

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: P299494

Luminaire Tested: **GLNA-AF-07-LED-E1-5NQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299494
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-5NQ-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28511.8 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

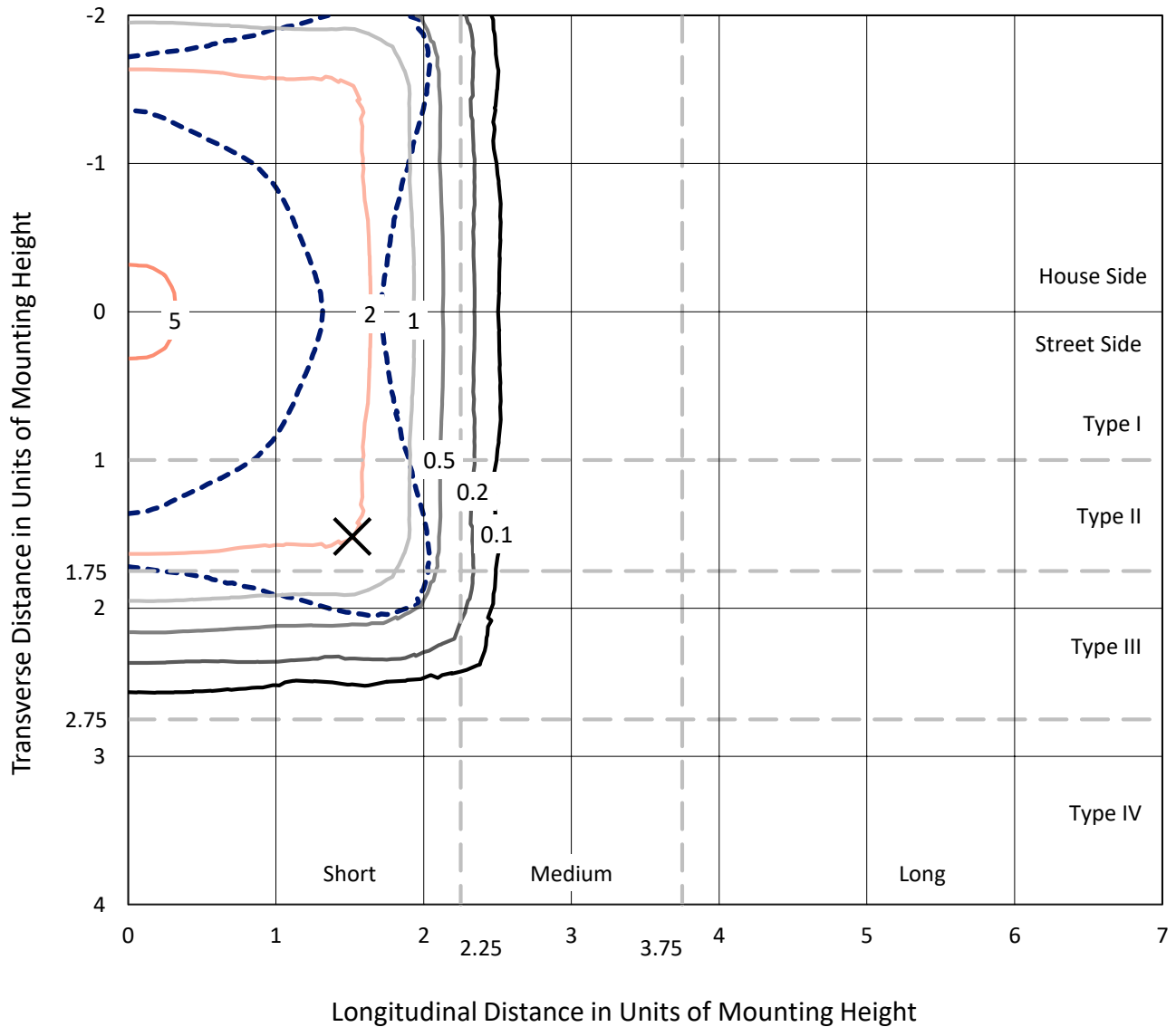
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299494
 CATALOG NUMBER: GLNA-AF-07-LED-E1-5NQ-600

