

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: P300859

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300859
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-SL4-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K 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: 21992.2 lumens
Efficiency: N/A
Efficacy: 97.7 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

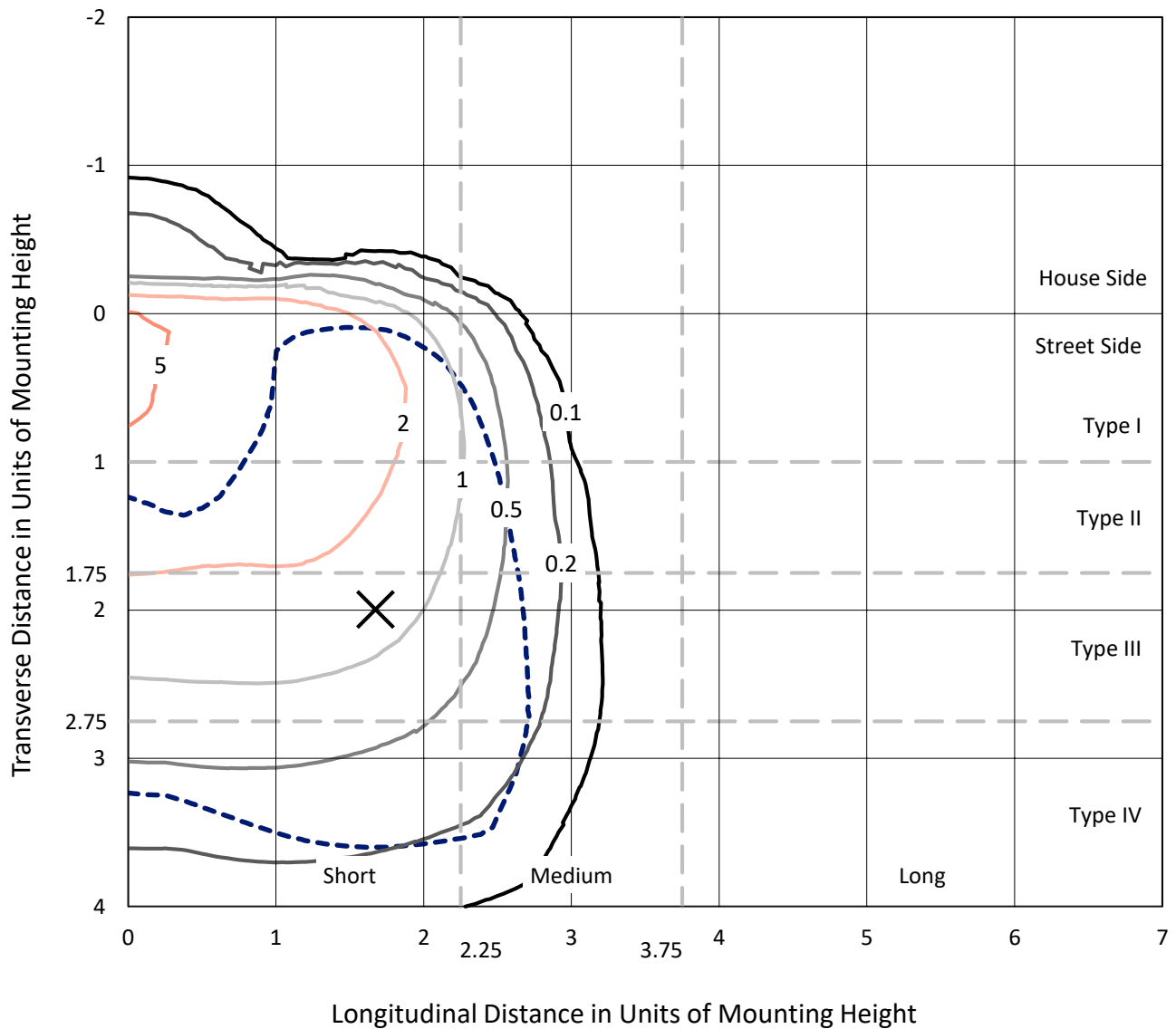
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

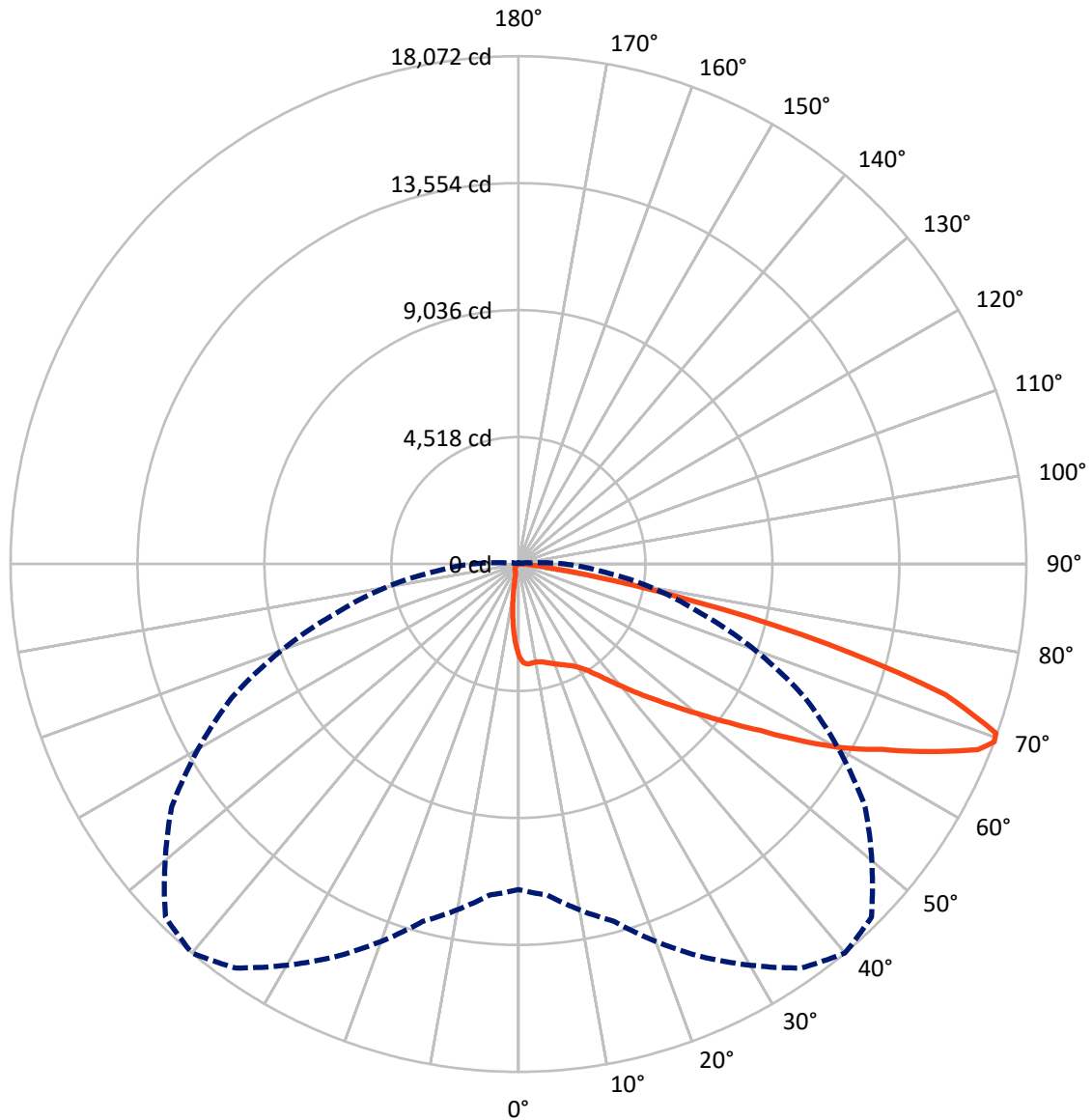
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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	1286.7	0.0	1286.7
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	20705.5	0.0	20705.5
	% Fixture	94.1	0.0	94.1
Total	Lumens	21992.2	0.0	21992.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.4	1.2
10°-20°	655.1	3.0
20°-30°	1103.5	5.0
30°-40°	1806.5	8.2
40°-50°	3127.8	14.2
50°-60°	4926.6	22.4
60°-70°	6434.0	29.3
70°-80°	3313.8	15.1
80°-90°	358.5	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°	21992.2	100.0
0°-180°	21992.2	100.0



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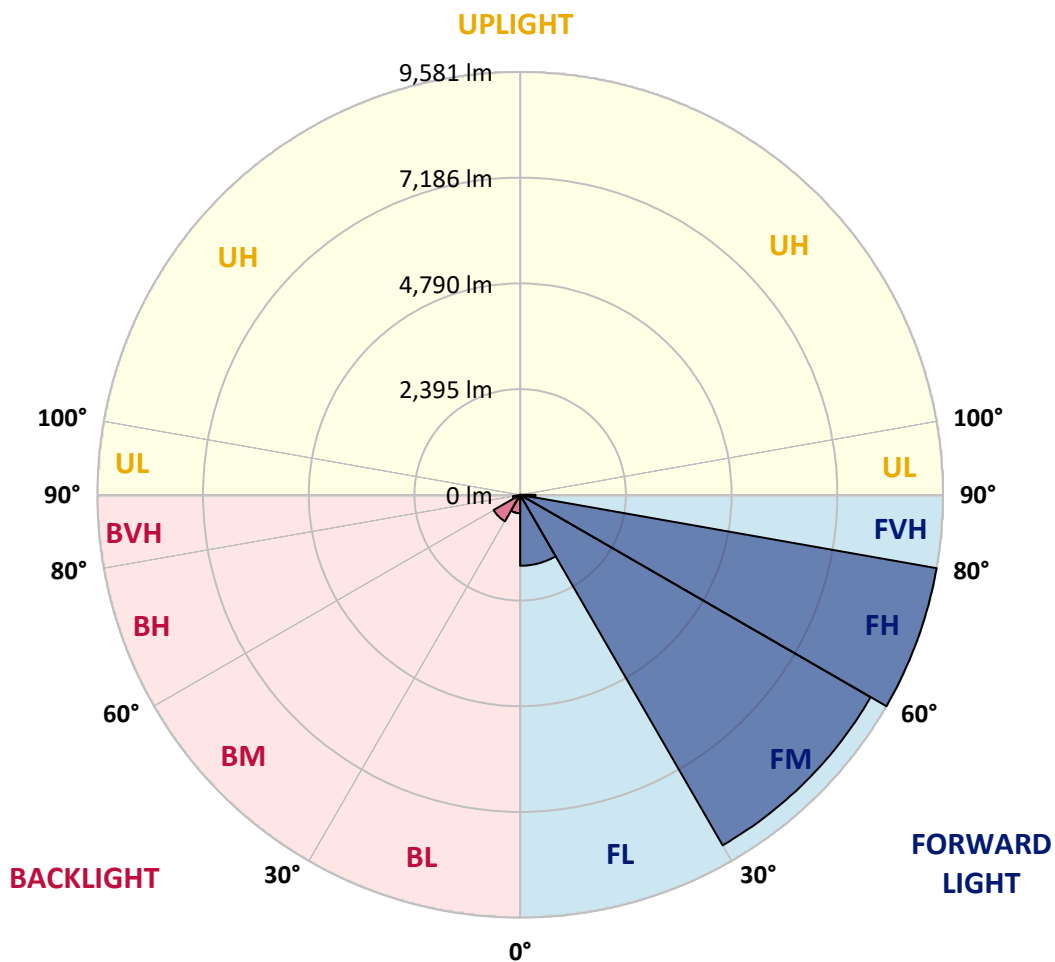
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1608.3	7.3			
FM	(30°-60°)	9169.3	41.7			
FH	(60°-80°)	9580.7	43.6			G4/12000
FVH	(80°-90°)	347.2	1.6			G3/500
BL	(0°-30°)	416.8	1.9	B1/500		
BM	(30°-60°)	691.6	3.1	B1/1000		
