

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: P301899

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301899
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-SL4-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K 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: 25082.8 lumens
Efficiency: N/A
Efficacy: 85.0 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

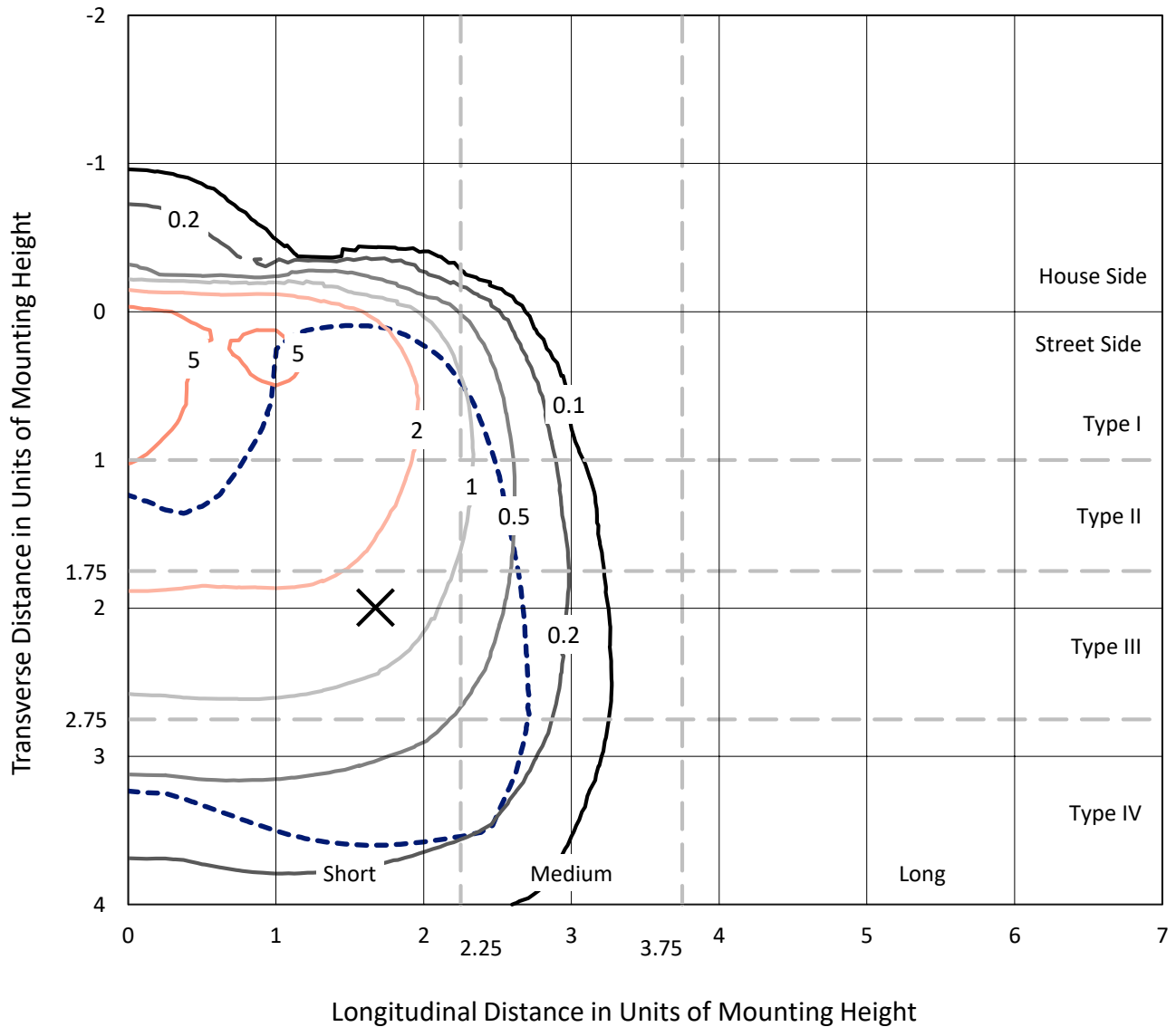


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

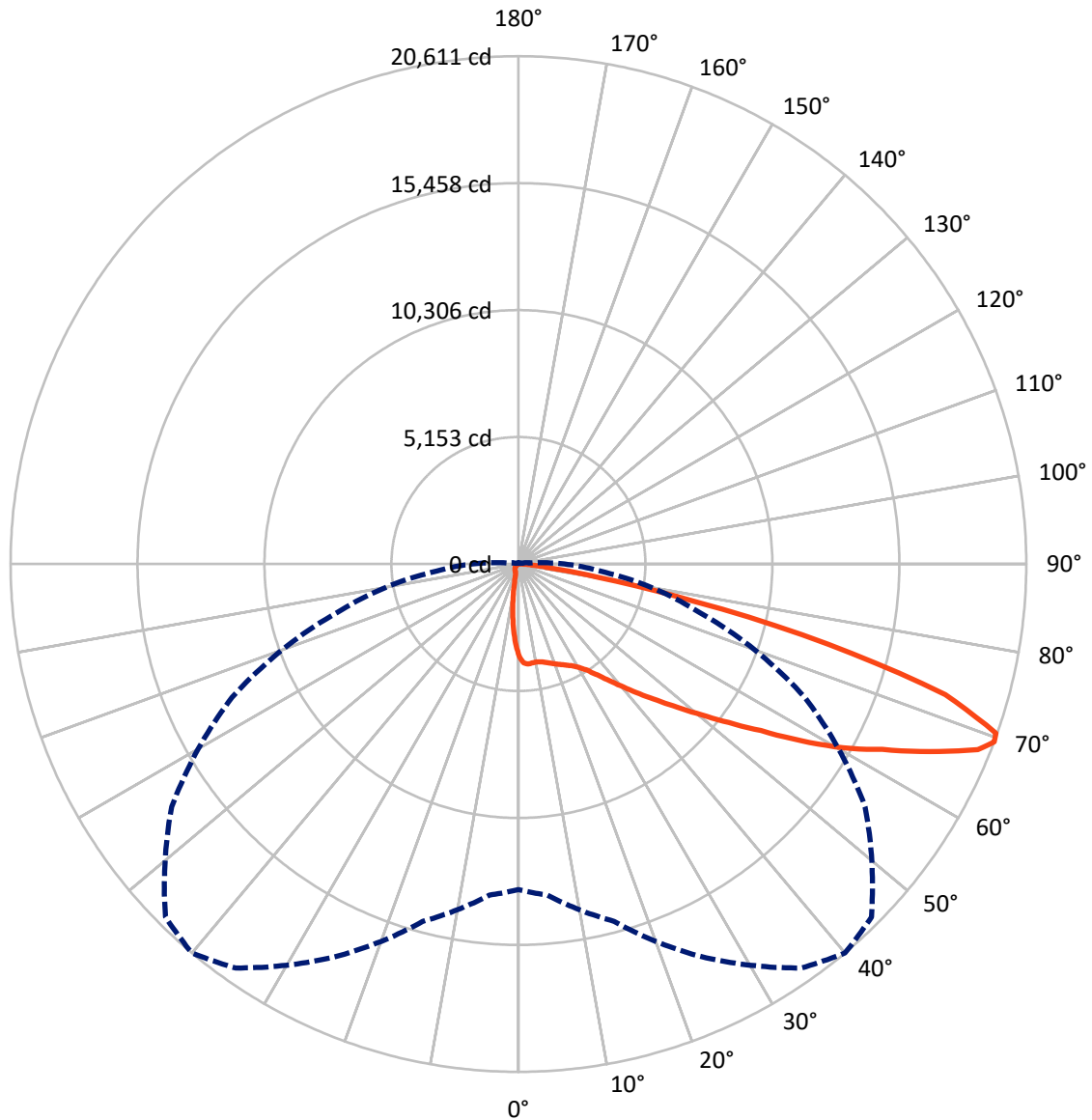


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type IV - Short - Semi-Cutoff

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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	1467.5	0.0	1467.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	23615.4	0.0	23615.4
	% Fixture	94.1	0.0	94.1
Total	Lumens	25082.8	0.0	25082.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.8	1.2
10°-20°	747.2	3.0
20°-30°	1258.6	5.0
30°-40°	2060.3	8.2
40°-50°	3567.4	14.2
50°-60°	5619.0	22.4
60°-70°	7338.2	29.3
70°-80°	3779.5	15.1
80°-90°	408.8	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°	25082.8	100.0
0°-180°	25082.8	100.0



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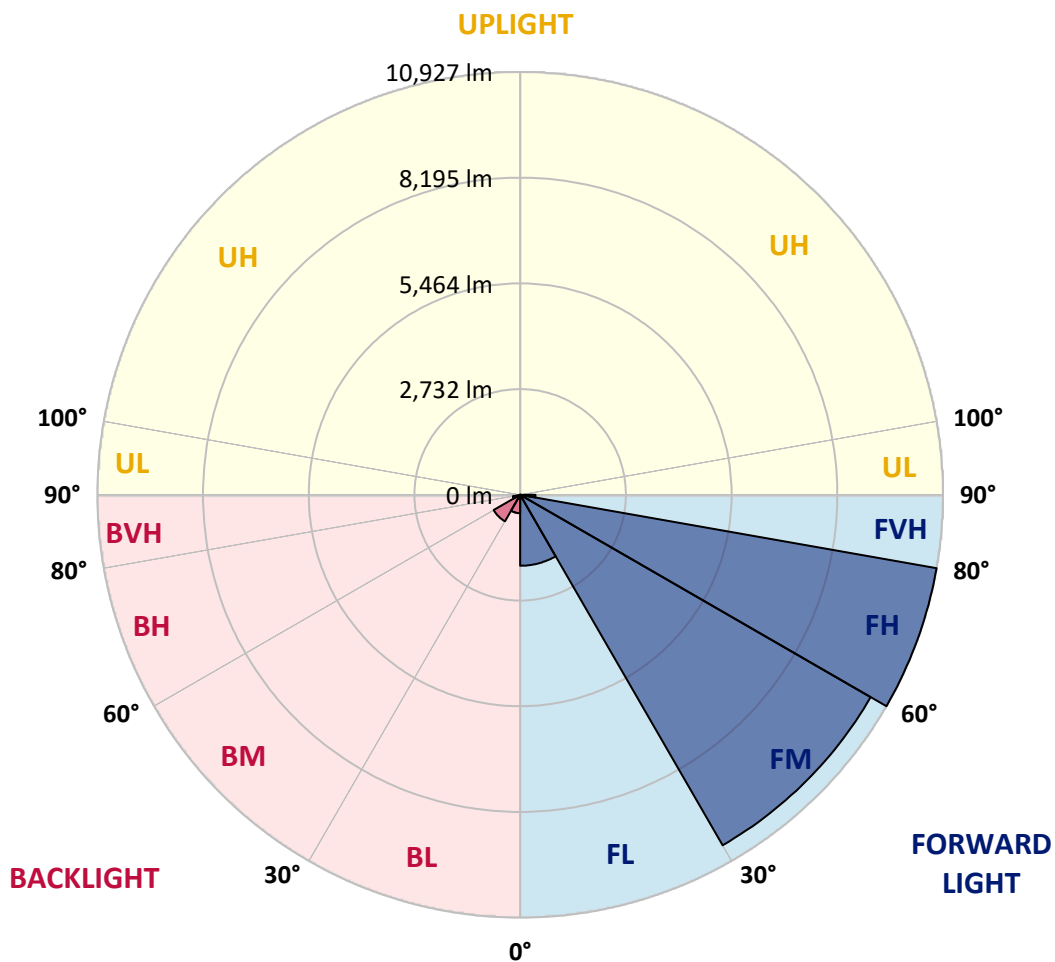
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1834.3	7.3			
FM	(30°-60°)	10458.0	41.7			
FH	(60°-80°)	10927.1	43.6			G4/12000
FVH	(80°-90°)	396.0	1.6			G3/500
BL	(0°-30°)	475.4	1.9	B1/500		
