

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: P299977

Luminaire Tested: **GLNA-AF-08-LED-E1-5WQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-5WQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28659.4 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 257
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

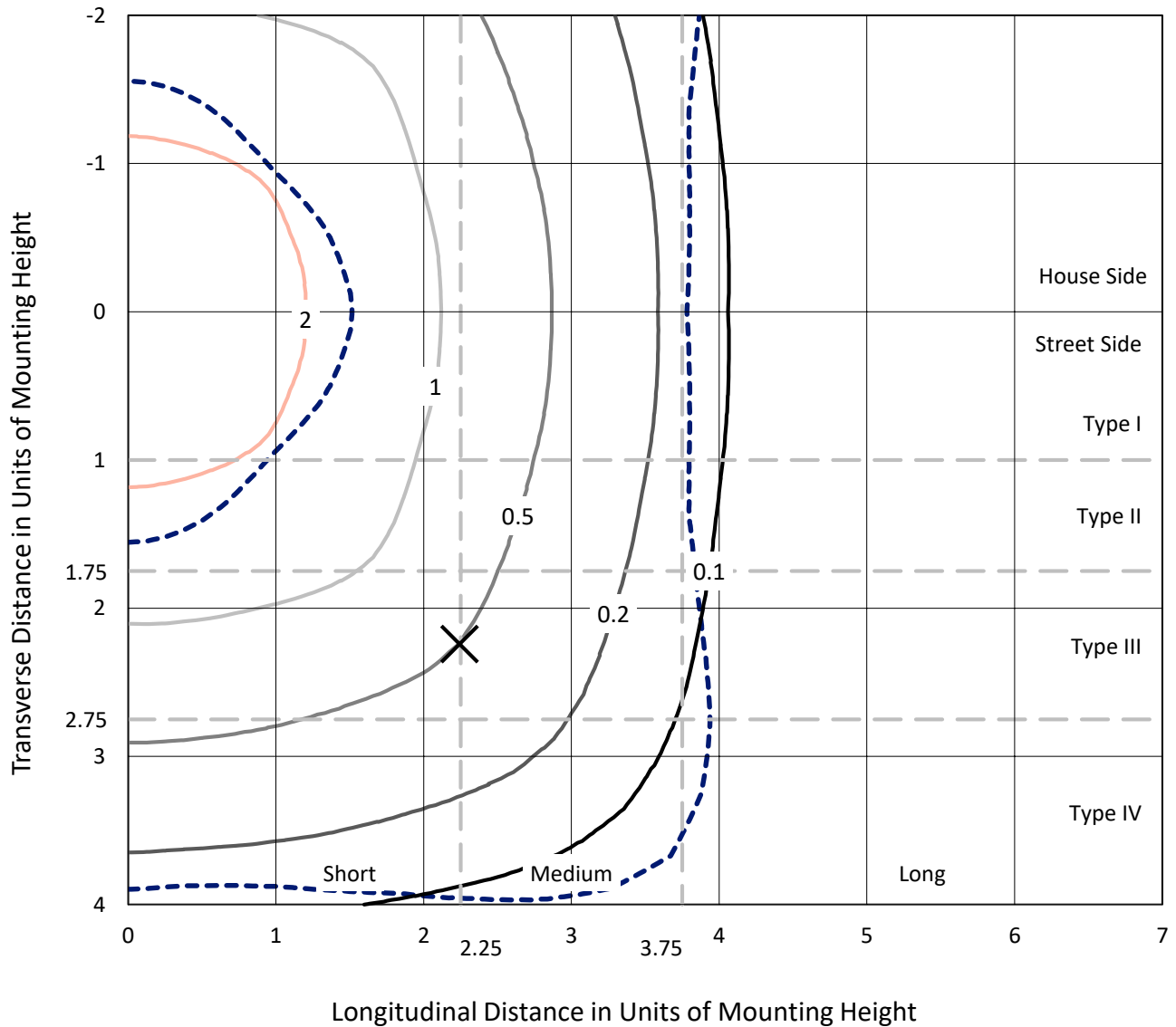


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

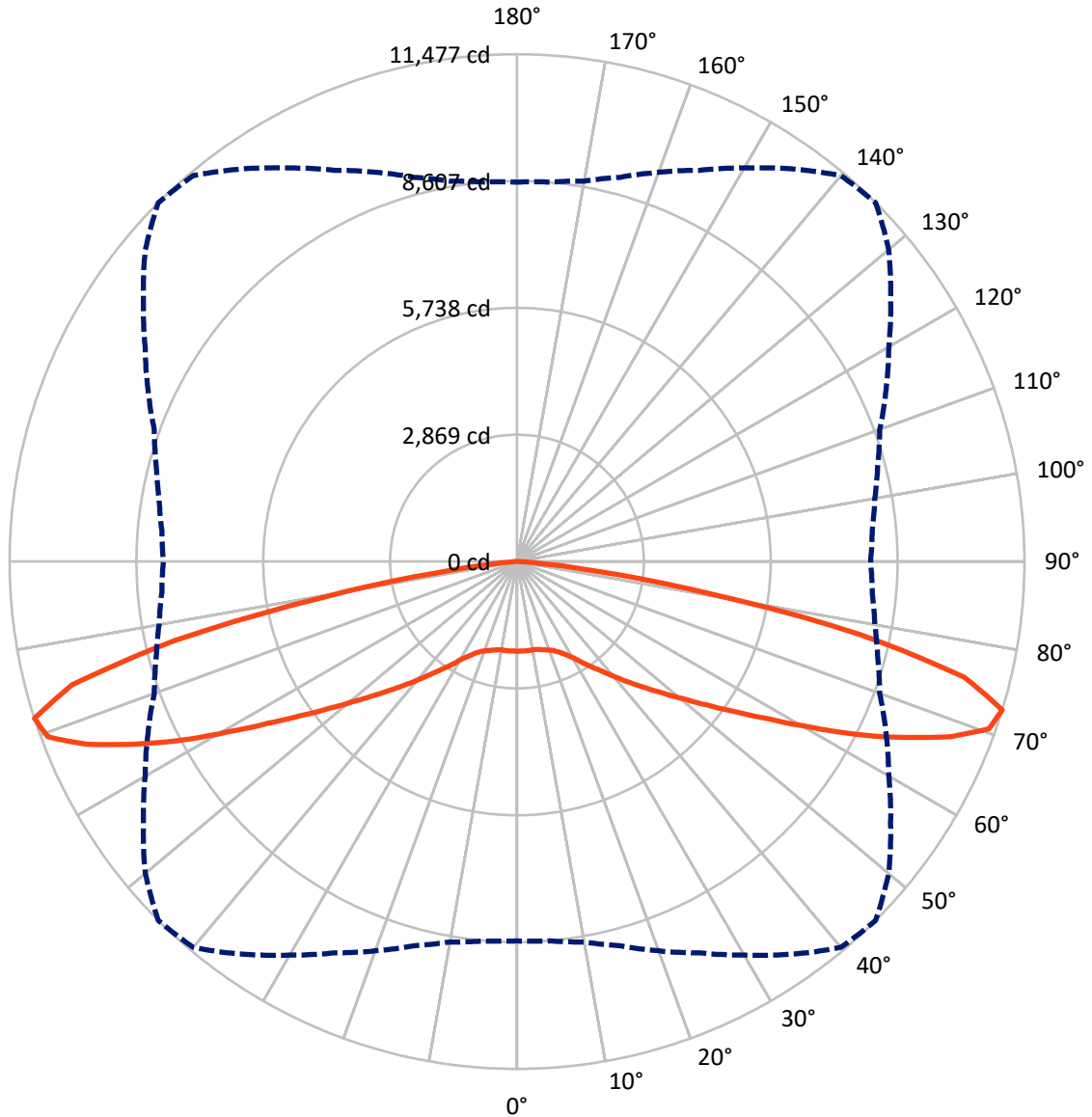


Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14329.7	0.0	14329.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14329.7	0.0	14329.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	28659.4	0.0	28659.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.8	0.7
10°-20°	588.6	2.1
20°-30°	1075.6	3.8
30°-40°	1854.5	6.5
40°-50°	3170.2	11.1
50°-60°	5138.5	17.9
60°-70°	8524.6	29.7
70°-80°	7508.2	26.2
80°-90°	605.4	2.1
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°	28659.4	100.0
0°-180°	28659.4	100.0



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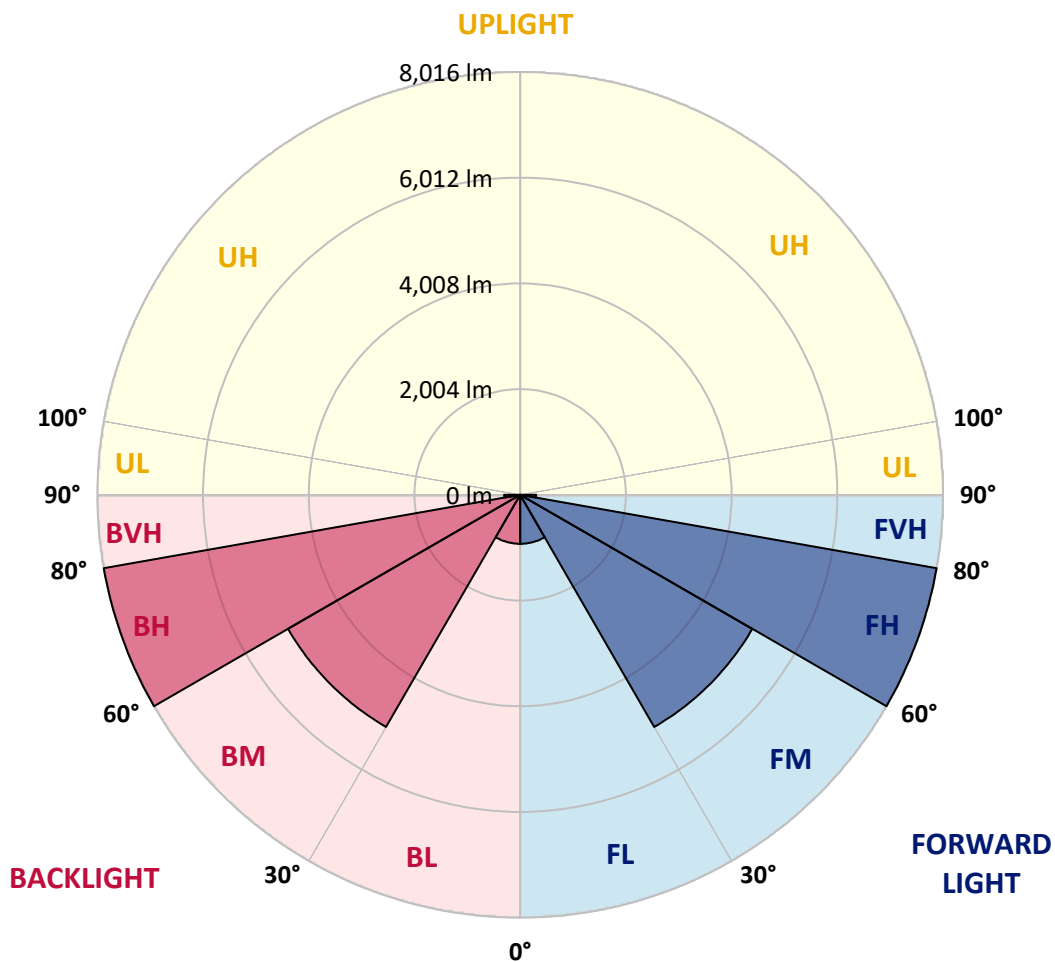
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	929.0	3.2			
FM	(30°-60°)	5081.6	17.7			
FH	(60°-80°)	8016.4	28.0			G4/12000
FVH	(80°-90°)	302.7	1.1			G3/500
BL	(0°-30°)	929.0	3.2	B2/1000		
BM	(30°-60°)	5081.6	17.7	B4/8500		
