

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: P299964

Luminaire Tested: **GLNA-AF-05-LED-E1-SL3-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299964
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-SL3-7060-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19532.3 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 162
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

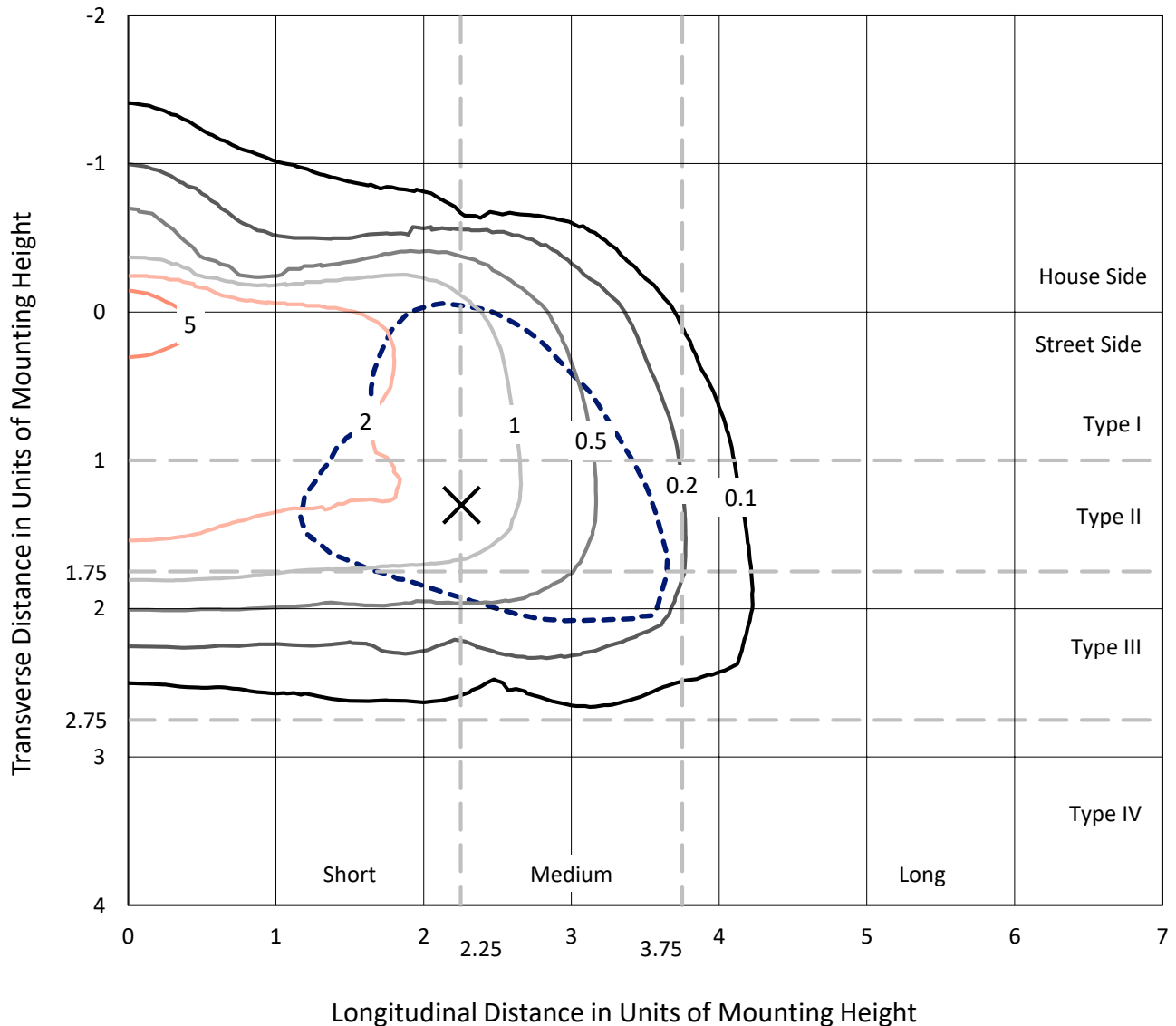


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Iso-Footcandle Lines of Horizontal Illumination

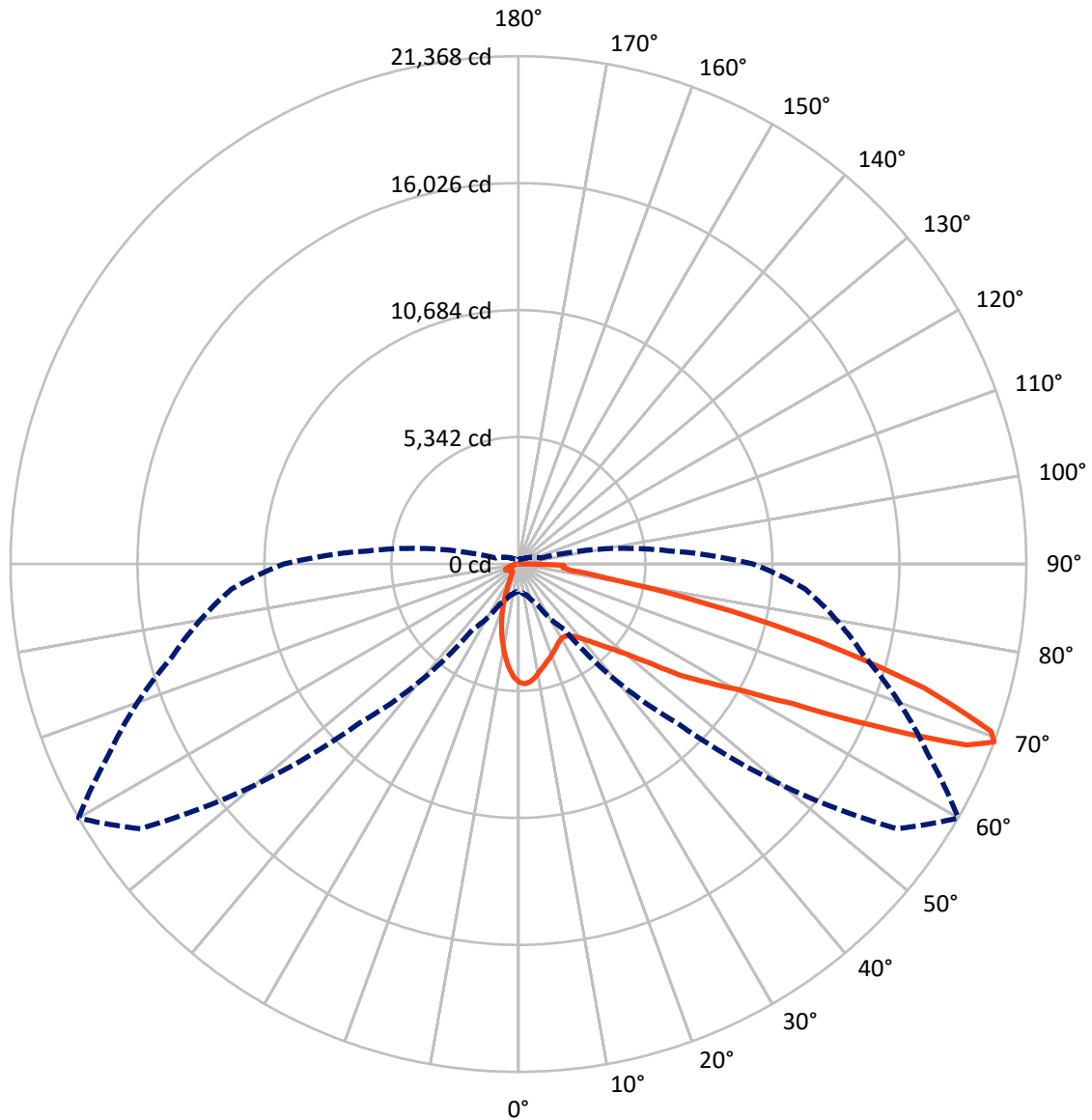
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 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	2778.8	0.0	2778.8
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	16753.5	0.0	16753.5
	% Fixture	85.8	0.0	85.8
Total	Lumens	19532.3	0.0	19532.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.8	2.2
10°-20°	896.6	4.6
20°-30°	1142.5	5.8
30°-40°	1570.6	8.0
40°-50°	2548.4	13.0
50°-60°	4087.0	20.9
60°-70°	5439.5	27.8
70°-80°	2936.9	15.0
80°-90°	490.0	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°	19532.3	100.0
0°-180°	19532.3	100.0



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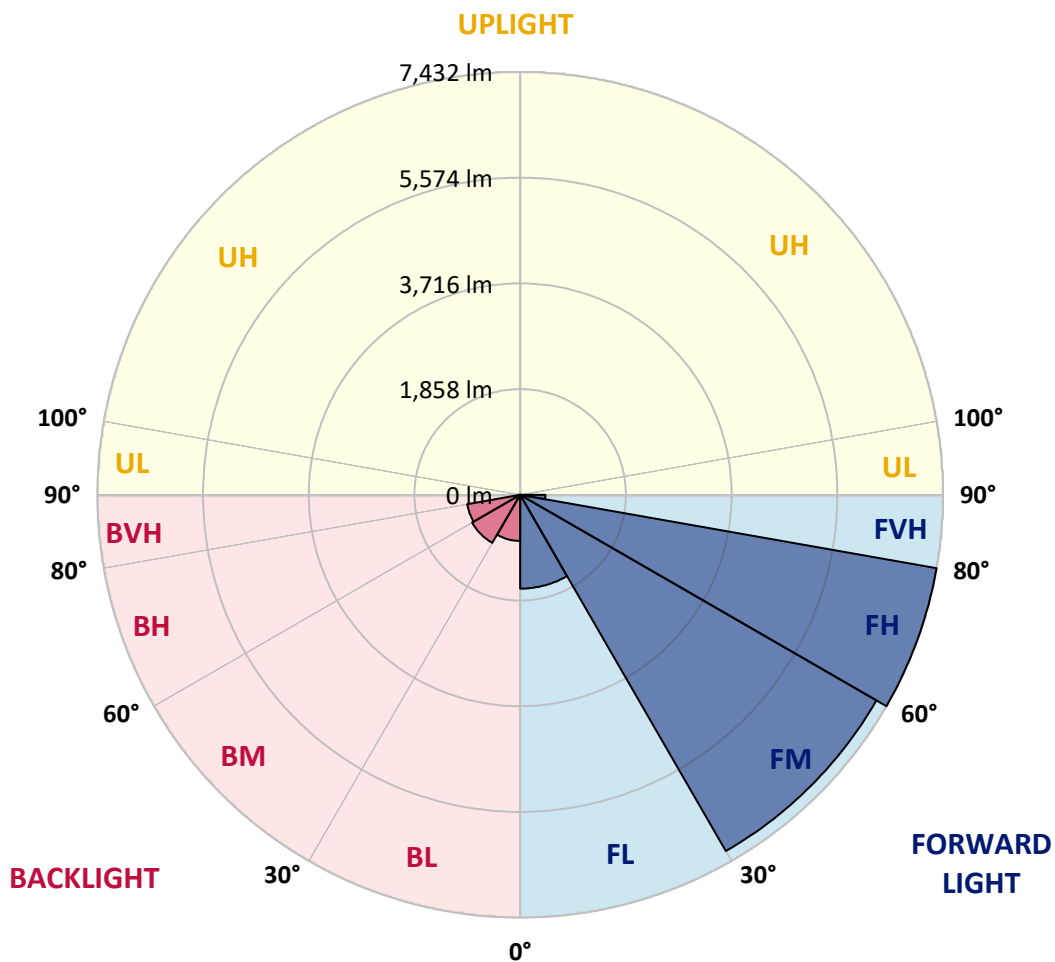
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1649.2	8.4			
FM	(30°-60°)	7229.7	37.0			
FH	(60°-80°)	7431.7	38.0			G3/7500
FVH	(80°-90°)	442.9	2.3			G3/500
BL	(0°-30°)	810.7	4.2	B2/1000		
BM	(30°-60°)	976.3	5.0	B1/1000		
