

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: P966315

Luminaire Tested: **NAV-SB4B-830-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966315
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-830-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16010.5 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G4

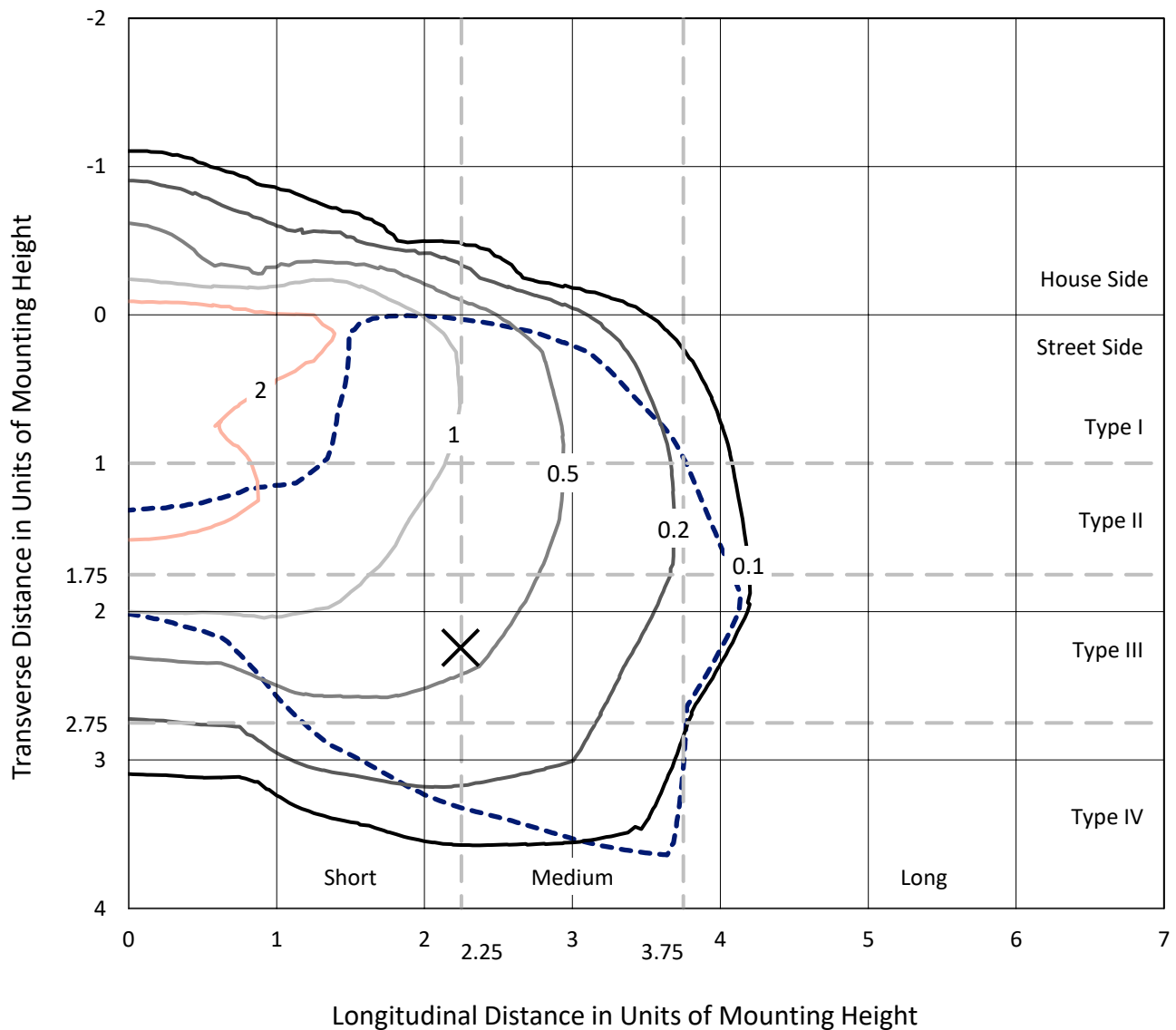
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

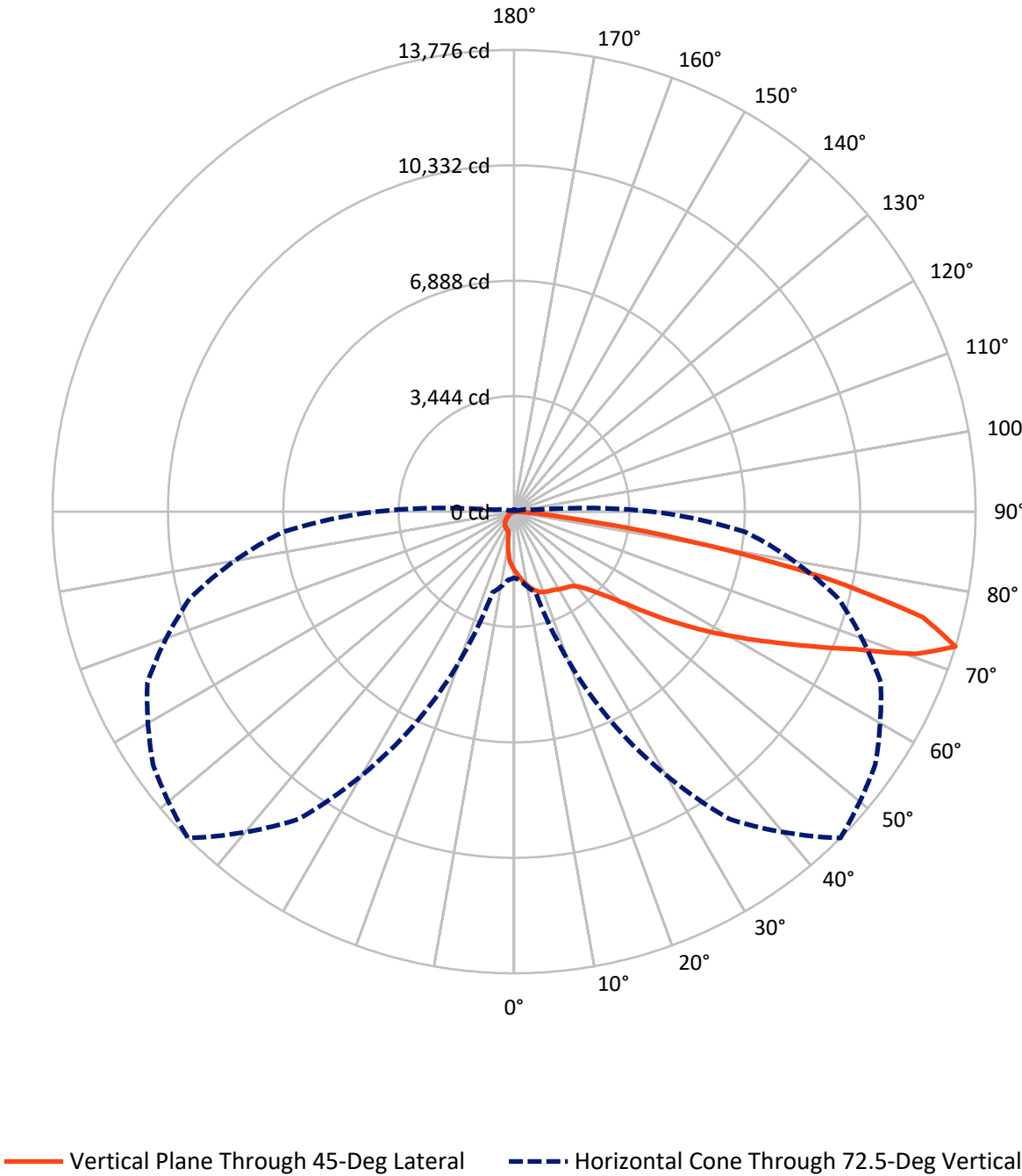
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1682.3	0.0	1682.3
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	14328.2	0.0	14328.2
	% Fixture	89.5	0.0	89.5
Total	Lumens	16010.5	0.0	16010.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.3	1.0
10°-20°	483.0	3.0
20°-30°	793.1	5.0
30°-40°	1124.9	7.0
40°-50°	1859.3	11.6
50°-60°	3340.0	20.9
60°-70°	4637.7	29.0
70°-80°	3364.1	21.0
80°-90°	243.2	1.5
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°	16010.5	100.0
0°-180°	16010.5	100.0

Coefficient of Utilization



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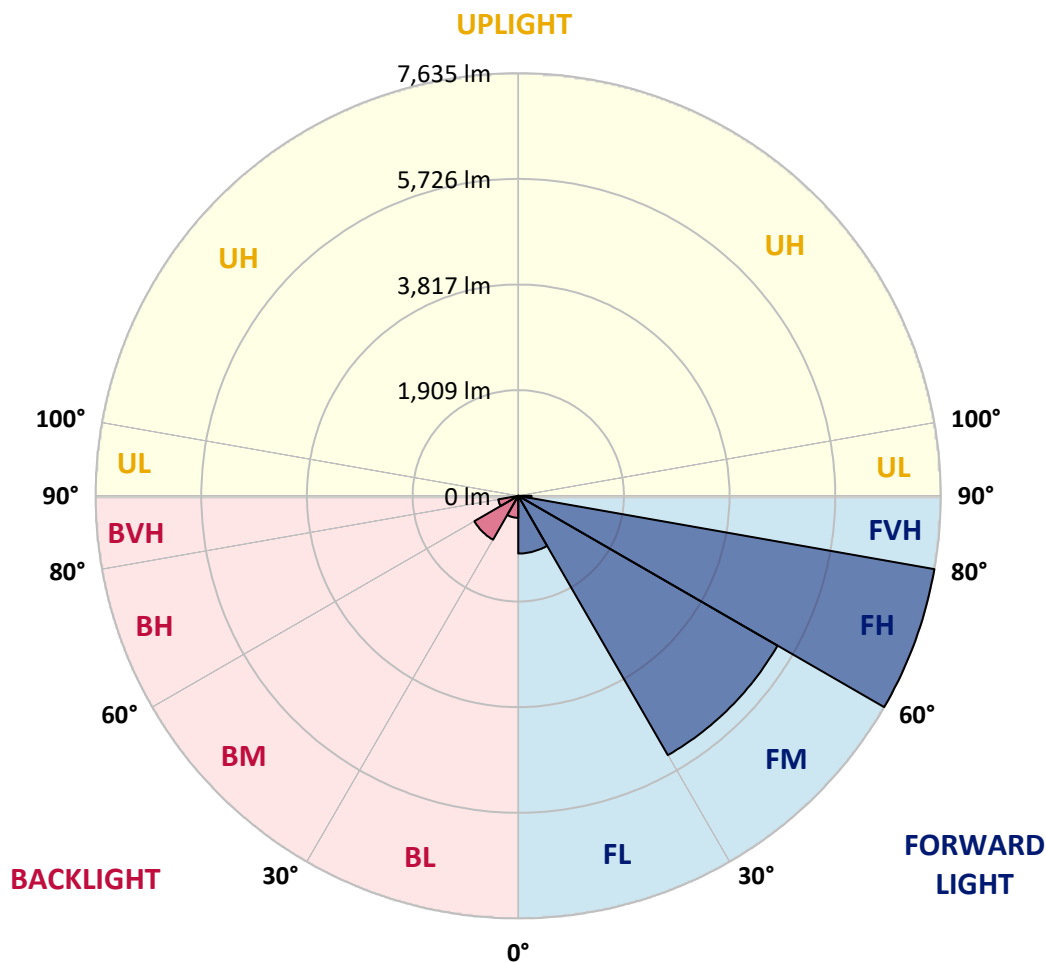
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1042.9	6.5			
FM	(30°-60°)	5409.2	33.8			
FH	(60°-80°)	7635.0	47.7			G4/12000
FVH	(80°-90°)	241.2	1.5			G3/500
BL	(0°-30°)	398.5	2.5	B1/500		
BM	(30°-60°)	914.9	5.7	B1/1000		
BH	(60°-80°)	366.8	2.3	B1/500		G1/500
