

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: P300988

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300988
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-05-LED-E1-SL4-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18557.7 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

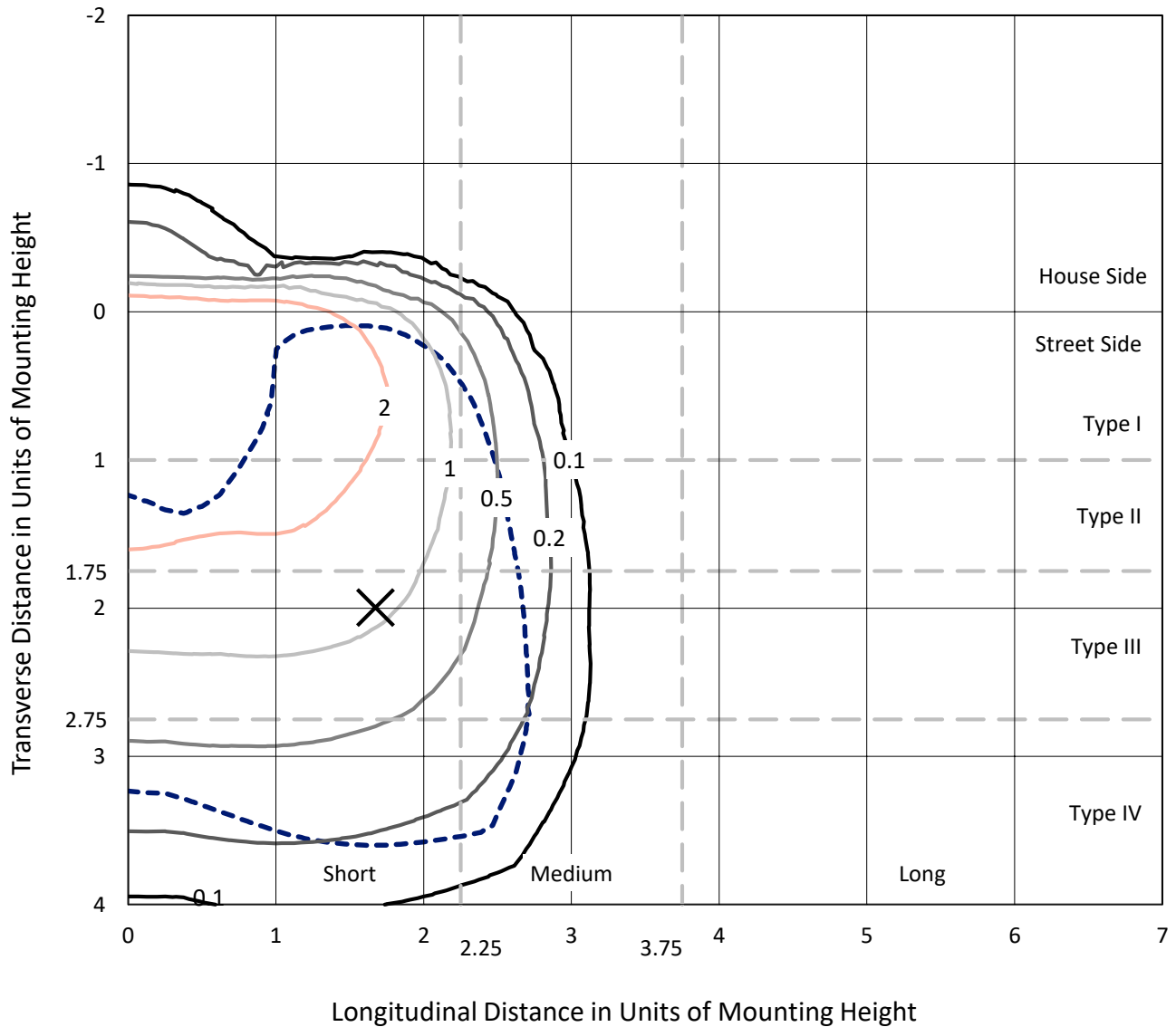
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

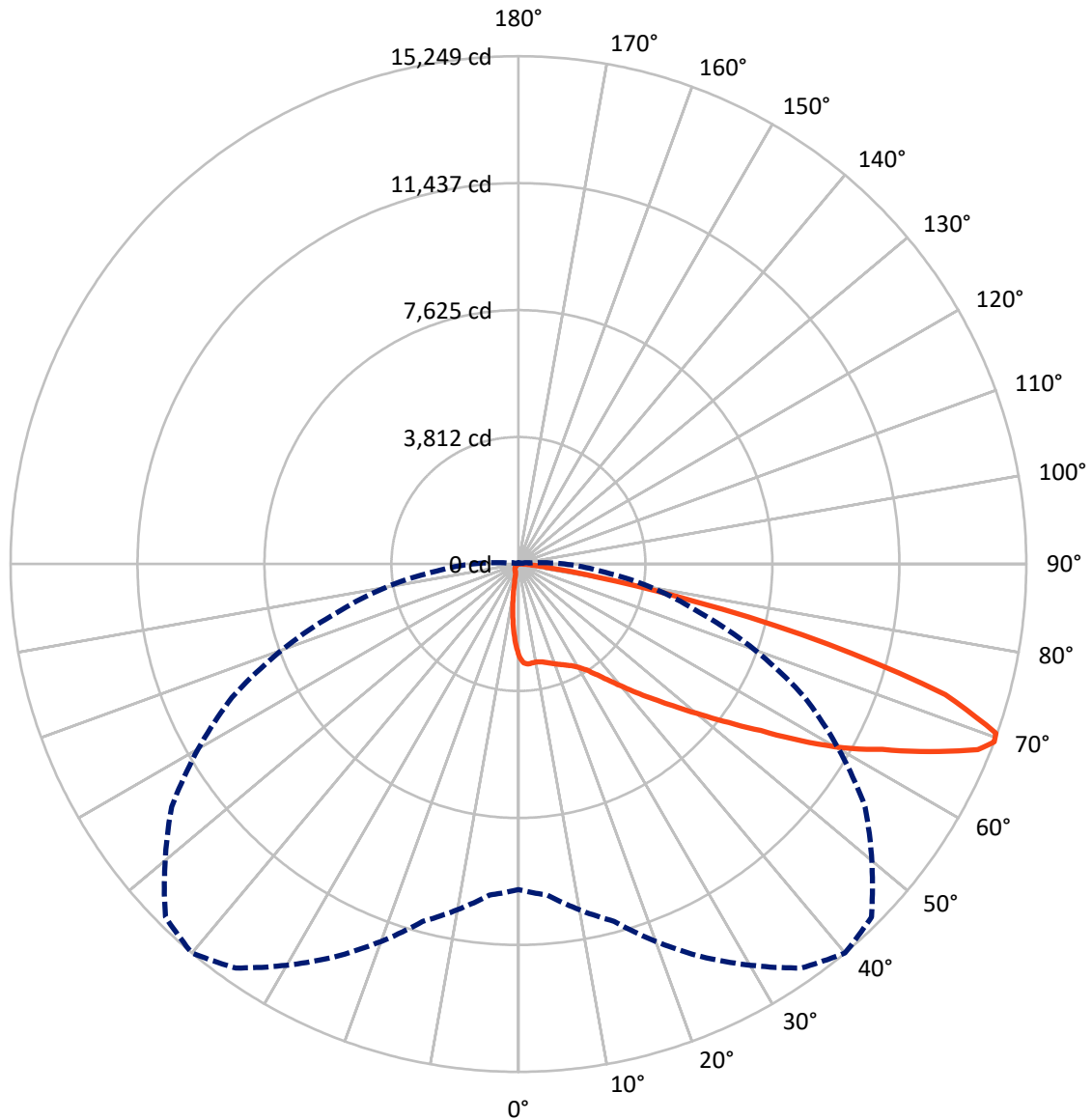
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 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	1085.7	0.0	1085.7
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	17471.9	0.0	17471.9
	% Fixture	94.1	0.0	94.1
Total	Lumens	18557.7	0.0	18557.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.8	1.2
10°-20°	552.8	3.0
20°-30°	931.2	5.0
30°-40°	1524.3	8.2
40°-50°	2639.4	14.2
50°-60°	4157.2	22.4
60°-70°	5429.2	29.3
70°-80°	2796.3	15.1
80°-90°	302.5	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°	18557.7	100.0
0°-180°	18557.7	100.0

Coefficient of Utilization



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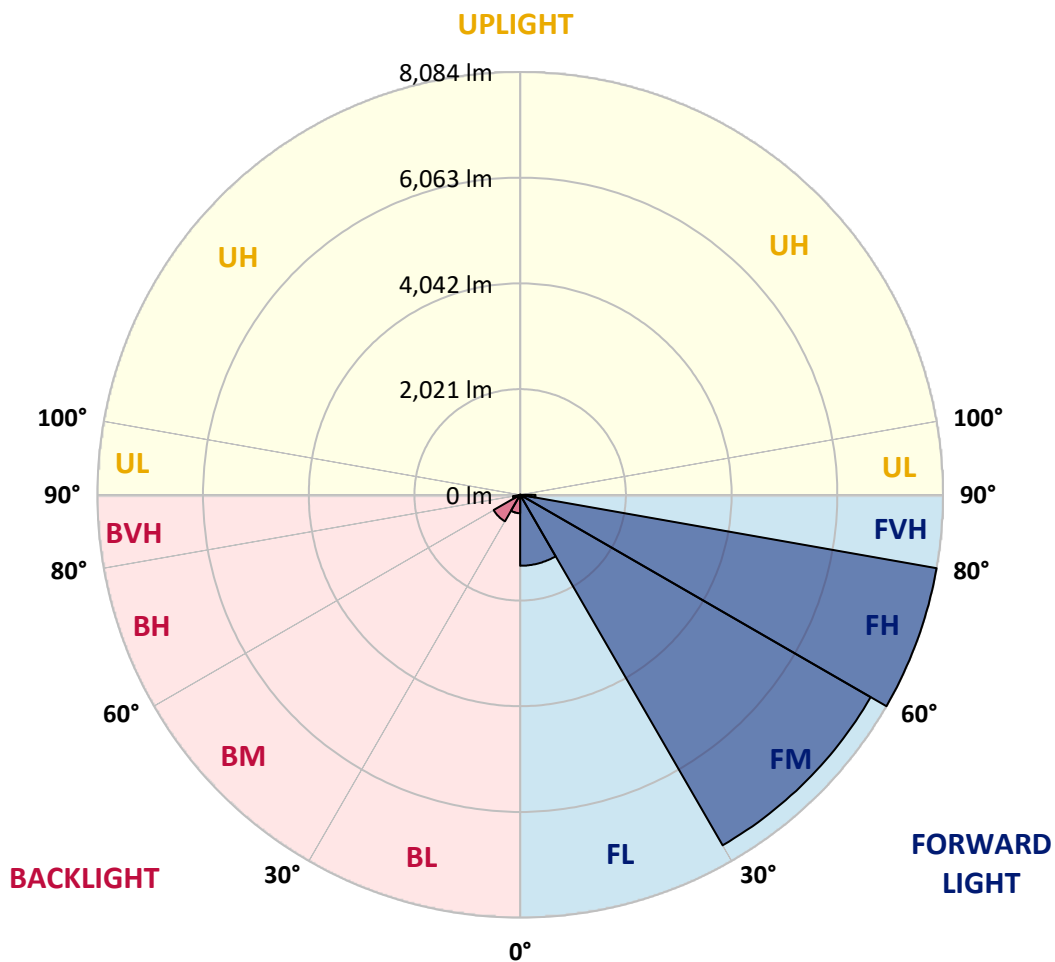
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1357.1	7.3			
FM	(30°-60°)	7737.4	41.7			
FH	(60°-80°)	8084.5	43.6			G4/12000
FVH	(80°-90°)	293.0	1.6			G3/500
BL	(0°-30°)	351.7	1.9	B1/500		
BM	(30°-60°)	583.6	3.1	B1/1000		
BH	(60°-80°)	141.0	0.8	B1/500		G1/500
BVH	(80°-90°)	9.5	0.1			G0/10
