

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: P299449

Luminaire Tested: **GLNA-AF-10-LED-E1-5NQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299449
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-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42511.7 lumens
Efficiency: N/A
Efficacy: 101.5 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): 419
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

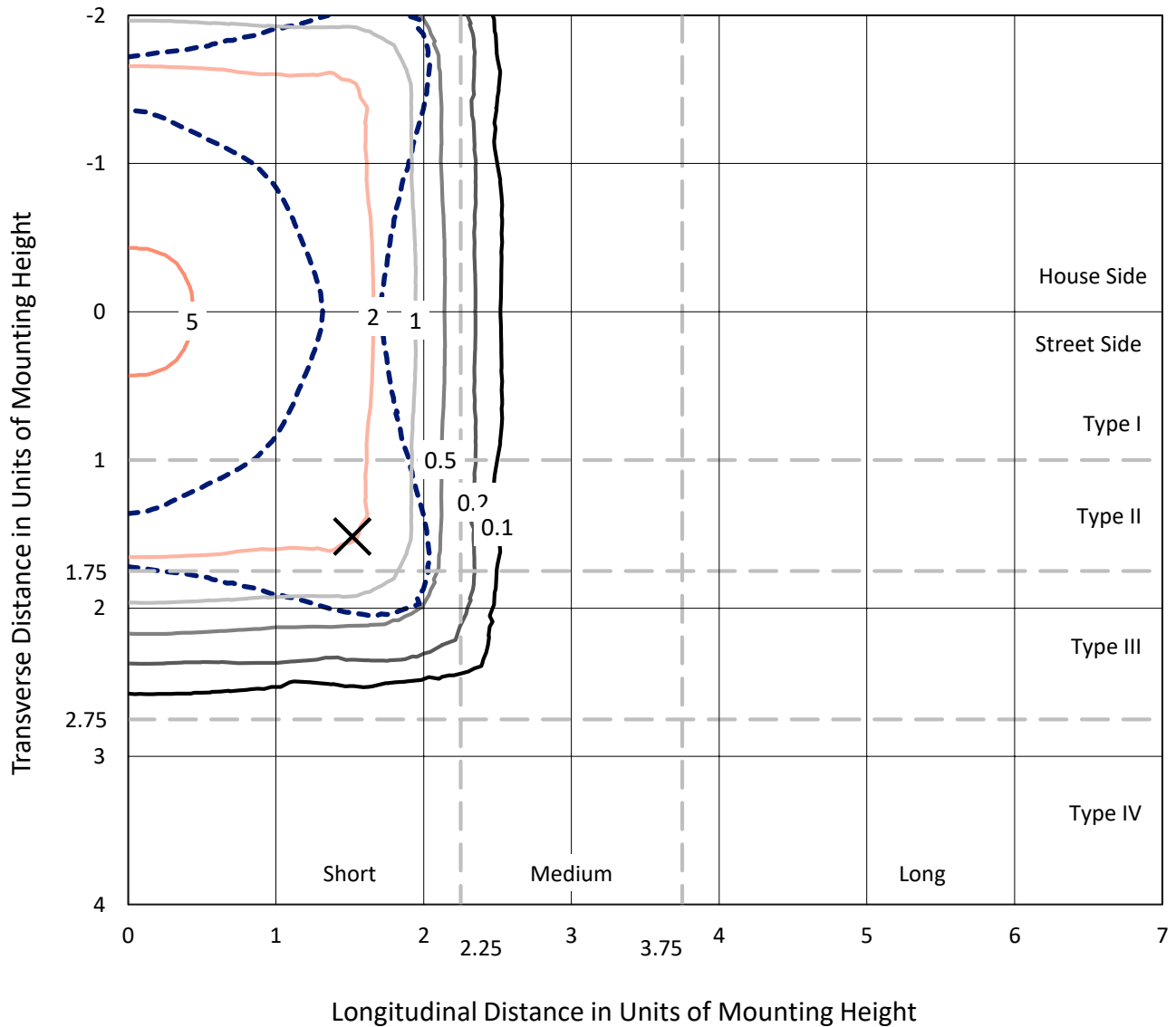


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Iso-Footcandle Lines of Horizontal Illumination

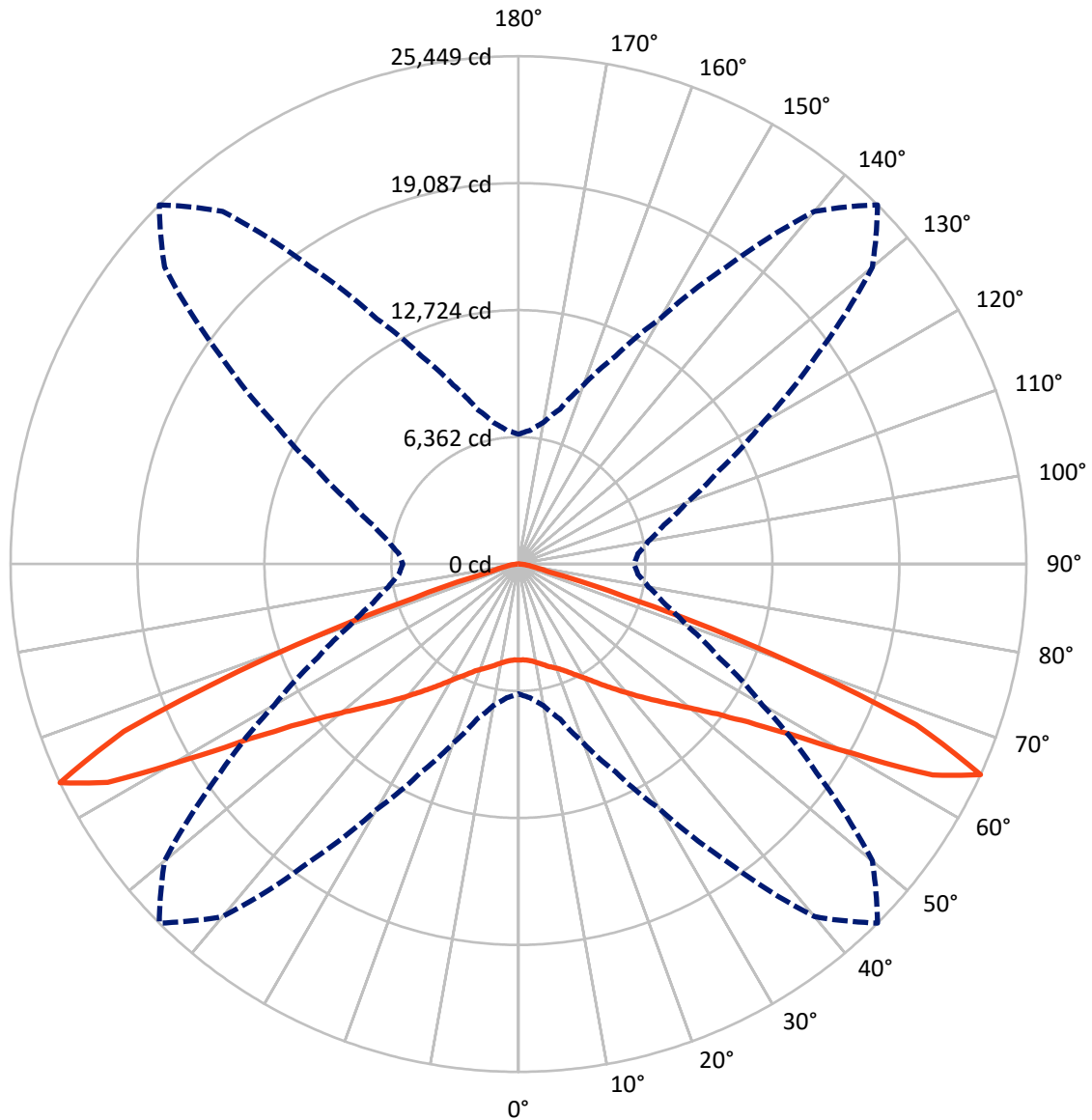
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.4 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	21255.9	0.0	21255.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	21255.9	0.0	21255.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	42511.7	0.0	42511.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	468.8	1.1
10°-20°	1503.7	3.5
20°-30°	2811.6	6.6
30°-40°	4755.1	11.2
40°-50°	7775.2	18.3
50°-60°	12363.7	29.1
60°-70°	11176.0	26.3
70°-80°	1414.4	3.3
80°-90°	243.3	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°	42511.7	100.0
0°-180°	42511.7	100.0



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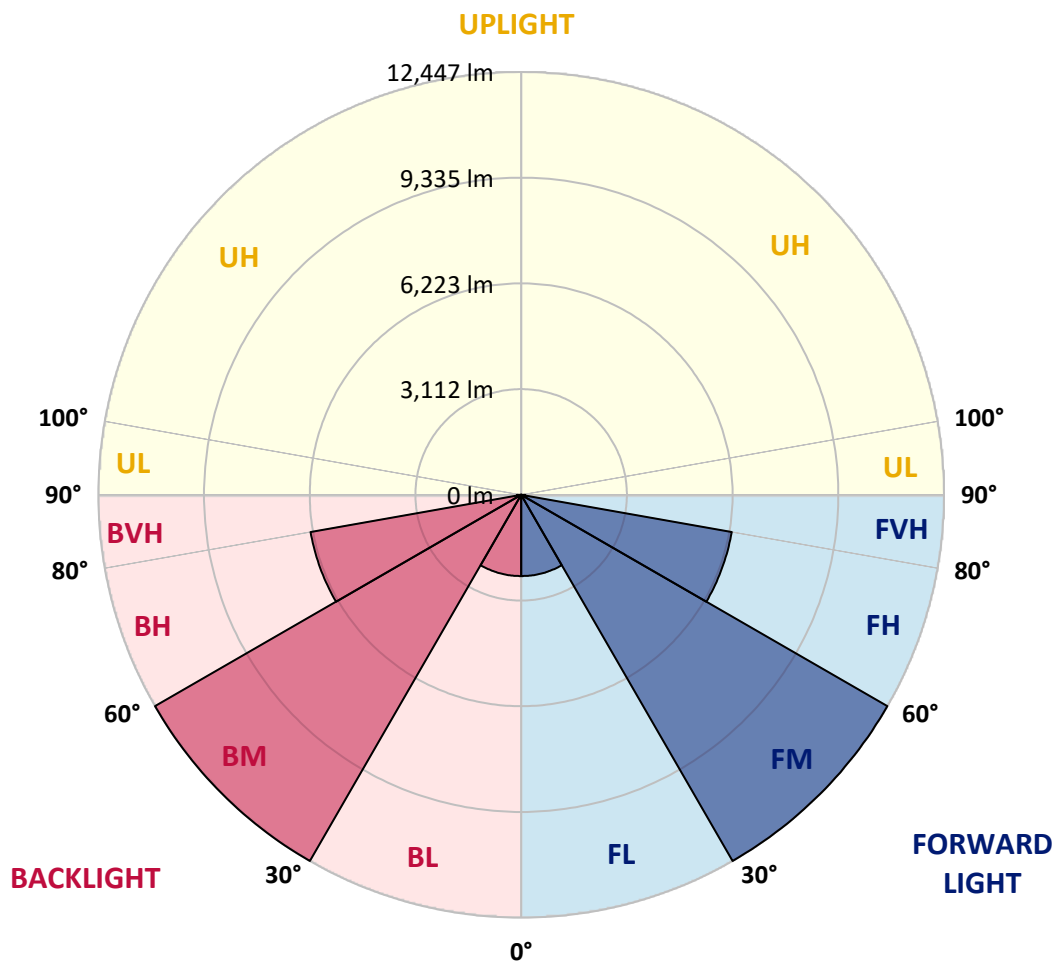
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2392.0	5.6			
