

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: P299842

Luminaire Tested: **GLNA-AF-05-LED-E1-5WQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299842
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-05-LED-E1-5WQ
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31227 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 279
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

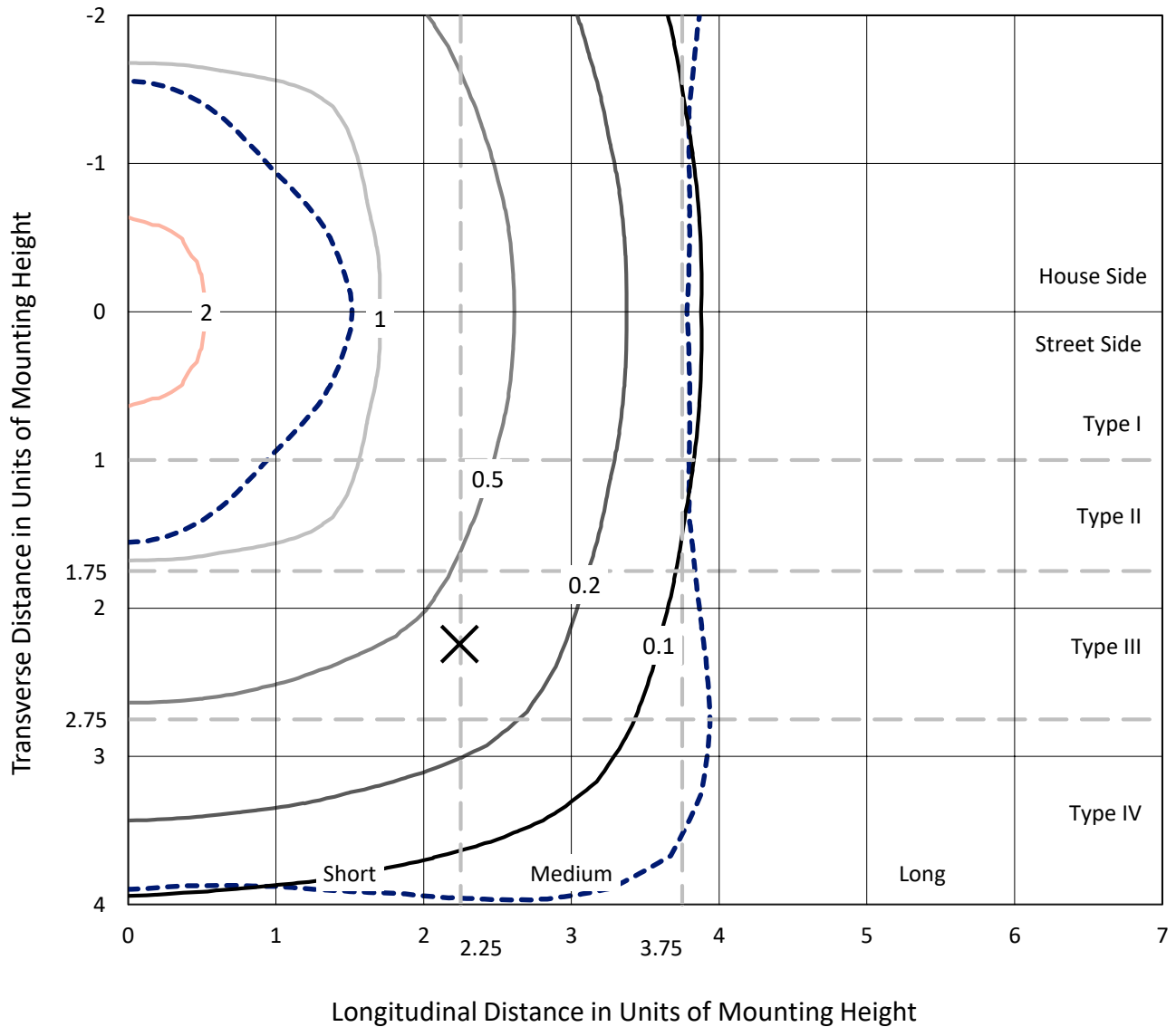


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

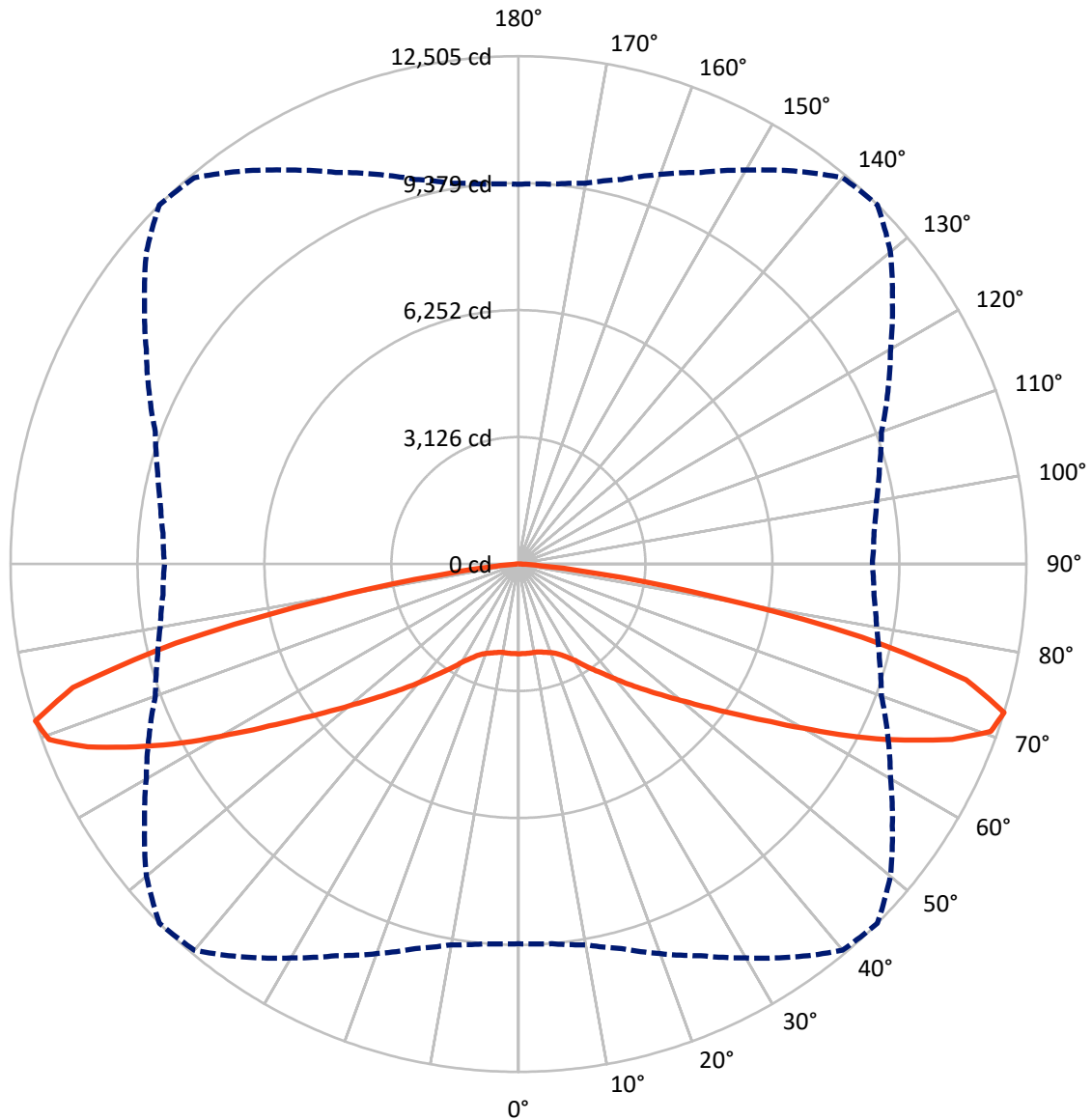


Based on 30 foot mounting height. Maximum calculated value = 2.5 fc
 Type V - Short - Semi-Cutoff

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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	15613.5	0.0	15613.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15613.5	0.0	15613.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	31227.0	0.0	31227.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.2	0.7
10°-20°	641.3	2.1
20°-30°	1171.9	3.8
30°-40°	2020.6	6.5
40°-50°	3454.3	11.1
50°-60°	5598.9	17.9
60°-70°	9288.4	29.7
70°-80°	8180.9	26.2
80°-90°	659.6	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°	31227.0	100.0
0°-180°	31227.0	100.0



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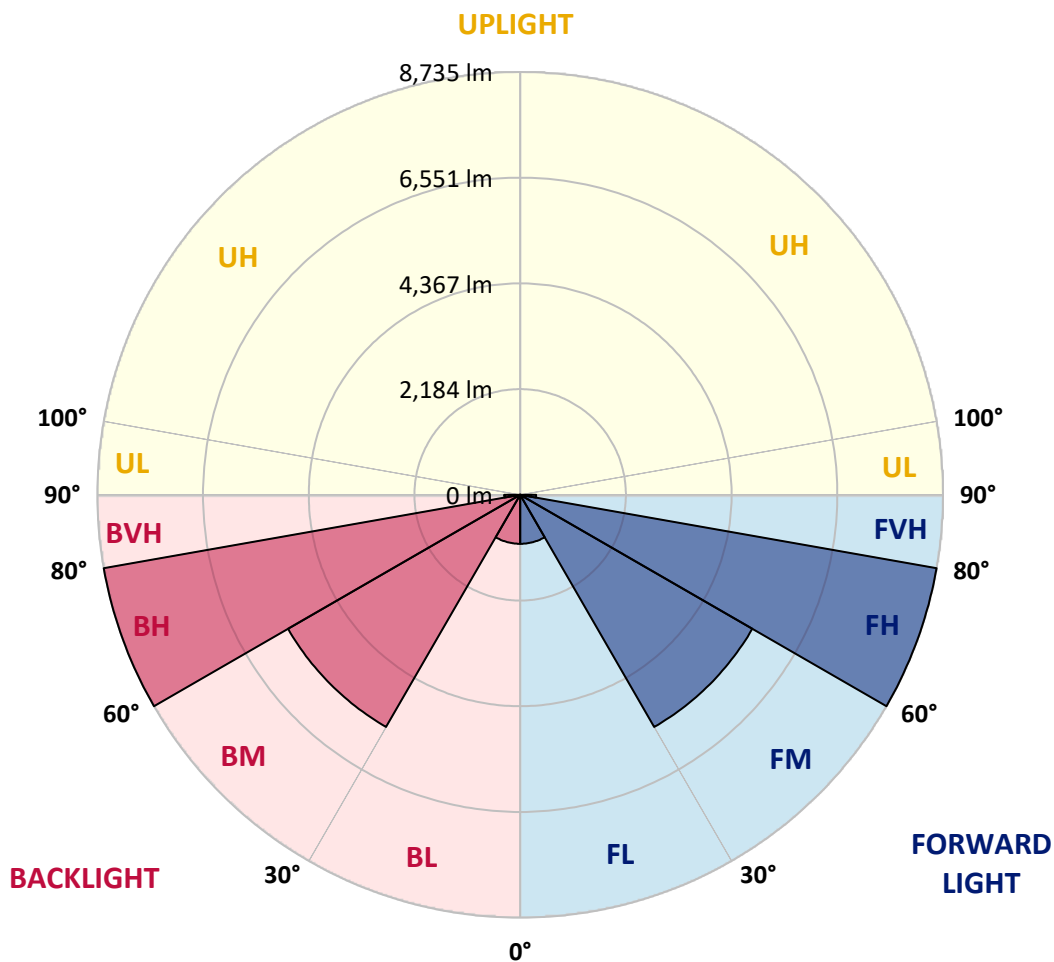
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1012.2	3.2			
