

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: P966310

Luminaire Tested: **NAV-SB4B-830-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966310
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-830-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17305.1 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

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



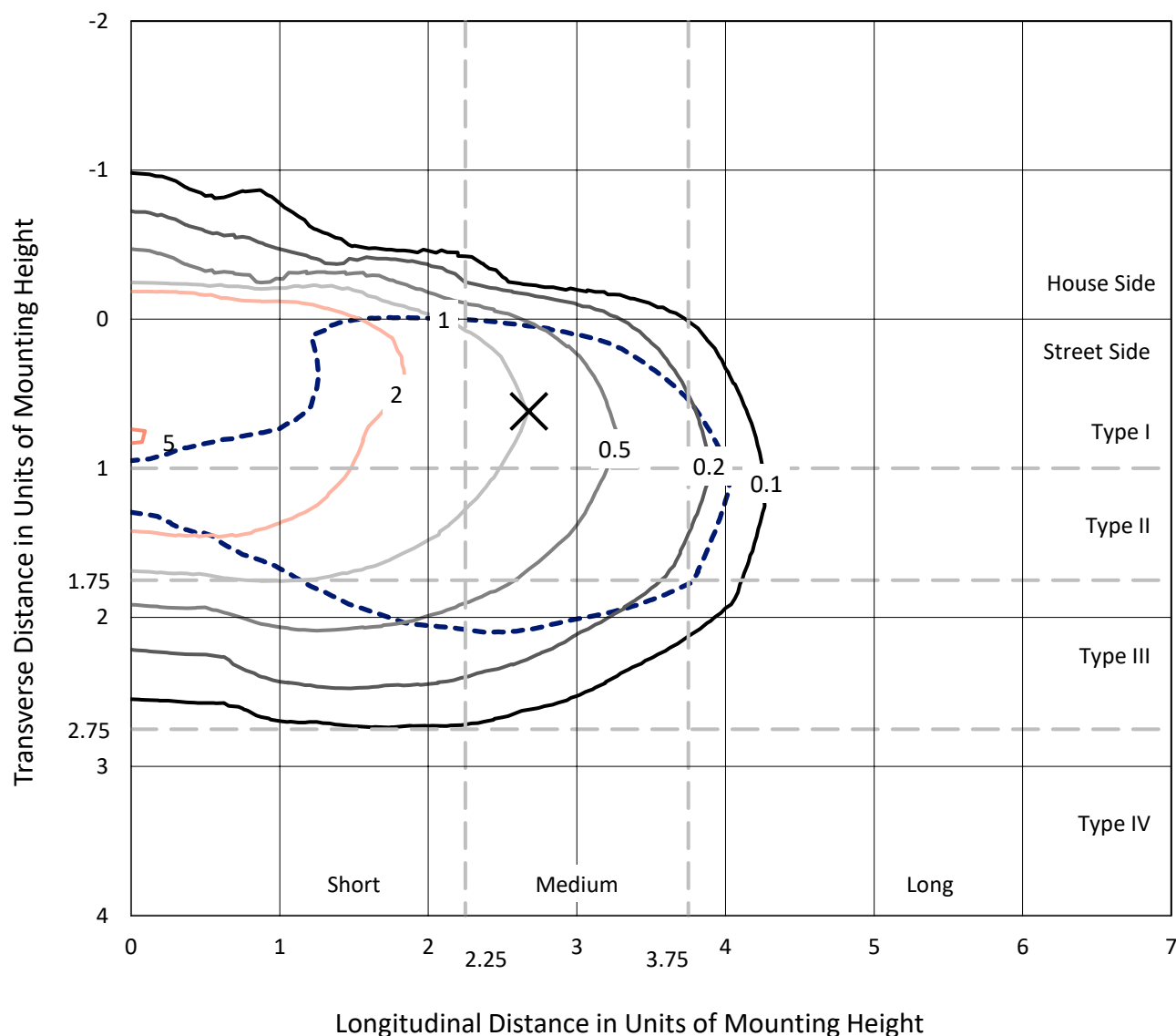
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

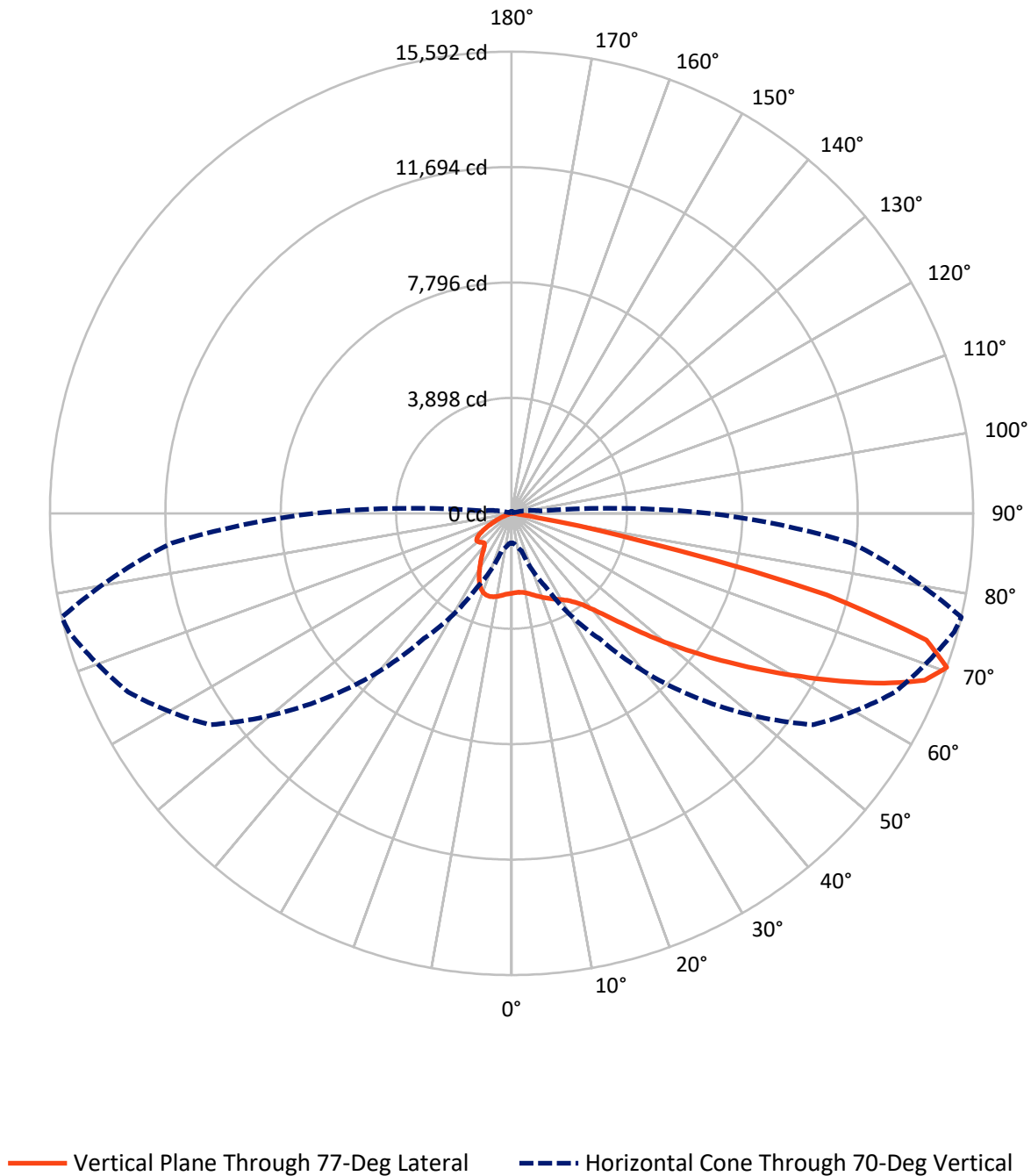
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1824.2	0.0	1824.2
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	15480.9	0.0	15480.9
	% Fixture	89.5	0.0	89.5
Total	Lumens	17305.1	0.0	17305.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.6	1.3
10°-20°	552.2	3.2
20°-30°	854.2	4.9
30°-40°	1549.9	9.0
40°-50°	2925.7	16.9
50°-60°	4227.4	24.4
60°-70°	4500.0	26.0
70°-80°	2384.7	13.8
80°-90°	78.3	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°	17305.1	100.0
0°-180°	17305.1	100.0

Coefficient of Utilization



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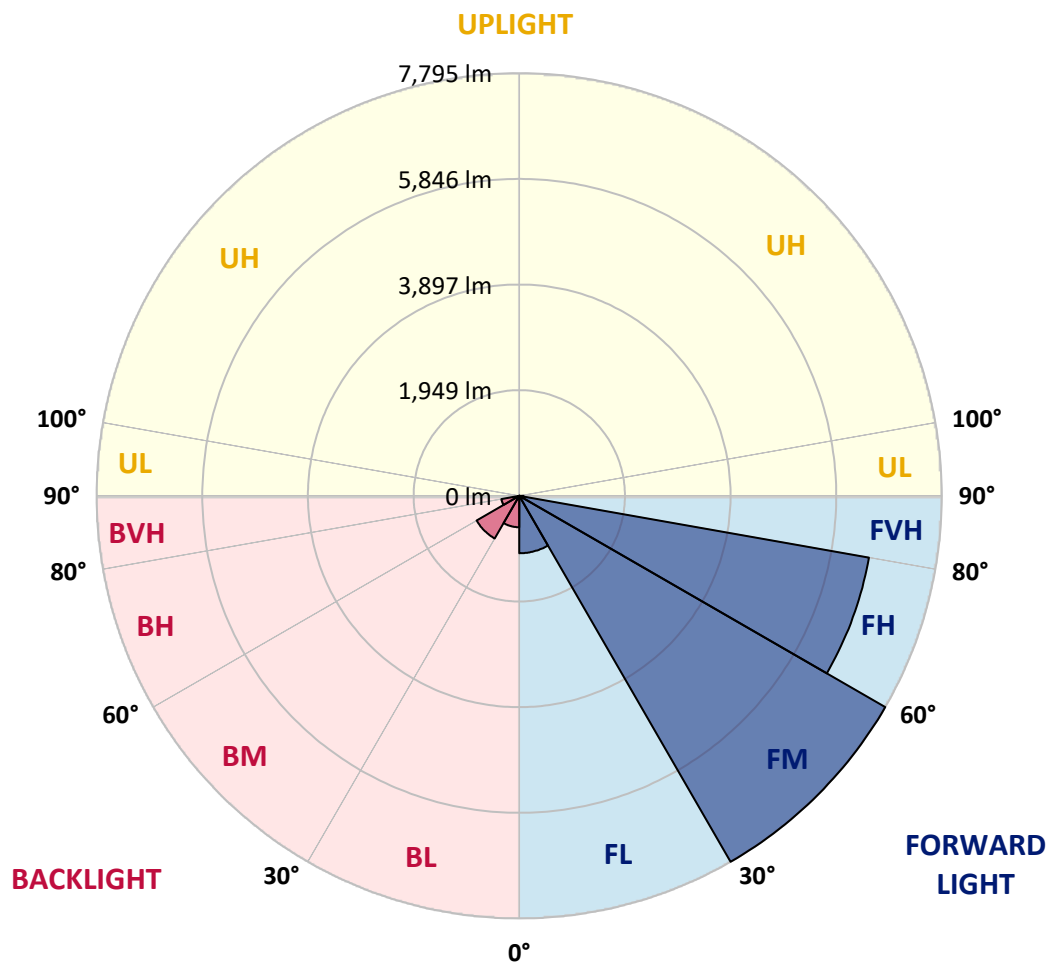
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1059.5	6.1			
FM	(30°-60°)	7795.0	45.0			
FH	(60°-80°)	6550.2	37.9			G3/7500
FVH	(80°-90°)	76.2	0.4			G1/100
BL	(0°-30°)	579.6	3.3	B2/1000		
