

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: P299903

Luminaire Tested: **GLNA-AF-05-LED-E1-SL3-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-SL3-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23953.7 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

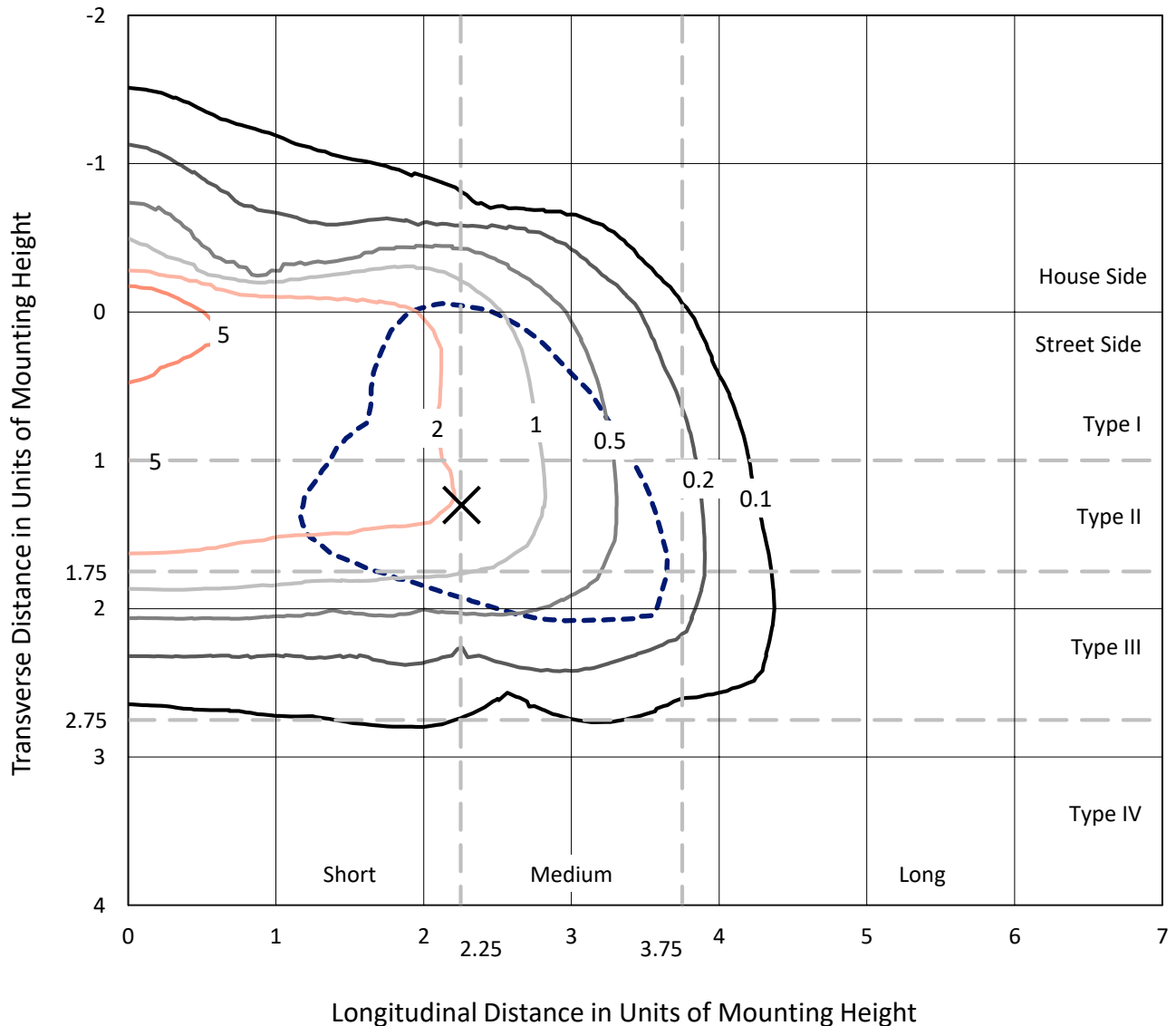
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

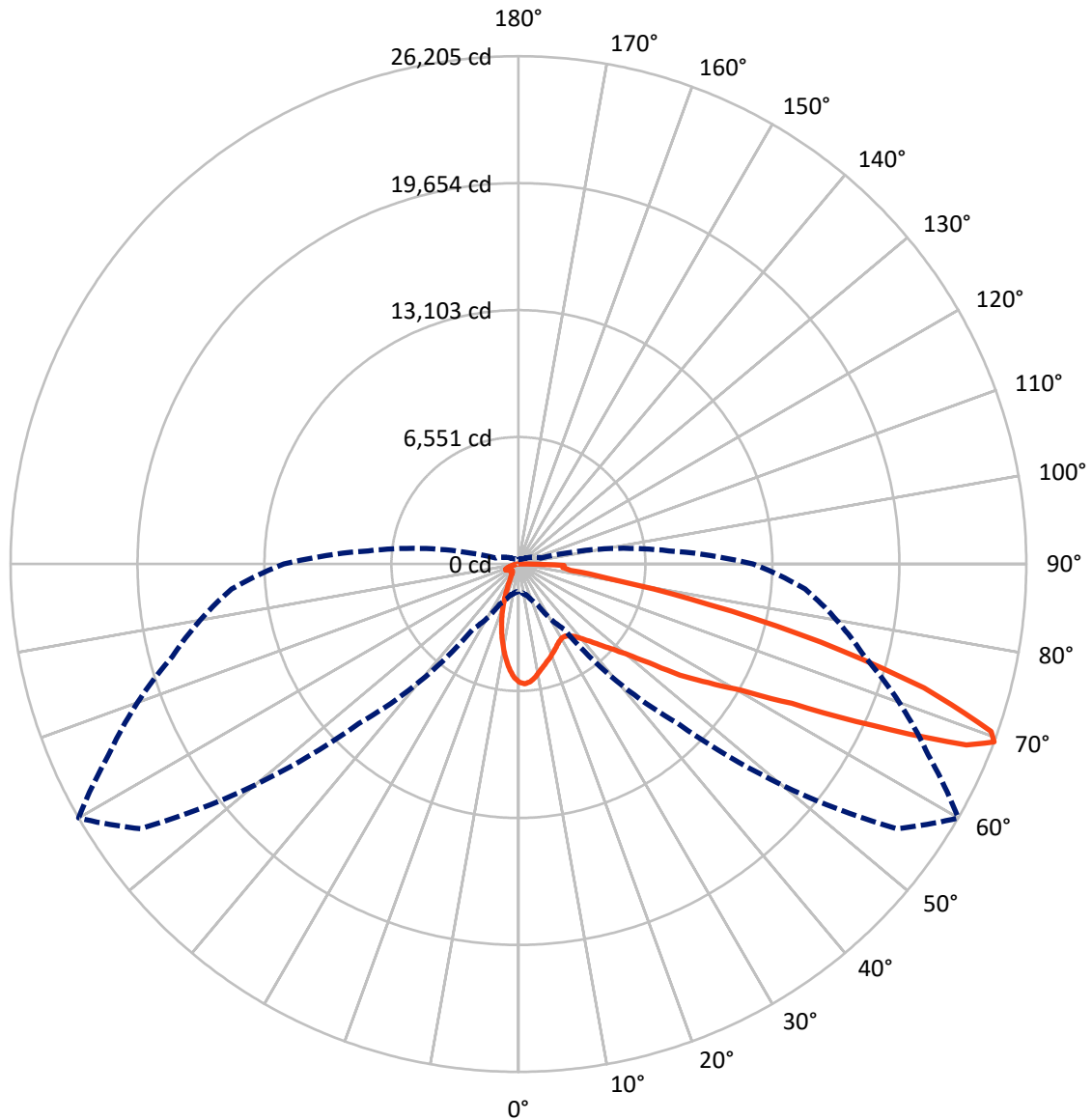
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3407.9	0.0	3407.9
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	20545.8	0.0	20545.8
	% Fixture	85.8	0.0	85.8
Total	Lumens	23953.7	0.0	23953.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	516.1	2.2
10°-20°	1099.6	4.6
20°-30°	1401.1	5.8
30°-40°	1926.1	8.0
40°-50°	3125.3	13.0
50°-60°	5012.1	20.9
60°-70°	6670.8	27.8
70°-80°	3601.7	15.0
80°-90°	601.0	2.5
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°	23953.7	100.0
0°-180°	23953.7	100.0

Coefficient of Utilization



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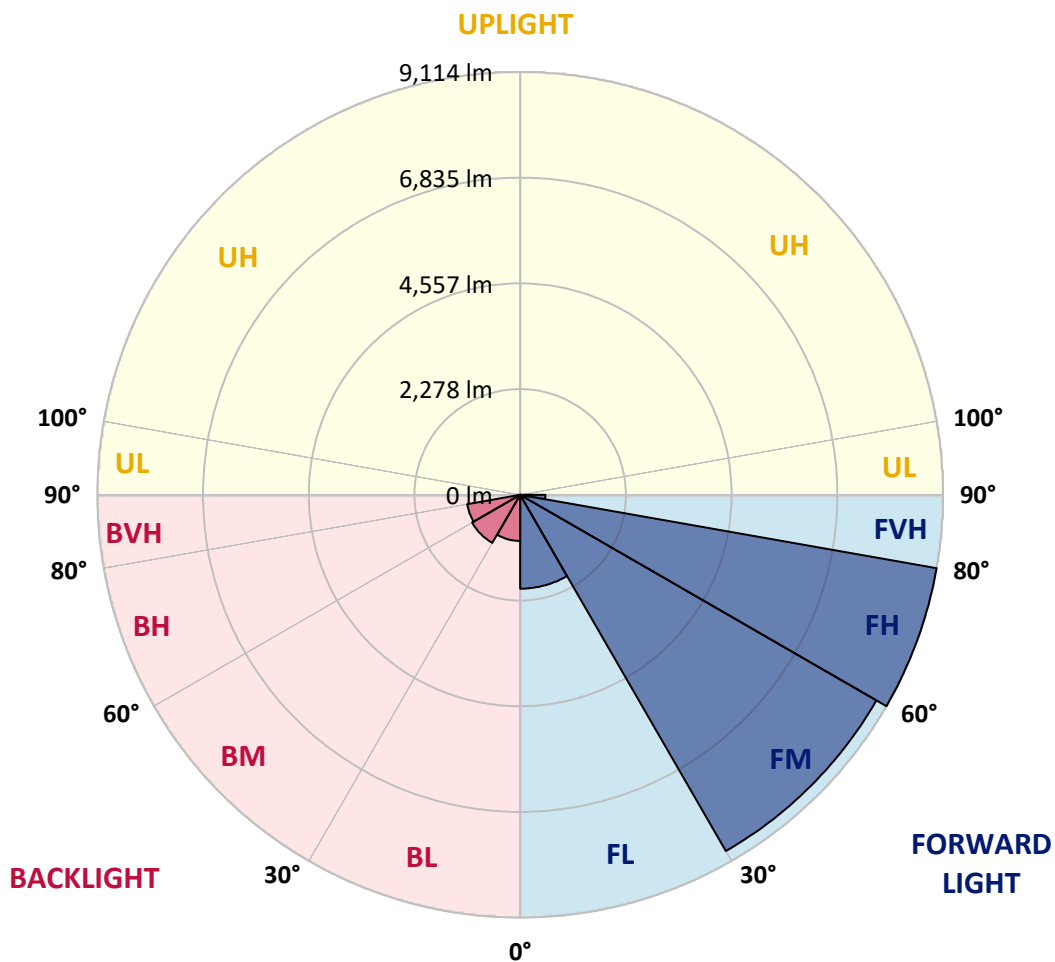
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2022.5	8.4			
FM	(30°-60°)	8866.2	37.0			
FH	(60°-80°)	9113.9	38.0			G4/12000
FVH	(80°-90°)	543.1	2.3			G4/750
BL	(0°-30°)	994.2	4.2	B2/1000		
BM	(30°-60°)	1197.2	5.0	B2/2500		
BH	(60°-80°)	1158.6	4.8	B3/2500		G3/2500
BVH	(80°-90°)	57.9	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8
