

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: P301908

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301908
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-09-LED-E1-SL4-7027-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 800mA 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: 27544.3 lumens
Efficiency: N/A
Efficacy: 73.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 374
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

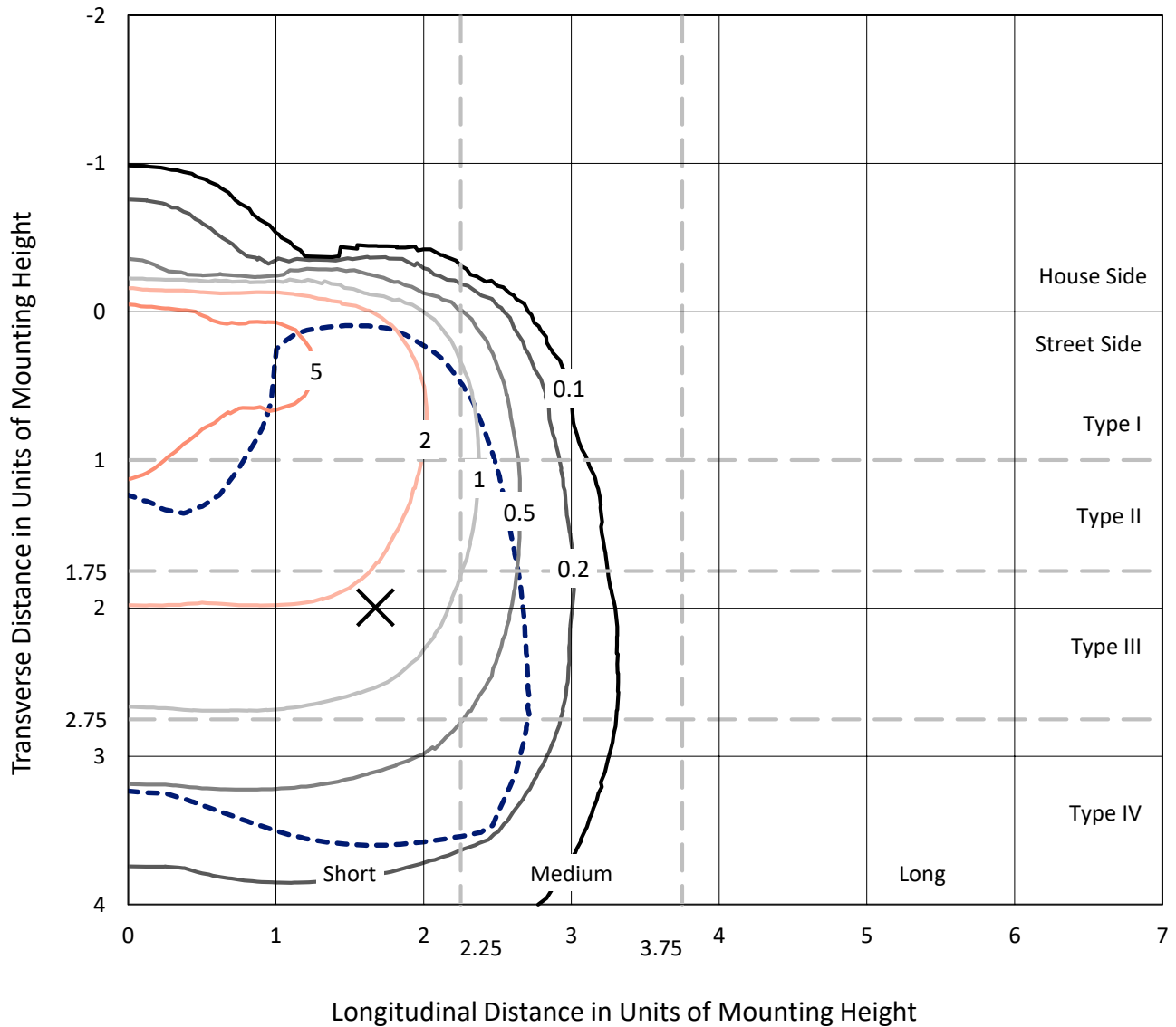


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

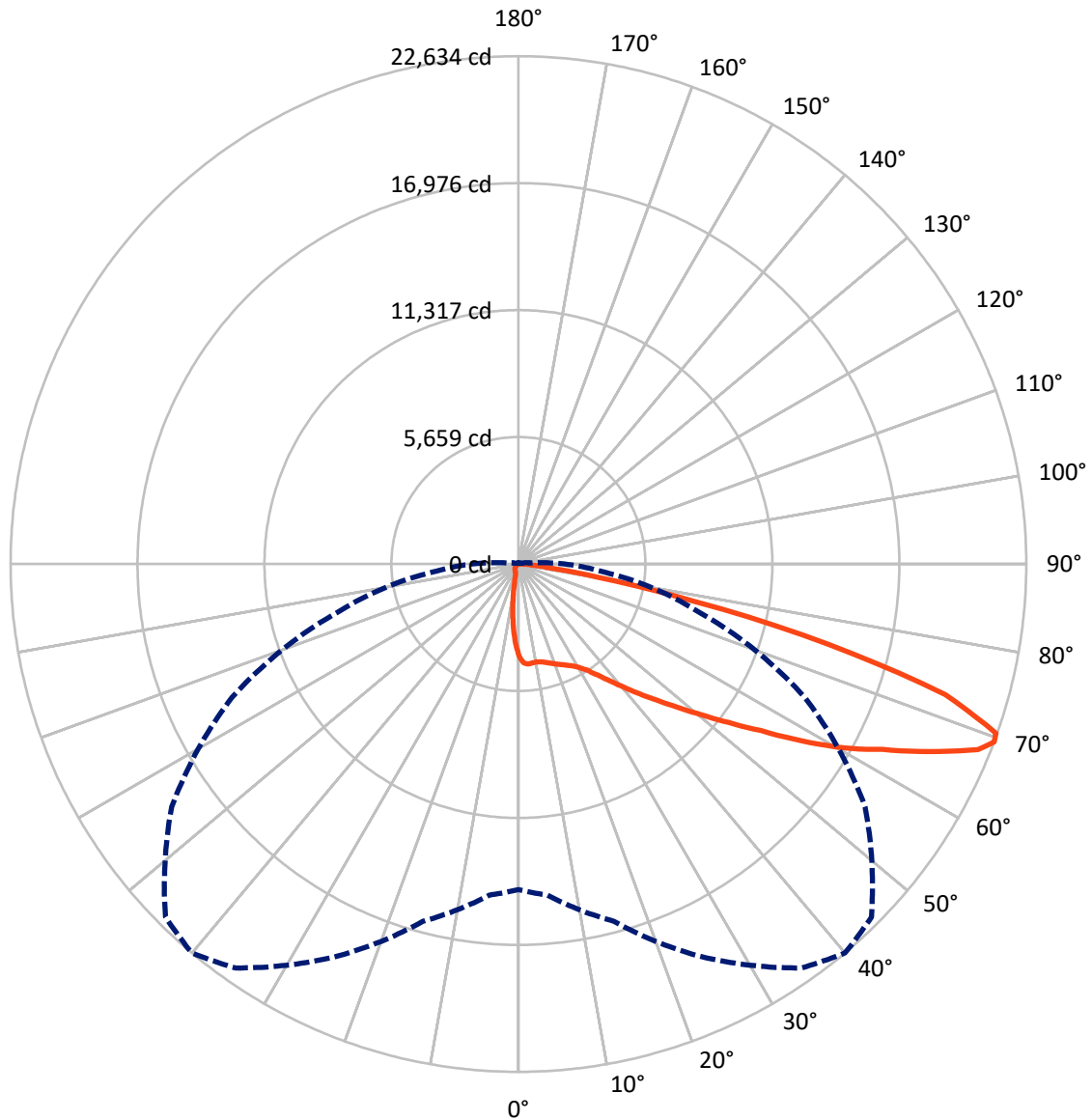


Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - Semi-Cutoff

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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	1611.5	0.0	1611.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	25932.8	0.0	25932.8
	% Fixture	94.1	0.0	94.1
Total	Lumens	27544.3	0.0	27544.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.7	1.2
10°-20°	820.5	3.0
20°-30°	1382.1	5.0
30°-40°	2262.5	8.2
40°-50°	3917.5	14.2
50°-60°	6170.4	22.4
60°-70°	8058.3	29.3
70°-80°	4150.4	15.1
80°-90°	449.0	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°	27544.3	100.0
0°-180°	27544.3	100.0

