

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: P299362

Luminaire Tested: **GLNA-AF-05-LED-E1-5NQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299362
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-05-LED-E1-5NQ
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30582.6 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G2

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

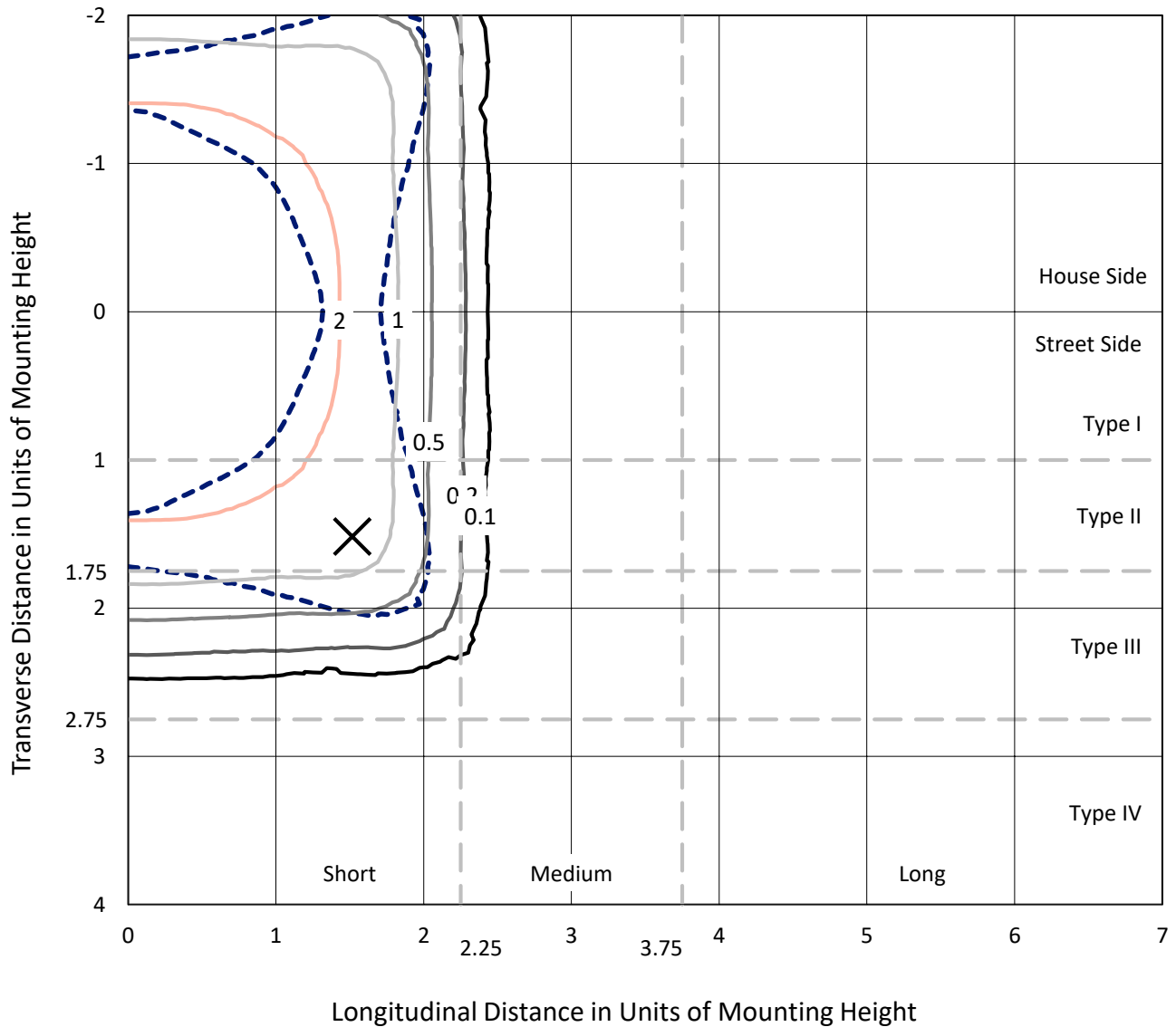


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

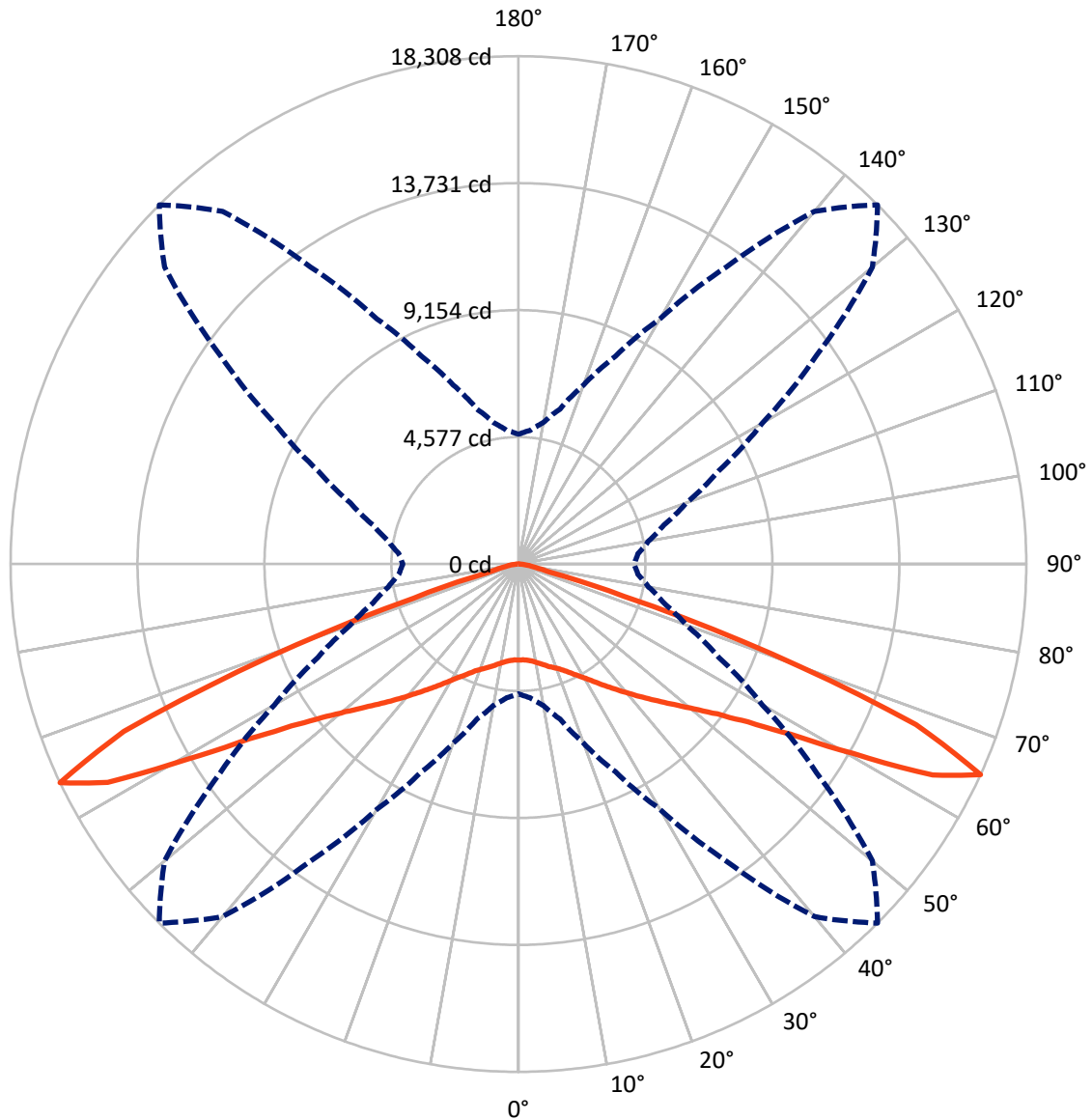


Based on 30 foot mounting height. Maximum calculated value = 3.8 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15291.3	0.0	15291.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15291.3	0.0	15291.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	30582.6	0.0	30582.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.3	1.1
10°-20°	1081.7	3.5
20°-30°	2022.6	6.6
30°-40°	3420.8	11.2
40°-50°	5593.4	18.3
50°-60°	8894.4	29.1
60°-70°	8039.9	26.3
70°-80°	1017.5	3.3
80°-90°	175.0	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°	30582.6	100.0
0°-180°	30582.6	100.0

