

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: P299513

Luminaire Tested: **GLNA-AF-10-LED-E1-5NQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299513
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-10-LED-E1-5NQ-7050-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K 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: 39898.1 lumens
Efficiency: N/A
Efficacy: 123.5 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): 323
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

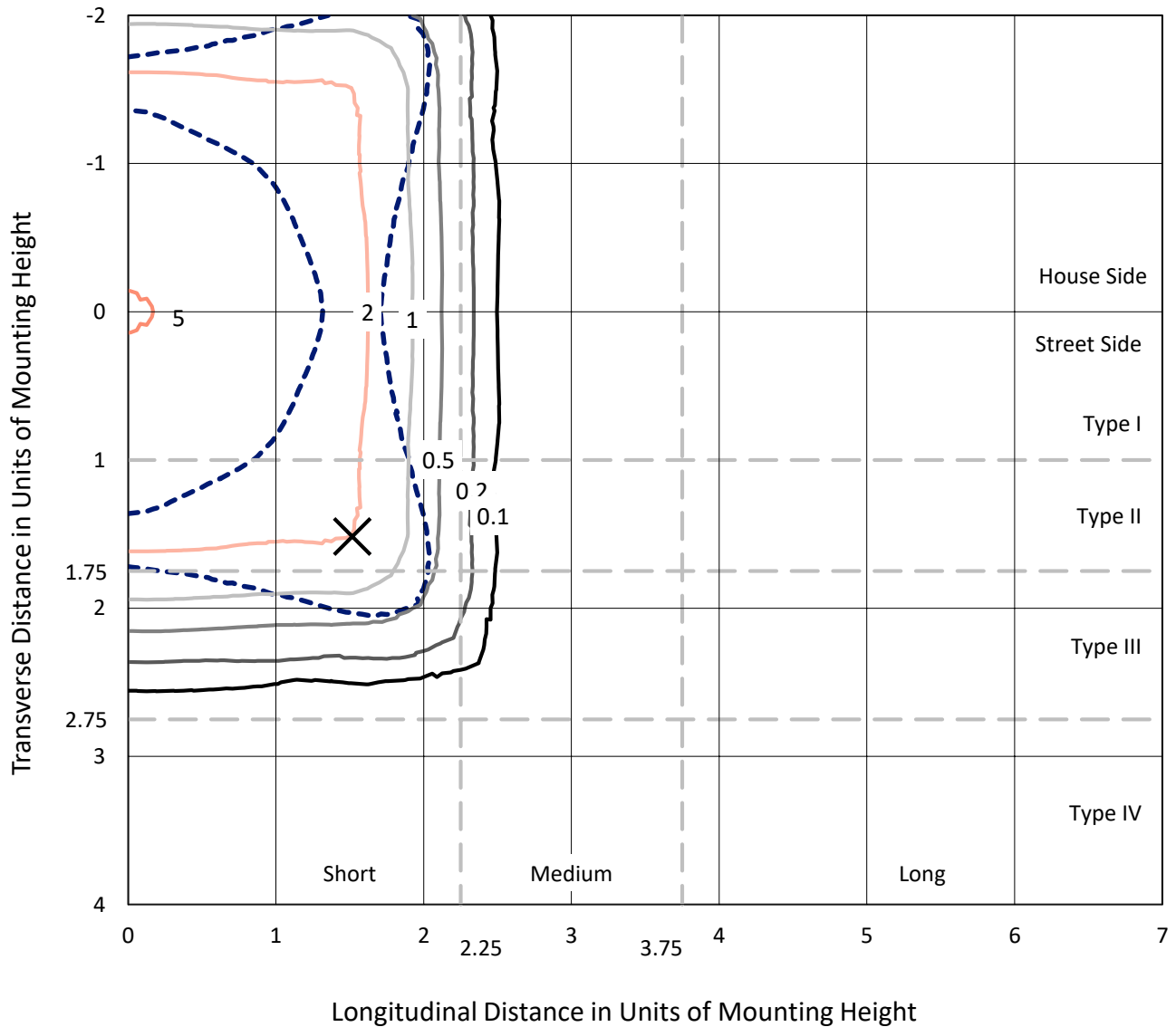


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Iso-Footcandle Lines of Horizontal Illumination

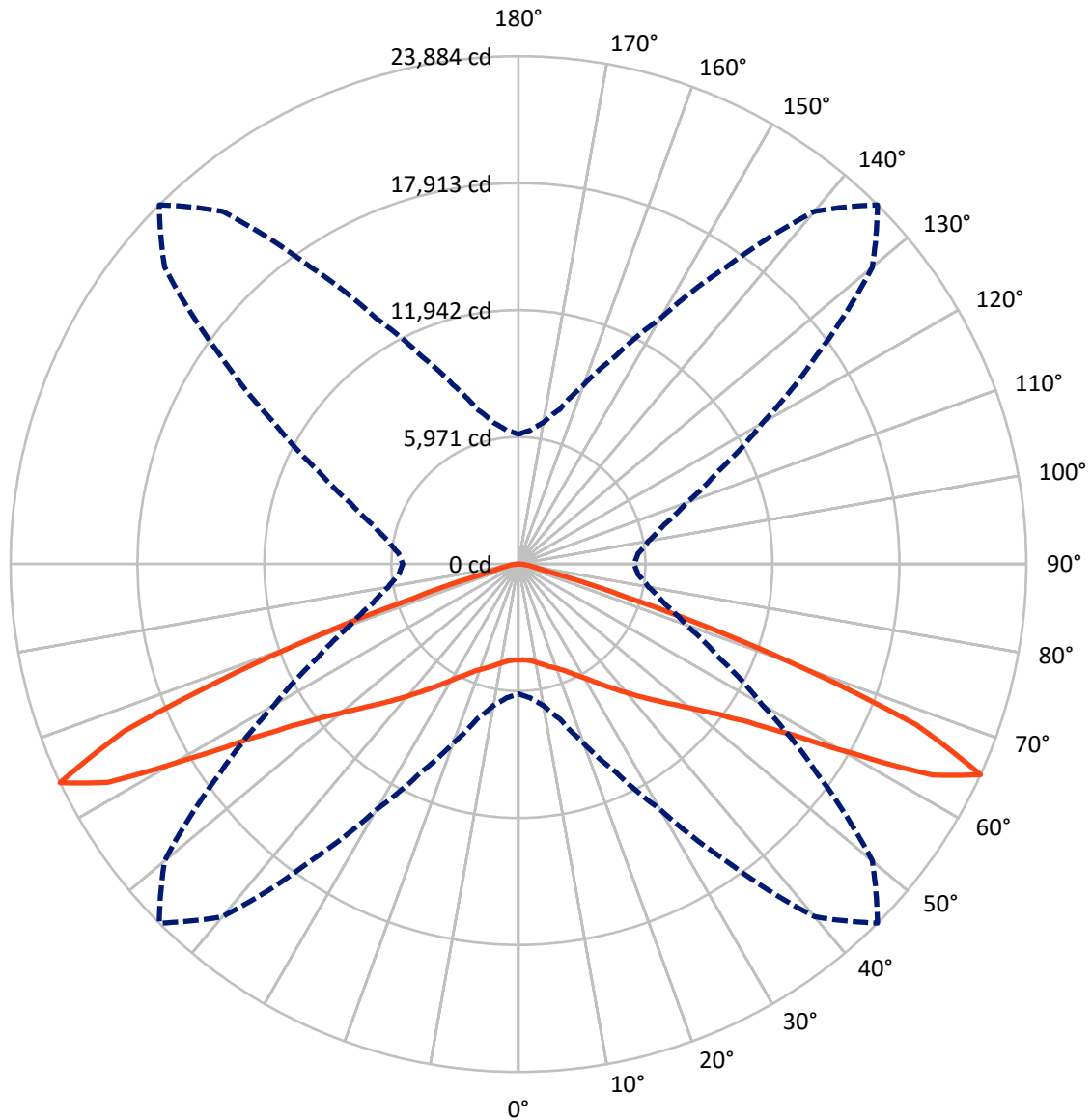
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5 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	19949.0	0.0	19949.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19949.0	0.0	19949.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	39898.1	0.0	39898.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.0	1.1
10°-20°	1411.2	3.5
20°-30°	2638.7	6.6
30°-40°	4462.8	11.2
40°-50°	7297.1	18.3
50°-60°	11603.6	29.1
60°-70°	10488.9	26.3
70°-80°	1327.4	3.3
80°-90°	228.3	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°	39898.1	100.0
0°-180°	39898.1	100.0



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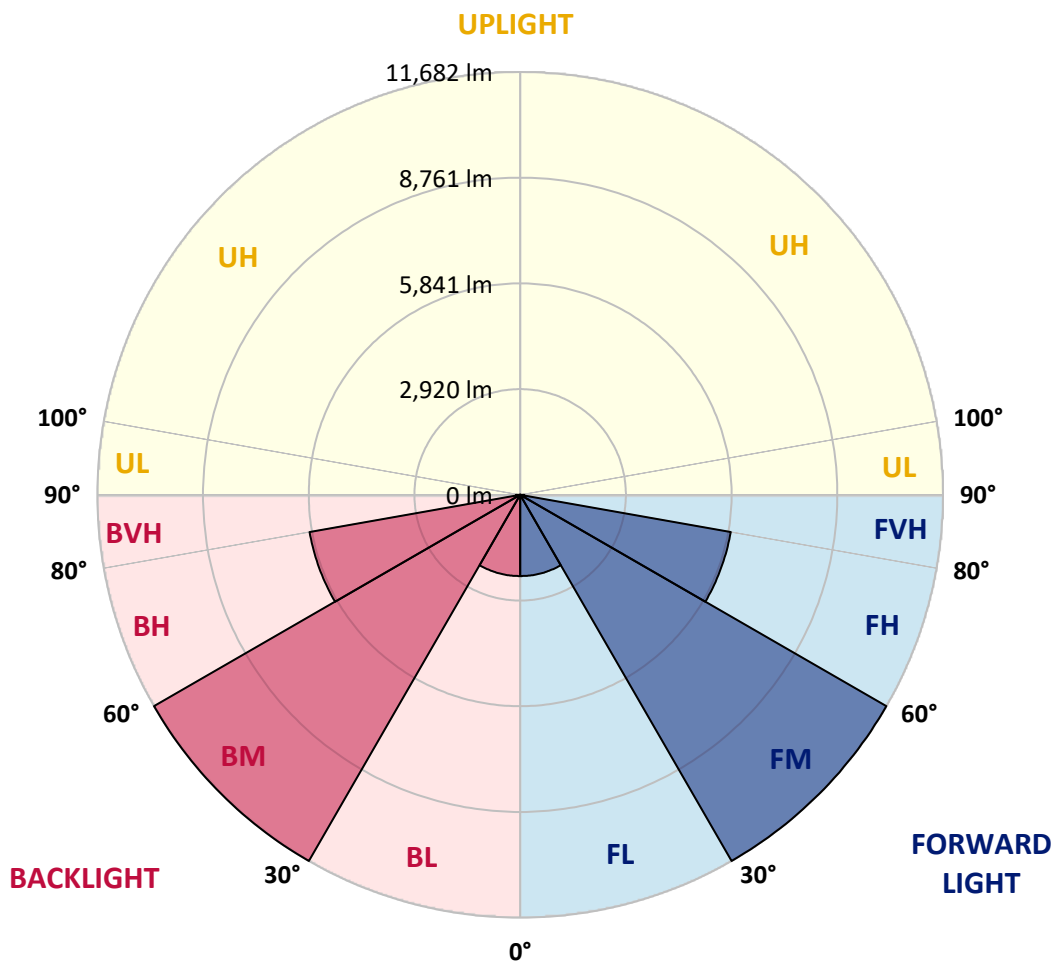
