

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: P299350

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299350  
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  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K 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: 18680.6 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - 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

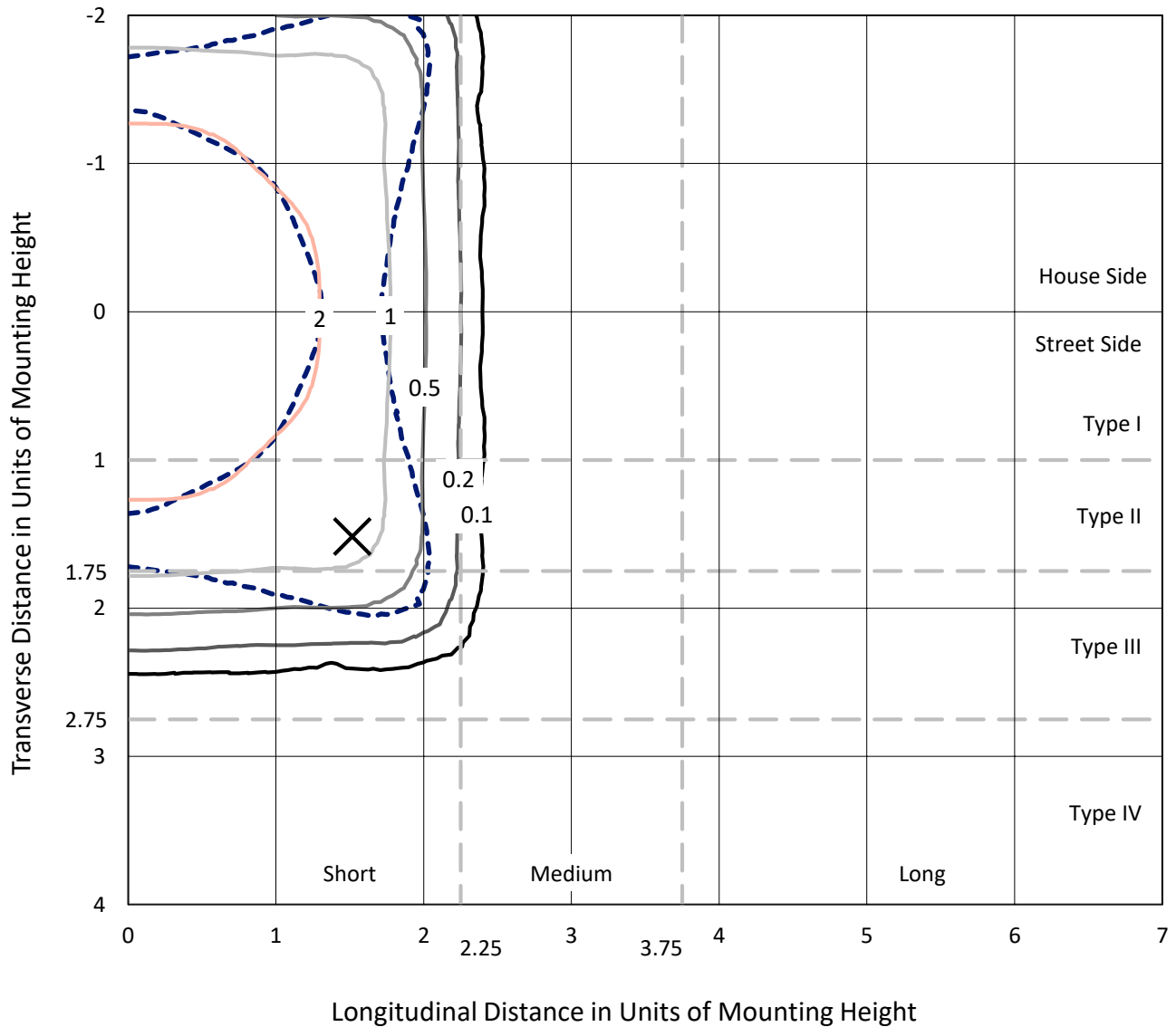


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

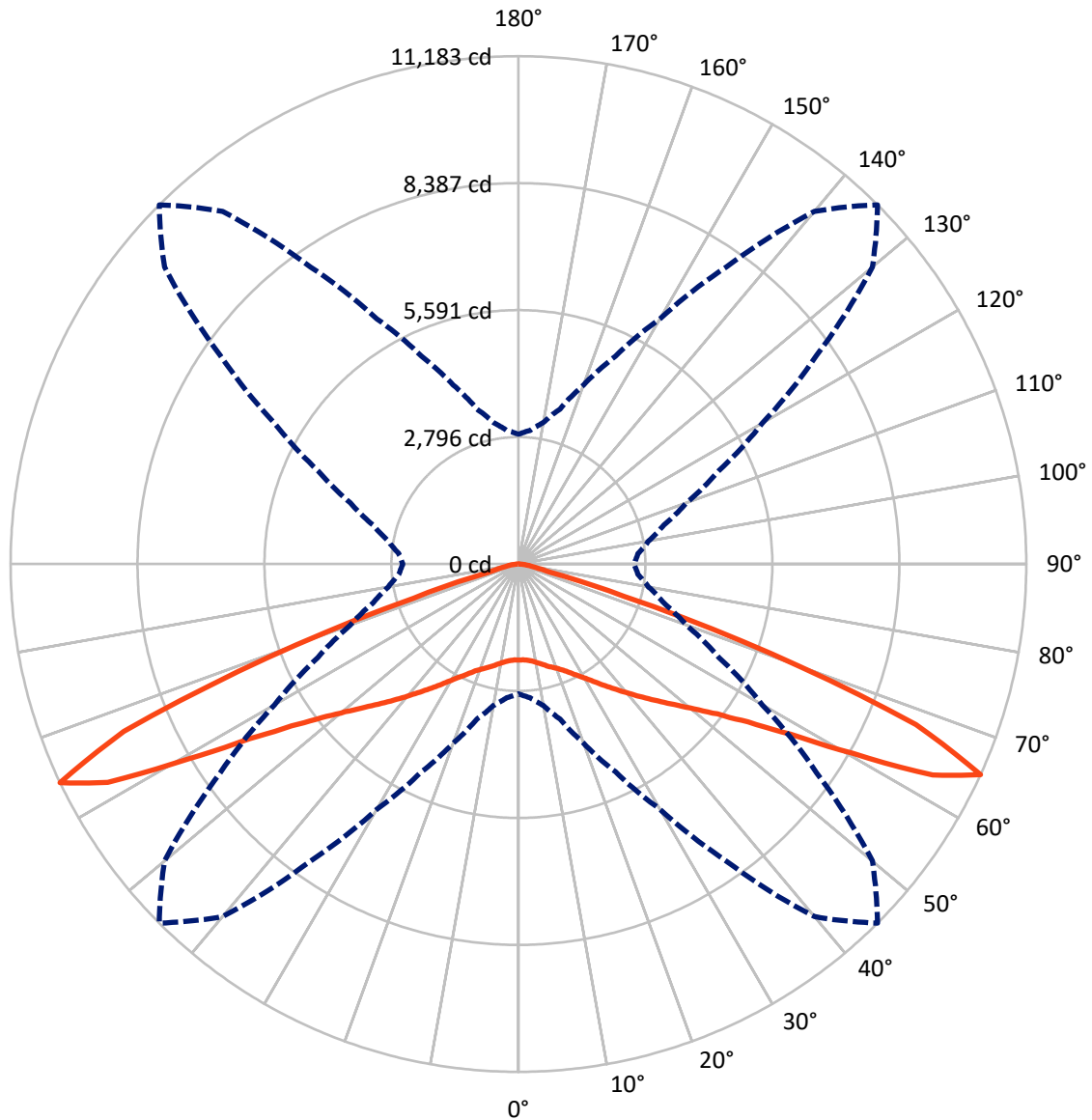


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc  
 Type V - Short - Full Cutoff

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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	9340.3	0.0	9340.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9340.3	0.0	9340.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	18680.6	0.0	18680.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.0	1.1
10°-20°	660.7	3.5
20°-30°	1235.5	6.6
30°-40°	2089.5	11.2
40°-50°	3416.6	18.3
50°-60°	5432.9	29.1
60°-70°	4911.0	26.3
70°-80°	621.5	3.3
80°-90°	106.9	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°	18680.6	100.0
0°-180°	18680.6	100.0



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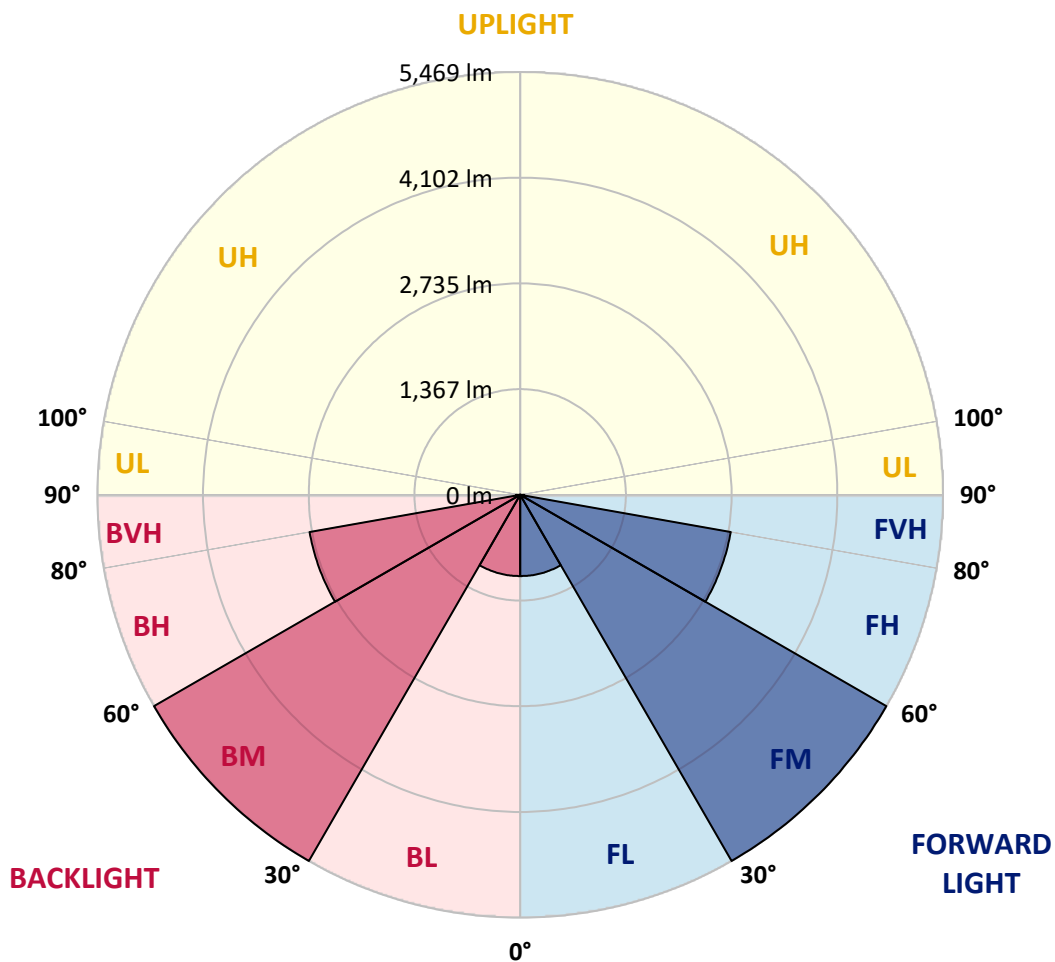
