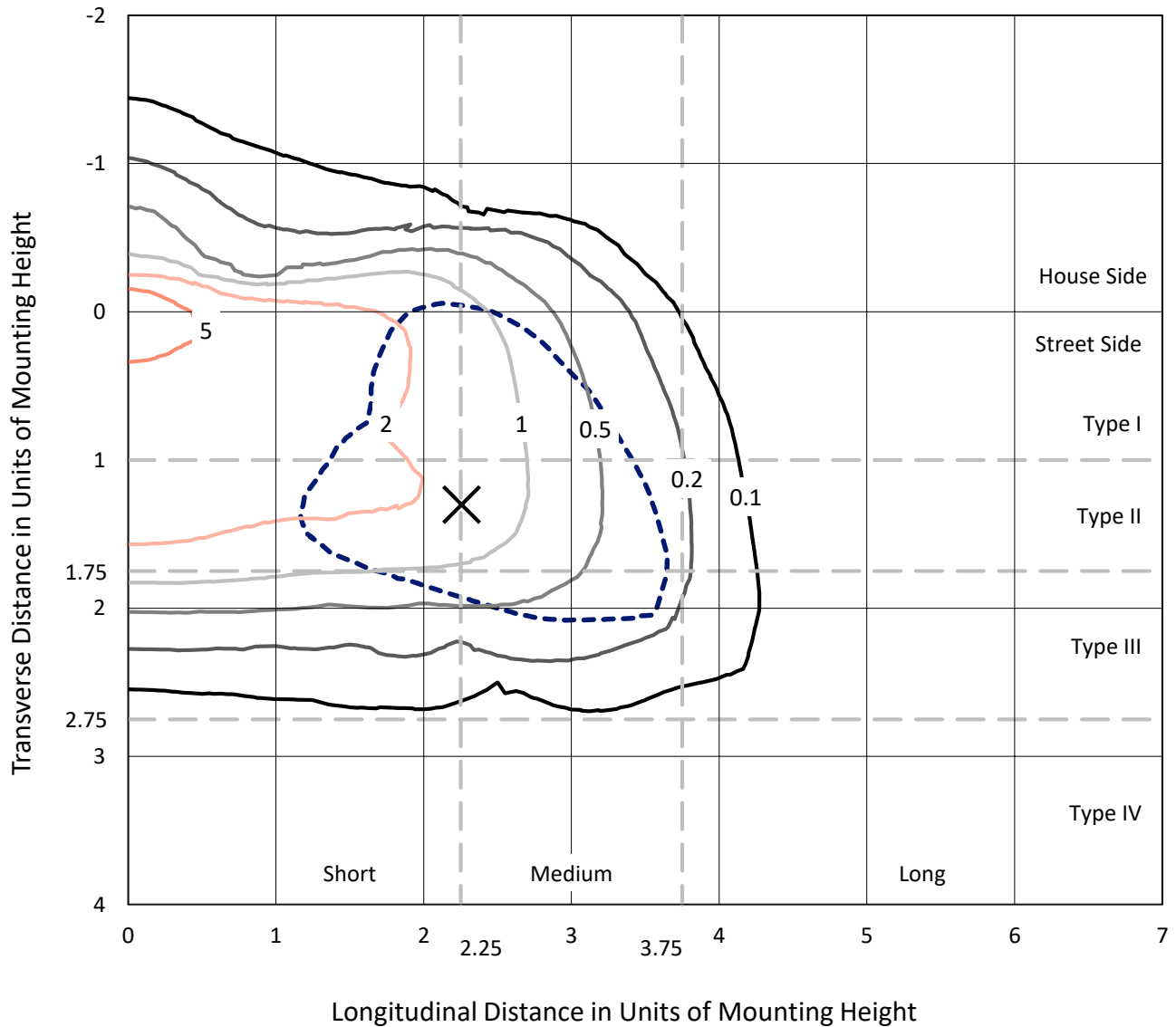
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

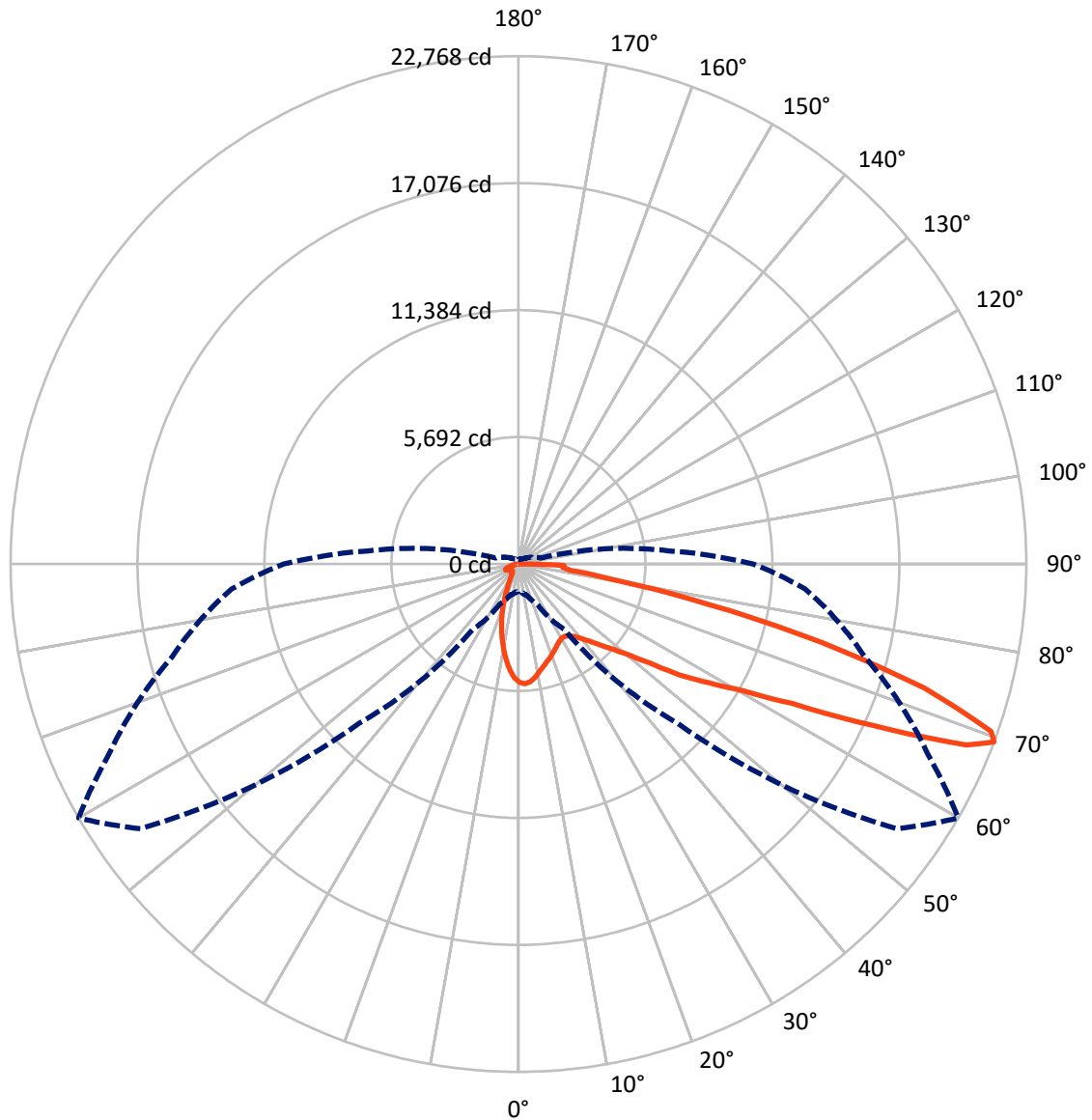
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 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
House Side	Lumens	2960.9	0.0	2960.9
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	17851.0	0.0	17851.0
	% Fixture	85.8	0.0	85.8
Total	Lumens	20811.9	0.0	20811.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	448.4	2.2
10°-20°	955.4	4.6
20°-30°	1217.3	5.8
30°-40°	1673.5	8.0
40°-50°	2715.4	13.0
50°-60°	4354.7	20.9
60°-70°	5795.8	27.8
70°-80°	3129.3	15.0
80°-90°	522.1	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°	20811.9	100.0
0°-180°	20811.9	100.0

Coefficient of Utilization



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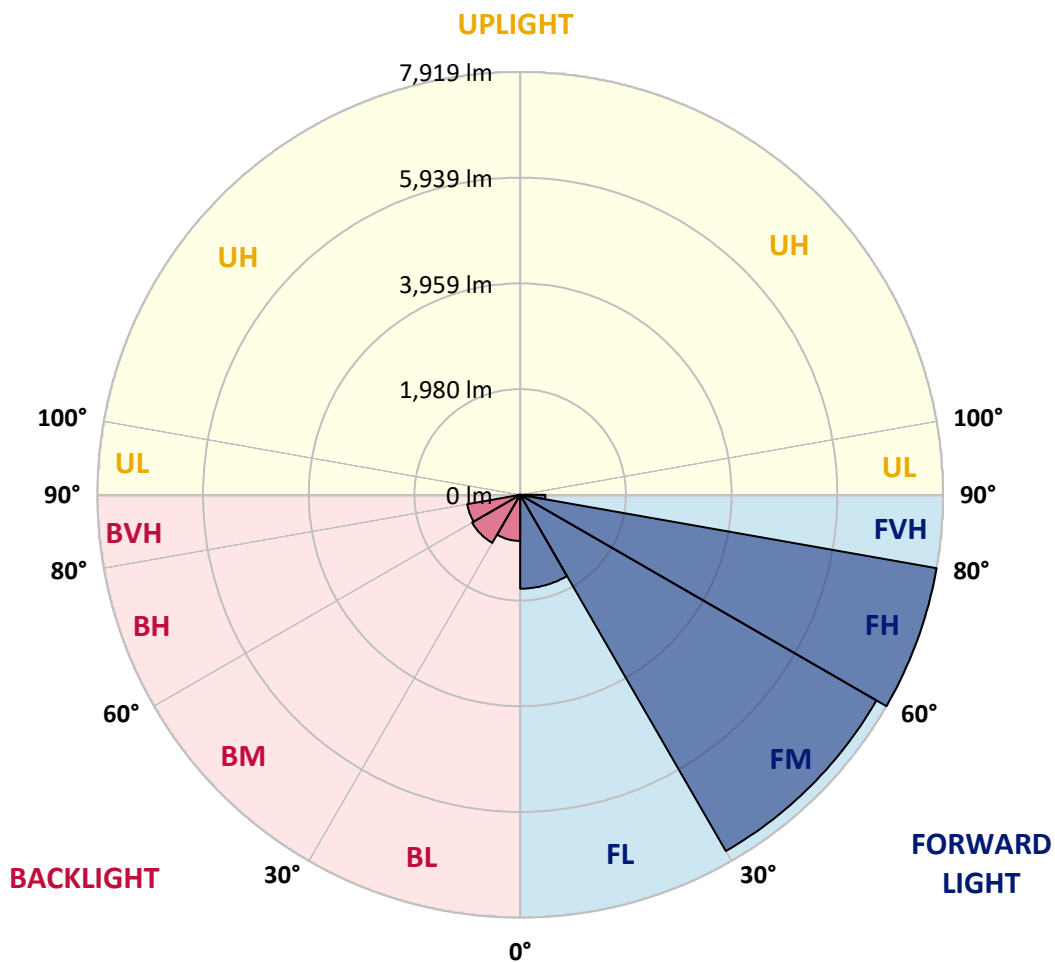
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1757.3	8.4			
FM (30°-60°)	7703.3	37.0			
FH (60°-80°)	7918.5	38.0			G4/12000
FVH (80°-90°)	471.9	2.3			G3/500
BL (0°-30°)	863.8	4.2	B2/1000		
BM (30°-60°)	1040.2	5.0	B2/2500		
BH (60°-80°)	1006.6	4.8	B3/2500		G3/2500
BVH (80°-90°)	50.3	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2
2.5°	5411.8	5423.8	5418.8	5415.8	5424.8	5410.8	5381.6	5372.5	5358.5	5325.3	5269.0
5°	5208.7	5244.9	5242.9	5270.0	5315.2	5327.3	5314.2	5316.2	5290.1	5248.9	5155.4
7.5°	4857.8	4872.9	4880.9	4940.3	5022.7	5089.0	5145.3	5163.4	5151.4	5116.2	4995.5