FM	(30°-60°)	5536.9	17.7			
FH	(60°-80°)	8734.6	28.0			G4/12000
FVH	(80°-90°)	329.8	1.1			G3/500
BL	(0°-30°)	1012.2	3.2	B3/2500		
BM	(30°-60°)	5536.9	17.7	B4/8500		
BH	(60°-80°)	8734.6	28.0	B5		G4/12000
BVH	(80°-90°)	329.8	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°	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4
2.5°	2211.4	2212.8	2214.2	2212.8	2212.8	2211.4	2209.9	2211.4	2209.9	2207.1	2208.5
5°	2218.5	2221.4	2221.4	2218.5	2220.0	2218.5	2215.7	2217.1	2214.2	2209.9	2209.9
7.5°	2227.1	2228.5	2228.5	2225.7	2227.1	2224.2	2221.4	2220.0	2217.1	2211.4	2207.1
10°	2240.0	2241.4	2240.0	2237.1	2237.1	2232.8	2225.7	2222.8	2217.1	2208.5	2204.2
12.5°	2254.3	2255.8	2254.3	2251.5	2250.0	2242.9	2237.1	2232.8	2228.5	2221.4	2214.2
15°	2274.4	2277.2	2274.4	2268.6	2264.4	2258.6	2255.8	2257.2	2258.6	2252.9	2245.7
17.5°	2311.6	2313.0	2308.7	2295.9	2290.1	2284.4	2284.4	2287.3	2291.6	2288.7	2281.5
20°	2380.4	2376.1	2366.0	2350.3	2343.1	2333.1	2331.7	2333.1	2333.1	2331.7	2325.9
22.5°	2466.3	2463.4	2450.5	2430.5	2420.5	2414.7	2406.1	2399.0	2397.5	2393.3	2387.5
25°	2569.4	2568.0	2552.2	2535.0	2527.9	2520.7	2513.6	2503.5	2494.9	2484.9	2479.2
27.5°	2701.2	2695.5	2672.5	2663.9	2653.9	2649.6	2639.6	2628.1	2621.0	2608.1	2600.9
30°	2845.8	2845.8	2827.2	2824.4	2824.4	2814.3	2802.9	2782.8	2769.9	2757.0	2752.7
32.5°	2990.5	2991.9	2973.3	2979.0	2983.3	2990.5	2993.4	2986.2	2977.6	2976.2	2967.6