BVH	(80°-90°)	2.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0
2.5°	1915.7	1919.0	1916.9	1903.7	1881.8	1869.8	1863.2	1841.4	1827.2	1802.1	1775.8
5°	2091.7	2104.7	2097.1	2070.9	2029.4	1999.9	1991.2	1946.4	1905.9	1858.9	1804.2
7.5°	2278.6	2285.1	2270.9	2237.1	2181.3	2131.0	2123.4	2061.1	1996.6	1924.4	1850.1
10°	2440.3	2447.9	2426.1	2376.9	2313.5	2251.2	2240.3	2171.5	2094.9	2006.4	1911.3
12.5°	2575.8	2583.4	2555.0	2496.0	2426.1	2361.6	2350.6	2278.6	2194.4	2096.0	1978.0
15°	2678.5	2692.7	2654.4	2591.1	2515.7	2451.2	2445.8	2374.7	2292.7	2183.5	2057.8
17.5°	2738.6	2752.8	2716.8	2640.3	2575.8	2521.2	2514.6	2455.6	2379.1	2274.2	2135.4
20°	2748.4	2761.6	2723.3	2656.7	2603.1	2559.4	2556.1	2513.5	2457.7	2357.2	2219.5
22.5°	2718.9	2735.3	2700.4	2646.9	2609.6	2586.7	2582.4	2558.3	2526.6	2441.3	2298.3
25°	2688.4	2701.5	2675.2	2628.2	2608.5	2606.4	2609.6	2605.3	2598.8	2526.6	2390.0
27.5°	2686.1	2700.4	2670.8	2626.0	2615.1	2638.0	2641.3	2662.1	2667.6	2604.2	2478.6
30°	2704.8	2714.6	2686.1	2639.2	2633.7	2686.1	2687.2	2724.4	2733.2	2669.8	2566.0
32.5°	2745.2	2756.1	2727.7	2658.8	2651.2	2724.4	2727.7	2776.8	2791.1	2739.7	2657.7
35°	2840.3	2853.4	2820.6	2713.5	2686.1	2760.4	2770.3	2828.3	2856.7	2814.0	2752.8
37.5°	3077.4	3039.1	2994.3	2823.9	2766.0	2817.3	2833.7	2901.5	2951.7	2902.5	2866.5
40°	3666.4	3546.2	3406.4	3011.9	2905.8	2938.6	2951.7	3019.4	3088.3	3040.3	3022.7