10°	4495.9	4508.0	4527.1	4596.4	4701.0	4792.5	4899.0	4960.4	4986.5	4980.5	4845.7
12.5°	4185.2	4197.3	4222.4	4300.9	4425.5	4538.1	4692.9	4769.3	4831.7	4868.9	4724.1
15°	3906.8	3932.9	3957.0	4047.5	4187.2	4335.0	4510.0	4606.5	4703.0	4786.4	4616.5
17.5°	3689.6	3715.7	3729.8	3812.3	3961.0	4142.0	4347.1	4460.7	4581.3	4718.1	4510.0
20°	3563.9	3576.0	3570.0	3616.2	3749.9	3941.9	4185.2	4316.9	4462.7	4653.7	4403.4
22.5°	3528.8	3529.8	3507.6	3502.6	3589.1	3750.9	4012.3	4172.2	4351.1	4611.5	4311.9
25°	3614.2	3611.2	3550.9	3501.6	3510.7	3605.2	3845.4	4031.4	4257.6	4602.5	4241.5
27.5°	3804.2	3813.3	3723.8	3631.3	3539.8	3536.8	3718.8	3914.8	4181.2	4643.7	4211.4
30°	4070.6	4085.7	3990.2	3872.6	3700.7	3558.9	3669.5	3845.4	4134.0	4729.1	4206.4
32.5°	4362.2	4378.3	4305.9	4182.2	3957.0	3695.6	3703.7	3851.5	4132.0	4848.8	4240.5
35°	4672.8	4690.9	4653.7	4549.2	4298.8	3948.0	3834.4	3949.0	4197.3	5031.7	4332.0
37.5°	5019.7	5047.8	5057.9	4958.3	4690.9	4280.7	4048.5	4134.0	4345.1	5286.1	4499.9
40°	5519.3	5558.5	5555.5	5412.8	5140.3	4730.1	4379.3	4401.4	4575.3	5625.9	4768.3
42.5°	6476.4	6484.5	6234.1	5923.5	5634.9	5202.6	4769.3	4751.2	4893.0	6056.2	5163.4
45°	7693.9	7660.7	7103.7	6503.6	6151.7	5745.5	5277.0	5188.6	5296.1	6581.0	5658.1
47.5°	8704.3	8627.8	7924.1	7095.7	6698.6	6335.7	5873.2	5718.4	5777.7	7176.1	6297.5
50°	9055.1	8997.8	8414.7	7588.3	7216.3	7055.5	6607.1	6387.9	6404.0	7885.9	7046.4