Iso-Footcandle Lines of Horizontal Illumination

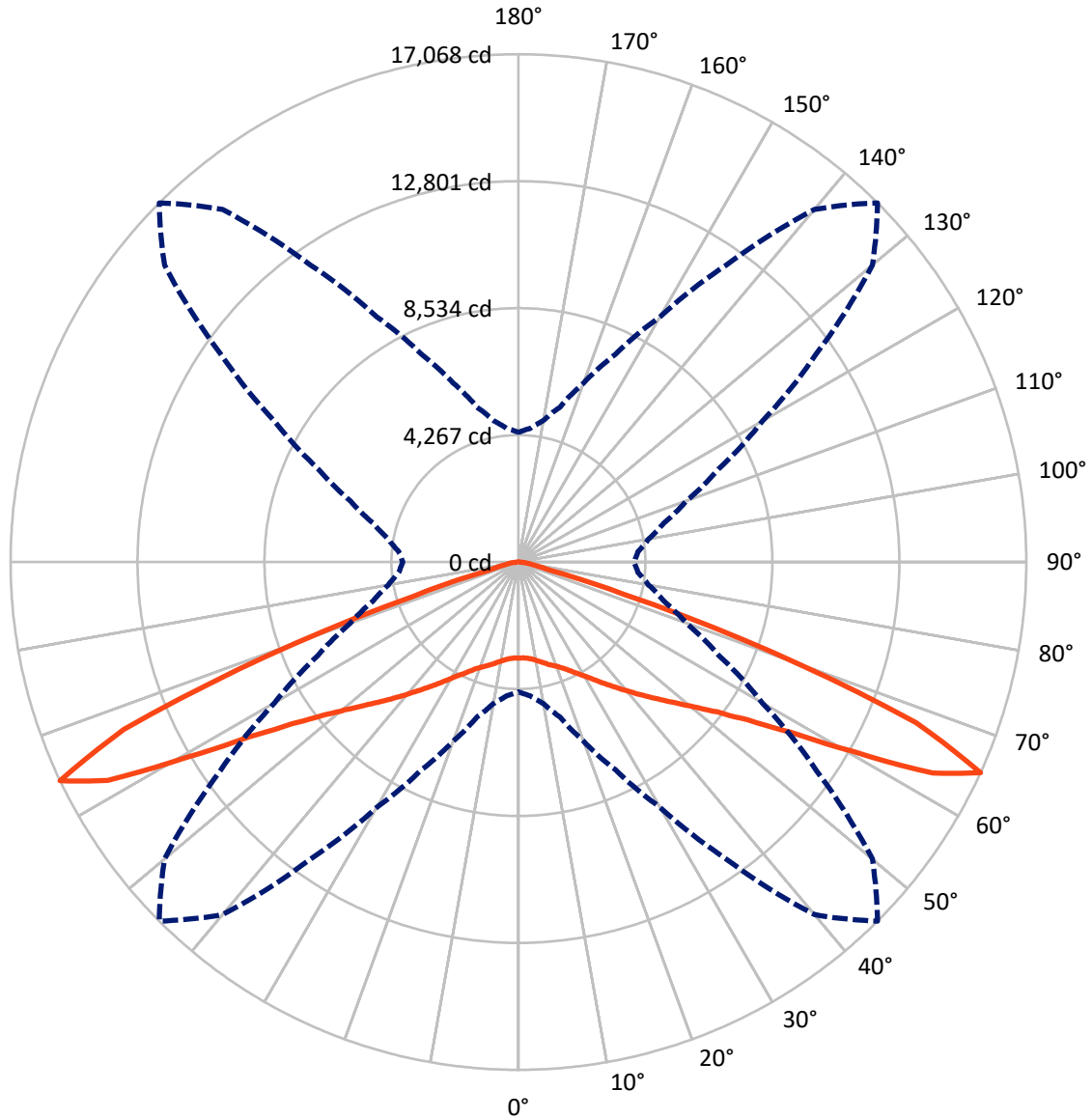
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P299494
CATALOG NUMBER: GLNA-AF-07-LED-E1-5NQ-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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CATALOG NUMBER: GLNA-AF-07-LED-E1-5NQ-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14255.9	0.0	14255.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14255.9	0.0	14255.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	28511.8	0.0	28511.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.4	1.1
10°-20°	1008.5	3.5
20°-30°	1885.7	6.6
30°-40°	3189.2	11.2
40°-50°	5214.7	18.3
50°-60°	8292.1	29.1
60°-70°	7495.5	26.3
70°-80°	948.6	3.3
80°-90°	163.2	0.6
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°	28511.8	100.0
0°-180°	28511.8	100.0