BH	(60°-80°)	167.1	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°	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7
2.5°	3607.8	3588.1	3576.4	3560.6	3541.0	3524.0	3517.4	3469.0	3423.2	3360.4	3288.4
5°	3674.5	3668.0	3647.0	3626.1	3602.5	3576.4	3562.0	3504.4	3438.9	3347.3	3221.6
7.5°	3681.1	3673.2	3647.0	3618.2	3585.5	3554.1	3529.2	3471.6	3411.4	3318.5	3165.3
10°	3670.6	3661.4	3641.8	3610.4	3569.8	3539.7	3514.8	3459.8	3408.8	3325.0	3154.8
12.5°	3658.8	3649.7	3640.5	3624.8	3589.4	3568.5	3547.6	3495.2	3449.4	3378.7	3192.8
15°	3670.6	3665.4	3675.8	3669.3	3649.7	3631.3	3610.4	3563.3	3521.4	3462.5	3262.2
17.5°	3720.3	3720.3	3753.1	3757.0	3738.7	3712.5	3682.4	3635.3	3599.9	3550.2	3344.6
20°	3836.9	3832.9	3874.8	3882.7	3838.2	3797.6	3753.1	3695.5	3668.0	3636.6	3425.8
22.5°	4037.1	4018.8	4043.7	4035.8	3948.1	3885.3	3830.3	3759.6	3745.2	3730.8	3516.1
25°	4297.6	4287.2	4304.2	4227.0	4072.5	3987.4	3921.9	3842.1	3842.1	3856.5	3618.2
27.5°	4676.0	4636.7	4579.1	4443.0	4211.2	4102.6	4031.9	3946.8	3969.1	4022.7	3753.1
30°	5063.4	5020.2	4888.0	4678.6	4380.1	4266.2	4183.8	4094.7	4147.1	4245.3	3933.7
32.5°	5445.7	5397.3	5210.1	4945.6	4622.3	4508.4	4428.6	4330.4	4418.1	4583.0	4198.2
35°	5816.2	5773.0	5557.0	5245.4	4944.3	4850.1	4776.8	4691.7	4804.3	5034.6	4571.2
37.5°	6232.4	6185.3	5922.2	5584.5	5335.7	5267.7	5214.0	5128.9	5325.3	5663.0	5090.9
40°	6744.3	6664.4	6309.7	5973.2	5788.7	5755.9	5719.3	5707.5	6012.5	6479.8	5783.4
