

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: P299413

Luminaire Tested: **GLNA-AF-04-LED-E1-5NQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299413  
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-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17325.4 lumens  
Efficiency: N/A  
Efficacy: 101.3 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

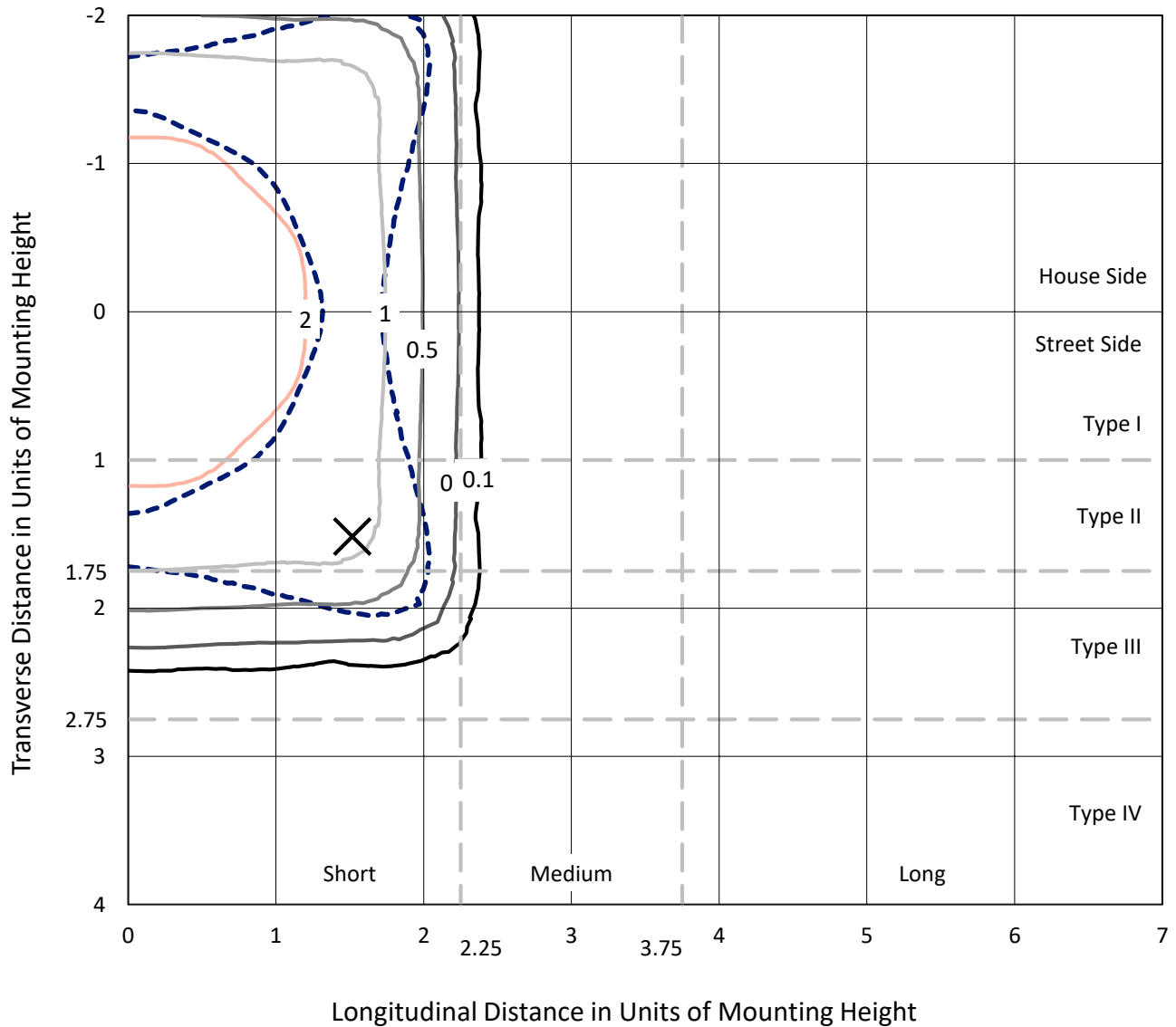
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P299413  
 CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7027-800