2.5°	6228.7	6242.6	6236.8	6233.4	6243.8	6227.6	6194.0	6183.6	6167.4	6129.2	6064.4
5°	5995.0	6036.6	6034.3	6065.6	6117.6	6131.5	6116.5	6118.8	6088.7	6041.3	5933.7
7.5°	5591.2	5608.5	5617.8	5686.0	5780.9	5857.3	5922.1	5942.9	5929.0	5888.5	5749.7
10°	5174.6	5188.5	5210.5	5290.3	5410.6	5515.9	5638.6	5709.2	5739.3	5732.3	5577.3
12.5°	4817.0	4830.9	4859.9	4950.1	5093.6	5223.2	5401.4	5489.3	5561.1	5603.9	5437.3
15°	4496.5	4526.6	4554.4	4658.5	4819.4	4989.5	5190.8	5301.9	5413.0	5509.0	5313.4
17.5°	4246.6	4276.7	4292.9	4387.8	4559.0	4767.3	5003.3	5134.1	5273.0	5430.3	5190.8
20°	4102.0	4115.8	4108.9	4162.1	4316.0	4537.0	4817.0	4968.6	5136.4	5356.3	5068.1
22.5°	4061.5	4062.6	4037.2	4031.4	4130.9	4317.2	4618.0	4802.0	5008.0	5307.7	4962.8
25°	4159.8	4156.3	4086.9	4030.2	4040.6	4149.4	4425.9	4640.0	4900.4	5297.2	4881.8
27.5°	4378.5	4388.9	4285.9	4179.5	4074.2	4070.7	4280.2	4505.8	4812.4	5344.7	4847.1
30°	4685.1	4702.5	4592.6	4457.2	4259.3	4096.2	4223.5	4425.9	4758.0	5443.0	4841.3
32.5°	5020.7	5039.2	4955.9	4813.6	4554.4	4253.5	4262.8	4432.9	4755.7	5580.7	4880.7
35°	5378.2	5399.1	5356.3	5235.9	4947.8	4544.0	4413.2	4545.1	4830.9	5791.3	4986.0
37.5°	5777.5	5809.8	5821.4	5706.9	5399.1	4927.0	4659.7	4758.0	5001.0	6084.1	5179.2
40°	6352.5	6397.7	6394.2	6229.9	5916.3	5444.2	5040.4	5065.8	5266.0	6475.2	5488.2
42.5°	7454.1	7463.4	7175.2	6817.7	6485.6	5988.0	5489.3	5468.5	5631.7	6970.4	5942.9
45°	8855.4	8817.2	8176.1	7485.3	7080.4	6612.9	6073.7	5971.8	6095.7	7574.4	6512.2
