

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: P299624

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299624
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
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-E1-5MQ-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53888.7 lumens
Efficiency: N/A
Efficacy: 107.6 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 - G5

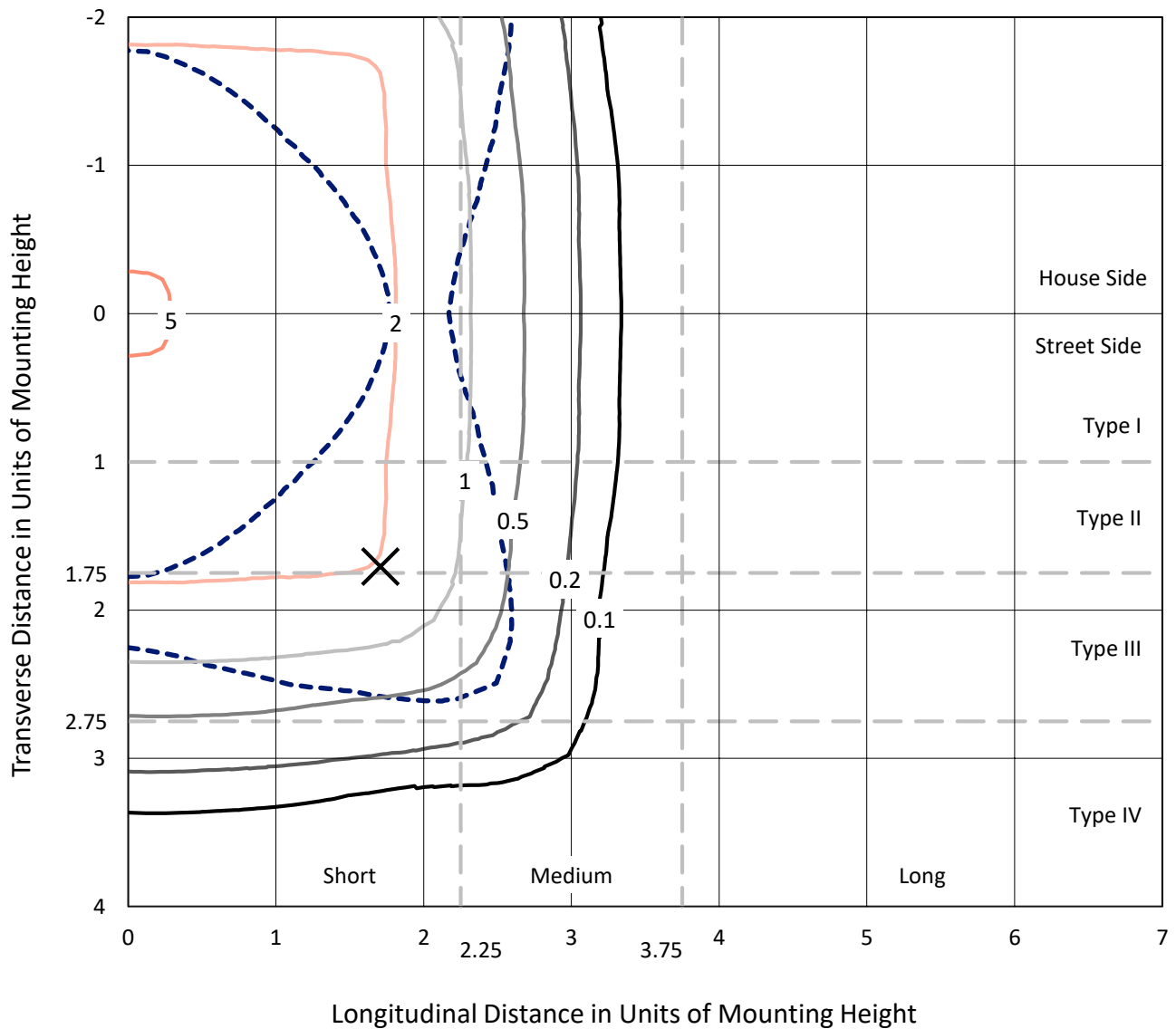
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

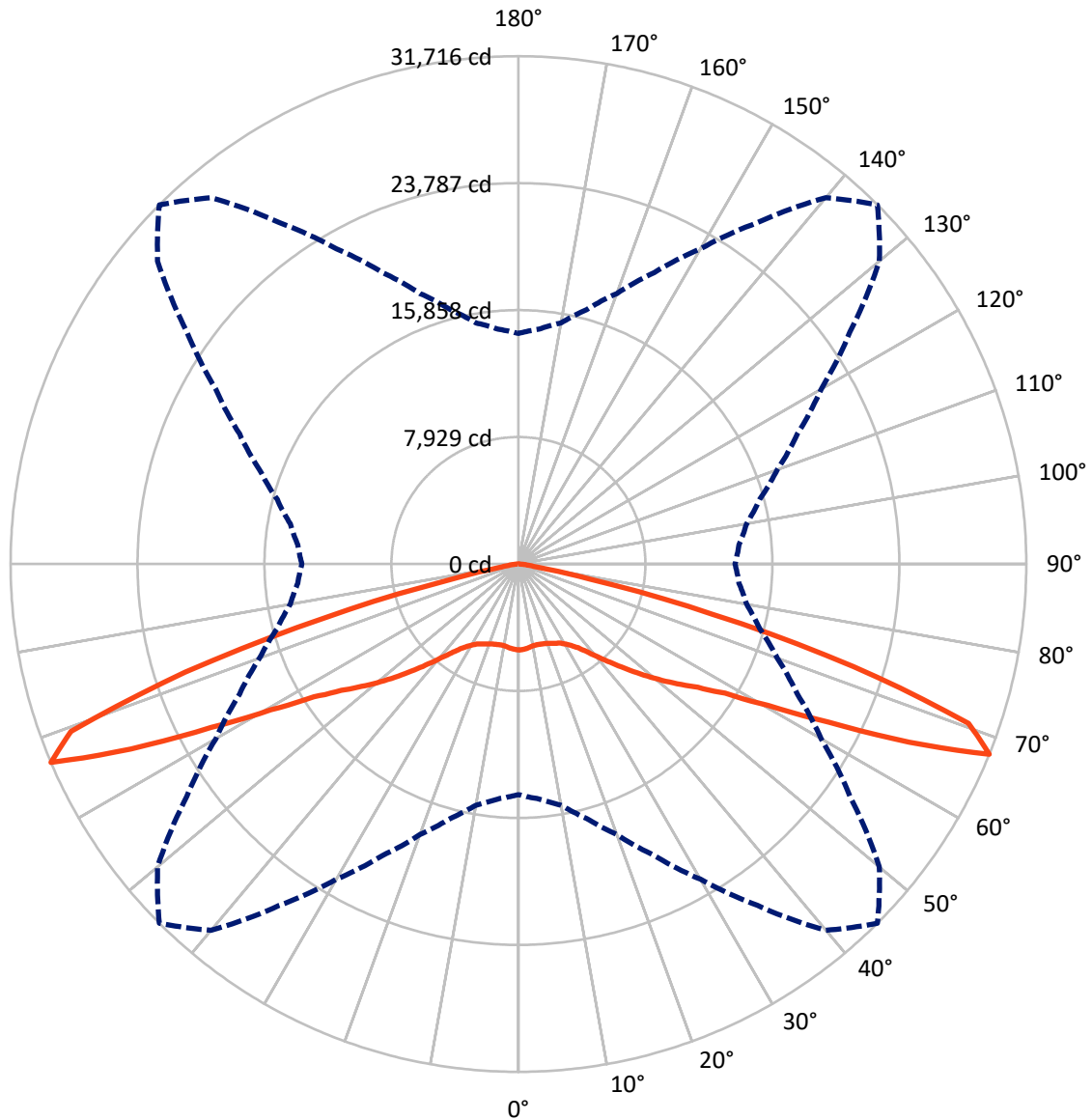
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	26944.3	0.0	26944.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	26944.3	0.0	26944.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	53888.7	0.0	53888.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	502.6	0.9
10°-20°	1458.5	2.7
20°-30°	2479.5	4.6
30°-40°	4053.2	7.5
40°-50°	7235.7	13.4
50°-60°	12199.5	22.6
60°-70°	18931.9	35.1
70°-80°	6651.8	12.3
80°-90°	375.9	0.7
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°	53888.7	100.0
0°-180°	53888.7	100.0



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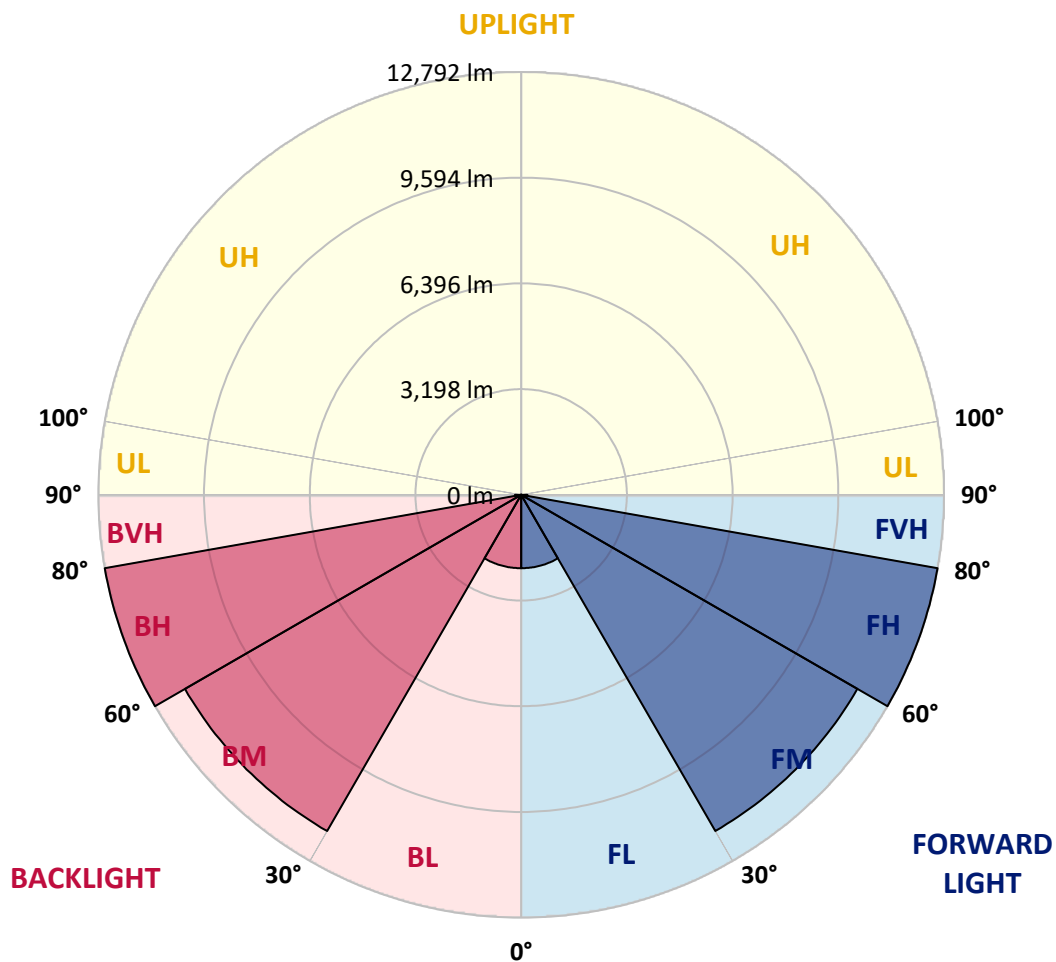
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2220.3	4.1			
FM	(30°-60°)	11744.2	21.8			
FH	(60°-80°)	12791.9	23.7			G5
FVH	(80°-90°)	188.0	0.3			G2/225
BL	(0°-30°)	2220.3	4.1	B3/2500		