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1051.1	5.6			
FM	(30°-60°)	5469.5	29.3			
FH	(60°-80°)	2766.2	14.8			G2/5000
FVH	(80°-90°)	53.5	0.3			G1/100
BL	(0°-30°)	1051.1	5.6	B3/2500		
BM	(30°-60°)	5469.5	29.3	B4/8500		
BH	(60°-80°)	2766.2	14.8	B4/5000		G2/5000
BVH	(80°-90°)	53.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7
2.5°	2115.5	2117.2	2119.0	2117.2	2119.0	2116.3	2114.6	2117.2	2114.6	2112.0	2113.7
5°	2133.8	2134.7	2134.7	2132.1	2134.7	2133.0	2130.3	2133.8	2131.2	2128.6	2130.3
7.5°	2164.5	2168.0	2165.3	2162.7	2164.5	2162.7	2161.0	2161.8	2161.0	2158.3	2159.2
10°	2205.6	2208.2	2206.5	2205.6	2207.3	2206.5	2204.7	2203.8	2204.7	2202.1	2202.1
12.5°	2255.5	2254.6	2253.7	2254.6	2257.2	2257.2	2256.3	2257.2	2259.0	2259.8	2258.1
15°	2304.4	2306.2	2306.2	2306.2	2311.4	2315.8	2318.4	2320.2	2323.7	2324.6	2321.1
17.5°	2365.7	2365.7	2364.8	2365.7	2370.9	2377.9	2380.6	2384.1	2387.6	2390.2	2385.8
20°	2433.9	2435.7	2435.7	2437.4	2444.4	2452.3	2452.3	2454.1	2452.3	2454.1	2451.4
22.5°	2517.0	2522.3	2522.3	2523.2	2530.2	2539.8	2537.2	2539.8	2535.4	2538.9	2535.4
25°	2625.5	2633.4	2631.7	2631.7	2636.9	2643.0	2643.9	2649.1	2648.3	2652.6	2650.0
27.5°	2748.0	2760.3	2763.8	2762.9	2766.4	2772.5	2774.3	2780.4	2776.9	2780.4	2778.6
30°	2895.0	2900.2	2907.2	2909.9	2914.2	2920.4	2920.4	2921.2	2916.9	2922.1	2924.7