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°	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6
2.5°	3044.4	3027.8	3017.8	3004.6	2988.0	2973.7	2968.1	2927.3	2888.6	2835.6	2774.8
5°	3100.7	3095.2	3077.5	3059.8	3039.9	3017.8	3005.7	2957.1	2901.9	2824.5	2718.5
7.5°	3106.2	3099.6	3077.5	3053.2	3025.6	2999.1	2978.1	2929.5	2878.7	2800.2	2671.0
10°	3097.4	3089.6	3073.1	3046.6	3012.3	2986.9	2965.9	2919.5	2876.4	2805.8	2662.1
12.5°	3087.4	3079.7	3072.0	3058.7	3028.9	3011.2	2993.5	2949.4	2910.7	2851.0	2694.2
15°	3097.4	3093.0	3101.8	3096.3	3079.7	3064.2	3046.6	3006.8	2971.4	2921.7	2752.7
17.5°	3139.3	3139.3	3167.0	3170.3	3154.8	3132.7	3107.3	3067.5	3037.7	2995.7	2822.3
20°	3237.7	3234.3	3269.7	3276.3	3238.8	3204.5	3167.0	3118.4	3095.2	3068.7	2890.8
22.5°	3406.7	3391.2	3412.2	3405.6	3331.6	3278.5	3232.1	3172.5	3160.3	3148.2	2967.0
25°	3626.5	3617.7	3632.0	3566.8	3436.5	3364.7	3309.5	3242.1	3242.1	3254.2	3053.2
27.5°	3945.7	3912.6	3864.0	3749.1	3553.6	3461.9	3402.2	3330.4	3349.2	3394.5	3167.0
30°	4272.7	4236.2	4124.7	3947.9	3696.1	3600.0	3530.4	3455.3	3499.5	3582.3	3319.4
32.5°	4595.2	4554.4	4396.4	4173.3	3900.4	3804.3	3737.0	3654.1	3728.1	3867.3	3542.5
35°	4907.9	4871.4	4689.1	4426.2	4172.2	4092.6	4030.8	3959.0	4054.0	4248.4	3857.4
37.5°	5259.1	5219.4	4997.3	4712.3	4502.5	4445.0	4399.7	4327.9	4493.6	4778.6	4295.9
40°	5691.0	5623.7	5324.3	5040.4	4884.7	4857.0	4826.1	4816.2	5073.5	5467.9	4880.2
