

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: P299482

Luminaire Tested: **GLNA-AF-05-LED-E1-5NQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299482
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-05-LED-E1-5NQ-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K 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: 20146.7 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

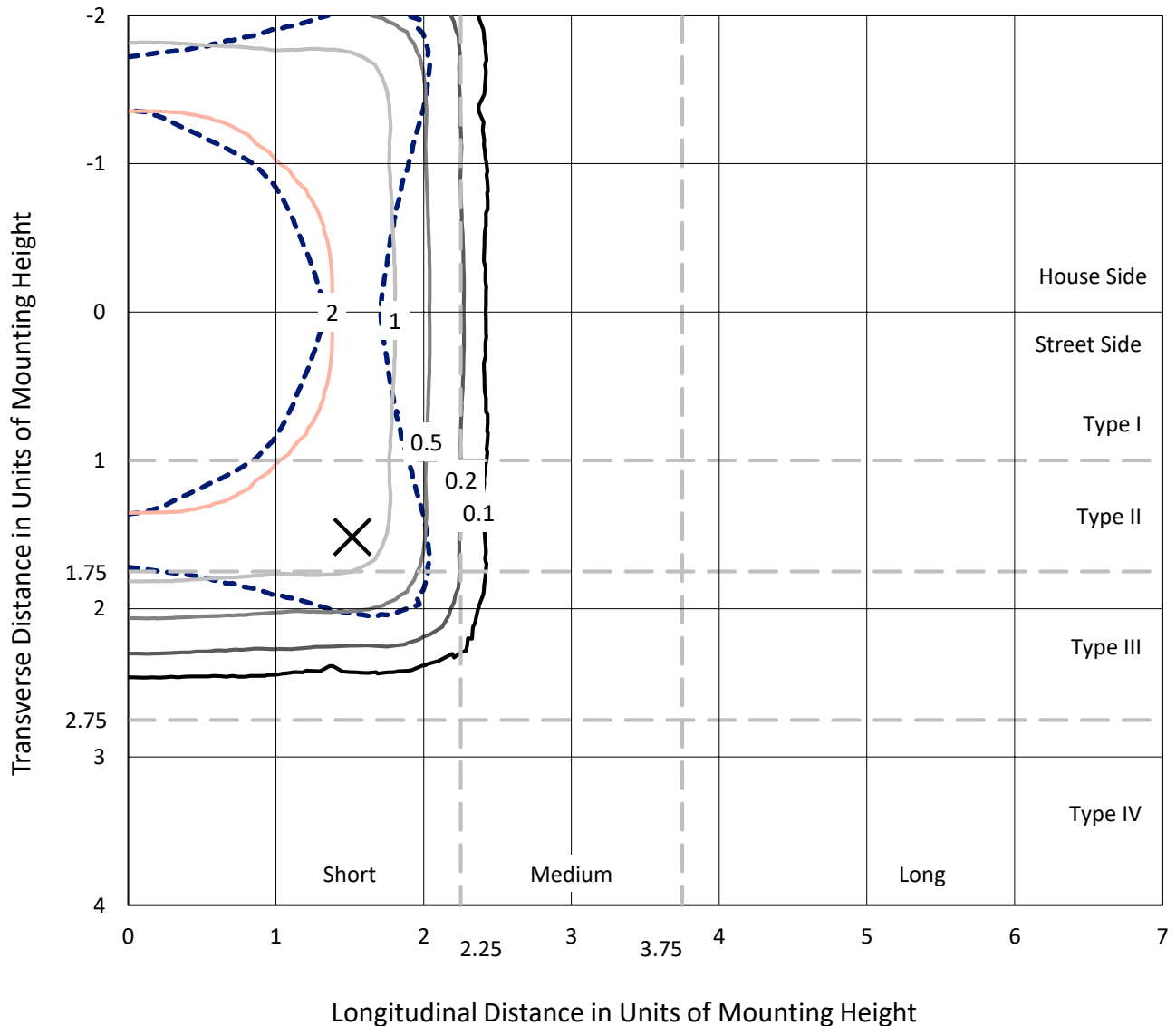
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

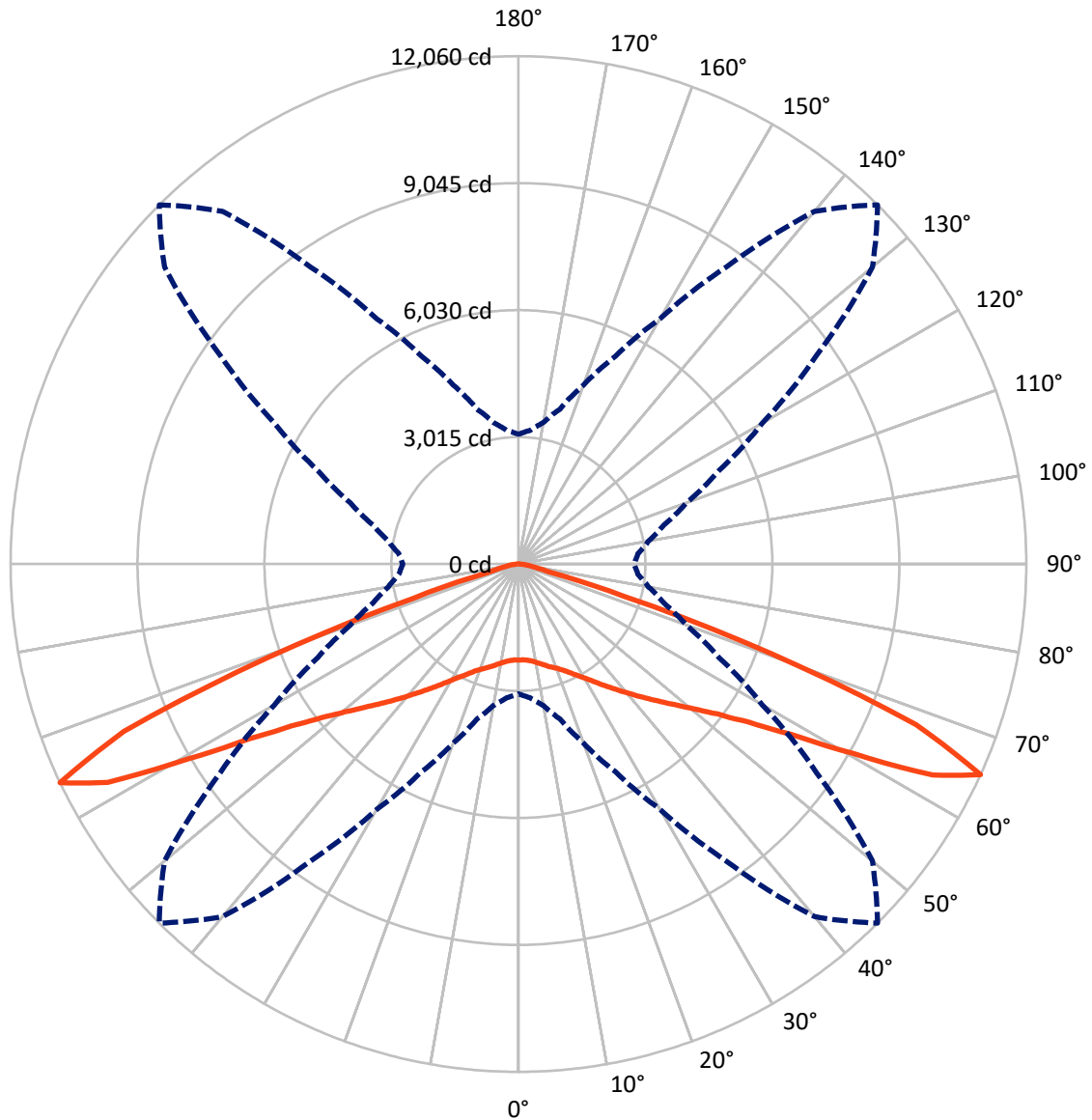
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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	10073.4	0.0	10073.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10073.4	0.0	10073.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	20146.7	0.0	20146.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.2	1.1
10°-20°	712.6	3.5
20°-30°	1332.4	6.6
30°-40°	2253.5	11.2
40°-50°	3684.7	18.3
50°-60°	5859.3	29.1
60°-70°	5296.4	26.3
70°-80°	670.3	3.3
80°-90°	115.3	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°	20146.7	100.0
0°-180°	20146.7	100.0



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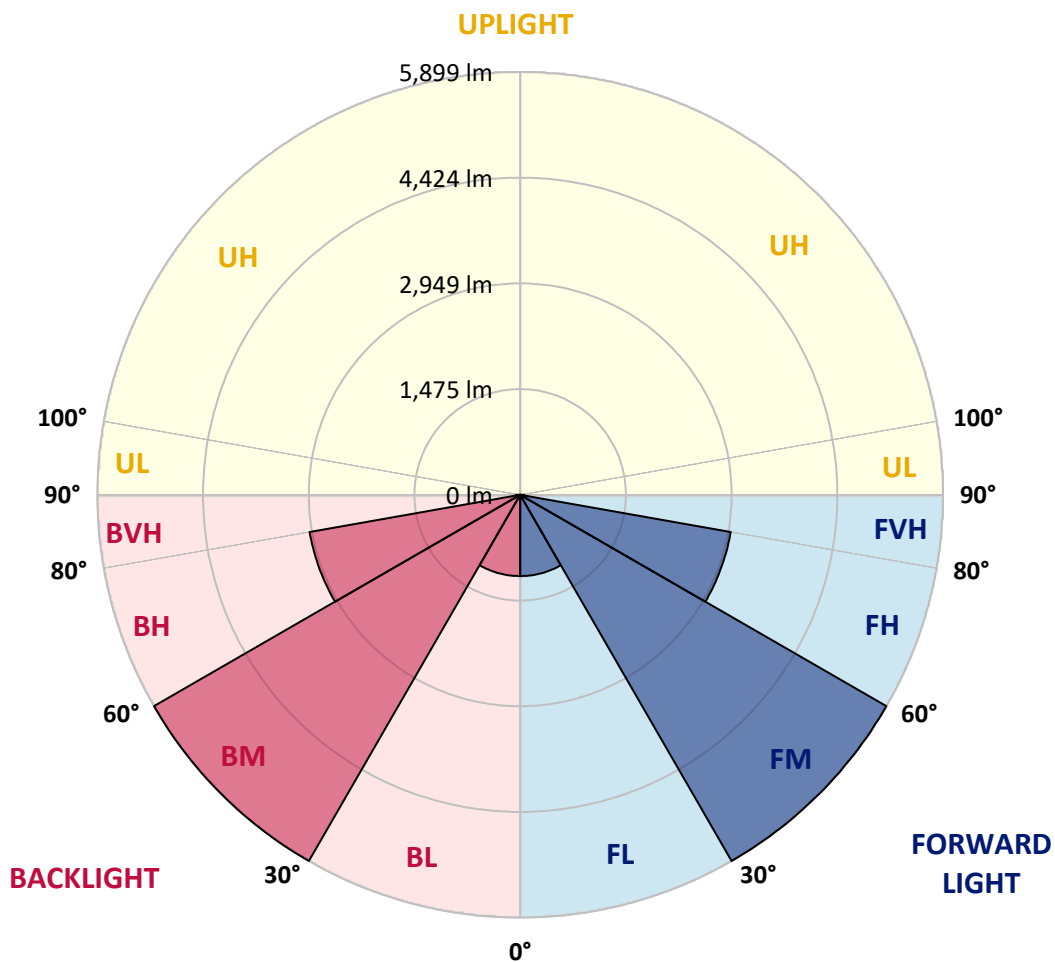
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1133.6	5.6			
FM	(30°-60°)	5898.8	29.3			
