

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: P301896

Luminaire Tested: **GLNA-AF-07-LED-E1-SL4-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301896  
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-07-LED-E1-SL4-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 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: 21792.9 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G4

Input Watts (W): 295  
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

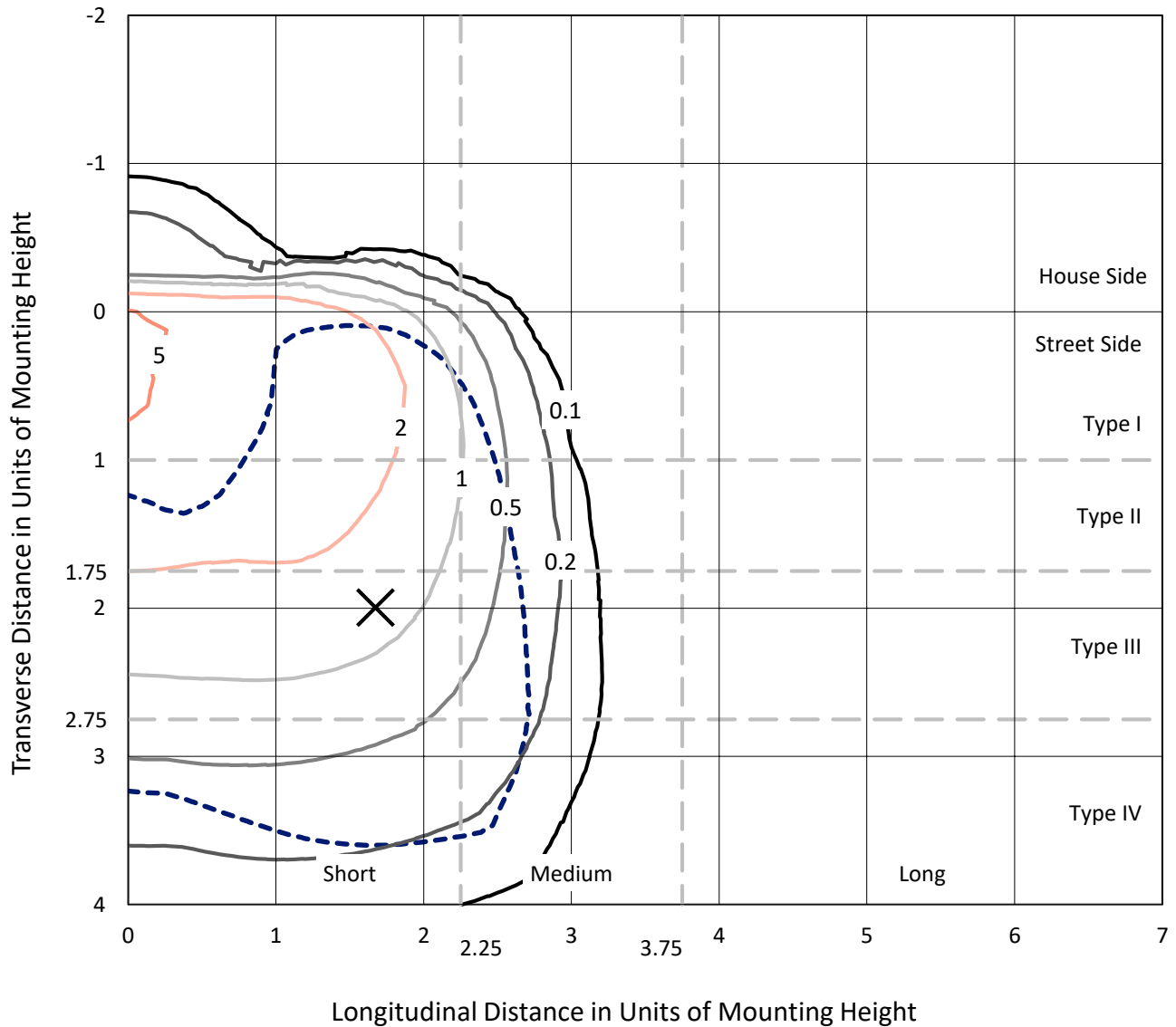


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

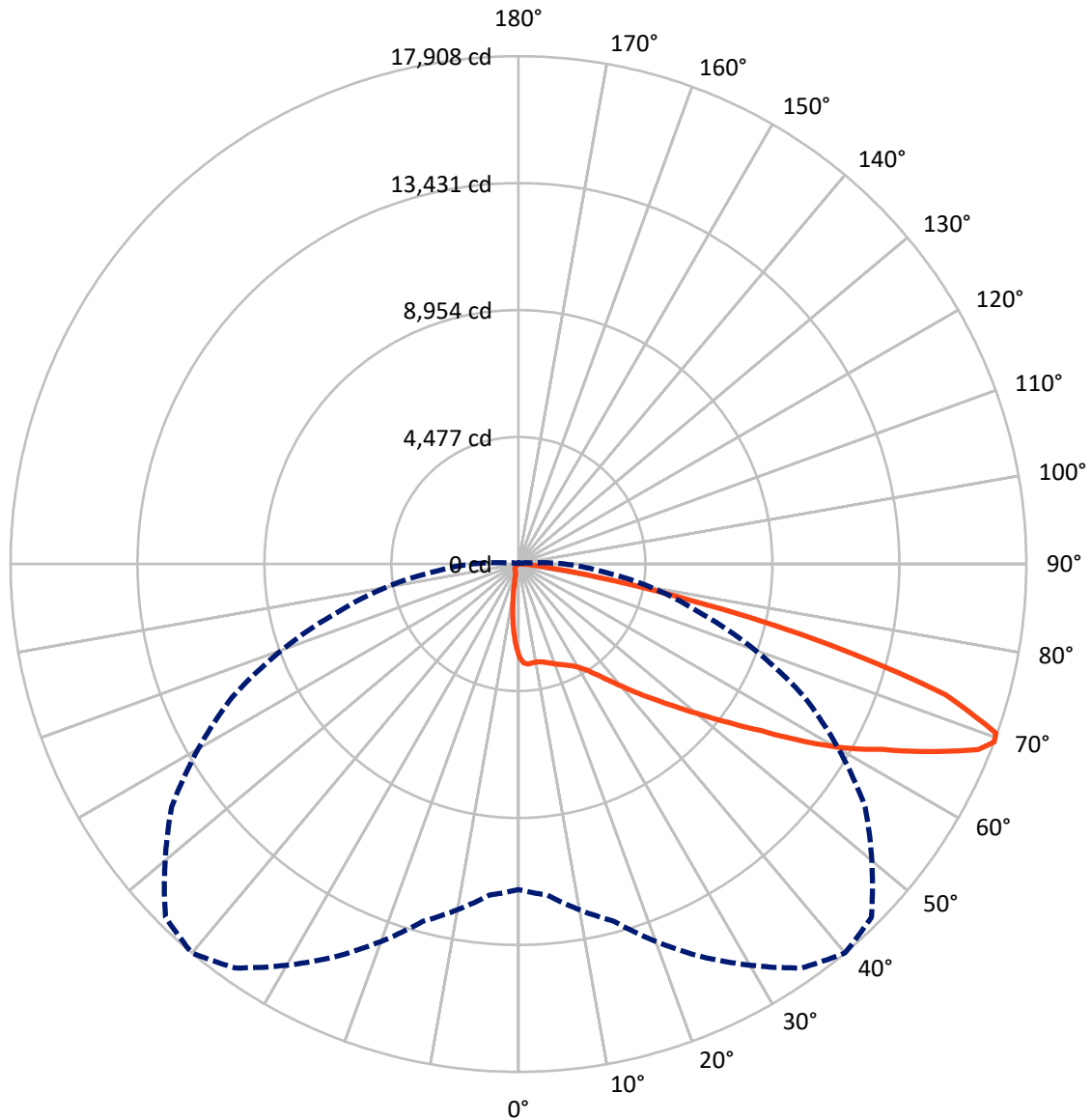


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc  
 Type IV - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	1275.0	0.0	1275.0
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	20517.9	0.0	20517.9
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	21792.9	0.0	21792.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	264.0	1.2
10°-20°	649.2	3.0
20°-30°	1093.5	5.0
30°-40°	1790.1	8.2
40°-50°	3099.5	14.2
50°-60°	4882.0	22.4
60°-70°	6375.7	29.3
70°-80°	3283.8	15.1
80°-90°	355.2	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°	21792.9	100.0
0°-180°	21792.9	100.0



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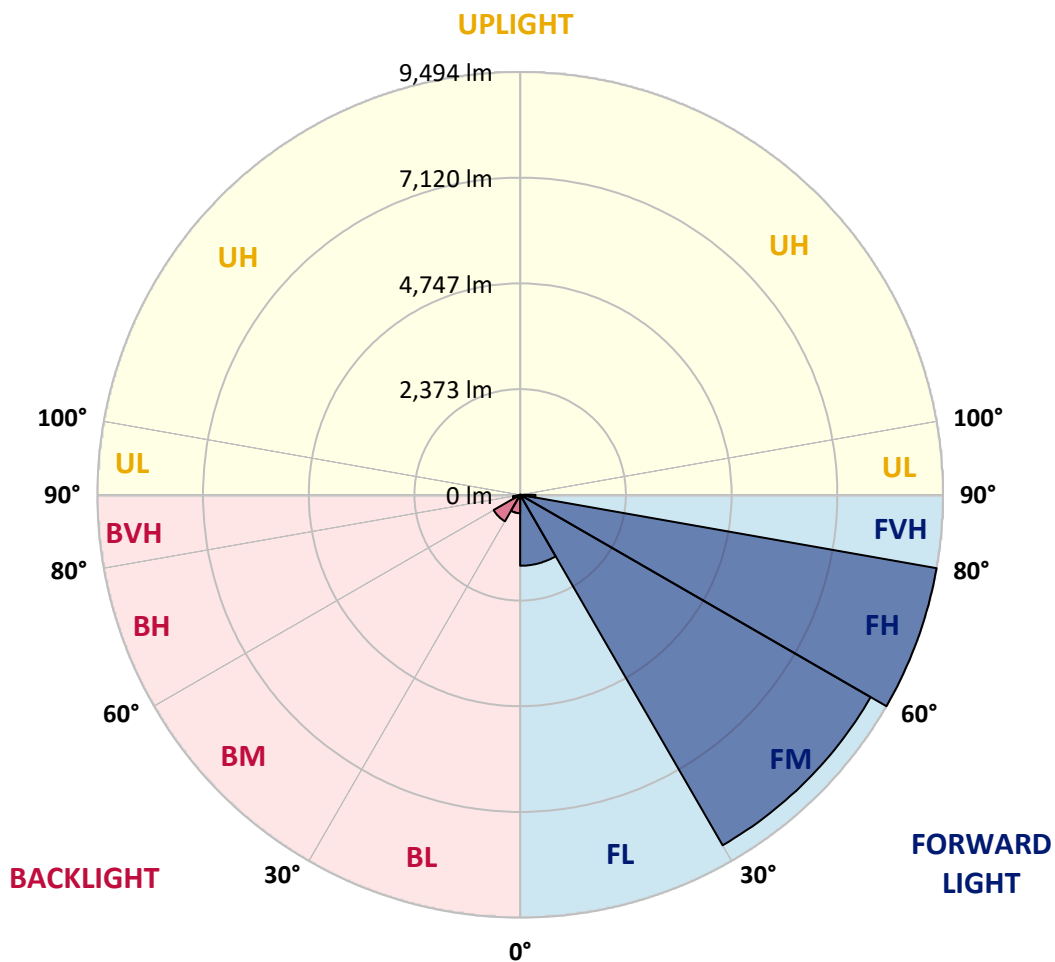
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1593.7	7.3			
FM	(30°-60°)	9086.3	41.7			
FH	(60°-80°)	9493.9	43.6			G4/12000
FVH	(80°-90°)	344.1	1.6			G3/500
