

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: P299111

Luminaire Tested: **GLNA-AF-03-LED-E1-SL2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299111
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-03-LED-E1-SL2-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17740.6 lumens
Efficiency: N/A
Efficacy: 106.9 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

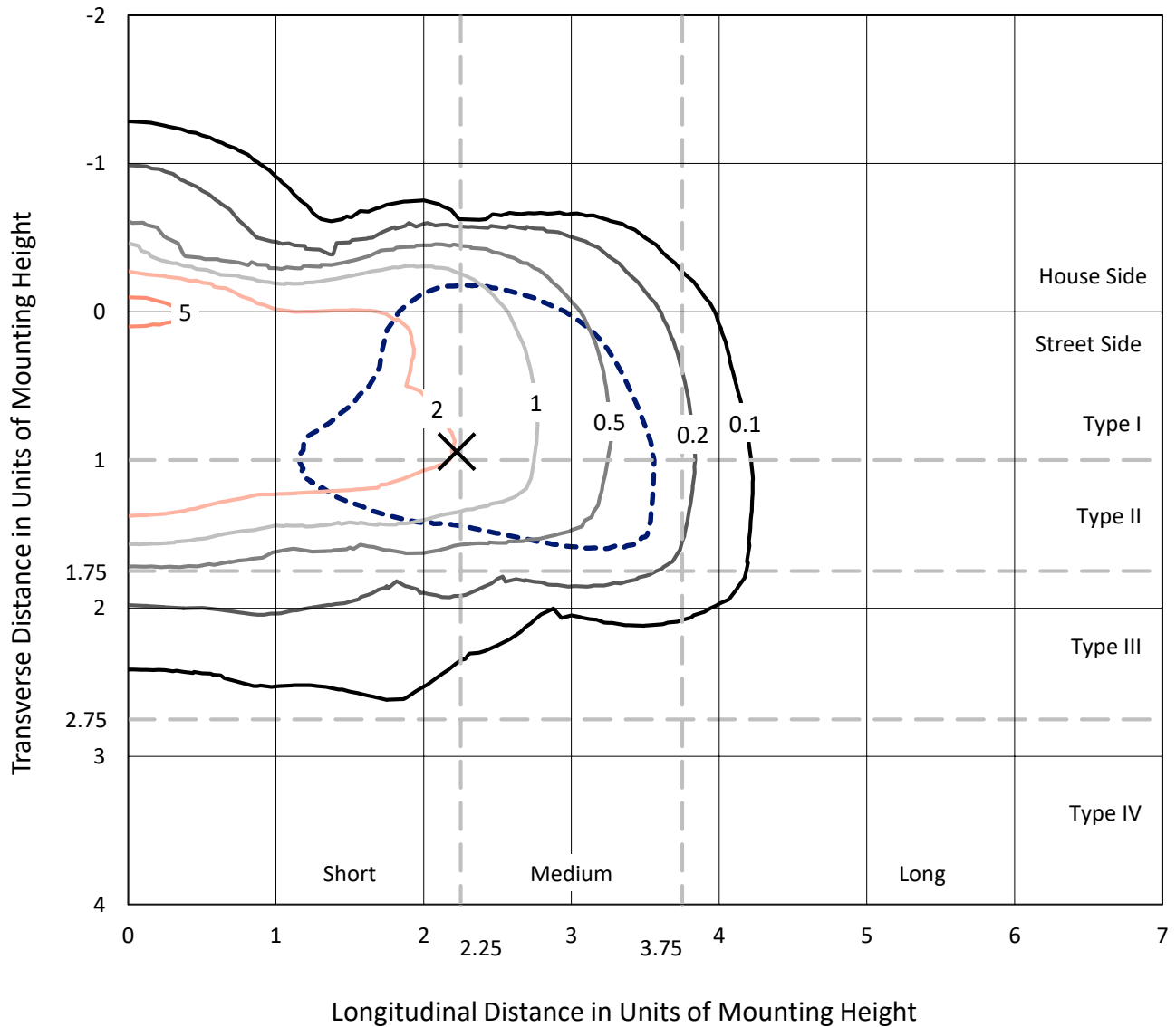
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299111
 CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7050