Coefficient of Utilization



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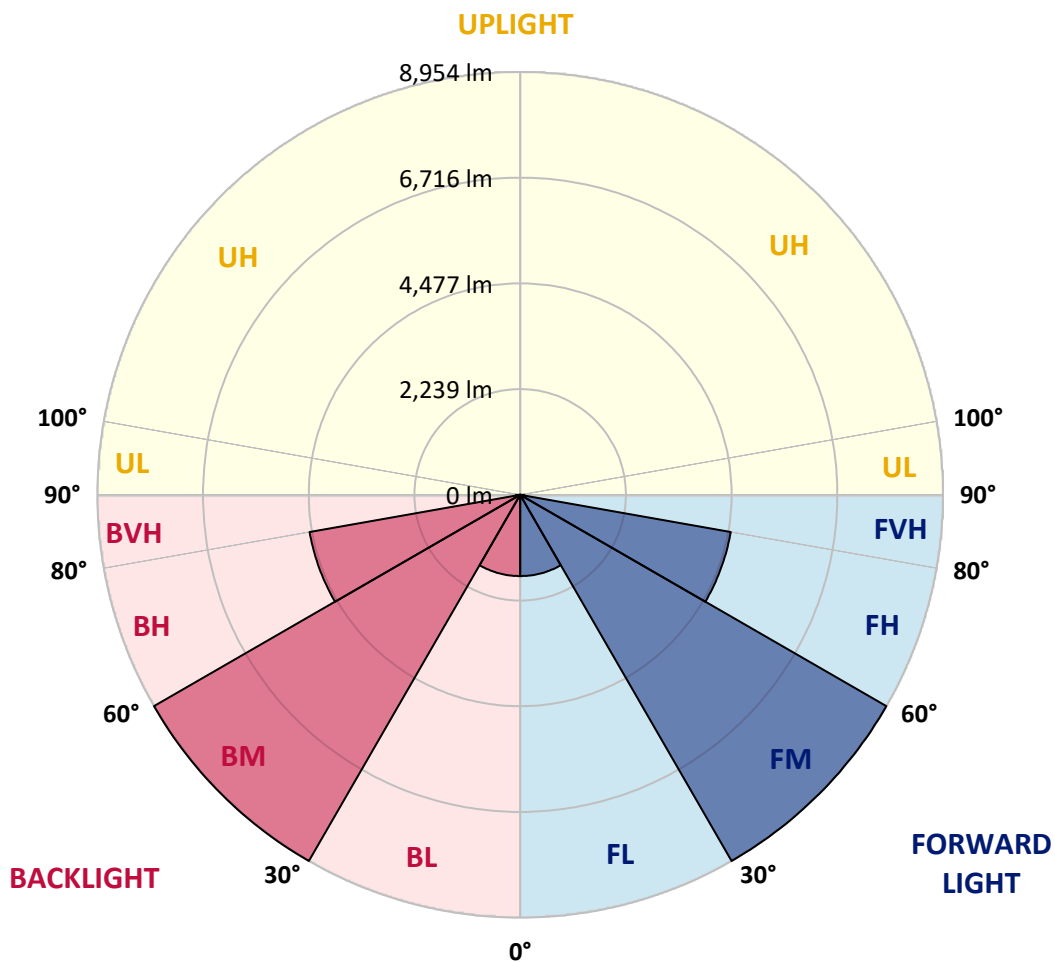
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1720.8	5.6			
FM	(30°-60°)	8954.3	29.3			
FH	(60°-80°)	4528.7	14.8			G2/5000
FVH	(80°-90°)	87.5	0.3			G1/100
BL	(0°-30°)	1720.8	5.6	B3/2500		
BM	(30°-60°)	8954.3	29.3	B5		
BH	(60°-80°)	4528.7	14.8	B4/5000		G2/5000
BVH	(80°-90°)	87.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4
2.5°	3463.3	3466.2	3469.0	3466.2	3469.0	3464.7	3461.9	3466.2	3461.9	3457.6	3460.4
5°	3493.4	3494.8	3494.8	3490.5	3494.8	3492.0	3487.7	3493.4	3489.1	3484.8	3487.7
7.5°	3543.5	3549.2	3544.9	3540.7	3543.5	3540.7	3537.8	3539.2	3537.8	3533.5	3534.9
10°	3610.8	3615.1	3612.3	3610.8	3613.7	3612.3	3609.4	3608.0	3609.4	3605.1	3605.1
12.5°	3692.5	3691.0	3689.6	3691.0	3695.3	3695.3	3693.9	3695.3	3698.2	3699.6	3696.8
15°	3772.7	3775.5	3775.5	3775.5	3784.1	3791.3	3795.6	3798.5	3804.2	3805.6	3799.9
17.5°	3872.9	3872.9	3871.5	3872.9	3881.5	3893.0	3897.3	3903.0	3908.8	3913.0	3905.9
20°	3984.7	3987.5	3987.5	3990.4	4001.9	4014.7	4014.7	4017.6	4014.7	4017.6	4013.3
22.5°	4120.7	4129.3	4129.3	4130.8	4142.2	4158.0	4153.7	4158.0	4150.8	4156.5	4150.8
25°	4298.3	4311.2	4308.4	4308.4	4317.0	4327.0	4328.4	4337.0	4335.6	4342.7	4338.4
27.5°	4498.9	4518.9	4524.6	4523.2	4528.9	4539.0	4541.8	4551.9	4546.1	4551.9	4549.0
30°	4739.5	4748.1	4759.5	4763.8	4771.0	4781.0	4781.0	4782.5	4775.3	4783.9	4788.2
32.5°	4988.7	5004.5	5015.9	5041.7	5054.6	5061.8	5060.3	5063.2	5056.0	5067.5	5076.1
35°	5318.1	5329.6	5348.2	5368.3	5385.5	5384.0	5379.7	5381.2	5381.2	5391.2	5399.8
37.5°	5714.9	5717.8	5742.1	5770.7	5779.3	5770.7	5745.0	5739.2	5726.3	5739.2	5753.6
40°	6134.6	6144.6	6193.3	6211.9	6216.2	6200.4	6163.2	6141.7	6113.1	6128.8	6148.9
42.5°	6574.3	6594.3	6638.7	6671.7	6686.0	6676.0	6624.4	6591.5	6554.2	6562.8	6582.9