### Iso-Footcandle Lines of Horizontal Illumination

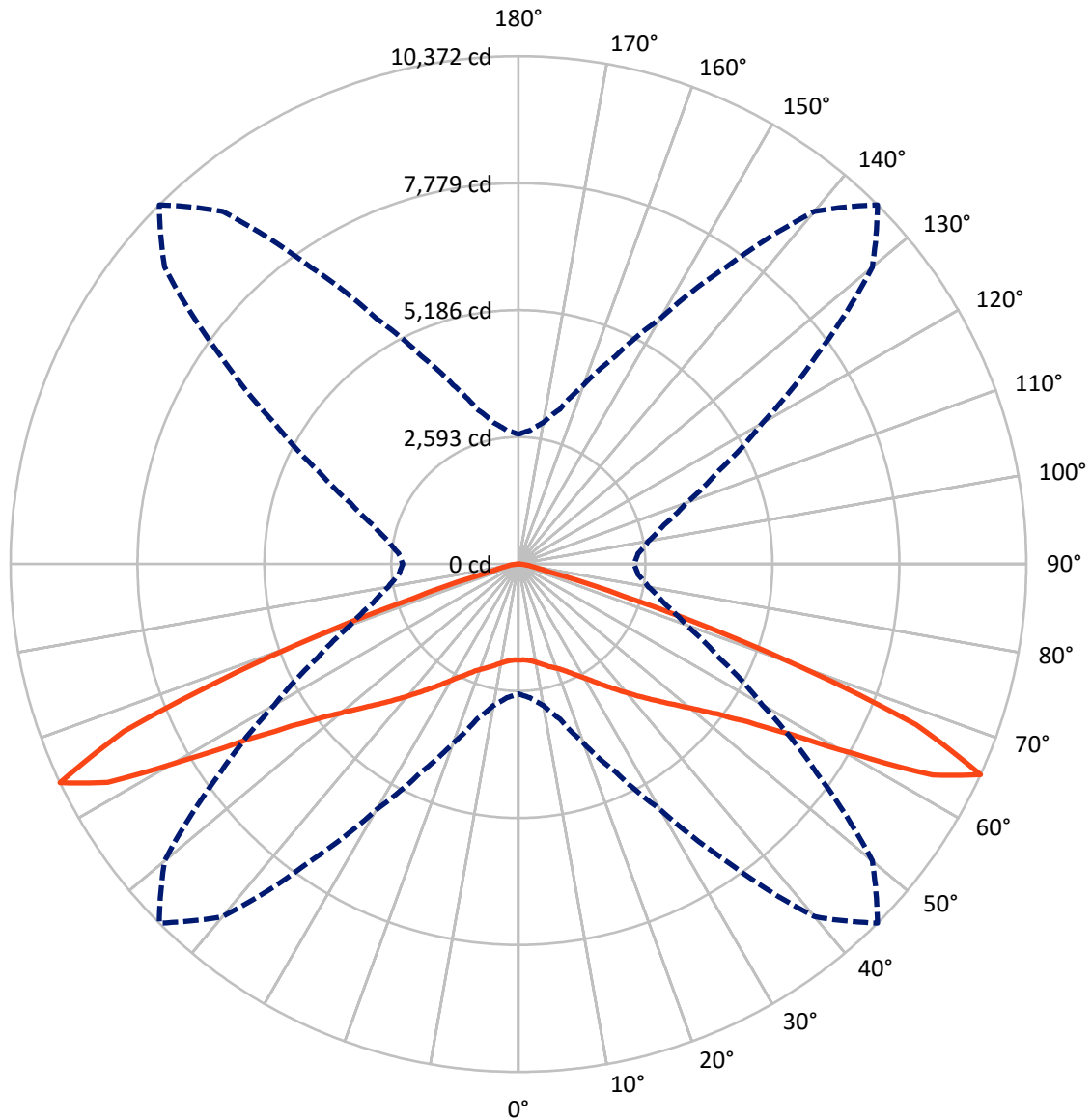
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P299413  
CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7027-800