BH	(60°-80°)	8016.4	28.0	B5		G4/12000
BVH	(80°-90°)	302.7	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5
2.5°	2029.5	2030.8	2032.2	2030.8	2030.8	2029.5	2028.2	2029.5	2028.2	2025.6	2026.9
5°	2036.1	2038.7	2038.7	2036.1	2037.4	2036.1	2033.5	2034.8	2032.2	2028.2	2028.2
7.5°	2044.0	2045.3	2045.3	2042.7	2044.0	2041.4	2038.7	2037.4	2034.8	2029.5	2025.6
10°	2055.8	2057.1	2055.8	2053.2	2053.2	2049.2	2042.7	2040.0	2034.8	2026.9	2023.0
12.5°	2069.0	2070.3	2069.0	2066.3	2065.0	2058.4	2053.2	2049.2	2045.3	2038.7	2032.2
15°	2087.4	2090.0	2087.4	2082.1	2078.2	2072.9	2070.3	2071.6	2072.9	2067.6	2061.1
17.5°	2121.5	2122.9	2118.9	2107.1	2101.8	2096.6	2096.6	2099.2	2103.1	2100.5	2093.9
20°	2184.6	2180.7	2171.5	2157.0	2150.5	2141.3	2139.9	2141.3	2141.3	2139.9	2134.7
22.5°	2263.5	2260.9	2249.0	2230.6	2221.4	2216.2	2208.3	2201.7	2200.4	2196.5	2191.2
25°	2358.1	2356.8	2342.4	2326.6	2320.0	2313.5	2306.9	2297.7	2289.8	2280.6	2275.3
27.5°	2479.1	2473.8	2452.8	2444.9	2435.7	2431.8	2422.6	2412.0	2405.5	2393.6	2387.1
30°	2611.8	2611.8	2594.7	2592.1	2592.1	2582.9	2572.4	2554.0	2542.2	2530.3	2526.4
32.5°	2744.6	2745.9	2728.8	2734.1	2738.0	2744.6	2747.2	2740.7	2732.8	2731.5	2723.6
35°	2936.5	2931.3	2914.2	2918.1	2916.8	2915.5	2915.5	2929.9	2932.6	2935.2	2919.4
