

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: P299491

Luminaire Tested: **GLNA-AF-07-LED-E1-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299491
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-5NQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24772.2 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

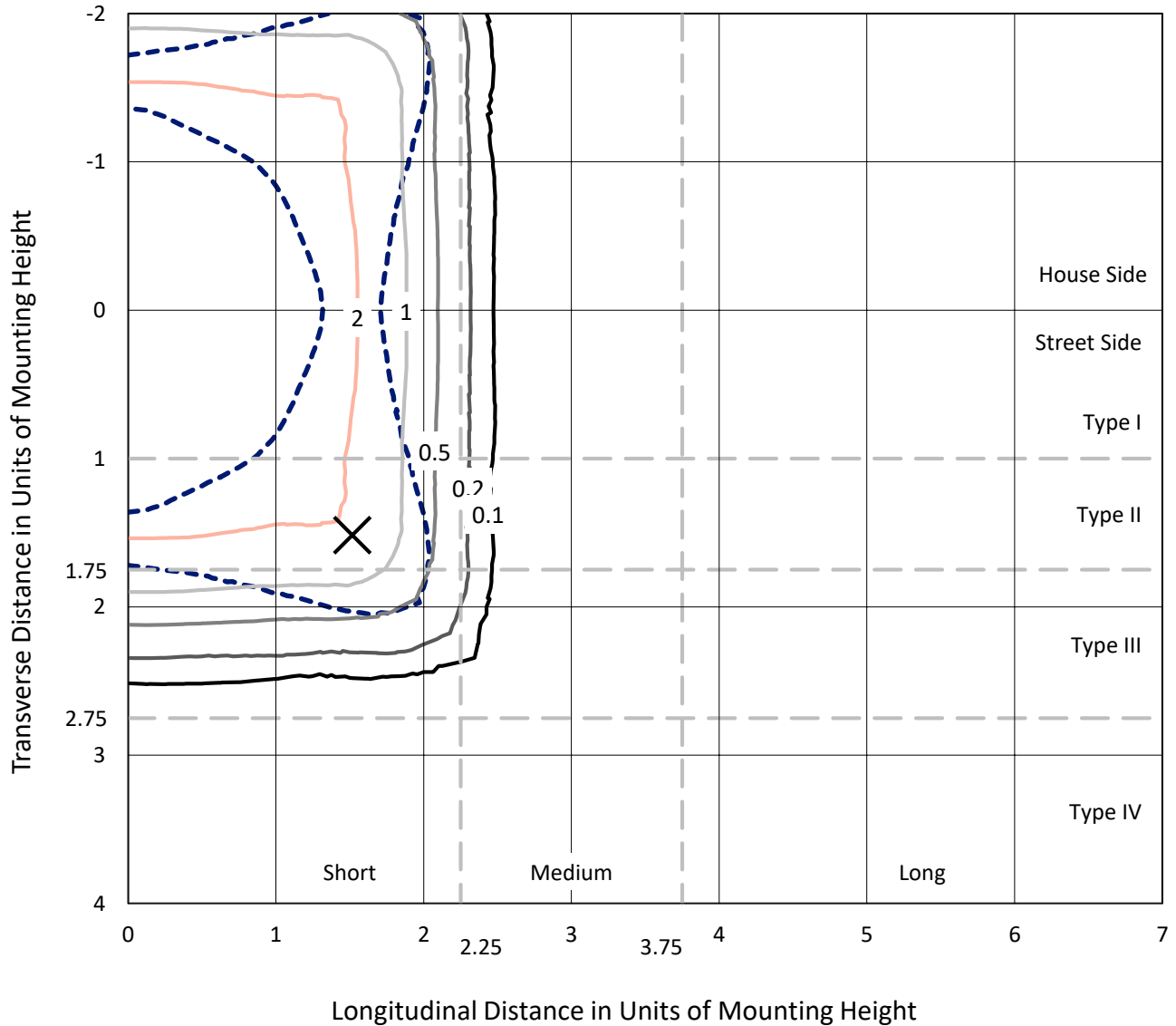
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

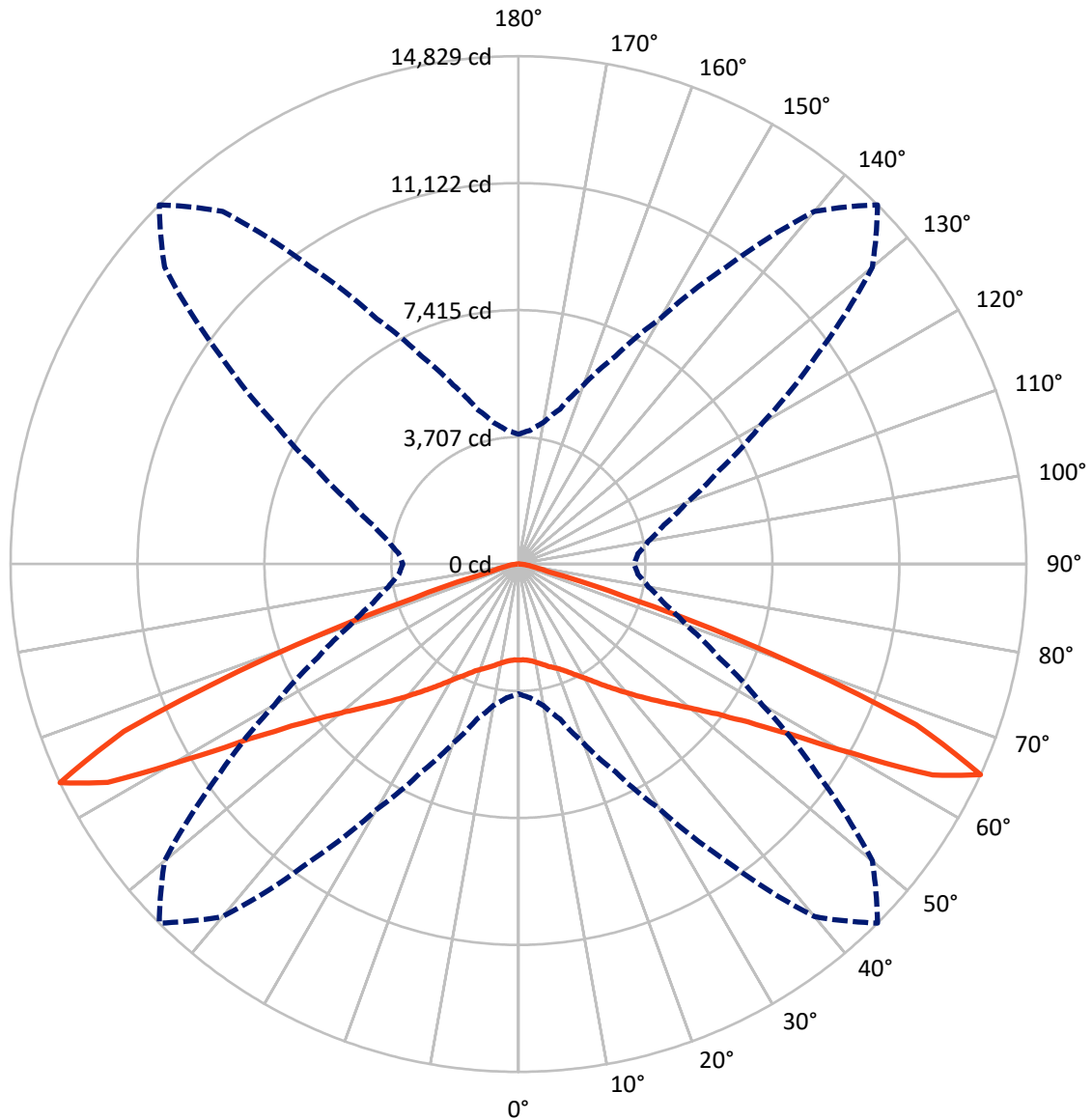
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12386.1	0.0	12386.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12386.1	0.0	12386.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	24772.2	0.0	24772.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.2	1.1
10°-20°	876.2	3.5
20°-30°	1638.3	6.6
30°-40°	2770.9	11.2
40°-50°	4530.7	18.3
50°-60°	7204.5	29.1
60°-70°	6512.4	26.3
70°-80°	824.2	3.3
80°-90°	141.8	0.6
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°	24772.2	100.0
0°-180°	24772.2	100.0



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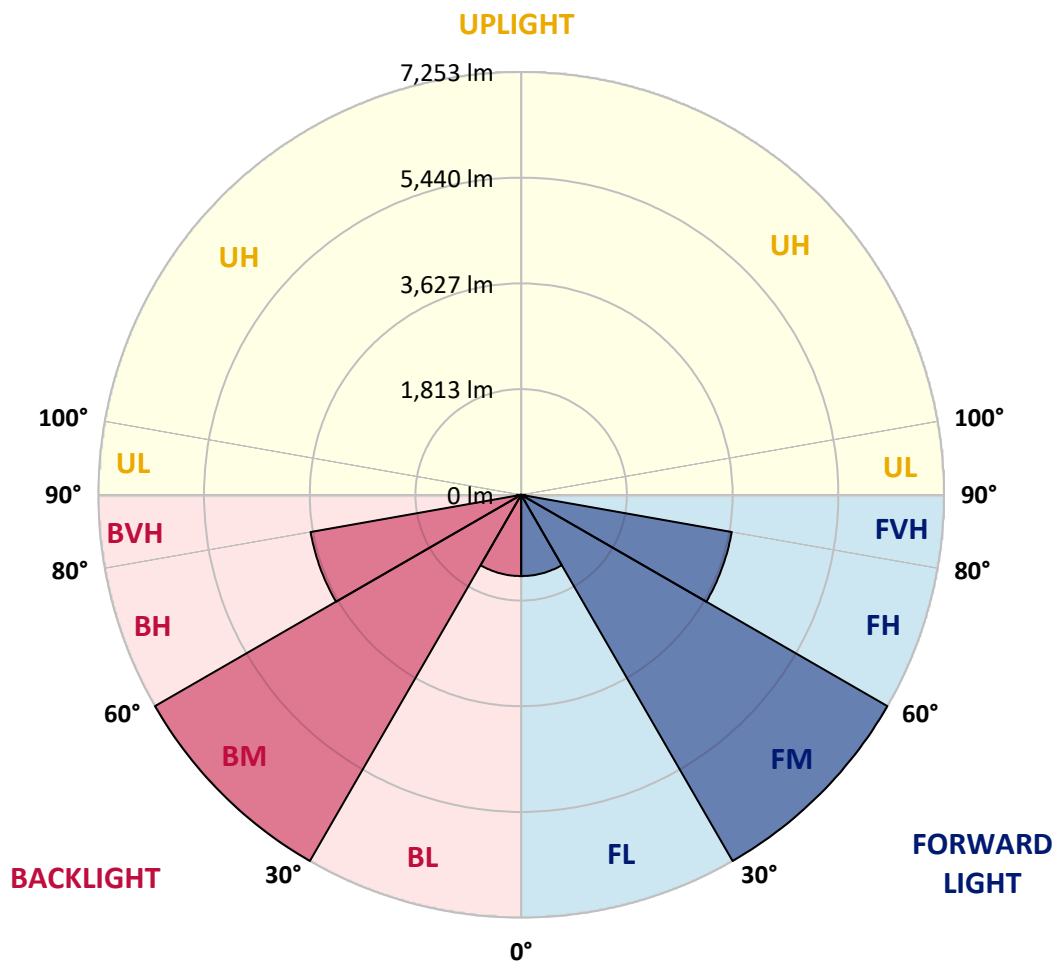
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1393.9	5.6			
FM	(30°-60°)	7253.0	29.3			
FH	(60°-80°)	3668.3	14.8			G2/5000
FVH	(80°-90°)	70.9	0.3			G1/100
BL	(0°-30°)	1393.9	5.6	B3/2500		
