

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: LUMARK

Report Number: P270424

Luminaire Tested: **NAV-AF-03-D-UNV-RW-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270424
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-RW-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17641.1 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

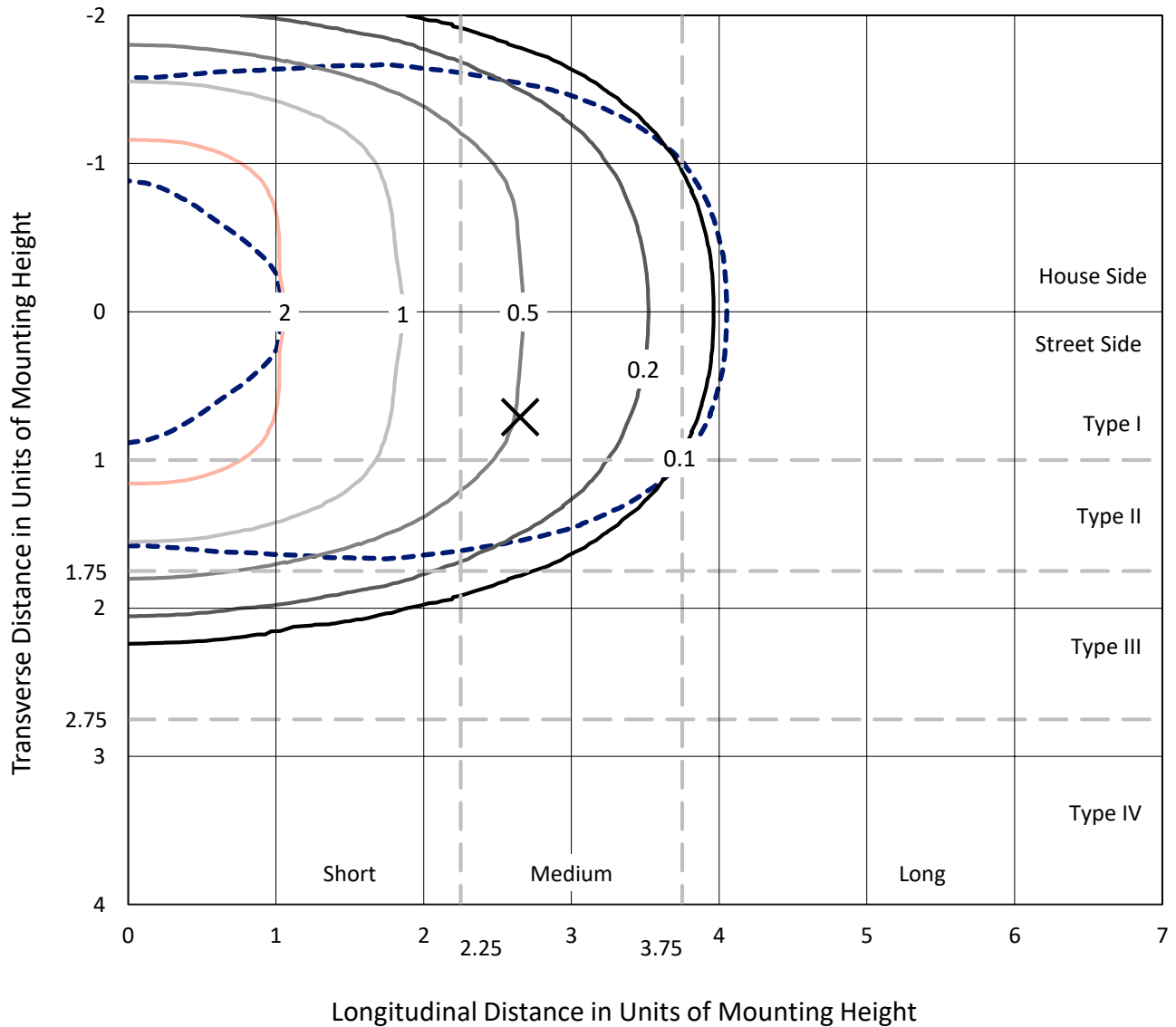
Input Watts (W): 191
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270424
 CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