BM	(30°-60°)	908.1	5.2	B1/1000		
BH	(60°-80°)	334.4	1.9	B1/500		G1/500
BVH	(80°-90°)	2.1	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2
2.5°	2534.3	2557.2	2553.9	2569.3	2574.7	2596.5	2618.4	2647.9	2680.7	2679.7	2701.5
5°	2391.1	2414.1	2419.5	2440.3	2466.5	2500.4	2545.2	2604.2	2665.4	2675.2	2718.9
7.5°	2221.7	2245.8	2259.9	2301.5	2349.6	2419.5	2492.7	2579.1	2680.7	2694.9	2779.1
10°	2052.4	2074.2	2092.7	2151.8	2228.2	2332.1	2451.2	2575.8	2712.4	2733.2	2852.3
12.5°	1947.4	1968.2	1988.9	2040.3	2135.4	2262.2	2423.9	2591.1	2764.8	2794.4	2951.7
15°	1910.3	1928.8	1945.2	1991.2	2079.6	2223.9	2418.4	2622.8	2831.5	2870.8	3071.9
17.5°	1915.7	1925.6	1936.5	1971.5	2057.8	2206.4	2428.2	2677.4	2910.2	2945.1	3192.2
20°	1947.4	1952.8	1954.0	1978.0	2054.5	2204.3	2447.9	2729.9	2984.5	3031.5	3311.3
22.5°	1987.9	1990.0	1987.9	2004.3	2075.3	2220.7	2474.1	2793.2	3067.5	3111.3	3431.5
25°	2176.9	2135.4	2082.9	2051.2	2110.3	2252.3	2513.5	2878.5	3158.2	3200.9	3548.4
27.5°	2763.7	2644.6	2456.7	2245.8	2182.3	2298.3	2568.1	2964.8	3250.1	3288.3	3674.1
30°	3716.6	3560.4	3241.4	2766.0	2414.1	2394.4	2639.2	3051.2	3347.3	3388.9	3808.5
32.5°	4671.8	4633.6	4265.3	3607.4	2935.3	2608.6	2757.2	3168.1	3476.3	3509.1	3989.9
35°	5637.9	5560.3	5258.7	4608.4	3738.6	3044.7	2953.9	3321.1	3645.6	3682.8	4254.4
37.5°	6377.8	6330.7	6143.8	5608.4	4691.5	3717.8	3290.5	3558.3	3891.5	3933.1	4593.1
