

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: P301842

Luminaire Tested: **GLNA-AF-08-LED-E1-SL4-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301842
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-SL4-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30564.4 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

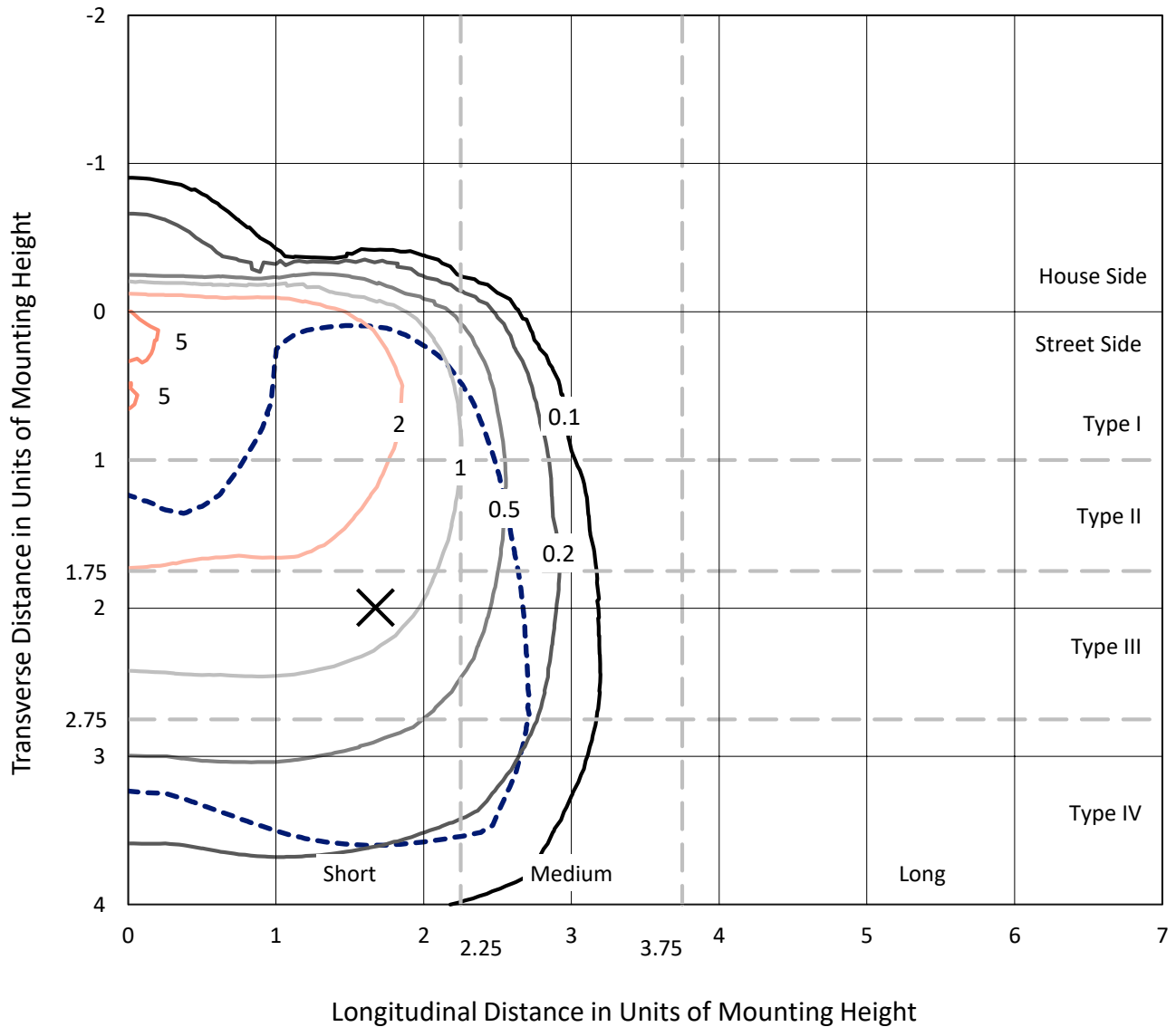
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

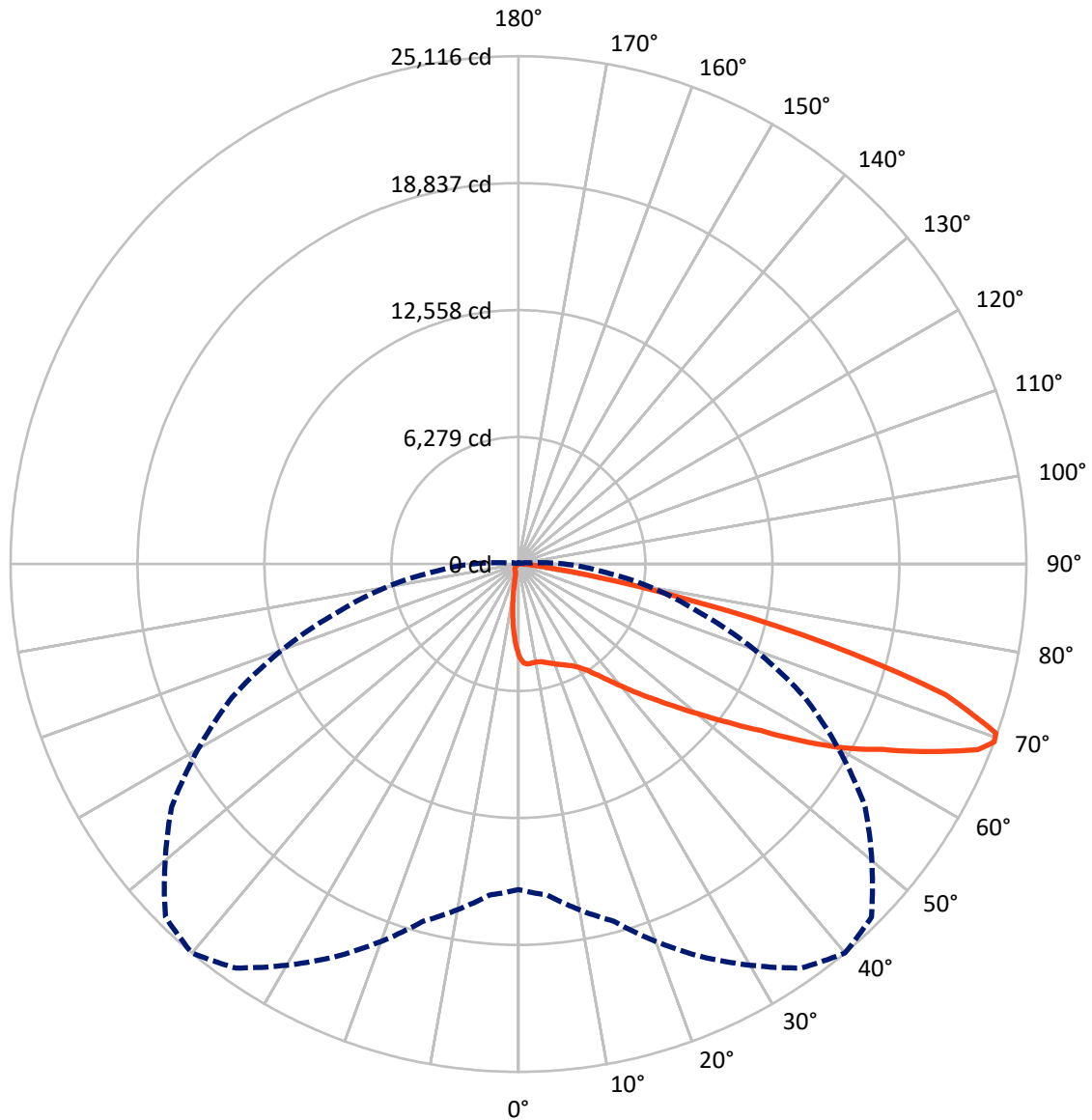


Based on 30 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1788.2	0.0	1788.2
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	28776.2	0.0	28776.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	30564.4	0.0	30564.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	370.2	1.2
10°-20°	910.5	3.0
20°-30°	1533.6	5.0
30°-40°	2510.6	8.2
40°-50°	4347.0	14.2
50°-60°	6847.0	22.4
60°-70°	8941.8	29.3
70°-80°	4605.4	15.1
80°-90°	498.2	1.6
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°	30564.4	100.0
0°-180°	30564.4	100.0

Coefficient of Utilization



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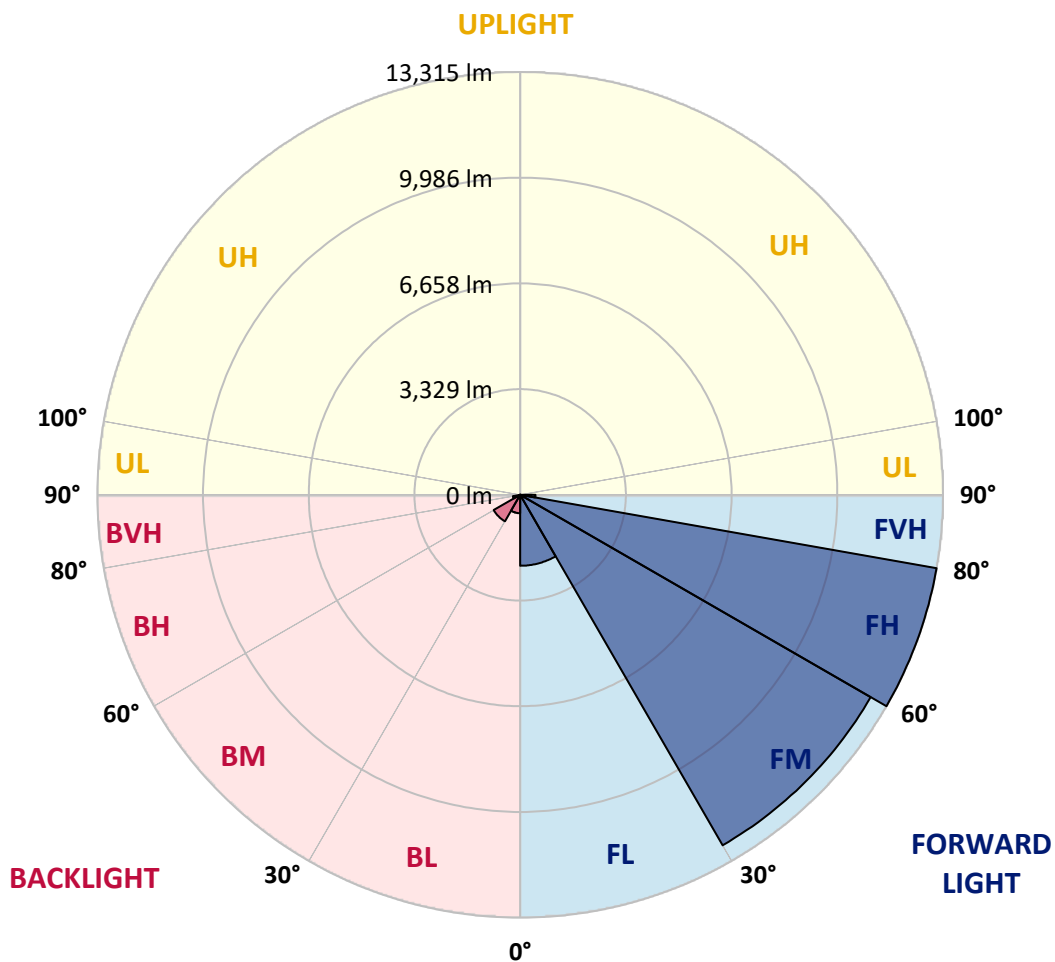
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2235.1	7.3			
FM	(30°-60°)	12743.4	41.7			
FH	(60°-80°)	13315.1	43.6			G5
FVH	(80°-90°)	482.5	1.6			G3/500
BL	(0°-30°)	579.2	1.9	B2/1000		
BM	(30°-60°)	961.1	3.1	B1/1000		
BH	(60°-80°)	232.2	0.8	B1/500		G1/500