REPORT NUMBER: P299494

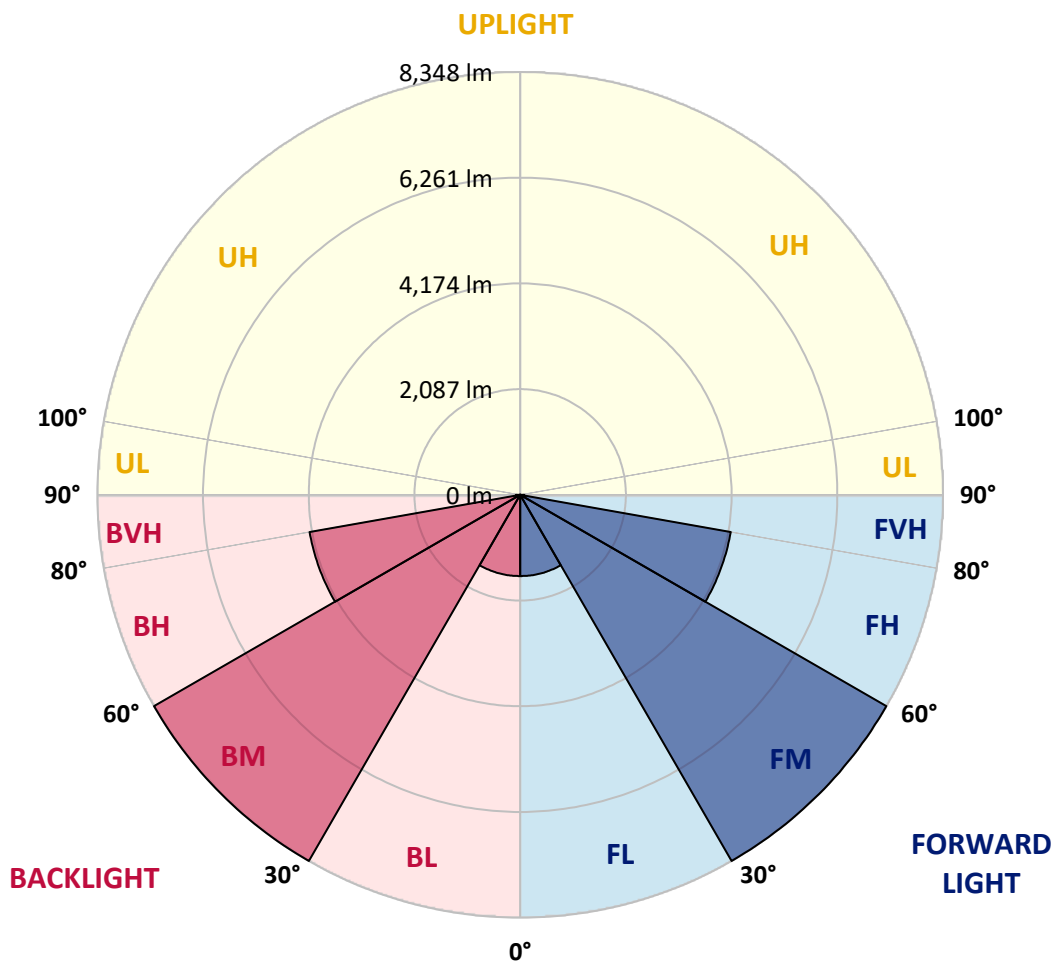
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1604.3	5.6			
FM	(30°-60°)	8348.0	29.3			
FH	(60°-80°)	4222.1	14.8			G2/5000
FVH	(80°-90°)	81.6	0.3			G1/100
BL	(0°-30°)	1604.3	5.6	B3/2500		
BM	(30°-60°)	8348.0	29.3	B4/8500		
BH	(60°-80°)	4222.1	14.8	B4/5000		G2/5000
BVH	(80°-90°)	81.6	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P299494

