

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: P300862

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300862
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-04-LED-E1-SL4-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22736.1 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

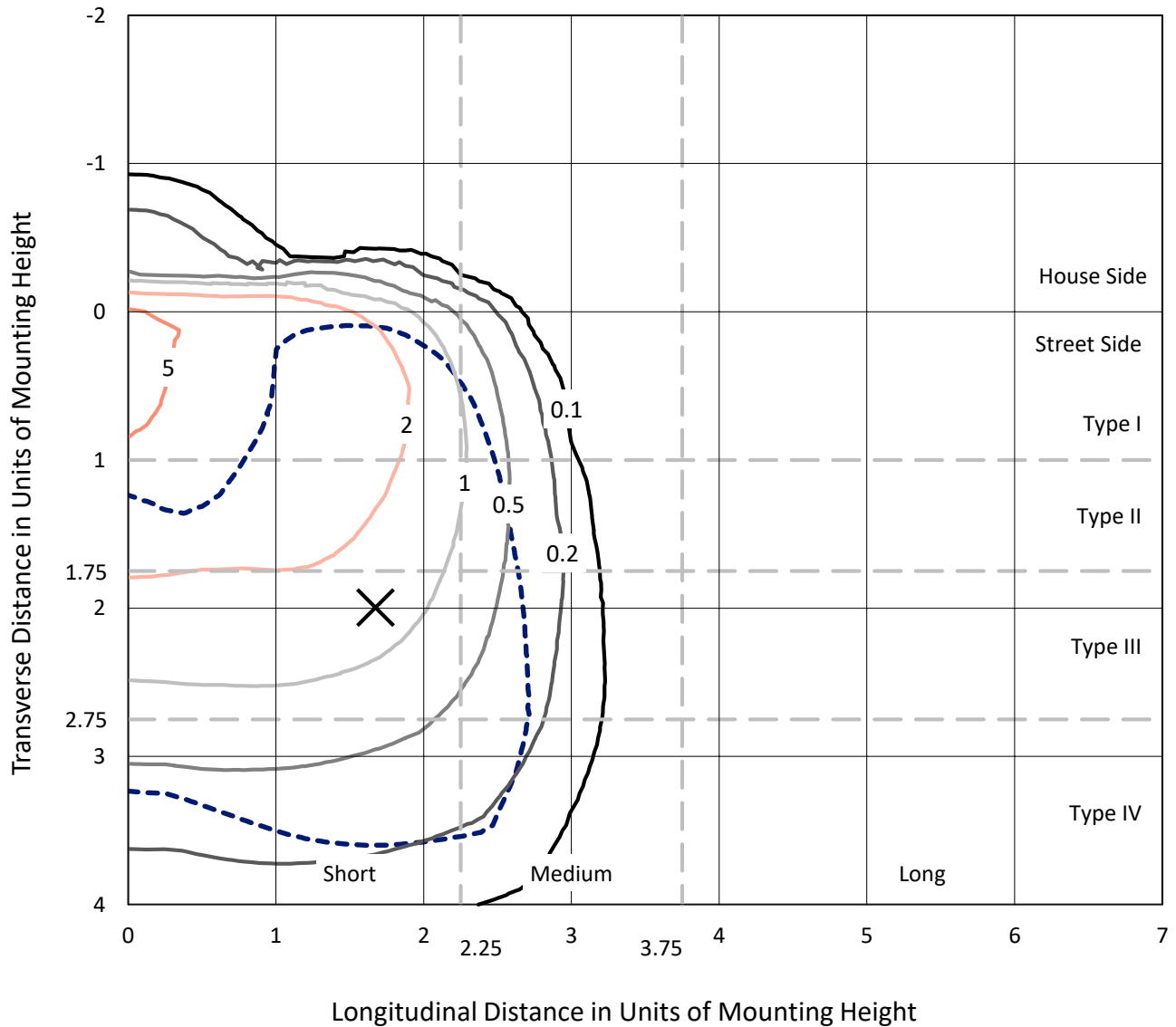
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

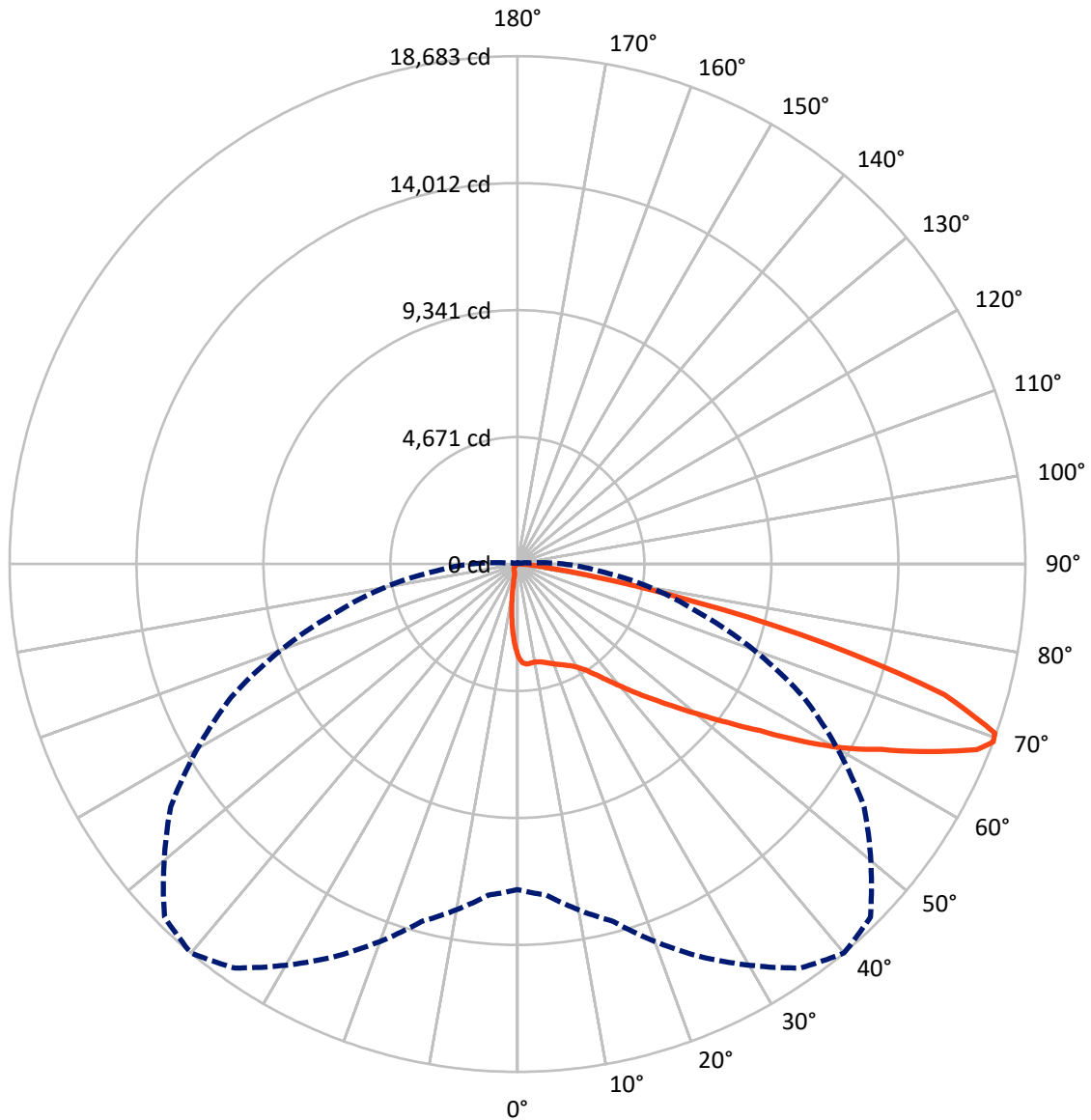
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 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	1330.2	0.0	1330.2
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	21405.9	0.0	21405.9
	% Fixture	94.1	0.0	94.1
Total	Lumens	22736.1	0.0	22736.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.4	1.2
10°-20°	677.3	3.0
20°-30°	1140.8	5.0
30°-40°	1867.6	8.2
40°-50°	3233.6	14.2
50°-60°	5093.3	22.4
60°-70°	6651.6	29.3
70°-80°	3425.9	15.1
80°-90°	370.6	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°	22736.1	100.0
0°-180°	22736.1	100.0



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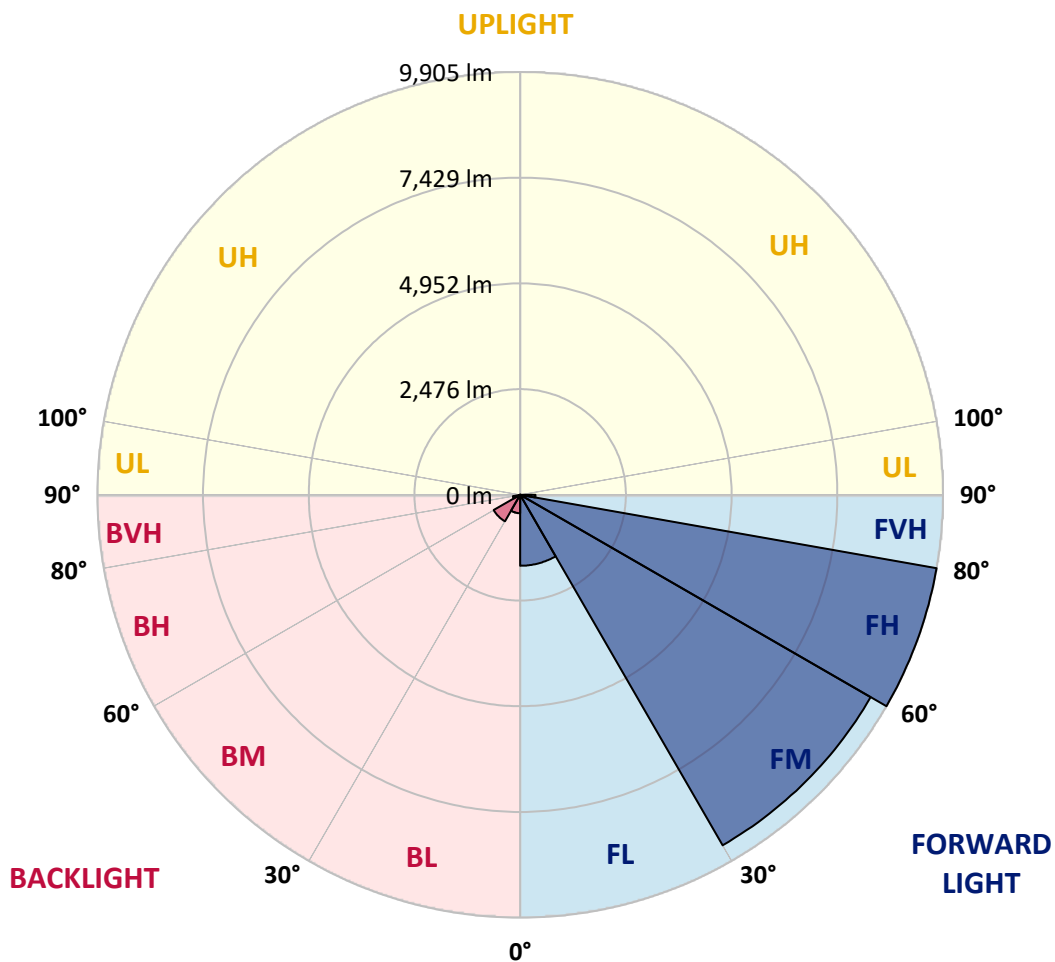
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1662.7	7.3			
FM	(30°-60°)	9479.5	41.7			
FH	(60°-80°)	9904.8	43.6			G4/12000
FVH	(80°-90°)	358.9	1.6			G3/500
BL	(0°-30°)	430.9	1.9	B1/500		
BM	(30°-60°)	714.9	3.1	B1/1000		
BH	(60°-80°)	172.7	0.8	B1/500		G1/500
BVH	(80°-90°)	11.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9