BVH	(80°-90°)	15.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5
2.5°	5014.0	4986.7	4970.4	4948.5	4921.2	4897.6	4888.5	4821.2	4757.5	4670.2	4570.1
5°	5106.8	5097.7	5068.6	5039.5	5006.7	4970.4	4950.4	4870.3	4779.3	4652.0	4477.3
7.5°	5115.9	5105.0	5068.6	5028.6	4983.1	4939.4	4904.9	4824.8	4741.1	4612.0	4399.1
10°	5101.4	5088.6	5061.3	5017.7	4961.3	4919.4	4884.9	4808.4	4737.5	4621.1	4384.5
12.5°	5085.0	5072.2	5059.5	5037.7	4988.6	4959.4	4930.3	4857.6	4793.9	4695.6	4437.3
15°	5101.4	5094.1	5108.6	5099.5	5072.2	5046.8	5017.7	4952.2	4894.0	4812.1	4533.7
17.5°	5170.5	5170.5	5216.0	5221.4	5196.0	5159.6	5117.7	5052.2	5003.1	4934.0	4648.3
20°	5332.4	5326.9	5385.2	5396.1	5334.2	5277.8	5216.0	5135.9	5097.7	5054.1	4761.1
22.5°	5610.8	5585.3	5619.9	5608.9	5487.0	5399.7	5323.3	5225.1	5205.1	5185.0	4886.7
25°	5972.8	5958.3	5981.9	5874.6	5659.9	5541.6	5450.7	5339.7	5339.7	5359.7	5028.6
27.5°	6498.6	6444.0	6364.0	6174.7	5852.7	5701.7	5603.5	5485.2	5516.2	5590.7	5216.0
30°	7037.1	6977.1	6793.3	6502.2	6087.4	5929.1	5814.5	5690.8	5763.6	5900.0	5467.0
32.5°	7568.3	7501.0	7240.9	6873.4	6424.0	6265.7	6154.7	6018.3	6140.2	6369.4	5834.5
35°	8083.2	8023.2	7723.0	7290.0	6871.5	6740.6	6638.7	6520.4	6676.9	6997.1	6353.0
37.5°	8661.7	8596.3	8230.6	7761.2	7415.5	7320.9	7246.3	7128.1	7401.0	7870.3	7075.3
40°	9373.1	9262.1	8769.1	8301.5	8045.0	7999.5	7948.6	7932.2	8356.1	9005.6	8037.7
42.5°	10188.2	10006.2	9333.1	8871.0	8736.3	8769.1	8756.4	8829.1	9551.4	10417.4	9209.4