CATALOG NUMBER: GLNA-AF-07-LED-E1-5NQ-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1
2.5°	3228.8	3231.5	3234.1	3231.5	3234.1	3230.1	3227.5	3231.5	3227.5	3223.5	3226.1
5°	3256.8	3258.2	3258.2	3254.2	3258.2	3255.5	3251.5	3256.8	3252.8	3248.8	3251.5
7.5°	3303.6	3308.9	3304.9	3300.9	3303.6	3300.9	3298.2	3299.6	3298.2	3294.2	3295.6
10°	3366.3	3370.3	3367.7	3366.3	3369.0	3367.7	3365.0	3363.7	3365.0	3361.0	3361.0
12.5°	3442.5	3441.1	3439.8	3441.1	3445.1	3445.1	3443.8	3445.1	3447.8	3449.1	3446.5
15°	3517.2	3519.9	3519.9	3519.9	3527.9	3534.6	3538.6	3541.3	3546.6	3547.9	3542.6
17.5°	3610.7	3610.7	3609.4	3610.7	3618.7	3629.4	3633.4	3638.7	3644.1	3648.1	3641.4
20°	3714.9	3717.5	3717.5	3720.2	3730.9	3742.9	3742.9	3745.6	3742.9	3745.6	3741.6
22.5°	3841.7	3849.7	3849.7	3851.1	3861.7	3876.4	3872.4	3876.4	3869.8	3875.1	3869.8
25°	4007.3	4019.3	4016.6	4016.6	4024.6	4034.0	4035.3	4043.3	4042.0	4048.7	4044.7
27.5°	4194.2	4212.9	4218.3	4216.9	4222.3	4231.6	4234.3	4243.6	4238.3	4243.6	4241.0
30°	4418.6	4426.6	4437.3	4441.3	4447.9	4457.3	4457.3	4458.6	4452.0	4460.0	4464.0
32.5°	4650.9	4665.6	4676.3	4700.3	4712.3	4719.0	4717.7	4720.3	4713.7	4724.4	4732.4
35°	4958.0	4968.7	4986.1	5004.8	5020.8	5019.5	5015.5	5016.8	5016.8	5026.1	5034.1
37.5°	5327.9	5330.6	5353.3	5380.0	5388.0	5380.0	5356.0	5350.6	5338.6	5350.6	5364.0
40°	5719.2	5728.5	5773.9	5791.3	5795.3	5780.6	5745.9	5725.8	5699.1	5713.8	5732.5
42.5°	6129.1	6147.8	6189.2	6219.9	6233.3	6223.9	6175.8	6145.1	6110.4	6118.4	6137.1
45°	6583.1	6605.8	6664.6	6693.9	6719.3	6704.6	6657.9	6611.2	6556.4	6560.4	6589.8
47.5°	7090.5	7113.2	7189.4	7238.8	7252.1	7249.4	7197.4	7133.3	7058.5	7055.8	7081.2
50°	7659.4	7682.1	7776.9	7853.0	7891.7	7887.7	7826.3	7735.5	7644.7	7646.0	7678.1
52.5°	8214.9	8242.9	8341.7	8472.6	8548.7	8603.5	8566.1	8480.6	8369.8	8372.4	8401.8
55°	8735.7	8782.4	8895.9	9073.5	9215.0	9368.6	9412.7	9410.0	9343.2	9361.9	9391.3
57.5°	8988.0	9057.5	9232.4	9512.8	9801.2	10113.7	10378.1	10575.7	10659.8	10786.7	10757.3
60°	8510.0	8620.8	8878.5	9291.1	9861.3	10513.0	11211.3	11893.7	12475.9	12915.2	12662.8
62.5°	6967.7	7111.9	7424.4	7953.2	8815.8	9858.7	11195.3	12808.4	14565.6	15625.9	14868.8
65°	4359.8	4509.4	4827.2	5393.3	6402.9	7699.4	9512.8	12186.1	15469.7	17068.0	15527.1
67.5°	1699.9	1781.3	1953.6	2315.4	3073.9	4227.6	6047.7	9081.5	13008.7	14409.4	12767.0
70°	851.9	859.9	892.0	958.8	1121.7	1456.8	2216.6	4210.3	7460.4	9010.7	7192.0
72.5°	615.6	616.9	632.9	662.3	714.4	789.2	933.4	1288.6	2426.3	3708.2	2274.0
75°	471.4	476.7	486.1	502.1	530.1	567.5	619.6	742.4	920.0	1066.9	897.3
77.5°	363.2	373.9	380.6	395.3	412.6	438.0	452.7	499.4	580.9	611.6	602.2
80°	276.4	285.8	300.4	312.5	324.5	336.5	331.2	352.5	395.3	420.6	407.3
82.5°	176.3	186.9	229.7	240.4	245.7	253.7	244.4	245.7	264.4	280.4	264.4
85°	113.5	120.2	145.5	158.9	160.2	165.6	161.6	152.2	152.2	138.9	156.2
87.5°	52.1	53.4	65.4	77.4	80.1	72.1	70.8	68.1	54.7	52.1	56.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299494