2.5°	3729.8	3709.5	3697.3	3681.1	3660.8	3643.2	3636.4	3586.4	3539.0	3474.0	3399.6
5°	3798.8	3792.1	3770.4	3748.8	3724.4	3697.3	3682.4	3622.9	3555.2	3460.5	3330.6
7.5°	3805.6	3797.5	3770.4	3740.6	3706.8	3674.3	3648.6	3589.1	3526.8	3430.7	3272.4
10°	3794.8	3785.3	3765.0	3732.5	3690.6	3659.4	3633.7	3576.9	3524.1	3437.5	3261.6
12.5°	3782.6	3773.1	3763.6	3747.4	3710.9	3689.2	3667.6	3613.4	3566.1	3493.0	3300.8
15°	3794.8	3789.4	3800.2	3793.4	3773.1	3754.2	3732.5	3683.8	3640.5	3579.6	3372.5
17.5°	3846.2	3846.2	3880.0	3884.1	3865.1	3838.1	3807.0	3758.2	3721.7	3670.3	3457.8
20°	3966.6	3962.6	4005.9	4014.0	3968.0	3926.0	3880.0	3820.5	3792.1	3759.6	3541.7
22.5°	4173.7	4154.8	4180.5	4172.4	4081.7	4016.7	3959.9	3886.8	3871.9	3857.0	3635.1
25°	4443.0	4432.2	4449.8	4369.9	4210.2	4122.3	4054.6	3972.1	3972.1	3986.9	3740.6
27.5°	4834.1	4793.5	4734.0	4593.2	4353.7	4241.4	4168.3	4080.3	4103.3	4158.8	3880.0
30°	5234.7	5190.1	5053.4	4836.8	4528.3	4410.5	4325.3	4233.3	4287.4	4388.9	4066.8
32.5°	5629.9	5579.8	5386.3	5112.9	4778.7	4660.9	4578.4	4476.9	4567.5	4738.1	4340.2
35°	6012.9	5968.2	5744.9	5422.8	5111.6	5014.1	4938.3	4850.4	4966.8	5205.0	4725.9
37.5°	6443.3	6394.5	6122.5	5773.4	5516.2	5445.9	5390.4	5302.4	5505.4	5854.6	5263.1
40°	6972.4	6889.9	6523.1	6175.3	5984.5	5950.6	5912.8	5900.6	6215.9	6699.0	5979.1
42.5°	7578.7	7443.4	6942.6	6598.9	6498.8	6523.1	6513.6	6567.8	7105.0	7749.2	6850.6