Coefficient of Utilization



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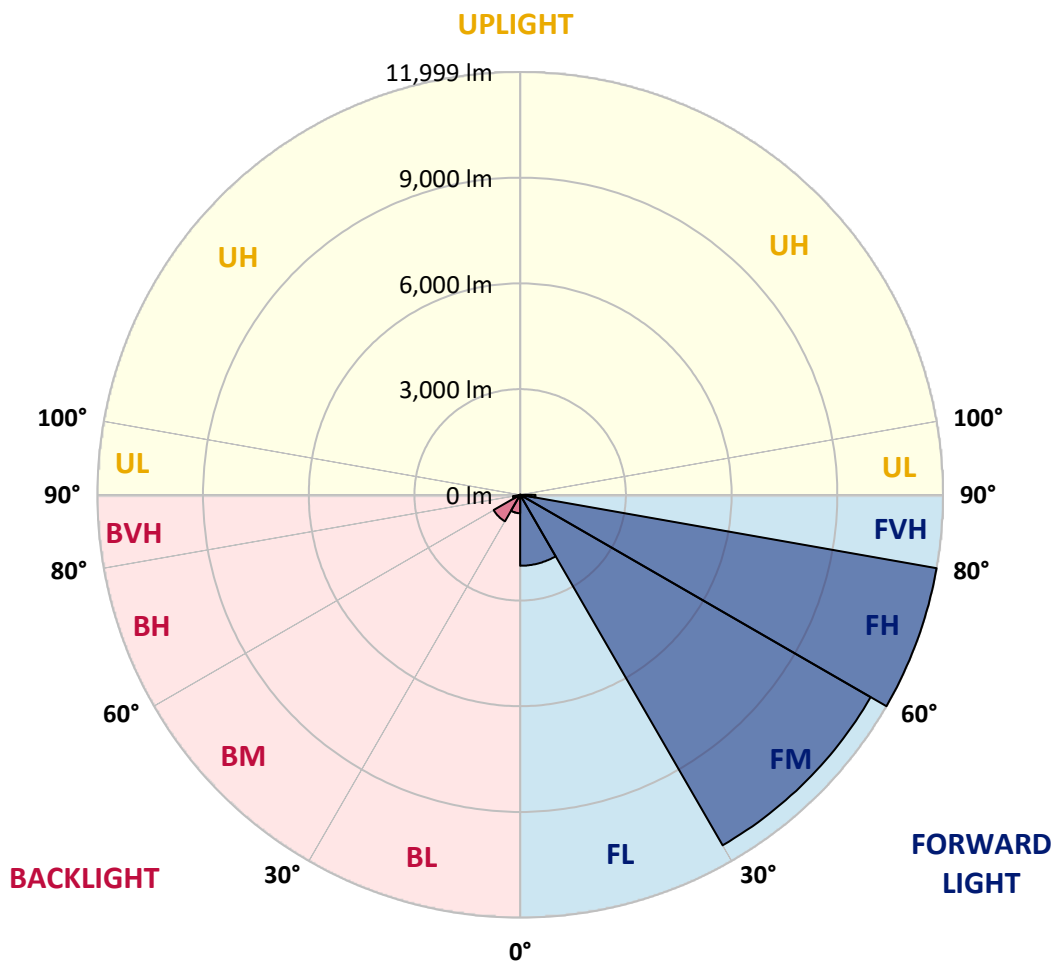
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2014.3	7.3			
FM	(30°-60°)	11484.3	41.7			
FH	(60°-80°)	11999.4	43.6			G4/12000
FVH	(80°-90°)	434.9	1.6			G3/500
BL	(0°-30°)	522.0	1.9	B2/1000		
BM	(30°-60°)	866.1	3.1	B1/1000		
BH	(60°-80°)	209.3	0.8	B1/500		G1/500
BVH	(80°-90°)	14.1	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3
2.5°	4518.6	4494.0	4479.2	4459.6	4435.0	4413.7	4405.5	4344.8	4287.4	4208.7	4118.5
5°	4602.2	4594.0	4567.8	4541.5	4512.0	4479.2	4461.2	4389.1	4307.1	4192.3	4034.9
7.5°	4610.4	4600.6	4567.8	4531.7	4490.7	4451.4	4420.2	4348.1	4272.7	4156.3	3964.4
10°	4597.3	4585.8	4561.2	4521.9	4471.0	4433.3	4402.2	4333.3	4269.4	4164.5	3951.3
12.5°	4582.5	4571.1	4559.6	4539.9	4495.6	4469.4	4443.2	4377.6	4320.2	4231.7	3998.9
15°	4597.3	4590.7	4603.9	4595.7	4571.1	4548.1	4521.9	4462.9	4410.4	4336.6	4085.8
17.5°	4659.6	4659.6	4700.6	4705.5	4682.6	4649.8	4612.0	4553.0	4508.8	4446.5	4189.0
20°	4805.5	4800.6	4853.1	4862.9	4807.2	4756.3	4700.6	4628.4	4594.0	4554.7	4290.7
22.5°	5056.4	5033.4	5064.6	5054.7	4944.9	4866.2	4797.3	4708.8	4690.7	4672.7	4403.8
25°	5382.6	5369.5	5390.8	5294.1	5100.6	4994.1	4912.1	4812.1	4812.1	4830.1	4531.7
27.5°	5856.5	5807.3	5735.1	5564.6	5274.4	5138.3	5049.8	4943.2	4971.1	5038.3	4700.6
30°	6341.8	6287.7	6122.1	5859.7	5485.9	5343.3	5240.0	5128.5	5194.1	5317.1	4926.8
32.5°	6820.5	6759.9	6525.4	6194.2	5789.2	5646.6	5546.6	5423.6	5533.5	5740.1	5258.0
35°	7284.5	7230.4	6959.9	6569.7	6192.6	6074.5	5982.7	5876.1	6017.1	6305.7	5725.3
37.5°	7805.9	7746.9	7417.3	6994.3	6682.8	6597.5	6530.3	6423.8	6669.7	7092.7	6376.2
40°	8447.0	8346.9	7902.6	7481.3	7250.1	7209.1	7163.2	7148.4	7530.4	8115.8	7243.5
42.5°	9181.5	9017.5	8410.9	7994.4	7873.1	7902.6	7891.1	7956.7	8607.6	9388.1	8299.4
45°	9916.0	9704.5	8976.5	8542.0	8558.4	8661.7	8725.7	8988.0	9957.0	10847.3	9435.6
47.5°	10539.0	10330.8	9519.2	9133.9	9330.7	9534.0	9707.8	10204.5	11344.0	12283.5	10319.3
