

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: P299827

Luminaire Tested: **GLNA-AF-03-LED-E1-SL3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299827
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
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-SL3-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15735.5 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

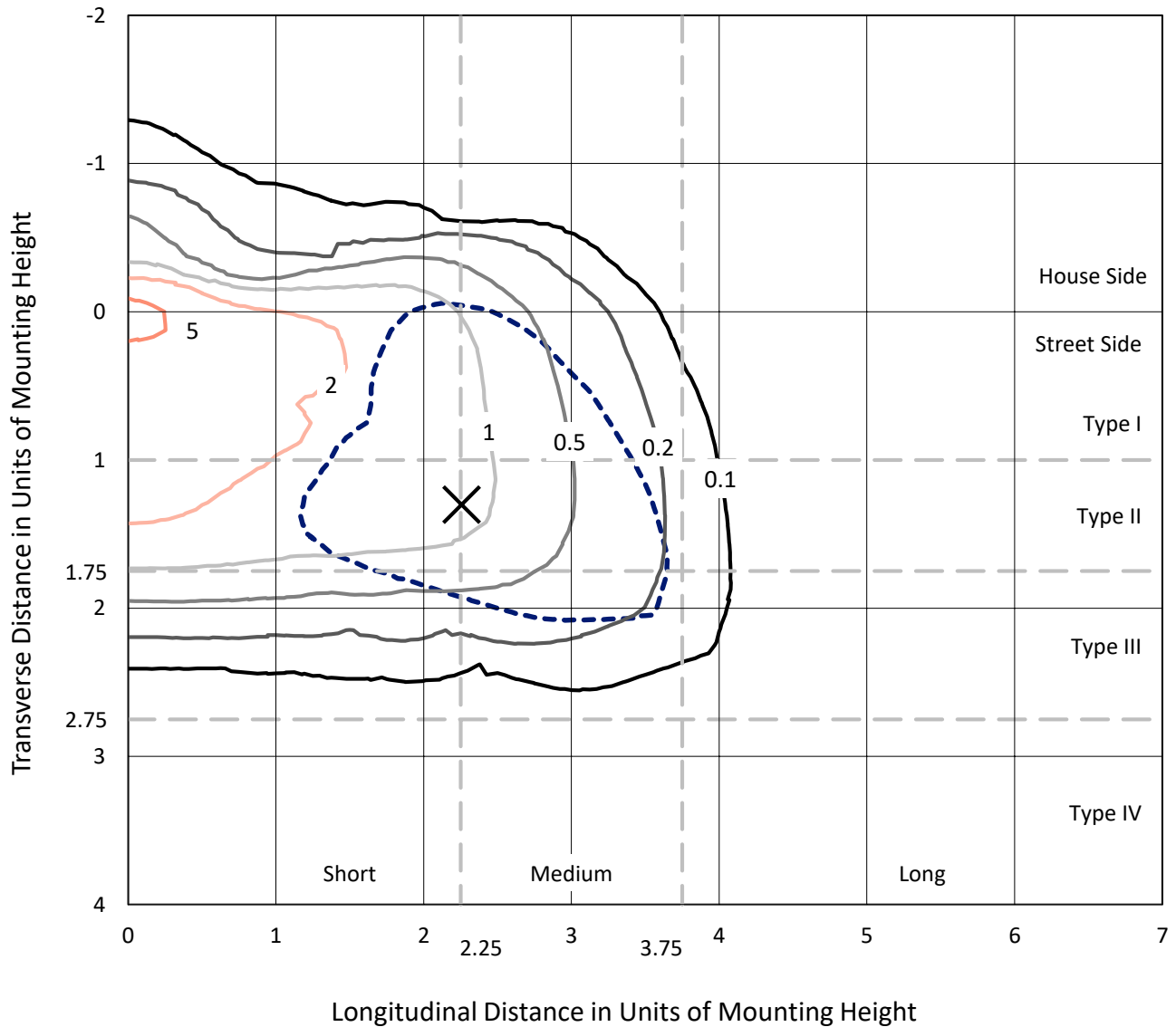
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

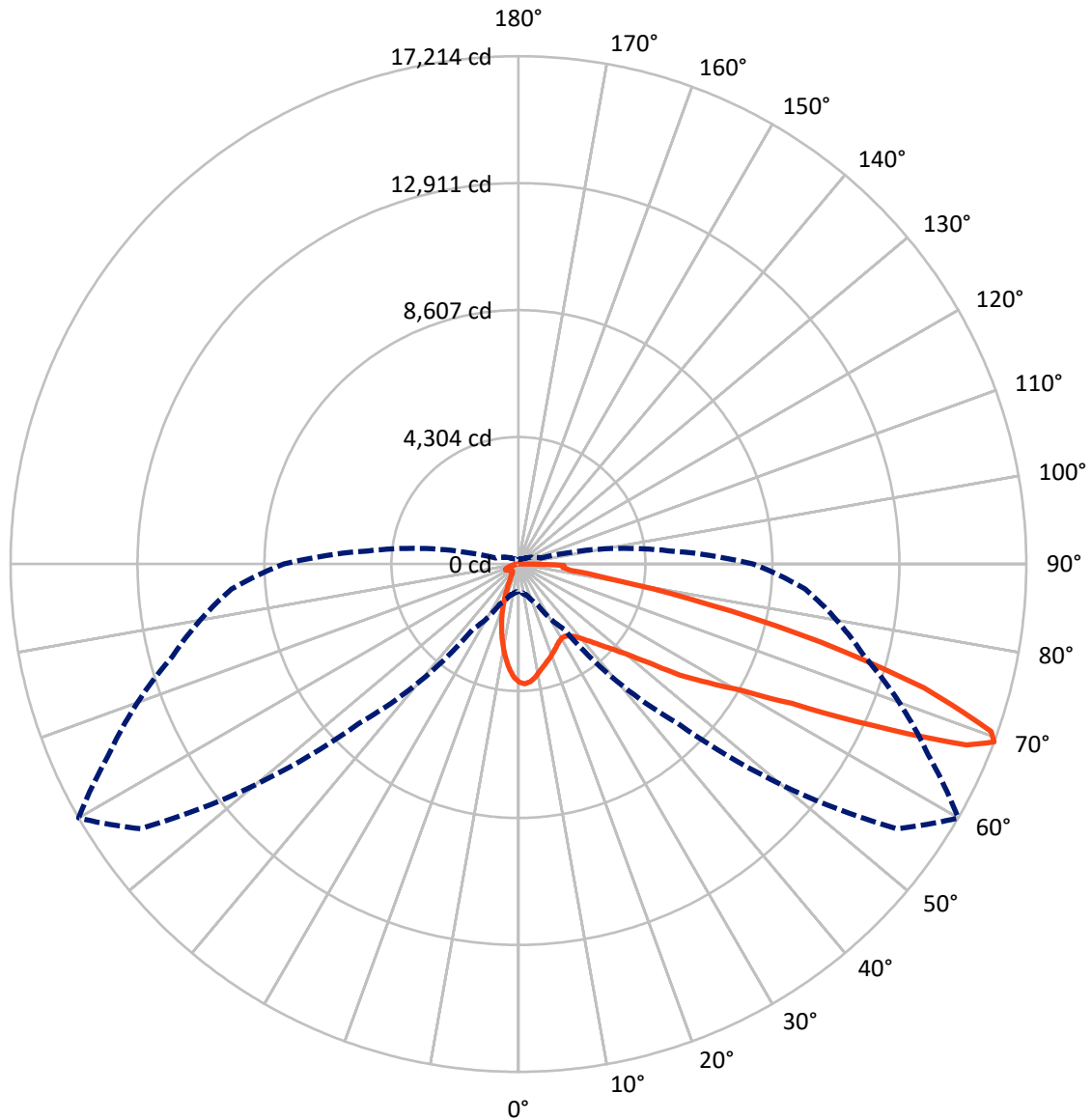
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2238.7	0.0	2238.7
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	13496.8	0.0	13496.8
	% Fixture	85.8	0.0	85.8
Total	Lumens	15735.5	0.0	15735.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.0	2.2
10°-20°	722.3	4.6
20°-30°	920.4	5.8
30°-40°	1265.3	8.0
40°-50°	2053.0	13.0
50°-60°	3292.5	20.9
60°-70°	4382.1	27.8
70°-80°	2366.0	15.0
80°-90°	394.8	2.5
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°	15735.5	100.0
0°-180°	15735.5	100.0

Coefficient of Utilization



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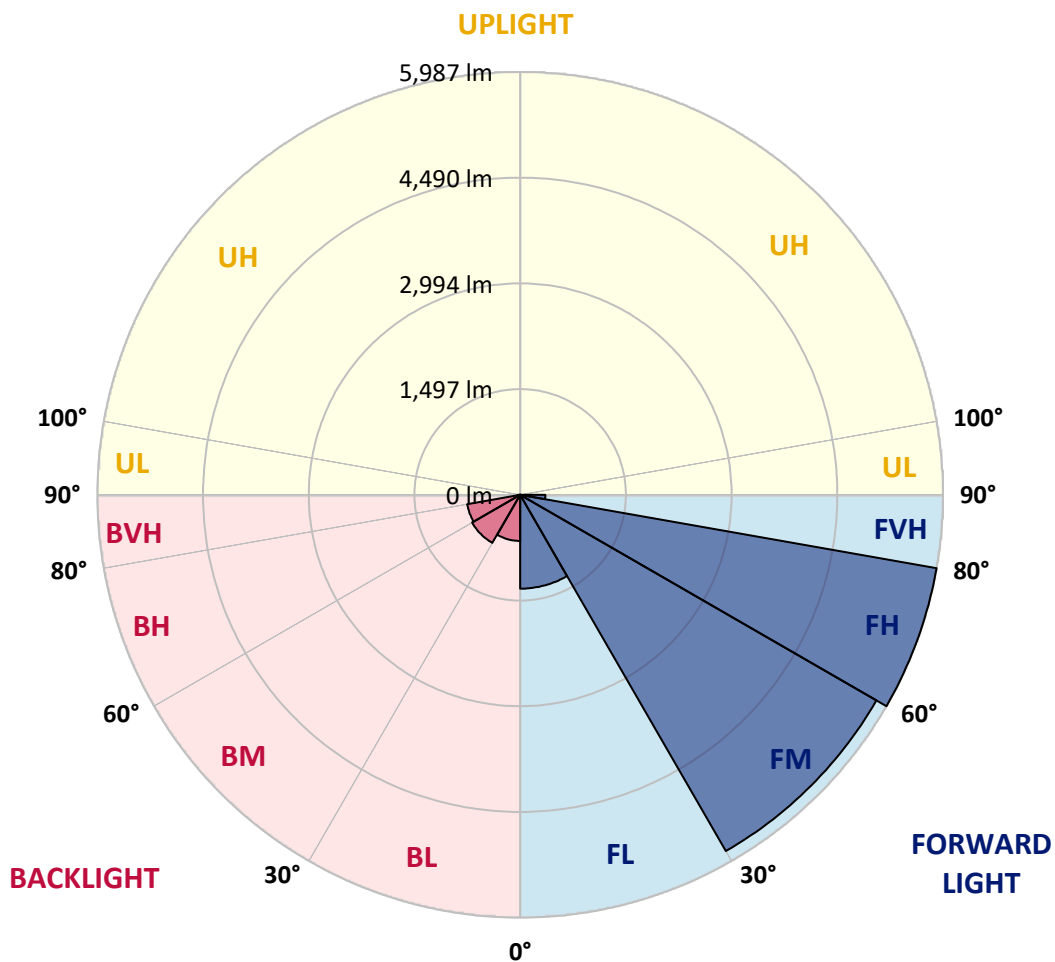
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1328.6	8.4			
FM	(30°-60°)	5824.4	37.0			
FH	(60°-80°)	5987.0	38.0			G3/7500
FVH	(80°-90°)	356.8	2.3			G3/500
BL	(0°-30°)	653.1	4.2	B2/1000		
BM	(30°-60°)	786.5	5.0	B1/1000		
BH	(60°-80°)	761.1	4.8	B2/1000		G2/1000
