

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: P299659

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299659  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
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-E1-5MQ-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21862.3 lumens  
Efficiency: N/A  
Efficacy: 104.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

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

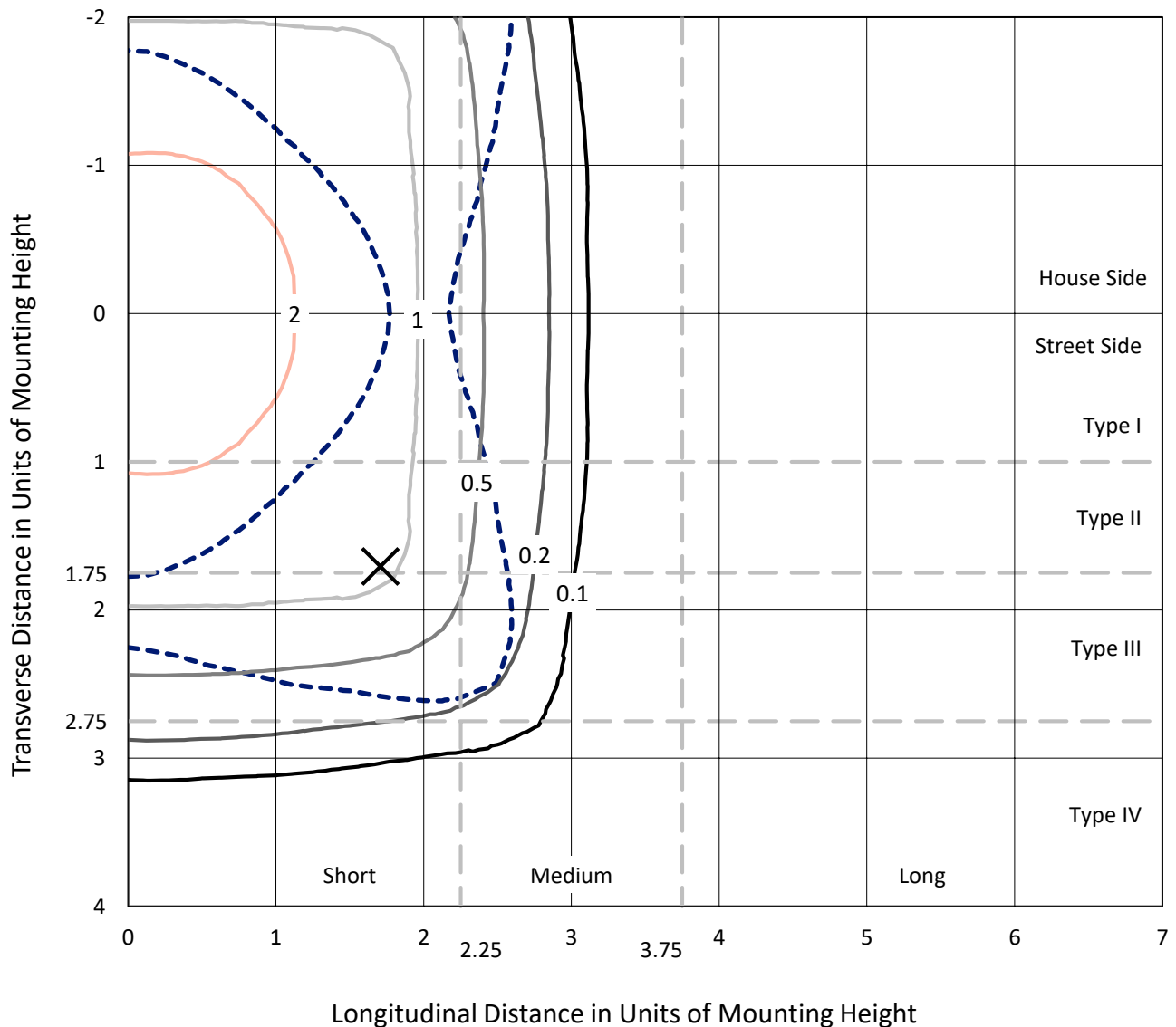


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

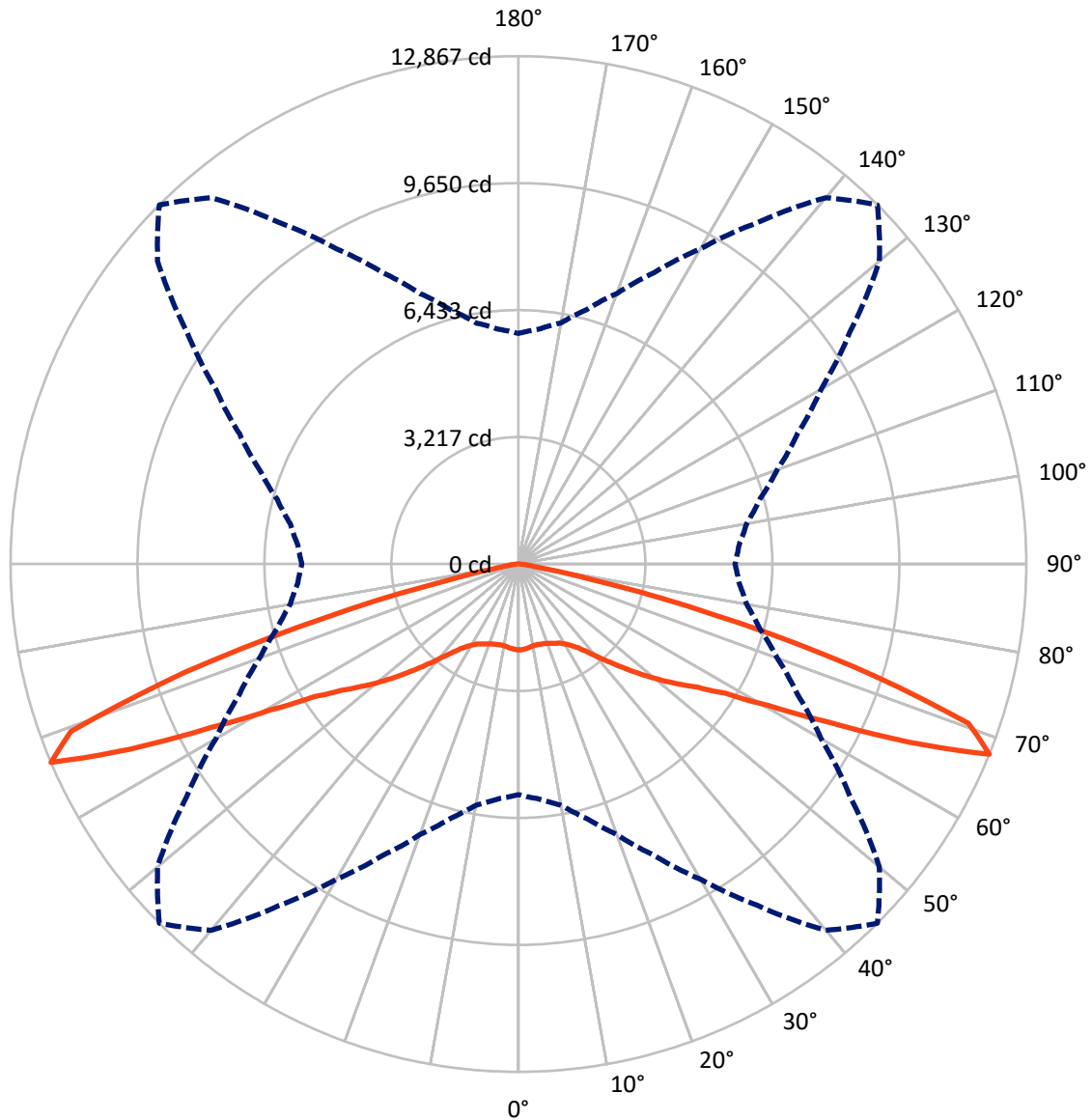


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10931.1	0.0	10931.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10931.1	0.0	10931.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	21862.3	0.0	21862.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.9	0.9
10°-20°	591.7	2.7
20°-30°	1005.9	4.6
30°-40°	1644.3	7.5
40°-50°	2935.5	13.4
50°-60°	4949.3	22.6
60°-70°	7680.5	35.1
70°-80°	2698.6	12.3
80°-90°	152.5	0.7
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°	21862.3	100.0
0°-180°	21862.3	100.0



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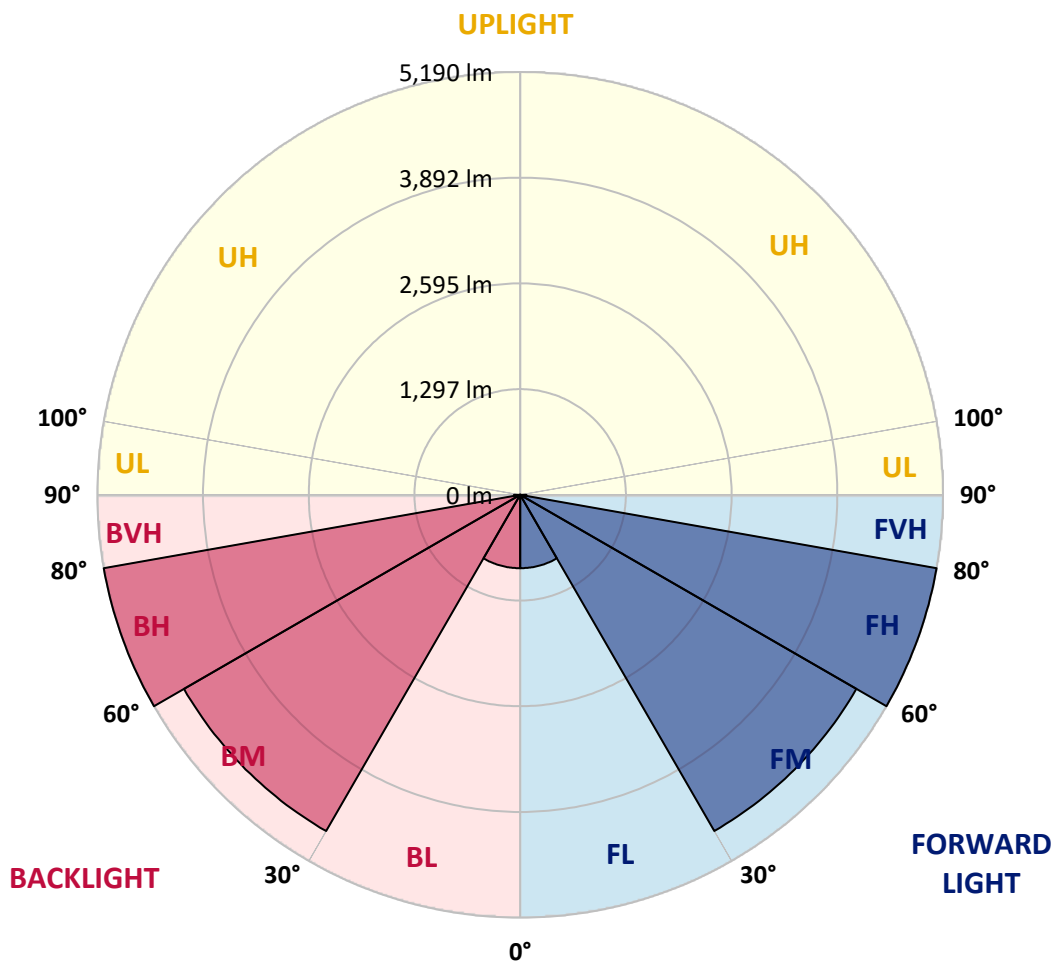
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	900.8	4.1			
FM	(30°-60°)	4764.5	21.8			