37.5°	3174.4	3174.4	3157.3	3157.3	3149.5	3141.6	3131.0	3140.2	3154.7	3158.7	3148.1
40°	3446.5	3455.7	3434.7	3433.4	3436.0	3411.0	3399.2	3413.7	3422.9	3438.6	3426.8
42.5°	3767.2	3760.7	3739.6	3737.0	3722.6	3714.7	3704.2	3716.0	3730.4	3741.0	3744.9
45°	4074.8	4069.6	4045.9	4045.9	4031.5	4024.9	4030.1	4049.9	4056.4	4070.9	4085.3
47.5°	4378.5	4371.9	4356.1	4362.7	4364.0	4375.8	4392.9	4411.3	4429.7	4449.5	4456.0
50°	4688.7	4690.0	4672.9	4688.7	4708.4	4741.3	4787.3	4817.5	4855.6	4880.6	4888.5
52.5°	4971.3	4976.6	4995.0	5031.8	5071.2	5135.6	5214.5	5288.1	5351.2	5393.2	5390.6
55°	5310.4	5318.3	5363.0	5426.1	5490.5	5587.8	5704.8	5834.9	5940.1	6000.5	5962.4
57.5°	5744.2	5761.3	5811.2	5896.7	5992.6	6118.8	6279.2	6475.0	6638.0	6719.5	6657.7
60°	6339.6	6350.2	6410.6	6505.3	6620.9	6777.4	6991.6	7254.5	7484.5	7592.3	7521.4
62.5°	7124.4	7144.1	7192.7	7288.7	7407.0	7584.4	7846.0	8174.6	8461.2	8611.0	8450.7
65°	8061.6	8124.7	8165.4	8262.7	8373.1	8561.1	8834.5	9186.8	9494.4	9592.9	9407.6
67.5°	8989.6	9044.8	9115.8	9227.5	9339.3	9550.9	9804.6	10146.3	10484.1	10573.5	10285.7
70°	9395.8	9427.3	9537.7	9690.2	9904.5	10154.2	10447.3	10831.2	11249.2	11322.8	10957.4
72.5°	8582.1	8613.7	8737.2	8996.2	9369.5	9766.5	10277.8	10841.7	11393.8	11476.6	10973.1
75°	6490.8	6439.5	6622.3	6965.3	7468.8	8022.2	8737.2	9545.6	10343.5	10447.3	9846.6
