

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: P299419

Luminaire Tested: **GLNA-AF-05-LED-E1-5NQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299419
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-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21466.5 lumens
Efficiency: N/A
Efficacy: 102.2 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

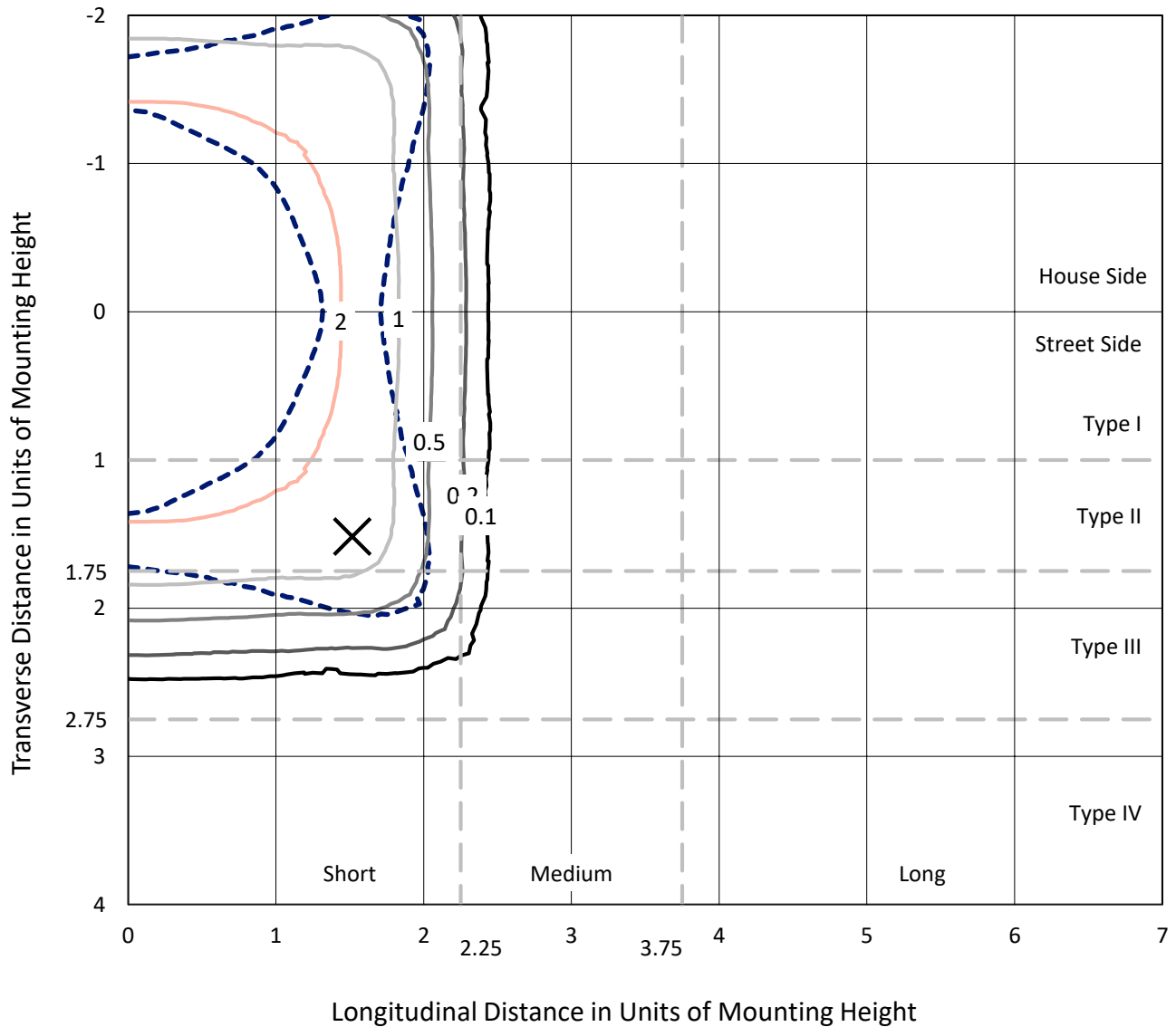
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

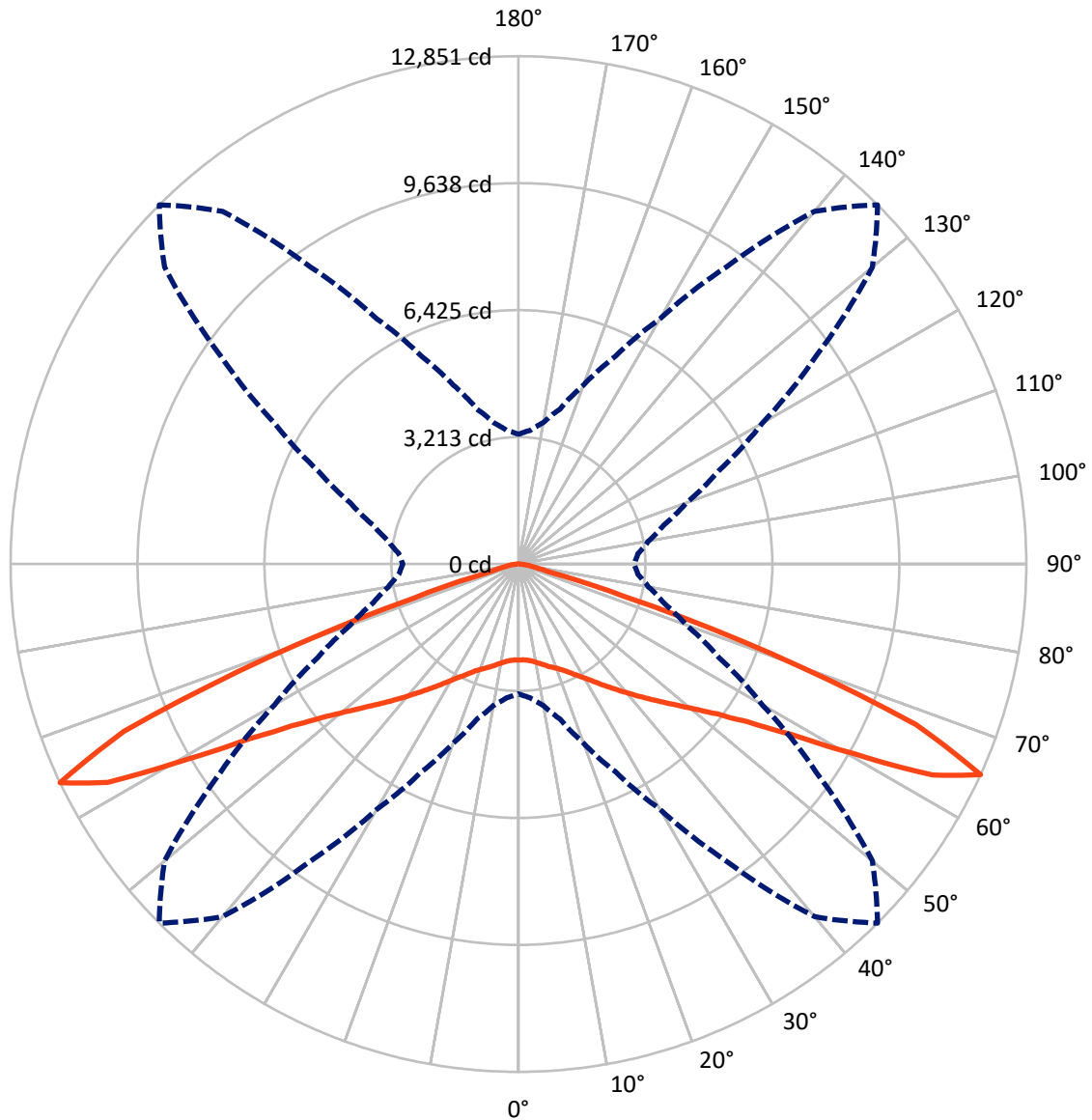


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Full Cutoff

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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	10733.3	0.0	10733.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10733.3	0.0	10733.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	21466.5	0.0	21466.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.7	1.1
10°-20°	759.3	3.5
20°-30°	1419.7	6.6
30°-40°	2401.1	11.2
40°-50°	3926.1	18.3
50°-60°	6243.1	29.1
60°-70°	5643.4	26.3
70°-80°	714.2	3.3
80°-90°	122.9	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°	21466.5	100.0
0°-180°	21466.5	100.0



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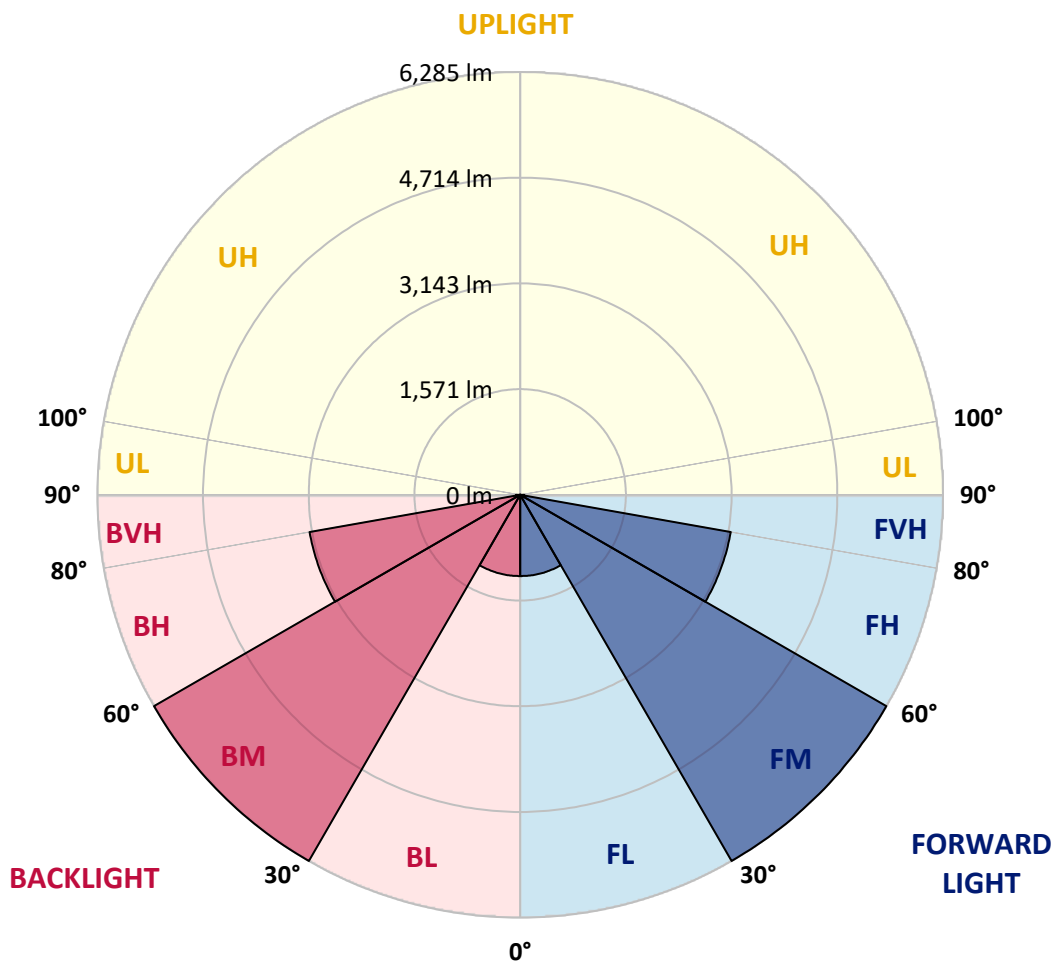
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1207.9	5.6			
FM	(30°-60°)	6285.2	29.3			