FH	(60°-80°)	5189.6	23.7			G3/7500
FVH	(80°-90°)	76.3	0.3			G1/100
BL	(0°-30°)	900.8	4.1	B2/1000		
BM	(30°-60°)	4764.5	21.8	B3/5000		
BH	(60°-80°)	5189.6	23.7	B5		G3/7500
BVH	(80°-90°)	76.3	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7
2.5°	2170.6	2172.6	2172.6	2172.6	2171.6	2171.6	2169.6	2171.6	2170.6	2167.6	2168.6
5°	2152.5	2154.5	2154.5	2153.5	2156.5	2155.5	2152.5	2154.5	2153.5	2151.5	2152.5
7.5°	2126.4	2129.4	2129.4	2128.4	2131.4	2130.4	2128.4	2129.4	2129.4	2126.4	2126.4
10°	2097.2	2099.2	2099.2	2098.2	2103.3	2103.3	2102.3	2105.3	2106.3	2103.3	2101.3
12.5°	2070.1	2073.1	2073.1	2077.1	2082.2	2084.2	2089.2	2093.2	2097.2	2096.2	2092.2
15°	2054.0	2056.0	2060.0	2065.1	2073.1	2080.1	2088.2	2097.2	2105.3	2107.3	2101.3
17.5°	2043.9	2047.0	2053.0	2060.0	2071.1	2083.2	2095.2	2107.3	2118.3	2122.4	2115.3
20°	2040.9	2042.9	2049.0	2061.0	2076.1	2094.2	2111.3	2125.4	2140.5	2145.5	2140.5
22.5°	2047.0	2051.0	2058.0	2072.1	2092.2	2115.3	2135.4	2154.5	2173.6	2182.7	2175.7
25°	2074.1	2078.1	2087.2	2105.3	2127.4	2151.5	2174.6	2196.8	2213.9	2222.9	2217.9
27.5°	2124.4	2129.4	2140.5	2158.6	2182.7	2208.8	2234.0	2252.1	2266.1	2269.2	2263.1
30°	2199.8	2210.8	2223.9	2244.0	2272.2	2294.3	2319.4	2335.5	2352.6	2352.6	2347.6
32.5°	2317.4	2328.5	2342.5	2361.6	2383.8	2407.9	2430.0	2444.1	2462.2	2463.2	2451.1
