

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: P299347

Luminaire Tested: **GLNA-AF-03-LED-E1-5NQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299347  
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-03-LED-E1-5NQ-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16230.4 lumens  
Efficiency: N/A  
Efficacy: 97.8 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): 166  
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

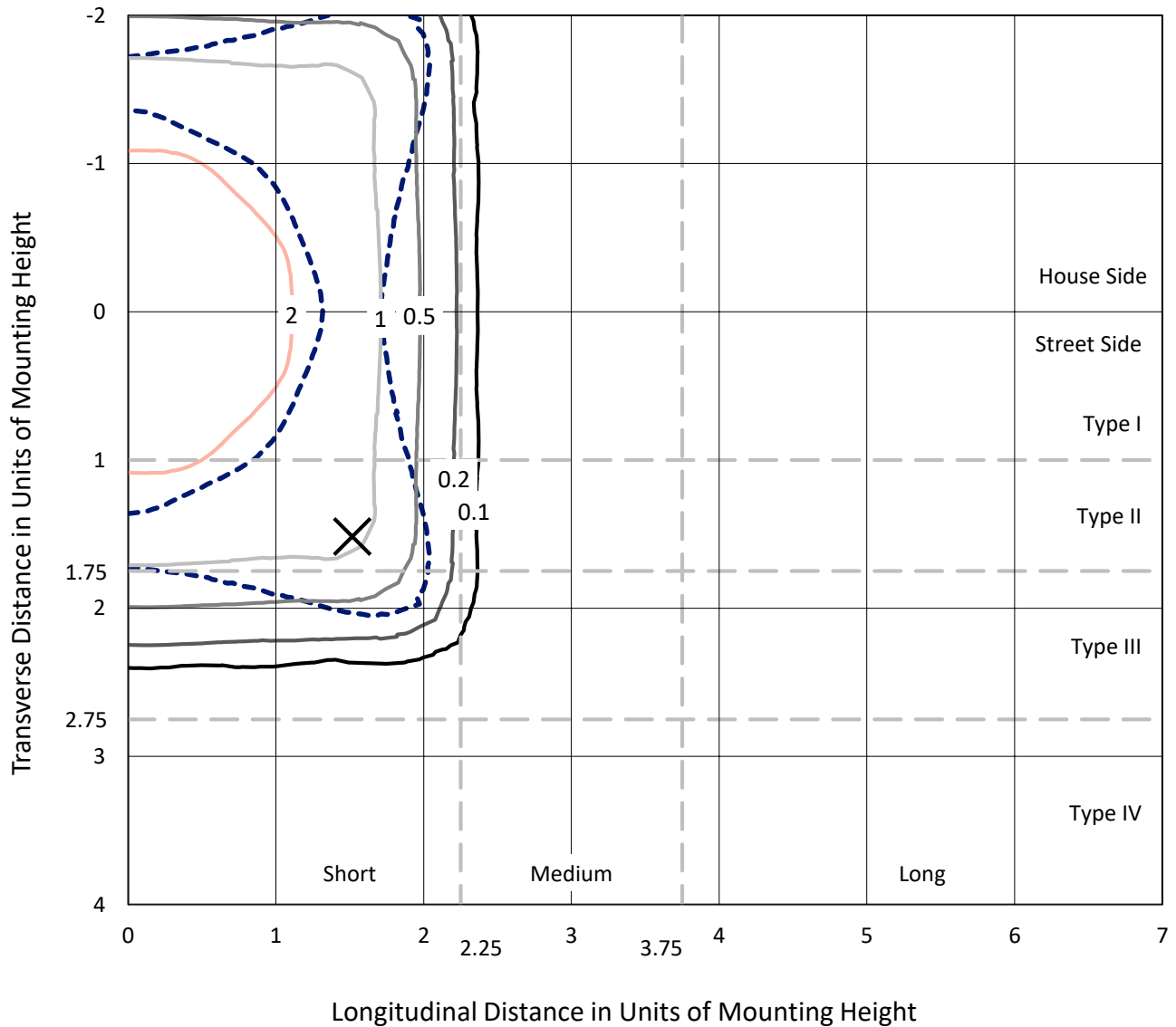


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### Iso-Footcandle Lines of Horizontal Illumination

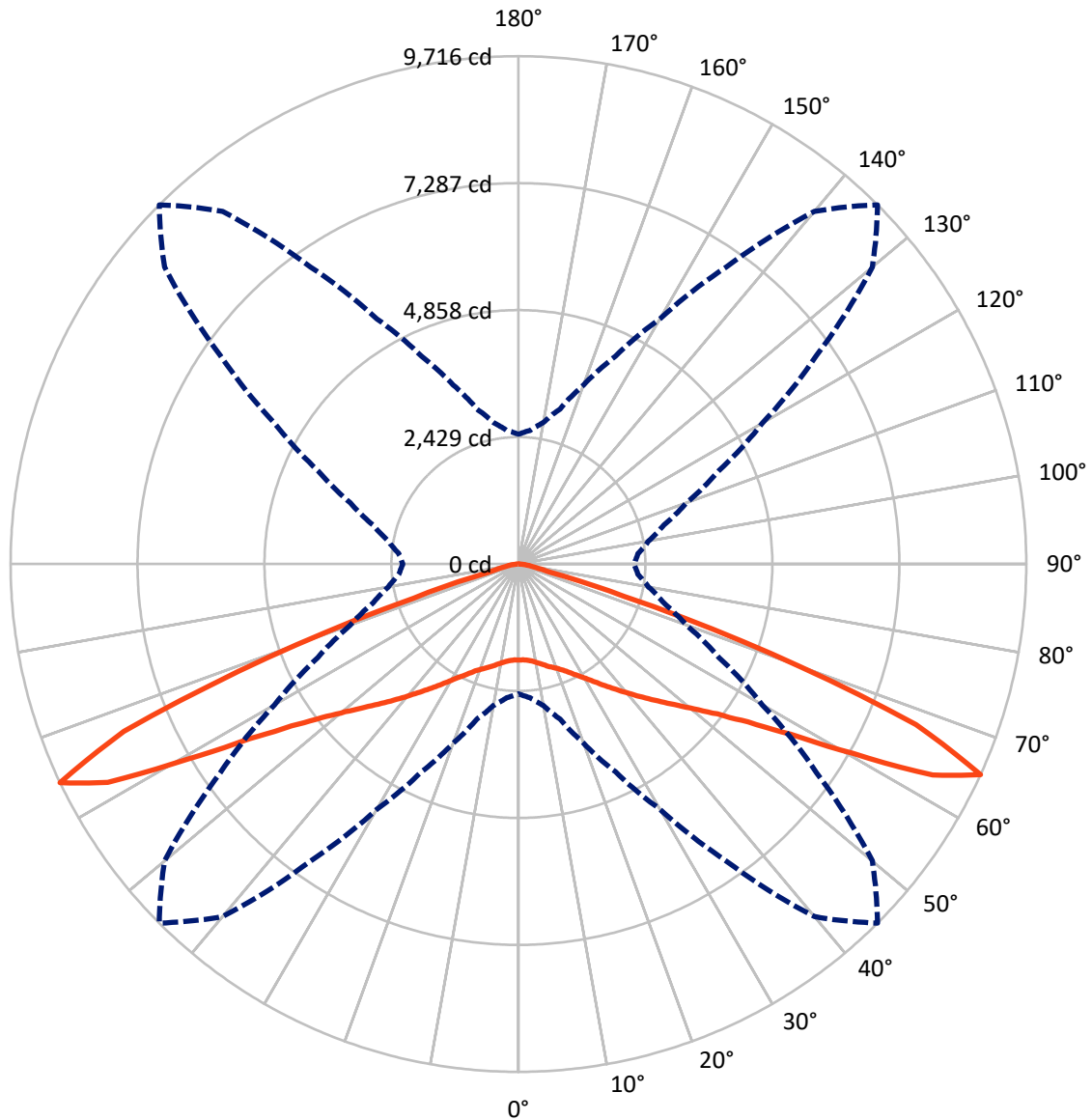
✕ Max cd  
 - - - 1/2 Max cd



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	8115.2	0.0	8115.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	8115.2	0.0	8115.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	16230.4	0.0	16230.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.0	1.1
10°-20°	574.1	3.5
20°-30°	1073.4	6.6
30°-40°	1815.5	11.2
40°-50°	2968.5	18.3
50°-60°	4720.3	29.1
60°-70°	4266.8	26.3
70°-80°	540.0	3.3
80°-90°	92.9	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°	16230.4	100.0
0°-180°	16230.4	100.0



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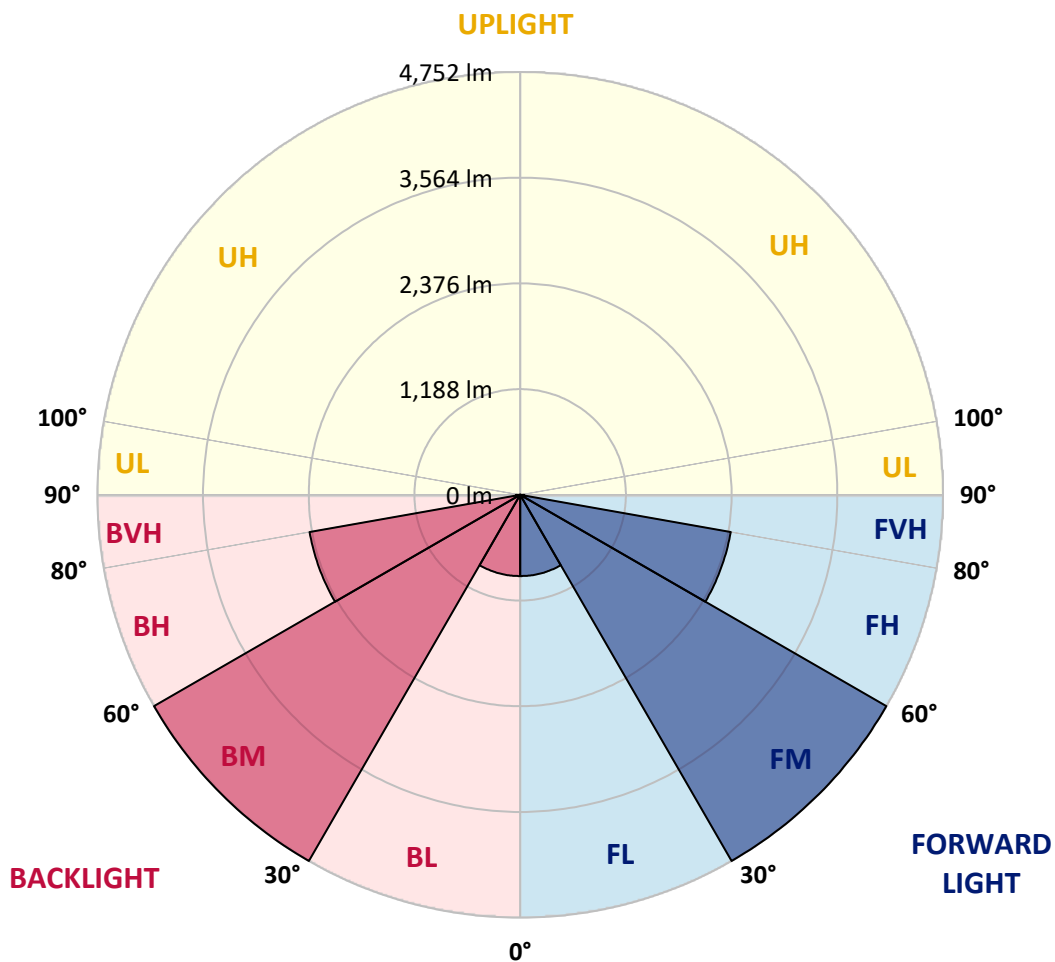
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	913.2	5.6			