42.5°	6185.9	6075.4	5666.7	5386.2	5304.4	5324.3	5316.6	5360.8	5799.3	6325.1	5591.6
45°	6680.8	6538.3	6047.8	5755.1	5766.1	5835.7	5878.8	6055.6	6708.4	7308.2	6357.1
47.5°	7100.5	6960.3	6413.5	6153.9	6286.4	6423.4	6540.5	6875.2	7642.9	8275.9	6952.5
50°	7459.5	7327.0	6801.2	6592.4	6890.7	7111.6	7301.6	7797.6	8648.1	9012.6	7370.1
52.5°	7753.4	7665.0	7203.3	7095.0	7581.1	7904.7	8183.1	8777.4	9538.4	9611.4	7694.8
55°	8039.5	7976.5	7635.2	7692.6	8391.8	8832.6	9185.0	9816.8	10305.1	10110.6	8006.3
57.5°	8368.6	8311.2	8127.8	8450.4	9457.8	10012.3	10396.7	10738.1	10980.0	10621.0	8300.2
60°	8704.5	8671.3	8675.7	9292.1	10681.7	11214.2	11426.3	11514.6	11642.8	11101.5	8316.7
62.5°	9024.8	9087.8	9302.1	10228.8	11853.7	12262.5	12369.6	12456.9	12306.6	11177.7	7683.8
65°	9567.2	9669.9	10181.3	11482.6	13142.8	13580.3	13690.7	13391.4	12411.6	10192.4	6250.0
67.5°	9832.3	10020.1	10932.5	12651.3	14393.3	14879.3	14838.4	13452.1	11137.9	7772.2	4010.9
69°	9777.0	9977.0	11105.9	13009.2	14808.6	15249.4	14989.8	12708.7	9488.7	5630.3	2462.2
70°	9558.3	9760.5	11016.4	12995.9	14861.6	15210.7	14709.2	11790.8	8022.9	4116.9	1539.8
72.5°	7982.0	8156.6	9780.4	11746.6	13690.7	13406.9	12305.5	8168.7	3909.3	1121.2	346.9
75°	4913.4	5010.6	7017.7	8849.2	10340.4	9611.4	8198.5	4063.9	1165.4	317.0	192.2
77.5°	2595.9	2640.1	3841.9	5216.0	6554.9	5423.7	4202.0	1585.1	536.8	198.8	139.2
80°	1534.3	1567.5	2069.0	2384.9	2836.7	2369.4	1680.1	973.2	384.4	124.8	123.7