52.5°	8979.7	8971.7	8582.6	7913.0	7700.9	7811.5	7646.6	7350.1	7193.2	8674.1	7854.7
55°	8801.8	8818.9	8678.1	8291.1	8254.9	8541.4	9004.8	8785.7	8298.1	9469.3	8690.2
57.5°	8183.5	8227.7	8537.4	8766.6	9146.6	9572.9	10098.7	10036.3	9487.4	10328.9	9683.5
60°	6593.0	6695.6	7526.0	8674.1	10064.5	11397.6	11632.8	11488.0	10713.9	11395.6	10995.4
62.5°	4619.5	4726.1	5713.4	7509.9	9913.7	13458.5	14375.4	13751.1	12475.3	12966.9	12693.4
65°	2473.1	2524.4	3278.4	5210.7	8369.5	13883.8	18383.7	17433.6	15264.1	14904.2	14146.2
67.5°	1364.2	1392.4	1680.9	2631.0	5360.5	12226.0	20937.3	21655.1	18749.6	16194.0	13881.8
69°	1233.6	1259.7	1448.7	1992.6	3587.1	10108.7	20687.9	22768.0	20277.7	16066.4	12904.6
70°	1206.4	1230.5	1400.4	1836.8	2903.4	8332.3	19852.5	22483.5	20641.7	15608.9	12052.0
72.5°	1085.8	1111.9	1276.8	1649.8	2481.2	4154.1	15725.6	19010.0	18740.6	13533.9	9141.6
75°	1012.4	1036.5	1316.0	1615.6	2375.6	2629.0	10367.1	14010.4	13776.2	9467.3	4929.2
77.5°	433.3	431.3	610.2	1367.3	2410.8	2545.5	5570.6	8752.5	7985.4	4046.5	1415.5
80°	289.5	284.5	289.5	402.1	2210.7	2559.6	2918.5	4442.6	3355.8	1031.5	697.7
82.5°	249.3	245.3	254.4	245.3	777.1	2921.5	2481.2	2362.6	1595.5	586.1	345.8
85°	167.9	160.9	219.2	220.2	366.9	2595.8	2794.9	1995.6	1290.9	347.8	170.9
87.5°	80.4	78.4	127.7	155.8	215.1	1054.6	3135.7	2044.9	1301.9	177.9	81.4
