

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: P299995

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-SL3-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28388.1 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

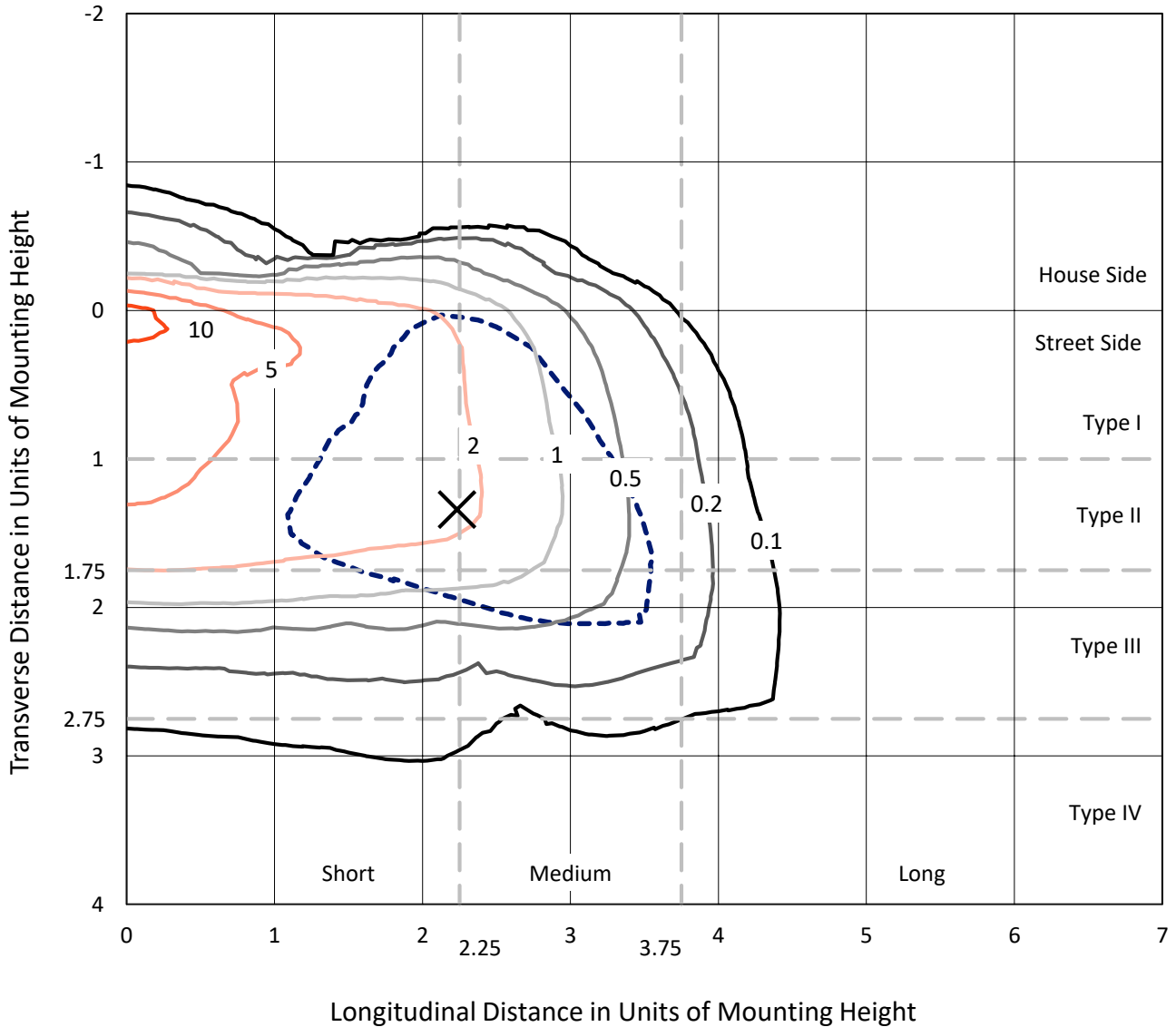
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

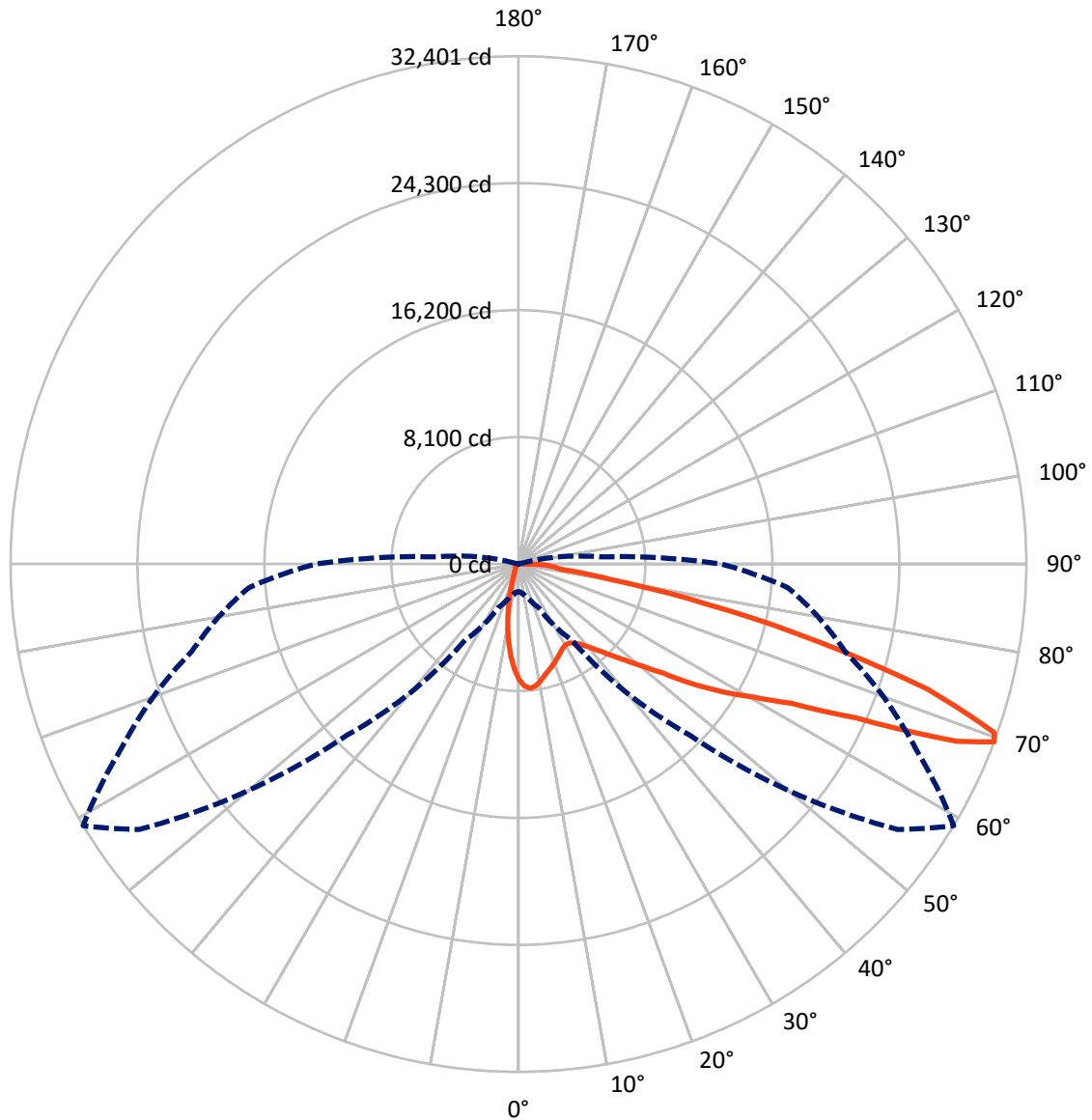
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.9 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2311.8	0.0	2311.8
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	26076.3	0.0	26076.3
	% Fixture	91.9	0.0	91.9
Total	Lumens	28388.1	0.0	28388.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	599.8	2.1
10°-20°	1239.3	4.4
20°-30°	1667.6	5.9
30°-40°	2421.3	8.5
40°-50°	4031.6	14.2
50°-60°	6289.3	22.2
60°-70°	7782.5	27.4
70°-80°	3944.1	13.9
80°-90°	412.7	1.5
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°	28388.1	100.0
0°-180°	28388.1	100.0



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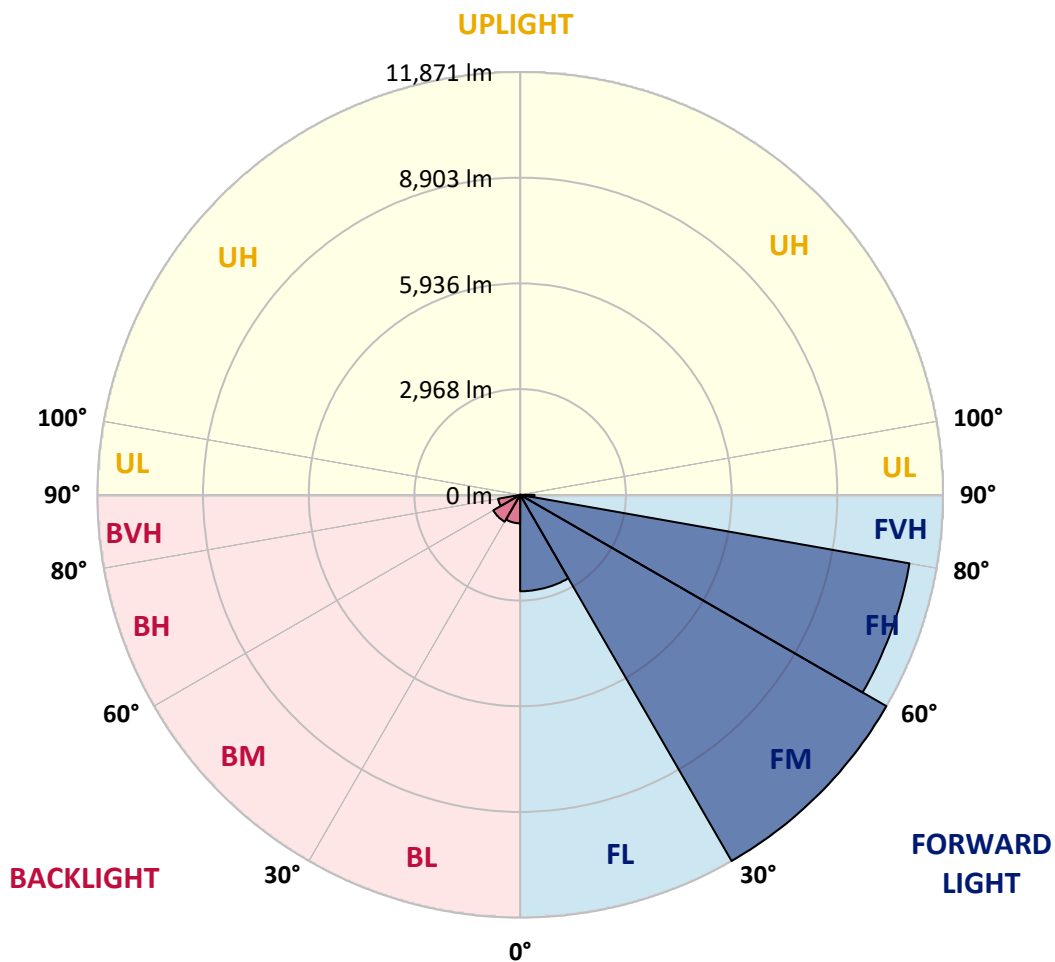
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2706.5	9.5			
FM	(30°-60°)	11871.1	41.8			
FH	(60°-80°)	11098.7	39.1			G4/12000
FVH	(80°-90°)	400.0	1.4			G3/500
BL	(0°-30°)	800.2	2.8	B2/1000		
BM	(30°-60°)	871.1	3.1	B1/1000		
BH	(60°-80°)	627.8	2.2	B2/1000		G2/1000
BVH	(80°-90°)	12.7	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9