45°	8185.0	8010.4	7409.6	7050.9	7064.4	7149.7	7202.5	7419.0	8218.8	8953.7	7788.5
47.5°	8699.3	8527.4	7857.5	7539.5	7701.9	7869.7	8013.1	8423.2	9363.8	10139.2	8517.9
50°	9139.1	8976.7	8332.5	8076.7	8442.2	8712.8	8945.6	9553.2	10595.3	11041.9	9029.5
52.5°	9499.1	9390.8	8825.1	8692.5	9288.0	9684.5	10025.6	10753.7	11686.1	11775.4	9427.4
55°	9849.6	9772.5	9354.3	9424.7	10281.3	10821.3	11253.0	12027.2	12625.3	12387.1	9809.0
57.5°	10252.9	10182.5	9957.9	10353.1	11587.3	12266.7	12737.7	13155.8	13452.2	13012.4	10169.0
60°	10664.3	10623.7	10629.2	11384.3	13086.8	13739.1	13999.0	14107.2	14264.2	13601.1	10189.3
62.5°	11056.8	11133.9	11396.5	12532.0	14522.7	15023.5	15154.7	15261.6	15077.6	13694.5	9413.9
65°	11721.3	11847.2	12473.8	14068.0	16102.1	16638.0	16773.3	16406.6	15206.2	12487.3	7657.2
67.5°	12046.1	12276.2	13394.0	15499.8	17634.1	18229.5	18179.4	16481.0	13645.8	9522.1	4914.0
69°	11978.4	12223.4	13606.5	15938.3	18142.9	18682.9	18364.9	15570.2	11625.2	6898.0	3016.6
70°	11710.5	11958.1	13496.9	15922.1	18207.9	18635.5	18021.1	14445.6	9829.3	5043.9	1886.6
72.5°	9779.3	9993.1	11982.5	14391.4	16773.3	16425.5	15076.2	10008.0	4789.5	1373.6	424.9
75°	6019.7	6138.8	8597.8	10841.6	12668.6	11775.4	10044.5	4978.9	1427.8	388.4	235.5
77.5°	3180.4	3234.5	4706.9	6390.5	8030.7	6644.9	5148.1	1942.0	657.7	243.6	170.5
80°	1879.8	1920.4	2534.8	2921.9	3475.4	2902.9	2058.4	1192.3	471.0	152.9	151.6
82.5°	1075.9	1101.6	1837.8	1624.0	1369.6	1169.3	1024.5	1130.0	282.8	102.9	157.0
