

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: STREETWORKS

Report Number: P270961

Luminaire Tested: **NVN-AF-04-LED-U-5MQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270961
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-04-LED-U-5MQ-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22573.1 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

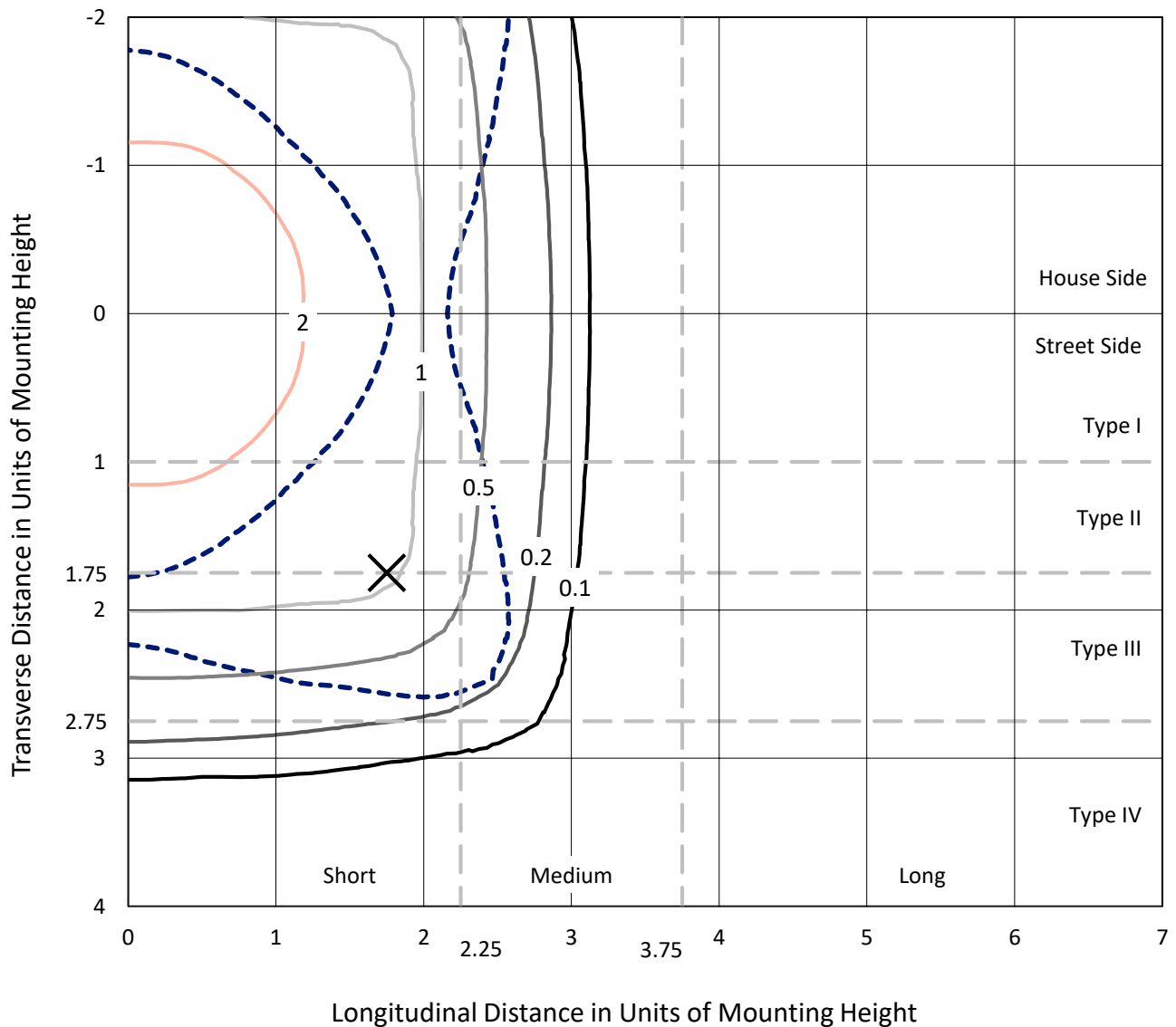
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

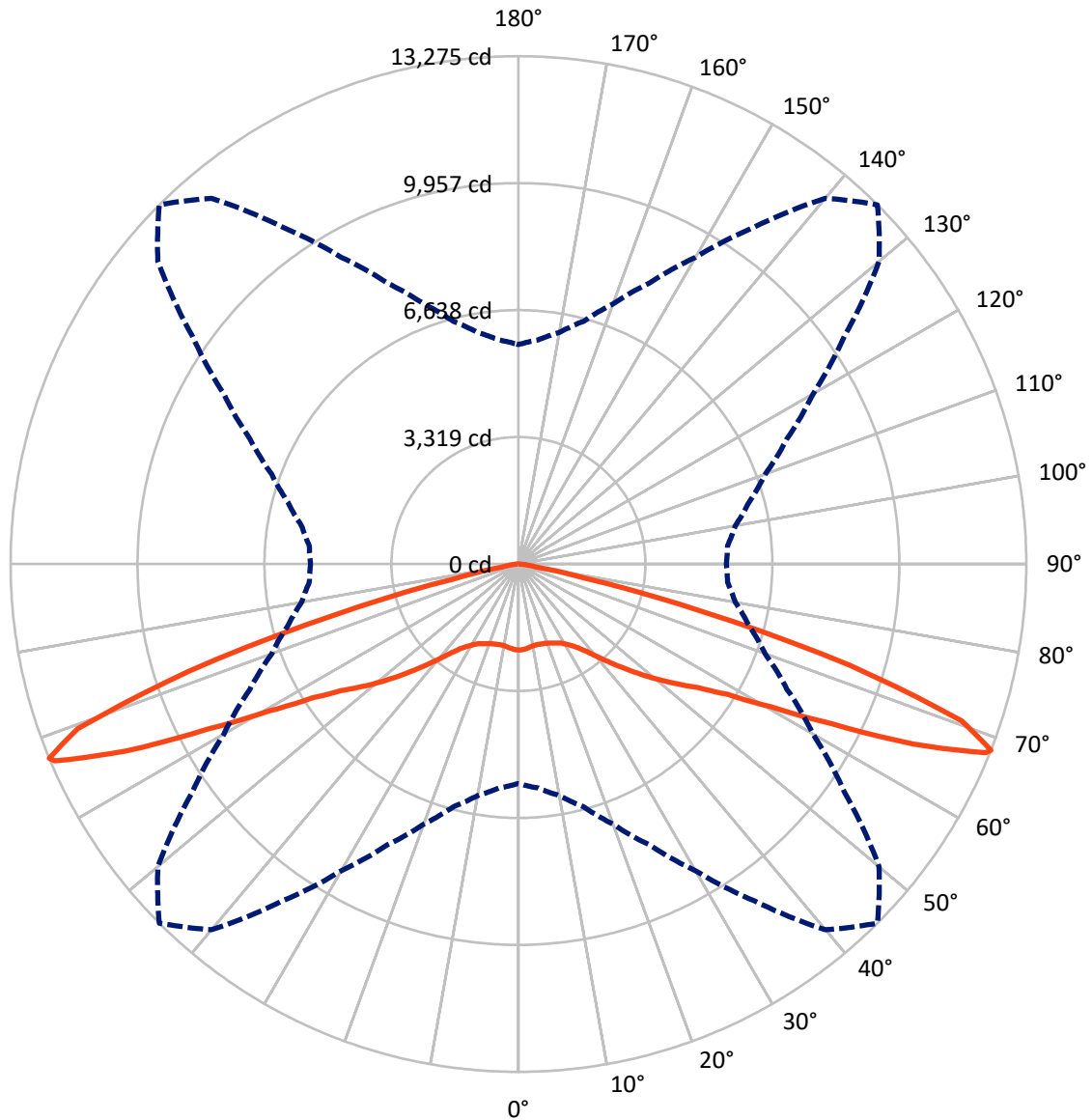
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11286.6	0.0	11286.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11286.6	0.0	11286.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	22573.1	0.0	22573.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.7	0.9
10°-20°	611.1	2.7
20°-30°	1038.9	4.6
30°-40°	1700.1	7.5
40°-50°	3038.3	13.5
50°-60°	5131.3	22.7
60°-70°	7956.7	35.2
70°-80°	2735.7	12.1
80°-90°	150.3	0.7
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°	22573.1	100.0
0°-180°	22573.1	100.0



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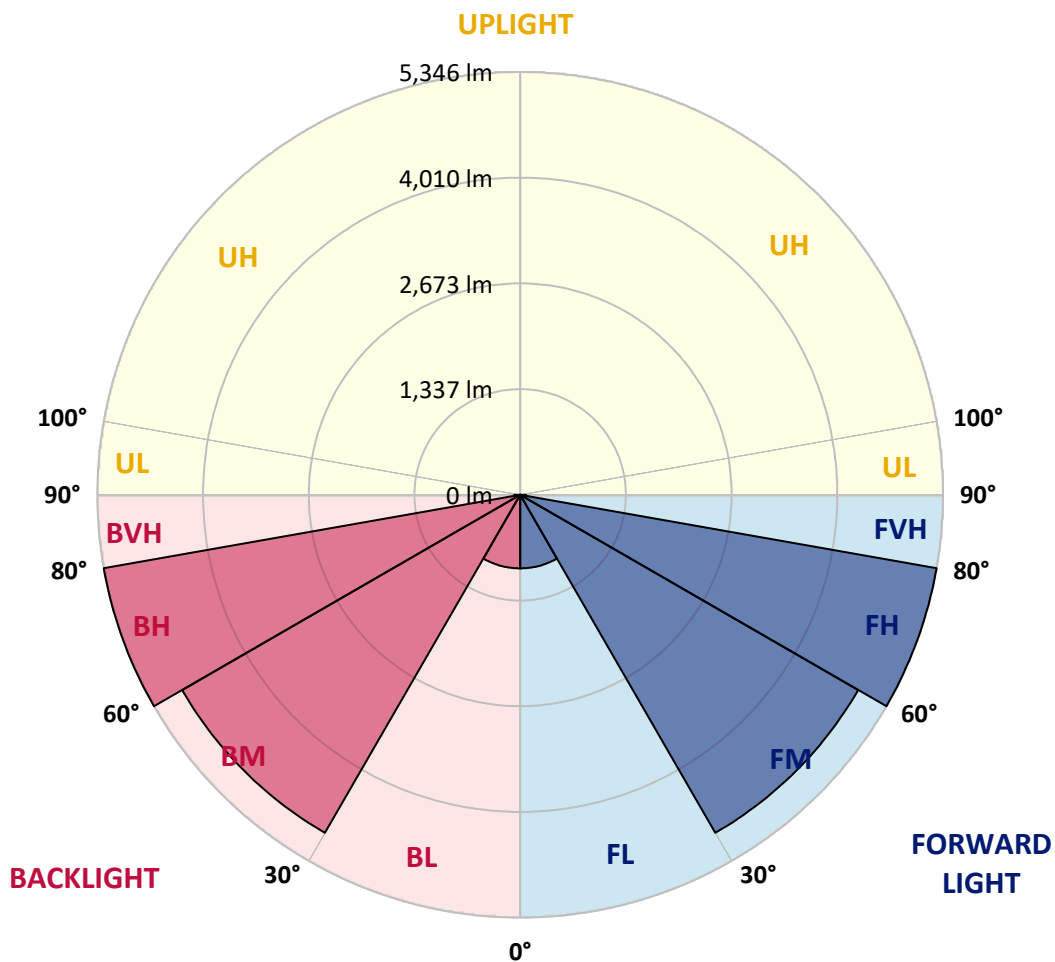
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	930.3	4.1			
FM	(30°-60°)	4934.9	21.9			
FH	(60°-80°)	5346.2	23.7			G3/7500
FVH	(80°-90°)	75.2	0.3			G1/100
BL	(0°-30°)	930.3	4.1	B2/1000		