2.5°	8098.5	8095.5	8060.1	8044.0	8014.9	7954.1	7859.3	7809.8	7729.6	7589.6	7402.0
5°	8024.6	8063.5	8083.9	8085.8	8106.7	8083.9	7998.8	7957.5	7846.7	7621.7	7284.9
7.5°	7524.0	7538.1	7597.9	7648.9	7748.5	7843.3	7873.9	7855.9	7790.3	7549.7	7101.6
10°	6987.9	7002.0	7073.0	7140.0	7275.1	7420.9	7575.0	7607.6	7634.8	7446.7	6925.2
12.5°	6525.2	6539.8	6612.2	6700.2	6857.7	7037.5	7276.6	7329.6	7450.1	7349.0	6783.8
15°	6127.2	6133.5	6204.5	6313.3	6501.4	6732.3	7003.9	7089.0	7273.7	7280.0	6660.3
17.5°	5788.4	5804.5	5848.2	5952.2	6157.8	6443.6	6760.0	6882.0	7098.2	7222.2	6539.8
20°	5581.4	5597.4	5596.0	5653.8	5838.5	6143.2	6516.0	6661.8	6925.2	7162.9	6432.4
22.5°	5541.5	5541.5	5499.7	5491.5	5600.8	5856.0	6262.3	6440.2	6769.2	7137.1	6357.1
25°	5684.4	5677.6	5573.6	5488.6	5493.4	5645.5	6016.4	6228.3	6638.0	7154.6	6316.7
27.5°	5986.2	5978.0	5846.3	5684.4	5554.2	5552.7	5830.2	6058.2	6533.5	7238.2	6332.8
30°	6403.2	6400.3	6257.4	6053.3	5817.6	5600.8	5766.1	5973.1	6465.9	7388.9	6369.7
32.5°	6859.1	6854.3	6746.8	6532.0	6233.1	5817.6	5833.6	6007.1	6485.4	7589.6	6459.6
35°	7342.7	7334.4	7287.8	7100.2	6771.1	6217.1	6055.2	6189.9	6607.4	7890.0	6636.0
37.5°	7865.7	7873.9	7907.4	7727.6	7382.6	6777.5	6426.1	6517.4	6852.8	8297.7	6923.3
40°	8637.9	8636.5	8647.6	8411.4	8079.5	7462.7	6944.2	6973.3	7264.0	8838.7	7360.2
42.5°	10039.1	9941.4	9644.5	9162.8	8828.9	8246.2	7597.9	7567.2	7766.5	9507.9	7971.6
45°	11922.4	11713.4	10943.1	10020.2	9592.9	9129.3	8401.7	8304.0	8430.9	10312.2	8726.4