FH	(60°-80°)	2983.3	14.8			G2/5000
FVH	(80°-90°)	57.7	0.3			G1/100
BL	(0°-30°)	1133.6	5.6	B3/2500		
BM	(30°-60°)	5898.8	29.3	B4/8500		
BH	(60°-80°)	2983.3	14.8	B4/5000		G2/5000
BVH	(80°-90°)	57.7	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°	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6
2.5°	2281.5	2283.4	2285.3	2283.4	2285.3	2282.4	2280.6	2283.4	2280.6	2277.7	2279.6
5°	2301.3	2302.3	2302.3	2299.4	2302.3	2300.4	2297.5	2301.3	2298.5	2295.7	2297.5
7.5°	2334.3	2338.1	2335.3	2332.5	2334.3	2332.5	2330.6	2331.5	2330.6	2327.7	2328.7
10°	2378.7	2381.5	2379.6	2378.7	2380.6	2379.6	2377.7	2376.8	2377.7	2374.9	2374.9
12.5°	2432.5	2431.5	2430.6	2431.5	2434.4	2434.4	2433.4	2434.4	2436.2	2437.2	2435.3
15°	2485.3	2487.2	2487.2	2487.2	2492.9	2497.6	2500.4	2502.3	2506.1	2507.0	2503.2
17.5°	2551.4	2551.4	2550.4	2551.4	2557.0	2564.6	2567.4	2571.2	2574.9	2577.8	2573.1
20°	2625.0	2626.8	2626.8	2628.7	2636.3	2644.8	2644.8	2646.7	2644.8	2646.7	2643.8
22.5°	2714.6	2720.3	2720.3	2721.2	2728.7	2739.1	2736.3	2739.1	2734.4	2738.2	2734.4
25°	2831.6	2840.1	2838.2	2838.2	2843.9	2850.5	2851.4	2857.1	2856.1	2860.8	2858.0
27.5°	2963.7	2976.9	2980.7	2979.7	2983.5	2990.1	2992.0	2998.6	2994.8	2998.6	2996.7
30°	3122.2	3127.9	3135.4	3138.2	3143.0	3149.6	3149.6	3150.5	3145.8	3151.5	3154.3