FM	(30°-60°)	4752.1	29.3			
FH	(60°-80°)	2403.4	14.8			G2/5000
FVH	(80°-90°)	46.4	0.3			G1/100
BL	(0°-30°)	913.2	5.6	B2/1000		
BM	(30°-60°)	4752.1	29.3	B3/5000		
BH	(60°-80°)	2403.4	14.8	B3/2500		G2/5000
BVH	(80°-90°)	46.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5
2.5°	1838.0	1839.5	1841.0	1839.5	1841.0	1838.8	1837.2	1839.5	1837.2	1835.0	1836.5
5°	1854.0	1854.7	1854.7	1852.4	1854.7	1853.2	1850.9	1854.0	1851.7	1849.4	1850.9
7.5°	1880.6	1883.6	1881.3	1879.0	1880.6	1879.0	1877.5	1878.3	1877.5	1875.2	1876.0
10°	1916.3	1918.6	1917.1	1916.3	1917.8	1917.1	1915.5	1914.8	1915.5	1913.3	1913.3
12.5°	1959.6	1958.9	1958.1	1958.9	1961.1	1961.1	1960.4	1961.1	1962.7	1963.4	1961.9
15°	2002.2	2003.7	2003.7	2003.7	2008.3	2012.1	2014.4	2015.9	2018.9	2019.7	2016.6
17.5°	2055.4	2055.4	2054.6	2055.4	2060.0	2066.0	2068.3	2071.4	2074.4	2076.7	2072.9
20°	2114.7	2116.2	2116.2	2117.7	2123.8	2130.7	2130.7	2132.2	2130.7	2132.2	2129.9
22.5°	2186.9	2191.5	2191.5	2192.2	2198.3	2206.7	2204.4	2206.7	2202.9	2205.9	2202.9
25°	2281.2	2288.0	2286.5	2286.5	2291.0	2296.4	2297.1	2301.7	2300.9	2304.7	2302.4
27.5°	2387.6	2398.2	2401.3	2400.5	2403.5	2408.9	2410.4	2415.7	2412.7	2415.7	2414.2
30°	2515.3	2519.8	2525.9	2528.2	2532.0	2537.3	2537.3	2538.1	2534.3	2538.8	2541.1