47.5°	10018.3	9930.3	9120.3	8166.9	7709.8	7292.1	6759.8	6581.6	6649.9	8259.5	7248.1
50°	10422.1	10356.1	9685.0	8733.9	8305.7	8120.6	7604.5	7352.3	7370.8	9076.4	8110.2
52.5°	10335.3	10326.0	9878.2	9107.6	8863.5	8990.7	8801.0	8459.6	8279.1	9983.5	9040.5
55°	10130.5	10150.2	9988.2	9542.7	9501.0	9830.8	10364.2	10112.0	9550.8	10898.8	10002.1
57.5°	9418.9	9469.8	9826.2	10090.0	10527.4	11018.0	11623.2	11551.4	10919.6	11888.1	11145.3
60°	7588.3	7706.4	8662.1	9983.5	11583.8	13118.2	13388.9	13222.3	12331.3	13115.8	12655.3
62.5°	5316.9	5439.6	6575.9	8643.6	11410.3	15490.2	16545.5	15827.0	14358.6	14924.4	14609.7
65°	2846.5	2905.5	3773.3	5997.3	9632.9	15979.7	21158.9	20065.4	17568.4	17154.2	16281.7
67.5°	1570.2	1602.6	1934.7	3028.2	6169.7	14071.6	24098.0	24924.2	21580.1	18638.7	15977.4
69°	1419.8	1449.9	1667.4	2293.4	4128.6	11634.7	23811.0	26205.1	23338.9	18491.8	14852.7
70°	1388.5	1416.3	1611.9	2114.0	3341.7	9590.1	22849.5	25877.6	23757.8	17965.3	13871.4
72.5°	1249.7	1279.8	1469.5	1898.8	2855.7	4781.2	18099.5	21879.8	21569.7	15577.0	10521.6
75°	1165.2	1193.0	1514.7	1859.5	2734.3	3025.8	11932.1	16125.5	15855.9	10896.5	5673.3
77.5°	498.7	496.4	702.4	1573.7	2774.7	2929.8	6411.5	10073.8	9190.9	4657.4	1629.2
80°	333.2	327.5	333.2	462.8	2544.5	2946.0	3359.1	5113.3	3862.4	1187.2	803.0
82.5°	287.0	282.3	292.7	282.3	894.4	3362.6	2855.7	2719.2	1836.3	674.6	398.0
85°	193.2	185.1	252.2	253.4	422.3	2987.7	3216.8	2296.9	1485.7	400.4	196.7
