

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: P299113

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20366.4 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

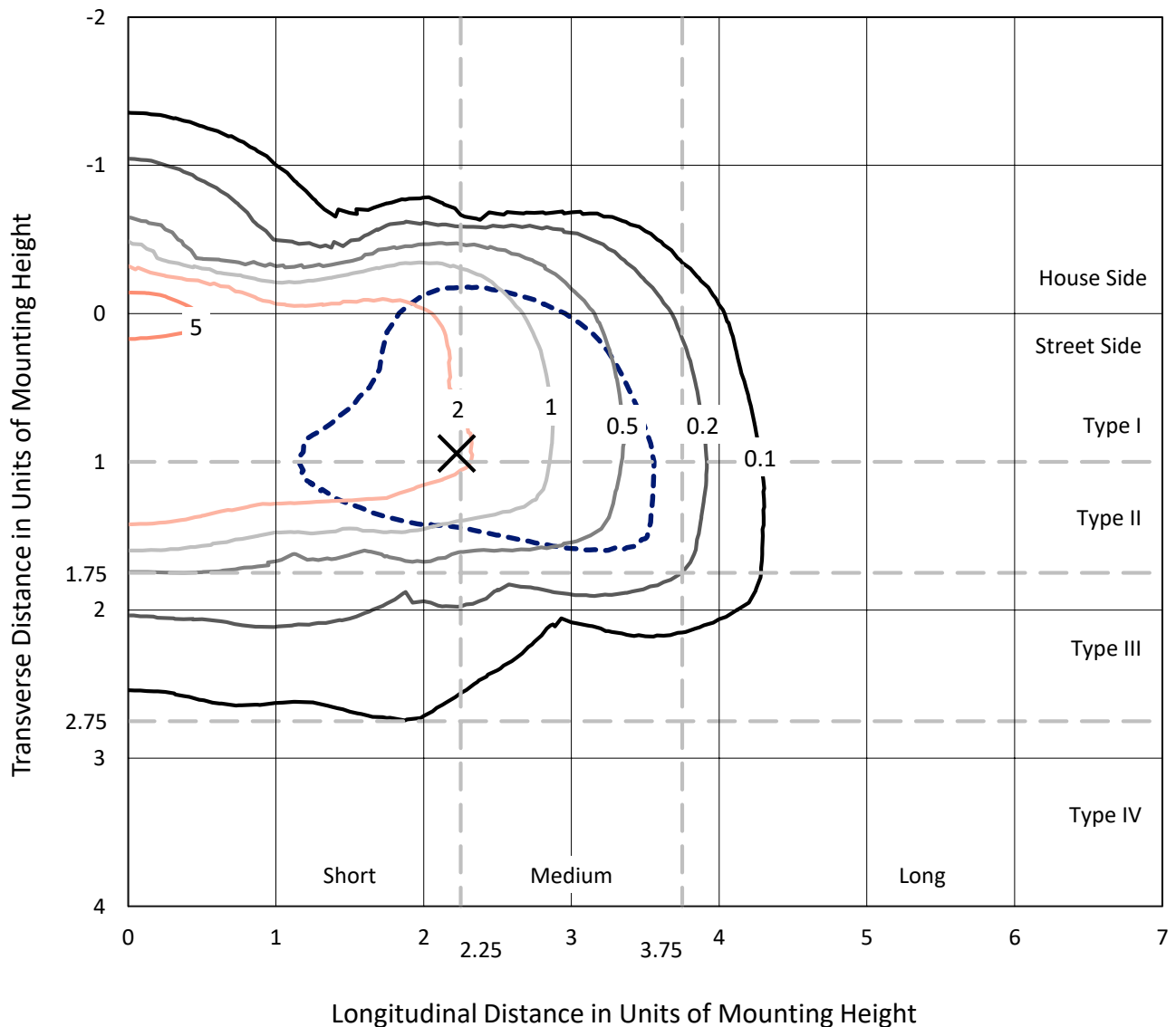
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

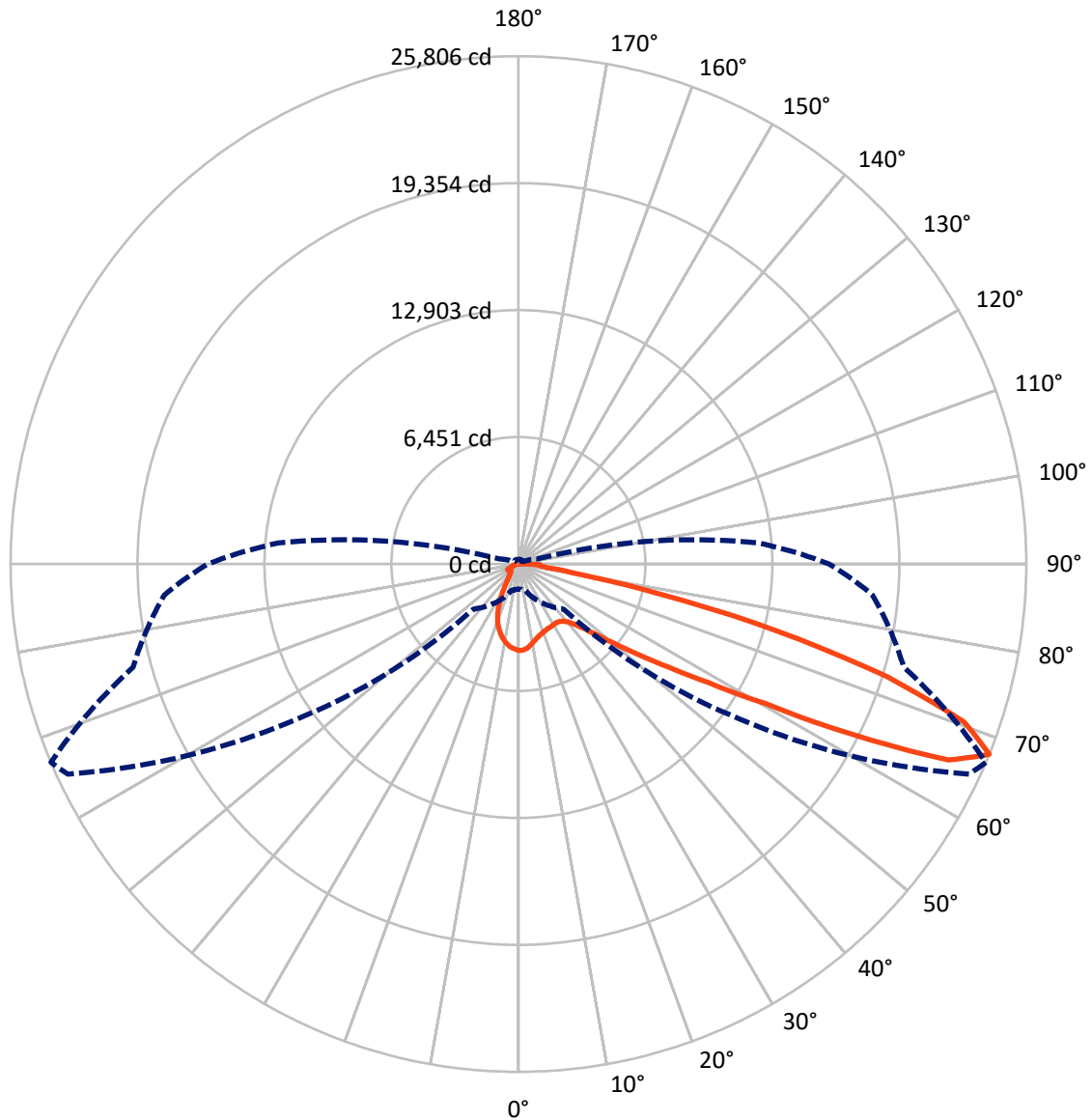
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3374.5	0.0	3374.5
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	16991.9	0.0	16991.9
	% Fixture	83.4	0.0	83.4
Total	Lumens	20366.4	0.0	20366.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.8	1.8
10°-20°	867.2	4.3
20°-30°	1175.5	5.8
30°-40°	1671.1	8.2
40°-50°	2795.8	13.7
50°-60°	4423.0	21.7
60°-70°	5634.4	27.7
70°-80°	2951.3	14.5
80°-90°	473.3	2.3
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°	20366.4	100.0
0°-180°	20366.4	100.0

Coefficient of Utilization



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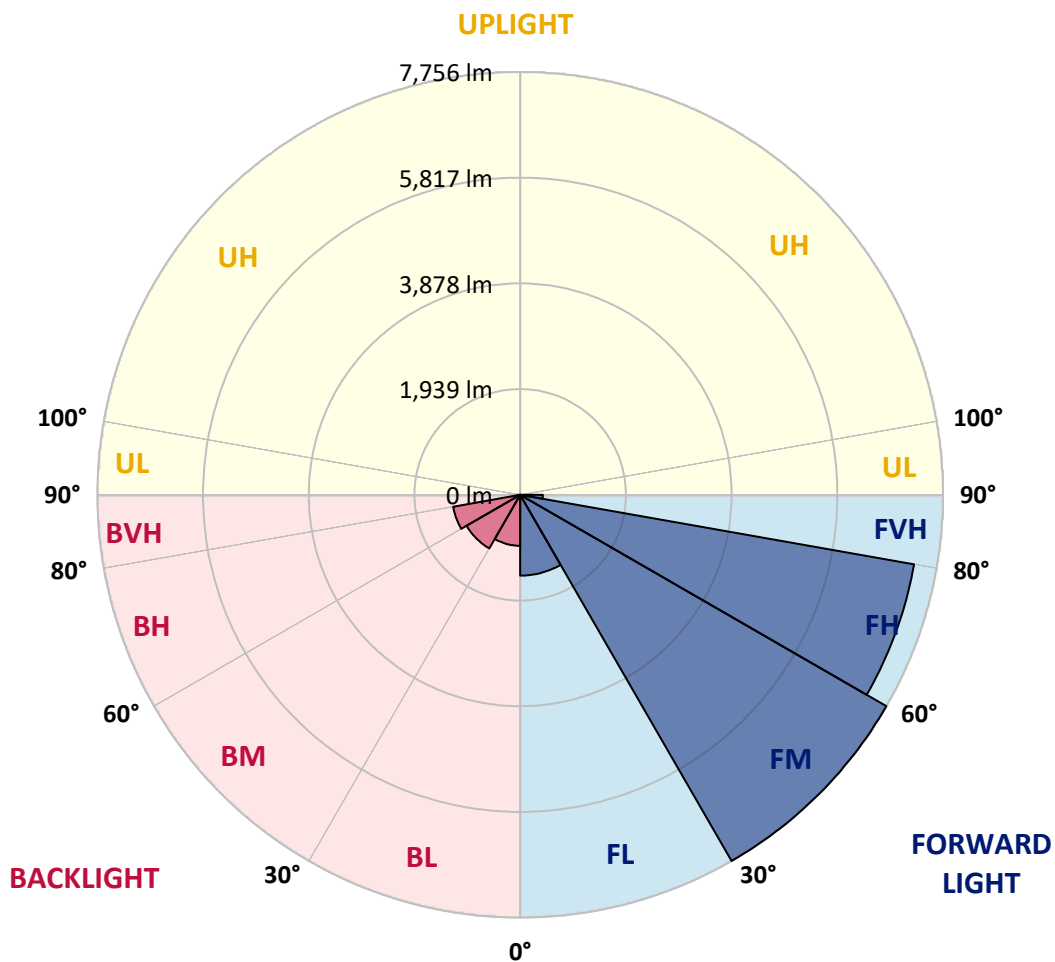
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1482.2	7.3			
FM (30°-60°)	7755.9	38.1			
FH (60°-80°)	7337.6	36.0			G3/7500
FVH (80°-90°)	416.2	2.0			G3/500
BL (0°-30°)	935.3	4.6	B2/1000		
BM (30°-60°)	1133.9	5.6	B2/2500		
BH (60°-80°)	1248.1	6.1	B3/2500		G3/2500
BVH (80°-90°)	57.1	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0
2.5°	4212.2	4219.2	4241.3	4255.4	4318.7	4345.8	4364.9	4383.9	4387.0	4396.0	4387.0