35°	3199.6	3193.9	3175.2	3179.5	3178.1	3176.7	3176.7	3192.4	3195.3	3198.2	3181.0
37.5°	3458.8	3458.8	3440.2	3440.2	3431.6	3423.0	3411.6	3421.6	3437.3	3441.6	3430.2
40°	3755.3	3765.3	3742.4	3741.0	3743.8	3716.6	3703.7	3719.5	3729.5	3746.7	3733.8
42.5°	4104.8	4097.6	4074.7	4071.8	4056.1	4047.5	4036.0	4048.9	4064.7	4076.1	4080.4
45°	4439.9	4434.2	4408.4	4408.4	4392.6	4385.5	4391.2	4412.7	4419.9	4435.6	4451.4
47.5°	4770.7	4763.6	4746.4	4753.6	4755.0	4767.9	4786.5	4806.6	4826.6	4848.1	4855.2
50°	5108.8	5110.2	5091.6	5108.8	5130.2	5166.0	5216.2	5249.1	5290.6	5317.9	5326.5
52.5°	5416.7	5422.4	5442.5	5482.6	5525.5	5595.7	5681.6	5761.8	5830.6	5876.4	5873.6
55°	5786.2	5794.8	5843.5	5912.2	5982.4	6088.4	6215.9	6357.7	6472.2	6538.1	6496.6
57.5°	6258.8	6277.4	6331.9	6425.0	6529.5	6667.0	6841.7	7055.1	7232.7	7321.5	7254.2
60°	6907.6	6919.1	6985.0	7088.1	7214.1	7384.6	7618.0	7904.5	8155.1	8272.5	8195.2
62.5°	7762.7	7784.2	7837.1	7941.7	8070.6	8263.9	8549.0	8907.0	9219.2	9382.5	9207.8
65°	8783.8	8852.6	8897.0	9003.0	9123.3	9328.1	9626.0	10009.8	10345.0	10452.4	10250.4
67.5°	9795.0	9855.2	9932.5	10054.2	10176.0	10406.6	10683.0	11055.4	11423.4	11520.8	11207.2
70°	10237.6	10271.9	10392.2	10558.4	10791.8	11064.0	11383.3	11801.5	12257.0	12337.2	11939.0
72.5°	9351.0	9385.4	9520.0	9802.2	10208.9	10641.4	11198.6	11813.0	12414.5	12504.8	11956.2
