

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: P299504

Luminaire Tested: **GLNA-AF-09-LED-E1-5NQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299504
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-09-LED-E1-5NQ-7030-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 34857.3 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 290
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

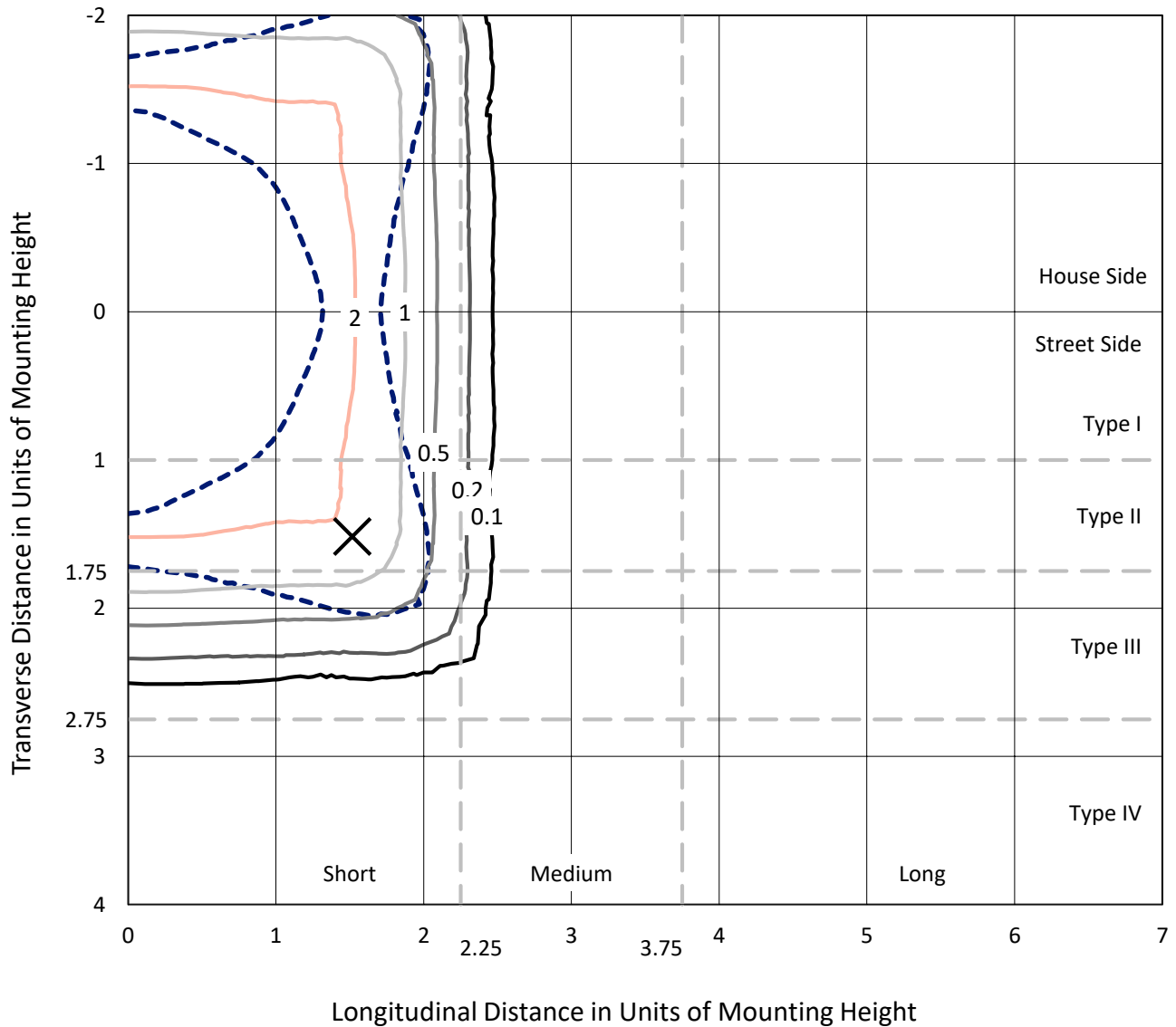


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Iso-Footcandle Lines of Horizontal Illumination

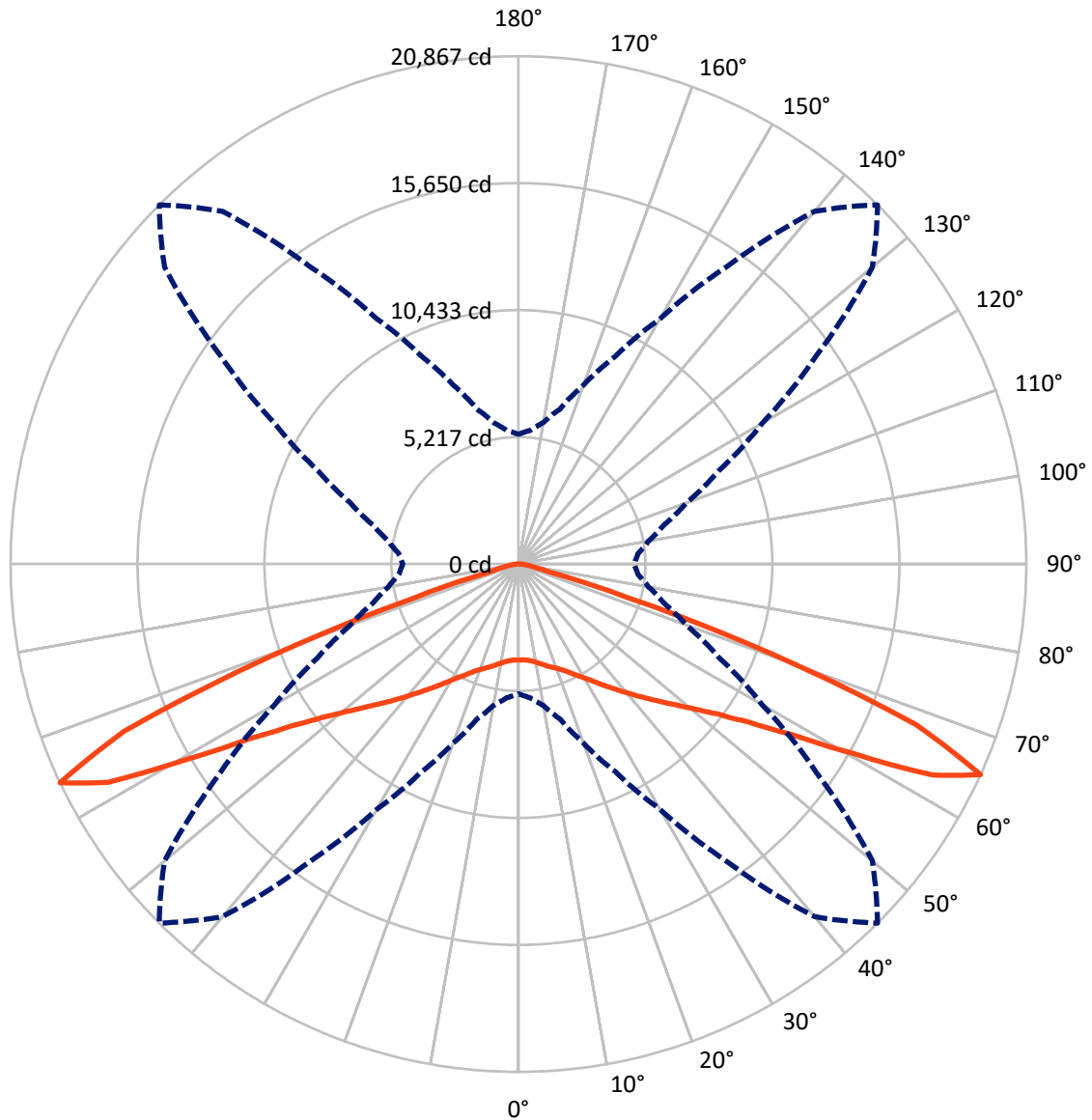
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 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	17428.6	0.0	17428.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17428.6	0.0	17428.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	34857.3	0.0	34857.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.4	1.1
10°-20°	1232.9	3.5
20°-30°	2305.3	6.6
30°-40°	3898.9	11.2
40°-50°	6375.2	18.3
50°-60°	10137.6	29.1
60°-70°	9163.7	26.3
70°-80°	1159.7	3.3
80°-90°	199.5	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°	34857.3	100.0
0°-180°	34857.3	100.0



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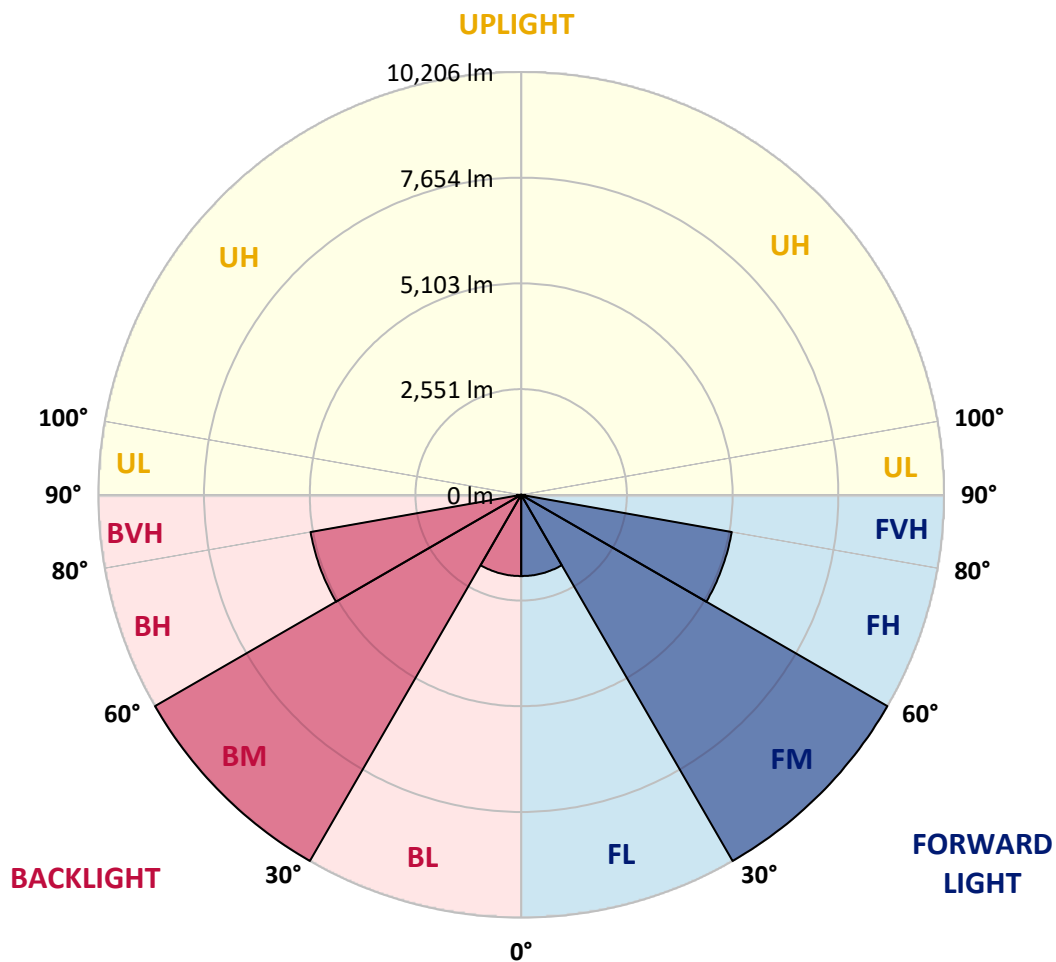
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1961.3	5.6			
FM	(30°-60°)	10205.9	29.3			
