

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: P299474

Luminaire Tested: **GLNA-AF-04-LED-E1-5NQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299474
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-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K 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: 15728.2 lumens
Efficiency: N/A
Efficacy: 121.9 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

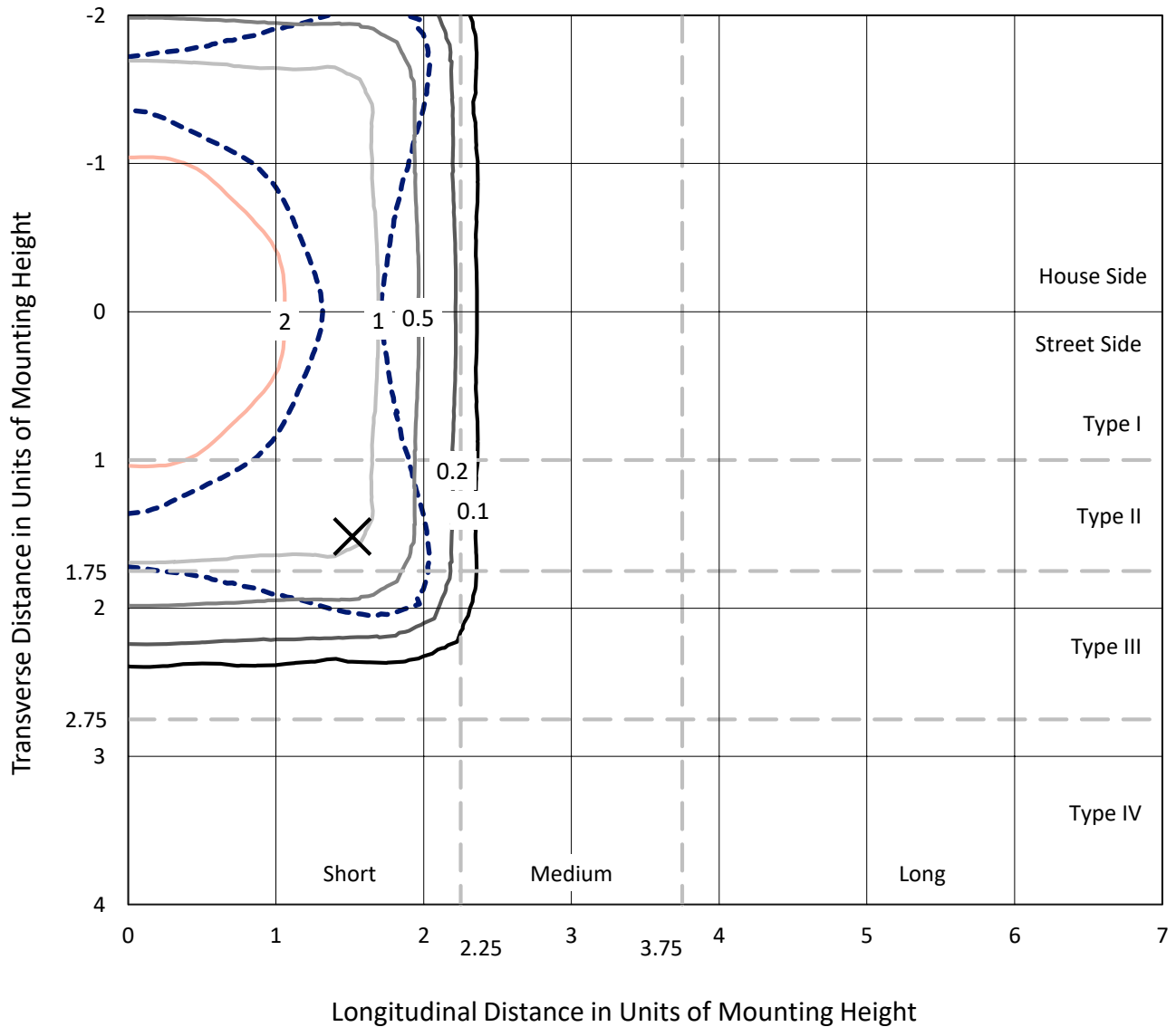


REPORT NUMBER: P299474

CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7030-600

Iso-Footcandle Lines of Horizontal Illumination

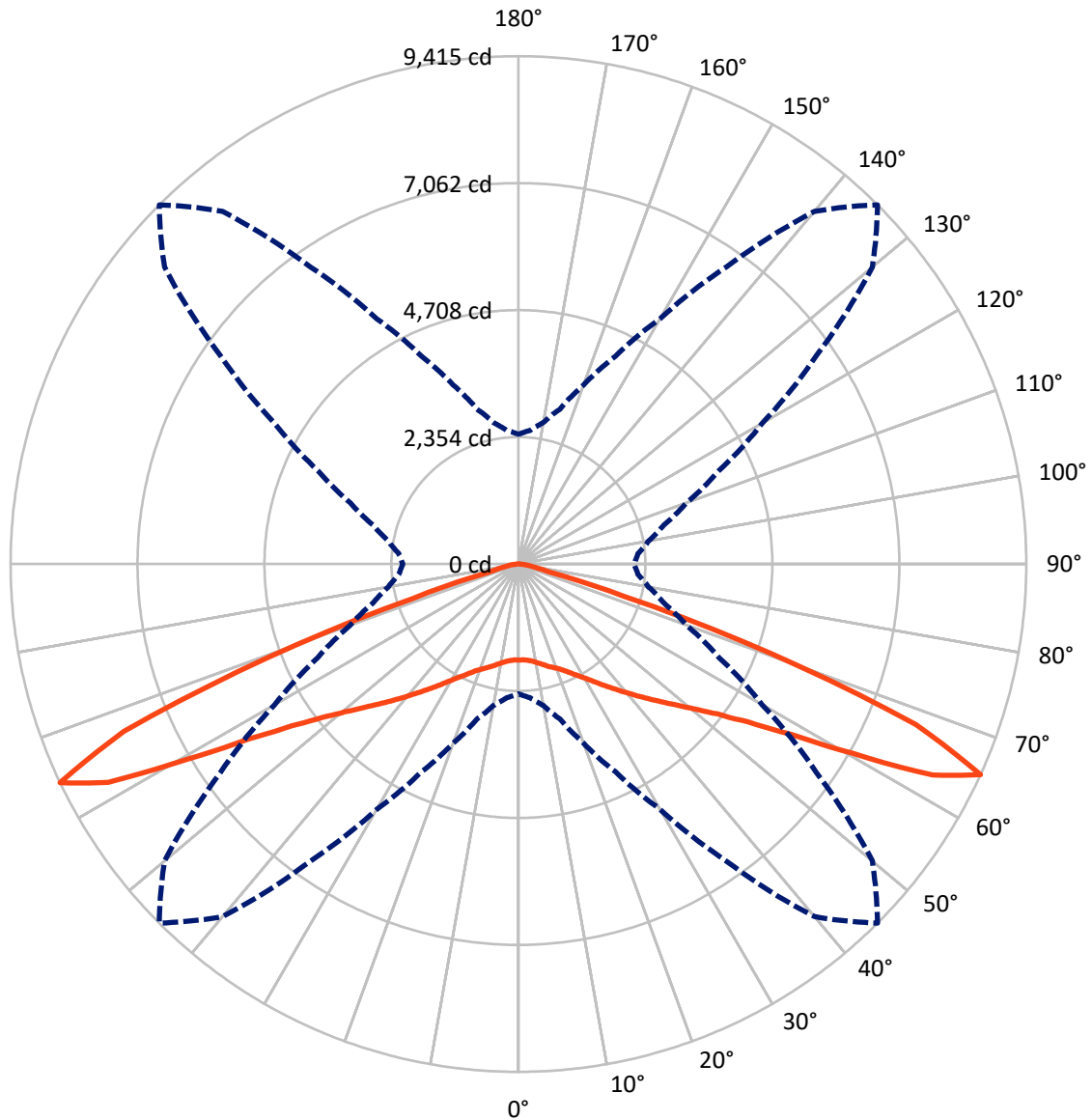
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P299474
CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7030-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299474

CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7864.1	0.0	7864.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7864.1	0.0	7864.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	15728.2	0.0	15728.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	1.1
10°-20°	556.3	3.5
20°-30°	1040.2	6.6
30°-40°	1759.3	11.2
40°-50°	2876.6	18.3
50°-60°	4574.2	29.1
60°-70°	4134.8	26.3
70°-80°	523.3	3.3
80°-90°	90.0	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°	15728.2	100.0
0°-180°	15728.2	100.0