42.5°	4550.5	4408.4	4183.3	3444.6	3116.7	3133.1	3143.0	3202.0	3299.3	3261.0	3265.3
45°	5338.4	5287.1	5057.6	4183.3	3511.2	3430.4	3442.4	3473.0	3616.2	3602.0	3630.3
47.5°	5943.9	5914.4	5737.3	5031.4	4177.9	3794.2	3828.2	3842.4	4049.0	4099.2	4175.6
50°	6409.4	6398.5	6240.0	5785.4	5048.8	4330.8	4342.9	4312.3	4621.5	4746.2	4891.5
52.5°	6848.7	6885.8	6769.0	6485.9	5978.8	5033.6	5031.4	4887.1	5304.6	5492.6	5740.6
55°	7245.4	7258.5	7270.5	7200.6	6914.3	5833.5	5812.8	5576.7	6096.9	6291.3	6560.2
57.5°	7618.1	7623.5	7730.7	7873.8	7888.0	6692.4	6654.2	6371.2	6962.4	7101.2	7266.2
60°	7868.3	7893.5	8119.6	8517.4	8691.3	7578.7	7557.9	7269.5	7843.2	7907.7	7877.1
62.5°	7507.7	7660.7	8231.2	9020.2	9449.7	8561.2	8551.4	8280.4	8769.9	8717.4	8455.2
65°	6077.2	6336.2	7339.4	9360.1	10193.8	9658.4	9672.6	9384.1	9721.8	9551.3	8925.1
67.5°	4251.1	4524.2	5711.1	9387.4	11025.5	10946.8	11028.8	10576.4	10732.7	10350.1	9036.6
70°	2939.7	3080.6	3853.3	8799.4	11673.5	12721.6	12719.4	12040.8	11738.0	10714.0	8468.3
72.5°	1976.9	2050.1	2502.5	6981.0	11197.1	13776.1	13712.8	13159.8	12076.9	10020.1	6918.6
75°	833.8	887.3	1158.4	3923.3	8858.5	12603.5	12432.0	11629.9	10730.4	7890.2	4316.7
77.5°	264.4	287.4	456.8	1404.2	4879.5	9473.7	9292.3	7262.9	7191.9	3958.2	1578.1
80°	125.7	146.5	256.9	563.9	1920.1	5152.7	5127.6	3294.9	3093.8	1068.8	316.9
82.5°	54.6	64.5	142.1	301.7	859.0	1838.1	1875.2	1121.2	927.8	405.4	97.3