42.5°	7330.7	7199.8	6715.5	6383.0	6286.1	6309.7	6300.5	6352.9	6872.6	7495.7	6626.5
45°	7917.2	7748.3	7167.1	6820.2	6833.3	6915.8	6966.8	7176.3	7949.9	8660.7	7533.6
47.5°	8414.6	8248.4	7600.4	7292.8	7449.9	7612.2	7750.9	8147.6	9057.4	9807.5	8239.2
50°	8840.1	8683.0	8059.9	7812.5	8165.9	8427.7	8652.9	9240.7	10248.6	10680.6	8734.0
52.5°	9188.3	9083.6	8536.4	8408.1	8984.1	9367.6	9697.5	10401.8	11303.7	11390.1	9118.9
55°	9527.3	9452.7	9048.2	9116.3	9944.9	10467.2	10884.8	11633.6	12212.2	11981.8	9488.1
57.5°	9917.4	9849.4	9632.1	10014.3	11208.2	11865.3	12320.9	12725.4	13012.1	12586.6	9836.3
60°	10315.4	10276.1	10281.4	11011.8	12658.6	13289.6	13540.9	13645.6	13797.5	13156.1	9855.9
62.5°	10695.0	10769.6	11023.6	12121.9	14047.5	14531.9	14658.9	14762.3	14584.2	13246.4	9105.8
65°	11337.8	11459.5	12065.6	13607.7	15575.2	16093.6	16224.5	15869.7	14708.6	12078.7	7406.7
67.5°	11651.9	11874.5	12955.8	14992.7	17057.1	17633.0	17584.6	15941.7	13199.3	9210.5	4753.2
69°	11586.5	11823.4	13161.3	15416.8	17549.3	18071.6	17763.9	15060.7	11244.8	6672.3	2917.9
70°	11327.3	11566.9	13055.3	15401.1	17612.1	18025.8	17431.4	13972.9	9507.7	4878.9	1824.8
72.5°	9459.3	9666.1	11590.4	13920.5	16224.5	15888.1	14582.9	9680.5	4632.8	1328.7	411.0
75°	5822.7	5937.9	8316.5	10486.9	12254.1	11390.1	9715.8	4816.0	1381.1	375.7	227.8
77.5°	3076.3	3128.7	4552.9	6181.4	7768.0	6427.5	4979.7	1878.5	636.2	235.6	164.9
80°	1818.3	1857.6	2451.9	2826.3	3361.7	2807.9	1991.1	1153.3	455.6	147.9	146.6