50°	11071.9	10875.1	10094.7	9784.8	10227.5	10555.4	10837.4	11573.6	12836.0	13377.1	10939.1
52.5°	11508.0	11376.8	10691.5	10530.8	11252.2	11732.6	12145.8	13027.9	14157.5	14265.7	11421.1
55°	11932.6	11839.2	11332.6	11417.8	12455.6	13109.8	13632.8	14570.7	15295.3	15006.8	11883.4
57.5°	12421.2	12336.0	12063.8	12542.5	14037.8	14860.9	15431.4	15938.1	16297.1	15764.3	12319.6
60°	12919.6	12870.5	12877.0	13791.9	15854.4	16644.7	16959.5	17090.7	17280.8	16477.5	12344.2
62.5°	13395.1	13488.6	13806.6	15182.2	17594.0	18200.6	18359.7	18489.2	18266.2	16590.6	11404.7
65°	14200.1	14352.6	15111.7	17043.1	19507.3	20156.6	20320.6	19876.2	18422.0	15128.1	9276.6
67.5°	14593.6	14872.3	16226.6	18777.7	21363.3	22084.7	22024.1	19966.4	16531.6	11535.9	5953.2
69°	14511.6	14808.4	16484.0	19309.0	21979.8	22634.0	22248.7	18863.0	14083.7	8356.8	3654.6
70°	14187.0	14487.1	16351.2	19289.3	22058.5	22576.6	21832.2	17500.5	11908.0	6110.6	2285.5
72.5°	11847.4	12106.4	14516.6	17435.0	20320.6	19899.2	18264.6	12124.5	5802.4	1664.1	514.8
75°	7292.7	7437.0	10416.1	13134.4	15347.8	14265.7	12168.7	6031.9	1729.7	470.6	285.3
77.5°	3852.9	3918.5	5702.3	7741.9	9729.1	8050.2	6236.8	2352.8	796.8	295.1	206.6
80°	2277.3	2326.5	3070.9	3539.8	4210.4	3516.8	2493.8	1444.4	570.6	185.3	183.6
82.5°	1303.4	1334.6	2226.5	1967.5	1659.2	1416.6	1241.1	1369.0	342.7	124.6	190.2
85°	478.7	485.3	1252.6	1496.9	987.0	587.0	616.5	1134.6	91.8	78.7	149.2
87.5°	223.0	218.1	644.3	916.5	577.1	372.2	480.4	249.2	36.1	50.8	41.0
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°	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3	4115.3
2.5°	4066.1	4005.4	3895.6	3782.4	3667.7	3579.1	3492.2	3423.4	3400.4	3357.8	3361.1
5°	3941.5	3830.0	3600.4	3367.6	3125.0	2925.0	2736.4	2583.9	2510.1	2434.7	2434.7
7.5°	3833.3	3670.9	3311.9	2933.2	2541.3	2211.8	1915.0	1692.0	1569.0	1470.7	1469.0
10°	3792.3	3572.6	3070.9	2528.2	1982.2	1533.0	1180.5	954.2	837.8	762.4	759.1
12.5°	3810.3	3538.1	2885.6	2154.4	1469.0	985.4	683.7	537.8	488.6	465.6	465.6
15°	3862.8	3528.3	2700.3	1788.7	1037.8	616.5	454.2	414.8	411.5	411.5	411.5
17.5°	3926.7	3531.6	2510.1	1433.0	706.6	441.0	391.9	386.9	390.2	390.2	390.2
