

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: P270566

Luminaire Tested: **NAV-AF-05-D-UNV-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270566
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-05-D-UNV-5NQ-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17695.1 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

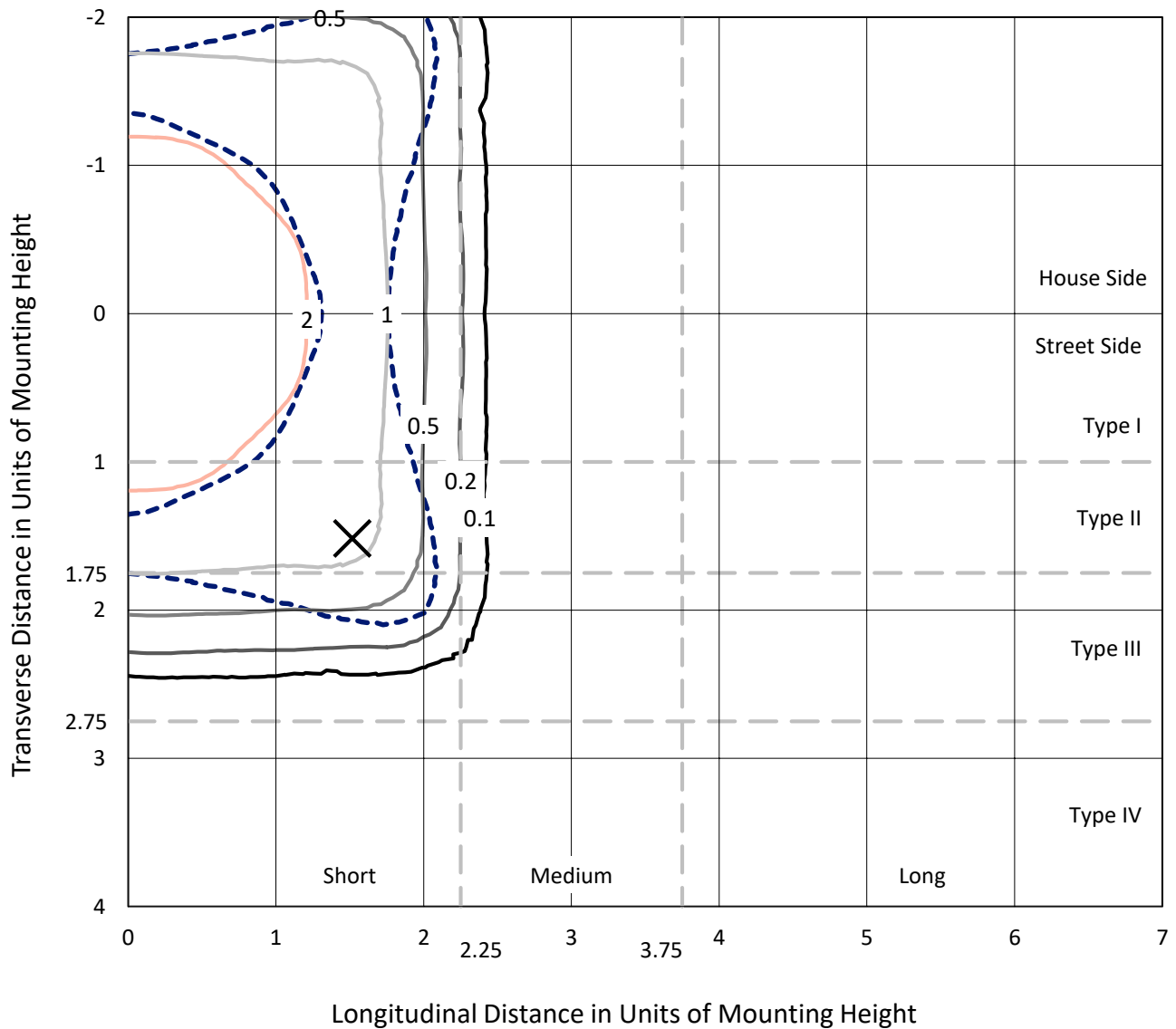
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

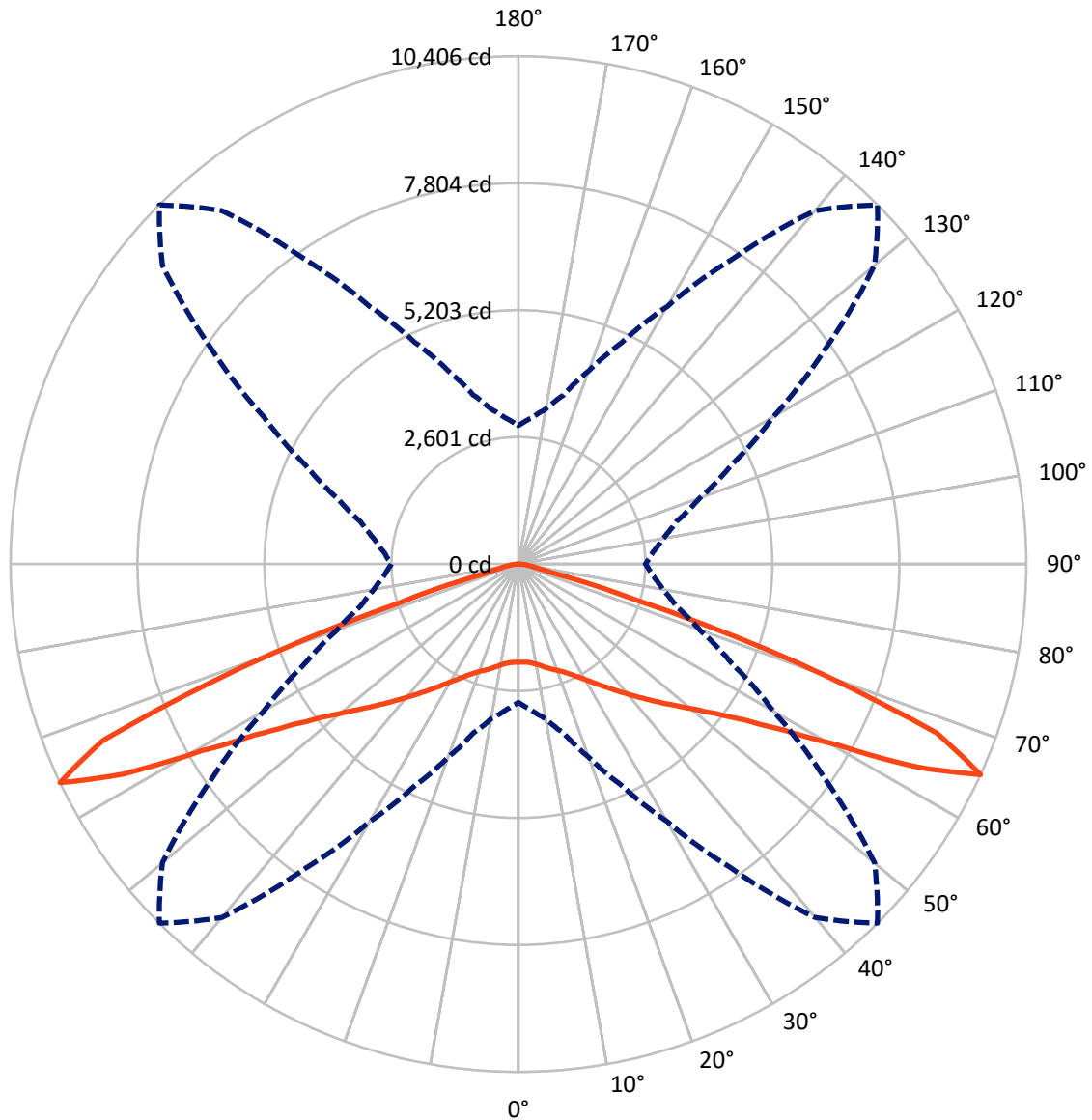
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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
House Side	Lumens	8847.6	0.0	8847.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8847.6	0.0	8847.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	17695.1	0.0	17695.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.0	1.1
10°-20°	628.2	3.6
20°-30°	1171.9	6.6
30°-40°	1976.0	11.2
40°-50°	3209.7	18.1
50°-60°	5029.0	28.4
60°-70°	4747.1	26.8
70°-80°	639.8	3.6
80°-90°	97.4	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°	17695.1	100.0
0°-180°	17695.1	100.0



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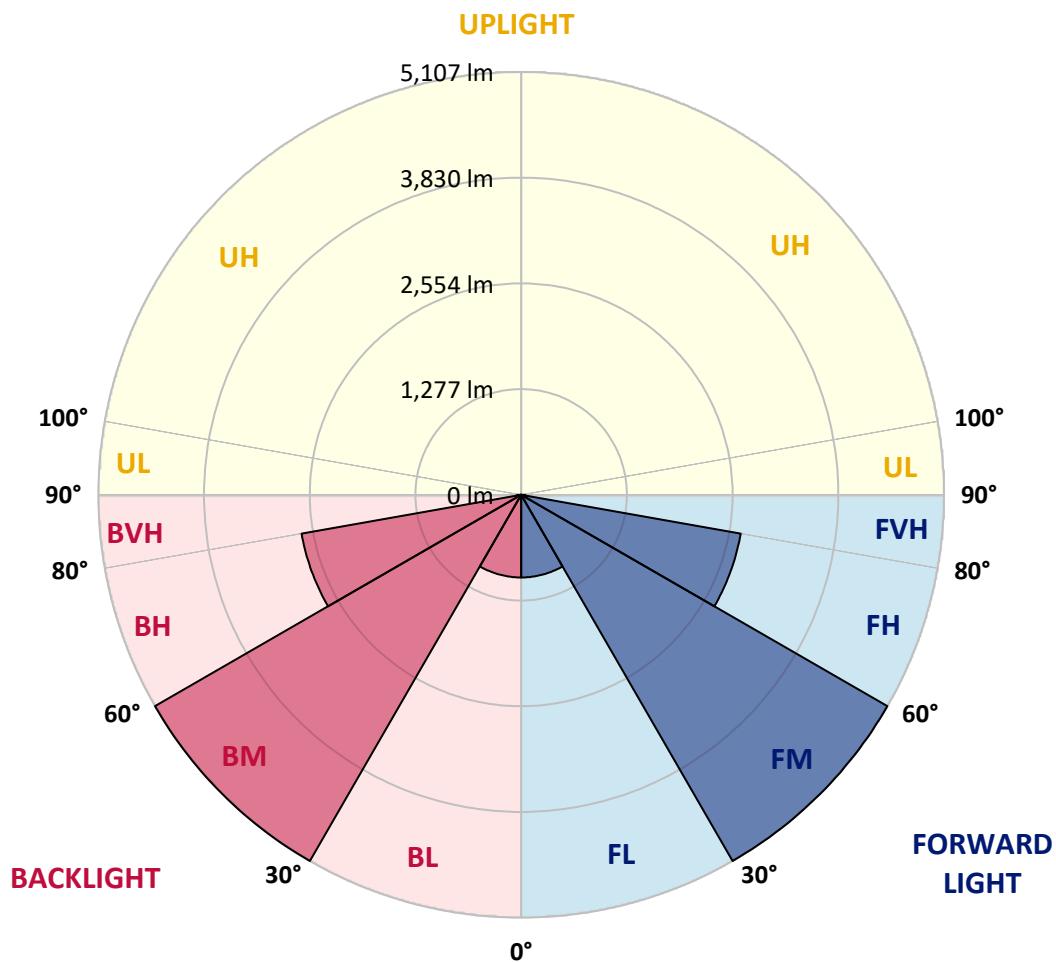
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	998.1	5.6			
FM (30°-60°)	5107.3	28.9			
FH (60°-80°)	2693.4	15.2			G2/5000
FVH (80°-90°)	48.7	0.3			G1/100
