

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: P884288

Luminaire Tested: **NAV-SB5A-740-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884288
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19247 lumens
Efficiency: N/A
Efficacy: 135.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

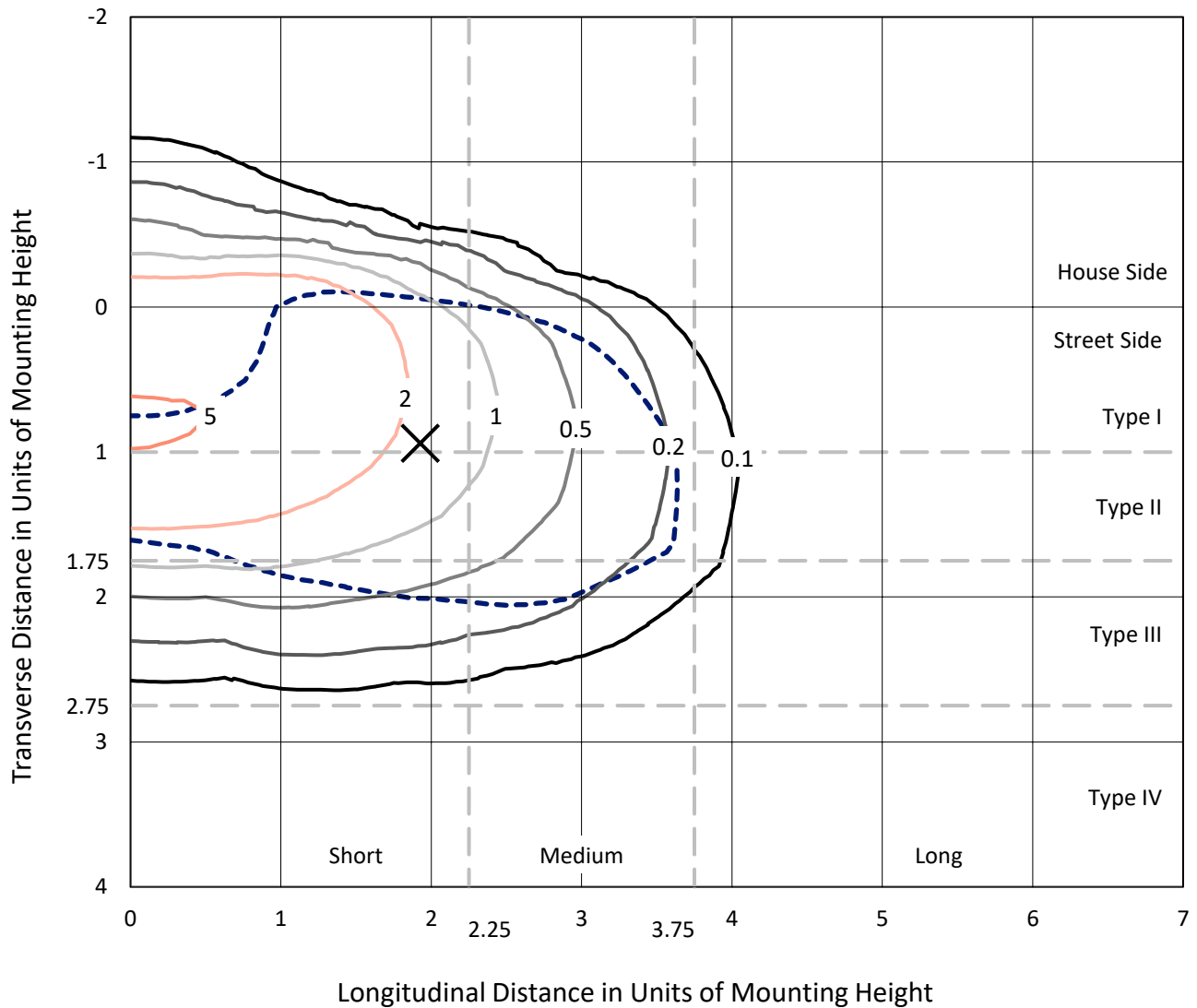
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

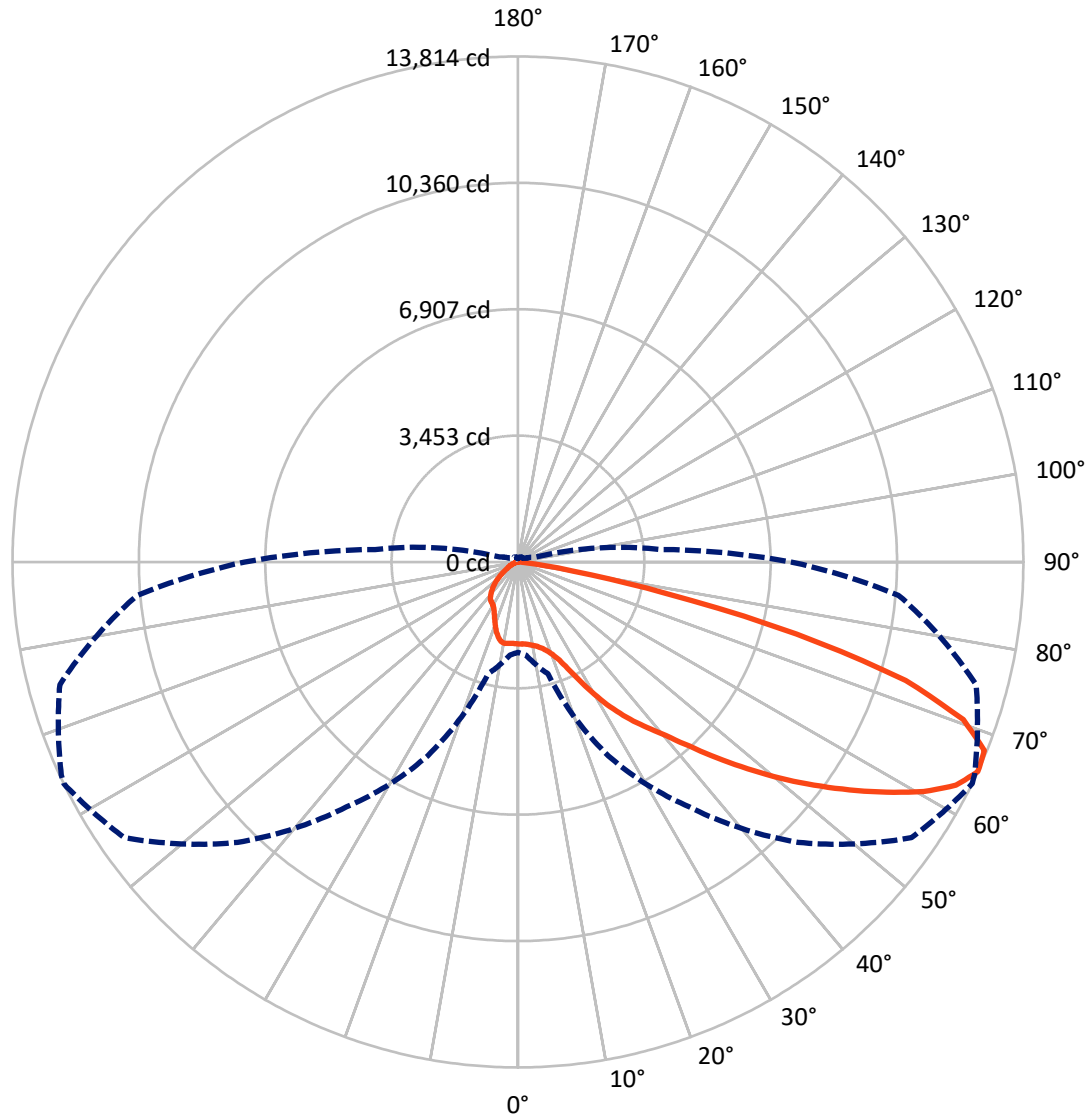
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2573.9	0.0	2573.9
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	16673.1	0.0	16673.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	19247.0	0.0	19247.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.5	1.1
10°-20°	560.2	2.9
20°-30°	1061.5	5.5
30°-40°	2148.0	11.2
40°-50°	3659.1	19.0
50°-60°	4976.1	25.9
60°-70°	4672.8	24.3
70°-80°	1872.1	9.7
80°-90°	90.7	0.5
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°	19247.0	100.0
0°-180°	19247.0	100.0

Coefficient of Utilization



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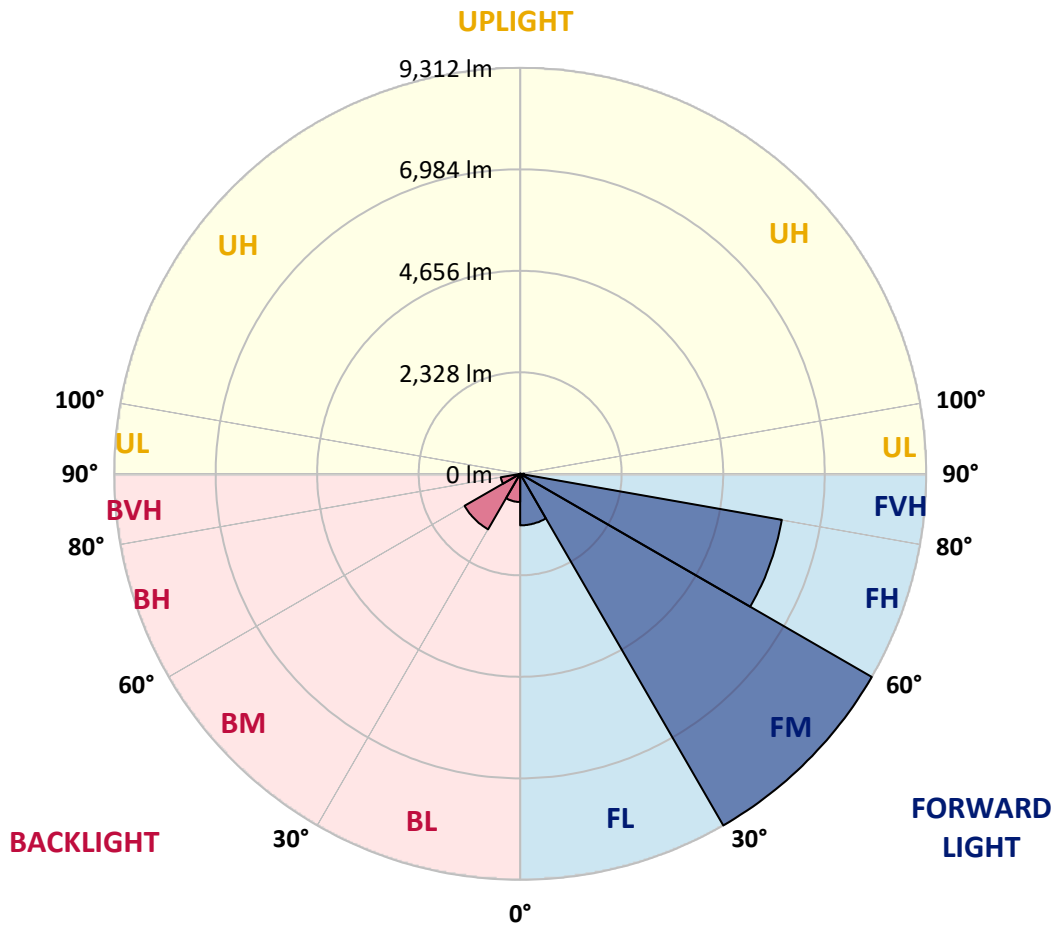
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1182.0	6.1			
FM (30°-60°)	9311.7	48.4			
FH (60°-80°)	6093.2	31.7			G3/7500
FVH (80°-90°)	86.3	0.4			G1/100
BL (0°-30°)	646.2	3.4	B2/1000		
BM (30°-60°)	1471.5	7.6	B2/2500		
BH (60°-80°)	451.8	2.3	B1/500		G1/500