87.5°	92.6	90.3	147.0	179.4	247.6	1213.8	3609.0	2353.6	1498.5	204.8	93.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8	6103.8
2.5°	6044.7	5997.3	5951.0	5895.5	5837.6	5772.8	5740.4	5708.0	5699.9	5690.7	5658.3
5°	5878.1	5811.0	5695.3	5568.0	5433.8	5303.0	5203.5	5141.0	5093.6	5069.3	5026.5
7.5°	5662.9	5564.5	5362.0	5142.2	4916.6	4710.6	4532.4	4420.2	4313.7	4264.0	4207.3
10°	5458.1	5311.1	4996.4	4672.4	4348.4	4037.2	3744.4	3537.3	3353.3	3250.3	3177.4
12.5°	5282.2	5080.9	4644.6	4206.1	3761.8	3318.6	2880.0	2535.2	2247.1	2095.5	2018.0
15°	5111.0	4868.0	4310.2	3753.7	3183.2	2580.4	2004.1	1613.0	1374.6	1279.8	1247.4
17.5°	4955.9	4644.6	3974.7	3297.8	2586.1	1857.2	1346.9	1131.7	1040.2	1009.0	998.6
20°	4788.1	4419.0	3626.4	2821.0	1963.6	1298.3	1051.8	956.9	919.9	910.6	906.0
22.5°	4626.1	4196.8	3293.1	2310.7	1410.5	1002.1	903.7	864.4	858.6	866.7	866.7
25°	4488.4	3997.8	2933.3	1777.3	1035.6	843.5	808.8	799.6	821.5	851.6	857.4
27.5°	4385.4	3834.7	2550.3	1312.2	825.0	733.6	732.5	747.5	801.9	859.7	871.3
30°	4314.9	3679.6	2140.7	946.5	692.0	645.7	664.2	696.6	776.4	858.6	880.6
32.5°	4279.0	3565.1	1713.7	732.5	592.4	567.0	598.2	637.6	716.3	792.6	821.5
35°	4306.8	3480.6	1311.0	611.0	523.0	503.3	535.7	573.9	620.2	652.6	674.6
37.5°	4410.9	3447.0	989.3	547.3	475.6	457.1	482.5	504.5	523.0	532.3	542.7
40°	4635.4	3482.9	792.6	514.9	449.0	425.8	436.2	444.3	455.9	465.2	469.8
42.5°	4966.3	3590.5	710.5	502.2	435.1	401.5	399.2	402.7	417.7	435.1	438.5