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1	3226.1
2.5°	3224.8	3227.5	3228.8	3232.8	3234.1	3234.1	3235.5	3238.1
5°	3250.2	3254.2	3255.5	3260.8	3262.2	3260.8	3263.5	3264.9
7.5°	3295.6	3302.2	3304.9	3310.3	3306.2	3311.6	3312.9	3312.9
10°	3362.3	3369.0	3370.3	3375.7	3373.0	3375.7	3375.7	3373.0
12.5°	3450.5	3451.8	3447.8	3451.8	3446.5	3449.1	3445.1	3442.5
15°	3547.9	3543.9	3534.6	3534.6	3526.6	3527.9	3526.6	3525.2
17.5°	3642.7	3634.7	3628.1	3625.4	3618.7	3617.4	3613.4	3613.4
20°	3746.9	3742.9	3738.9	3733.5	3726.9	3720.2	3718.9	3721.5
22.5°	3872.4	3871.1	3871.1	3868.4	3859.1	3852.4	3848.4	3848.4
25°	4040.7	4028.7	4028.7	4027.3	4023.3	4019.3	4011.3	4015.3
27.5°	4230.3	4223.6	4229.0	4227.6	4223.6	4223.6	4218.3	4218.3
30°	4464.0	4461.3	4469.3	4462.6	4449.3	4447.9	4442.6	4435.9
32.5°	4733.7	4731.0	4743.0	4735.0	4713.7	4701.7	4691.0	4685.6
35°	5034.1	5035.5	5050.2	5044.8	5020.8	5012.8	4994.1	4991.4
37.5°	5362.6	5384.0	5409.4	5414.7	5394.7	5389.3	5369.3	5358.6
40°	5748.5	5776.6	5815.3	5824.7	5803.3	5799.3	5771.2	5756.6
42.5°	6159.8	6207.9	6256.0	6264.0	6242.6	6221.2	6194.5	6183.9
45°	6619.2	6676.6	6739.4	6755.4	6723.3	6698.0	6663.2	6663.2
47.5°	7134.6	7206.7	7277.5	7321.5	7292.2	7265.5	7224.1	7197.4
50°	7743.5	7842.3	7934.5	7979.9	7933.1	7882.4	7810.3	7786.2
52.5°	8507.3	8614.1	8694.3	8670.2	8598.1	8527.3	8448.6	8416.5
55°	9482.1	9518.1	9518.1	9427.3	9283.1	9164.3	9040.1	8998.7
57.5°	10701.2	10562.4	10348.7	10077.6	9737.1	9440.7	9240.4	9145.6
60°	12134.0	11466.4	10711.9	9970.8	9361.9	8859.8	8562.1	8425.9
62.5°	13088.8	11342.2	9830.6	8640.8	7764.9	7160.0	6748.7	6588.5
65°	12232.8	9459.4	7435.1	6011.6	5056.8	4441.3	4034.0	3884.4
67.5°	8960.0	5927.5	3959.2	2837.6	2079.1	1658.5	1491.6	1422.1
70°	4022.0	2087.1	1279.2	998.8	861.3	790.5	759.8	749.1
72.5°	1212.5	877.3	739.8	667.7	612.9	578.2	552.8	550.2
75°	731.8	608.9	540.8	498.1	463.4	435.3	422.0	418.0
77.5°	511.4	447.3	415.3	384.6	357.9	336.5	324.5	315.1
80°	359.2	328.5	313.8	296.4	279.1	259.1	241.7	233.7
82.5°	240.4	233.7	233.7	223.0	208.3	189.6	154.9	146.9
85°	154.9	153.6	156.2	152.2	141.5	121.5	100.1	94.8
87.5°	72.1	73.4	81.5	80.1	77.4	64.1	50.7	48.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)