32.5°	2647.5	2655.9	2662.0	2675.7	2682.5	2686.3	2685.6	2687.1	2683.3	2689.4	2693.9
35°	2822.4	2828.5	2838.3	2849.0	2858.1	2857.3	2855.1	2855.8	2855.8	2861.1	2865.7
37.5°	3032.9	3034.5	3047.4	3062.6	3067.1	3062.6	3048.9	3045.9	3039.0	3045.9	3053.5
40°	3255.7	3261.0	3286.8	3296.7	3299.0	3290.6	3270.9	3259.5	3244.2	3252.6	3263.3
42.5°	3489.0	3499.7	3523.2	3540.7	3548.3	3543.0	3515.6	3498.1	3478.4	3482.9	3493.6
45°	3747.5	3760.4	3793.8	3810.5	3825.0	3816.6	3790.0	3763.4	3732.3	3734.5	3751.3
47.5°	4036.3	4049.2	4092.6	4120.7	4128.3	4126.8	4097.1	4060.6	4018.1	4016.5	4031.0
50°	4360.1	4373.0	4427.0	4470.3	4492.4	4490.1	4455.1	4403.5	4351.8	4352.5	4370.8
52.5°	4676.3	4692.3	4748.6	4823.0	4866.4	4897.5	4876.3	4827.6	4764.5	4766.0	4782.8
55°	4972.8	4999.4	5064.0	5165.1	5245.7	5333.1	5358.2	5356.7	5318.7	5329.3	5346.0
57.5°	5116.5	5156.0	5255.6	5415.2	5579.4	5757.2	5907.8	6020.3	6068.1	6140.4	6123.6
60°	4844.3	4907.4	5054.1	5289.0	5613.6	5984.5	6382.1	6770.5	7101.9	7352.0	7208.3
62.5°	3966.4	4048.5	4226.3	4527.4	5018.4	5612.1	6373.0	7291.2	8291.5	8895.1	8464.1
65°	2481.8	2567.0	2747.9	3070.2	3644.8	4382.9	5415.2	6937.0	8806.1	9716.0	8838.8
67.5°	967.6	1014.0	1112.1	1318.1	1749.8	2406.6	3442.6	5169.7	7405.2	8202.6	7267.6
70°	485.0	489.5	507.8	545.8	638.5	829.3	1261.8	2396.7	4246.9	5129.4	4094.1
72.5°	350.4	351.2	360.3	377.0	406.7	449.2	531.3	733.5	1381.2	2110.9	1294.5