BVH (80°-90°)	4.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6
2.5°	2230.9	2246.4	2242.5	2238.6	2237.3	2239.9	2241.2	2239.9	2239.9	2239.9	2241.2
5°	2188.3	2201.2	2201.2	2210.2	2223.1	2238.6	2250.2	2252.8	2255.4	2259.3	2258.0
7.5°	2107.0	2117.3	2125.1	2154.8	2187.0	2228.3	2263.1	2281.2	2283.8	2298.0	2303.1
10°	2051.5	2064.4	2077.3	2108.3	2154.8	2216.7	2276.0	2319.9	2326.4	2359.9	2375.4
12.5°	2049.0	2061.9	2078.6	2112.2	2166.4	2232.2	2304.4	2367.7	2379.3	2428.3	2460.6
15°	2076.1	2091.5	2107.0	2148.3	2206.4	2286.4	2363.8	2442.5	2454.1	2523.8	2558.6
17.5°	2131.5	2152.2	2163.8	2205.1	2267.0	2356.0	2458.0	2548.3	2558.6	2639.9	2683.8
20°	2241.2	2265.7	2269.6	2303.1	2363.8	2459.3	2580.5	2692.8	2705.7	2798.6	2847.6
22.5°	2468.3	2503.1	2472.2	2488.9	2543.1	2638.6	2770.2	2912.1	2930.2	3036.0	3079.9
25°	2868.3	2917.3	2837.3	2808.9	2832.2	2931.5	3096.7	3276.0	3296.7	3381.8	3403.7
27.5°	3654.1	3590.8	3469.5	3350.8	3281.2	3337.9	3523.7	3745.7	3771.5	3854.0	3828.2
30°	4517.3	4461.8	4297.9	4034.7	3869.5	3860.5	4032.1	4279.8	4309.5	4388.2	4309.5
32.5°	5381.7	5328.8	5150.8	4826.9	4540.5	4398.5	4517.3	4792.1	4807.6	4857.9	4741.8
35°	6232.0	6177.8	5999.8	5668.2	5315.9	4993.4	4970.1	5279.8	5285.0	5337.9	5165.0
37.5°	7087.5	7042.3	6852.6	6527.5	6180.4	5735.3	5519.8	5741.7	5748.2	5799.8	5620.4
40°	7697.8	7717.1	7586.8	7335.2	7037.2	6550.7	6136.5	6233.3	6194.6	6281.1	6174.0