BM	(30°-60°)	11744.2	21.8	B5		
BH	(60°-80°)	12791.9	23.7	B5		G5
BVH	(80°-90°)	188.0	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2
2.5°	5350.4	5355.4	5355.4	5355.4	5352.9	5352.9	5347.9	5352.9	5350.4	5343.0	5345.5
5°	5305.8	5310.8	5310.8	5308.3	5315.7	5313.2	5305.8	5310.8	5308.3	5303.3	5305.8
7.5°	5241.4	5248.8	5248.8	5246.3	5253.8	5251.3	5246.3	5248.8	5248.8	5241.4	5241.4
10°	5169.5	5174.5	5174.5	5172.0	5184.4	5184.4	5181.9	5189.3	5191.8	5184.4	5179.4
12.5°	5102.6	5110.0	5110.0	5119.9	5132.3	5137.3	5149.7	5159.6	5169.5	5167.0	5157.1
15°	5062.9	5067.9	5077.8	5090.2	5110.0	5127.4	5147.2	5169.5	5189.3	5194.3	5179.4
17.5°	5038.2	5045.6	5060.5	5077.8	5105.1	5134.8	5164.5	5194.3	5221.5	5231.5	5214.1
20°	5030.7	5035.7	5050.5	5080.3	5117.5	5162.1	5204.2	5238.9	5276.1	5288.5	5276.1
22.5°	5045.6	5055.5	5072.9	5107.5	5157.1	5214.1	5263.7	5310.8	5357.8	5380.1	5362.8
25°	5112.5	5122.4	5144.7	5189.3	5243.8	5303.3	5360.3	5414.8	5457.0	5479.3	5466.9
27.5°	5236.4	5248.8	5276.1	5320.7	5380.1	5444.6	5506.5	5551.1	5585.8	5593.3	5578.4
30°	5422.3	5449.5	5481.8	5531.3	5600.7	5655.2	5717.2	5756.8	5799.0	5799.0	5786.6
32.5°	5712.2	5739.5	5774.2	5821.3	5875.8	5935.3	5989.8	6024.5	6069.1	6071.6	6041.8
35°	6145.9	6158.3	6188.0	6217.8	6267.3	6319.4	6366.5	6388.8	6425.9	6428.4	6401.2
37.5°	6718.4	6720.8	6740.7	6750.6	6795.2	6852.2	6896.8	6911.7	6946.4	6941.4	6914.1