BVH	(80°-90°)	38.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6
2.5°	4091.7	4100.8	4097.0	4094.8	4101.6	4091.0	4068.9	4062.1	4051.4	4026.4	3983.8
5°	3938.2	3965.5	3964.0	3984.6	4018.8	4027.9	4018.0	4019.5	3999.8	3968.6	3897.9
7.5°	3672.9	3684.3	3690.4	3735.2	3797.6	3847.7	3890.3	3904.0	3894.9	3868.3	3777.0
10°	3399.3	3408.4	3422.8	3475.3	3554.3	3623.5	3704.1	3750.4	3770.2	3765.6	3663.8
12.5°	3164.4	3173.5	3192.5	3251.8	3346.1	3431.2	3548.2	3606.0	3653.1	3681.3	3571.8
15°	2953.8	2973.6	2991.8	3060.2	3165.9	3277.6	3409.9	3482.9	3555.8	3618.9	3490.5
17.5°	2789.6	2809.4	2820.0	2882.4	2994.9	3131.7	3286.8	3372.7	3463.9	3567.2	3409.9
20°	2694.6	2703.7	2699.2	2734.2	2835.2	2980.4	3164.4	3264.0	3374.2	3518.6	3329.3
22.5°	2668.0	2668.8	2652.1	2648.3	2713.6	2836.0	3033.6	3154.5	3289.8	3486.7	3260.2
25°	2732.6	2730.4	2684.7	2647.5	2654.3	2725.8	2907.5	3048.1	3219.1	3479.8	3206.9
27.5°	2876.3	2883.1	2815.5	2745.6	2676.4	2674.1	2811.7	2959.9	3161.3	3511.0	3184.1
30°	3077.7	3089.1	3016.9	2928.0	2798.0	2690.8	2774.4	2907.5	3125.6	3575.6	3180.3
32.5°	3298.2	3310.3	3255.6	3162.1	2991.8	2794.2	2800.3	2912.0	3124.1	3666.1	3206.2
35°	3533.0	3546.7	3518.6	3439.5	3250.3	2985.0	2899.1	2985.8	3173.5	3804.4	3275.4
37.5°	3795.3	3816.6	3824.2	3748.9	3546.7	3236.6	3061.0	3125.6	3285.2	3996.7	3402.3
40°	4173.1	4202.7	4200.4	4092.5	3886.5	3576.4	3311.1	3327.8	3459.3	4253.6	3605.3
42.5°	4896.7	4902.8	4713.5	4478.6	4260.5	3933.6	3606.0	3592.3	3699.5	4579.0	3904.0