BM	(30°-60°)	788.7	3.1	B1/1000		
BH	(60°-80°)	190.5	0.8	B1/500		G1/500
BVH	(80°-90°)	12.8	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°	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5
2.5°	4114.8	4092.4	4079.0	4061.0	4038.6	4019.2	4011.8	3956.5	3904.3	3832.6	3750.5
5°	4190.9	4183.5	4159.6	4135.7	4108.8	4079.0	4062.5	3996.8	3922.2	3817.7	3674.3
7.5°	4198.4	4189.4	4159.6	4126.7	4089.4	4053.6	4025.2	3959.5	3890.8	3784.8	3610.1
10°	4186.5	4176.0	4153.6	4117.8	4071.5	4037.2	4008.8	3946.1	3887.9	3792.3	3598.2
12.5°	4173.0	4162.6	4152.1	4134.2	4093.9	4070.0	4046.1	3986.4	3934.1	3853.5	3641.5
15°	4186.5	4180.5	4192.4	4185.0	4162.6	4141.7	4117.8	4064.0	4016.3	3949.1	3720.6
17.5°	4243.2	4243.2	4280.5	4285.0	4264.1	4234.2	4199.9	4146.1	4105.8	4049.1	3814.7
20°	4376.1	4371.6	4419.4	4428.3	4377.6	4331.3	4280.5	4214.8	4183.5	4147.6	3907.3
22.5°	4604.5	4583.6	4612.0	4603.0	4503.0	4431.3	4368.6	4288.0	4271.6	4255.1	4010.3
25°	4901.6	4889.7	4909.1	4821.0	4644.8	4547.8	4473.1	4382.0	4382.0	4398.5	4126.7
27.5°	5333.1	5288.3	5222.6	5067.3	4803.1	4679.2	4598.5	4501.5	4526.9	4588.1	4280.5
30°	5775.0	5725.8	5575.0	5336.1	4995.7	4865.8	4771.7	4670.2	4729.9	4841.9	4486.6
32.5°	6211.0	6155.8	5942.3	5640.7	5271.9	5142.0	5050.9	4938.9	5039.0	5227.1	4788.1
35°	6633.5	6584.3	6337.9	5982.6	5639.2	5531.7	5448.1	5351.0	5479.4	5742.2	5213.7
37.5°	7108.3	7054.6	6754.5	6369.3	6085.6	6008.0	5946.7	5849.7	6073.6	6458.8	5806.4
40°	7692.1	7601.0	7196.4	6812.7	6602.2	6564.9	6523.1	6509.6	6857.5	7390.5	6596.2