BL (0°-30°)	998.1	5.6	B2/1000		
BM (30°-60°)	5107.3	28.9	B4/8500		
BH (60°-80°)	2693.4	15.2	B4/5000		G2/5000
BVH (80°-90°)	48.7	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°	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8
2.5°	2029.4	2029.4	2032.7	2031.5	2027.1	2023.8	2020.5	2016.1	2013.9	2011.8	2010.5
5°	2040.4	2040.4	2043.6	2042.6	2039.2	2034.8	2032.7	2029.4	2026.0	2023.8	2024.9
7.5°	2067.9	2069.1	2070.1	2069.1	2065.7	2062.4	2057.9	2056.8	2052.4	2049.2	2051.4
10°	2109.8	2109.8	2110.8	2112.1	2109.8	2102.0	2102.0	2099.9	2095.4	2091.1	2092.2
12.5°	2156.1	2156.1	2157.2	2157.2	2157.2	2152.8	2153.9	2152.8	2147.3	2145.1	2147.3
15°	2201.2	2202.5	2202.5	2204.6	2204.6	2205.7	2210.1	2210.1	2207.9	2206.7	2206.7
17.5°	2254.1	2256.5	2257.5	2260.9	2261.9	2264.1	2268.5	2269.7	2270.7	2267.4	2268.5
20°	2324.8	2325.8	2329.1	2330.3	2334.7	2334.7	2336.9	2335.8	2333.5	2329.1	2329.1
22.5°	2404.1	2406.3	2412.9	2412.9	2418.4	2415.2	2416.3	2412.9	2407.4	2405.2	2403.1
25°	2507.7	2511.0	2516.5	2514.4	2516.5	2511.0	2511.0	2511.0	2507.7	2504.5	2503.3
27.5°	2639.0	2633.4	2639.0	2634.5	2633.4	2629.0	2630.1	2627.9	2624.6	2623.5	2619.1
30°	2775.7	2768.9	2772.3	2773.3	2771.2	2770.1	2765.7	2762.4	2756.9	2757.9	2754.7
32.5°	2932.1	2925.5	2928.8	2929.9	2927.7	2929.9	2928.8	2921.1	2914.6	2919.0	2919.0
