

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: P299839

Luminaire Tested: **GLNA-AF-05-LED-E1-5WQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-5WQ-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27131.2 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

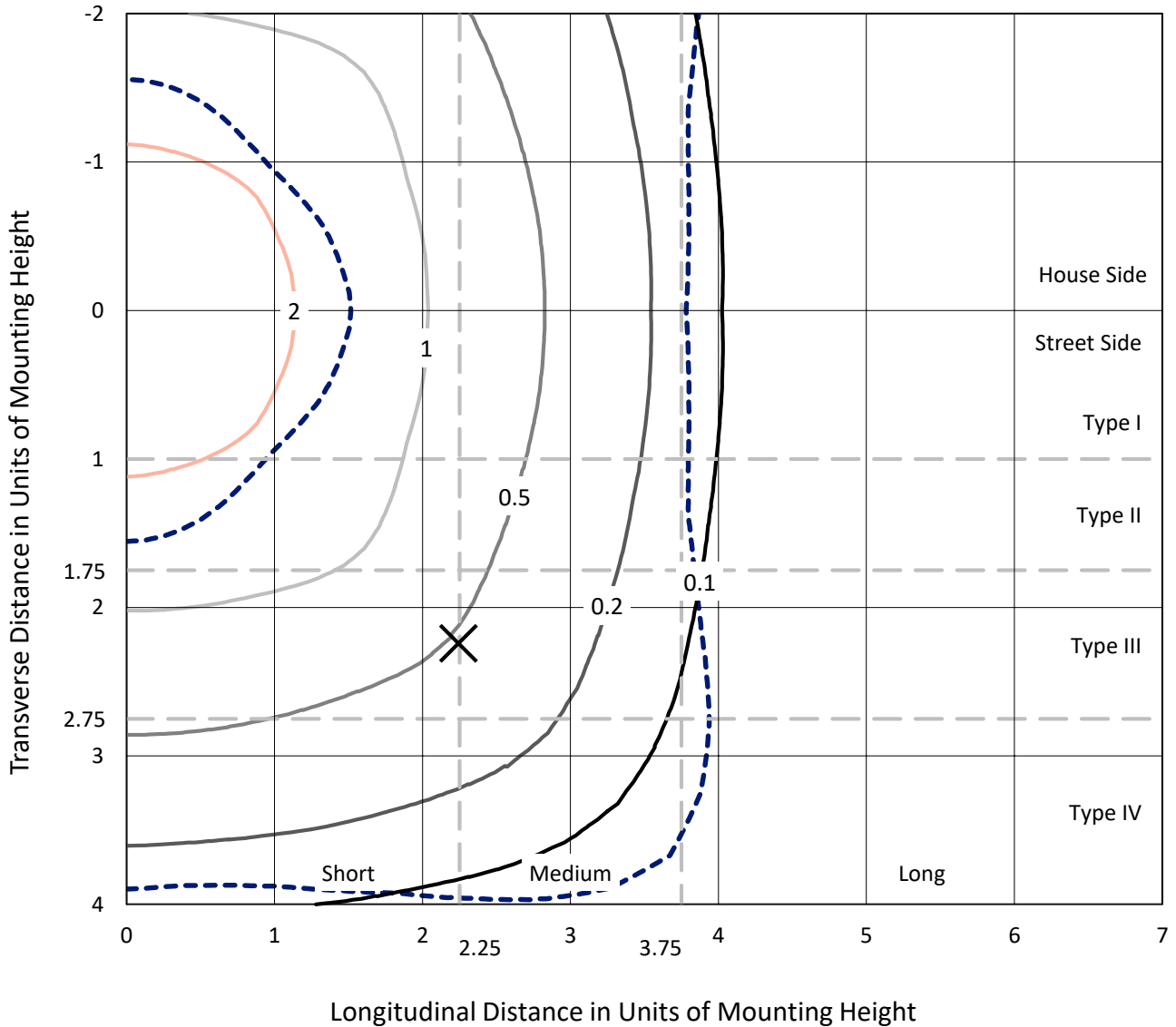
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

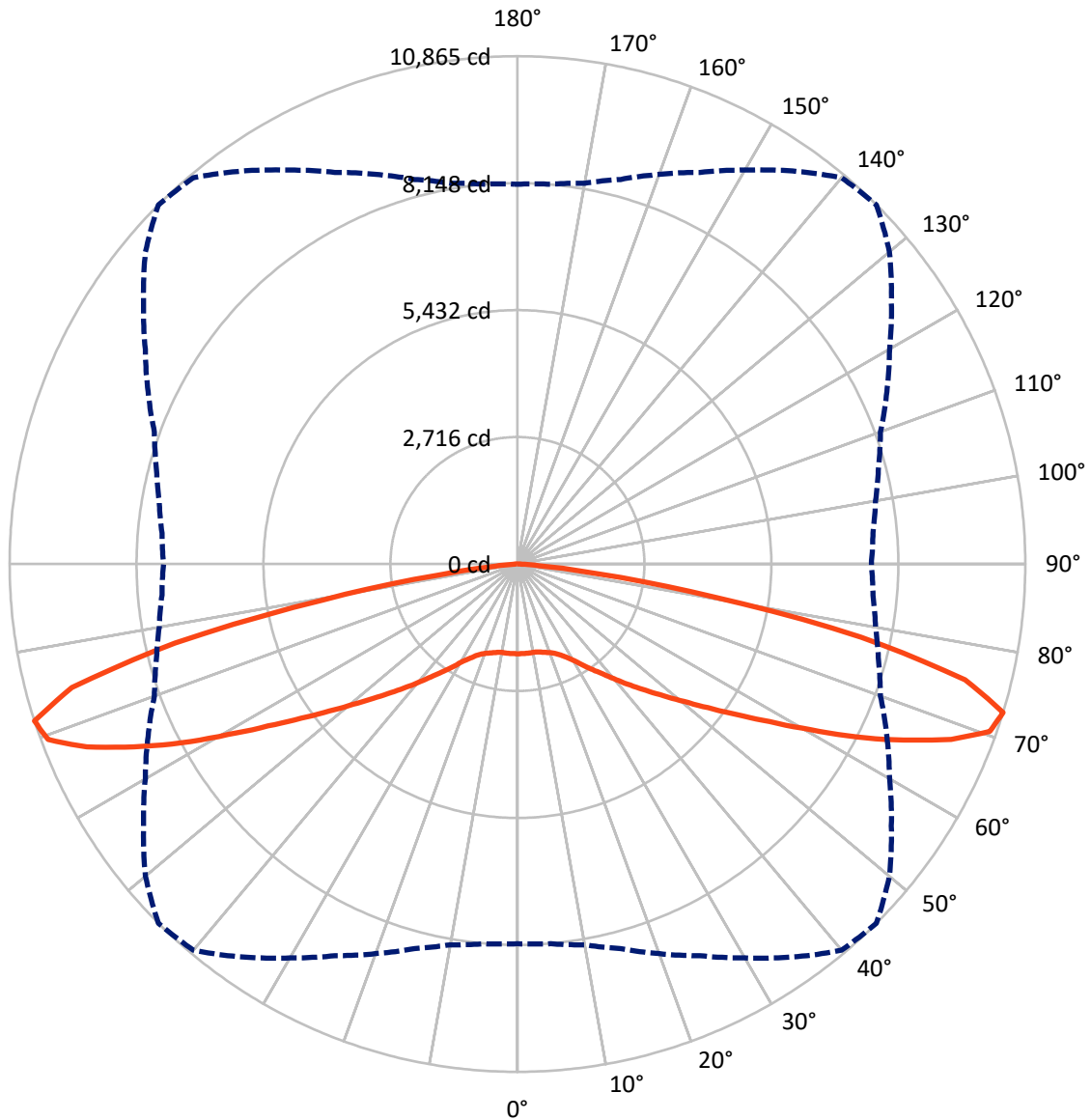
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13565.6	0.0	13565.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13565.6	0.0	13565.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	27131.2	0.0	27131.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.5	0.7
10°-20°	557.2	2.1
20°-30°	1018.2	3.8
30°-40°	1755.6	6.5
40°-50°	3001.2	11.1
50°-60°	4864.5	17.9
60°-70°	8070.1	29.7
70°-80°	7107.8	26.2
80°-90°	573.1	2.1
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°	27131.2	100.0
0°-180°	27131.2	100.0



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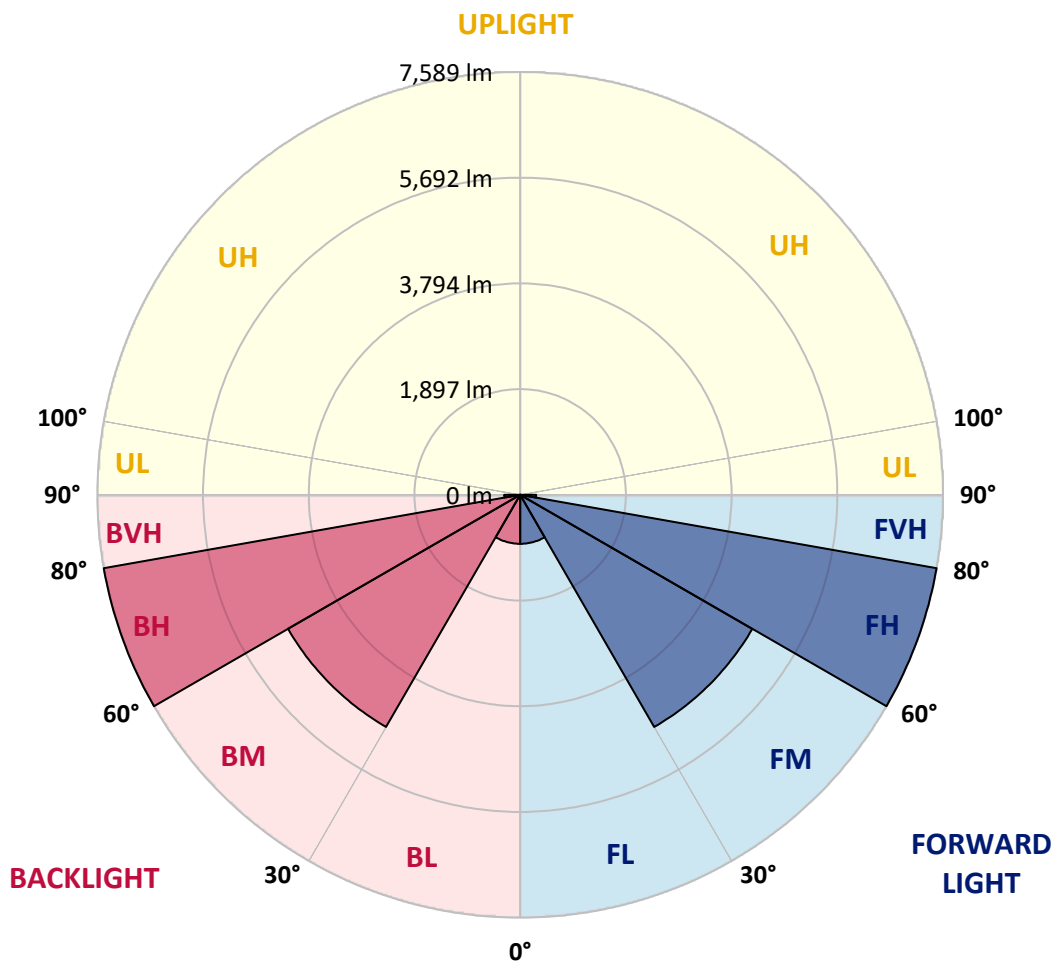
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	879.4	3.2			
FM	(30°-60°)	4810.7	17.7			
FH	(60°-80°)	7589.0	28.0			G4/12000
FVH	(80°-90°)	286.5	1.1			G3/500
BL	(0°-30°)	879.4	3.2	B2/1000		
BM	(30°-60°)	4810.7	17.7	B3/5000		
BH	(60°-80°)	7589.0	28.0	B5		G4/12000