BH	(60°-80°)	944.7	4.8	B2/1000		G2/1000
BVH	(80°-90°)	47.2	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1
2.5°	5079.0	5090.4	5085.6	5082.8	5091.3	5078.1	5050.7	5042.2	5029.0	4997.9	4945.1
5°	4888.4	4922.4	4920.5	4946.0	4988.5	4999.8	4987.5	4989.4	4964.9	4926.2	4838.4
7.5°	4559.2	4573.3	4580.9	4636.5	4713.9	4776.2	4829.0	4846.0	4834.7	4801.6	4688.4
10°	4219.5	4230.8	4248.7	4313.8	4412.0	4497.8	4597.8	4655.4	4679.9	4674.3	4547.8
12.5°	3927.9	3939.3	3962.8	4036.4	4153.4	4259.1	4404.4	4476.1	4534.6	4569.5	4433.7
15°	3666.6	3691.1	3713.7	3798.7	3929.8	4068.5	4232.7	4323.3	4413.8	4492.2	4332.7
17.5°	3462.8	3487.3	3500.5	3577.9	3717.5	3887.4	4079.8	4186.5	4299.7	4428.0	4232.7
20°	3344.8	3356.1	3350.5	3393.9	3519.4	3699.6	3927.9	4051.5	4188.3	4367.6	4132.7
22.5°	3311.8	3312.7	3292.0	3287.3	3368.4	3520.3	3765.6	3915.7	4083.6	4328.0	4046.8
25°	3392.0	3389.2	3332.6	3286.3	3294.8	3383.5	3609.0	3783.6	3995.9	4319.5	3980.8
27.5°	3570.3	3578.8	3494.8	3408.0	3322.2	3319.3	3490.1	3674.1	3924.2	4358.2	3952.5
30°	3820.4	3834.5	3744.9	3634.5	3473.1	3340.1	3443.9	3609.0	3879.8	4438.4	3947.7
32.5°	4094.0	4109.1	4041.2	3925.1	3713.7	3468.4	3476.0	3614.7	3877.9	4550.7	3979.8
35°	4385.5	4402.5	4367.6	4269.5	4034.5	3705.3	3598.6	3706.2	3939.3	4722.4	4065.7
37.5°	4711.1	4737.5	4746.9	4653.5	4402.5	4017.6	3799.6	3879.8	4077.9	4961.1	4223.3
40°	5180.0	5216.8	5214.0	5080.0	4824.3	4439.3	4110.0	4130.8	4294.0	5280.0	4475.2
42.5°	6078.2	6085.8	5850.8	5559.3	5288.5	4882.8	4476.1	4459.1	4592.2	5683.8	4846.0