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2245.0	5.6			
FM (30°-60°)	11681.7	29.3			
FH (60°-80°)	5908.1	14.8			G3/7500
FVH (80°-90°)	114.2	0.3			G2/225
BL (0°-30°)	2245.0	5.6	B3/2500		
BM (30°-60°)	11681.7	29.3	B5		
BH (60°-80°)	5908.1	14.8	B5		G3/7500
BVH (80°-90°)	114.2	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-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5
2.5°	4518.2	4522.0	4525.7	4522.0	4525.7	4520.1	4516.4	4522.0	4516.4	4510.8	4514.5
5°	4557.5	4559.3	4559.3	4553.7	4559.3	4555.6	4550.0	4557.5	4551.9	4546.3	4550.0
7.5°	4622.9	4630.3	4624.7	4619.1	4622.9	4619.1	4615.4	4617.3	4615.4	4609.8	4611.7
10°	4710.7	4716.3	4712.6	4710.7	4714.4	4712.6	4708.8	4707.0	4708.8	4703.2	4703.2
12.5°	4817.2	4815.3	4813.5	4815.3	4820.9	4820.9	4819.1	4820.9	4824.7	4826.5	4822.8
15°	4921.8	4925.6	4925.6	4925.6	4936.8	4946.1	4951.7	4955.5	4962.9	4964.8	4957.3
17.5°	5052.6	5052.6	5050.8	5052.6	5063.8	5078.8	5084.4	5091.9	5099.4	5105.0	5095.6
20°	5198.4	5202.1	5202.1	5205.9	5220.8	5237.6	5237.6	5241.4	5237.6	5241.4	5235.8
22.5°	5375.9	5387.1	5387.1	5389.0	5403.9	5424.5	5418.9	5424.5	5415.1	5422.6	5415.1
25°	5607.6	5624.4	5620.7	5620.7	5631.9	5645.0	5646.8	5658.1	5656.2	5665.5	5659.9
27.5°	5869.2	5895.4	5902.8	5901.0	5908.4	5921.5	5925.3	5938.3	5930.9	5938.3	5934.6
30°	6183.1	6194.3	6209.3	6214.9	6224.2	6237.3	6237.3	6239.2	6229.8	6241.1	6246.7