BVH	(80°-90°)	286.5	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3
2.5°	1921.3	1922.6	1923.8	1922.6	1922.6	1921.3	1920.1	1921.3	1920.1	1917.6	1918.8
5°	1927.5	1930.0	1930.0	1927.5	1928.8	1927.5	1925.0	1926.3	1923.8	1920.1	1920.1
7.5°	1935.0	1936.2	1936.2	1933.8	1935.0	1932.5	1930.0	1928.8	1926.3	1921.3	1917.6
10°	1946.2	1947.4	1946.2	1943.7	1943.7	1940.0	1933.8	1931.3	1926.3	1918.8	1915.1
12.5°	1958.6	1959.9	1958.6	1956.2	1954.9	1948.7	1943.7	1940.0	1936.2	1930.0	1923.8
15°	1976.1	1978.6	1976.1	1971.1	1967.4	1962.4	1959.9	1961.1	1962.4	1957.4	1951.2
17.5°	2008.4	2009.7	2005.9	1994.7	1989.8	1984.8	1984.8	1987.3	1991.0	1988.5	1982.3
20°	2068.1	2064.4	2055.7	2042.0	2035.8	2027.1	2025.8	2027.1	2027.1	2025.8	2020.9
22.5°	2142.8	2140.3	2129.1	2111.7	2103.0	2098.0	2090.5	2084.3	2083.1	2079.3	2074.4
25°	2232.4	2231.2	2217.5	2202.5	2196.3	2190.1	2183.9	2175.2	2167.7	2159.0	2154.0
27.5°	2346.9	2341.9	2322.0	2314.5	2305.8	2302.1	2293.4	2283.4	2277.2	2266.0	2259.8
30°	2472.6	2472.6	2456.4	2453.9	2453.9	2445.2	2435.2	2417.8	2406.6	2395.4	2391.7
32.5°	2598.3	2599.5	2583.3	2588.3	2592.0	2598.3	2600.7	2594.5	2587.1	2585.8	2578.3
35°	2779.9	2775.0	2758.8	2762.5	2761.3	2760.0	2760.0	2773.7	2776.2	2778.7	2763.8
37.5°	3005.2	3005.2	2989.0	2989.0	2981.5	2974.1	2964.1	2972.8	2986.5	2990.2	2980.3