85°	17.5	23.0	65.6	138.8	362.8	456.8	451.3	266.6	373.7	220.8	33.9
87.5°	0.0	0.0	21.8	31.7	37.1	26.2	29.5	23.0	103.8	61.2	12.0
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°	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0	1754.0
2.5°	1762.7	1745.3	1714.6	1686.2	1661.1	1636.0	1620.6	1598.8	1596.6	1596.6	1602.1
5°	1774.8	1746.3	1691.7	1633.7	1567.1	1503.8	1440.3	1379.1	1359.5	1345.3	1351.9
7.5°	1809.7	1764.9	1678.5	1568.2	1441.5	1302.7	1205.4	1100.4	1060.1	1038.2	1041.5
10°	1860.0	1798.8	1667.7	1474.3	1268.7	1079.7	941.0	827.3	783.5	765.0	765.0
12.5°	1915.7	1840.3	1648.0	1357.3	1079.7	853.5	718.0	665.5	659.0	659.0	659.0
15°	1982.4	1890.6	1614.1	1219.5	881.9	675.4	627.3	629.5	636.0	640.4	640.4
17.5°	2051.2	1944.1	1560.6	1065.5	707.0	607.6	608.7	612.0	617.5	621.9	621.9
20°	2125.5	1997.7	1489.5	901.6	606.5	587.9	591.2	594.5	598.9	601.1	602.2
22.5°	2205.3	2048.0	1405.4	741.0	572.7	571.5	572.7	575.9	581.4	581.4	583.5
25°	2290.6	2103.7	1309.2	624.0	555.1	555.1	557.3	559.5	563.9	563.9	565.0
27.5°	2378.0	2155.1	1207.6	562.8	539.9	538.7	538.7	542.0	544.3	545.3	546.4
30°	2474.1	2215.1	1106.0	549.7	527.9	522.3	519.1	521.3	523.5	524.6	526.7
32.5°	2572.5	2273.0	1015.3	555.1	515.8	505.9	495.1	492.8	492.8	497.2	500.5
35°	2681.8	2336.5	945.3	573.7	509.2	482.0	464.4	454.6	455.7	462.3	465.6
37.5°	2812.9	2413.0	893.9	590.1	504.9	454.6	426.2	414.2	406.5	414.2	411.9