32.5°	6508.3	6528.8	6543.8	6577.4	6594.2	6603.6	6601.7	6605.4	6596.1	6611.0	6622.2
35°	6938.0	6953.0	6977.3	7003.4	7025.9	7024.0	7018.4	7020.3	7020.3	7033.3	7044.5
37.5°	7455.6	7459.4	7491.1	7528.5	7539.7	7528.5	7494.9	7487.4	7470.6	7487.4	7506.1
40°	8003.1	8016.2	8079.7	8104.0	8109.6	8089.1	8040.5	8012.5	7975.1	7995.7	8021.8
42.5°	8576.8	8602.9	8660.9	8703.8	8722.5	8709.4	8642.2	8599.2	8550.6	8561.8	8588.0
45°	9212.1	9243.9	9326.1	9367.2	9402.7	9382.1	9316.7	9251.3	9174.7	9180.3	9221.4
47.5°	9922.2	9953.9	10060.4	10129.6	10148.3	10144.5	10071.6	9981.9	9877.3	9873.6	9909.1
50°	10718.2	10749.9	10882.6	10989.1	11043.3	11037.7	10951.7	10824.7	10697.6	10699.5	10744.3
52.5°	11495.5	11534.7	11673.0	11856.1	11962.6	12039.3	11986.9	11867.3	11712.3	11716.0	11757.1
55°	12224.2	12289.6	12448.5	12697.0	12895.1	13110.0	13171.6	13167.9	13074.4	13100.6	13141.7
57.5°	12577.4	12674.6	12919.4	13311.8	13715.4	14152.6	14522.6	14799.1	14916.9	15094.4	15053.3
60°	11908.5	12063.5	12424.2	13001.6	13799.5	14711.3	15688.6	16643.4	17458.1	18072.9	17719.7
62.5°	9750.2	9952.1	10389.3	11129.3	12336.4	13795.7	15666.2	17923.4	20382.5	21866.1	20806.6
65°	6100.9	6310.2	6754.9	7547.2	8959.8	10774.2	13311.8	17052.7	21647.5	23884.2	21727.8
67.5°	2378.7	2492.7	2733.7	3240.1	4301.5	5915.9	8462.8	12708.2	18203.7	20163.8	17865.5
70°	1192.2	1203.4	1248.2	1341.6	1569.6	2038.6	3101.8	5891.6	10439.8	12609.2	10064.2