40°	3262.7	3271.5	3251.5	3250.3	3252.8	3229.2	3218.0	3231.6	3240.4	3255.3	3244.1
42.5°	3566.4	3560.2	3540.2	3537.8	3524.1	3516.6	3506.6	3517.8	3531.5	3541.5	3545.2
45°	3857.6	3852.6	3830.2	3830.2	3816.5	3810.3	3815.3	3833.9	3840.1	3853.8	3867.5
47.5°	4145.0	4138.8	4123.9	4130.1	4131.3	4142.5	4158.7	4176.1	4193.5	4212.2	4218.4
50°	4438.7	4439.9	4423.7	4438.7	4457.3	4488.5	4532.0	4560.6	4596.7	4620.4	4627.8
52.5°	4706.2	4711.2	4728.6	4763.5	4800.8	4861.8	4936.4	5006.1	5065.8	5105.7	5103.2
55°	5027.3	5034.7	5077.0	5136.8	5197.8	5289.8	5400.6	5523.8	5623.3	5680.6	5644.5
57.5°	5437.9	5454.1	5501.4	5582.3	5673.1	5792.6	5944.4	6129.8	6284.1	6361.2	6302.8
60°	6001.6	6011.6	6068.8	6158.4	6267.9	6416.0	6618.8	6867.7	7085.5	7187.5	7120.3
62.5°	6744.5	6763.2	6809.2	6900.1	7012.0	7180.0	7427.7	7738.8	8010.0	8151.9	8000.1
65°	7631.7	7691.5	7730.1	7822.1	7926.7	8104.6	8363.4	8696.9	8988.1	9081.4	8906.0
67.5°	8510.3	8562.5	8629.7	8735.5	8841.3	9041.6	9281.8	9605.3	9925.1	10009.7	9737.2
70°	8894.8	8924.7	9029.2	9173.5	9376.4	9612.8	9890.3	10253.6	10649.4	10719.0	10373.1
72.5°	8124.5	8154.4	8271.4	8516.5	8869.9	9245.7	9729.8	10263.6	10786.2	10864.6	10388.0
75°	6144.7	6096.2	6269.2	6593.9	7070.5	7594.4	8271.4	9036.6	9792.0	9890.3	9321.6
77.5°	3175.6	3169.4	3300.1	3703.3	4271.9	4868.0	5613.4	6478.2	7217.4	7516.0	7053.1