BM	(30°-60°)	7253.0	29.3	B4/8500		
BH	(60°-80°)	3668.3	14.8	B4/5000		G2/5000
BVH	(80°-90°)	70.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0
2.5°	2805.3	2807.6	2809.9	2807.6	2809.9	2806.5	2804.1	2807.6	2804.1	2800.7	2803.0
5°	2829.7	2830.8	2830.8	2827.3	2830.8	2828.5	2825.0	2829.7	2826.2	2822.7	2825.0
7.5°	2870.3	2874.9	2871.4	2868.0	2870.3	2868.0	2865.6	2866.8	2865.6	2862.2	2863.3
10°	2924.8	2928.3	2926.0	2924.8	2927.1	2926.0	2923.6	2922.5	2923.6	2920.2	2920.2
12.5°	2990.9	2989.8	2988.6	2989.8	2993.3	2993.3	2992.1	2993.3	2995.6	2996.7	2994.4
15°	3055.9	3058.2	3058.2	3058.2	3065.2	3071.0	3074.5	3076.8	3081.4	3082.6	3077.9
17.5°	3137.1	3137.1	3136.0	3137.1	3144.1	3153.4	3156.8	3161.5	3166.1	3169.6	3163.8
20°	3227.6	3229.9	3229.9	3232.3	3241.5	3252.0	3252.0	3254.3	3252.0	3254.3	3250.8
22.5°	3337.8	3344.8	3344.8	3345.9	3355.2	3368.0	3364.5	3368.0	3362.2	3366.8	3362.2
25°	3481.7	3492.1	3489.8	3489.8	3496.8	3504.9	3506.1	3513.0	3511.9	3517.7	3514.2
27.5°	3644.1	3660.4	3665.0	3663.8	3668.5	3676.6	3678.9	3687.0	3682.4	3687.0	3684.7
30°	3839.0	3846.0	3855.3	3858.7	3864.5	3872.7	3872.7	3873.8	3868.0	3875.0	3878.5
32.5°	4040.9	4053.7	4062.9	4083.8	4094.3	4100.1	4098.9	4101.2	4095.4	4104.7	4111.7
35°	4307.7	4317.0	4332.1	4348.3	4362.3	4361.1	4357.6	4358.8	4358.8	4366.9	4373.9