85°	395.2	400.6	1034.0	1235.6	814.7	484.5	508.9	936.5	75.8	65.0	123.2
87.5°	184.1	180.0	531.9	756.5	476.4	307.2	396.5	205.7	29.8	42.0	33.8
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°	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9	3396.9
2.5°	3356.3	3306.2	3215.5	3122.2	3027.4	2954.3	2882.6	2825.8	2806.8	2771.6	2774.4
5°	3253.4	3161.4	2971.9	2779.8	2579.5	2414.4	2258.7	2132.9	2072.0	2009.7	2009.7
7.5°	3164.1	3030.1	2733.8	2421.1	2097.7	1825.7	1580.7	1396.6	1295.1	1213.9	1212.6
10°	3130.3	2948.9	2534.8	2086.9	1636.2	1265.4	974.4	787.6	691.6	629.3	626.6
12.5°	3145.2	2920.5	2381.9	1778.3	1212.6	813.4	564.3	443.9	403.3	384.3	384.3
15°	3188.5	2912.4	2229.0	1476.5	856.7	508.9	374.9	342.4	339.7	339.7	339.7
17.5°	3241.3	2915.1	2072.0	1182.8	583.3	364.0	323.4	319.4	322.1	322.1	322.1
20°	3295.4	2916.5	1902.8	910.8	411.4	316.7	304.5	303.1	305.9	305.9	307.2
22.5°	3361.7	2923.2	1733.6	680.7	339.7	299.1	289.6	289.6	291.0	291.0	289.6
25°	3437.5	2936.8	1557.7	504.8	309.9	286.9	278.8	277.4	278.8	277.4	276.1
27.5°	3532.2	2955.7	1361.5	395.2	296.4	274.7	268.0	268.0	266.6	265.3	263.9
30°	3651.3	2977.4	1140.9	335.6	282.8	263.9	257.1	255.8	254.4	251.7	251.7
32.5°	3832.7	3024.7	923.0	304.5	268.0	249.0	243.6	243.6	240.9	238.2	236.8
35°	4111.5	3118.1	728.1	285.6	251.7	232.8	226.0	226.0	223.3	221.9	220.6
37.5°	4497.2	3260.2	565.7	268.0	235.5	215.2	208.4	207.1	204.4	201.6	200.3