35°	3118.3	3114.1	3122.8	3126.1	3119.5	3116.2	3111.8	3102.9	3093.0	3099.7	3100.8
37.5°	3342.1	3336.7	3343.3	3352.0	3340.0	3333.3	3315.7	3302.4	3295.9	3299.1	3303.5
40°	3574.7	3575.9	3594.6	3596.9	3583.6	3575.9	3558.2	3538.3	3519.6	3519.6	3525.2
42.5°	3819.5	3822.7	3844.8	3852.6	3848.1	3833.7	3809.5	3785.3	3761.1	3765.4	3772.1
45°	4096.1	4091.7	4114.9	4133.6	4130.2	4125.9	4102.7	4058.6	4036.7	4035.5	4046.5
47.5°	4387.1	4395.9	4420.2	4452.2	4451.1	4440.1	4410.3	4369.5	4328.8	4332.0	4345.3
50°	4726.6	4738.7	4779.6	4811.5	4816.0	4812.6	4777.4	4729.9	4672.7	4675.9	4693.6
52.5°	5030.9	5048.6	5095.9	5162.1	5202.9	5221.6	5198.4	5154.4	5095.9	5099.3	5118.0
55°	5306.5	5334.0	5404.7	5494.9	5576.6	5652.6	5686.8	5685.6	5642.7	5652.6	5676.8
57.5°	5479.5	5518.1	5625.0	5770.5	5932.5	6085.7	6218.1	6342.7	6370.2	6422.1	6422.1
60°	5246.9	5337.3	5479.5	5728.6	6047.2	6391.1	6763.7	7126.3	7360.1	7544.1	7445.0
62.5°	4381.7	4515.1	4714.6	5043.1	5539.0	6153.0	6901.5	7744.7	8624.4	9162.4	8767.6
65°	2835.1	3002.7	3219.9	3589.1	4214.0	5004.5	6094.6	7610.4	9451.1	10405.6	9523.9
67.5°	1123.2	1236.7	1369.0	1631.4	2173.7	2949.8	4173.3	6042.8	8345.6	9246.1	8257.3
70°	536.7	555.5	580.9	637.2	772.7	1042.8	1676.5	2977.3	5118.0	6067.1	4995.7
72.5°	388.0	391.3	403.5	422.2	461.9	517.0	628.4	910.5	1764.8	2566.2	1767.0