FH	(60°-80°)	3178.8	14.8			G2/5000
FVH	(80°-90°)	61.4	0.3			G1/100
BL	(0°-30°)	1207.9	5.6	B3/2500		
BM	(30°-60°)	6285.2	29.3	B4/8500		
BH	(60°-80°)	3178.8	14.8	B4/5000		G2/5000
BVH	(80°-90°)	61.4	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°	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9
2.5°	2431.0	2433.0	2435.0	2433.0	2435.0	2432.0	2430.0	2433.0	2430.0	2426.9	2428.9
5°	2452.1	2453.1	2453.1	2450.1	2453.1	2451.1	2448.0	2452.1	2449.1	2446.0	2448.0
7.5°	2487.3	2491.3	2488.3	2485.2	2487.3	2485.2	2483.2	2484.2	2483.2	2480.2	2481.2
10°	2534.5	2537.5	2535.5	2534.5	2536.5	2535.5	2533.5	2532.5	2533.5	2530.5	2530.5
12.5°	2591.8	2590.8	2589.8	2590.8	2593.8	2593.8	2592.8	2593.8	2595.8	2596.8	2594.8
15°	2648.1	2650.1	2650.1	2650.1	2656.2	2661.2	2664.2	2666.2	2670.2	2671.2	2667.2
17.5°	2718.5	2718.5	2717.5	2718.5	2724.5	2732.6	2735.6	2739.6	2743.6	2746.6	2741.6
20°	2796.9	2798.9	2798.9	2800.9	2809.0	2818.0	2818.0	2820.0	2818.0	2820.0	2817.0
22.5°	2892.4	2898.5	2898.5	2899.5	2907.5	2918.6	2915.5	2918.6	2913.5	2917.6	2913.5
25°	3017.1	3026.1	3024.1	3024.1	3030.2	3037.2	3038.2	3044.2	3043.2	3048.2	3045.2
27.5°	3157.8	3171.9	3175.9	3174.9	3178.9	3186.0	3188.0	3195.0	3191.0	3195.0	3193.0
30°	3326.7	3332.8	3340.8	3343.8	3348.9	3355.9	3355.9	3356.9	3351.9	3357.9	3360.9