REPORT NUMBER: P299474

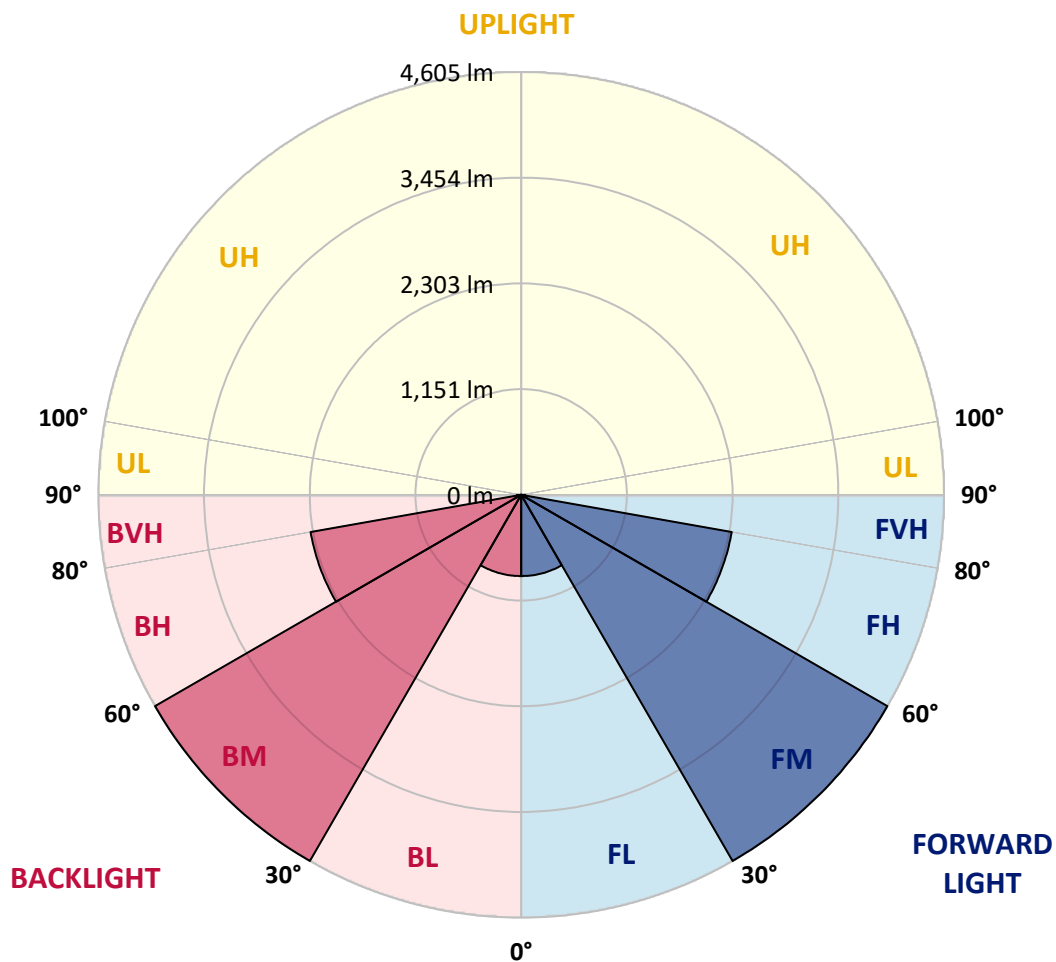
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	885.0	5.6			
FM (30°-60°)	4605.1	29.3			
FH (60°-80°)	2329.0	14.8			G2/5000
FVH (80°-90°)	45.0	0.3			G1/100
BL (0°-30°)	885.0	5.6	B2/1000		
BM (30°-60°)	4605.1	29.3	B3/5000		
BH (60°-80°)	2329.0	14.8	B3/2500		G2/5000
BVH (80°-90°)	45.0	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