35°	2493.4	2498.4	2510.4	2522.5	2542.6	2563.7	2582.8	2591.9	2607.0	2608.0	2596.9
37.5°	2725.6	2726.6	2734.6	2738.7	2756.8	2779.9	2798.0	2804.0	2818.1	2816.1	2805.0
40°	2996.0	3001.1	3004.1	3010.1	3029.2	3051.3	3070.4	3073.5	3088.5	3085.5	3071.4
42.5°	3308.7	3310.7	3327.8	3336.9	3355.0	3366.0	3390.2	3393.2	3411.3	3403.2	3387.1
45°	3659.6	3677.7	3693.8	3711.9	3731.0	3744.1	3763.2	3759.1	3771.2	3759.1	3750.1
47.5°	4028.6	4041.6	4077.8	4106.0	4137.2	4148.2	4175.4	4163.3	4175.4	4158.3	4155.3
50°	4434.8	4457.9	4489.0	4521.2	4554.4	4572.5	4607.7	4592.6	4608.7	4592.6	4583.5
52.5°	4834.9	4840.9	4909.3	4956.5	5002.8	5023.9	5045.0	5038.0	5039.0	5038.0	5028.9
55°	5214.9	5229.0	5297.4	5361.7	5442.1	5501.5	5537.7	5533.6	5524.6	5515.5	5500.5
57.5°	5643.2	5657.3	5735.7	5815.1	5906.6	5991.1	6064.5	6139.9	6169.0	6177.1	6143.9
60°	6222.3	6221.3	6325.9	6422.4	6553.1	6678.8	6839.6	7003.5	7191.5	7279.0	7163.4
62.5°	6811.5	6835.6	6986.4	7157.3	7426.8	7689.2	7985.8	8277.3	8574.9	8817.2	8559.8
65°	6741.1	6833.6	7057.8	7444.9	7942.5	8533.7	9173.1	9849.8	10461.0	10881.3	10409.8
67.5°	5842.3	5974.0	6202.2	6672.7	7295.1	8147.6	9221.4	10559.6	12114.9	12866.9	11934.9
70°	4234.7	4383.5	4622.8	5082.2	5698.5	6508.9	7675.1	9281.7	11340.7	12098.8	11072.3
72.5°	2107.3	2187.7	2335.5	2628.1	3094.6	3752.1	4809.8	6354.0	8175.8	8871.5	7933.5