42.5°	8221.6	8260.3	8146.8	8020.3	7847.4	7419.1	6900.4	6883.6	6821.7	6868.1	6757.2
45°	8674.5	8706.8	8604.8	8575.2	8571.3	8270.7	7735.2	7634.6	7548.1	7539.1	7406.2
47.5°	8841.0	8902.9	8946.8	9046.1	9239.7	9113.2	8598.4	8442.3	8345.5	8274.5	8064.2
50°	8904.2	8970.0	9119.7	9408.7	9866.7	9920.9	9457.7	9282.2	9163.5	9034.5	8724.8
52.5°	8819.0	8936.4	9137.7	9624.2	10288.6	10568.6	10282.2	10128.7	9993.2	9782.9	9323.5
55°	8317.1	8434.5	8846.1	9621.6	10499.0	11022.8	11061.5	10993.1	10840.9	10509.3	9807.4
57.5°	7259.1	7433.3	8084.9	9293.8	10495.1	11413.8	11825.4	11874.4	11704.1	11229.3	10188.0
60°	5793.3	6029.5	6824.3	8567.4	10171.2	11625.4	12495.0	12740.2	12559.5	11938.9	10496.4
62.5°	4042.4	4316.0	5068.2	7429.4	9430.6	11473.1	12984.0	13436.9	13300.1	12573.7	10615.1
65°	2465.7	2553.5	3159.9	5846.2	8171.3	10835.7	13135.0	13813.7	13768.5	12962.1	10439.6
67.5°	1642.5	1716.1	1890.3	4008.9	6343.0	9562.2	12773.7	13747.9	13760.8	12898.9	9797.1
70°	989.6	1052.9	1166.4	2331.5	4110.8	7568.7	11655.0	12909.2	12984.0	12053.7	8579.0
72.5°	407.7	450.3	553.5	1056.7	2129.0	4803.7	9280.9	11083.5	11257.6	10135.1	6584.3
75°	231.0	252.9	325.1	530.3	923.8	2238.6	5621.7	7868.1	8124.9	6985.5	3961.1
77.5°	153.5	163.9	210.3	343.2	520.0	763.8	2402.5	4099.2	4589.5	3815.3	1714.8
80°	103.2	112.3	144.5	229.7	338.1	327.7	765.1	1518.7	1868.3	1310.9	418.0
82.5°	69.7	71.0	103.2	151.0	214.2	158.7	225.8	472.2	593.5	379.3	158.7