40°	7385.0	7397.4	7404.8	7419.7	7466.8	7521.3	7568.4	7575.8	7613.0	7605.6	7570.9
42.5°	8155.7	8160.7	8202.8	8225.1	8269.7	8297.0	8356.4	8363.9	8408.5	8388.7	8349.0
45°	9020.6	9065.2	9104.9	9149.5	9196.6	9228.8	9275.9	9265.9	9295.7	9265.9	9243.6
47.5°	9930.1	9962.3	10051.5	10120.9	10197.7	10225.0	10291.9	10262.2	10291.9	10249.8	10242.4
50°	10931.3	10988.3	11065.1	11144.4	11226.2	11270.8	11357.5	11320.4	11360.0	11320.4	11298.1
52.5°	11917.6	11932.5	12101.0	12217.5	12331.5	12383.5	12435.5	12418.2	12420.7	12418.2	12395.9
55°	12854.4	12889.1	13057.6	13216.2	13414.4	13560.6	13649.9	13639.9	13617.6	13595.3	13558.2
57.5°	13910.1	13944.8	14138.1	14333.8	14559.4	14767.5	14948.4	15134.3	15206.2	15226.0	15144.2
60°	15337.5	15335.0	15592.8	15830.7	16152.8	16462.6	16859.1	17263.1	17726.5	17942.1	17657.1
62.5°	16789.7	16849.2	17220.9	17642.2	18306.4	18953.2	19684.2	20402.9	21136.5	21733.7	21099.3
65°	16616.2	16844.2	17396.9	18351.0	19577.7	21034.9	22611.0	24278.8	25785.5	26821.4	25659.2
67.5°	14400.7	14725.4	15287.9	16447.7	17981.7	20083.2	22729.9	26028.4	29862.2	31715.8	29418.6
70°	10438.1	10804.9	11394.7	12527.2	14046.4	16043.8	18918.5	22878.6	27954.0	29822.5	27292.3
72.5°	5194.3	5392.5	5756.8	6478.0	7627.9	9248.6	11855.7	15662.1	20152.6	21867.5	19555.4
75°	1764.5	1856.2	1918.1	2153.5	2517.8	3154.7	4450.8	6847.2	10445.6	12522.3	10296.9