75°	715.8	753.0	778.2	873.7	1021.5	1279.9	1805.7	2777.9	4237.7	5080.2	4177.4
77.5°	413.2	414.2	431.3	448.4	473.5	501.7	572.1	751.0	1299.0	1844.9	1344.2
80°	267.4	266.4	280.5	293.6	310.7	324.7	328.8	347.9	401.1	475.5	425.3
82.5°	138.7	155.8	187.0	204.1	236.3	242.3	234.3	227.2	240.3	249.3	255.4
85°	76.4	66.4	99.5	128.7	142.8	144.8	144.8	136.7	141.8	138.7	150.8
87.5°	35.2	32.2	39.2	63.3	67.4	57.3	60.3	53.3	38.2	37.2	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°	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7	2178.7
2.5°	2168.6	2169.6	2169.6	2172.6	2173.6	2175.7	2177.7	2178.7
5°	2151.5	2154.5	2152.5	2155.5	2155.5	2157.6	2157.6	2158.6
7.5°	2126.4	2129.4	2129.4	2129.4	2128.4	2131.4	2131.4	2131.4
10°	2100.2	2102.3	2101.3	2099.2	2097.2	2100.2	2099.2	2098.2
12.5°	2092.2	2087.2	2083.2	2081.1	2077.1	2078.1	2075.1	2075.1
15°	2097.2	2088.2	2081.1	2078.1	2074.1	2072.1	2070.1	2071.1
17.5°	2110.3	2099.2	2090.2	2085.2	2080.1	2077.1	2073.1	2074.1
20°	2133.4	2120.4	2107.3	2097.2	2088.2	2083.2	2080.1	2079.1
22.5°	2167.6	2148.5	2129.4	2114.3	2102.3	2095.2	2092.2	2090.2
25°	2206.8	2185.7	2163.6	2146.5	2134.4	2125.4	2119.4	2119.4
27.5°	2256.1	2239.0	2218.9	2198.8	2187.7	2178.7	2174.6	2172.6
30°	2338.5	2322.4	2306.4	2287.2	2273.2	2264.1	2257.1	2251.1
32.5°	2444.1	2431.0	2417.9	2403.9	2390.8	2378.7	2367.7	2362.7