45°	5429.2	3780.3	704.7	510.3	428.1	381.8	371.4	376.1	399.2	425.8	430.4
47.5°	6020.4	4069.6	751.0	534.6	433.9	371.4	354.1	359.9	388.8	424.7	430.4
50°	6736.7	4473.4	828.5	570.5	459.4	373.7	348.3	351.8	381.8	421.2	427.0
52.5°	7582.5	5046.2	913.0	605.2	486.0	388.8	352.9	344.8	372.6	407.3	414.2
55°	8523.3	5780.9	999.7	636.4	499.9	407.3	362.2	335.6	355.2	384.2	389.9
57.5°	9678.1	6808.4	1150.2	666.5	509.1	420.0	371.4	326.3	333.2	354.1	358.7
60°	11241.3	8261.8	1415.1	716.3	530.0	424.7	370.3	318.2	311.3	322.8	325.1
62.5°	13114.7	9840.1	1636.2	778.7	564.7	428.1	363.3	312.4	292.7	292.7	295.1
65°	14226.7	10262.4	1513.5	830.8	593.6	424.7	355.2	306.6	278.9	266.1	267.3
67.5°	13283.6	9025.5	1297.1	841.2	592.4	408.5	342.5	296.2	265.0	245.3	244.2
69°	12102.2	7787.4	1199.9	813.4	564.7	387.6	326.3	284.6	254.6	233.7	232.6
70°	11149.9	7031.8	1136.3	783.4	534.6	372.6	313.6	274.2	246.5	226.8	224.5
72.5°	8106.7	4607.6	970.8	673.4	440.9	312.4	270.8	240.7	219.9	208.3	206.0
75°	4051.0	2197.4	788.0	546.2	337.9	249.9	222.2	201.3	190.9	188.6	187.5
77.5°	1330.7	1006.7	563.5	407.3	251.1	195.6	179.4	164.3	162.0	168.9	166.6
80°	731.3	585.5	357.5	269.6	171.3	143.5	141.2	133.1	136.5	148.1	145.8
82.5°	372.6	304.3	221.0	162.0	115.7	103.0	112.2	107.6	112.2	122.7	121.5
85°	184.0	166.6	140.0	98.4	76.4	66.0	79.8	83.3	85.6	93.7	93.7
87.5°	106.5	98.4	74.1	46.3	38.2	34.7	46.3	45.1	53.2	57.9	56.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)