77.5°	3354.5	3347.9	3486.0	3911.8	4512.5	5142.2	5929.5	6843.1	7623.9	7939.4	7450.4
80°	945.1	955.6	1021.3	1233.0	1583.9	2038.7	2653.9	3509.6	4148.4	4474.4	4201.0
82.5°	370.7	399.6	424.6	464.0	510.0	577.0	770.3	1146.2	1537.9	1837.6	1505.1
85°	132.8	142.0	201.1	237.9	241.9	255.0	290.5	339.1	408.8	487.7	400.9
87.5°	49.9	55.2	64.4	106.5	105.2	96.0	117.0	122.2	92.0	84.1	103.8
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°	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5	2029.5
2.5°	2024.3	2025.6	2025.6	2026.9	2028.2	2028.2	2030.8	2030.8
5°	2025.6	2025.6	2023.0	2024.3	2023.0	2023.0	2024.3	2024.3
7.5°	2023.0	2021.6	2019.0	2017.7	2015.1	2015.1	2015.1	2015.1
10°	2019.0	2017.7	2015.1	2013.8	2012.4	2012.4	2012.4	2012.4
12.5°	2029.5	2025.6	2023.0	2021.6	2021.6	2021.6	2021.6	2021.6
15°	2057.1	2047.9	2041.4	2041.4	2042.7	2045.3	2045.3	2047.9
17.5°	2091.3	2080.8	2074.2	2069.0	2071.6	2075.5	2078.2	2080.8
20°	2132.1	2126.8	2117.6	2112.3	2112.3	2117.6	2120.2	2121.5
22.5°	2188.6	2184.6	2180.7	2174.1	2174.1	2176.7	2182.0	2182.0
25°	2272.7	2270.1	2267.4	2262.2	2260.9	2260.9	2263.5	2266.1
27.5°	2377.9	2379.2	2376.5	2375.2	2371.3	2370.0	2373.9	2372.6
30°	2518.5	2525.1	2531.7	2526.4	2519.8	2515.9	2511.9	2506.7
32.5°	2709.1	2701.2	2696.0	2686.8	2674.9	2664.4	2656.5	2647.3
35°	2889.2	2876.0	2870.8	2878.7	2877.4	2870.8	2861.6	2853.7