BL	(0°-30°)	413.0	1.9	B1/500		
BM	(30°-60°)	685.3	3.1	B1/1000		
BH	(60°-80°)	165.5	0.8	B1/500		G1/500
BVH	(80°-90°)	11.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0
2.5°	3575.1	3555.6	3544.0	3528.4	3508.9	3492.1	3485.6	3437.6	3392.2	3329.9	3258.6
5°	3641.2	3634.8	3614.0	3593.3	3569.9	3544.0	3529.7	3472.6	3407.8	3316.9	3192.4
7.5°	3647.7	3640.0	3614.0	3585.5	3553.0	3521.9	3497.3	3440.2	3380.5	3288.4	3136.6
10°	3637.4	3628.3	3608.8	3577.7	3537.5	3507.6	3483.0	3428.5	3377.9	3294.9	3126.3
12.5°	3625.7	3616.6	3607.5	3592.0	3556.9	3536.2	3515.4	3463.5	3418.1	3348.1	3163.9
15°	3637.4	3632.2	3642.5	3636.1	3616.6	3598.4	3577.7	3531.0	3489.5	3431.1	3232.6
17.5°	3686.7	3686.7	3719.1	3723.0	3704.8	3678.9	3649.0	3602.3	3567.3	3518.0	3314.4
20°	3802.1	3798.2	3839.7	3847.5	3803.4	3763.2	3719.1	3662.0	3634.8	3603.6	3394.8
22.5°	4000.6	3982.4	4007.1	3999.3	3912.4	3850.1	3795.6	3725.6	3711.3	3697.0	3484.3
25°	4258.7	4248.3	4265.2	4188.7	4035.6	3951.3	3886.4	3807.3	3807.3	3821.6	3585.5
27.5°	4633.6	4594.7	4537.6	4402.7	4173.1	4065.4	3995.4	3911.1	3933.1	3986.3	3719.1
30°	5017.6	4974.8	4843.8	4636.2	4340.4	4227.6	4145.9	4057.7	4109.5	4206.8	3898.1
32.5°	5396.4	5348.4	5162.9	4900.8	4580.4	4467.6	4388.4	4291.1	4378.1	4541.5	4160.1
35°	5763.5	5720.7	5506.6	5197.9	4899.5	4806.1	4733.5	4649.2	4760.7	4989.0	4529.8
37.5°	6176.0	6129.3	5868.5	5533.9	5287.4	5219.9	5166.8	5082.4	5277.0	5611.7	5044.8
40°	6683.2	6604.1	6252.5	5919.1	5736.2	5703.8	5667.5	5655.8	5958.1	6421.2	5731.0
