

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: P299476

Luminaire Tested: **GLNA-AF-04-LED-E1-5NQ-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299476  
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-04-LED-E1-5NQ-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

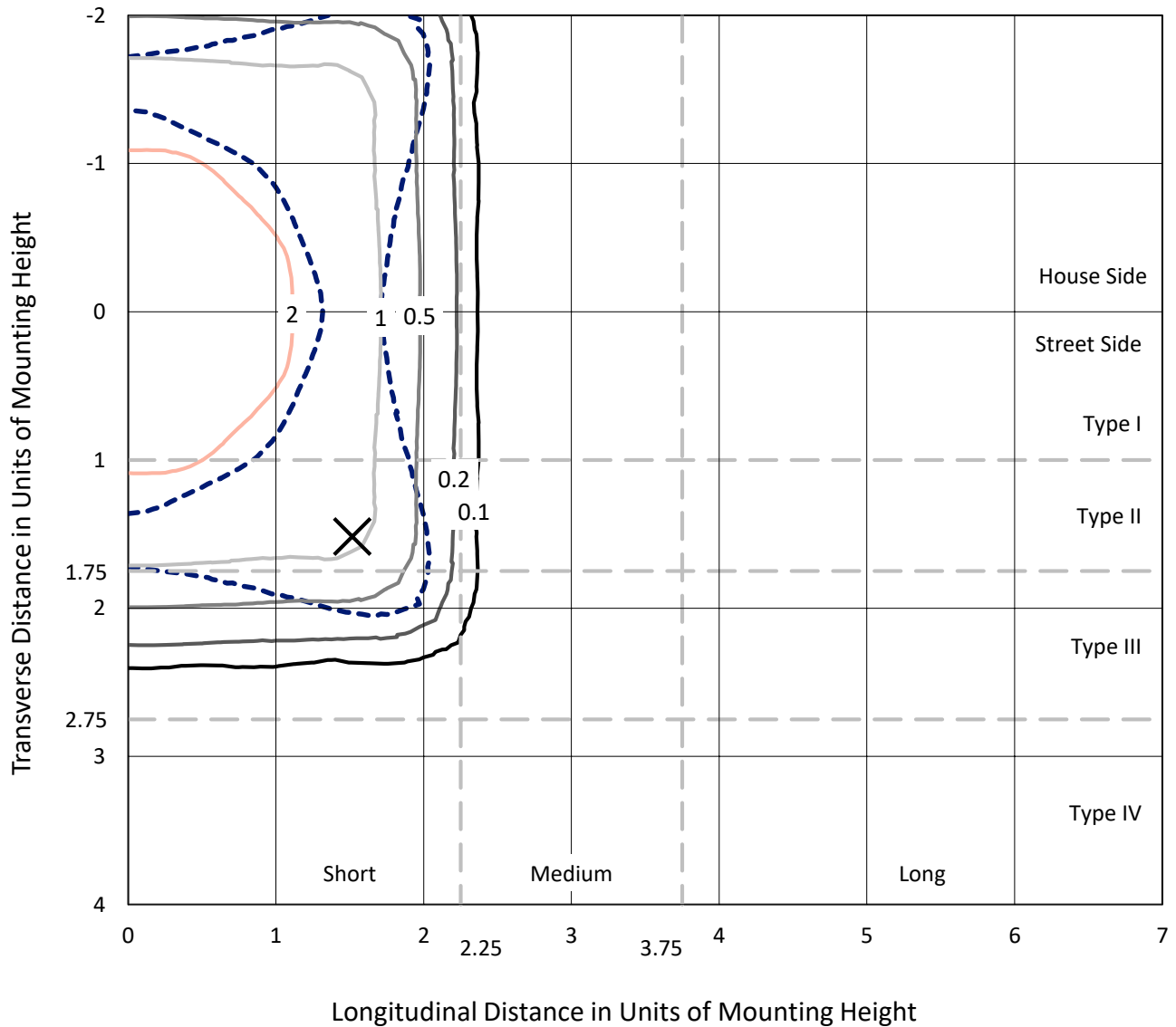
Lumens per Lamp: N/A  
Luminaire Lumens: 16260.2 lumens  
Efficiency: N/A  
Efficacy: 126.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (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

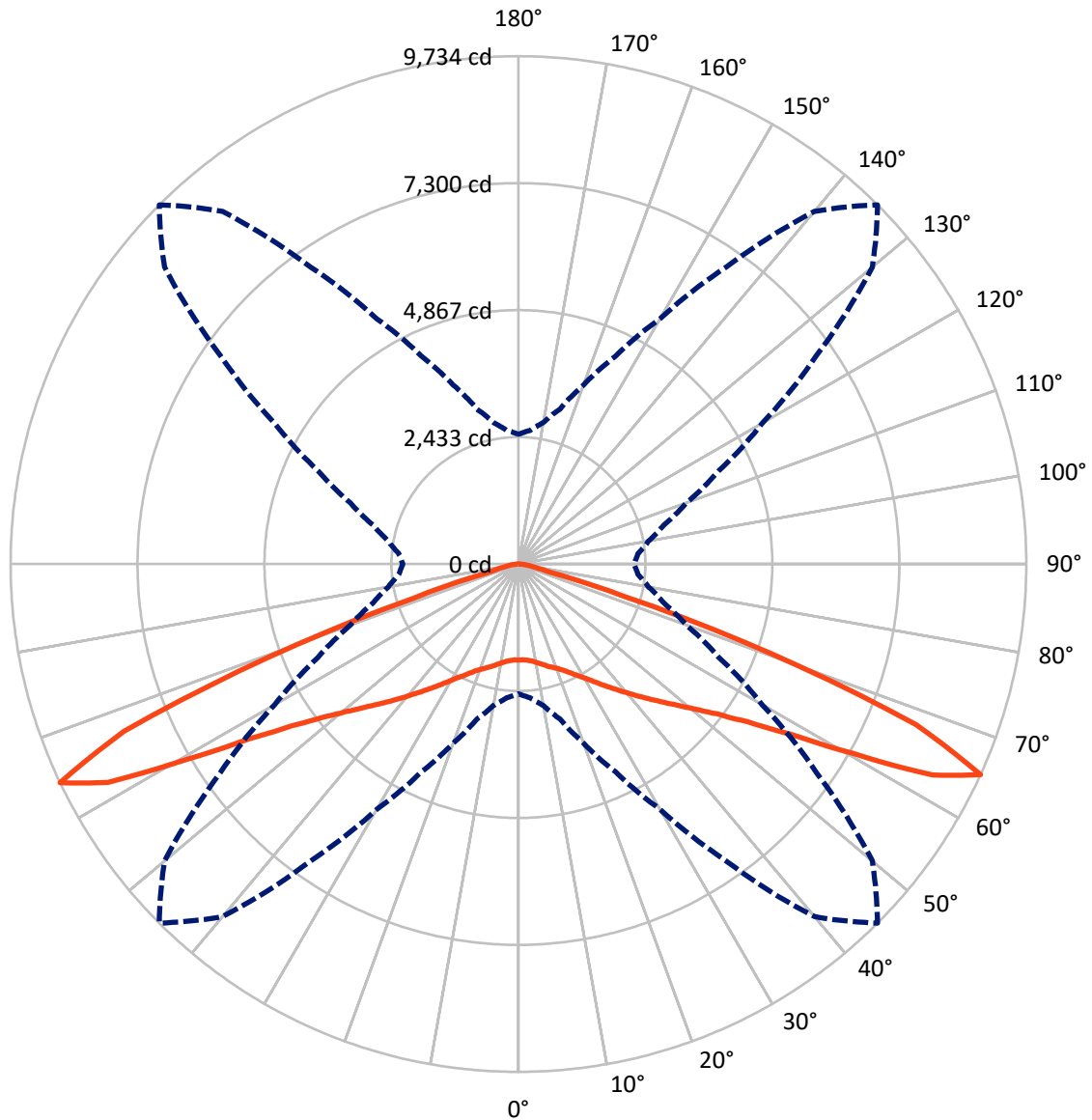
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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
<b>House Side</b>	Lumens	8130.1	0.0	8130.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	8130.1	0.0	8130.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	16260.2	0.0	16260.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.3	1.1
10°-20°	575.1	3.5
20°-30°	1075.4	6.6
30°-40°	1818.8	11.2
40°-50°	2973.9	18.3
50°-60°	4729.0	29.1
60°-70°	4274.7	26.3
70°-80°	541.0	3.3
80°-90°	93.1	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°	16260.2	100.0
0°-180°	16260.2	100.0



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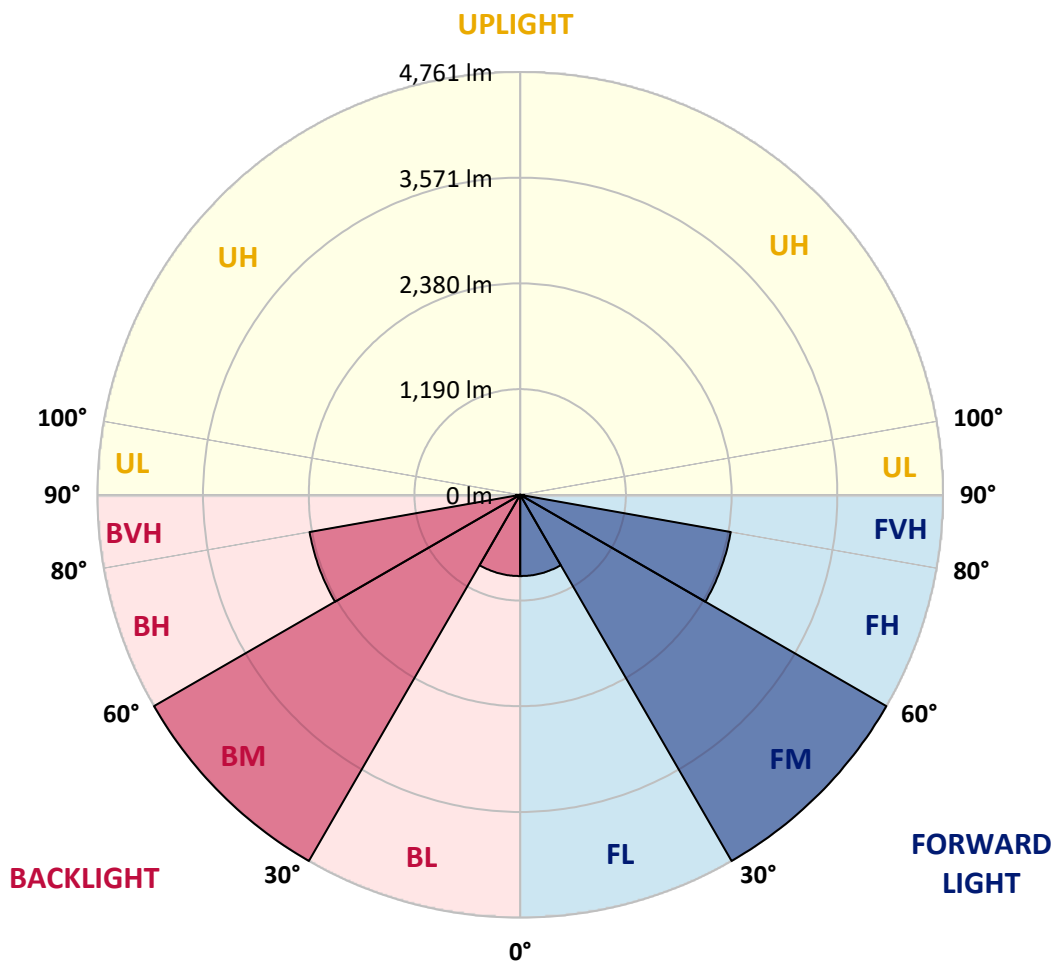
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	914.9	5.6			