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P299413

CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7027-800

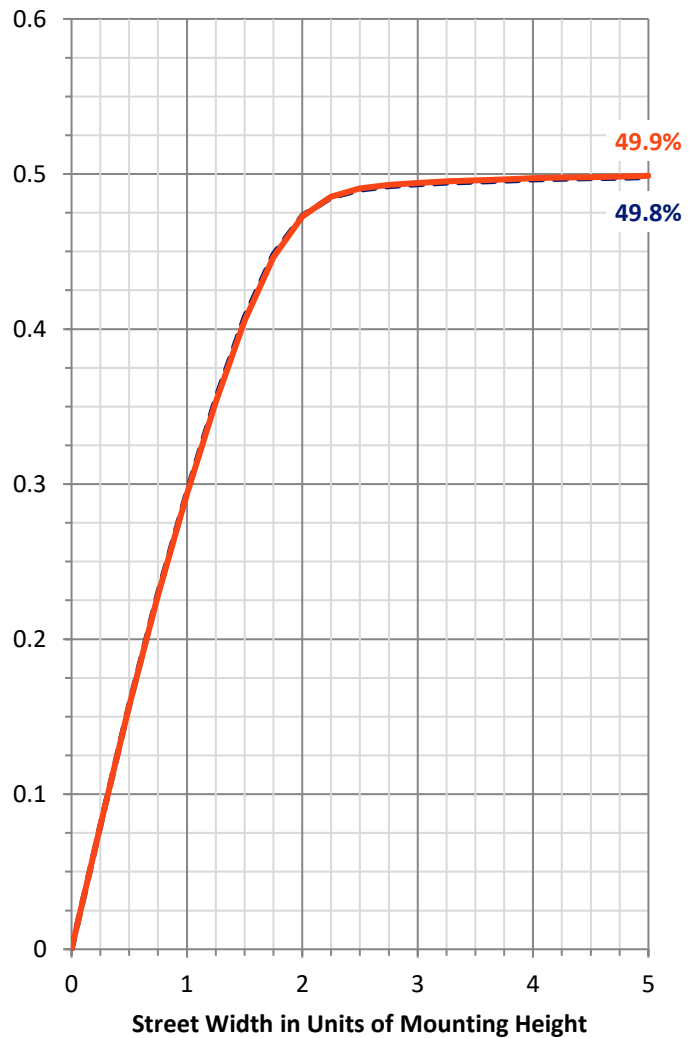
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8662.7	0.0	8662.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	8662.7	0.0	8662.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	17325.4	0.0	17325.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.1	1.1
10°-20°	612.8	3.5
20°-30°	1145.8	6.6
30°-40°	1937.9	11.2
40°-50°	3168.7	18.3
50°-60°	5038.8	29.1
60°-70°	4554.7	26.3
70°-80°	576.4	3.3
80°-90°	99.2	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°	17325.4	100.0
0°-180°	17325.4	100.0