42.5°	7264.3	7134.6	6654.7	6325.2	6229.2	6252.5	6243.4	6295.3	6810.3	7427.8	6566.4
45°	7845.5	7678.1	7102.2	6758.4	6771.4	6853.1	6903.7	7111.3	7877.9	8582.3	7465.4
47.5°	8338.4	8173.7	7531.6	7226.7	7382.4	7543.2	7680.7	8073.8	8975.3	9718.6	8164.6
50°	8760.0	8604.3	7986.9	7741.7	8092.0	8351.4	8574.5	9157.0	10155.8	10583.9	8654.9
52.5°	9105.1	9001.3	8459.1	8331.9	8902.7	9282.8	9609.7	10307.6	11201.3	11287.0	9036.3
55°	9441.0	9367.1	8966.3	9033.7	9854.8	10372.4	10786.2	11528.2	12101.6	11873.3	9402.1
57.5°	9827.6	9760.2	9544.8	9923.6	11106.6	11757.8	12209.3	12610.1	12894.2	12472.6	9747.2
60°	10222.0	10183.0	10188.2	10912.1	12544.0	13169.2	13418.3	13522.0	13672.5	13036.9	9766.6
62.5°	10598.1	10672.1	10923.7	12012.1	13920.3	14400.2	14526.1	14628.6	14452.1	13126.4	9023.3
65°	11235.1	11355.7	11956.3	13484.4	15434.1	15947.8	16077.5	15726.0	14575.4	11969.3	7339.6
67.5°	11546.4	11766.9	12838.4	14856.9	16902.6	17473.3	17425.3	15797.3	13079.7	9127.1	4710.1
69°	11481.5	11716.3	13042.1	15277.2	17390.3	17907.9	17603.0	14924.3	11143.0	6611.8	2891.5
70°	11224.7	11462.1	12937.0	15261.6	17452.6	17862.5	17273.6	13846.3	9421.6	4834.7	1808.3
72.5°	9373.6	9578.5	11485.4	13794.5	16077.5	15744.1	14450.8	9592.8	4590.8	1316.7	407.3
75°	5770.0	5884.1	8241.1	10391.9	12143.1	11287.0	9627.8	4772.4	1368.5	372.3	225.7
77.5°	3048.4	3100.3	4511.7	6125.4	7697.6	6369.3	4934.6	1861.5	630.4	233.5	163.4
80°	1801.8	1840.7	2429.7	2800.7	3331.2	2782.5	1973.0	1142.8	451.4	146.6	145.3