37.5°	4629.1	4631.4	4651.1	4674.3	4681.3	4674.3	4653.5	4648.8	4638.4	4648.8	4660.4
40°	4969.0	4977.2	5016.6	5031.7	5035.2	5022.4	4992.2	4974.8	4951.6	4964.4	4980.6
42.5°	5325.2	5341.5	5377.4	5404.1	5415.7	5407.6	5365.8	5339.1	5309.0	5315.9	5332.2
45°	5719.7	5739.4	5790.4	5816.0	5838.0	5825.2	5784.6	5744.0	5696.5	5699.9	5725.5
47.5°	6160.5	6180.3	6246.4	6289.3	6300.9	6298.6	6253.3	6197.7	6132.7	6130.4	6152.4
50°	6654.8	6674.5	6756.9	6823.0	6856.6	6853.2	6799.8	6720.9	6642.0	6643.2	6671.0
52.5°	7137.4	7161.8	7247.6	7361.3	7427.4	7475.0	7442.5	7368.3	7272.0	7274.3	7299.8
55°	7589.9	7630.5	7729.1	7883.4	8006.4	8139.8	8178.1	8175.8	8117.8	8134.0	8159.5
57.5°	7809.1	7869.5	8021.5	8265.1	8515.7	8787.2	9016.9	9188.6	9261.7	9371.9	9346.4
60°	7393.8	7490.1	7714.0	8072.5	8567.9	9134.1	9740.8	10333.7	10839.5	11221.2	11002.0
62.5°	6053.8	6179.1	6450.6	6910.0	7659.5	8565.6	9726.9	11128.4	12655.2	13576.4	12918.6
65°	3788.0	3917.9	4194.0	4686.0	5563.0	6689.6	8265.1	10587.8	13440.6	14829.4	13490.5
67.5°	1476.9	1547.7	1697.3	2011.7	2670.7	3673.1	5254.4	7890.4	11302.4	12519.5	11092.4
70°	740.2	747.2	775.0	833.0	974.5	1265.8	1925.9	3658.0	6481.9	7828.9	6248.7
72.5°	534.8	536.0	549.9	575.4	620.7	685.7	811.0	1119.6	2108.0	3221.8	1975.8