82.5°	878.2	899.2	1500.1	1325.6	1117.9	954.4	836.2	922.4	230.9	84.0	128.1
85°	322.6	327.0	843.9	1008.5	665.0	395.5	415.3	764.4	61.9	53.0	100.5
87.5°	150.2	146.9	434.1	617.5	388.8	250.8	323.7	167.9	24.3	34.2	27.6
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°	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6	2772.6
2.5°	2739.5	2698.6	2624.6	2548.4	2471.0	2411.4	2352.9	2306.5	2291.0	2262.3	2264.5
5°	2655.5	2580.4	2425.8	2268.9	2105.4	1970.7	1843.6	1740.9	1691.2	1640.4	1640.4
7.5°	2582.6	2473.3	2231.3	1976.2	1712.2	1490.1	1290.2	1140.0	1057.1	990.8	989.7
10°	2555.0	2407.0	2069.0	1703.3	1335.5	1032.8	795.3	642.9	564.5	513.7	511.4
12.5°	2567.2	2383.8	1944.1	1451.5	989.7	663.9	460.6	362.3	329.2	313.7	313.7
15°	2602.5	2377.2	1819.3	1205.1	699.2	415.3	306.0	279.5	277.3	277.3	277.3
17.5°	2645.6	2379.4	1691.2	965.4	476.1	297.1	264.0	260.7	262.9	262.9	262.9
20°	2689.8	2380.5	1553.1	743.4	335.8	258.5	248.5	247.4	249.6	249.6	250.8
22.5°	2743.9	2386.0	1415.0	555.6	277.3	244.1	236.4	236.4	237.5	237.5	236.4
25°	2805.8	2397.0	1271.4	412.0	253.0	234.2	227.6	226.4	227.6	226.4	225.3
27.5°	2883.1	2412.5	1111.3	322.6	241.9	224.2	218.7	218.7	217.6	216.5	215.4
30°	2980.3	2430.2	931.2	273.9	230.9	215.4	209.9	208.8	207.7	205.5	205.5
32.5°	3128.3	2468.8	753.4	248.5	218.7	203.3	198.8	198.8	196.6	194.4	193.3
35°	3355.9	2545.1	594.3	233.1	205.5	190.0	184.5	184.5	182.3	181.2	180.1
37.5°	3670.7	2661.0	461.7	218.7	192.2	175.6	170.1	169.0	166.8	164.6	163.5