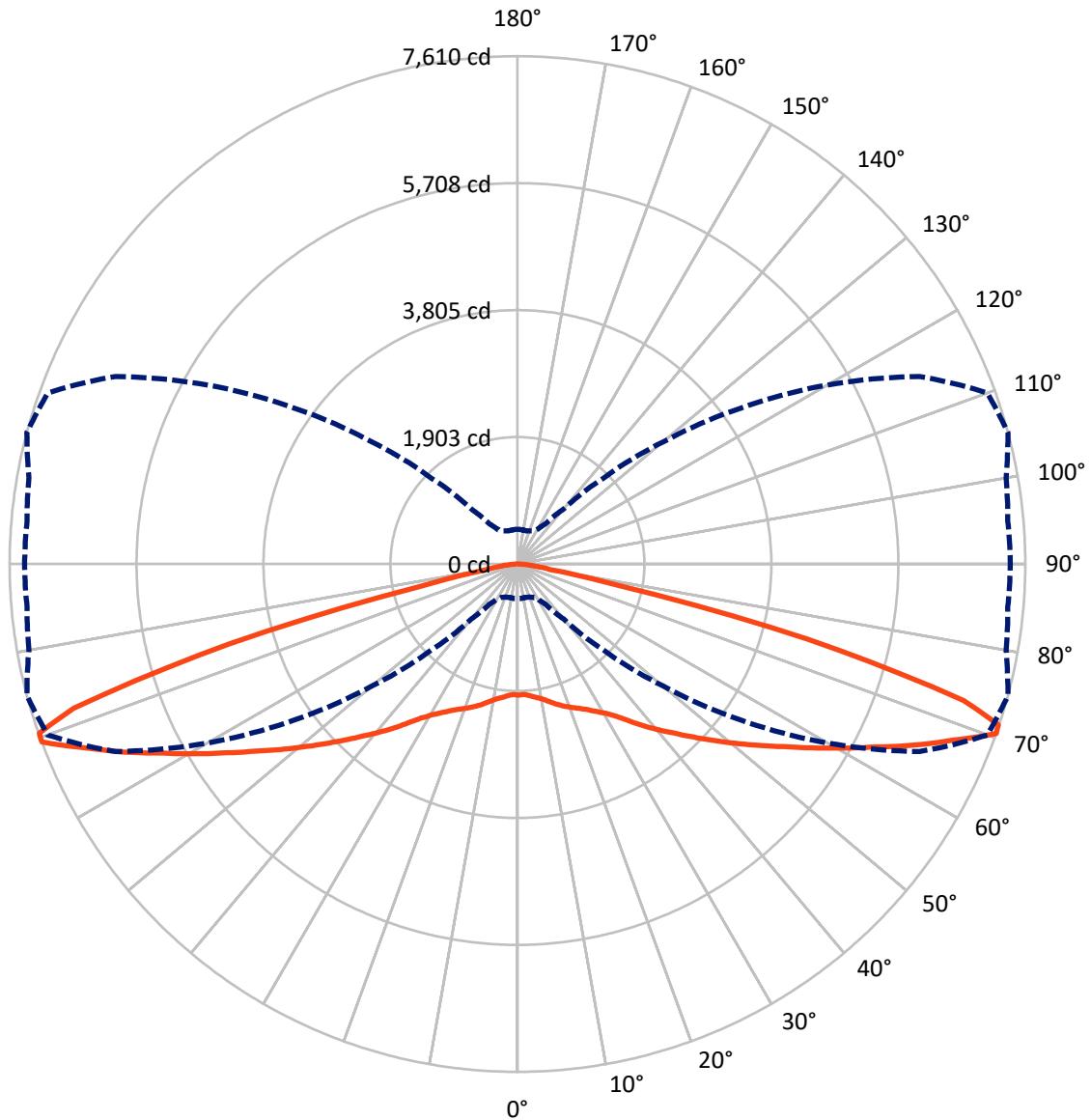
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270424
CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P270424

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8820.6	0.0	8820.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8820.6	0.0	8820.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	17641.1	0.0	17641.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.4	1.1
10°-20°	584.4	3.3
20°-30°	1097.6	6.2
30°-40°	1933.4	11.0
40°-50°	3204.3	18.2
50°-60°	4457.7	25.3
60°-70°	4208.1	23.9
70°-80°	1797.3	10.2
80°-90°	169.8	1.0
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°	17641.1	100.0
0°-180°	17641.1	100.0