20°	3992.3	3533.2	2305.2	1103.4	498.4	383.7	368.9	367.3	370.5	370.5	372.2
22.5°	4072.6	3541.4	2100.3	824.7	411.5	362.3	350.9	350.9	352.5	352.5	350.9
25°	4164.5	3557.8	1887.1	611.6	375.5	347.6	337.7	336.1	337.7	336.1	334.5
27.5°	4279.2	3580.8	1649.4	478.7	359.1	332.8	324.6	324.6	323.0	321.4	319.7
30°	4423.5	3607.0	1382.1	406.6	342.7	319.7	311.5	309.9	308.2	305.0	305.0
32.5°	4643.2	3664.4	1118.2	368.9	324.6	301.7	295.1	295.1	291.8	288.6	286.9
35°	4980.9	3777.5	882.1	345.9	305.0	282.0	273.8	273.8	270.5	268.9	267.2
37.5°	5448.2	3949.7	685.3	324.6	285.3	260.7	252.5	250.9	247.6	244.3	242.7
40°	6069.6	4162.8	539.4	305.0	265.6	239.4	232.8	229.5	223.0	218.1	218.1
42.5°	6850.0	4405.5	437.8	283.6	242.7	219.7	214.8	209.9	198.4	193.5	191.8
45°	7666.5	4623.5	370.5	259.0	219.7	200.0	196.7	188.5	173.8	168.9	168.9
47.5°	8255.1	4674.4	326.3	236.1	198.4	178.7	177.1	162.3	149.2	145.9	144.3
50°	8622.4	4574.3	290.2	213.1	178.7	159.0	154.1	136.1	127.9	124.6	123.0
52.5°	8870.0	4395.6	260.7	193.5	160.7	141.0	129.5	116.4	109.8	106.6	106.6
55°	9068.3	4143.1	231.2	175.4	145.9	126.2	109.8	100.0	93.5	90.2	90.2
57.5°	9124.1	3800.5	201.7	160.7	131.2	111.5	93.5	86.9	78.7	77.1	77.1
60°	8719.1	3182.4	178.7	142.6	118.0	96.7	82.0	73.8	65.6	63.9	62.3
62.5°	7651.8	2462.6	157.4	126.2	103.3	83.6	70.5	60.7	54.1	54.1	54.1
65°	5836.8	1651.0	137.7	109.8	90.2	70.5	60.7	49.2	45.9	45.9	47.5
67.5°	3493.9	898.5	118.0	93.5	77.1	59.0	50.8	42.6	41.0	42.6	42.6
69°	2047.8	527.9	106.6	83.6	67.2	52.5	44.3	37.7	41.0	42.6	42.6
70°	1264.1	355.8	98.4	75.4	60.7	47.5	41.0	36.1	39.3	41.0	41.0
72.5°	352.5	183.6	78.7	59.0	49.2	39.3	32.8	32.8	37.7	39.3	39.3
75°	229.5	136.1	60.7	44.3	37.7	31.2	27.9	31.2	36.1	37.7	37.7
77.5°	190.2	111.5	49.2	36.1	31.2	29.5	26.2	27.9	32.8	34.4	34.4
80°	173.8	78.7	39.3	32.8	27.9	26.2	24.6	23.0	29.5	31.2	31.2
82.5°	165.6	62.3	34.4	29.5	26.2	23.0	21.3	23.0	26.2	27.9	29.5
85°	103.3	41.0	31.2	27.9	23.0	21.3	21.3	21.3	24.6	26.2	26.2
87.5°	37.7	32.8	27.9	23.0	19.7	19.7	19.7	19.7	21.3	24.6	24.6
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)