47.5°	13541.8	13325.0	12235.4	10912.5	10403.6	9967.2	9344.1	9167.7	9209.5	11212.8	9682.9
50°	14092.5	13986.5	13034.9	11689.6	11188.5	11021.8	10437.6	10222.3	10163.0	12254.4	10791.9
52.5°	13901.5	13893.7	13259.4	12193.6	11907.8	12113.4	11813.1	11564.2	11346.0	13352.8	11920.5
55°	13594.8	13635.1	13350.8	12634.9	12625.2	13110.2	13694.4	13487.4	12855.1	14545.4	12893.5
57.5°	12749.1	12920.7	13299.8	13469.9	13864.5	14360.7	15261.3	15383.3	14635.3	15458.7	13700.7
60°	10344.3	10721.5	11960.8	13589.9	15462.1	16698.0	17152.4	17256.4	16095.8	16217.8	14790.9
62.5°	7342.7	7727.6	9299.4	12055.6	15485.9	19768.6	19969.3	19560.1	17704.5	17343.4	16670.8
65°	3897.3	4194.8	5478.8	8702.1	13426.6	20481.6	24896.1	23676.2	20542.4	19556.7	19099.4
67.5°	1993.6	2083.5	2594.3	4258.9	9230.4	18192.5	29312.0	30170.8	25433.6	21753.0	18982.3
69°	1764.2	1817.2	2156.0	3078.9	5910.4	15409.1	29527.3	32400.6	27994.4	21569.8	17250.1
70°	1707.9	1754.5	2062.6	2786.8	4620.1	12922.1	28703.5	32204.8	28649.1	20873.3	15956.3
72.5°	1449.8	1489.6	1836.6	2462.6	3754.9	6414.4	23316.5	27289.7	25708.2	17388.1	11549.6
75°	969.6	1101.3	1762.8	2308.6	3493.0	3644.1	15372.1	19720.5	18319.3	11728.0	6016.4
77.5°	232.8	250.3	497.7	1836.6	3194.6	3207.2	7906.0	12259.2	9999.3	4180.2	1422.1
80°	125.4	120.5	139.5	364.5	2974.4	3009.9	3559.1	5950.8	3570.3	693.5	468.5
82.5°	88.5	83.6	89.9	152.6	936.1	2741.6	2574.9	2693.5	1479.9	266.3	210.4