45°	7061.2	7085.6	7148.6	7180.1	7207.3	7191.6	7141.5	7091.3	7032.6	7036.9	7068.4
47.5°	7605.5	7629.9	7711.5	7764.5	7778.8	7776.0	7720.1	7651.4	7571.1	7568.3	7595.5
50°	8215.7	8240.0	8341.7	8423.4	8464.9	8460.6	8394.7	8297.3	8199.9	8201.4	8235.7
52.5°	8811.5	8841.6	8947.6	9088.0	9169.6	9228.3	9188.2	9096.6	8977.7	8980.5	9012.0
55°	9370.1	9420.3	9542.0	9732.5	9884.3	10049.0	10096.3	10093.4	10021.8	10041.9	10073.4
57.5°	9640.8	9715.3	9902.9	10203.7	10513.1	10848.3	11131.9	11343.8	11434.1	11570.1	11538.6
60°	9128.1	9246.9	9523.4	9966.0	10577.6	11276.5	12025.6	12757.5	13382.0	13853.2	13582.5
62.5°	7473.8	7628.4	7963.6	8530.8	9456.1	10574.7	12008.4	13738.6	15623.6	16760.8	15948.7
65°	4676.5	4836.9	5177.8	5785.1	6867.9	8258.7	10203.7	13071.2	16593.2	18307.7	16654.8
67.5°	1823.3	1910.7	2095.5	2483.6	3297.2	4534.7	6486.9	9741.1	13953.5	15456.0	13694.2
70°	913.8	922.4	956.8	1028.4	1203.1	1562.6	2377.6	4516.0	8002.3	9665.2	7714.4
72.5°	660.3	661.7	678.9	710.4	766.3	846.5	1001.2	1382.2	2602.5	3977.5	2439.2
75°	505.6	511.3	521.4	538.5	568.6	608.7	664.6	796.4	986.9	1144.4	962.5
77.5°	389.6	401.0	408.2	424.0	442.6	469.8	485.6	535.7	623.1	656.0	646.0
80°	296.5	306.5	322.3	335.2	348.0	360.9	355.2	378.1	424.0	451.2	436.9
82.5°	189.1	200.5	246.4	257.8	263.5	272.1	262.1	263.5	283.6	300.8	283.6
85°	121.7	128.9	156.1	170.4	171.9	177.6	173.3	163.3	163.3	149.0	167.6
87.5°	55.9	57.3	70.2	83.1	85.9	77.3	75.9	73.0	58.7	55.9	60.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4	3460.4
2.5°	3459.0	3461.9	3463.3	3467.6	3469.0	3469.0	3470.5	3473.3
5°	3486.2	3490.5	3492.0	3497.7	3499.1	3497.7	3500.5	3502.0
7.5°	3534.9	3542.1	3544.9	3550.7	3546.4	3552.1	3553.5	3553.5
10°	3606.5	3613.7	3615.1	3620.9	3618.0	3620.9	3620.9	3618.0
12.5°	3701.1	3702.5	3698.2	3702.5	3696.8	3699.6	3695.3	3692.5