32.5°	3501.7	3512.7	3520.8	3538.9	3547.9	3552.9	3551.9	3553.9	3548.9	3557.0	3563.0
35°	3732.9	3740.9	3754.0	3768.1	3780.2	3779.1	3776.1	3777.1	3777.1	3784.2	3790.2
37.5°	4011.4	4013.4	4030.5	4050.6	4056.6	4050.6	4032.5	4028.5	4019.4	4028.5	4038.5
40°	4306.0	4313.0	4347.2	4360.2	4363.3	4352.2	4326.1	4311.0	4290.9	4301.9	4316.0
42.5°	4614.6	4628.7	4659.8	4683.0	4693.0	4686.0	4649.8	4626.7	4600.5	4606.6	4620.6
45°	4956.4	4973.5	5017.7	5039.9	5059.0	5047.9	5012.7	4977.5	4936.3	4939.3	4961.4
47.5°	5338.5	5355.5	5412.9	5450.1	5460.1	5458.1	5418.9	5370.6	5314.3	5312.3	5331.4
50°	5766.7	5783.8	5855.2	5912.5	5941.7	5938.7	5892.4	5824.0	5755.7	5756.7	5780.8
52.5°	6185.0	6206.1	6280.5	6379.0	6436.3	6477.5	6449.4	6385.0	6301.6	6303.6	6325.7
55°	6577.1	6612.2	6697.7	6831.4	6938.0	7053.6	7086.8	7084.8	7034.5	7048.6	7070.7
57.5°	6767.1	6819.4	6951.1	7162.2	7379.3	7614.6	7813.7	7962.4	8025.8	8121.3	8099.2
60°	6407.2	6490.6	6684.6	6995.3	7424.6	7915.2	8441.0	8954.7	9393.1	9723.8	9533.8
62.5°	5246.0	5354.5	5589.8	5987.9	6637.4	7422.6	8428.9	9643.4	10966.5	11764.7	11194.7
65°	3282.5	3395.1	3634.4	4060.6	4820.7	5796.9	7162.2	9174.9	11647.1	12850.5	11690.3
67.5°	1279.8	1341.1	1470.8	1743.3	2314.3	3183.0	4553.3	6837.4	9794.2	10848.8	9612.2
70°	641.4	647.5	671.6	721.8	844.5	1096.8	1668.9	3169.9	5616.9	6784.2	5414.9
72.5°	463.5	464.5	476.5	498.7	537.9	594.2	702.7	970.2	1826.7	2791.9	1712.1