BM	(30°-60°)	4934.9	21.9	B3/5000		
BH	(60°-80°)	5346.2	23.7	B5		G3/7500
BVH	(80°-90°)	75.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7
2.5°	2261.5	2261.5	2264.2	2262.8	2258.7	2254.4	2250.3	2246.2	2243.4	2240.7	2237.9
5°	2237.9	2237.9	2242.1	2239.3	2236.5	2232.4	2229.7	2225.6	2222.6	2219.9	2221.2
7.5°	2207.6	2210.3	2213.1	2211.6	2206.1	2204.7	2200.6	2199.2	2196.4	2192.4	2193.8
10°	2181.3	2182.6	2185.3	2184.0	2182.6	2178.5	2177.1	2175.8	2174.3	2168.8	2167.4
12.5°	2154.9	2157.8	2160.6	2162.0	2160.6	2162.0	2163.3	2164.6	2163.3	2160.6	2160.6
15°	2134.3	2137.0	2141.1	2145.3	2146.7	2154.9	2160.6	2166.1	2170.1	2171.6	2167.4
17.5°	2123.1	2127.4	2132.8	2141.1	2148.0	2157.8	2167.4	2175.8	2182.6	2184.0	2179.8
20°	2121.7	2126.0	2134.3	2144.0	2156.3	2168.8	2184.0	2196.4	2203.4	2207.6	2203.4
22.5°	2131.5	2137.0	2148.0	2160.6	2175.8	2192.4	2211.6	2225.6	2239.3	2244.9	2240.7
25°	2159.2	2164.6	2177.1	2192.4	2208.9	2229.7	2248.9	2267.0	2280.7	2287.7	2282.1
27.5°	2217.1	2218.5	2232.4	2248.9	2268.3	2286.2	2311.2	2319.5	2330.6	2337.4	2330.6
30°	2298.8	2301.5	2313.9	2340.3	2358.2	2381.6	2395.5	2403.8	2416.3	2423.2	2414.9
32.5°	2423.2	2426.0	2436.9	2461.8	2478.5	2496.4	2513.0	2518.5	2531.0	2539.2	2529.5
35°	2598.6	2604.2	2613.9	2630.4	2644.3	2658.2	2670.7	2666.3	2674.8	2685.8	2676.1
37.5°	2839.3	2837.8	2840.6	2853.0	2866.9	2875.1	2894.5	2884.7	2893.1	2902.9	2897.3