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°	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2	5303.2
2.5°	5251.9	5210.7	5170.5	5122.2	5072.0	5015.7	4987.5	4959.4	4952.3	4944.3	4916.1
5°	5107.1	5048.8	4948.3	4837.7	4721.1	4607.5	4521.0	4466.7	4425.5	4404.4	4367.2
7.5°	4920.1	4834.7	4658.8	4467.7	4271.7	4092.7	3937.9	3840.4	3747.9	3704.7	3655.4
10°	4742.2	4614.5	4341.1	4059.6	3778.1	3507.6	3253.3	3073.3	2913.5	2824.0	2760.7
12.5°	4589.4	4414.5	4035.4	3654.4	3268.4	2883.3	2502.3	2202.7	1952.4	1820.7	1753.3
15°	4440.6	4229.5	3744.9	3261.3	2765.7	2241.9	1741.3	1401.4	1194.3	1111.9	1083.8
17.5°	4305.9	4035.4	3453.3	2865.2	2246.9	1613.6	1170.2	983.2	903.8	876.7	867.6
20°	4160.1	3839.4	3150.7	2451.0	1706.1	1128.0	913.9	831.4	799.2	791.2	787.2
22.5°	4019.4	3646.4	2861.2	2007.7	1225.5	870.6	785.2	751.0	746.0	753.0	753.0
25°	3899.7	3473.5	2548.5	1544.2	899.8	732.9	702.7	694.7	713.8	739.9	745.0
27.5°	3810.2	3331.7	2215.8	1140.1	716.8	637.4	636.4	649.5	696.7	747.0	757.0
30°	3748.9	3197.0	1859.9	822.4	601.2	561.0	577.1	605.2	674.6	746.0	765.1
32.5°	3717.8	3097.5	1488.9	636.4	514.7	492.6	519.8	553.9	622.3	688.7	713.8
35°	3741.9	3024.1	1139.1	530.8	454.4	437.3	465.5	498.6	538.9	567.0	586.1
37.5°	3832.4	2994.9	859.6	475.5	413.2	397.1	419.2	438.3	454.4	462.5	471.5
40°	4027.4	3026.1	688.7	447.4	390.1	370.0	379.0	386.1	396.1	404.1	408.2
42.5°	4314.9	3119.6	617.3	436.3	378.0	348.9	346.8	349.9	362.9	378.0	381.0
