

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: P299388

Luminaire Tested: **GLNA-AF-09-LED-E1-5NQ-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299388
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-7060
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5700K 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: 54703.1 lumens
Efficiency: N/A
Efficacy: 109.2 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 - G4

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

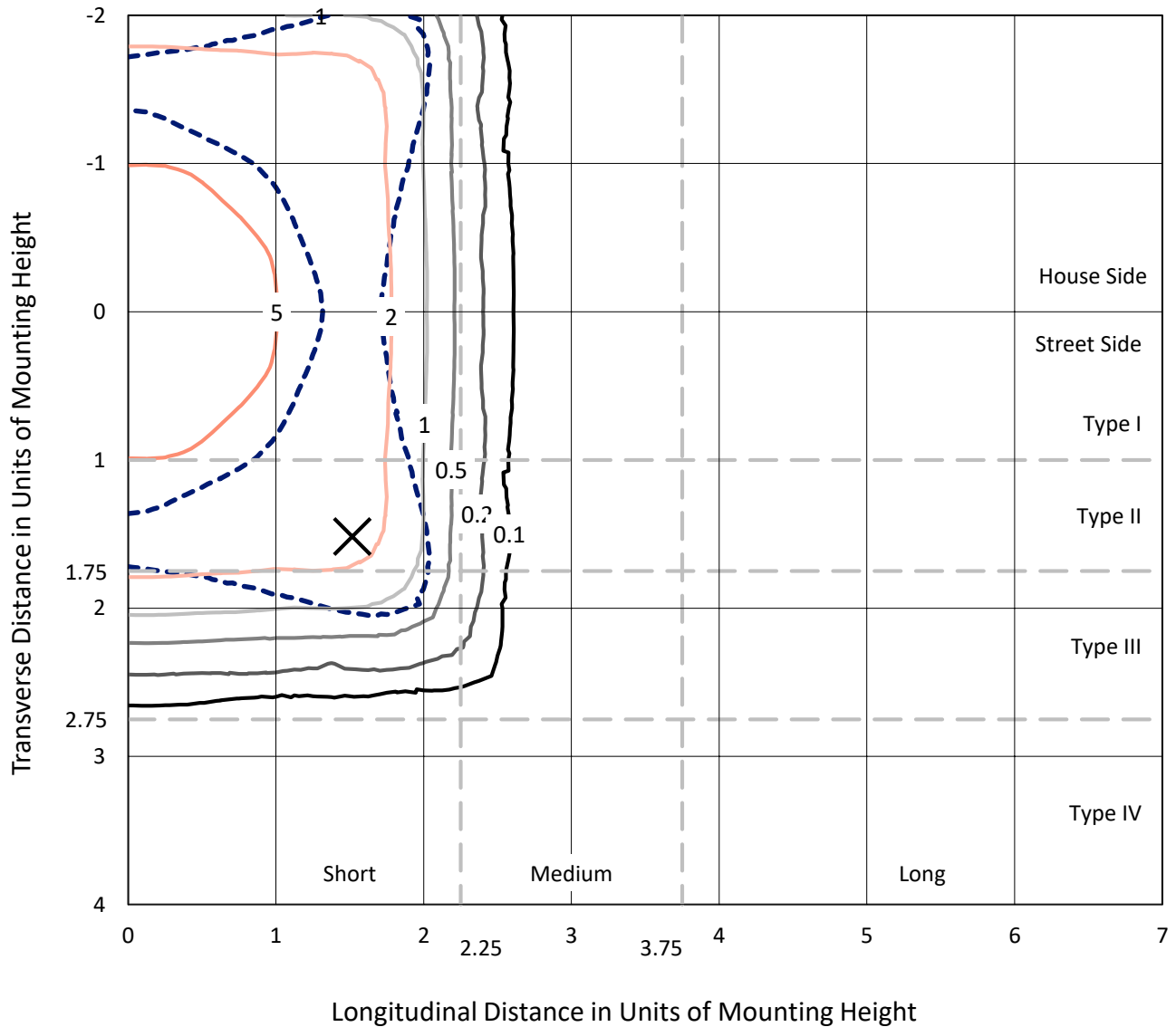


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Iso-Footcandle Lines of Horizontal Illumination

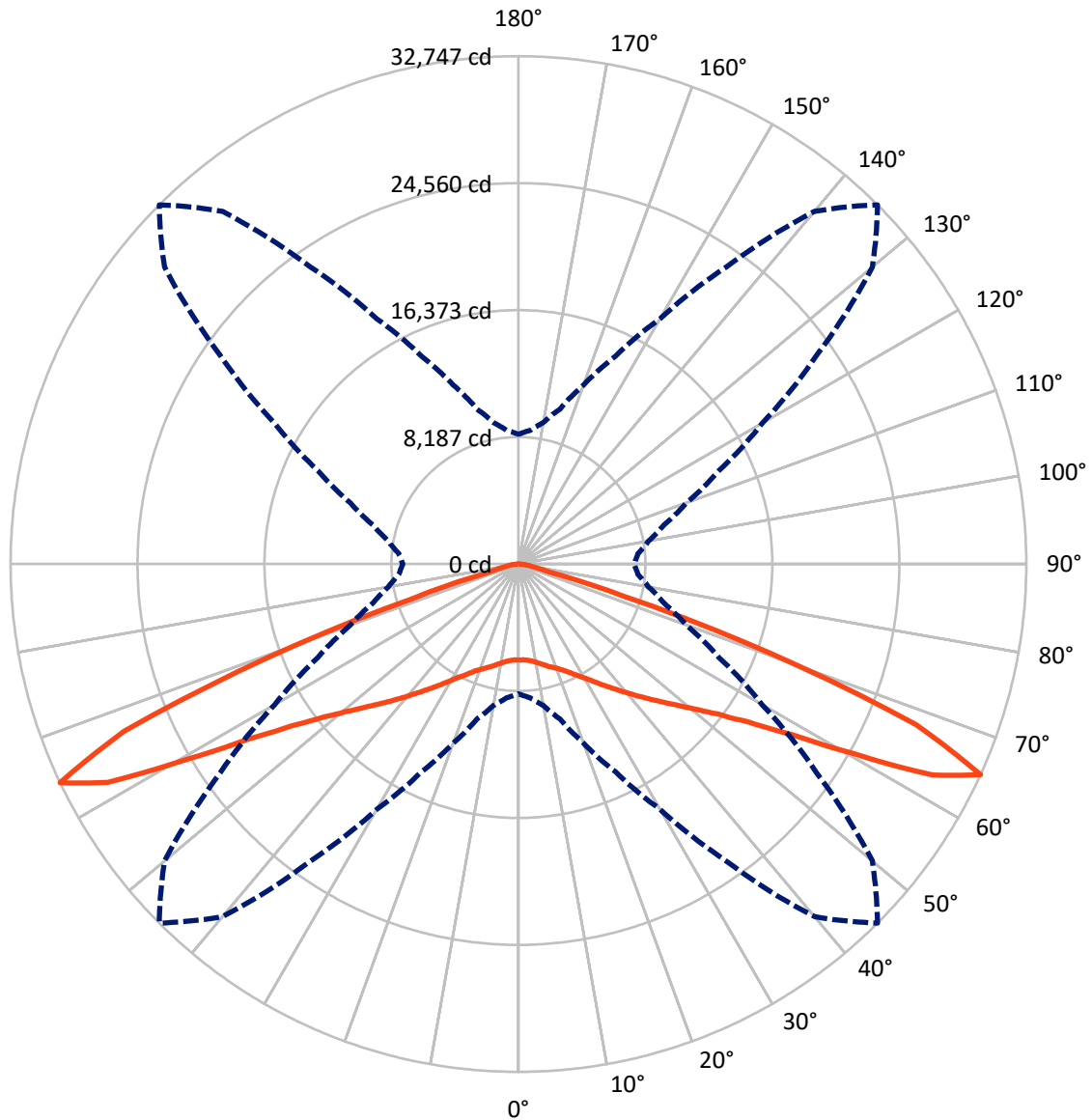
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.9 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	27351.5	0.0	27351.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	27351.5	0.0	27351.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	54703.1	0.0	54703.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	603.3	1.1
10°-20°	1934.9	3.5
20°-30°	3617.9	6.6
30°-40°	6118.8	11.2
40°-50°	10004.9	18.3
50°-60°	15909.3	29.1
60°-70°	14381.0	26.3
70°-80°	1820.0	3.3
80°-90°	313.1	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°	54703.1	100.0
0°-180°	54703.1	100.0

Coefficient of Utilization



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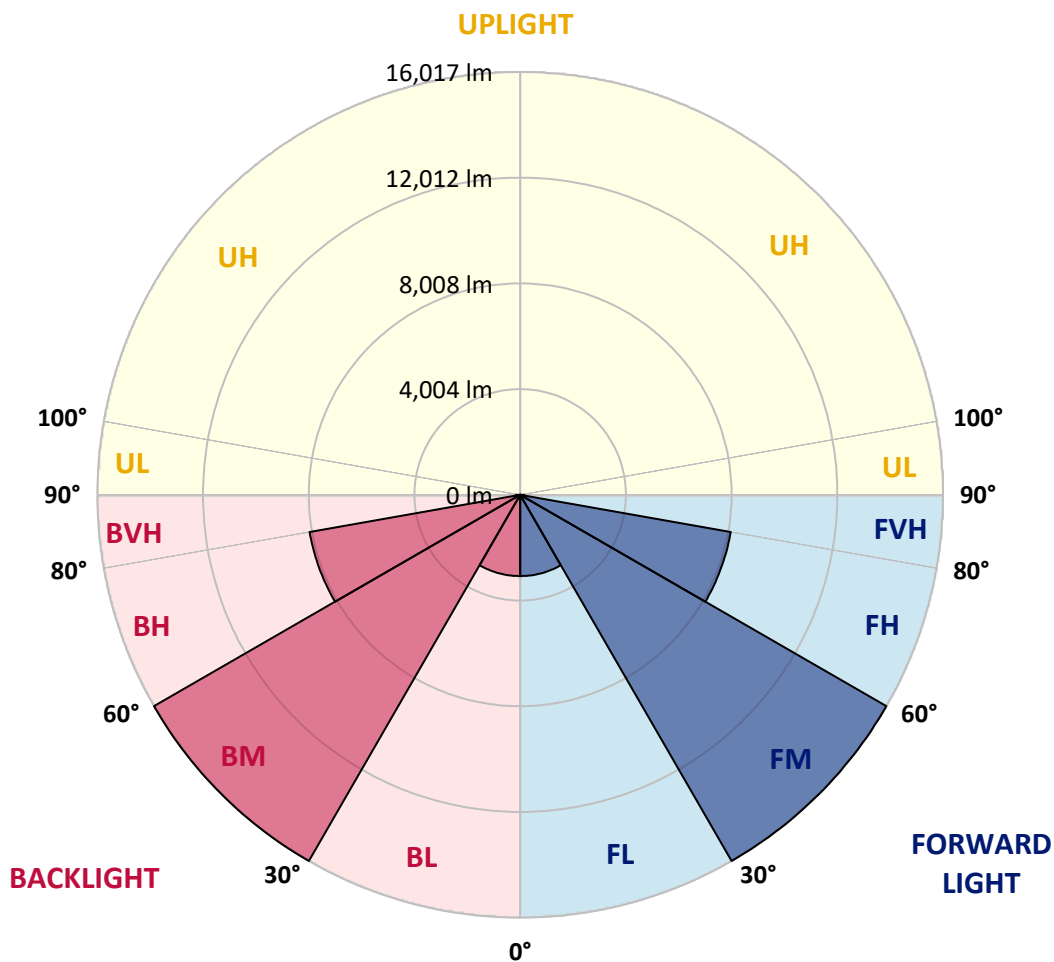