40°	7031.2	7009.4	6946.0	6593.0	5757.0	4598.6	3813.9	3925.4	4232.5	4281.7	5008.5
42.5°	7544.8	7596.3	7632.3	7534.0	6855.3	5604.0	4517.8	4441.2	4707.9	4758.2	5537.4
45°	8070.5	8088.0	8233.3	8375.4	7945.9	6655.3	5311.1	5045.6	5299.1	5361.4	6171.2
47.5°	8408.2	8478.2	8733.8	8984.1	8862.8	7697.9	6163.5	5759.2	5984.4	6101.2	6881.5
50°	8433.3	8565.6	8917.5	9353.5	9530.6	8690.2	7090.2	6572.3	6811.5	6940.6	7639.9
52.5°	8014.8	8220.2	8765.6	9403.8	9891.1	9530.6	8048.7	7385.3	7692.4	7860.7	8426.7
55°	6145.0	6413.8	8194.1	9130.6	9905.4	10167.7	8982.0	8232.3	8673.8	8863.9	9277.0
57.5°	5353.8	5489.3	6442.2	8656.2	9642.0	10424.5	9825.5	9038.8	9741.5	9977.5	10080.3
60°	4454.3	4632.5	5403.0	7880.4	9284.7	10449.6	10570.9	10079.1	10898.7	11164.3	10816.8
62.5°	3027.1	3220.5	3986.6	6547.1	8796.1	10437.6	11181.8	11150.1	12185.0	12470.3	11440.7
65°	1875.2	1996.6	2501.5	5346.1	8113.2	10450.7	11821.1	12450.6	13542.3	13831.9	11923.8
67.5°	1481.8	1537.6	1801.0	4104.6	6936.2	10155.6	12459.3	13673.4	14819.8	15049.3	12071.3
70°	995.6	1029.4	1310.3	2751.7	5160.4	8794.0	12447.3	14287.6	15477.7	15592.4	11533.7
72.5°	524.6	550.8	766.1	1274.3	3116.7	6251.0	10492.2	13553.3	14823.0	14650.4	9858.3
75°	262.3	306.0	515.8	647.0	1331.1	3486.1	6515.4	10685.6	11667.0	10998.1	6325.3
77.5°	198.8	240.5	426.2	426.2	463.4	1173.7	2759.4	5828.0	5375.6	4476.2	1856.7