FM	(30°-60°)	12447.0	29.3			
FH	(60°-80°)	6295.2	14.8			G3/7500
FVH	(80°-90°)	121.6	0.3			G2/225
BL	(0°-30°)	2392.0	5.6	B3/2500		
BM	(30°-60°)	12447.0	29.3	B5		
BH	(60°-80°)	6295.2	14.8	B5		G3/7500
BVH	(80°-90°)	121.6	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°	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2
2.5°	4814.2	4818.2	4822.2	4818.2	4822.2	4816.2	4812.2	4818.2	4812.2	4806.2	4810.2
5°	4856.0	4858.0	4858.0	4852.0	4858.0	4854.0	4848.1	4856.0	4850.0	4844.1	4848.1
7.5°	4925.7	4933.7	4927.7	4921.7	4925.7	4921.7	4917.7	4919.7	4917.7	4911.8	4913.8
10°	5019.3	5025.2	5021.3	5019.3	5023.3	5021.3	5017.3	5015.3	5017.3	5011.3	5011.3
12.5°	5132.8	5130.8	5128.8	5130.8	5136.7	5136.7	5134.8	5136.7	5140.7	5142.7	5138.7
15°	5244.3	5248.2	5248.2	5248.2	5260.2	5270.1	5276.1	5280.1	5288.1	5290.1	5282.1
17.5°	5383.6	5383.6	5381.6	5383.6	5395.6	5411.5	5417.5	5425.4	5433.4	5439.4	5429.4
20°	5538.9	5542.9	5542.9	5546.9	5562.8	5580.7	5580.7	5584.7	5580.7	5584.7	5578.7
22.5°	5728.1	5740.0	5740.0	5742.0	5757.9	5779.8	5773.9	5779.8	5769.9	5777.8	5769.9
25°	5974.9	5992.9	5988.9	5988.9	6000.8	6014.8	6016.8	6028.7	6026.7	6036.7	6030.7
27.5°	6253.7	6281.6	6289.5	6287.5	6295.5	6309.4	6313.4	6327.4	6319.4	6327.4	6323.4
30°	6588.2	6600.1	6616.0	6622.0	6632.0	6645.9	6645.9	6647.9	6637.9	6649.9	6655.9
32.5°	6934.6	6956.5	6972.4	7008.3	7026.2	7036.1	7034.2	7038.1	7028.2	7044.1	7056.1