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3078.0	5.6			
FM	(30°-60°)	16016.5	29.3			
FH	(60°-80°)	8100.5	14.8			G4/12000
FVH	(80°-90°)	156.5	0.3			G2/225
BL	(0°-30°)	3078.0	5.6	B4/5000		
BM	(30°-60°)	16016.5	29.3	B5		
BH	(60°-80°)	8100.5	14.8	B5		G4/12000
BVH	(80°-90°)	156.5	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-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7
2.5°	6194.8	6199.9	6205.1	6199.9	6205.1	6197.4	6192.2	6199.9	6192.2	6184.6	6189.7
5°	6248.6	6251.2	6251.2	6243.5	6251.2	6246.0	6238.4	6248.6	6240.9	6233.2	6238.4
7.5°	6338.3	6348.5	6340.8	6333.2	6338.3	6333.2	6328.0	6330.6	6328.0	6320.3	6322.9
10°	6458.7	6466.4	6461.2	6458.7	6463.8	6461.2	6456.1	6453.6	6456.1	6448.4	6448.4
12.5°	6604.7	6602.2	6599.6	6602.2	6609.8	6609.8	6607.3	6609.8	6615.0	6617.5	6612.4
15°	6748.2	6753.3	6753.3	6753.3	6768.7	6781.5	6789.2	6794.3	6804.6	6807.1	6796.9
17.5°	6927.5	6927.5	6925.0	6927.5	6942.9	6963.4	6971.1	6981.3	6991.6	6999.3	6986.4
20°	7127.4	7132.5	7132.5	7137.6	7158.1	7181.2	7181.2	7186.3	7181.2	7186.3	7178.6
22.5°	7370.7	7386.1	7386.1	7388.7	7409.2	7437.4	7429.7	7437.4	7424.5	7434.8	7424.5
25°	7688.4	7711.5	7706.4	7706.4	7721.7	7739.7	7742.2	7757.6	7755.0	7767.8	7760.2
27.5°	8047.1	8083.0	8093.2	8090.7	8100.9	8118.8	8124.0	8141.9	8131.6	8141.9	8136.8
30°	8477.5	8492.9	8513.4	8521.1	8533.9	8551.8	8551.8	8554.4	8541.6	8556.9	8564.6
32.5°	8923.3	8951.5	8972.0	9018.1	9041.1	9053.9	9051.4	9056.5	9043.7	9064.2	9079.6