75°	354.9	358.9	366.0	378.0	399.1	427.3	466.5	559.0	692.7	803.3	675.6
77.5°	273.5	281.5	286.5	297.6	310.7	329.8	340.8	376.0	437.3	460.5	453.4
80°	208.1	215.1	226.2	235.3	244.3	253.4	249.3	265.4	297.6	316.7	306.6
82.5°	132.7	140.8	172.9	181.0	185.0	191.0	184.0	185.0	199.1	211.1	199.1
85°	85.5	90.5	109.6	119.6	120.6	124.7	121.6	114.6	114.6	104.6	117.6
87.5°	39.2	40.2	49.3	58.3	60.3	54.3	53.3	51.3	41.2	39.2	42.2
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°	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9	2428.9
2.5°	2427.9	2430.0	2431.0	2434.0	2435.0	2435.0	2436.0	2438.0
5°	2447.0	2450.1	2451.1	2455.1	2456.1	2455.1	2457.1	2458.1
7.5°	2481.2	2486.3	2488.3	2492.3	2489.3	2493.3	2494.3	2494.3
10°	2531.5	2536.5	2537.5	2541.5	2539.5	2541.5	2541.5	2539.5
12.5°	2597.8	2598.9	2595.8	2598.9	2594.8	2596.8	2593.8	2591.8
15°	2671.2	2668.2	2661.2	2661.2	2655.2	2656.2	2655.2	2654.1
17.5°	2742.6	2736.6	2731.6	2729.5	2724.5	2723.5	2720.5	2720.5
20°	2821.0	2818.0	2815.0	2811.0	2806.0	2800.9	2799.9	2801.9
22.5°	2915.5	2914.5	2914.5	2912.5	2905.5	2900.5	2897.4	2897.4
25°	3042.2	3033.2	3033.2	3032.2	3029.1	3026.1	3020.1	3023.1
27.5°	3185.0	3180.0	3184.0	3183.0	3180.0	3180.0	3175.9	3175.9
30°	3360.9	3358.9	3364.9	3359.9	3349.9	3348.9	3344.8	3339.8
32.5°	3564.0	3562.0	3571.0	3565.0	3548.9	3539.9	3531.8	3527.8