Coefficient of Utilization



REPORT NUMBER: P270424

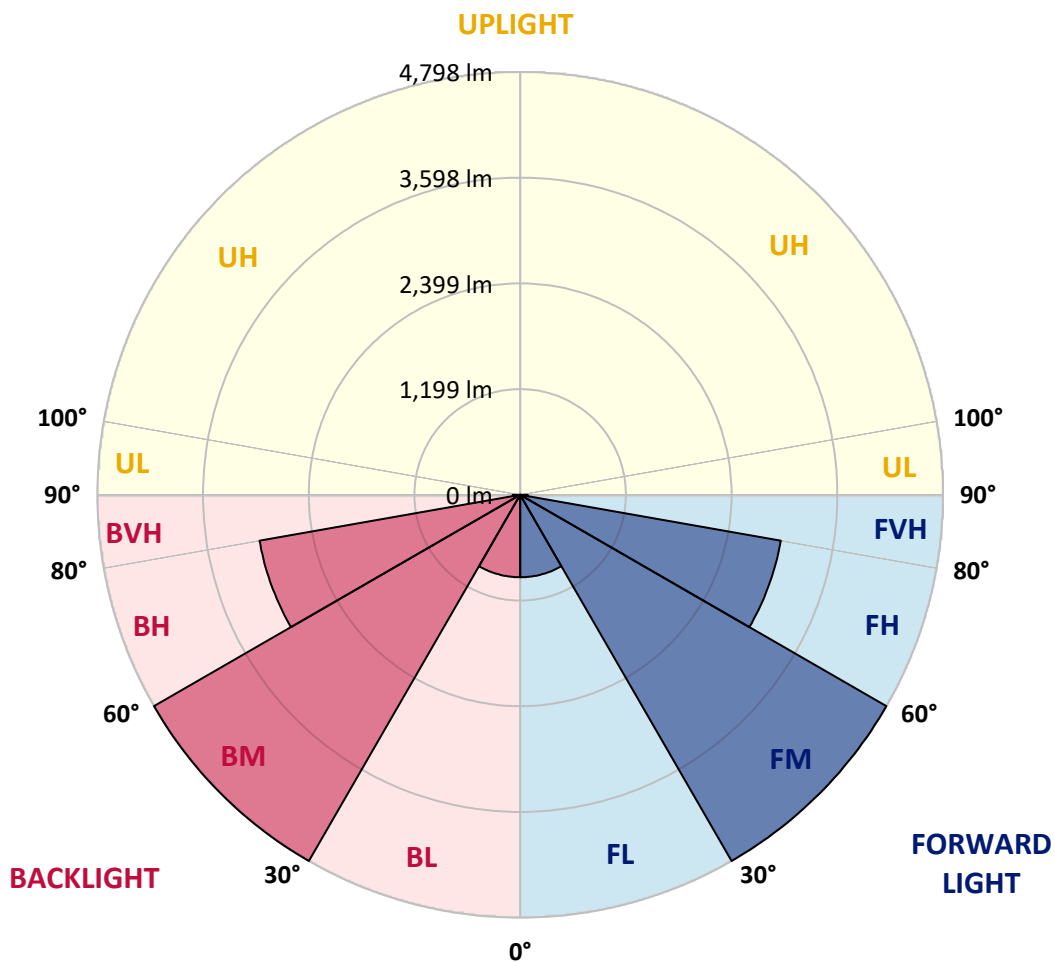
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	935.2	5.3			
FM	(30°-60°)	4797.7	27.2			
FH	(60°-80°)	3002.7	17.0			G2/5000
FVH	(80°-90°)	84.9	0.5			G1/100
BL	(0°-30°)	935.2	5.3	B2/1000		
BM	(30°-60°)	4797.7	27.2	B3/5000		
BH	(60°-80°)	3002.7	17.0	B4/5000		G4/5000
BVH	(80°-90°)	84.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium





REPORT NUMBER: P270424

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6
2.5°	1976.7	1975.6	1976.7	1973.3	1974.5	1973.3	1973.3	1968.9	1968.9	1966.7	1963.4
5°	1954.5	1956.8	1956.8	1956.8	1960.1	1960.1	1964.6	1965.6	1968.9	1972.3	1974.5
7.5°	1918.2	1919.1	1922.6	1924.7	1931.4	1940.2	1949.1	1958.9	1967.8	1978.8	1991.1
10°	1887.1	1889.3	1894.9	1900.5	1912.5	1923.6	1939.1	1954.5	1970.1	1988.8	2007.6
12.5°	1870.5	1873.9	1882.7	1891.6	1910.3	1924.7	1945.6	1970.1	1991.1	2008.7	2029.7
15°	1872.7	1873.9	1886.0	1898.2	1924.7	1944.7	1974.5	2003.2	2028.6	2048.6	2072.8
17.5°	1904.9	1907.0	1919.1	1936.8	1962.3	1987.7	2019.7	2049.7	2083.9	2107.2	2135.9
20°	1967.8	1971.2	1984.4	2003.2	2030.9	2057.4	2090.5	2121.4	2156.9	2184.5	2213.2
22.5°	2049.7	2055.1	2069.5	2092.7	2120.4	2152.5	2186.7	2218.8	2252.0	2279.5	2304.0
25°	2159.0	2165.8	2181.3	2204.4	2232.1	2266.3	2301.6	2334.9	2369.1	2390.1	2410.1
27.5°	2306.0	2317.2	2333.7	2352.5	2376.8	2413.3	2446.5	2474.1	2507.3	2530.5	2543.8
30°	2504.0	2519.4	2532.7	2552.7	2570.3	2609.0	2635.5	2657.6	2683.1	2696.4	2699.6
32.5°	2746.1	2760.5	2773.7	2788.1	2812.5	2847.8	2873.3	2885.4	2898.7	2896.4	2884.3
35°	3019.2	3030.3	3038.0	3063.4	3103.3	3126.5	3145.2	3149.6	3151.9	3128.6	3105.4
37.5°	3306.7	3319.9	3326.6	3366.3	3403.9	3430.4	3439.3	3449.2	3442.7	3403.9	3361.8
40°	3617.2	3631.7	3651.5	3685.8	3730.0	3755.5	3766.6	3765.4	3759.9	3714.5	3646.0
42.5°	3922.4	3940.1	3956.7	4016.3	4052.9	4095.9	4101.5	4100.4	4088.2	4036.3	3956.7
45°	4181.2	4202.1	4236.3	4302.7	4361.4	4413.3	4434.3	4441.9	4429.8	4374.6	4283.8
47.5°	4394.5	4408.8	4451.9	4532.7	4607.9	4684.1	4726.2	4755.9	4754.9	4715.1	4618.8
50°	4540.4	4556.9	4610.0	4700.7	4794.7	4884.3	4967.1	5034.6	5066.6	5037.9	4948.4
52.5°	4582.4	4603.5	4673.1	4781.4	4890.8	5011.4	5135.2	5254.5	5326.4	5344.0	5274.5
55°	4405.5	4428.7	4530.4	4680.8	4861.0	5039.0	5226.9	5397.1	5545.2	5613.9	5586.2
57.5°	3890.3	3906.9	4036.3	4230.8	4488.4	4801.4	5117.5	5429.3	5683.4	5861.5	5892.4
60°	3076.7	3097.6	3239.2	3444.8	3737.8	4133.6	4575.7	5086.6	5585.1	5993.0	6195.3
62.5°	2076.2	2090.5	2226.4	2414.5	2735.1	3116.5	3609.5	4256.3	4967.1	5695.7	6266.0
65°	1090.1	1090.1	1181.8	1313.3	1568.7	1910.3	2415.5	3078.9	3924.6	4834.5	5788.5
67.5°	632.3	631.2	652.3	682.2	762.8	901.0	1179.6	1667.2	2467.6	3526.7	4612.3
70°	521.8	518.5	515.2	515.2	527.3	548.3	601.4	735.2	1075.7	1818.6	2837.8
71°	498.6	496.4	487.5	484.2	489.8	500.9	524.0	586.0	763.9	1240.4	2119.3
72.5°	470.9	465.4	452.1	446.6	447.7	452.1	458.8	483.1	537.2	705.3	1208.3
75°	428.9	415.6	399.0	391.3	388.1	386.9	386.9	393.5	405.8	425.6	495.2
77.5°	380.3	361.5	343.8	336.1	330.5	327.3	325.0	320.6	318.4	327.3	352.7
80°	321.8	301.8	287.5	283.1	279.7	273.1	264.2	255.4	249.9	254.3	269.8
82.5°	248.7	228.9	231.0	232.1	226.6	215.6	206.7	196.8	186.8	184.6	192.3
85°	197.8	187.9	181.3	195.7	183.6	170.3	158.1	141.6	118.2	97.2	106.1
87.5°	85.1	86.2	123.8	186.8	163.6	131.5	109.5	88.5	56.4	42.0	43.1
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: P270424