75°	294.4	298.7	305.3	315.2	336.1	362.6	404.5	485.1	604.1	696.6	602.9
77.5°	223.8	228.2	233.6	243.6	254.6	273.4	288.9	320.8	371.4	391.3	389.1
80°	163.1	170.9	179.8	188.5	196.2	205.1	206.2	221.5	250.2	269.0	263.5
82.5°	103.7	110.2	133.4	143.3	144.4	146.7	145.4	146.7	162.1	175.3	170.9
85°	66.1	70.5	82.6	93.8	91.4	95.8	95.8	93.8	87.0	75.0	89.3
87.5°	33.1	34.1	39.6	49.5	47.4	42.0	40.9	40.9	29.7	25.3	27.6
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°	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8	2012.8
2.5°	2007.4	2009.5	2006.2	2006.2	2005.0	2007.4	2003.9	2003.9
5°	2022.8	2026.0	2024.9	2024.9	2027.1	2029.4	2028.3	2027.1
7.5°	2050.3	2052.4	2054.8	2055.9	2057.9	2056.8	2059.1	2057.9
10°	2092.2	2089.9	2093.3	2089.9	2091.1	2088.9	2089.9	2089.9
12.5°	2145.1	2141.7	2139.6	2137.3	2137.3	2132.9	2132.9	2134.1
15°	2205.7	2200.2	2195.7	2193.7	2191.3	2191.3	2188.0	2190.2
17.5°	2265.3	2259.7	2252.1	2252.1	2248.6	2246.5	2244.2	2249.7
20°	2328.0	2322.6	2318.2	2317.1	2310.4	2308.3	2309.4	2315.9
22.5°	2400.8	2397.4	2397.4	2395.3	2390.8	2387.5	2387.5	2395.3
25°	2498.9	2492.3	2493.3	2494.6	2492.3	2492.3	2490.1	2495.6
27.5°	2619.1	2613.6	2616.9	2619.1	2616.9	2620.1	2616.9	2621.3
30°	2760.1	2756.9	2760.1	2763.5	2757.9	2757.9	2755.7	2759.1
32.5°	2928.8	2924.4	2926.6	2926.6	2919.0	2912.2	2903.4	2910.1