35°	9512.5	9533.0	9566.3	9602.2	9632.9	9630.4	9622.7	9625.3	9625.3	9643.2	9658.6
37.5°	10222.2	10227.3	10270.9	10322.1	10337.5	10322.1	10276.0	10265.8	10242.7	10265.8	10291.4
40°	10972.8	10990.8	11077.9	11111.2	11118.9	11090.7	11024.1	10985.7	10934.4	10962.6	10998.5
42.5°	11759.4	11795.2	11874.7	11933.6	11959.2	11941.3	11849.0	11790.1	11723.5	11738.9	11774.7
45°	12630.4	12674.0	12786.7	12843.1	12891.8	12863.6	12773.9	12684.2	12579.2	12586.9	12643.2
47.5°	13604.0	13647.5	13793.6	13888.4	13914.0	13908.8	13808.9	13686.0	13542.5	13537.4	13586.0
50°	14695.4	14738.9	14920.8	15066.9	15141.1	15133.5	15015.6	14841.4	14667.2	14669.7	14731.2
52.5°	15761.1	15814.9	16004.5	16255.6	16401.6	16506.7	16434.9	16271.0	16058.3	16063.5	16119.8
55°	16760.3	16850.0	17067.7	17408.5	17680.0	17974.7	18059.2	18054.1	17926.0	17961.9	18018.2
57.5°	17244.5	17377.7	17713.4	18251.4	18804.7	19404.2	19911.5	20290.7	20452.1	20695.5	20639.1
60°	16327.3	16540.0	17034.4	17826.1	18920.0	20170.3	21510.2	22819.3	23936.3	24779.2	24295.0
62.5°	13368.3	13645.0	14244.5	15259.0	16914.0	18914.9	21479.4	24574.3	27945.8	29980.0	28527.4
65°	8364.8	8651.7	9261.5	10347.7	12284.6	14772.2	18251.4	23380.4	29680.2	32746.9	29790.4
67.5°	3261.4	3417.6	3748.1	4442.4	5897.6	8111.1	11603.1	17423.8	24958.6	27646.0	24494.8
70°	1634.5	1649.9	1711.4	1839.5	2152.0	2795.1	4252.8	8077.8	14313.6	17288.1	13798.7