35°	7392.5	7408.5	7434.3	7462.2	7486.1	7484.1	7478.1	7480.1	7480.1	7494.1	7506.0
37.5°	7944.0	7948.0	7981.9	8021.7	8033.6	8021.7	7985.8	7977.9	7960.0	7977.9	7997.8
40°	8527.4	8541.3	8609.0	8634.9	8640.9	8619.0	8567.2	8537.3	8497.5	8519.4	8547.3
42.5°	9138.6	9166.5	9228.2	9274.0	9293.9	9280.0	9208.3	9162.5	9110.8	9122.7	9150.6
45°	9815.6	9849.4	9937.0	9980.8	10018.6	9996.7	9927.1	9857.4	9775.7	9781.7	9825.5
47.5°	10572.1	10606.0	10719.5	10793.1	10813.0	10809.1	10731.4	10635.8	10524.4	10520.4	10558.2
50°	11420.3	11454.1	11595.5	11709.0	11766.7	11760.8	11669.2	11533.8	11398.4	11400.4	11448.2
52.5°	12248.5	12290.4	12437.7	12632.8	12746.3	12827.9	12772.2	12644.8	12479.5	12483.5	12527.3
55°	13025.0	13094.7	13264.0	13528.8	13739.8	13968.8	14034.5	14030.5	13930.9	13958.8	14002.6
57.5°	13401.3	13504.9	13765.7	14183.8	14613.8	15079.7	15473.9	15768.6	15894.0	16083.2	16039.4
60°	12688.6	12853.8	13238.1	13853.3	14703.4	15675.0	16716.3	17733.7	18601.8	19256.8	18880.5
62.5°	10389.0	10604.0	11069.9	11858.3	13144.5	14699.5	16692.4	19097.5	21717.7	23298.5	22169.6
65°	6500.6	6723.6	7197.4	8041.6	9546.8	11480.0	14183.8	18169.7	23065.6	25448.8	23151.2
67.5°	2534.5	2656.0	2912.8	3452.4	4583.3	6303.5	9017.2	13540.7	19396.2	21484.7	19035.8
70°	1270.2	1282.2	1330.0	1429.5	1672.4	2172.2	3305.0	6277.6	11123.6	13435.2	10723.5
72.5°	917.8	919.8	943.7	987.5	1065.2	1176.7	1391.7	1921.3	3617.6	5529.0	3390.6