42.5°	8361.0	8211.7	7659.2	7280.0	7169.5	7196.4	7186.0	7245.7	7838.4	8549.1	7557.7
45°	9029.8	8837.2	8174.3	7778.7	7793.6	7887.7	7945.9	8184.8	9067.2	9877.9	8592.4
47.5°	9597.2	9407.6	8668.5	8317.7	8496.8	8682.0	8840.2	9292.6	10330.3	11185.8	9397.1
50°	10082.4	9903.3	9192.6	8910.4	9313.5	9612.1	9868.9	10539.3	11688.9	12181.6	9961.5
52.5°	10479.6	10360.1	9736.1	9589.7	10246.7	10684.1	11060.4	11863.6	12892.3	12990.9	10400.5
55°	10866.3	10781.2	10319.8	10397.5	11342.6	11938.3	12414.5	13268.6	13928.5	13665.7	10821.5
57.5°	11311.2	11233.6	10985.7	11421.7	12783.3	13532.8	14052.4	14513.7	14840.7	14355.5	11218.6
60°	11765.1	11720.3	11726.3	12559.4	14437.6	15157.2	15443.9	15563.3	15736.5	15005.0	11241.0
62.5°	12198.1	12283.2	12572.8	13825.5	16021.7	16574.1	16719.0	16836.9	16633.9	15108.0	10385.5
65°	12931.1	13070.0	13761.3	15520.1	17764.1	18355.3	18504.6	18100.0	16775.7	13776.2	8447.6
67.5°	13289.5	13543.3	14776.5	17099.7	19454.2	20111.1	20055.9	18182.1	15054.2	10505.0	5421.2
69°	13214.8	13485.1	15010.9	17583.4	20015.6	20611.3	20260.4	17177.3	12825.1	7610.0	3328.0
70°	12919.2	13192.4	14890.0	17565.5	20087.2	20559.0	19881.2	15936.6	10843.9	5564.5	2081.3
72.5°	10788.6	11024.5	13219.3	15876.9	18504.6	18120.9	16632.4	11041.0	5283.8	1515.4	468.8
75°	6641.0	6772.4	9485.2	11960.7	13976.3	12990.9	11081.3	5492.9	1575.1	428.5	259.8
77.5°	3508.6	3568.3	5192.8	7050.1	8859.6	7330.8	5679.5	2142.5	725.6	268.7	188.1
80°	2073.8	2118.6	2796.4	3223.5	3834.1	3202.6	2270.9	1315.4	519.6	168.7	167.2