85°	40.0	38.7	76.1	87.7	95.5	65.8	68.4	141.9	185.8	160.0	90.3
87.5°	5.2	7.7	29.7	23.2	12.9	14.2	14.2	24.5	36.1	38.7	19.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6	2238.6
2.5°	2241.2	2239.9	2236.0	2232.2	2223.1	2218.0	2220.6	2218.0	2216.7	2218.0	2223.1
5°	2258.0	2254.1	2243.8	2230.9	2212.8	2190.9	2176.7	2156.0	2136.7	2125.1	2127.7
7.5°	2303.1	2299.3	2285.1	2248.9	2190.9	2099.3	2015.4	1941.9	1886.4	1854.1	1855.4
10°	2375.4	2368.9	2347.0	2267.0	2114.8	1914.8	1748.3	1610.3	1519.9	1477.4	1473.5
12.5°	2460.6	2452.8	2414.1	2250.2	1970.2	1658.0	1428.3	1274.8	1190.9	1153.5	1149.6
15°	2561.2	2550.9	2474.7	2170.2	1759.9	1374.1	1163.8	1049.0	994.8	961.3	962.5
17.5°	2686.4	2668.3	2519.9	2050.2	1531.6	1157.4	1001.3	914.8	867.1	834.8	832.2
20°	2848.9	2819.2	2556.0	1907.0	1321.2	1020.6	891.6	819.3	783.2	754.8	749.6
22.5°	3076.0	3033.4	2599.9	1752.2	1172.9	926.4	810.3	757.4	727.7	695.5	690.3
25°	3357.3	3307.0	2654.1	1609.0	1070.9	845.1	750.9	707.1	672.2	634.8	630.9
27.5°	3750.8	3660.5	2718.6	1491.6	983.2	775.5	696.7	647.7	607.7	576.8	570.3
30°	4189.5	4041.1	2775.4	1420.6	903.2	710.9	625.8	576.8	539.3	517.4	513.5
32.5°	4605.0	4403.7	2812.8	1389.6	830.9	637.4	548.4	495.5	467.1	460.6	464.5
35°	4997.2	4731.4	2808.9	1359.9	766.4	563.8	472.2	418.0	396.1	400.0	400.0
37.5°	5448.8	5081.1	2781.8	1313.5	713.5	496.8	406.4	358.7	339.3	340.6	345.8