82.5°	1031.3	1055.9	1761.6	1556.6	1312.8	1120.8	982.0	1083.2	271.1	98.6	150.5
85°	378.8	384.0	991.1	1184.3	780.9	464.4	487.7	897.7	72.6	62.3	118.0
87.5°	176.4	172.5	509.8	725.1	456.6	294.5	380.1	197.2	28.5	40.2	32.4
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°	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0	3256.0
2.5°	3217.1	3169.1	3082.2	2992.6	2901.8	2831.8	2763.0	2708.6	2690.4	2656.7	2659.3
5°	3118.5	3030.3	2848.7	2664.5	2472.5	2314.2	2165.0	2044.4	1986.0	1926.3	1926.3
7.5°	3032.9	2904.4	2620.3	2320.7	2010.7	1749.9	1515.1	1338.7	1241.4	1163.6	1162.3
10°	3000.4	2826.6	2429.7	2000.3	1568.3	1212.9	934.0	755.0	662.9	603.2	600.6
12.5°	3014.7	2799.4	2283.1	1704.5	1162.3	779.6	540.9	425.5	386.6	368.4	368.4
15°	3056.2	2791.6	2136.5	1415.2	821.1	487.7	359.3	328.2	325.6	325.6	325.6
17.5°	3106.8	2794.2	1986.0	1133.8	559.1	348.9	310.0	306.1	308.7	308.7	308.7
20°	3158.7	2795.5	1823.9	873.0	394.3	303.5	291.9	290.6	293.2	293.2	294.5
22.5°	3222.3	2802.0	1661.7	652.5	325.6	286.7	277.6	277.6	278.9	278.9	277.6
25°	3294.9	2814.9	1493.1	483.9	297.1	275.0	267.2	265.9	267.2	265.9	264.6
27.5°	3385.7	2833.1	1305.0	378.8	284.1	263.3	256.8	256.8	255.5	254.3	253.0
30°	3499.9	2853.8	1093.5	321.7	271.1	253.0	246.5	245.2	243.9	241.3	241.3
32.5°	3673.7	2899.2	884.7	291.9	256.8	238.7	233.5	233.5	230.9	228.3	227.0
35°	3940.9	2988.8	697.9	273.7	241.3	223.1	216.6	216.6	214.0	212.7	211.4
37.5°	4310.6	3125.0	542.2	256.8	225.7	206.3	199.8	198.5	195.9	193.3	192.0