37.5°	3110.0	3107.4	3110.0	3124.5	3121.8	3128.4	3110.0	3108.7
40°	3388.7	3391.3	3409.7	3426.8	3436.0	3445.2	3434.7	3424.2
42.5°	3712.0	3710.7	3717.3	3741.0	3756.7	3767.2	3744.9	3742.3
45°	4053.8	4044.6	4049.9	4069.6	4085.3	4097.2	4072.2	4072.2
47.5°	4429.7	4414.0	4396.9	4419.2	4428.4	4436.3	4416.6	4410.0
50°	4849.1	4816.2	4779.4	4788.6	4788.6	4786.0	4761.0	4759.7
52.5°	5330.1	5269.7	5202.6	5177.7	5163.2	5147.4	5104.1	5083.0
55°	5883.5	5792.8	5687.7	5623.3	5589.1	5545.7	5473.4	5453.7
57.5°	6530.2	6388.3	6206.9	6128.0	6051.8	5980.8	5900.6	5878.3
60°	7296.6	7087.6	6847.0	6701.1	6618.3	6550.0	6467.2	6463.2
62.5°	8151.0	7821.0	7549.0	7417.5	7357.0	7296.6	7217.7	7228.2
65°	9019.8	8675.4	8420.4	8314.0	8257.4	8207.5	8128.6	8140.5
67.5°	9876.9	9560.1	9280.1	9171.0	9107.9	9044.8	8973.8	8985.7
70°	10492.0	10099.0	9783.5	9541.7	9390.5	9219.6	9109.2	9081.6
72.5°	10315.9	9709.9	9209.1	8729.3	8448.0	8219.3	8064.2	7997.2
75°	8927.8	8099.7	7455.6	6866.7	6535.5	6266.0	6070.2	5947.9
77.5°	6630.1	5699.5	4938.4	4260.2	3723.9	3363.7	3110.0	2945.7
80°	3629.2	2760.4	2017.7	1418.3	1042.4	866.2	765.0	716.4
82.5°	1130.4	729.5	537.6	464.0	431.1	412.7	382.5	333.9
85°	360.2	315.5	293.1	280.0	266.8	232.7	160.4	145.9
87.5°	139.3	143.3	142.0	134.1	136.7	98.6	78.9	69.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)