5°	3770.3	3785.4	3826.5	3872.7	3995.3	4091.7	4193.1	4298.6	4317.7	4386.0	4405.0
7.5°	3427.8	3423.8	3457.9	3513.2	3638.7	3772.3	3950.1	4160.0	4201.2	4354.8	4429.1
10°	3177.7	3174.7	3210.9	3268.1	3387.6	3514.2	3715.1	4002.3	4060.5	4305.6	4452.2
12.5°	2992.9	2993.9	3030.1	3093.4	3214.9	3342.4	3546.3	3849.6	3924.0	4248.4	4476.3
15°	2870.4	2878.4	2907.6	2974.9	3093.4	3220.9	3420.8	3735.1	3818.5	4203.2	4503.5
17.5°	2829.2	2842.3	2852.3	2901.5	3003.0	3130.5	3326.4	3650.8	3739.2	4172.0	4527.6
20°	2867.4	2882.5	2863.4	2880.4	2944.7	3057.2	3252.1	3584.5	3674.9	4136.9	4530.6
22.5°	3031.1	3045.2	2988.9	2939.7	2935.7	3004.0	3190.8	3532.3	3625.7	4110.8	4531.6
25°	3319.3	3328.4	3234.0	3119.5	3008.0	2984.9	3147.6	3496.1	3595.5	4087.7	4512.5
27.5°	3672.9	3679.9	3571.4	3402.7	3178.7	3030.1	3132.5	3475.0	3578.5	4067.6	4480.4
30°	4102.7	4135.9	3990.2	3777.3	3450.9	3163.7	3162.7	3464.0	3559.4	4033.4	4417.1
32.5°	4542.6	4556.7	4456.3	4240.3	3817.5	3398.7	3247.0	3472.0	3554.4	3992.2	4336.7
35°	4988.6	5006.6	4941.3	4767.6	4318.7	3743.2	3411.7	3519.2	3585.5	3978.2	4280.5
37.5°	5566.0	5590.2	5499.8	5298.9	4928.3	4210.2	3685.9	3637.7	3680.9	4018.4	4263.4
40°	6479.0	6467.9	6203.8	5904.5	5595.2	4807.8	4077.6	3838.6	3863.7	4147.9	4315.6
42.5°	7541.6	7514.5	7059.5	6589.5	6328.3	5530.9	4595.9	4187.1	4182.1	4403.0	4499.4
45°	8389.2	8367.2	7957.4	7377.9	7169.0	6354.5	5265.8	4706.3	4669.2	4807.8	4838.9