45°	11003.2	10768.5	9960.7	9478.6	9496.8	9611.4	9682.4	9973.5	11048.7	12036.6	10470.1
47.5°	11694.5	11463.5	10562.9	10135.4	10353.7	10579.3	10772.2	11323.4	12587.8	13630.3	11450.8
50°	12285.8	12067.5	11201.5	10857.7	11348.9	11712.7	12025.7	12842.5	14243.4	14843.8	12138.5
52.5°	12769.8	12624.2	11863.7	11685.4	12485.9	13019.0	13477.5	14456.3	15709.8	15829.8	12673.3
55°	13241.0	13137.3	12575.1	12669.7	13821.3	14547.2	15127.6	16168.2	16972.4	16652.2	13186.4
57.5°	13783.1	13688.5	13386.5	13917.7	15577.0	16490.3	17123.4	17685.5	18084.0	17492.7	13670.3
60°	14336.2	14281.6	14288.9	15304.1	17592.8	18469.7	18819.0	18964.5	19175.6	18284.1	13697.6
62.5°	14863.8	14967.5	15320.4	16846.8	19523.0	20196.2	20372.7	20516.4	20269.0	18409.6	12655.1
65°	15757.1	15926.3	16768.6	18911.8	21646.2	22366.6	22548.6	22055.5	20441.8	16786.8	10293.7
67.5°	16193.7	16503.0	18005.7	20836.6	23705.6	24506.1	24438.8	22155.6	18344.1	12800.7	6605.9
69°	16102.7	16432.0	18291.4	21426.1	24389.7	25115.6	24688.1	20931.2	15627.9	9273.0	4055.2
70°	15742.5	16075.5	18144.0	21404.2	24477.0	25051.9	24226.0	19419.3	13213.7	6780.6	2536.1
72.5°	13146.4	13433.8	16108.2	19346.6	22548.6	22081.0	20267.1	13453.8	6438.5	1846.6	571.3
75°	8092.3	8252.4	11558.1	14574.5	17030.6	15829.8	13502.9	6693.3	1919.4	522.1	316.6
77.5°	4275.4	4348.2	6327.6	8590.8	10795.8	8932.8	6920.7	2610.7	884.2	327.5	229.2
80°	2527.0	2581.6	3407.6	3927.9	4672.0	3902.4	2767.2	1602.8	633.1	205.6	203.8