80°	894.7	904.7	966.9	1167.2	1499.5	1930.0	2512.4	3322.5	3927.2	4235.8	3977.0
82.5°	350.9	378.3	401.9	439.3	482.8	546.3	729.2	1085.1	1455.9	1739.6	1424.8
85°	125.7	134.4	190.4	225.2	229.0	241.4	275.0	321.0	387.0	461.7	379.5
87.5°	47.3	52.3	61.0	100.8	99.5	90.8	110.7	115.7	87.1	79.6	98.3
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°	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3	1921.3
2.5°	1916.3	1917.6	1917.6	1918.8	1920.1	1920.1	1922.6	1922.6
5°	1917.6	1917.6	1915.1	1916.3	1915.1	1915.1	1916.3	1916.3
7.5°	1915.1	1913.8	1911.4	1910.1	1907.6	1907.6	1907.6	1907.6
10°	1911.4	1910.1	1907.6	1906.4	1905.1	1905.1	1905.1	1905.1
12.5°	1921.3	1917.6	1915.1	1913.8	1913.8	1913.8	1913.8	1913.8
15°	1947.4	1938.7	1932.5	1932.5	1933.8	1936.2	1936.2	1938.7
17.5°	1979.8	1969.8	1963.6	1958.6	1961.1	1964.9	1967.4	1969.8
20°	2018.4	2013.4	2004.7	1999.7	1999.7	2004.7	2007.2	2008.4
22.5°	2071.9	2068.1	2064.4	2058.2	2058.2	2060.7	2065.7	2065.7
25°	2151.5	2149.0	2146.5	2141.6	2140.3	2140.3	2142.8	2145.3
27.5°	2251.1	2252.3	2249.8	2248.6	2244.9	2243.6	2247.3	2246.1
30°	2384.2	2390.4	2396.7	2391.7	2385.5	2381.7	2378.0	2373.0
32.5°	2564.7	2557.2	2552.2	2543.5	2532.3	2522.3	2514.9	2506.2
35°	2735.1	2722.7	2717.7	2725.2	2723.9	2717.7	2709.0	2701.5