75°	7072.3	7016.5	7215.6	7589.4	8137.9	8740.9	9520.0	10400.8	11270.2	11383.3	10728.8
77.5°	3655.0	3647.9	3798.3	4262.3	4916.8	5602.9	6460.8	7456.2	8306.9	8650.6	8117.9
80°	1029.8	1041.2	1112.8	1343.4	1725.8	2221.4	2891.7	3824.0	4520.1	4875.3	4577.4
82.5°	403.9	435.4	462.6	505.6	555.7	628.7	839.3	1248.9	1675.7	2002.3	1639.9
85°	144.7	154.7	219.1	259.2	263.5	277.9	316.5	369.5	445.4	531.4	436.8
87.5°	54.4	60.2	70.2	116.0	114.6	104.6	127.5	133.2	100.3	91.7	113.1
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°	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4	2211.4
2.5°	2205.6	2207.1	2207.1	2208.5	2209.9	2209.9	2212.8	2212.8
5°	2207.1	2207.1	2204.2	2205.6	2204.2	2204.2	2205.6	2205.6
7.5°	2204.2	2202.8	2199.9	2198.5	2195.6	2195.6	2195.6	2195.6
10°	2199.9	2198.5	2195.6	2194.2	2192.7	2192.7	2192.7	2192.7
12.5°	2211.4	2207.1	2204.2	2202.8	2202.8	2202.8	2202.8	2202.8
15°	2241.4	2231.4	2224.2	2224.2	2225.7	2228.5	2228.5	2231.4
17.5°	2278.7	2267.2	2260.1	2254.3	2257.2	2261.5	2264.4	2267.2
20°	2323.1	2317.3	2307.3	2301.6	2301.6	2307.3	2310.2	2311.6
22.5°	2384.7	2380.4	2376.1	2368.9	2368.9	2371.8	2377.5	2377.5
25°	2476.3	2473.5	2470.6	2464.9	2463.4	2463.4	2466.3	2469.2
27.5°	2590.9	2592.3	2589.5	2588.0	2583.7	2582.3	2586.6	2585.2
30°	2744.1	2751.3	2758.5	2752.7	2745.6	2741.3	2737.0	2731.3
32.5°	2951.8	2943.2	2937.5	2927.5	2914.6	2903.1	2894.5	2884.5