32.5°	3047.2	3056.8	3063.8	3079.6	3087.5	3091.8	3091.0	3092.7	3088.3	3095.3	3100.6
35°	3248.4	3255.4	3266.8	3279.1	3289.6	3288.7	3286.1	3286.9	3286.9	3293.1	3298.3
37.5°	3490.8	3492.5	3507.4	3524.9	3530.2	3524.9	3509.2	3505.7	3497.8	3505.7	3514.4
40°	3747.1	3753.3	3783.0	3794.4	3797.0	3787.4	3764.6	3751.5	3734.0	3743.6	3755.9
42.5°	4015.7	4028.0	4055.1	4075.2	4084.0	4077.8	4046.3	4026.2	4003.5	4008.7	4021.0
45°	4313.2	4328.1	4366.5	4385.8	4402.4	4392.8	4362.2	4331.6	4295.7	4298.3	4317.6
47.5°	4645.6	4660.5	4710.4	4742.7	4751.5	4749.7	4715.6	4673.6	4624.6	4622.9	4639.5
50°	5018.3	5033.2	5095.3	5145.2	5170.6	5167.9	5127.7	5068.2	5008.7	5009.6	5030.6
52.5°	5382.3	5400.7	5465.4	5551.1	5601.0	5636.9	5612.4	5556.4	5483.8	5485.5	5504.8
55°	5723.5	5754.1	5828.5	5944.8	6037.6	6138.2	6167.1	6165.3	6121.6	6133.8	6153.1
57.5°	5888.8	5934.3	6048.9	6232.7	6421.6	6626.4	6799.6	6929.1	6984.2	7067.3	7048.1
60°	5575.6	5648.3	5817.1	6087.4	6461.0	6888.0	7345.5	7792.6	8174.0	8461.9	8296.5
62.5°	4565.1	4659.6	4864.4	5210.8	5776.0	6459.3	7335.0	8391.9	9543.2	10237.9	9741.8
65°	2856.5	2954.5	3162.7	3533.7	4195.1	5044.6	6232.7	7984.2	10135.5	11182.8	10173.2
67.5°	1113.7	1167.1	1280.0	1517.0	2014.0	2769.9	3962.4	5950.1	8523.1	9440.9	8364.8
70°	558.2	563.4	584.4	628.2	734.9	954.5	1452.3	2758.5	4888.0	5903.7	4712.1
72.5°	403.3	404.2	414.7	433.9	468.1	517.1	611.5	844.3	1589.7	2429.6	1489.9