47.5°	8848.2	8849.2	8613.2	8140.2	8135.1	7401.0	6126.5	5457.6	5393.3	5458.6	5425.4
50°	8687.5	8708.6	8683.5	8532.9	9017.0	8772.9	7250.3	6505.1	6375.5	6439.8	6312.3
52.5°	7910.2	7937.3	8085.9	8316.9	9387.6	10431.1	8901.5	7806.7	7656.1	7633.0	7491.4
55°	6532.2	6565.4	6868.7	7496.4	9079.2	11544.9	11506.7	9465.9	9225.9	9007.9	8947.7
57.5°	4502.5	4557.7	5045.8	5977.8	8081.9	11881.3	14609.1	11831.1	11343.0	10581.7	10595.8
60°	2538.0	2602.2	3177.7	4024.4	6069.2	11515.8	16969.3	15413.6	14383.1	12424.7	12529.1
62.5°	1614.0	1683.3	2120.2	2796.1	3641.7	9547.3	17936.5	20394.1	19085.5	14696.5	14798.9
65°	1306.6	1336.8	1542.7	2308.0	2644.4	5751.9	17202.3	24496.8	24008.7	17580.0	17101.9
67.5°	1275.5	1285.6	1392.0	1937.4	2536.0	3233.0	13721.3	25264.2	25805.5	20272.6	18061.0
70°	1260.4	1295.6	1568.8	1849.0	2428.5	2726.8	8245.6	23161.1	24015.8	20976.6	16784.5
72.5°	611.6	609.6	789.4	1672.2	2735.8	2828.2	4236.3	18740.0	19597.7	18173.5	13792.6
75°	493.1	450.9	430.9	612.6	2630.4	2920.6	2699.7	12894.7	13515.4	12184.6	8478.6
77.5°	468.0	417.8	382.7	383.7	1111.8	3097.4	2286.9	7136.8	7317.6	5503.8	2323.0
80°	387.7	341.5	316.4	356.5	538.3	2949.7	2472.7	3230.0	2963.8	1351.8	773.3
82.5°	269.2	245.1	238.0	299.3	430.9	2102.1	2875.4	1735.5	1455.3	676.9	477.1
85°	171.7	146.6	162.7	217.9	335.4	970.2	2961.8	1352.8	1075.6	429.9	269.2
87.5°	79.3	64.3	80.3	120.5	218.9	334.4	2818.2	1519.6	1107.8	227.0	169.7