40°	5010.1	3436.1	445.2	251.7	219.2	197.6	192.2	189.5	184.1	180.0	180.0
42.5°	5654.3	3636.4	361.3	234.1	200.3	181.3	177.3	173.2	163.8	159.7	158.3
45°	6328.2	3816.4	305.9	213.8	181.3	165.1	162.4	155.6	143.5	139.4	139.4
47.5°	6814.1	3858.4	269.3	194.9	163.8	147.5	146.2	134.0	123.2	120.4	119.1
50°	7117.2	3775.8	239.5	175.9	147.5	131.3	127.2	112.3	105.6	102.9	101.5
52.5°	7321.6	3628.3	215.2	159.7	132.6	116.4	106.9	96.1	90.7	88.0	88.0
55°	7485.3	3419.9	190.8	144.8	120.4	104.2	90.7	82.6	77.1	74.4	74.4
57.5°	7531.4	3137.0	166.5	132.6	108.3	92.0	77.1	71.7	65.0	63.6	63.6
60°	7197.1	2626.8	147.5	117.7	97.4	79.8	67.7	60.9	54.1	52.8	51.4
62.5°	6316.0	2032.7	129.9	104.2	85.3	69.0	58.2	50.1	44.7	44.7	44.7
65°	4817.9	1362.8	113.7	90.7	74.4	58.2	50.1	40.6	37.9	37.9	39.2
67.5°	2884.0	741.6	97.4	77.1	63.6	48.7	42.0	35.2	33.8	35.2	35.2
69°	1690.3	435.8	88.0	69.0	55.5	43.3	36.5	31.1	33.8	35.2	35.2
70°	1043.4	293.7	81.2	62.3	50.1	39.2	33.8	29.8	32.5	33.8	33.8
72.5°	291.0	151.6	65.0	48.7	40.6	32.5	27.1	27.1	31.1	32.5	32.5
75°	189.5	112.3	50.1	36.5	31.1	25.7	23.0	25.7	29.8	31.1	31.1
77.5°	157.0	92.0	40.6	29.8	25.7	24.4	21.7	23.0	27.1	28.4	28.4
80°	143.5	65.0	32.5	27.1	23.0	21.7	20.3	18.9	24.4	25.7	25.7
82.5°	136.7	51.4	28.4	24.4	21.7	18.9	17.6	18.9	21.7	23.0	24.4
85°	85.3	33.8	25.7	23.0	18.9	17.6	17.6	17.6	20.3	21.7	21.7
87.5°	31.1	27.1	23.0	18.9	16.2	16.2	16.2	16.2	17.6	20.3	20.3
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)