40°	3119.9	3119.9	3118.5	3140.6	3146.0	3154.4	3175.1	3162.7	3173.7	3184.9	3175.1
42.5°	3439.2	3444.6	3451.6	3469.6	3484.7	3487.5	3497.2	3491.6	3505.5	3515.2	3505.5
45°	3806.7	3815.1	3823.4	3864.9	3871.8	3877.4	3884.2	3866.2	3881.4	3889.8	3887.0
47.5°	4188.3	4203.4	4221.4	4264.3	4292.0	4304.4	4310.0	4289.1	4290.6	4303.1	4304.4
50°	4619.5	4636.2	4654.1	4702.4	4728.8	4750.9	4757.9	4734.2	4737.1	4746.7	4749.5
52.5°	5017.7	5037.1	5075.8	5140.7	5178.0	5216.7	5219.5	5190.4	5203.0	5209.8	5204.3
55°	5392.3	5417.1	5468.3	5555.4	5623.1	5699.1	5733.7	5701.9	5701.9	5696.4	5693.5
57.5°	5829.1	5856.7	5909.2	6010.2	6104.2	6213.3	6307.3	6339.1	6397.2	6416.6	6386.1
60°	6487.0	6516.0	6569.9	6702.7	6821.5	6980.5	7135.3	7261.1	7465.8	7576.2	7476.8
62.5°	7088.3	7132.5	7259.7	7492.0	7749.0	8043.5	8384.9	8628.2	8999.9	9185.3	8935.0
65°	6951.4	7041.4	7290.1	7655.0	8185.9	8824.5	9519.8	10187.4	10956.0	11349.8	10841.3
67.5°	6072.4	6148.4	6416.6	6841.0	7503.1	8383.5	9464.5	10846.8	12432.3	13170.4	12270.5
68°	5736.4	5878.9	6145.7	6567.1	7234.9	8100.1	9254.3	10747.2	12477.8	13275.4	12303.6
70°	4398.5	4449.6	4705.3	5084.0	5804.2	6652.8	7818.2	9519.8	11475.7	12296.8	11297.4
72.5°	2089.9	2120.4	2286.2	2659.5	3117.1	3808.2	4836.7	6441.4	8203.9	9058.1	8061.5
75°	765.7	772.7	811.3	899.8	1071.3	1331.2	1824.5	2822.7	4178.6	4983.1	4195.3