82.5°	1040.7	1065.6	1777.7	1570.9	1324.8	1131.0	991.0	1093.1	273.6	99.5	151.9
85°	382.2	387.5	1000.1	1195.2	788.1	468.6	492.2	905.9	73.3	62.8	119.1
87.5°	178.0	174.1	514.5	731.8	460.8	297.2	383.6	199.0	28.8	40.6	32.7
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°	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7	3285.7
2.5°	3246.5	3198.0	3110.3	3020.0	2928.4	2857.7	2788.3	2733.3	2715.0	2681.0	2683.6
5°	3147.0	3058.0	2874.7	2688.8	2495.1	2335.4	2184.8	2063.1	2004.2	1944.0	1944.0
7.5°	3060.6	2931.0	2644.3	2341.9	2029.0	1765.9	1529.0	1351.0	1252.8	1174.2	1172.9
10°	3027.9	2852.4	2451.9	2018.6	1582.7	1224.0	942.5	761.9	668.9	608.7	606.1
12.5°	3042.3	2825.0	2303.9	1720.1	1172.9	786.7	545.9	429.4	390.1	371.8	371.8
15°	3084.1	2817.1	2156.0	1428.2	828.6	492.2	362.6	331.2	328.6	328.6	328.6
17.5°	3135.2	2819.7	2004.2	1144.1	564.2	352.1	312.9	308.9	311.6	311.6	311.6
20°	3187.6	2821.0	1840.5	881.0	398.0	306.3	294.5	293.2	295.8	295.8	297.2
22.5°	3251.7	2827.6	1676.9	658.5	328.6	289.3	280.1	280.1	281.4	281.4	280.1
25°	3325.0	2840.7	1506.7	488.3	299.8	277.5	269.7	268.4	269.7	268.4	267.0
27.5°	3416.6	2859.0	1316.9	382.2	286.7	265.7	259.2	259.2	257.9	256.6	255.3
30°	3531.8	2879.9	1103.5	324.6	273.6	255.3	248.7	247.4	246.1	243.5	243.5
32.5°	3707.3	2925.7	892.8	294.5	259.2	240.9	235.6	235.6	233.0	230.4	229.1
35°	3976.9	3016.1	704.3	276.2	243.5	225.2	218.6	218.6	216.0	214.7	213.4
37.5°	4350.0	3153.5	547.2	259.2	227.8	208.1	201.6	200.3	197.7	195.0	193.7