77.5°	1018.5	1021.0	1063.1	1105.3	1167.2	1236.6	1410.1	1851.2	3201.8	4547.5	3313.3
80°	659.2	656.7	691.4	723.6	765.8	800.5	810.4	857.5	988.8	1172.2	1048.3
82.5°	342.0	384.1	460.9	503.1	582.4	597.2	577.4	560.1	592.3	614.6	629.5
85°	188.3	163.6	245.3	317.2	351.9	356.9	356.9	337.0	349.4	342.0	371.7
87.5°	86.7	79.3	96.6	156.1	166.0	141.3	148.7	131.3	94.2	91.7	104.1
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°	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2	5370.2
2.5°	5345.5	5347.9	5347.9	5355.4	5357.8	5362.8	5367.8	5370.2
5°	5303.3	5310.8	5305.8	5313.2	5313.2	5318.2	5318.2	5320.7
7.5°	5241.4	5248.8	5248.8	5248.8	5246.3	5253.8	5253.8	5253.8
10°	5176.9	5181.9	5179.4	5174.5	5169.5	5176.9	5174.5	5172.0
12.5°	5157.1	5144.7	5134.8	5129.8	5119.9	5122.4	5115.0	5115.0
15°	5169.5	5147.2	5129.8	5122.4	5112.5	5107.5	5102.6	5105.1
17.5°	5201.7	5174.5	5152.2	5139.8	5127.4	5119.9	5110.0	5112.5
20°	5258.7	5226.5	5194.3	5169.5	5147.2	5134.8	5127.4	5124.9
22.5°	5343.0	5295.9	5248.8	5211.6	5181.9	5164.5	5157.1	5152.2
25°	5439.6	5387.6	5333.1	5290.9	5261.2	5238.9	5224.0	5224.0
27.5°	5561.1	5518.9	5469.4	5419.8	5392.5	5370.2	5360.3	5355.4
30°	5764.3	5724.6	5685.0	5637.9	5603.2	5580.9	5563.5	5548.7
32.5°	6024.5	5992.3	5960.0	5925.3	5893.1	5863.4	5836.1	5823.7
35°	6391.2	6366.5	6344.2	6304.5	6292.1	6274.8	6259.9	6247.5