40°	5974.0	5485.0	2765.1	1225.8	655.5	434.8	352.2	313.5	299.3	294.2	292.9
42.5°	6533.9	5875.9	2767.6	1126.4	583.2	379.3	314.8	282.6	269.7	265.8	264.5
45°	7096.5	6248.8	2771.5	1023.2	507.1	336.8	287.7	260.6	252.9	247.7	247.7
47.5°	7625.5	6566.2	2699.3	912.2	432.2	304.5	265.8	247.7	241.3	234.8	234.8
50°	8118.4	6777.8	2525.1	783.2	372.9	278.7	249.0	236.1	229.7	223.2	223.2
52.5°	8501.6	6811.4	2237.3	650.3	331.6	259.3	238.7	227.1	219.3	212.9	211.6
55°	8671.9	6601.0	1828.3	526.4	299.3	242.6	228.4	216.8	207.7	201.3	200.0
57.5°	8628.1	6158.5	1425.8	423.2	268.4	225.8	215.5	207.7	197.4	187.1	185.8
60°	8412.6	5566.2	1074.8	352.2	240.0	207.7	201.3	194.8	180.6	165.2	162.6
62.5°	8039.7	4821.8	766.4	291.6	209.0	187.1	184.5	179.3	158.7	130.3	127.7
65°	7469.4	3917.3	516.1	242.6	179.3	163.9	165.2	156.1	129.0	96.8	94.2
67.5°	6635.9	2864.4	330.3	198.7	149.7	136.8	138.1	132.9	109.7	82.6	78.7
70°	5574.0	1896.7	215.5	151.0	120.0	105.8	113.5	114.8	92.9	67.1	64.5
72.5°	4086.3	1120.0	151.0	112.3	87.7	73.5	92.9	95.5	74.8	50.3	47.7
75°	2328.9	531.6	113.5	81.3	54.2	51.6	72.3	72.3	51.6	33.5	31.0
77.5°	978.0	221.9	80.0	52.9	31.0	29.7	49.0	45.2	25.8	15.5	15.5
80°	282.6	99.4	42.6	25.8	12.9	11.6	19.4	14.2	6.5	2.6	2.6
82.5°	111.0	43.9	16.8	10.3	5.2	5.2	2.6	0.0	0.0	0.0	0.0
85°	65.8	18.1	7.7	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.8	3.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)