40°	4089.3	2804.6	363.4	205.5	178.9	161.3	156.9	154.6	150.2	146.9	146.9
42.5°	4615.1	2968.1	294.9	191.1	163.5	148.0	144.7	141.4	133.7	130.3	129.2
45°	5165.2	3115.0	249.6	174.5	148.0	134.8	132.6	127.0	117.1	113.8	113.8
47.5°	5561.8	3149.3	219.8	159.1	133.7	120.4	119.3	109.4	100.5	98.3	97.2
50°	5809.2	3081.9	195.5	143.6	120.4	107.1	103.8	91.7	86.2	84.0	82.8
52.5°	5976.0	2961.5	175.6	130.3	108.3	95.0	87.3	78.4	74.0	71.8	71.8
55°	6109.7	2791.4	155.8	118.2	98.3	85.1	74.0	67.4	63.0	60.8	60.8
57.5°	6147.2	2560.5	135.9	108.3	88.4	75.1	63.0	58.5	53.0	51.9	51.9
60°	5874.4	2144.1	120.4	96.1	79.5	65.2	55.2	49.7	44.2	43.1	42.0
62.5°	5155.3	1659.1	106.0	85.1	69.6	56.3	47.5	40.9	36.5	36.5	36.5
65°	3932.5	1112.4	92.8	74.0	60.8	47.5	40.9	33.1	30.9	30.9	32.0
67.5°	2354.0	605.3	79.5	63.0	51.9	39.8	34.2	28.7	27.6	28.7	28.7
69°	1379.7	355.7	71.8	56.3	45.3	35.3	29.8	25.4	27.6	28.7	28.7
70°	851.7	239.7	66.3	50.8	40.9	32.0	27.6	24.3	26.5	27.6	27.6
72.5°	237.5	123.7	53.0	39.8	33.1	26.5	22.1	22.1	25.4	26.5	26.5
75°	154.6	91.7	40.9	29.8	25.4	21.0	18.8	21.0	24.3	25.4	25.4
77.5°	128.1	75.1	33.1	24.3	21.0	19.9	17.7	18.8	22.1	23.2	23.2
80°	117.1	53.0	26.5	22.1	18.8	17.7	16.6	15.5	19.9	21.0	21.0
82.5°	111.6	42.0	23.2	19.9	17.7	15.5	14.4	15.5	17.7	18.8	19.9
85°	69.6	27.6	21.0	18.8	15.5	14.4	14.4	14.4	16.6	17.7	17.7
87.5°	25.4	22.1	18.8	15.5	13.3	13.3	13.3	13.3	14.4	16.6	16.6
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)