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-1200

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6	1964.6
2.5°	1962.3	1962.3	1958.9	1956.8	1956.8	1956.8	1954.5	1955.7
5°	1975.6	1977.8	1980.0	1978.8	1982.2	1985.6	1984.4	1983.3
7.5°	1997.7	2004.3	2010.9	2014.3	2018.8	2023.2	2024.2	2020.8
10°	2019.7	2033.0	2043.0	2051.9	2057.4	2061.8	2065.2	2064.0
12.5°	2047.4	2066.2	2083.9	2101.7	2113.7	2120.4	2127.0	2124.9
15°	2092.7	2113.7	2135.9	2159.0	2177.9	2187.8	2197.8	2195.5
17.5°	2154.7	2173.4	2191.1	2214.3	2237.6	2248.6	2259.6	2258.6
20°	2232.1	2246.4	2256.4	2269.7	2291.8	2304.0	2313.9	2310.5
22.5°	2320.5	2325.0	2326.0	2330.5	2348.1	2362.5	2375.7	2379.2
25°	2416.7	2413.3	2406.6	2403.4	2415.5	2431.1	2447.6	2452.1
27.5°	2536.1	2525.0	2508.4	2495.1	2498.5	2518.4	2537.2	2541.7
30°	2686.4	2661.0	2625.7	2600.1	2595.7	2616.8	2636.6	2643.4
32.5°	2857.8	2823.6	2774.9	2736.1	2719.6	2738.4	2756.1	2766.1
35°	3061.2	3023.7	2965.0	2915.3	2888.7	2900.8	2931.9	2942.8
37.5°	3302.2	3250.2	3185.0	3122.0	3077.8	3080.0	3113.2	3126.5
40°	3568.6	3493.5	3410.5	3332.1	3267.9	3263.5	3293.4	3303.2
42.5°	3846.2	3750.0	3652.7	3549.8	3470.2	3455.9	3494.5	3495.7
45°	4144.6	4020.9	3900.4	3780.8	3698.0	3672.5	3710.1	3714.5
47.5°	4463.0	4308.2	4165.6	4036.3	3946.8	3906.9	3943.4	3950.0
50°	4794.7	4634.4	4468.4	4324.8	4219.8	4171.1	4214.3	4218.7
52.5°	5123.0	4971.5	4806.8	4642.1	4514.9	4459.6	4510.5	4526.0
55°	5453.5	5307.6	5152.9	4988.1	4827.9	4779.2	4834.5	4851.0
57.5°	5797.3	5656.9	5516.5	5350.8	5194.9	5120.8	5180.4	5203.7
60°	6176.6	6052.7	5920.1	5753.1	5599.4	5513.3	5564.1	5590.6
62.5°	6549.2	6523.8	6403.2	6229.7	6035.1	5948.8	5992.0	6010.6
65°	6580.1	6992.4	6986.8	6814.5	6542.4	6397.6	6409.9	6418.7
67.5°	5743.3	6689.5	7294.2	7348.5	7045.4	6818.9	6792.4	6797.8
70°	4066.1	5365.0	6648.6	7491.1	7610.4	7434.6	7377.2	7386.0
71°	3258.0	4603.5	6016.3	7149.4	7601.5	7550.8	7518.6	7541.9
72.5°	2079.4	3391.7	4767.0	6122.4	6990.3	7238.9	7275.5	7289.8
75°	755.0	1459.2	2469.7	3538.8	4485.1	5136.2	5494.5	5523.1
77.5°	405.8	523.0	808.1	1207.2	1516.8	1682.6	1702.5	1710.3
80°	298.4	346.0	395.8	452.1	487.5	494.2	482.0	456.6
82.5°	211.1	238.8	258.7	278.6	292.9	280.8	233.3	178.0
85°	122.7	134.8	146.0	155.9	158.1	149.3	98.4	80.7
87.5°	48.7	53.1	51.9	58.6	56.4	51.9	38.6	33.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)