Iso-Footcandle Lines of Horizontal Illumination

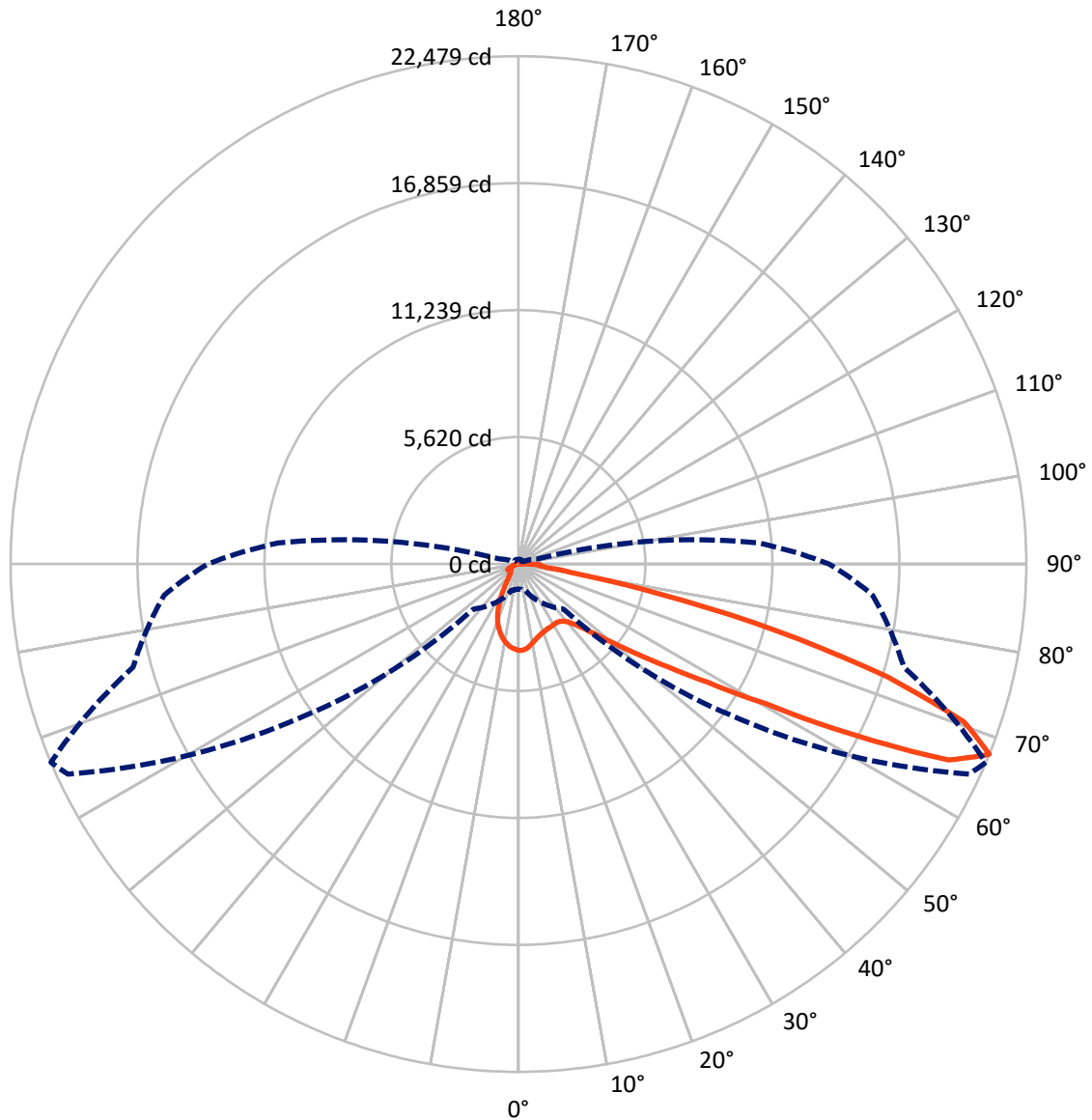
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299111
CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7050

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2939.4	0.0	2939.4
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	14801.2	0.0	14801.2
	% Fixture	83.4	0.0	83.4
Total	Lumens	17740.6	0.0	17740.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.5	1.8
10°-20°	755.4	4.3
20°-30°	1024.0	5.8
30°-40°	1455.7	8.2
40°-50°	2435.4	13.7
50°-60°	3852.7	21.7
60°-70°	4908.0	27.7
70°-80°	2570.8	14.5
80°-90°	412.3	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°	17740.6	100.0
0°-180°	17740.6	100.0