45°	5817.2	5792.1	5371.0	4917.2	4651.2	4344.1	3989.9	3923.0	4004.3	4975.7	4278.0
47.5°	6581.1	6523.4	5991.3	5364.9	5064.7	4790.3	4440.6	4323.6	4368.4	5425.7	4761.4
50°	6846.4	6803.1	6362.2	5737.4	5456.1	5334.5	4995.5	4829.8	4842.0	5962.4	5327.7
52.5°	6789.4	6783.3	6489.1	5982.9	5822.5	5906.1	5781.5	5557.2	5438.7	6558.3	5938.8
55°	6654.9	6667.8	6561.4	6268.7	6241.3	6458.0	6808.4	6642.7	6274.0	7159.6	6570.5
57.5°	6187.4	6220.8	6454.9	6628.3	6915.6	7237.9	7635.4	7588.3	7173.3	7809.5	7321.5
60°	4984.9	5062.4	5690.3	6558.3	7609.6	8617.5	8795.4	8685.9	8100.6	8616.0	8313.4
62.5°	3492.8	3573.3	4319.8	5678.1	7495.5	10175.7	10869.0	10396.9	9432.3	9804.0	9597.3
65°	1869.9	1908.7	2478.8	3939.7	6328.0	10497.3	13899.6	13181.2	11540.9	11268.8	10695.7
67.5°	1031.5	1052.8	1270.9	1989.2	4053.0	9243.8	15830.3	16373.0	14176.2	12244.0	10495.7
69°	932.7	952.4	1095.3	1506.6	2712.1	7643.0	15641.8	17214.4	15331.6	12147.5	9756.9
70°	912.1	930.4	1058.8	1388.7	2195.2	6299.9	15010.1	16999.3	15606.8	11801.6	9112.3
72.5°	820.9	840.7	965.4	1247.4	1876.0	3140.8	11889.8	14373.1	14169.4	10232.7	6911.8
75°	765.4	783.7	995.0	1221.5	1796.2	1987.7	7838.4	10593.0	10415.9	7158.1	3726.9
77.5°	327.6	326.1	461.4	1033.8	1822.8	1924.6	4211.8	6617.6	6037.6	3059.5	1070.2
80°	218.9	215.1	218.9	304.0	1671.5	1935.3	2206.6	3359.0	2537.3	779.9	527.5
82.5°	188.5	185.5	192.3	185.5	587.6	2208.9	1876.0	1786.3	1206.3	443.2	261.5
85°	126.9	121.6	165.7	166.5	277.4	1962.6	2113.1	1508.8	976.0	263.0	129.2