82.5°	1187.0	1215.3	2027.5	1791.6	1510.9	1290.0	1130.2	1246.7	312.0	113.5	173.2
85°	436.0	441.9	1140.7	1363.1	898.8	534.5	561.4	1033.2	83.6	71.7	135.9
87.5°	203.1	198.6	586.8	834.6	525.5	338.9	437.5	226.9	32.8	46.3	37.3
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°	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5	3747.5
2.5°	3702.7	3647.5	3547.4	3444.4	3339.9	3259.3	3180.2	3117.4	3096.5	3057.7	3060.7
5°	3589.2	3487.7	3278.7	3066.7	2845.7	2663.6	2491.9	2353.0	2285.8	2217.2	2217.2
7.5°	3490.7	3342.9	3015.9	2671.0	2314.2	2014.1	1743.9	1540.8	1428.8	1339.2	1337.8
10°	3453.4	3253.3	2796.4	2302.3	1805.1	1396.0	1075.0	868.9	762.9	694.3	691.3
12.5°	3469.8	3222.0	2627.7	1961.8	1337.8	897.3	622.6	489.7	444.9	424.0	424.0
15°	3517.6	3213.0	2459.0	1628.9	945.1	561.4	413.6	377.7	374.8	374.8	374.8
17.5°	3575.8	3216.0	2285.8	1304.9	643.5	401.6	356.8	352.4	355.3	355.3	355.3
20°	3635.5	3217.5	2099.2	1004.8	453.9	349.4	335.9	334.4	337.4	337.4	338.9
22.5°	3708.7	3224.9	1912.6	751.0	374.8	330.0	319.5	319.5	321.0	321.0	319.5
25°	3792.3	3239.9	1718.5	556.9	341.9	316.5	307.6	306.1	307.6	306.1	304.6
27.5°	3896.8	3260.8	1502.0	436.0	327.0	303.1	295.6	295.6	294.1	292.6	291.1
30°	4028.2	3284.7	1258.6	370.3	312.0	291.1	283.7	282.2	280.7	277.7	277.7
32.5°	4228.3	3336.9	1018.2	335.9	295.6	274.7	268.7	268.7	265.8	262.8	261.3
35°	4535.8	3439.9	803.3	315.0	277.7	256.8	249.3	249.3	246.4	244.9	243.4
37.5°	4961.3	3596.7	624.1	295.6	259.8	237.4	229.9	228.4	225.4	222.5	221.0