FH	(60°-80°)	5161.7	14.8			G3/7500
FVH	(80°-90°)	99.7	0.3			G1/100
BL	(0°-30°)	1961.3	5.6	B3/2500		
BM	(30°-60°)	10205.9	29.3	B5		
BH	(60°-80°)	5161.7	14.8	B5		G3/7500
BVH	(80°-90°)	99.7	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-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1
2.5°	3947.4	3950.6	3953.9	3950.6	3953.9	3949.0	3945.8	3950.6	3945.8	3940.9	3944.1
5°	3981.7	3983.3	3983.3	3978.4	3983.3	3980.0	3975.1	3981.7	3976.8	3971.9	3975.1
7.5°	4038.8	4045.3	4040.4	4035.5	4038.8	4035.5	4032.3	4033.9	4032.3	4027.4	4029.0
10°	4115.5	4120.4	4117.2	4115.5	4118.8	4117.2	4113.9	4112.3	4113.9	4109.0	4109.0
12.5°	4208.6	4207.0	4205.3	4207.0	4211.8	4211.8	4210.2	4211.8	4215.1	4216.7	4213.5
15°	4300.0	4303.3	4303.3	4303.3	4313.1	4321.2	4326.1	4329.4	4335.9	4337.6	4331.0
17.5°	4414.3	4414.3	4412.6	4414.3	4424.1	4437.1	4442.0	4448.6	4455.1	4460.0	4451.8
20°	4541.6	4544.9	4544.9	4548.1	4561.2	4575.9	4575.9	4579.2	4575.9	4579.2	4574.3
22.5°	4696.7	4706.5	4706.5	4708.1	4721.2	4739.1	4734.2	4739.1	4731.0	4737.5	4731.0
25°	4899.1	4913.8	4910.6	4910.6	4920.4	4931.8	4933.4	4943.2	4941.6	4949.7	4944.8
27.5°	5127.7	5150.5	5157.1	5155.4	5162.0	5173.4	5176.7	5188.1	5181.6	5188.1	5184.8
30°	5401.9	5411.7	5424.8	5429.7	5437.9	5449.3	5449.3	5450.9	5442.8	5452.5	5457.4
32.5°	5686.0	5704.0	5717.0	5746.4	5761.1	5769.3	5767.6	5770.9	5762.7	5775.8	5785.6