75°	308.8	312.3	318.5	329.0	347.3	371.8	405.9	486.4	602.8	699.0	587.9
77.5°	238.0	245.0	249.3	259.0	270.3	287.0	296.6	327.2	380.6	400.7	394.6
80°	181.1	187.2	196.8	204.7	212.6	220.5	217.0	231.0	259.0	275.6	266.8
82.5°	115.5	122.5	150.5	157.5	161.0	166.2	160.1	161.0	173.2	183.7	173.2
85°	74.4	78.7	95.4	104.1	105.0	108.5	105.9	99.7	99.7	91.0	102.4
87.5°	34.1	35.0	42.9	50.7	52.5	47.2	46.4	44.6	35.9	34.1	36.7
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°	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7	2113.7
2.5°	2112.8	2114.6	2115.5	2118.1	2119.0	2119.0	2119.8	2121.6
5°	2129.5	2132.1	2133.0	2136.5	2137.3	2136.5	2138.2	2139.1
7.5°	2159.2	2163.6	2165.3	2168.8	2166.2	2169.7	2170.6	2170.6
10°	2203.0	2207.3	2208.2	2211.7	2210.0	2211.7	2211.7	2210.0
12.5°	2260.7	2261.6	2259.0	2261.6	2258.1	2259.8	2257.2	2255.5
15°	2324.6	2321.9	2315.8	2315.8	2310.6	2311.4	2310.6	2309.7
17.5°	2386.7	2381.4	2377.1	2375.3	2370.9	2370.1	2367.4	2367.4
20°	2454.9	2452.3	2449.7	2446.2	2441.8	2437.4	2436.6	2438.3
22.5°	2537.2	2536.3	2536.3	2534.5	2528.4	2524.0	2521.4	2521.4
25°	2647.4	2639.5	2639.5	2638.7	2636.0	2633.4	2628.2	2630.8
27.5°	2771.6	2767.3	2770.8	2769.9	2767.3	2767.3	2763.8	2763.8
30°	2924.7	2923.0	2928.2	2923.9	2915.1	2914.2	2910.7	2906.4
32.5°	3101.5	3099.7	3107.6	3102.3	3088.3	3080.5	3073.5	3070.0