32.5°	3286.4	3296.8	3304.3	3321.3	3329.8	3334.5	3333.6	3335.4	3330.7	3338.3	3343.9
35°	3503.4	3510.9	3523.2	3536.4	3547.7	3546.8	3544.0	3544.9	3544.9	3551.5	3557.2
37.5°	3764.8	3766.6	3782.7	3801.6	3807.2	3801.6	3784.6	3780.8	3772.3	3780.8	3790.2
40°	4041.2	4047.8	4079.9	4092.2	4095.0	4084.6	4060.1	4045.9	4027.1	4037.4	4050.7
42.5°	4330.9	4344.1	4373.3	4395.1	4404.5	4397.9	4363.9	4342.2	4317.7	4323.3	4336.6
45°	4651.7	4667.7	4709.3	4730.0	4747.9	4737.6	4704.5	4671.5	4632.8	4635.7	4656.4
47.5°	5010.2	5026.3	5080.1	5115.0	5124.4	5122.5	5085.7	5040.4	4987.6	4985.7	5003.6
50°	5412.2	5428.2	5495.2	5549.0	5576.4	5573.5	5530.1	5466.0	5401.8	5402.8	5425.4
52.5°	5804.7	5824.5	5894.4	5986.8	6040.6	6079.3	6052.9	5992.5	5914.2	5916.1	5936.8
55°	6172.7	6205.7	6285.9	6411.4	6511.4	6619.9	6651.1	6649.2	6602.0	6615.2	6636.0
57.5°	6351.0	6400.1	6523.7	6721.8	6925.6	7146.4	7333.3	7472.9	7532.4	7622.0	7601.2
60°	6013.2	6091.6	6273.7	6565.2	6968.1	7428.6	7922.0	8404.2	8815.6	9126.0	8947.7
62.5°	4923.4	5025.3	5246.1	5619.8	6229.3	6966.2	7910.7	9050.5	10292.2	11041.4	10506.4
65°	3080.7	3186.4	3410.9	3811.0	4524.3	5440.5	6721.8	8610.8	10931.0	12060.4	10971.6
67.5°	1201.1	1258.7	1380.4	1636.1	2172.0	2987.3	4273.3	6417.1	9192.1	10181.8	9021.3
70°	602.0	607.6	630.3	677.5	792.6	1029.4	1566.3	2975.0	5271.6	6367.1	5082.0