Coefficient of Utilization



REPORT NUMBER: P299111

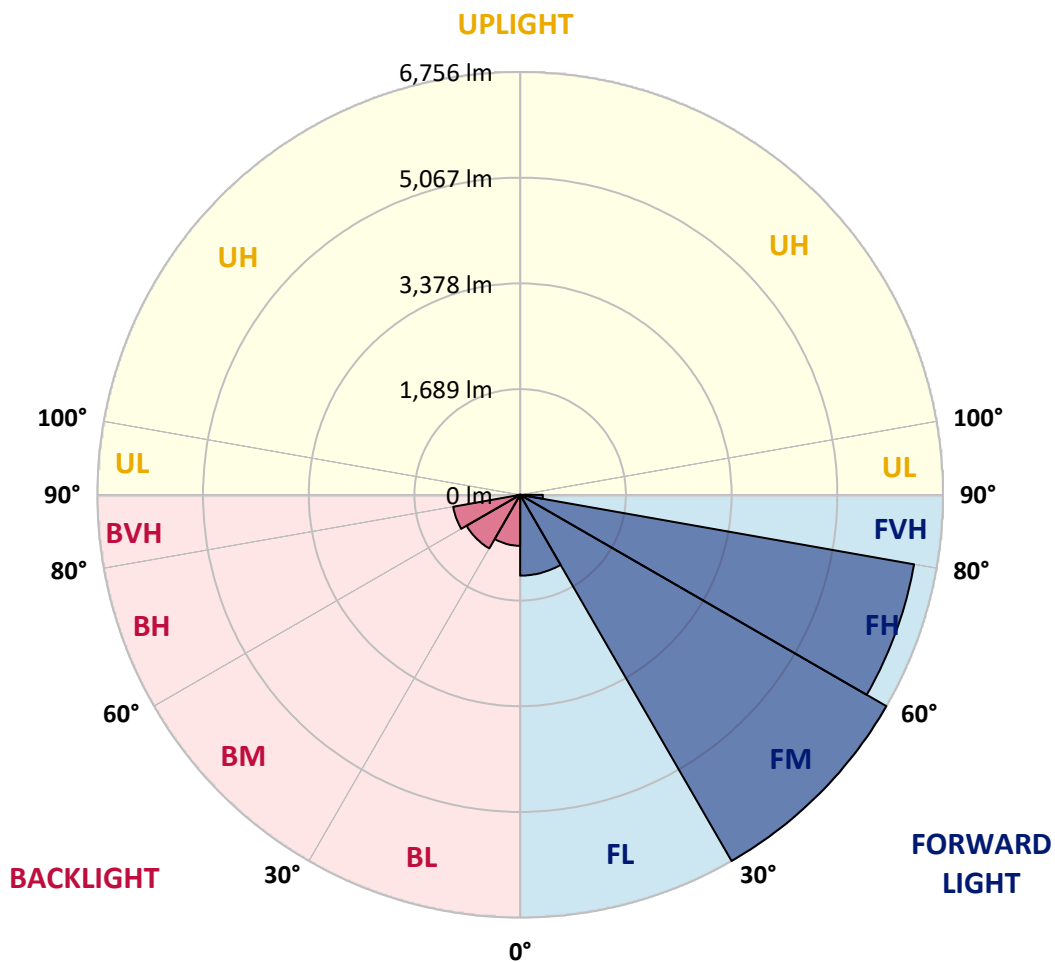
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1291.1	7.3			
FM	(30°-60°)	6756.0	38.1			
FH	(60°-80°)	6391.6	36.0			G3/7500
FVH	(80°-90°)	362.5	2.0			G3/500
BL	(0°-30°)	814.7	4.6	B2/1000		
BM	(30°-60°)	987.7	5.6	B1/1000		
BH	(60°-80°)	1087.2	6.1	B3/2500		G3/2500
BVH	(80°-90°)	49.8	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