80°	126.8	163.9	372.7	322.4	193.4	298.4	719.0	1632.7	1142.0	868.8	337.6
82.5°	74.3	107.1	310.4	213.1	108.2	110.4	203.3	347.5	296.1	230.6	103.8
85°	29.5	69.9	213.1	84.2	42.6	27.4	61.2	74.3	61.2	45.9	26.2
87.5°	0.0	16.4	37.1	0.0	3.3	2.2	4.4	5.4	5.4	4.4	8.7
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°	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2	2699.2
2.5°	2711.3	2713.5	2720.0	2721.2	2705.8	2686.1	2678.5	2675.2	2662.1	2661.0	2663.3
5°	2744.1	2754.0	2744.1	2715.6	2647.9	2552.9	2480.7	2421.7	2368.2	2351.8	2341.9
7.5°	2809.6	2819.5	2789.9	2678.5	2508.1	2319.0	2148.5	2028.3	1920.1	1879.6	1863.2
10°	2903.6	2916.7	2823.9	2598.8	2297.1	1993.3	1704.8	1501.5	1343.1	1278.6	1251.3
12.5°	3021.7	3027.1	2842.4	2477.4	2022.8	1589.0	1180.3	962.8	821.8	769.4	753.0
15°	3151.7	3144.1	2844.6	2312.4	1649.1	1123.4	770.5	632.7	575.9	558.4	558.4
17.5°	3288.3	3256.6	2800.9	2074.2	1239.2	768.2	571.5	538.7	528.9	524.6	523.5
20°	3422.7	3351.6	2721.2	1762.7	889.6	573.7	519.1	509.2	503.8	501.6	499.4
22.5°	3545.2	3423.8	2584.5	1401.0	645.9	507.1	490.7	482.0	472.1	467.7	466.7
25°	3664.3	3465.3	2392.1	1063.3	516.9	474.3	461.1	444.7	431.6	426.2	424.0
27.5°	3780.1	3491.6	2151.8	786.8	461.1	443.7	419.6	396.7	386.8	384.7	382.5
30°	3903.6	3500.3	1878.5	586.8	427.3	405.4	370.4	344.2	338.8	339.9	339.9
32.5°	4054.4	3513.4	1603.2	480.8	398.9	359.6	318.1	290.7	286.3	290.7	289.6