82.5°	1446.4	1480.9	2470.6	2183.2	1841.1	1571.9	1377.2	1519.1	380.2	138.3	211.0
85°	531.2	538.5	1390.0	1661.0	1095.2	651.3	684.1	1259.0	101.9	87.3	165.6
87.5°	247.4	242.0	715.0	1017.0	640.4	413.0	533.1	276.5	40.0	56.4	45.5
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5	4566.5
2.5°	4511.9	4444.6	4322.7	4197.2	4069.8	3971.6	3875.1	3798.7	3773.3	3726.0	3729.6
5°	4373.6	4249.9	3995.2	3736.9	3467.6	3245.7	3036.4	2867.2	2785.4	2701.7	2701.7
7.5°	4253.6	4073.4	3675.0	3254.8	2819.9	2454.3	2125.0	1877.5	1741.1	1631.9	1630.1
10°	4208.1	3964.3	3407.6	2805.4	2199.5	1701.1	1309.9	1058.8	929.7	846.0	842.3
12.5°	4228.1	3926.1	3202.0	2390.6	1630.1	1093.4	758.7	596.7	542.2	516.7	516.7
15°	4286.3	3915.2	2996.4	1984.9	1151.6	684.1	503.9	460.3	456.6	456.6	456.6
17.5°	4357.3	3918.8	2785.4	1590.1	784.1	489.4	434.8	429.4	433.0	433.0	433.0
20°	4430.0	3920.6	2558.0	1224.4	553.1	425.7	409.3	407.5	411.2	411.2	413.0
22.5°	4519.2	3929.7	2330.5	915.1	456.6	402.1	389.3	389.3	391.2	391.2	389.3
25°	4621.1	3947.9	2094.0	678.6	416.6	385.7	374.8	373.0	374.8	373.0	371.1
27.5°	4748.4	3973.4	1830.2	531.2	398.4	369.3	360.2	360.2	358.4	356.6	354.8
30°	4908.5	4002.5	1533.7	451.2	380.2	354.8	345.7	343.9	342.0	338.4	338.4
32.5°	5152.3	4066.2	1240.8	409.3	360.2	334.8	327.5	327.5	323.8	320.2	318.4
35°	5527.1	4191.7	978.8	383.9	338.4	312.9	303.8	303.8	300.2	298.4	296.5
37.5°	6045.6	4382.7	760.5	360.2	316.6	289.3	280.2	278.4	274.7	271.1	269.3