FM (30°-60°)	4760.8	29.3			
FH (60°-80°)	2407.8	14.8			G2/5000
FVH (80°-90°)	46.5	0.3			G1/100
BL (0°-30°)	914.9	5.6	B2/1000		
BM (30°-60°)	4760.8	29.3	B3/5000		
BH (60°-80°)	2407.8	14.8	B3/2500		G2/5000
BVH (80°-90°)	46.5	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9
2.5°	1841.4	1842.9	1844.4	1842.9	1844.4	1842.1	1840.6	1842.9	1840.6	1838.3	1839.9
5°	1857.4	1858.1	1858.1	1855.8	1858.1	1856.6	1854.3	1857.4	1855.1	1852.8	1854.3
7.5°	1884.0	1887.1	1884.8	1882.5	1884.0	1882.5	1881.0	1881.7	1881.0	1878.7	1879.5
10°	1919.8	1922.1	1920.6	1919.8	1921.3	1920.6	1919.1	1918.3	1919.1	1916.8	1916.8
12.5°	1963.2	1962.5	1961.7	1962.5	1964.7	1964.7	1964.0	1964.7	1966.3	1967.0	1965.5
15°	2005.9	2007.4	2007.4	2007.4	2012.0	2015.8	2018.1	2019.6	2022.6	2023.4	2020.3
17.5°	2059.2	2059.2	2058.4	2059.2	2063.7	2069.8	2072.1	2075.2	2078.2	2080.5	2076.7
20°	2118.6	2120.1	2120.1	2121.6	2127.7	2134.6	2134.6	2136.1	2134.6	2136.1	2133.8
22.5°	2190.9	2195.5	2195.5	2196.3	2202.3	2210.7	2208.4	2210.7	2206.9	2210.0	2206.9
25°	2285.3	2292.2	2290.7	2290.7	2295.2	2300.6	2301.3	2305.9	2305.1	2309.0	2306.7
27.5°	2392.0	2402.6	2405.7	2404.9	2408.0	2413.3	2414.8	2420.1	2417.1	2420.1	2418.6
30°	2519.9	2524.5	2530.6	2532.8	2536.7	2542.0	2542.0	2542.7	2538.9	2543.5	2545.8
32.5°	2652.4	2660.8	2666.9	2680.6	2687.4	2691.2	2690.5	2692.0	2688.2	2694.3	2698.9