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°	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0	4393.0
2.5°	4395.0	4375.9	4360.8	4332.7	4301.6	4271.5	4244.3	4210.2	4200.1	4191.1	4205.2
5°	4409.1	4390.0	4334.7	4248.4	4152.9	4063.6	3974.2	3897.8	3850.6	3824.5	3839.6
7.5°	4430.1	4403.0	4288.5	4129.8	3958.1	3801.4	3639.7	3510.2	3414.8	3369.6	3382.6
10°	4449.2	4397.0	4210.2	3972.2	3721.1	3488.1	3233.0	3022.1	2865.4	2783.0	2803.1
12.5°	4457.3	4373.9	4100.7	3775.3	3430.8	3089.3	2713.7	2398.4	2173.4	2091.0	2074.0
15°	4465.3	4347.8	3980.2	3551.3	3080.3	2597.2	2070.9	1693.3	1506.5	1465.3	1456.3
17.5°	4467.3	4302.6	3843.6	3308.3	2669.5	2011.7	1416.1	1176.1	1177.1	1243.4	1251.4
20°	4446.2	4235.3	3677.9	3006.0	2177.4	1391.0	972.2	931.0	1082.7	1248.4	1268.5
22.5°	4398.0	4145.9	3490.1	2653.5	1614.0	916.0	752.3	797.4	993.3	1196.2	1219.3
25°	4336.7	4037.4	3268.1	2244.7	1068.6	654.8	630.7	686.0	818.5	954.1	967.2
27.5°	4253.4	3908.9	3019.0	1776.7	694.0	539.3	555.4	592.6	646.8	707.1	713.1
30°	4145.9	3755.2	2752.9	1295.6	524.3	485.1	508.2	528.3	551.4	585.5	588.5
32.5°	4022.4	3607.6	2479.7	894.9	465.0	457.0	475.1	485.1	503.2	524.3	526.3
35°	3918.9	3467.0	2196.5	632.7	439.9	435.9	447.9	452.0	469.0	492.1	494.1
37.5°	3859.7	3352.5	1904.2	510.2	422.8	416.8	423.8	423.8	447.9	482.1	487.1
40°	3863.7	3289.2	1612.0	461.0	408.8	400.7	401.7	401.7	432.9	470.0	473.0
42.5°	3973.2	3305.3	1352.8	441.9	397.7	388.7	383.7	386.7	412.8	436.9	438.9