40°	6735.1	4619.2	598.6	338.4	294.7	265.6	258.3	254.7	247.4	242.0	242.0
42.5°	7601.1	4888.5	485.8	314.7	269.3	243.8	238.3	232.9	220.1	214.7	212.9
45°	8507.1	5130.5	411.2	287.5	243.8	222.0	218.3	209.2	192.8	187.4	187.4
47.5°	9160.2	5186.9	362.0	262.0	220.1	198.3	196.5	180.1	165.6	161.9	160.1
50°	9567.8	5075.9	322.0	236.5	198.3	176.5	171.0	151.0	141.9	138.3	136.4
52.5°	9842.5	4877.6	289.3	214.7	178.3	156.5	143.7	129.2	121.9	118.3	118.3
55°	10062.6	4597.4	256.5	194.7	161.9	140.1	121.9	111.0	103.7	100.1	100.1
57.5°	10124.5	4217.2	223.8	178.3	145.5	123.7	103.7	96.4	87.3	85.5	85.5
60°	9675.1	3531.3	198.3	158.3	131.0	107.3	91.0	81.9	72.8	71.0	69.1
62.5°	8490.7	2732.6	174.7	140.1	114.6	92.8	78.2	67.3	60.0	60.0	60.0
65°	6476.8	1832.0	152.8	121.9	100.1	78.2	67.3	54.6	50.9	50.9	52.8
67.5°	3877.0	997.0	131.0	103.7	85.5	65.5	56.4	47.3	45.5	47.3	47.3
69°	2272.3	585.8	118.3	92.8	74.6	58.2	49.1	41.8	45.5	47.3	47.3
70°	1402.7	394.8	109.2	83.7	67.3	52.8	45.5	40.0	43.7	45.5	45.5
72.5°	391.2	203.8	87.3	65.5	54.6	43.7	36.4	36.4	41.8	43.7	43.7
75°	254.7	151.0	67.3	49.1	41.8	34.6	30.9	34.6	40.0	41.8	41.8
77.5°	211.0	123.7	54.6	40.0	34.6	32.7	29.1	30.9	36.4	38.2	38.2
80°	192.8	87.3	43.7	36.4	30.9	29.1	27.3	25.5	32.7	34.6	34.6
82.5°	183.8	69.1	38.2	32.7	29.1	25.5	23.7	25.5	29.1	30.9	32.7
85°	114.6	45.5	34.6	30.9	25.5	23.7	23.7	23.7	27.3	29.1	29.1
87.5°	41.8	36.4	30.9	25.5	21.8	21.8	21.8	21.8	23.7	27.3	27.3
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)