37.5°	6896.8	6886.9	6886.9	6844.8	6834.8	6827.4	6812.5	6815.0
40°	7561.0	7570.9	7558.5	7543.6	7536.2	7516.3	7516.3	7533.7
42.5°	8346.5	8354.0	8381.2	8356.4	8383.7	8358.9	8344.1	8356.4
45°	9258.5	9285.8	9340.3	9315.5	9332.9	9290.7	9238.7	9241.2
47.5°	10282.0	10306.8	10329.1	10311.7	10314.2	10244.8	10175.4	10158.1
50°	11345.1	11355.1	11367.4	11342.7	11347.6	11270.8	11191.5	11194.0
52.5°	12395.9	12443.0	12492.5	12425.6	12410.8	12324.0	12212.5	12167.9
55°	13597.8	13664.7	13607.7	13491.3	13374.8	13258.3	13112.1	13087.3
57.5°	15079.8	14965.8	14787.3	14566.8	14405.7	14242.1	14093.5	14031.5
60°	17141.6	16712.9	16390.7	16063.6	15857.9	15657.2	15461.4	15431.7
62.5°	20056.0	19315.0	18673.1	17996.6	17444.0	17012.8	16668.3	16571.6
65°	23708.8	21956.7	20437.6	19020.1	17788.4	16859.1	16274.3	16016.5
67.5°	25280.0	21820.4	19215.9	17203.6	15592.8	14467.7	13835.7	13521.0
70°	22214.5	18095.7	15263.2	13248.4	11781.3	10581.9	10009.4	9672.4
72.5°	15283.0	11511.2	9102.4	7429.6	6257.4	5253.8	4857.2	4827.5
75°	6862.1	4545.0	3132.4	2413.8	2032.1	1766.9	1685.2	1623.2
77.5°	1920.6	1420.0	1266.4	1184.6	1105.3	1013.6	978.9	986.3
80°	934.3	882.2	847.5	795.5	723.6	646.8	612.1	627.0
82.5°	619.5	612.1	634.4	597.2	493.2	418.8	351.9	322.2
85°	376.7	381.6	389.1	391.6	332.1	232.9	158.6	178.4
87.5°	148.7	171.0	185.9	193.3	180.9	111.5	89.2	91.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)