72.5°	1181.1	1183.6	1214.4	1270.7	1370.6	1514.1	1790.8	2472.3	4655.1	7114.5	4363.0
75°	904.4	914.6	932.6	963.3	1017.1	1088.8	1188.7	1424.4	1765.2	2047.0	1721.6
77.5°	696.9	717.3	730.2	758.3	791.6	840.3	868.5	958.2	1114.5	1173.4	1155.4
80°	530.3	548.3	576.4	599.5	622.6	645.6	635.4	676.4	758.3	807.0	781.4
82.5°	338.2	358.7	440.7	461.2	471.4	486.8	468.8	471.4	507.3	538.0	507.3
85°	217.8	230.6	279.3	304.9	307.4	317.7	310.0	292.1	292.1	266.4	299.7
87.5°	99.9	102.5	125.5	148.6	153.7	138.3	135.8	130.7	105.0	99.9	107.6
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°	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7	6189.7
2.5°	6187.1	6192.2	6194.8	6202.5	6205.1	6205.1	6207.6	6212.7
5°	6235.8	6243.5	6246.0	6256.3	6258.9	6256.3	6261.4	6264.0
7.5°	6322.9	6335.7	6340.8	6351.1	6343.4	6353.6	6356.2	6356.2
10°	6451.0	6463.8	6466.4	6476.6	6471.5	6476.6	6476.6	6471.5
12.5°	6620.1	6622.7	6615.0	6622.7	6612.4	6617.5	6609.8	6604.7
15°	6807.1	6799.4	6781.5	6781.5	6766.1	6768.7	6766.1	6763.6
17.5°	6989.0	6973.6	6960.8	6955.7	6942.9	6940.3	6932.6	6932.6
20°	7188.8	7181.2	7173.5	7163.2	7150.4	7137.6	7135.0	7140.2
22.5°	7429.7	7427.1	7427.1	7422.0	7404.0	7391.2	7383.6	7383.6
25°	7752.5	7729.4	7729.4	7726.9	7719.2	7711.5	7696.1	7703.8
27.5°	8116.3	8103.5	8113.7	8111.1	8103.5	8103.5	8093.2	8093.2
30°	8564.6	8559.5	8574.9	8562.1	8536.4	8533.9	8523.6	8510.8
32.5°	9082.1	9077.0	9100.1	9084.7	9043.7	9020.6	9000.1	8989.9