75°	409.5	414.2	422.3	436.2	460.6	493.1	538.3	645.1	799.4	927.0	779.6
77.5°	315.6	324.8	330.7	343.4	358.5	380.5	393.3	433.9	504.7	531.4	523.2
80°	240.2	248.3	261.0	271.5	281.9	292.4	287.7	306.3	343.4	365.5	353.9
82.5°	153.1	162.4	199.6	208.8	213.5	220.4	212.3	213.5	229.7	243.6	229.7
85°	98.6	104.4	126.5	138.1	139.2	143.9	140.4	132.3	132.3	120.7	135.7
87.5°	45.2	46.4	56.8	67.3	69.6	62.6	61.5	59.2	47.6	45.2	48.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0	2803.0
2.5°	2801.8	2804.1	2805.3	2808.8	2809.9	2809.9	2811.1	2813.4
5°	2823.9	2827.3	2828.5	2833.2	2834.3	2833.2	2835.5	2836.6
7.5°	2863.3	2869.1	2871.4	2876.1	2872.6	2877.2	2878.4	2878.4
10°	2921.3	2927.1	2928.3	2932.9	2930.6	2932.9	2932.9	2930.6
12.5°	2997.9	2999.1	2995.6	2999.1	2994.4	2996.7	2993.3	2990.9
15°	3082.6	3079.1	3071.0	3071.0	3064.0	3065.2	3064.0	3062.9
17.5°	3165.0	3158.0	3152.2	3149.9	3144.1	3142.9	3139.4	3139.4
20°	3255.5	3252.0	3248.5	3243.9	3238.1	3232.3	3231.1	3233.4
22.5°	3364.5	3363.4	3363.4	3361.0	3352.9	3347.1	3343.6	3343.6
25°	3510.7	3500.3	3500.3	3499.1	3495.6	3492.1	3485.2	3488.6
27.5°	3675.4	3669.6	3674.3	3673.1	3669.6	3669.6	3665.0	3665.0
30°	3878.5	3876.1	3883.1	3877.3	3865.7	3864.5	3859.9	3854.1
32.5°	4112.8	4110.5	4120.9	4114.0	4095.4	4085.0	4075.7	4071.1
35°	4373.9	4375.0	4387.8	4383.1	4362.3	4355.3	4339.1	4336.7