35°	6061.5	6074.5	6095.8	6118.6	6138.2	6136.6	6131.7	6133.3	6133.3	6144.7	6154.5
37.5°	6513.7	6516.9	6544.7	6577.3	6587.1	6577.3	6548.0	6541.4	6526.7	6541.4	6557.8
40°	6992.0	7003.4	7058.9	7080.1	7085.0	7067.1	7024.6	7000.2	6967.5	6985.5	7008.3
42.5°	7493.2	7516.0	7566.6	7604.2	7620.5	7609.1	7550.3	7512.8	7470.3	7480.1	7503.0
45°	8048.2	8076.0	8147.8	8183.7	8214.7	8196.8	8139.6	8082.5	8015.6	8020.5	8056.4
47.5°	8668.6	8696.3	8789.4	8849.8	8866.1	8862.8	8799.2	8720.8	8629.4	8626.1	8657.1
50°	9364.0	9391.8	9507.7	9600.7	9648.1	9643.2	9568.1	9457.1	9346.1	9347.7	9386.9
52.5°	10043.1	10077.4	10198.2	10358.2	10451.3	10518.2	10472.5	10368.0	10232.5	10235.8	10271.7
55°	10679.8	10736.9	10875.7	11092.8	11265.9	11453.6	11507.5	11504.2	11422.6	11445.5	11481.4
57.5°	10988.4	11073.2	11287.1	11629.9	11982.5	12364.6	12687.8	12929.4	13032.2	13187.3	13151.4
60°	10403.9	10539.4	10854.5	11358.9	12056.0	12852.7	13706.5	14540.7	15252.4	15789.5	15481.0
62.5°	8518.4	8694.7	9076.7	9723.2	10777.8	12052.7	13686.9	15658.9	17807.3	19103.5	18177.9
65°	5330.1	5513.0	5901.5	6593.7	7827.8	9413.0	11629.9	14898.2	18912.5	20866.6	18982.7
67.5°	2078.2	2177.8	2388.3	2830.8	3758.0	5168.5	7393.6	11102.6	15903.8	17616.3	15608.3
70°	1041.5	1051.3	1090.5	1172.1	1371.3	1781.1	2709.9	5147.3	9120.8	11016.1	8792.6
72.5°	752.6	754.2	773.8	809.7	873.4	964.8	1141.1	1575.4	2966.3	4533.5	2780.1