72.5°	861.4	863.3	885.7	926.8	999.7	1104.3	1306.1	1803.2	3395.2	5189.0	3182.2
75°	659.6	667.1	680.2	702.6	741.8	794.1	867.0	1038.9	1287.5	1493.0	1255.7
77.5°	508.3	523.2	532.5	553.1	577.4	612.9	633.4	698.8	812.8	855.8	842.7
80°	386.8	399.9	420.4	437.2	454.1	470.9	463.4	493.3	553.1	588.6	569.9
82.5°	246.7	261.6	321.4	336.3	343.8	355.0	341.9	343.8	370.0	392.4	370.0
85°	158.8	168.2	203.7	222.4	224.2	231.7	226.1	213.0	213.0	194.3	218.6
87.5°	72.9	74.7	91.6	108.4	112.1	100.9	99.0	95.3	76.6	72.9	78.5
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°	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5	4514.5
2.5°	4512.6	4516.4	4518.2	4523.8	4525.7	4525.7	4527.6	4531.3
5°	4548.1	4553.7	4555.6	4563.1	4564.9	4563.1	4566.8	4568.7
7.5°	4611.7	4621.0	4624.7	4632.2	4626.6	4634.1	4635.9	4635.9
10°	4705.1	4714.4	4716.3	4723.8	4720.0	4723.8	4723.8	4720.0
12.5°	4828.4	4830.3	4824.7	4830.3	4822.8	4826.5	4820.9	4817.2
15°	4964.8	4959.2	4946.1	4946.1	4934.9	4936.8	4934.9	4933.0
17.5°	5097.5	5086.3	5076.9	5073.2	5063.8	5062.0	5056.4	5056.4
20°	5243.2	5237.6	5232.0	5224.5	5215.2	5205.9	5204.0	5207.7
22.5°	5418.9	5417.0	5417.0	5413.3	5400.2	5390.9	5385.2	5385.2
25°	5654.3	5637.5	5637.5	5635.6	5630.0	5624.4	5613.2	5618.8
27.5°	5919.7	5910.3	5917.8	5915.9	5910.3	5910.3	5902.8	5902.8
30°	6246.7	6242.9	6254.1	6244.8	6226.1	6224.2	6216.8	6207.4
32.5°	6624.1	6620.4	6637.2	6626.0	6596.1	6579.3	6564.3	6556.8