35°	2827.6	2833.6	2843.5	2854.2	2863.3	2862.6	2860.3	2861.1	2861.1	2866.4	2871.0
37.5°	3038.5	3040.0	3053.0	3068.2	3072.8	3068.2	3054.5	3051.4	3044.6	3051.4	3059.1
40°	3261.6	3267.0	3292.9	3302.8	3305.0	3296.7	3276.9	3265.4	3250.2	3258.6	3269.2
42.5°	3495.4	3506.1	3529.7	3547.2	3554.8	3549.5	3522.1	3504.6	3484.8	3489.3	3500.0
45°	3754.3	3767.3	3800.8	3817.5	3832.0	3823.6	3797.0	3770.3	3739.1	3741.4	3758.1
47.5°	4043.7	4056.7	4100.1	4128.2	4135.9	4134.3	4104.6	4068.1	4025.4	4023.9	4038.4
50°	4368.1	4381.1	4435.1	4478.6	4500.6	4498.4	4463.3	4411.5	4359.8	4360.5	4378.8
52.5°	4684.9	4700.9	4757.3	4831.9	4875.3	4906.5	4885.2	4836.5	4773.3	4774.8	4791.5
55°	4981.9	5008.6	5073.3	5174.6	5255.3	5342.9	5368.0	5366.5	5328.4	5339.1	5355.8
57.5°	5125.9	5165.5	5265.2	5425.1	5589.6	5767.8	5918.6	6031.3	6079.3	6151.6	6134.9
60°	4853.2	4916.4	5063.4	5298.7	5623.9	5995.5	6393.8	6782.9	7115.0	7365.5	7221.6
62.5°	3973.7	4055.9	4234.1	4535.7	5027.6	5622.4	6384.7	7304.6	8306.8	8911.4	8479.6
65°	2486.4	2571.7	2752.9	3075.8	3651.5	4391.0	5425.1	6949.7	8822.3	9733.9	8855.1
67.5°	969.4	1015.9	1114.1	1320.5	1753.0	2411.0	3449.0	5179.2	7418.8	8217.7	7281.0
70°	485.9	490.4	508.7	546.8	639.7	830.8	1264.1	2401.1	4254.7	5138.8	4101.6
72.5°	351.1	351.8	361.0	377.7	407.4	450.1	532.3	734.9	1383.7	2114.8	1296.9