35°	2592.9	2582.8	2573.8	2557.7	2552.7	2545.6	2539.6	2534.6
37.5°	2798.0	2794.0	2794.0	2776.9	2772.9	2769.8	2763.8	2764.8
40°	3067.4	3071.4	3066.4	3060.4	3057.4	3049.3	3049.3	3056.4
42.5°	3386.1	3389.2	3400.2	3390.2	3401.2	3391.2	3385.1	3390.2
45°	3756.1	3767.2	3789.3	3779.2	3786.3	3769.2	3748.1	3749.1
47.5°	4171.3	4181.4	4190.4	4183.4	4184.4	4156.3	4128.1	4121.1
50°	4602.7	4606.7	4611.7	4601.6	4603.7	4572.5	4540.3	4541.3
52.5°	5028.9	5048.0	5068.1	5041.0	5035.0	4999.8	4954.5	4936.4
55°	5516.5	5543.7	5520.6	5473.3	5426.1	5378.8	5319.5	5309.4
57.5°	6117.8	6071.5	5999.1	5909.7	5844.3	5777.9	5717.6	5692.5
60°	6954.2	6780.3	6649.6	6516.9	6433.5	6352.0	6272.6	6260.5
62.5°	8136.6	7836.0	7575.6	7301.1	7076.9	6902.0	6762.2	6723.0
65°	9618.5	8907.7	8291.4	7716.3	7216.7	6839.6	6602.4	6497.8
67.5°	10255.9	8852.4	7795.8	6979.4	6325.9	5869.4	5613.1	5485.4
70°	9012.3	7341.3	6192.2	5374.8	4779.6	4293.0	4060.7	3924.0
72.5°	6200.2	4670.0	3692.8	3014.1	2538.6	2131.4	1970.6	1958.5
75°	2783.9	1843.9	1270.8	979.2	824.4	716.8	683.7	658.5
77.5°	779.2	576.1	513.8	480.6	448.4	411.2	397.1	400.1
80°	379.0	357.9	343.8	322.7	293.6	262.4	248.3	254.4
82.5°	251.3	248.3	257.4	242.3	200.1	169.9	142.8	130.7
85°	152.8	154.8	157.8	158.9	134.7	94.5	64.3	72.4
87.5°	60.3	69.4	75.4	78.4	73.4	45.2	36.2	37.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)