35°	9658.6	9661.1	9689.3	9679.1	9632.9	9617.6	9581.7	9576.6
37.5°	10288.8	10329.8	10378.5	10388.7	10350.3	10340.0	10301.6	10281.1
40°	11029.2	11083.0	11157.3	11175.2	11134.3	11126.6	11072.8	11044.6
42.5°	11818.3	11910.5	12002.8	12018.1	11977.1	11936.1	11884.9	11864.4
45°	12699.6	12809.8	12930.2	12960.9	12899.4	12850.8	12784.2	12784.2
47.5°	13688.5	13826.9	13962.6	14047.2	13990.8	13939.6	13860.2	13808.9
50°	14856.8	15046.4	15223.1	15310.2	15220.6	15123.2	14984.9	14938.8
52.5°	16322.2	16527.2	16680.9	16634.8	16496.4	16360.6	16209.5	16148.0
55°	18192.4	18261.6	18261.6	18087.4	17810.7	17582.7	17344.4	17265.0
57.5°	20531.5	20265.1	19855.1	19335.1	18681.8	18113.0	17728.7	17546.8
60°	23280.5	21999.5	20552.0	19130.1	17961.9	16998.6	16427.2	16165.9
62.5°	25112.3	21761.2	18861.1	16578.4	14897.8	13737.2	12948.1	12640.7
65°	23470.1	18148.9	14265.0	11533.9	9702.1	8521.1	7739.7	7452.7
67.5°	17190.7	11372.5	7596.2	5444.2	3989.0	3181.9	2861.7	2728.5
70°	7716.6	4004.3	2454.4	1916.3	1652.5	1516.7	1457.8	1437.3
72.5°	2326.3	1683.2	1419.3	1281.0	1175.9	1109.3	1060.6	1055.5
75°	1404.0	1168.3	1037.6	955.6	889.0	835.2	809.6	801.9
77.5°	981.2	858.3	796.8	737.8	686.6	645.6	622.6	604.6
80°	689.2	630.2	602.1	568.8	535.4	497.0	463.7	448.3
82.5°	461.2	448.3	448.3	427.8	399.7	363.8	297.2	281.8
85°	297.2	294.6	299.7	292.1	271.6	233.1	192.1	181.9
87.5°	138.3	140.9	156.3	153.7	148.6	123.0	97.4	92.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)