45°	4230.3	3418.8	1109.8	429.9	386.7	383.7	372.6	371.6	381.6	392.7	392.7
47.5°	4652.1	3642.7	945.1	421.8	377.6	376.6	363.6	350.5	349.5	353.5	353.5
50°	5338.1	4028.4	834.6	412.8	371.6	363.6	348.5	328.4	321.4	324.4	324.4
52.5°	6366.5	4716.4	792.4	400.7	358.5	345.5	328.4	308.3	302.3	303.3	303.3
55°	7715.3	5772.9	786.4	386.7	344.5	323.4	309.3	294.3	287.2	289.2	289.2
57.5°	9363.5	7234.3	893.9	364.6	325.4	301.3	293.3	283.2	278.2	281.2	280.2
60°	11367.1	9146.5	1325.7	341.5	306.3	281.2	281.2	273.2	269.2	272.2	271.2
62.5°	13675.1	11343.0	1864.1	324.4	286.2	265.1	269.2	265.1	261.1	263.1	262.1
65°	15721.9	12774.2	1745.5	311.3	266.1	250.1	257.1	255.1	252.1	254.1	253.1
67.5°	15781.2	12243.9	980.2	297.3	247.1	235.0	245.1	244.1	242.0	244.1	243.1
70°	14083.9	10338.7	552.4	271.2	227.0	216.9	231.0	230.0	228.0	232.0	231.0
72.5°	11283.8	7502.4	403.7	239.0	206.9	197.9	213.9	212.9	212.9	218.9	215.9
75°	6493.1	3860.7	322.4	204.9	185.8	178.8	192.8	193.8	195.8	203.9	197.9
77.5°	1851.0	1203.2	263.1	173.8	159.7	156.7	170.7	172.7	173.8	182.8	174.8
80°	688.0	554.4	216.9	145.6	130.6	131.6	144.6	147.6	148.6	157.7	147.6
82.5°	438.9	365.6	175.8	112.5	102.4	101.4	117.5	121.5	121.5	122.5	116.5
85°	256.1	218.9	132.6	81.4	72.3	69.3	87.4	94.4	91.4	89.4	85.4
87.5°	171.7	150.7	81.4	45.2	39.2	37.2	51.2	56.2	54.2	51.2	48.2
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)