77.5°	413.3	414.7	429.8	451.9	482.4	517.0	591.7	793.5	1279.9	1741.6	1351.9
80°	259.9	258.5	273.8	291.7	312.4	329.0	335.8	359.4	405.0	474.1	435.4
82.5°	132.7	145.2	179.8	199.1	229.4	234.9	228.1	226.7	240.6	259.9	268.1
85°	73.2	64.9	95.4	127.2	138.2	142.4	143.8	135.5	132.7	130.0	136.8
87.5°	37.3	34.6	41.5	63.6	67.7	55.2	56.7	48.4	33.1	33.1	34.6
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°	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7	2251.7
2.5°	2235.2	2236.5	2233.7	2233.7	2233.7	2235.2	2233.7	2232.4
5°	2217.1	2219.9	2219.9	2221.2	2222.6	2222.6	2222.6	2222.6
7.5°	2191.0	2192.4	2195.1	2195.1	2195.1	2195.1	2195.1	2195.1
10°	2166.1	2163.3	2162.0	2159.2	2159.2	2154.9	2156.3	2157.8
12.5°	2153.5	2148.0	2145.3	2141.1	2138.3	2134.3	2134.3	2135.6
15°	2159.2	2150.8	2142.5	2139.8	2137.0	2134.3	2131.5	2132.8
17.5°	2170.1	2160.6	2150.8	2145.3	2139.8	2135.6	2134.3	2135.6
20°	2193.8	2179.8	2164.6	2154.9	2144.0	2141.1	2137.0	2141.1
22.5°	2225.6	2208.9	2189.4	2171.6	2159.2	2153.5	2148.0	2152.2
25°	2264.2	2246.2	2226.9	2206.1	2192.4	2188.1	2181.3	2181.3
27.5°	2318.0	2302.8	2286.2	2267.0	2253.0	2248.9	2237.9	2237.9
30°	2403.8	2388.6	2373.4	2356.9	2343.0	2338.7	2325.1	2325.1
32.5°	2517.1	2500.5	2490.9	2477.0	2465.9	2459.1	2442.5	2441.1
35°	2669.1	2654.0	2652.5	2643.0	2631.9	2633.2	2616.7	2613.9