75°	268.8	271.9	277.2	286.3	302.3	323.6	353.3	423.4	524.7	608.5	511.7
77.5°	207.1	213.2	217.0	225.4	235.3	249.8	258.2	284.8	331.3	348.8	343.4
80°	157.6	163.0	171.3	178.2	185.1	191.9	188.9	201.0	225.4	239.9	232.3
82.5°	100.5	106.6	131.0	137.1	140.1	144.7	139.4	140.1	150.8	159.9	150.8
85°	64.7	68.5	83.0	90.6	91.4	94.4	92.1	86.8	86.8	79.2	89.1
87.5°	29.7	30.5	37.3	44.2	45.7	41.1	40.4	38.8	31.2	29.7	32.0
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°	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9	1839.9
2.5°	1839.1	1840.6	1841.4	1843.7	1844.4	1844.4	1845.2	1846.7
5°	1853.6	1855.8	1856.6	1859.7	1860.4	1859.7	1861.2	1861.9
7.5°	1879.5	1883.3	1884.8	1887.8	1885.5	1888.6	1889.4	1889.4
10°	1917.5	1921.3	1922.1	1925.1	1923.6	1925.1	1925.1	1923.6
12.5°	1967.8	1968.6	1966.3	1968.6	1965.5	1967.0	1964.7	1963.2
15°	2023.4	2021.1	2015.8	2015.8	2011.2	2012.0	2011.2	2010.4
17.5°	2077.5	2072.9	2069.1	2067.6	2063.7	2063.0	2060.7	2060.7
20°	2136.9	2134.6	2132.3	2129.2	2125.4	2121.6	2120.9	2122.4
22.5°	2208.4	2207.7	2207.7	2206.1	2200.8	2197.0	2194.7	2194.7
25°	2304.4	2297.5	2297.5	2296.8	2294.5	2292.2	2287.6	2289.9
27.5°	2412.5	2408.7	2411.8	2411.0	2408.7	2408.7	2405.7	2405.7
30°	2545.8	2544.3	2548.8	2545.0	2537.4	2536.7	2533.6	2529.8
32.5°	2699.6	2698.1	2705.0	2700.4	2688.2	2681.3	2675.3	2672.2