--- HS    — SS

REPORT NUMBER: P299413

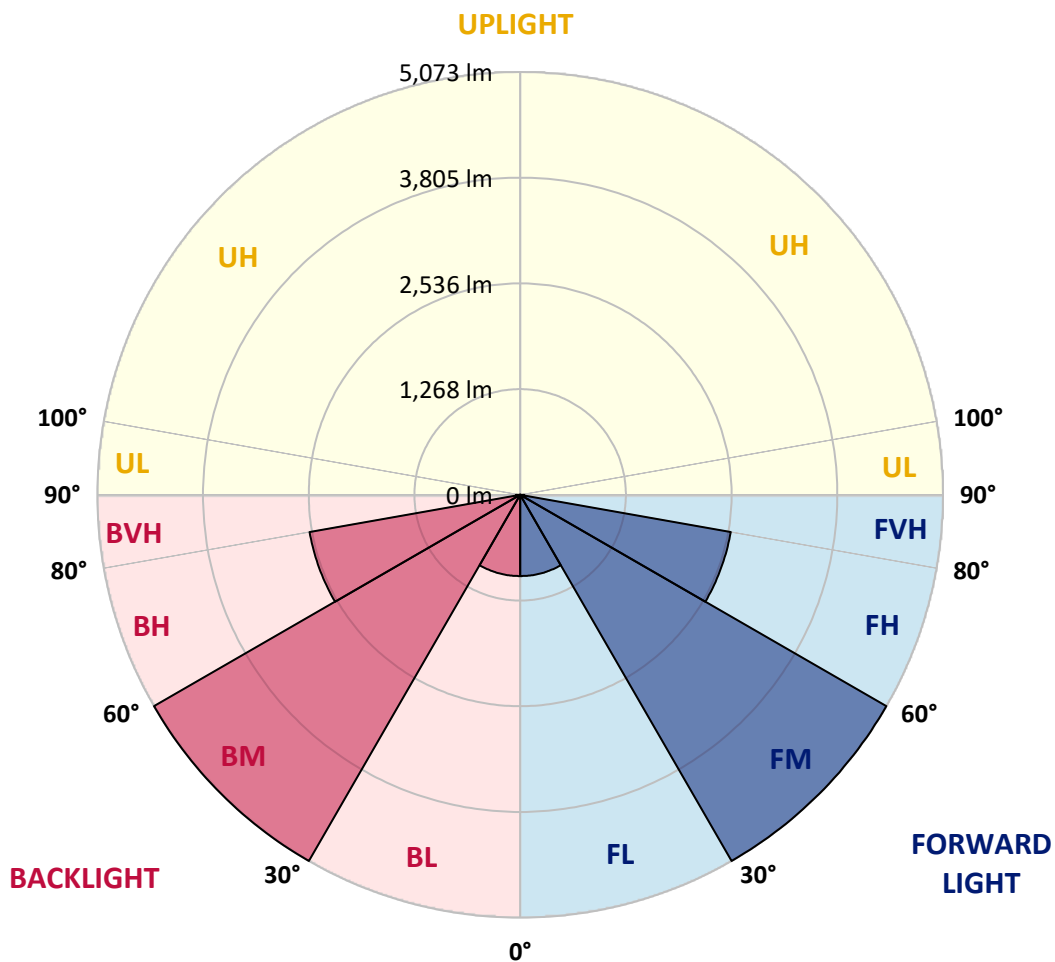
CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7027-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	974.9	5.6			
FM	(30°-60°)	5072.7	29.3			
FH	(60°-80°)	2565.6	14.8			G2/5000
FVH	(80°-90°)	49.6	0.3			G1/100
BL	(0°-30°)	974.9	5.6	B2/1000		
BM	(30°-60°)	5072.7	29.3	B4/8500		
BH	(60°-80°)	2565.6	14.8	B4/5000		G2/5000
BVH	(80°-90°)	49.6	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