75°	702.8	710.8	724.7	748.6	790.4	846.2	923.8	1107.0	1371.8	1590.8	1337.9
77.5°	541.5	557.5	567.4	589.3	615.2	653.0	674.9	744.6	866.1	911.9	897.9
80°	412.1	426.1	448.0	465.9	483.8	501.7	493.8	525.6	589.3	627.2	607.3
82.5°	262.8	278.7	342.4	358.4	366.3	378.3	364.4	366.3	394.2	418.1	394.2
85°	169.2	179.2	217.0	236.9	238.9	246.9	240.9	227.0	227.0	207.1	232.9
87.5°	77.6	79.6	97.6	115.5	119.5	107.5	105.5	101.5	81.6	77.6	83.6
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°	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2	4810.2
2.5°	4808.2	4812.2	4814.2	4820.2	4822.2	4822.2	4824.2	4828.1
5°	4846.1	4852.0	4854.0	4862.0	4864.0	4862.0	4866.0	4868.0
7.5°	4913.8	4923.7	4927.7	4935.7	4929.7	4937.6	4939.6	4939.6
10°	5013.3	5023.3	5025.2	5033.2	5029.2	5033.2	5033.2	5029.2
12.5°	5144.7	5146.7	5140.7	5146.7	5138.7	5142.7	5136.7	5132.8
15°	5290.1	5284.1	5270.1	5270.1	5258.2	5260.2	5258.2	5256.2
17.5°	5431.4	5419.5	5409.5	5405.5	5395.6	5393.6	5387.6	5387.6
20°	5586.7	5580.7	5574.8	5566.8	5556.8	5546.9	5544.9	5548.9
22.5°	5773.9	5771.9	5771.9	5767.9	5754.0	5744.0	5738.0	5738.0
25°	6024.7	6006.8	6006.8	6004.8	5998.8	5992.9	5980.9	5986.9
27.5°	6307.4	6297.5	6305.5	6303.5	6297.5	6297.5	6289.5	6289.5
30°	6655.9	6651.9	6663.8	6653.9	6634.0	6632.0	6624.0	6614.1
32.5°	7058.0	7054.1	7072.0	7060.0	7028.2	7010.3	6994.3	6986.4