45°	4717.1	3284.5	612.3	443.4	372.0	331.8	322.7	326.7	346.8	370.0	374.0
47.5°	5230.8	3535.8	652.5	464.5	377.0	322.7	307.6	312.7	337.8	369.0	374.0
50°	5853.1	3886.7	719.8	495.6	399.1	324.7	302.6	305.6	331.8	365.9	371.0
52.5°	6588.0	4384.3	793.2	525.8	422.2	337.8	306.6	299.6	323.7	353.9	359.9
55°	7405.3	5022.7	868.6	552.9	434.3	353.9	314.7	291.5	308.6	333.8	338.8
57.5°	8408.7	5915.4	999.3	579.1	442.4	364.9	322.7	283.5	289.5	307.6	311.7
60°	9766.9	7178.1	1229.5	622.3	460.4	369.0	321.7	276.5	270.4	280.5	282.5
62.5°	11394.5	8549.4	1421.6	676.6	490.6	372.0	315.7	271.4	254.4	254.4	256.4
65°	12360.7	8916.4	1315.0	721.8	515.7	369.0	308.6	266.4	242.3	231.2	232.2
67.5°	11541.3	7841.7	1127.0	730.9	514.7	354.9	297.6	257.4	230.2	213.1	212.1
69°	10514.9	6766.0	1042.5	706.8	490.6	336.8	283.5	247.3	221.2	203.1	202.1
70°	9687.5	6109.5	987.2	680.6	464.5	323.7	272.4	238.3	214.1	197.0	195.0
72.5°	7043.4	4003.3	843.5	585.1	383.0	271.4	235.3	209.1	191.0	181.0	179.0
75°	3519.7	1909.1	684.6	474.5	293.6	217.2	193.0	174.9	165.9	163.9	162.9
77.5°	1156.1	874.6	489.6	353.9	218.2	169.9	155.8	142.8	140.7	146.8	144.8
80°	635.4	508.7	310.7	234.2	148.8	124.7	122.7	115.6	118.6	128.7	126.7
82.5°	323.7	264.4	192.0	140.7	100.5	89.5	97.5	93.5	97.5	106.6	105.6
85°	159.8	144.8	121.6	85.5	66.4	57.3	69.4	72.4	74.4	81.4	81.4
87.5°	92.5	85.5	64.3	40.2	33.2	30.2	40.2	39.2	46.2	50.3	49.3
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)