35°	2871.0	2871.7	2880.1	2877.1	2863.3	2858.8	2848.1	2846.6
37.5°	3058.3	3070.5	3085.0	3088.0	3076.6	3073.5	3062.1	3056.0
40°	3278.4	3294.4	3316.5	3321.8	3309.6	3307.3	3291.3	3283.0
42.5°	3512.9	3540.3	3567.8	3572.3	3560.1	3548.0	3532.7	3526.6
45°	3774.9	3807.6	3843.4	3852.6	3834.3	3819.8	3800.0	3800.0
47.5°	4068.9	4110.0	4150.3	4175.5	4158.7	4143.5	4119.9	4104.6
50°	4416.1	4472.5	4525.0	4550.9	4524.2	4495.3	4454.2	4440.5
52.5°	4851.7	4912.6	4958.3	4944.6	4903.5	4863.1	4818.2	4799.9
55°	5407.6	5428.2	5428.2	5376.4	5294.2	5226.4	5155.6	5131.9
57.5°	6102.9	6023.7	5901.9	5747.3	5553.1	5384.0	5269.8	5215.7
60°	6920.0	6539.3	6109.0	5686.3	5339.1	5052.7	4882.9	4805.2
62.5°	7464.5	6468.4	5606.4	4927.9	4428.3	4083.3	3848.8	3757.4
65°	6976.4	5394.7	4240.2	3428.4	2883.9	2532.8	2300.6	2215.3
67.5°	5109.9	3380.4	2257.9	1618.2	1185.7	945.8	850.6	811.0
70°	2293.7	1190.3	729.5	569.6	491.2	450.8	433.3	427.2
72.5°	691.5	500.3	421.9	380.8	349.5	329.7	315.3	313.8
75°	417.3	347.3	308.4	284.1	264.3	248.3	240.6	238.4
77.5°	291.7	255.1	236.8	219.3	204.1	191.9	185.1	179.7
80°	204.9	187.3	179.0	169.1	159.2	147.7	137.8	133.3
82.5°	137.1	133.3	133.3	127.2	118.8	108.1	88.3	83.8
85°	88.3	87.6	89.1	86.8	80.7	69.3	57.1	54.1
87.5°	41.1	41.9	46.5	45.7	44.2	36.6	28.9	27.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)