75°	268.3	271.4	276.7	285.8	301.8	323.1	352.7	422.6	523.7	607.3	510.8
77.5°	206.8	212.8	216.6	225.0	234.9	249.3	257.7	284.3	330.7	348.1	342.8
80°	157.3	162.7	171.0	177.9	184.7	191.6	188.5	200.7	225.0	239.4	231.8
82.5°	100.3	106.4	130.7	136.8	139.9	144.4	139.1	139.9	150.5	159.6	150.5
85°	64.6	68.4	82.9	90.5	91.2	94.3	92.0	86.7	86.7	79.1	88.9
87.5°	29.6	30.4	37.2	44.1	45.6	41.0	40.3	38.8	31.2	29.6	31.9
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°	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5	1836.5
2.5°	1835.7	1837.2	1838.0	1840.3	1841.0	1841.0	1841.8	1843.3
5°	1850.2	1852.4	1853.2	1856.2	1857.0	1856.2	1857.8	1858.5
7.5°	1876.0	1879.8	1881.3	1884.4	1882.1	1885.1	1885.9	1885.9
10°	1914.0	1917.8	1918.6	1921.6	1920.1	1921.6	1921.6	1920.1
12.5°	1964.2	1964.9	1962.7	1964.9	1961.9	1963.4	1961.1	1959.6
15°	2019.7	2017.4	2012.1	2012.1	2007.5	2008.3	2007.5	2006.8
17.5°	2073.6	2069.1	2065.3	2063.8	2060.0	2059.2	2056.9	2056.9
20°	2132.9	2130.7	2128.4	2125.3	2121.5	2117.7	2117.0	2118.5
22.5°	2204.4	2203.6	2203.6	2202.1	2196.8	2193.0	2190.7	2190.7
25°	2300.2	2293.3	2293.3	2292.6	2290.3	2288.0	2283.4	2285.7
27.5°	2408.1	2404.3	2407.3	2406.6	2404.3	2404.3	2401.3	2401.3
30°	2541.1	2539.6	2544.2	2540.4	2532.8	2532.0	2529.0	2525.2
32.5°	2694.7	2693.2	2700.0	2695.4	2683.3	2676.4	2670.3	2667.3