35°	3298.3	3299.2	3308.8	3305.3	3289.6	3284.3	3272.1	3270.3
37.5°	3513.5	3527.5	3544.2	3547.7	3534.5	3531.0	3517.9	3510.9
40°	3766.4	3784.7	3810.1	3816.2	3802.2	3799.6	3781.2	3771.6
42.5°	4035.8	4067.3	4098.8	4104.1	4090.1	4076.1	4058.6	4051.6
45°	4336.8	4374.4	4415.5	4426.0	4405.0	4388.4	4365.7	4365.7
47.5°	4674.5	4721.7	4768.1	4797.0	4777.7	4760.2	4733.1	4715.6
50°	5073.5	5138.2	5198.6	5228.3	5197.7	5164.4	5117.2	5101.4
52.5°	5573.9	5643.9	5696.4	5680.6	5633.4	5587.0	5535.4	5514.4
55°	6212.6	6236.2	6236.2	6176.7	6082.2	6004.3	5923.0	5895.8
57.5°	7011.3	6920.3	6780.4	6602.8	6379.7	6185.4	6054.2	5992.1
60°	7950.1	7512.6	7018.3	6532.8	6133.8	5804.9	5609.8	5520.5
62.5°	8575.6	7431.3	6440.9	5661.4	5087.5	4691.1	4421.7	4316.7
65°	8014.8	6197.7	4871.4	3938.7	3313.2	2909.9	2643.0	2545.0
67.5°	5870.5	3883.6	2594.0	1859.1	1362.2	1086.6	977.2	931.8
70°	2635.2	1367.4	838.1	654.4	564.3	517.9	497.8	490.8
72.5°	794.4	574.8	484.7	437.4	401.6	378.8	362.2	360.5
75°	479.4	398.9	354.3	326.3	303.6	285.2	276.5	273.8
77.5°	335.1	293.1	272.1	252.0	234.5	220.5	212.6	206.5
80°	235.3	215.2	205.6	194.2	182.9	169.7	158.4	153.1
82.5°	157.5	153.1	153.1	146.1	136.5	124.2	101.5	96.2
85°	101.5	100.6	102.4	99.7	92.7	79.6	65.6	62.1
87.5°	47.2	48.1	53.4	52.5	50.7	42.0	33.2	31.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)