37.5°	2887.6	2875.1	2879.2	2871.1	2861.3	2869.6	2859.9	2859.9
40°	3166.9	3162.7	3166.9	3161.2	3162.7	3164.0	3155.7	3158.5
42.5°	3504.1	3493.0	3517.9	3515.2	3510.9	3522.1	3502.8	3488.8
45°	3892.4	3888.4	3913.2	3917.4	3909.1	3916.0	3881.4	3880.0
47.5°	4314.1	4314.1	4336.2	4333.5	4325.2	4326.5	4285.1	4258.9
50°	4753.7	4750.9	4773.1	4767.5	4756.4	4755.1	4712.1	4685.9
52.5°	5211.2	5211.2	5243.0	5227.7	5201.5	5189.1	5136.6	5102.1
55°	5717.2	5710.2	5719.9	5670.1	5619.0	5581.7	5516.8	5490.4
57.5°	6357.0	6276.9	6207.7	6144.2	6072.4	6028.2	5952.1	5924.4
60°	7265.2	7050.9	6958.5	6831.3	6712.3	6652.8	6552.0	6498.1
62.5°	8523.1	8167.8	7916.4	7635.8	7364.8	7174.0	7020.7	6952.9
65°	9977.3	9203.2	8563.3	7961.9	7451.9	7046.8	6821.5	6751.0
67.5°	10530.2	9109.3	8004.7	7142.2	6523.0	6040.6	5771.0	5714.4
68°	10412.8	8893.6	7746.4	6863.1	6241.0	5754.5	5486.3	5435.1
70°	9185.3	7503.1	6292.2	5412.9	4832.4	4369.4	4180.1	4098.4
72.5°	6261.7	4818.6	3696.3	2956.7	2522.7	2229.7	2055.4	1996.0
75°	2882.0	1947.6	1300.7	971.7	825.3	754.8	700.8	687.1
77.5°	840.5	610.9	525.2	486.5	457.5	432.7	414.7	413.3
80°	399.4	374.7	363.5	338.7	312.4	288.9	272.2	275.2
82.5°	268.1	261.2	261.2	236.3	194.9	167.3	138.2	124.4
85°	142.4	148.0	156.1	148.0	128.5	95.4	62.3	67.7
87.5°	48.4	55.2	58.1	56.7	51.2	38.6	29.0	29.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)