40°	2984.5	2525.5	856.8	603.2	499.4	422.9	384.7	365.0	350.8	355.2	353.0
42.5°	3237.0	2702.5	842.6	604.3	487.4	385.8	342.0	315.8	295.1	296.1	291.8
45°	3591.0	2982.3	915.8	590.1	461.1	345.3	297.2	262.3	249.2	245.9	241.5
47.5°	4076.2	3390.0	1085.2	560.6	422.9	306.0	253.6	224.1	214.2	208.7	205.4
50°	4726.5	3913.4	1273.2	527.9	384.7	268.9	217.5	198.8	192.3	186.9	185.7
52.5°	5480.5	4444.5	1427.2	495.1	346.4	236.1	194.5	183.6	178.1	173.7	172.7
55°	6172.2	4810.6	1418.5	460.1	309.2	209.8	178.1	171.6	165.0	160.6	158.5
57.5°	6602.8	4862.0	1169.3	421.8	266.6	189.0	162.9	158.5	150.8	145.3	144.2
60°	6800.7	4569.1	819.6	371.6	224.1	169.4	146.5	144.2	134.4	126.8	124.5
62.5°	6836.7	4024.9	546.4	309.2	186.9	150.8	130.1	126.8	113.7	100.6	94.0
65°	6690.3	3246.8	378.1	241.5	159.6	131.1	111.4	105.0	90.7	77.6	73.2
67.5°	6226.9	2279.6	263.3	173.7	135.5	103.8	88.6	86.3	75.4	64.5	61.2
70°	5377.8	1299.4	176.0	130.1	107.1	71.0	69.9	72.2	61.2	52.5	48.1
72.5°	4123.3	594.5	109.3	95.1	73.2	48.1	55.8	56.8	46.9	39.4	35.0
75°	2427.2	254.6	68.9	61.2	37.1	31.7	40.4	41.5	31.7	25.1	21.8
77.5°	826.2	96.1	43.7	36.1	18.6	17.5	26.2	26.2	17.5	9.8	7.7
80°	188.0	36.1	21.8	14.2	8.7	7.7	8.7	7.7	4.4	1.1	0.0
82.5°	53.5	14.2	8.7	5.4	3.3	3.3	1.1	0.0	0.0	0.0	0.0
85°	15.3	6.6	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.6	1.1	0.0	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)