72.5°	435.0	435.9	447.2	468.0	504.8	557.6	659.5	910.5	1714.4	2620.2	1606.9
75°	333.1	336.8	343.5	354.8	374.6	401.0	437.8	524.6	650.1	753.9	634.1
77.5°	256.6	264.2	268.9	279.3	291.6	309.5	319.9	352.9	410.4	432.1	425.5
80°	195.3	201.9	212.3	220.8	229.3	237.8	234.0	249.1	279.3	297.2	287.8
82.5°	124.5	132.1	162.3	169.8	173.6	179.3	172.7	173.6	186.8	198.1	186.8
85°	80.2	84.9	102.8	112.3	113.2	117.0	114.2	107.6	107.6	98.1	110.4
87.5°	36.8	37.7	46.2	54.7	56.6	51.0	50.0	48.1	38.7	36.8	39.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6	2279.6
2.5°	2278.7	2280.6	2281.5	2284.3	2285.3	2285.3	2286.2	2288.1
5°	2296.6	2299.4	2300.4	2304.1	2305.1	2304.1	2306.0	2307.0
7.5°	2328.7	2333.4	2335.3	2339.1	2336.2	2340.0	2340.9	2340.9
10°	2375.9	2380.6	2381.5	2385.3	2383.4	2385.3	2385.3	2383.4
12.5°	2438.1	2439.1	2436.2	2439.1	2435.3	2437.2	2434.4	2432.5
15°	2507.0	2504.2	2497.6	2497.6	2491.9	2492.9	2491.9	2491.0
17.5°	2574.0	2568.3	2563.6	2561.7	2557.0	2556.1	2553.2	2553.2
20°	2647.6	2644.8	2641.9	2638.2	2633.4	2628.7	2627.8	2629.7
22.5°	2736.3	2735.3	2735.3	2733.5	2726.9	2722.1	2719.3	2719.3
25°	2855.2	2846.7	2846.7	2845.7	2842.9	2840.1	2834.4	2837.3
27.5°	2989.2	2984.4	2988.2	2987.3	2984.4	2984.4	2980.7	2980.7
30°	3154.3	3152.4	3158.1	3153.3	3143.9	3143.0	3139.2	3134.5
32.5°	3344.9	3343.0	3351.5	3345.8	3330.7	3322.2	3314.7	3310.9