75°	576.3	582.8	594.2	613.8	648.1	693.8	757.5	907.7	1124.8	1304.4	1097.0
77.5°	444.0	457.1	465.3	483.2	504.4	535.5	553.4	610.6	710.1	747.7	736.3
80°	337.9	349.4	367.3	382.0	396.7	411.4	404.9	431.0	483.2	514.2	497.9
82.5°	215.5	228.5	280.8	293.8	300.4	310.2	298.7	300.4	323.2	342.8	323.2
85°	138.8	146.9	177.9	194.3	195.9	202.4	197.5	186.1	186.1	169.8	191.0
87.5°	63.7	65.3	80.0	94.7	97.9	88.2	86.5	83.3	66.9	63.7	68.6
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°	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1	3944.1
2.5°	3942.5	3945.8	3947.4	3952.3	3953.9	3953.9	3955.5	3958.8
5°	3973.5	3978.4	3980.0	3986.6	3988.2	3986.6	3989.8	3991.5
7.5°	4029.0	4037.2	4040.4	4047.0	4042.1	4048.6	4050.2	4050.2
10°	4110.6	4118.8	4120.4	4127.0	4123.7	4127.0	4127.0	4123.7
12.5°	4218.4	4220.0	4215.1	4220.0	4213.5	4216.7	4211.8	4208.6
15°	4337.6	4332.7	4321.2	4321.2	4311.4	4313.1	4311.4	4309.8
17.5°	4453.5	4443.7	4435.5	4432.2	4424.1	4422.4	4417.5	4417.5
20°	4580.8	4575.9	4571.0	4564.5	4556.3	4548.1	4546.5	4549.8
22.5°	4734.2	4732.6	4732.6	4729.4	4717.9	4709.8	4704.9	4704.9
25°	4939.9	4925.3	4925.3	4923.6	4918.7	4913.8	4904.0	4908.9
27.5°	5171.8	5163.6	5170.1	5168.5	5163.6	5163.6	5157.1	5157.1
30°	5457.4	5454.2	5464.0	5455.8	5439.5	5437.9	5431.3	5423.2
32.5°	5787.2	5783.9	5798.6	5788.8	5762.7	5748.0	5735.0	5728.4