REPORT NUMBER: P299474

CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7
2.5°	1781.1	1782.6	1784.1	1782.6	1784.1	1781.9	1780.4	1782.6	1780.4	1778.2	1779.7
5°	1796.6	1797.3	1797.3	1795.1	1797.3	1795.9	1793.6	1796.6	1794.4	1792.2	1793.6
7.5°	1822.4	1825.3	1823.1	1820.9	1822.4	1820.9	1819.4	1820.2	1819.4	1817.2	1818.0
10°	1857.0	1859.2	1857.7	1857.0	1858.5	1857.7	1856.3	1855.5	1856.3	1854.1	1854.1
12.5°	1899.0	1898.2	1897.5	1898.2	1900.5	1900.5	1899.7	1900.5	1901.9	1902.7	1901.2
15°	1940.2	1941.7	1941.7	1941.7	1946.1	1949.8	1952.0	1953.5	1956.4	1957.2	1954.2
17.5°	1991.8	1991.8	1991.1	1991.8	1996.2	2002.1	2004.3	2007.3	2010.2	2012.4	2008.7
20°	2049.3	2050.7	2050.7	2052.2	2058.1	2064.7	2064.7	2066.2	2064.7	2066.2	2064.0
22.5°	2119.2	2123.7	2123.7	2124.4	2130.3	2138.4	2136.2	2138.4	2134.7	2137.6	2134.7
25°	2210.6	2217.2	2215.7	2215.7	2220.1	2225.3	2226.0	2230.5	2229.7	2233.4	2231.2
27.5°	2313.7	2324.0	2327.0	2326.2	2329.2	2334.3	2335.8	2341.0	2338.0	2341.0	2339.5
30°	2437.4	2441.9	2447.8	2450.0	2453.7	2458.8	2458.8	2459.5	2455.9	2460.3	2462.5
32.5°	2565.6	2573.7	2579.6	2592.9	2599.5	2603.2	2602.4	2603.9	2600.2	2606.1	2610.6
35°	2735.0	2740.9	2750.5	2760.8	2769.7	2768.9	2766.7	2767.4	2767.4	2772.6	2777.0
37.5°	2939.1	2940.6	2953.1	2967.8	2972.2	2967.8	2954.5	2951.6	2945.0	2951.6	2959.0
40°	3154.9	3160.1	3185.1	3194.7	3196.9	3188.8	3169.6	3158.6	3143.9	3152.0	3162.3
42.5°	3381.0	3391.4	3414.2	3431.1	3438.5	3433.3	3406.8	3389.9	3370.7	3375.2	3385.5
45°	3631.5	3644.0	3676.4	3692.6	3706.6	3698.5	3672.7	3647.0	3616.8	3619.0	3635.2
47.5°	3911.4	3923.9	3965.9	3993.2	4000.5	3999.1	3970.3	3935.0	3893.7	3892.3	3906.3
50°	4225.2	4237.7	4290.0	4332.0	4353.4	4351.2	4317.3	4267.2	4217.1	4217.8	4235.5
52.5°	4531.6	4547.1	4601.6	4673.8	4715.8	4746.0	4725.4	4678.2	4617.1	4618.6	4634.8
55°	4818.9	4844.7	4907.3	5005.3	5083.4	5168.1	5192.4	5190.9	5154.1	5164.4	5180.6
57.5°	4958.1	4996.4	5092.9	5247.6	5406.7	5579.1	5724.9	5834.0	5880.4	5950.3	5934.1
60°	4694.4	4755.6	4897.7	5125.3	5439.9	5799.3	6184.6	6561.0	6882.2	7124.5	6985.3
62.5°	3843.6	3923.2	4095.6	4387.3	4863.1	5438.4	6175.7	7065.6	8035.0	8619.8	8202.2
65°	2405.0	2487.5	2662.9	2975.2	3532.1	4247.3	5247.6	6722.3	8533.6	9415.4	8565.3
67.5°	937.7	982.6	1077.7	1277.3	1695.7	2332.1	3336.1	5009.7	7176.1	7948.8	7042.7
70°	470.0	474.4	492.1	528.9	618.8	803.6	1222.8	2322.5	4115.4	4970.7	3967.4
72.5°	339.6	340.3	349.2	365.4	394.1	435.3	514.9	710.8	1338.4	2045.6	1254.4
75°	260.0	263.0	268.1	277.0	292.4	313.1	341.8	409.6	507.5	588.6	495.0
77.5°	200.4	206.3	209.9	218.0	227.6	241.6	249.7	275.5	320.4	337.4	332.2
80°	152.5	157.6	165.7	172.4	179.0	185.6	182.7	194.5	218.0	232.0	224.7
82.5°	97.2	103.1	126.7	132.6	135.5	140.0	134.8	135.5	145.8	154.7	145.8
85°	62.6	66.3	80.3	87.7	88.4	91.3	89.1	84.0	84.0	76.6	86.2
87.5°	28.7	29.5	36.1	42.7	44.2	39.8	39.0	37.6	30.2	28.7	30.9
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: P299474