45°	7220.9	7189.7	6667.0	6103.7	5773.5	5392.3	4952.6	4869.6	4970.5	6176.4	5310.2
47.5°	8169.1	8097.4	7436.9	6659.5	6286.8	5946.1	5512.1	5366.8	5422.5	6734.9	5910.3
50°	8498.4	8444.6	7897.4	7121.8	6772.7	6621.7	6200.9	5995.2	6010.3	7401.1	6613.2
52.5°	8427.6	8420.1	8054.9	7426.5	7227.5	7331.3	7176.5	6898.2	6751.0	8140.8	7371.8
55°	8260.6	8276.7	8144.6	7781.3	7747.3	8016.3	8451.2	8245.5	7787.9	8887.1	8155.9
57.5°	7680.4	7721.9	8012.5	8227.6	8584.3	8984.3	9477.8	9419.3	8904.1	9693.9	9088.1
60°	6187.7	6283.9	7063.3	8140.8	9445.7	10696.8	10917.6	10781.8	10055.2	10694.9	10319.4
62.5°	4335.5	4435.5	5362.1	7048.2	9304.2	12631.1	13491.6	12905.6	11708.3	12169.7	11913.0
65°	2321.1	2369.2	3076.9	4890.3	7854.9	13030.2	17253.4	16361.8	14325.7	13987.9	13276.5
67.5°	1280.4	1306.8	1577.6	2469.2	5030.9	11474.3	19650.0	20323.7	17596.9	15198.4	13028.3
69°	1157.7	1182.2	1359.6	1870.1	3366.5	9487.2	19416.0	21368.2	19031.1	15078.6	12111.2
70°	1132.2	1154.9	1314.3	1723.8	2724.9	7820.0	18631.9	21101.2	19372.6	14649.3	11311.1
72.5°	1019.0	1043.5	1198.3	1548.3	2328.6	3898.7	14758.7	17841.3	17588.4	12701.8	8579.5
75°	950.1	972.8	1235.1	1516.3	2229.6	2467.3	9729.7	13149.1	12929.2	8885.2	4626.1
77.5°	406.7	404.8	572.7	1283.2	2262.6	2389.0	5228.1	8214.4	7494.5	3797.7	1328.5
80°	271.7	267.0	271.7	377.4	2074.8	2402.2	2739.1	4169.5	3149.5	968.1	654.8
82.5°	234.0	230.2	238.7	230.2	729.4	2741.9	2328.6	2217.3	1497.4	550.1	324.6