40°	4846.1	3323.7	430.7	243.5	212.1	191.1	185.9	183.3	178.0	174.1	174.1
42.5°	5469.3	3517.4	349.5	226.5	193.7	175.4	171.5	167.6	158.4	154.5	153.2
45°	6121.2	3691.5	295.8	206.8	175.4	159.7	157.1	150.5	138.8	134.8	134.8
47.5°	6591.1	3732.1	260.5	188.5	158.4	142.7	141.4	129.6	119.1	116.5	115.2
50°	6884.3	3652.3	231.7	170.2	142.7	127.0	123.1	108.7	102.1	99.5	98.2
52.5°	7082.0	3509.6	208.1	154.5	128.3	112.6	103.4	92.9	87.7	85.1	85.1
55°	7240.4	3308.0	184.6	140.1	116.5	100.8	87.7	79.9	74.6	72.0	72.0
57.5°	7284.9	3034.4	161.0	128.3	104.7	89.0	74.6	69.4	62.8	61.5	61.5
60°	6961.6	2540.9	142.7	113.9	94.3	77.2	65.5	58.9	52.4	51.1	49.7
62.5°	6109.4	1966.2	125.7	100.8	82.5	66.8	56.3	48.4	43.2	43.2	43.2
65°	4660.3	1318.2	110.0	87.7	72.0	56.3	48.4	39.3	36.7	36.7	38.0
67.5°	2789.6	717.4	94.3	74.6	61.5	47.1	40.6	34.0	32.7	34.0	34.0
69°	1635.0	421.5	85.1	66.8	53.7	41.9	35.3	30.1	32.7	34.0	34.0
70°	1009.3	284.1	78.5	60.2	48.4	38.0	32.7	28.8	31.4	32.7	32.7
72.5°	281.4	146.6	62.8	47.1	39.3	31.4	26.2	26.2	30.1	31.4	31.4
75°	183.3	108.7	48.4	35.3	30.1	24.9	22.3	24.9	28.8	30.1	30.1
77.5°	151.9	89.0	39.3	28.8	24.9	23.6	20.9	22.3	26.2	27.5	27.5
80°	138.8	62.8	31.4	26.2	22.3	20.9	19.6	18.3	23.6	24.9	24.9
82.5°	132.2	49.7	27.5	23.6	20.9	18.3	17.0	18.3	20.9	22.3	23.6
85°	82.5	32.7	24.9	22.3	18.3	17.0	17.0	17.0	19.6	20.9	20.9
87.5°	30.1	26.2	22.3	18.3	15.7	15.7	15.7	15.7	17.0	19.6	19.6
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)