85°	32.1	30.6	49.6	138.0	293.6	1576.1	2645.4	2221.6	1199.0	122.0	154.1
87.5°	11.2	9.7	19.4	75.3	89.9	671.2	1632.5	1679.2	471.9	73.9	72.4
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°	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9	7388.9
2.5°	7323.3	7223.6	7040.9	6852.8	6679.3	6470.8	6366.3	6263.7	6220.5	6204.5	6129.1
5°	7111.4	6942.7	6554.4	6164.1	5804.5	5422.5	5170.7	4968.5	4849.4	4791.6	4700.2
7.5°	6840.2	6564.1	5974.6	5372.9	4812.5	4260.4	3851.2	3536.2	3319.5	3215.5	3120.7
10°	6576.7	6209.3	5371.4	4551.0	3789.9	3058.0	2492.8	2083.5	1822.1	1701.5	1624.7
12.5°	6341.0	5864.2	4788.7	3750.1	2794.6	1937.7	1362.8	1037.2	874.8	818.4	791.2
15°	6130.6	5546.4	4238.0	2989.0	1892.5	1107.6	745.1	634.2	608.5	608.5	605.1
17.5°	5931.3	5234.9	3706.3	2274.5	1187.8	677.5	566.7	552.1	552.1	558.4	558.4
20°	5740.3	4937.9	3192.6	1632.5	748.0	537.5	512.3	508.9	512.3	520.0	520.0
22.5°	5576.5	4668.2	2712.9	1120.3	555.5	484.6	471.9	467.1	468.5	473.4	476.8
25°	5454.5	4440.2	2260.5	759.2	478.2	441.3	427.2	418.9	412.6	412.6	415.5
27.5°	5377.7	4247.8	1822.1	552.1	430.1	401.4	378.6	366.0	351.4	343.6	346.5
30°	5321.4	4064.5	1410.9	451.0	385.4	356.2	327.6	306.7	285.8	276.1	279.5
32.5°	5300.5	3916.8	1054.7	398.0	345.1	313.0	277.5	250.3	227.9	219.7	221.6
35°	5356.8	3799.7	772.3	359.7	313.0	272.7	232.8	202.2	184.7	179.8	181.3
37.5°	5504.6	3737.0	577.9	327.6	284.3	239.1	194.4	165.2	154.1	154.1	155.5