REPORT NUMBER: P299111

CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6
2.5°	3669.1	3675.3	3694.5	3706.8	3761.9	3785.5	3802.1	3818.7	3821.4	3829.2	3821.4
5°	3284.2	3297.3	3333.2	3373.4	3480.2	3564.2	3652.5	3744.4	3761.0	3820.5	3837.1
7.5°	2985.9	2982.4	3012.1	3060.2	3169.6	3285.9	3440.8	3623.6	3659.5	3793.4	3858.1
10°	2768.0	2765.4	2796.9	2846.8	2950.9	3061.1	3236.1	3486.3	3537.0	3750.5	3878.2
12.5°	2607.1	2607.9	2639.4	2694.5	2800.4	2911.5	3089.1	3353.3	3418.1	3700.6	3899.2
15°	2500.3	2507.3	2532.7	2591.3	2694.5	2805.7	2979.7	3253.6	3326.2	3661.3	3922.8
17.5°	2464.5	2475.8	2484.6	2527.5	2615.8	2726.9	2897.5	3180.1	3257.1	3634.1	3943.8
20°	2497.7	2510.8	2494.2	2509.1	2565.1	2663.1	2832.8	3122.4	3201.1	3603.5	3946.5
22.5°	2640.3	2652.6	2603.6	2560.7	2557.2	2616.7	2779.4	3076.9	3158.2	3580.8	3947.3
25°	2891.4	2899.3	2817.0	2717.3	2620.2	2600.1	2741.8	3045.4	3132.0	3560.7	3930.7
27.5°	3199.3	3205.5	3111.0	2964.0	2768.9	2639.4	2728.7	3027.0	3117.1	3543.2	3902.7
30°	3573.8	3602.6	3475.8	3290.3	3006.0	2755.8	2754.9	3017.4	3100.5	3513.4	3847.6
32.5°	3957.0	3969.2	3881.7	3693.6	3325.3	2960.5	2828.4	3024.4	3096.1	3477.5	3777.6
35°	4345.4	4361.1	4304.3	4152.9	3761.9	3260.6	2971.9	3065.5	3123.2	3465.3	3728.6
37.5°	4848.4	4869.4	4790.7	4615.7	4292.9	3667.4	3210.7	3168.7	3206.3	3500.3	3713.8
40°	5643.7	5634.1	5404.0	5143.3	4873.8	4187.9	3551.9	3343.7	3365.6	3613.1	3759.2
42.5°	6569.3	6545.7	6149.3	5739.9	5512.4	4817.8	4003.3	3647.3	3642.9	3835.4	3919.3
45°	7307.6	7288.4	6931.5	6426.7	6244.7	5535.2	4586.9	4099.6	4067.2	4187.9	4215.0
47.5°	7707.5	7708.3	7502.7	7090.7	7086.3	6446.8	5336.6	4754.0	4698.0	4754.8	4726.0
50°	7567.5	7585.9	7564.0	7432.8	7854.4	7641.8	6315.6	5666.4	5553.6	5609.6	5498.5
52.5°	6890.3	6914.0	7043.4	7244.7	8177.3	9086.2	7753.8	6800.2	6669.0	6648.9	6525.5
55°	5690.0	5718.9	5983.1	6529.9	7908.7	10056.4	10023.2	8245.5	8036.4	7846.6	7794.1
57.5°	3922.0	3970.1	4395.3	5207.1	7039.9	10349.5	12725.6	10305.8	9880.6	9217.5	9229.7
60°	2210.8	2266.7	2768.0	3505.5	5286.7	10031.1	14781.5	13426.4	12528.8	10822.8	10913.8
62.5°	1405.9	1466.3	1846.8	2435.6	3172.2	8316.4	15624.0	17764.8	16624.8	12801.7	12891.0
65°	1138.2	1164.4	1343.8	2010.4	2303.5	5010.3	14984.5	21338.5	20913.4	15313.4	14897.0
67.5°	1111.1	1119.8	1212.5	1687.6	2209.0	2816.2	11952.2	22006.9	22478.5	17658.9	15732.5
70°	1097.9	1128.6	1366.5	1610.6	2115.4	2375.2	7182.5	20175.0	20919.5	18272.2	14620.5
72.5°	532.8	531.0	687.6	1456.6	2383.1	2463.6	3690.1	16323.9	17071.0	15830.5	12014.4
75°	429.6	392.8	375.3	533.7	2291.2	2544.1	2351.6	11232.2	11772.9	10613.7	7385.5
77.5°	407.7	363.9	333.3	334.2	968.5	2698.0	1992.0	6216.7	6374.2	4794.2	2023.5
80°	337.7	297.5	275.6	310.6	468.9	2569.4	2153.9	2813.5	2581.7	1177.6	673.6
82.5°	234.5	213.5	207.3	260.7	375.3	1831.1	2504.7	1511.7	1267.7	589.7	415.6
85°	149.6	127.7	141.7	189.8	292.2	845.1	2579.9	1178.4	937.0	374.4	234.5