40°	5527.2	3790.8	491.2	277.7	241.9	218.0	212.0	209.0	203.1	198.6	198.6
42.5°	6237.9	4011.8	398.6	258.3	221.0	200.1	195.6	191.1	180.7	176.2	174.7
45°	6981.4	4210.3	337.4	235.9	200.1	182.1	179.2	171.7	158.3	153.8	153.8
47.5°	7517.4	4256.6	297.1	215.0	180.7	162.7	161.2	147.8	135.9	132.9	131.4
50°	7851.8	4165.6	264.3	194.1	162.7	144.8	140.3	123.9	116.5	113.5	112.0
52.5°	8077.3	4002.8	237.4	176.2	146.3	128.4	117.9	106.0	100.0	97.0	97.0
55°	8258.0	3772.9	210.5	159.8	132.9	115.0	100.0	91.1	85.1	82.1	82.1
57.5°	8308.7	3460.8	183.6	146.3	119.4	101.5	85.1	79.1	71.7	70.2	70.2
60°	7939.9	2898.0	162.7	129.9	107.5	88.1	74.7	67.2	59.7	58.2	56.7
62.5°	6968.0	2242.5	143.3	115.0	94.1	76.1	64.2	55.2	49.3	49.3	49.3
65°	5315.2	1503.5	125.4	100.0	82.1	64.2	55.2	44.8	41.8	41.8	43.3
67.5°	3181.6	818.2	107.5	85.1	70.2	53.7	46.3	38.8	37.3	38.8	38.8
69°	1864.8	480.8	97.0	76.1	61.2	47.8	40.3	34.3	37.3	38.8	38.8
70°	1151.1	324.0	89.6	68.7	55.2	43.3	37.3	32.8	35.8	37.3	37.3
72.5°	321.0	167.2	71.7	53.7	44.8	35.8	29.9	29.9	34.3	35.8	35.8
75°	209.0	123.9	55.2	40.3	34.3	28.4	25.4	28.4	32.8	34.3	34.3
77.5°	173.2	101.5	44.8	32.8	28.4	26.9	23.9	25.4	29.9	31.4	31.4
80°	158.3	71.7	35.8	29.9	25.4	23.9	22.4	20.9	26.9	28.4	28.4
82.5°	150.8	56.7	31.4	26.9	23.9	20.9	19.4	20.9	23.9	25.4	26.9
85°	94.1	37.3	28.4	25.4	20.9	19.4	19.4	19.4	22.4	23.9	23.9
87.5°	34.3	29.9	25.4	20.9	17.9	17.9	17.9	17.9	19.4	22.4	22.4
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)