35°	6154.5	6156.2	6174.1	6167.6	6138.2	6128.4	6105.5	6102.3
37.5°	6556.1	6582.2	6613.3	6619.8	6595.3	6588.8	6564.3	6551.2
40°	7027.9	7062.2	7109.5	7121.0	7094.8	7089.9	7055.7	7037.7
42.5°	7530.7	7589.5	7648.3	7658.1	7631.9	7605.8	7573.2	7560.1
45°	8092.3	8162.5	8239.2	8258.8	8219.6	8188.6	8146.2	8146.2
47.5°	8722.4	8810.6	8897.1	8951.0	8915.1	8882.4	8831.8	8799.2
50°	9466.9	9587.7	9700.3	9755.8	9698.7	9636.6	9548.5	9519.1
52.5°	10400.7	10531.3	10629.2	10599.8	10511.7	10425.1	10328.8	10289.6
55°	11592.4	11636.5	11636.5	11525.4	11349.1	11203.8	11052.0	11001.4
57.5°	13082.9	12913.1	12651.9	12320.5	11904.2	11541.8	11296.9	11181.0
60°	14834.5	14018.3	13095.9	12189.9	11445.5	10831.6	10467.6	10301.1
62.5°	16001.8	13866.4	12018.5	10563.9	9493.0	8753.5	8250.7	8054.8
65°	14955.3	11564.6	9089.8	7349.5	6182.3	5429.7	4931.8	4748.9
67.5°	10954.1	7246.7	4840.4	3469.1	2541.8	2027.6	1823.5	1738.6
70°	4917.1	2551.6	1563.9	1221.1	1053.0	966.4	928.9	915.8
72.5°	1482.3	1072.6	904.4	816.2	749.3	706.9	675.9	672.6
75°	894.6	744.4	661.2	608.9	566.5	532.2	515.9	511.0
77.5°	625.2	546.9	507.7	470.2	437.5	411.4	396.7	385.3
80°	439.1	401.6	383.6	362.4	341.2	316.7	295.5	285.7
82.5°	293.8	285.7	285.7	272.6	254.7	231.8	189.4	179.6
85°	189.4	187.7	191.0	186.1	173.0	148.6	122.4	115.9
87.5°	88.2	89.8	99.6	97.9	94.7	78.4	62.0	58.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)