35°	3557.2	3558.1	3568.5	3564.7	3547.7	3542.1	3528.9	3527.0
37.5°	3789.3	3804.4	3822.3	3826.1	3811.9	3808.2	3794.0	3786.5
40°	4062.0	4081.8	4109.2	4115.8	4100.7	4097.8	4078.0	4067.6
42.5°	4352.6	4386.6	4420.5	4426.2	4411.1	4396.0	4377.1	4369.6
45°	4677.2	4717.7	4762.1	4773.4	4750.8	4732.8	4708.3	4708.3
47.5°	5041.4	5092.3	5142.3	5173.5	5152.7	5133.8	5104.6	5085.7
50°	5471.6	5541.5	5606.6	5638.6	5605.6	5569.8	5518.8	5501.8
52.5°	6011.4	6086.8	6143.4	6126.5	6075.5	6025.5	5969.8	5947.2
55°	6700.1	6725.6	6725.6	6661.5	6559.6	6475.6	6387.8	6358.6
57.5°	7561.6	7463.5	7312.5	7121.0	6880.4	6670.9	6529.4	6462.4
60°	8574.0	8102.3	7569.1	7045.5	6615.2	6260.4	6050.0	5953.8
62.5°	9248.7	8014.5	6946.4	6105.7	5486.7	5059.3	4768.7	4655.5
65°	8643.9	6684.1	5253.7	4247.9	3573.2	3138.2	2850.5	2744.8
67.5°	6331.2	4188.4	2797.6	2005.0	1469.1	1171.9	1053.9	1004.9
70°	2842.0	1474.8	903.9	705.8	608.6	558.6	536.9	529.3
72.5°	856.7	619.9	522.7	471.8	433.1	408.6	390.6	388.7
75°	517.1	430.3	382.1	351.9	327.4	307.6	298.2	295.3
77.5°	361.4	316.1	293.4	271.7	252.9	237.8	229.3	222.7
80°	253.8	232.1	221.7	209.5	197.2	183.0	170.8	165.1
82.5°	169.8	165.1	165.1	157.6	147.2	134.0	109.5	103.8
85°	109.5	108.5	110.4	107.6	100.0	85.9	70.8	67.0
87.5°	51.0	51.9	57.6	56.6	54.7	45.3	35.9	34.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)