REPORT NUMBER: P299413

CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7027-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4
2.5°	1962.0	1963.6	1965.2	1963.6	1965.2	1962.8	1961.2	1963.6	1961.2	1958.8	1960.4
5°	1979.0	1979.9	1979.9	1977.4	1979.9	1978.2	1975.8	1979.0	1976.6	1974.2	1975.8
7.5°	2007.4	2010.7	2008.3	2005.8	2007.4	2005.8	2004.2	2005.0	2004.2	2001.8	2002.6
10°	2045.6	2048.0	2046.4	2045.6	2047.2	2046.4	2044.8	2044.0	2044.8	2042.3	2042.3
12.5°	2091.8	2091.0	2090.2	2091.0	2093.5	2093.5	2092.6	2093.5	2095.1	2095.9	2094.3
15°	2137.3	2138.9	2138.9	2138.9	2143.8	2147.8	2150.3	2151.9	2155.1	2155.9	2152.7
17.5°	2194.1	2194.1	2193.3	2194.1	2198.9	2205.4	2207.9	2211.1	2214.4	2216.8	2212.7
20°	2257.4	2259.0	2259.0	2260.6	2267.1	2274.4	2274.4	2276.0	2274.4	2276.0	2273.6
22.5°	2334.4	2339.3	2339.3	2340.1	2346.6	2355.5	2353.1	2355.5	2351.5	2354.7	2351.5
25°	2435.1	2442.4	2440.7	2440.7	2445.6	2451.3	2452.1	2457.0	2456.2	2460.2	2457.8
27.5°	2548.7	2560.0	2563.3	2562.5	2565.7	2571.4	2573.0	2578.7	2575.4	2578.7	2577.1
30°	2685.0	2689.8	2696.3	2698.8	2702.8	2708.5	2708.5	2709.3	2705.3	2710.1	2712.6
32.5°	2826.2	2835.1	2841.6	2856.2	2863.5	2867.5	2866.7	2868.4	2864.3	2870.8	2875.7
35°	3012.8	3019.3	3029.8	3041.2	3050.9	3050.1	3047.7	3048.5	3048.5	3054.2	3059.0
37.5°	3237.5	3239.2	3253.0	3269.2	3274.1	3269.2	3254.6	3251.3	3244.0	3251.3	3259.5
40°	3475.3	3481.0	3508.6	3519.1	3521.5	3512.6	3491.5	3479.3	3463.1	3472.0	3483.4
42.5°	3724.4	3735.8	3760.9	3779.6	3787.7	3782.0	3752.8	3734.1	3713.0	3717.9	3729.3
45°	4000.3	4014.1	4049.8	4067.6	4083.0	4074.1	4045.7	4017.3	3984.1	3986.5	4004.3
47.5°	4308.6	4322.4	4368.7	4398.7	4406.8	4405.2	4373.5	4334.6	4289.1	4287.5	4302.9
50°	4654.3	4668.1	4725.7	4771.9	4795.5	4793.0	4755.7	4700.5	4645.4	4646.2	4665.6
52.5°	4991.8	5008.9	5068.9	5148.4	5194.7	5228.0	5205.2	5153.3	5086.0	5087.6	5105.4
55°	5308.3	5336.7	5405.7	5513.6	5599.6	5692.9	5719.7	5718.0	5677.5	5688.8	5706.7
57.5°	5461.6	5503.8	5610.1	5780.5	5955.8	6145.7	6306.3	6426.4	6477.5	6554.6	6536.8
60°	5171.2	5238.5	5395.1	5645.8	5992.3	6388.3	6812.6	7227.3	7581.1	7848.0	7694.7
62.5°	4234.0	4321.6	4511.5	4832.8	5357.0	5990.7	6802.9	7783.1	8850.9	9495.2	9035.1
65°	2649.3	2740.2	2933.3	3277.3	3890.7	4678.6	5780.5	7405.0	9400.2	10371.5	9435.1
67.5°	1032.9	1082.4	1187.1	1407.0	1867.9	2568.9	3674.9	5518.4	7904.8	8756.0	7757.9
70°	517.7	522.6	542.0	582.6	681.6	885.3	1346.9	2558.4	4533.4	5475.4	4370.3
72.5°	374.1	374.9	384.6	402.5	434.1	479.5	567.2	783.0	1474.3	2253.3	1381.8
75°	286.4	289.7	295.4	305.1	322.1	344.9	376.5	451.1	559.1	648.3	545.3
77.5°	220.7	227.2	231.3	240.2	250.7	266.1	275.1	303.5	353.0	371.6	365.9
80°	168.0	173.6	182.6	189.9	197.2	204.5	201.2	214.2	240.2	255.6	247.5
82.5°	107.1	113.6	139.6	146.1	149.3	154.2	148.5	149.3	160.7	170.4	160.7
85°	69.0	73.0	88.4	96.6	97.4	100.6	98.2	92.5	92.5	84.4	94.9
87.5°	31.6	32.5	39.8	47.1	48.7	43.8	43.0	41.4	33.3	31.6	34.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299413

CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7027-800

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4	1960.4
2.5°	1959.6	1961.2	1962.0	1964.4	1965.2	1965.2	1966.1	1967.7
5°	1975.0	1977.4	1978.2	1981.5	1982.3	1981.5	1983.1	1983.9
7.5°	2002.6	2006.6	2008.3	2011.5	2009.1	2012.3	2013.1	2013.1
10°	2043.1	2047.2	2048.0	2051.3	2049.6	2051.3	2051.3	2049.6
12.5°	2096.7	2097.5	2095.1	2097.5	2094.3	2095.9	2093.5	2091.8
15°	2155.9	2153.5	2147.8	2147.8	2142.9	2143.8	2142.9	2142.1
17.5°	2213.5	2208.7	2204.6	2203.0	2198.9	2198.1	2195.7	2195.7
20°	2276.8	2274.4	2272.0	2268.7	2264.7	2260.6	2259.8	2261.4
22.5°	2353.1	2352.3	2352.3	2350.7	2345.0	2340.9	2338.5	2338.5
25°	2455.3	2448.0	2448.0	2447.2	2444.8	2442.4	2437.5	2439.9
27.5°	2570.6	2566.5	2569.8	2568.9	2566.5	2566.5	2563.3	2563.3
30°	2712.6	2710.9	2715.8	2711.8	2703.6	2702.8	2699.6	2695.5
32.5°	2876.5	2874.8	2882.1	2877.3	2864.3	2857.0	2850.5	2847.3
35°	3059.0	3059.8	3068.8	3065.5	3050.9	3046.1	3034.7	3033.1
37.5°	3258.6	3271.6	3287.0	3290.3	3278.1	3274.9	3262.7	3256.2
40°	3493.1	3510.2	3533.7	3539.4	3526.4	3524.0	3506.9	3498.0
42.5°	3743.1	3772.3	3801.5	3806.4	3793.4	3780.4	3764.2	3757.7
45°	4022.2	4057.1	4095.2	4105.0	4085.5	4070.1	4049.0	4049.0
47.5°	4335.4	4379.2	4422.2	4449.0	4431.1	4414.9	4389.8	4373.5
50°	4705.4	4765.4	4821.4	4849.0	4820.6	4789.8	4746.0	4731.4
52.5°	5169.5	5234.4	5283.1	5268.5	5224.7	5181.7	5133.8	5114.4
55°	5761.9	5783.8	5783.8	5728.6	5641.0	5568.7	5493.3	5468.1
57.5°	6502.7	6418.3	6288.5	6123.8	5916.8	5736.7	5615.0	5557.4
60°	7373.3	6967.6	6509.2	6058.8	5688.8	5383.7	5202.8	5120.0
62.5°	7953.5	6892.2	5973.6	5250.7	4718.4	4350.8	4100.9	4003.5
65°	7433.4	5748.1	4518.0	3653.0	3072.8	2698.8	2451.3	2360.4
67.5°	5444.6	3601.9	2405.8	1724.3	1263.4	1007.8	906.4	864.2
70°	2444.0	1268.2	777.3	606.9	523.4	480.4	461.7	455.2
72.5°	736.8	533.1	449.5	405.7	372.4	351.3	335.9	334.3
75°	444.7	370.0	328.6	302.7	281.6	264.5	256.4	254.0
77.5°	310.8	271.8	252.4	233.7	217.5	204.5	197.2	191.5
80°	218.3	199.6	190.7	180.1	169.6	157.4	146.9	142.0
82.5°	146.1	142.0	142.0	135.5	126.6	115.2	94.1	89.3
85°	94.1	93.3	94.9	92.5	86.0	73.8	60.9	57.6
87.5°	43.8	44.6	49.5	48.7	47.1	38.9	30.8	29.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)