15°	3805.6	3801.3	3791.3	3791.3	3782.7	3784.1	3782.7	3781.3
17.5°	3907.3	3898.7	3891.6	3888.7	3881.5	3880.1	3875.8	3875.8
20°	4019.0	4014.7	4010.4	4004.7	3997.6	3990.4	3989.0	3991.8
22.5°	4153.7	4152.2	4152.2	4149.4	4139.4	4132.2	4127.9	4127.9
25°	4334.1	4321.3	4321.3	4319.8	4315.5	4311.2	4302.6	4306.9
27.5°	4537.5	4530.4	4536.1	4534.7	4530.4	4530.4	4524.6	4524.6
30°	4788.2	4785.3	4793.9	4786.8	4772.4	4771.0	4765.3	4758.1
32.5°	5077.5	5074.6	5087.5	5078.9	5056.0	5043.1	5031.7	5025.9
35°	5399.8	5401.2	5417.0	5411.2	5385.5	5376.9	5356.8	5353.9
37.5°	5752.1	5775.0	5802.3	5808.0	5786.5	5780.8	5759.3	5747.8
40°	6166.1	6196.1	6237.7	6247.7	6224.8	6220.5	6190.4	6174.7
42.5°	6607.2	6658.8	6710.3	6718.9	6696.0	6673.1	6644.4	6633.0
45°	7099.9	7161.5	7228.8	7246.0	7211.6	7184.4	7147.2	7147.2
47.5°	7652.8	7730.1	7806.0	7853.3	7821.8	7793.2	7748.8	7720.1
50°	8305.9	8411.9	8510.7	8559.4	8509.3	8454.9	8377.5	8351.8
52.5°	9125.2	9239.8	9325.7	9299.9	9222.6	9146.7	9062.2	9027.8
55°	10170.8	10209.4	10209.4	10112.1	9957.4	9829.9	9696.7	9652.3
57.5°	11478.5	11329.5	11100.3	10809.6	10444.3	10126.4	9911.5	9809.8
60°	13015.3	12299.2	11489.9	10695.0	10041.9	9503.3	9183.9	9037.8
62.5°	14039.4	12166.0	10544.6	9268.4	8328.8	7680.0	7238.9	7067.0
65°	13121.3	10146.4	7975.1	6448.2	5424.1	4763.8	4327.0	4166.6
67.5°	9610.7	6358.0	4246.8	3043.6	2230.1	1778.9	1599.9	1525.4
70°	4314.1	2238.7	1372.1	1071.4	923.8	847.9	815.0	803.5
72.5°	1300.5	941.0	793.5	716.2	657.4	620.2	593.0	590.1
75°	784.9	653.1	580.1	534.2	497.0	466.9	452.6	448.3
77.5°	548.6	479.8	445.4	412.5	383.9	360.9	348.0	338.0
80°	385.3	352.3	336.6	318.0	299.4	277.9	259.2	250.7
82.5°	257.8	250.7	250.7	239.2	223.4	203.4	166.1	157.6
85°	166.1	164.7	167.6	163.3	151.8	130.3	107.4	101.7
87.5°	77.3	78.8	87.4	85.9	83.1	68.8	54.4	51.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)