35°	3790.2	3791.2	3802.3	3798.2	3780.2	3774.1	3760.0	3758.0
37.5°	4037.5	4053.6	4072.7	4076.7	4061.7	4057.6	4042.5	4034.5
40°	4328.1	4349.2	4378.3	4385.4	4369.3	4366.3	4345.2	4334.1
42.5°	4637.7	4673.9	4710.1	4716.1	4700.1	4684.0	4663.9	4655.8
45°	4983.6	5026.8	5074.0	5086.1	5062.0	5042.9	5016.7	5016.7
47.5°	5371.6	5425.9	5479.2	5512.4	5490.3	5470.2	5439.0	5418.9
50°	5830.1	5904.5	5973.8	6008.0	5972.8	5934.6	5880.3	5862.2
52.5°	6405.1	6485.6	6545.9	6527.8	6473.5	6420.2	6360.9	6336.8
55°	7139.1	7166.2	7166.2	7097.8	6989.3	6899.8	6806.3	6775.1
57.5°	8056.9	7952.4	7791.5	7587.4	7331.1	7107.9	6957.1	6885.7
60°	9135.7	8633.0	8065.0	7507.0	7048.6	6670.6	6446.4	6343.8
62.5°	9854.5	8539.5	7401.5	6505.7	5846.2	5390.7	5081.1	4960.4
65°	9210.1	7122.0	5597.8	4526.1	3807.3	3343.8	3037.2	2924.6
67.5°	6746.0	4462.8	2980.9	2136.4	1565.3	1248.7	1123.0	1070.7
70°	3028.1	1571.4	963.1	752.0	648.5	595.2	572.0	564.0
72.5°	912.9	660.5	557.0	502.7	461.5	435.3	416.2	414.2
75°	550.9	458.4	407.2	375.0	348.9	327.7	317.7	314.7
77.5°	385.1	336.8	312.7	289.5	269.4	253.4	244.3	237.3
80°	270.4	247.3	236.3	223.2	210.1	195.0	182.0	175.9
82.5°	181.0	175.9	175.9	167.9	156.8	142.8	116.6	110.6
85°	116.6	115.6	117.6	114.6	106.6	91.5	75.4	71.4
87.5°	54.3	55.3	61.3	60.3	58.3	48.3	38.2	36.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)