85°	157.6	151.0	205.7	206.6	344.4	2436.2	2623.0	1872.9	1211.5	326.5	160.4
87.5°	75.5	73.6	119.8	146.2	201.9	989.8	2942.9	1919.1	1221.9	167.0	76.4
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°	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1	4977.1
2.5°	4929.0	4890.3	4852.6	4807.3	4760.1	4707.3	4680.9	4654.4	4647.8	4640.3	4613.9
5°	4793.1	4738.4	4644.1	4540.3	4430.8	4324.2	4243.1	4192.1	4153.4	4133.6	4098.7
7.5°	4617.7	4537.4	4372.3	4193.1	4009.1	3841.1	3695.8	3604.3	3517.5	3476.9	3430.7
10°	4450.6	4330.8	4074.2	3810.0	3545.8	3292.0	3053.3	2884.4	2734.4	2650.4	2590.9
12.5°	4307.2	4143.1	3787.3	3429.7	3067.4	2706.1	2348.5	2067.3	1832.3	1708.7	1645.5
15°	4167.6	3969.4	3514.7	3060.8	2595.7	2104.1	1634.2	1315.3	1120.9	1043.5	1017.1
17.5°	4041.2	3787.3	3241.0	2689.1	2108.8	1514.4	1098.3	922.8	848.2	822.8	814.3
20°	3904.3	3603.4	2957.0	2300.3	1601.2	1058.6	857.7	780.3	750.1	742.6	738.8
22.5°	3772.2	3422.2	2685.3	1884.2	1150.2	817.1	736.9	704.8	700.1	706.7	706.7
25°	3660.0	3259.9	2391.9	1449.3	844.5	687.8	659.5	652.0	669.9	694.4	699.2
27.5°	3576.0	3126.9	2079.5	1070.0	672.7	598.2	597.3	609.5	653.9	701.0	710.5
30°	3518.4	3000.4	1745.5	771.8	564.2	526.5	541.6	568.0	633.1	700.1	718.0
32.5°	3489.2	2907.0	1397.4	597.3	483.1	462.3	487.8	519.9	584.0	646.3	669.9
35°	3511.8	2838.1	1069.0	498.2	426.5	410.4	436.9	468.0	505.7	532.2	550.1
37.5°	3596.7	2810.8	806.7	446.3	387.8	372.7	393.5	411.4	426.5	434.0	442.5
40°	3779.8	2840.0	646.3	419.9	366.1	347.2	355.7	362.3	371.8	379.3	383.1