35°	7044.5	7046.4	7067.0	7059.5	7025.9	7014.6	6988.5	6984.7
37.5°	7504.2	7534.1	7569.6	7577.1	7549.1	7541.6	7513.6	7498.6
40°	8044.2	8083.5	8137.7	8150.7	8120.8	8115.2	8076.0	8055.4
42.5°	8619.8	8687.0	8754.3	8765.5	8735.6	8705.7	8668.3	8653.4
45°	9262.5	9342.9	9430.7	9453.1	9408.3	9372.8	9324.2	9324.2
47.5°	9983.8	10084.7	10183.8	10245.4	10204.3	10166.9	10109.0	10071.6
50°	10835.9	10974.2	11103.1	11166.6	11101.2	11030.2	10929.3	10895.7
52.5°	11904.7	12054.2	12166.3	12132.7	12031.8	11932.7	11822.5	11777.7
55°	13268.8	13319.2	13319.2	13192.2	12990.4	12824.1	12650.3	12592.4
57.5°	14974.8	14780.5	14481.5	14102.2	13625.7	13210.9	12930.6	12797.9
60°	16979.8	16045.5	14989.7	13952.7	13100.6	12398.0	11981.3	11790.7
62.5°	18315.8	15871.7	13756.5	12091.6	10865.8	10019.3	9443.8	9219.6
65°	17118.1	13237.0	10404.2	8412.3	7076.3	6214.9	5645.0	5435.7
67.5°	12538.2	8294.6	5540.3	3970.7	2909.4	2320.8	2087.2	1990.0
70°	5628.2	2920.6	1790.1	1397.7	1205.2	1106.2	1063.2	1048.3
72.5°	1696.7	1227.7	1035.2	934.3	857.7	809.1	773.6	769.9
75°	1024.0	852.1	756.8	697.0	648.4	609.2	590.5	584.9
77.5°	715.7	626.0	581.1	538.2	500.8	470.9	454.1	441.0
80°	502.6	459.7	439.1	414.8	390.5	362.5	338.2	327.0
82.5°	336.3	327.0	327.0	312.1	291.5	265.3	216.8	205.5
85°	216.8	214.9	218.6	213.0	198.1	170.0	140.1	132.7
87.5°	100.9	102.8	114.0	112.1	108.4	89.7	71.0	67.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)