35°	3148.0	3133.7	3128.0	3136.6	3135.1	3128.0	3118.0	3109.4
37.5°	3388.6	3385.8	3388.6	3404.4	3401.5	3408.7	3388.6	3387.2
40°	3692.3	3695.1	3715.2	3733.8	3743.8	3753.9	3742.4	3731.0
42.5°	4044.6	4043.2	4050.3	4076.1	4093.3	4104.8	4080.4	4077.5
45°	4417.0	4407.0	4412.7	4434.2	4451.4	4464.3	4437.0	4437.0
47.5°	4826.6	4809.4	4790.8	4815.1	4825.2	4833.8	4812.3	4805.1
50°	5283.5	5247.7	5207.6	5217.6	5217.6	5214.7	5187.5	5186.1
52.5°	5807.7	5741.8	5668.8	5641.5	5625.8	5608.6	5561.3	5538.4
55°	6410.6	6311.8	6197.2	6127.1	6089.8	6042.6	5963.8	5942.3
57.5°	7115.3	6960.6	6763.0	6677.0	6594.0	6516.6	6429.3	6404.9
60°	7950.3	7722.6	7460.5	7301.5	7211.3	7136.8	7046.6	7042.3
62.5°	8881.2	8521.7	8225.3	8082.1	8016.2	7950.3	7864.4	7875.8
65°	9827.9	9452.7	9174.8	9058.8	8997.2	8942.8	8856.9	8869.8
67.5°	10761.8	10416.6	10111.5	9992.6	9923.9	9855.2	9777.8	9790.7
70°	11432.0	11003.8	10660.1	10396.5	10231.8	10045.6	9925.3	9895.3
72.5°	11240.1	10579.9	10034.2	9511.4	9204.9	8955.7	8786.7	8713.7
75°	9727.7	8825.4	8123.6	7482.0	7121.0	6827.4	6614.0	6480.8
77.5°	7224.2	6210.1	5380.9	4641.8	4057.5	3665.1	3388.6	3209.6
80°	3954.4	3007.7	2198.5	1545.4	1135.8	943.8	833.6	780.6
82.5°	1231.7	794.9	585.8	505.6	469.8	449.7	416.8	363.8
85°	392.4	343.7	319.4	305.1	290.7	253.5	174.7	159.0
87.5°	151.8	156.1	154.7	146.1	149.0	107.4	85.9	75.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)