35°	2865.7	2866.5	2874.8	2871.8	2858.1	2853.5	2842.9	2841.4
37.5°	3052.7	3064.9	3079.3	3082.3	3070.9	3067.9	3056.5	3050.4
40°	3272.4	3288.3	3310.4	3315.7	3303.5	3301.3	3285.3	3276.9
42.5°	3506.5	3533.9	3561.2	3565.8	3553.6	3541.5	3526.3	3520.2
45°	3768.0	3800.7	3836.4	3845.5	3827.3	3812.8	3793.1	3793.1
47.5°	4061.4	4102.4	4142.7	4167.8	4151.1	4135.9	4112.3	4097.1
50°	4408.0	4464.3	4516.7	4542.6	4516.0	4487.1	4446.0	4432.3
52.5°	4842.8	4903.6	4949.2	4935.5	4894.5	4854.2	4809.4	4791.1
55°	5397.7	5418.2	5418.2	5366.5	5284.4	5216.8	5146.1	5122.5
57.5°	6091.7	6012.7	5891.0	5736.7	5542.9	5374.1	5260.1	5206.2
60°	6907.3	6527.3	6097.8	5675.9	5329.3	5043.5	4874.0	4796.4
62.5°	7450.8	6456.6	5596.1	4918.8	4420.2	4075.8	3841.7	3750.5
65°	6963.6	5384.8	4232.4	3422.1	2878.6	2528.2	2296.4	2211.2
67.5°	5100.5	3374.2	2253.8	1615.3	1183.5	944.1	849.1	809.5
70°	2289.5	1188.1	728.2	568.6	490.3	450.0	432.5	426.4
72.5°	690.2	499.4	421.1	380.1	348.9	329.1	314.7	313.2
75°	416.6	346.6	307.9	283.5	263.8	247.8	240.2	237.9
77.5°	291.1	254.6	236.4	218.9	203.7	191.6	184.7	179.4
80°	204.5	187.0	178.6	168.7	158.9	147.5	137.6	133.0
82.5°	136.8	133.0	133.0	126.9	118.6	107.9	88.2	83.6
85°	88.2	87.4	88.9	86.7	80.6	69.2	57.0	54.0
87.5°	41.0	41.8	46.4	45.6	44.1	36.5	28.9	27.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)