37.5°	2944.2	2941.7	2944.2	2957.9	2955.4	2961.6	2944.2	2942.9
40°	3208.0	3210.5	3227.9	3244.1	3252.8	3261.5	3251.5	3241.6
42.5°	3514.1	3512.9	3519.1	3541.5	3556.4	3566.4	3545.2	3542.7
45°	3837.6	3828.9	3833.9	3852.6	3867.5	3878.7	3855.1	3855.1
47.5°	4193.5	4178.6	4162.4	4183.6	4192.3	4199.8	4181.1	4174.9
50°	4590.5	4559.4	4524.5	4533.3	4533.3	4530.8	4507.1	4505.9
52.5°	5045.9	4988.7	4925.2	4901.6	4887.9	4873.0	4831.9	4812.0
55°	5569.8	5484.0	5384.4	5323.4	5291.1	5250.0	5181.6	5162.9
57.5°	6182.1	6047.7	5875.9	5801.3	5729.1	5661.9	5586.0	5564.8
60°	6907.5	6709.7	6481.9	6343.8	6265.4	6200.7	6122.3	6118.6
62.5°	7716.4	7404.0	7146.4	7022.0	6964.8	6907.5	6832.9	6842.8
65°	8538.9	8212.9	7971.5	7870.7	7817.2	7769.9	7695.2	7706.4
67.5°	9350.2	9050.3	8785.3	8682.0	8622.3	8562.5	8495.3	8506.5
70°	9932.6	9560.5	9261.9	9032.9	8889.8	8728.0	8623.5	8597.4
72.5°	9765.8	9192.2	8718.1	8263.9	7997.6	7781.1	7634.2	7570.8
75°	8451.8	7667.8	7058.1	6500.6	6187.0	5931.9	5746.5	5630.8
77.5°	6276.6	5395.6	4675.1	4033.0	3525.3	3184.4	2944.2	2788.6
80°	3435.7	2613.2	1910.1	1342.7	986.8	820.0	724.2	678.2
82.5°	1070.2	690.6	508.9	439.3	408.2	390.7	362.1	316.1
85°	341.0	298.6	277.5	265.1	252.6	220.3	151.8	138.1
87.5°	131.9	135.6	134.4	126.9	129.4	93.3	74.7	66.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)