37.5°	4659.3	4677.8	4699.9	4704.5	4687.1	4682.5	4665.1	4655.8
40°	4994.6	5018.9	5052.6	5060.7	5042.1	5038.6	5014.3	5001.5
42.5°	5351.9	5393.7	5435.4	5442.4	5423.8	5405.3	5382.1	5372.8
45°	5751.0	5800.9	5855.4	5869.3	5841.5	5819.4	5789.3	5789.3
47.5°	6198.8	6261.5	6323.0	6361.2	6335.7	6312.5	6276.6	6253.3
50°	6727.9	6813.7	6893.8	6933.2	6892.6	6848.5	6785.9	6765.0
52.5°	7391.5	7484.3	7553.9	7533.0	7470.4	7408.9	7340.4	7312.6
55°	8238.4	8269.7	8269.7	8190.8	8065.5	7962.3	7854.4	7818.4
57.5°	9297.7	9177.0	8991.4	8755.8	8460.0	8202.4	8028.4	7946.0
60°	10542.5	9962.4	9306.9	8663.0	8134.0	7697.8	7439.0	7320.7
62.5°	11372.0	9854.5	8541.2	7507.5	6746.4	6220.9	5863.5	5724.3
65°	10628.4	8218.7	6459.9	5223.1	4393.6	3858.7	3504.9	3375.0
67.5°	7784.8	5150.0	3439.9	2465.4	1806.4	1440.9	1295.9	1235.6
70°	3494.5	1813.4	1111.4	867.8	748.3	686.8	660.1	650.9
72.5°	1053.4	762.2	642.7	580.1	532.5	502.4	480.3	478.0
75°	635.8	529.0	469.9	432.7	402.6	378.2	366.6	363.1
77.5°	444.3	388.7	360.8	334.1	310.9	292.4	281.9	273.8
80°	312.1	285.4	272.6	257.6	242.5	225.1	210.0	203.0
82.5°	208.8	203.0	203.0	193.7	181.0	164.7	134.6	127.6
85°	134.6	133.4	135.7	132.3	123.0	105.6	87.0	82.4
87.5°	62.6	63.8	70.8	69.6	67.3	55.7	44.1	41.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)