87.5°	60.8	59.3	96.5	117.8	162.7	797.4	2370.8	1546.1	984.4	134.5	61.6
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°	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6	4009.6
2.5°	3970.9	3939.7	3909.3	3872.8	3834.8	3792.2	3771.0	3749.7	3744.4	3738.3	3717.0
5°	3861.4	3817.3	3741.3	3657.7	3569.5	3483.6	3418.3	3377.2	3346.1	3330.1	3302.0
7.5°	3720.0	3655.4	3522.4	3378.0	3229.8	3094.5	2977.4	2903.7	2833.7	2801.0	2763.8
10°	3585.5	3489.0	3282.2	3069.4	2856.5	2652.1	2459.7	2323.7	2202.8	2135.2	2087.3
12.5°	3469.9	3337.7	3051.1	2763.0	2471.2	2180.0	1891.9	1665.4	1476.2	1376.6	1325.7
15°	3357.5	3197.8	2831.4	2465.8	2091.1	1695.1	1316.5	1059.6	903.0	840.7	819.4
17.5°	3255.6	3051.1	2611.0	2166.3	1698.9	1220.0	884.8	743.4	683.3	662.8	656.0
20°	3145.4	2902.9	2382.2	1853.2	1289.9	852.9	690.9	628.6	604.3	598.2	595.2
22.5°	3039.0	2757.0	2163.3	1518.0	926.6	658.3	593.7	567.8	564.0	569.3	569.3
25°	2948.5	2626.2	1926.9	1167.5	680.3	554.1	531.3	525.2	539.7	559.4	563.2
27.5°	2880.9	2519.0	1675.3	862.0	542.0	481.9	481.2	491.0	526.8	564.8	572.4
30°	2834.5	2417.2	1406.2	621.8	454.6	424.1	436.3	457.6	510.0	564.0	578.5
32.5°	2810.9	2341.9	1125.7	481.2	389.2	372.5	393.0	418.8	470.5	520.7	539.7
35°	2829.2	2286.4	861.2	401.3	343.6	330.7	351.9	377.0	407.4	428.7	443.2
37.5°	2897.6	2264.4	649.9	359.5	312.4	300.2	317.0	331.4	343.6	349.7	356.5
40°	3045.0	2288.0	520.7	338.3	294.9	279.7	286.6	291.9	299.5	305.6	308.6