40°	4802.2	3293.6	426.8	241.3	210.1	189.4	184.2	181.6	176.4	172.5	172.5
42.5°	5419.7	3485.6	346.4	224.4	192.0	173.8	169.9	166.0	157.0	153.1	151.8
45°	6065.7	3658.1	293.2	205.0	173.8	158.3	155.7	149.2	137.5	133.6	133.6
47.5°	6531.4	3698.3	258.1	186.8	157.0	141.4	140.1	128.4	118.0	115.5	114.2
50°	6822.0	3619.2	229.6	168.6	141.4	125.8	121.9	107.7	101.2	98.6	97.3
52.5°	7017.9	3477.8	206.3	153.1	127.1	111.6	102.5	92.1	86.9	84.3	84.3
55°	7174.8	3278.0	182.9	138.8	115.5	99.9	86.9	79.1	73.9	71.3	71.3
57.5°	7218.9	3006.9	159.6	127.1	103.8	88.2	73.9	68.8	62.3	61.0	61.0
60°	6898.5	2517.9	141.4	112.9	93.4	76.5	64.9	58.4	51.9	50.6	49.3
62.5°	6054.0	1948.4	124.5	99.9	81.7	66.2	55.8	48.0	42.8	42.8	42.8
65°	4618.0	1306.3	109.0	86.9	71.3	55.8	48.0	38.9	36.3	36.3	37.6
67.5°	2764.3	710.9	93.4	73.9	61.0	46.7	40.2	33.7	32.4	33.7	33.7
69°	1620.2	417.7	84.3	66.2	53.2	41.5	35.0	29.8	32.4	33.7	33.7
70°	1000.1	281.5	77.8	59.7	48.0	37.6	32.4	28.5	31.1	32.4	32.4
72.5°	278.9	145.3	62.3	46.7	38.9	31.1	25.9	25.9	29.8	31.1	31.1
75°	181.6	107.7	48.0	35.0	29.8	24.6	22.1	24.6	28.5	29.8	29.8
77.5°	150.5	88.2	38.9	28.5	24.6	23.3	20.8	22.1	25.9	27.2	27.2
80°	137.5	62.3	31.1	25.9	22.1	20.8	19.5	18.2	23.3	24.6	24.6
82.5°	131.0	49.3	27.2	23.3	20.8	18.2	16.9	18.2	20.8	22.1	23.3
85°	81.7	32.4	24.6	22.1	18.2	16.9	16.9	16.9	19.5	20.8	20.8
87.5°	29.8	25.9	22.1	18.2	15.6	15.6	15.6	15.6	16.9	19.5	19.5
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)