35°	3114.1	3108.4	3112.8	3116.2	3107.3	3100.8	3087.6	3093.0
37.5°	3317.9	3320.1	3325.6	3340.0	3337.7	3326.8	3316.8	3321.3
40°	3546.1	3557.1	3581.4	3591.3	3589.1	3578.0	3564.8	3567.0
42.5°	3804.1	3818.3	3843.7	3860.2	3852.6	3837.1	3820.6	3827.1
45°	4085.1	4107.2	4140.3	4156.7	4146.8	4130.2	4107.2	4119.3
47.5°	4382.7	4426.8	4471.0	4493.0	4489.6	4466.6	4436.8	4440.1
50°	4738.7	4797.2	4853.5	4875.6	4858.9	4823.7	4781.8	4780.7
52.5°	5182.0	5244.8	5291.0	5285.5	5244.8	5189.6	5142.3	5140.0
55°	5735.3	5756.2	5749.6	5702.3	5630.5	5544.6	5484.0	5474.0
57.5°	6404.3	6333.8	6230.3	6086.8	5925.9	5762.8	5652.6	5611.8
60°	7222.3	6903.7	6533.4	6143.1	5787.2	5520.4	5351.7	5249.2
62.5°	7898.0	6975.3	6147.6	5469.6	4915.2	4585.6	4355.3	4213.1
65°	7666.5	6026.3	4827.0	3952.8	3347.7	3007.0	2763.5	2601.4
67.5°	5922.6	4026.7	2802.1	1942.2	1472.7	1246.7	1089.0	986.6
70°	2986.1	1544.4	935.9	660.3	564.3	524.7	498.2	482.7
72.5°	876.3	585.3	486.2	429.8	395.8	371.4	356.1	348.4
75°	485.1	395.8	349.4	317.6	295.5	278.8	269.0	262.3
77.5°	334.0	287.6	264.6	243.6	226.0	213.8	206.2	199.6
80°	233.6	210.6	200.6	189.6	176.3	166.5	155.4	151.1
82.5°	155.4	145.4	143.3	134.4	126.8	115.7	95.8	89.3
85°	91.4	90.4	90.4	87.0	81.6	71.7	57.3	57.3
87.5°	32.0	33.1	34.1	36.4	35.3	29.7	24.3	23.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)