42.5°	3262.4	2358.7	466.7	329.9	285.8	263.8	262.2	264.5	274.4	285.8	288.1
45°	3566.5	2483.3	462.9	335.2	281.2	250.8	244.0	247.0	262.2	279.7	282.8
47.5°	3954.9	2673.3	493.3	351.2	285.0	244.0	232.6	236.4	255.4	279.0	282.8
50°	4425.4	2938.6	544.2	374.7	301.8	245.5	228.8	231.1	250.8	276.7	280.5
52.5°	4981.1	3314.9	599.7	397.5	319.3	255.4	231.8	226.5	244.8	267.6	272.1
55°	5599.0	3797.6	656.7	418.1	328.4	267.6	237.9	220.4	233.4	252.4	256.2
57.5°	6357.6	4472.5	755.6	437.8	334.5	275.9	244.0	214.4	218.9	232.6	235.6
60°	7384.6	5427.3	929.6	470.5	348.1	279.0	243.2	209.0	204.5	212.1	213.6
62.5°	8615.2	6464.1	1074.8	511.6	370.9	281.2	238.7	205.2	192.3	192.3	193.8
65°	9345.7	6741.5	994.2	545.8	389.9	279.0	233.4	201.4	183.2	174.8	175.6
67.5°	8726.2	5928.9	852.1	552.6	389.2	268.3	225.0	194.6	174.1	161.1	160.4
69°	7950.1	5115.6	788.2	534.4	370.9	254.6	214.4	187.0	167.2	153.5	152.8
70°	7324.5	4619.3	746.4	514.6	351.2	244.8	206.0	180.1	161.9	149.0	147.5
72.5°	5325.4	3026.8	637.7	442.4	289.6	205.2	177.9	158.1	144.4	136.8	135.3
75°	2661.2	1443.5	517.6	358.8	222.0	164.2	145.9	132.3	125.4	123.9	123.1
77.5°	874.1	661.3	370.2	267.6	164.9	128.5	117.8	107.9	106.4	111.0	109.5
80°	480.4	384.6	234.9	177.1	112.5	94.3	92.7	87.4	89.7	97.3	95.8
82.5°	244.8	199.9	145.2	106.4	76.0	67.7	73.7	70.7	73.7	80.6	79.8
85°	120.9	109.5	92.0	64.6	50.2	43.3	52.4	54.7	56.2	61.6	61.6
87.5°	69.9	64.6	48.6	30.4	25.1	22.8	30.4	29.6	35.0	38.0	37.2
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)