42.5°	4049.6	2927.8	579.3	409.5	354.8	327.4	325.5	328.3	340.6	354.8	357.6
45°	4427.1	3082.5	574.6	416.1	349.1	311.4	302.9	306.6	325.5	347.2	351.0
47.5°	4909.2	3318.4	612.4	435.9	353.8	302.9	288.7	293.4	317.0	346.3	351.0
50°	5493.2	3647.7	675.6	465.2	374.6	304.8	284.0	286.8	311.4	343.4	348.2
52.5°	6183.0	4114.7	744.4	493.5	396.3	317.0	287.8	281.2	303.8	332.1	337.8
55°	6950.1	4713.9	815.2	518.9	407.6	332.1	295.3	273.6	289.7	313.3	318.0
57.5°	7891.7	5551.7	937.9	543.5	415.2	342.5	302.9	266.1	271.7	288.7	292.5
60°	9166.4	6736.8	1153.9	584.0	432.1	346.3	301.9	259.5	253.8	263.2	265.1
62.5°	10694.0	8023.8	1334.2	635.0	460.4	349.1	296.3	254.8	238.7	238.7	240.6
65°	11600.7	8368.2	1234.1	677.5	484.0	346.3	289.7	250.0	227.4	217.0	218.0
67.5°	10831.8	7359.6	1057.7	685.9	483.1	333.1	279.3	241.5	216.1	200.0	199.1
69°	9868.4	6350.0	978.4	663.3	460.4	316.1	266.1	232.1	207.6	190.6	189.7
70°	9091.9	5733.8	926.5	638.8	435.9	303.8	255.7	223.6	201.0	184.9	183.0
72.5°	6610.4	3757.1	791.6	549.1	359.5	254.8	220.8	196.3	179.3	169.8	167.9
75°	3303.3	1791.8	642.5	445.3	275.5	203.8	181.2	164.2	155.7	153.8	152.9
77.5°	1085.1	820.9	459.5	332.1	204.7	159.5	146.2	134.0	132.1	137.8	135.9
80°	596.3	477.4	291.6	219.8	139.6	117.0	115.1	108.5	111.3	120.8	118.9
82.5°	303.8	248.1	180.2	132.1	94.4	84.0	91.5	87.7	91.5	100.0	99.1
85°	150.0	135.9	114.2	80.2	62.3	53.8	65.1	67.9	69.8	76.4	76.4
87.5°	86.8	80.2	60.4	37.7	31.1	28.3	37.7	36.8	43.4	47.2	46.2
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)