40°	5783.6	3735.5	464.1	305.2	258.6	207.0	160.4	139.5	133.2	136.6	138.0
42.5°	6191.3	3820.6	404.4	284.3	236.2	176.4	133.2	118.6	117.1	120.5	122.0
45°	6748.3	3976.1	372.3	266.3	211.9	147.7	112.3	102.5	102.5	107.4	109.4
47.5°	7430.7	4204.0	345.1	248.8	187.6	123.4	96.2	89.9	91.4	96.2	97.7
50°	8252.5	4491.7	317.9	229.4	170.1	102.5	83.6	78.7	80.2	86.5	88.5
52.5°	9188.6	4878.6	295.5	211.9	147.7	85.1	70.5	67.6	70.5	77.3	78.7
55°	9991.0	5225.1	268.3	197.3	118.6	70.5	57.8	57.8	61.2	69.0	70.5
57.5°	10763.3	5587.7	244.0	170.1	93.3	56.4	48.1	49.6	54.4	62.7	64.2
60°	11896.7	6202.5	215.3	142.9	70.5	44.7	40.3	41.8	48.1	56.4	57.8
62.5°	13821.3	7138.6	186.1	118.6	54.4	35.5	32.1	35.5	43.3	53.0	54.4
65°	15558.3	7519.1	152.6	99.6	41.8	27.2	27.2	32.1	41.8	51.5	53.0
67.5°	14590.1	6329.4	118.6	78.7	32.1	20.9	22.4	30.6	40.3	51.5	53.0
69°	12903.2	5175.6	101.1	62.7	27.2	19.4	20.9	30.6	40.3	49.6	51.5
70°	11588.5	4369.8	89.9	53.0	24.3	19.4	20.9	28.7	40.3	49.6	51.5
72.5°	7761.6	2359.6	72.4	38.4	22.4	17.5	17.5	28.7	38.4	48.1	49.6
75°	3335.5	651.7	57.8	27.2	19.4	16.0	16.0	27.2	36.9	46.7	49.6
77.5°	609.9	165.2	46.7	24.3	19.4	16.0	14.6	25.8	35.5	44.7	46.7
80°	242.5	81.7	36.9	20.9	17.5	14.6	12.6	24.3	33.5	43.3	44.7
82.5°	146.3	46.7	30.6	19.4	17.5	12.6	11.2	20.9	32.1	41.8	43.3
85°	118.6	32.1	24.3	19.4	16.0	12.6	9.7	19.4	28.7	40.3	41.8
87.5°	57.8	22.4	22.4	17.5	16.0	12.6	9.7	17.5	27.2	38.4	40.3
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)