35°	7506.0	7508.0	7529.9	7521.9	7486.1	7474.2	7446.3	7442.3
37.5°	7995.8	8027.7	8065.5	8073.4	8043.6	8035.6	8005.8	7989.8
40°	8571.2	8613.0	8670.7	8684.7	8652.8	8646.9	8605.0	8583.1
42.5°	9184.4	9256.1	9327.8	9339.7	9307.9	9276.0	9236.2	9220.3
45°	9869.3	9954.9	10048.5	10072.4	10024.6	9986.8	9935.0	9935.0
47.5°	10637.8	10745.4	10850.9	10916.6	10872.8	10833.0	10771.2	10731.4
50°	11545.7	11693.1	11830.4	11898.1	11828.4	11752.8	11645.3	11609.4
52.5°	12684.6	12843.9	12963.3	12927.5	12820.0	12714.4	12597.0	12549.2
55°	14138.0	14191.8	14191.8	14056.4	13841.3	13664.1	13479.0	13417.3
57.5°	15955.8	15748.7	15430.1	15026.0	14518.3	14076.3	13777.6	13636.3
60°	18092.1	17096.6	15971.7	14866.7	13958.8	13210.2	12766.2	12563.1
62.5°	19515.6	16911.4	14657.6	12883.7	11577.6	10675.7	10062.4	9823.5
65°	18239.4	14104.1	11085.8	8963.4	7539.9	6622.0	6014.8	5791.8
67.5°	13359.5	8838.0	5903.3	4230.8	3100.0	2472.8	2223.9	2120.4
70°	5996.9	3111.9	1907.4	1489.3	1284.2	1178.7	1132.9	1116.9
72.5°	1807.8	1308.1	1103.0	995.5	913.9	862.1	824.3	820.3
75°	1091.1	907.9	806.3	742.6	690.9	649.1	629.2	623.2
77.5°	762.5	667.0	619.2	573.4	533.6	501.7	483.8	469.9
80°	535.6	489.8	467.9	442.0	416.1	386.3	360.4	348.4
82.5°	358.4	348.4	348.4	332.5	310.6	282.7	231.0	219.0
85°	231.0	229.0	232.9	227.0	211.0	181.2	149.3	141.4
87.5°	107.5	109.5	121.5	119.5	115.5	95.6	75.7	71.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)