87.5°	69.1	56.0	70.0	105.0	190.7	291.3	2454.8	1323.7	965.0	197.7	147.9
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°	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6	3826.6
2.5°	3828.4	3811.7	3798.6	3774.1	3747.0	3720.8	3697.1	3667.4	3658.6	3650.8	3663.0
5°	3840.6	3824.0	3775.9	3700.6	3617.5	3539.7	3461.8	3395.3	3354.2	3331.4	3344.6
7.5°	3859.0	3835.4	3735.6	3597.4	3447.8	3311.3	3170.5	3057.6	2974.5	2935.1	2946.5
10°	3875.6	3830.1	3667.4	3460.0	3241.3	3038.4	2816.2	2632.4	2496.0	2424.2	2441.7
12.5°	3882.6	3810.0	3572.0	3288.6	2988.5	2691.0	2363.9	2089.1	1893.2	1821.4	1806.6
15°	3889.6	3787.2	3467.0	3093.5	2683.2	2262.4	1803.9	1475.0	1312.3	1276.4	1268.5
17.5°	3891.3	3747.9	3348.1	2881.8	2325.4	1752.3	1233.5	1024.5	1025.3	1083.1	1090.1
20°	3873.0	3689.3	3203.7	2618.4	1896.7	1211.7	846.9	811.0	943.1	1087.4	1104.9
22.5°	3831.0	3611.4	3040.1	2311.4	1405.9	797.9	655.3	694.6	865.2	1042.0	1062.1
25°	3777.6	3516.9	2846.8	1955.3	930.8	570.4	549.4	597.5	713.0	831.1	842.5
27.5°	3705.0	3404.9	2629.8	1547.6	604.5	469.8	483.8	516.2	563.4	615.9	621.1
30°	3611.4	3271.1	2398.0	1128.6	456.7	422.6	442.7	460.2	480.3	510.0	512.7
32.5°	3503.8	3142.5	2160.0	779.5	405.1	398.1	413.8	422.6	438.3	456.7	458.4
35°	3413.7	3020.0	1913.3	551.2	383.2	379.7	390.2	393.7	408.6	428.7	430.4
37.5°	3362.1	2920.3	1658.7	444.4	368.3	363.1	369.2	369.2	390.2	419.9	424.3
40°	3365.6	2865.1	1404.1	401.6	356.1	349.1	349.9	349.9	377.1	409.4	412.1
42.5°	3460.9	2879.1	1178.4	384.9	346.4	338.6	334.2	336.8	359.6	380.6	382.3
45°	3684.9	2978.0	966.7	374.4	336.8	334.2	324.6	323.7	332.4	342.1	342.1
47.5°	4052.3	3173.1	823.2	367.4	328.9	328.1	316.7	305.3	304.4	307.9	307.9
50°	4649.8	3509.0	727.0	359.6	323.7	316.7	303.6	286.1	280.0	282.6	282.6
52.5°	5545.7	4108.3	690.3	349.1	312.3	300.9	286.1	268.6	263.3	264.2	264.2
55°	6720.6	5028.7	685.0	336.8	300.1	281.7	269.5	256.3	250.2	252.0	252.0
57.5°	8156.3	6301.6	778.6	317.6	283.5	262.5	255.5	246.7	242.3	245.0	244.1
60°	9901.6	7967.3	1154.8	297.5	266.8	245.0	245.0	238.0	234.5	237.1	236.2
62.5°	11912.0	9880.6	1623.7	282.6	249.3	231.0	234.5	231.0	227.5	229.2	228.3
65°	13695.0	11127.3	1520.5	271.2	231.8	217.8	224.0	222.2	219.6	221.3	220.5
67.5°	13746.6	10665.3	853.9	259.0	215.2	204.7	213.5	212.6	210.8	212.6	211.7
70°	12268.1	9005.7	481.2	236.2	197.7	189.0	201.2	200.3	198.6	202.1	201.2
72.5°	9829.0	6535.2	351.7	208.2	180.2	172.3	186.3	185.5	185.5	190.7	188.1
75°	5655.9	3362.9	280.8	178.5	161.8	155.7	168.0	168.8	170.6	177.6	172.3
77.5°	1612.4	1048.1	229.2	151.3	139.1	136.5	148.7	150.5	151.3	159.2	152.2
80°	599.3	482.9	189.0	126.9	113.7	114.6	126.0	128.6	129.5	137.4	128.6
82.5°	382.3	318.4	153.1	98.0	89.2	88.4	102.4	105.9	105.9	106.7	101.5
85°	223.1	190.7	115.5	70.9	63.0	60.4	76.1	82.2	79.6	77.9	74.4
87.5°	149.6	131.2	70.9	39.4	34.1	32.4	44.6	49.0	47.2	44.6	42.0
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)