CATALOG NUMBER: GLNA-AF-04-LED-E1-5NQ-7030-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7	1779.7
2.5°	1778.9	1780.4	1781.1	1783.3	1784.1	1784.1	1784.8	1786.3
5°	1792.9	1795.1	1795.9	1798.8	1799.5	1798.8	1800.3	1801.0
7.5°	1818.0	1821.6	1823.1	1826.1	1823.8	1826.8	1827.5	1827.5
10°	1854.8	1858.5	1859.2	1862.2	1860.7	1862.2	1862.2	1860.7
12.5°	1903.4	1904.1	1901.9	1904.1	1901.2	1902.7	1900.5	1899.0
15°	1957.2	1955.0	1949.8	1949.8	1945.4	1946.1	1945.4	1944.7
17.5°	2009.5	2005.1	2001.4	1999.9	1996.2	1995.5	1993.3	1993.3
20°	2066.9	2064.7	2062.5	2059.6	2055.9	2052.2	2051.5	2052.9
22.5°	2136.2	2135.4	2135.4	2134.0	2128.8	2125.1	2122.9	2122.9
25°	2229.0	2222.4	2222.4	2221.6	2219.4	2217.2	2212.8	2215.0
27.5°	2333.6	2329.9	2332.8	2332.1	2329.9	2329.9	2327.0	2327.0
30°	2462.5	2461.0	2465.4	2461.8	2454.4	2453.7	2450.7	2447.0
32.5°	2611.3	2609.8	2616.4	2612.0	2600.2	2593.6	2587.7	2584.8
35°	2777.0	2777.8	2785.9	2782.9	2769.7	2765.2	2754.9	2753.5
37.5°	2958.2	2970.0	2984.0	2987.0	2975.9	2973.0	2961.9	2956.0
40°	3171.1	3186.6	3207.9	3213.1	3201.3	3199.1	3183.6	3175.5
42.5°	3398.0	3424.5	3451.0	3455.4	3443.7	3431.9	3417.1	3411.2
45°	3651.4	3683.1	3717.7	3726.5	3708.8	3694.8	3675.7	3675.7
47.5°	3935.7	3975.5	4014.5	4038.8	4022.6	4007.9	3985.1	3970.3
50°	4271.6	4326.1	4376.9	4402.0	4376.2	4348.2	4308.4	4295.2
52.5°	4693.0	4751.9	4796.1	4782.8	4743.0	4704.0	4660.5	4642.9
55°	5230.7	5250.6	5250.6	5200.5	5120.9	5055.4	4986.9	4964.0
57.5°	5903.2	5826.6	5708.7	5559.2	5371.4	5207.8	5097.4	5045.1
60°	6693.6	6325.3	5909.1	5500.3	5164.4	4887.4	4723.2	4648.0
62.5°	7220.3	6256.8	5422.9	4766.6	4283.4	3949.7	3722.8	3634.4
65°	6748.1	5218.2	4101.5	3316.2	2789.5	2450.0	2225.3	2142.8
67.5°	4942.7	3269.8	2184.1	1565.3	1146.9	914.9	822.8	784.5
70°	2218.7	1151.3	705.7	551.0	475.1	436.1	419.1	413.2
72.5°	668.8	484.0	408.1	368.3	338.1	319.0	305.0	303.5
75°	403.7	335.9	298.3	274.8	255.6	240.1	232.8	230.6
77.5°	282.1	246.8	229.1	212.1	197.4	185.6	179.0	173.8
80°	198.1	181.2	173.1	163.5	154.0	142.9	133.3	128.9
82.5°	132.6	128.9	128.9	123.0	114.9	104.6	85.4	81.0
85°	85.4	84.7	86.2	84.0	78.1	67.0	55.2	52.3
87.5°	39.8	40.5	44.9	44.2	42.7	35.4	28.0	26.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)