35°	4234.7	3539.6	1337.6	442.6	373.7	312.5	267.7	244.8	240.5	243.7	242.6
37.5°	4479.5	3582.3	1089.6	434.9	353.0	273.2	225.1	206.5	206.5	207.7	206.5
40°	4805.2	3695.9	867.7	429.5	342.0	243.7	190.1	182.6	185.7	188.0	188.0
42.5°	5201.9	3937.4	718.0	422.9	330.0	230.6	172.7	169.4	174.9	177.0	177.0
45°	5646.6	4243.4	665.5	411.9	319.1	239.3	165.0	160.6	167.2	168.3	169.4
47.5°	6106.7	4542.9	659.0	400.0	308.2	252.5	162.9	153.0	160.6	161.7	162.9
50°	6572.3	4738.5	665.5	381.4	290.7	252.5	163.9	145.3	151.9	155.2	156.3
52.5°	7041.0	4828.1	661.1	340.9	260.0	237.2	163.9	138.8	145.3	147.5	147.5
55°	7495.7	4810.6	594.5	280.8	220.8	209.8	159.6	133.4	137.7	138.8	138.8
57.5°	7855.2	4566.9	471.0	218.5	179.3	174.9	145.3	126.8	130.1	128.9	128.9
60°	8043.2	4031.4	336.6	168.3	140.9	137.7	127.8	118.0	120.2	114.7	113.7
62.5°	8045.4	3323.3	225.1	133.4	112.5	109.3	109.3	106.0	103.8	92.9	89.6
65°	7873.8	2537.5	149.8	106.0	90.7	85.3	91.8	90.7	83.0	67.8	65.6
67.5°	7484.8	1663.3	113.7	83.0	69.9	66.6	73.2	76.5	71.0	56.8	55.8
70°	6684.8	968.2	94.0	64.5	52.5	49.2	59.0	65.6	59.0	45.9	43.7
72.5°	5552.6	522.3	76.5	48.1	36.1	32.8	46.9	53.5	46.9	33.9	32.8
75°	3603.1	279.7	59.0	31.7	18.6	20.8	35.0	39.4	32.8	21.8	19.7
77.5°	1209.8	123.5	37.1	15.3	8.7	8.7	20.8	24.1	15.3	7.7	6.6
80°	269.9	51.4	15.3	6.6	3.3	3.3	4.4	4.4	2.2	0.0	0.0
82.5°	88.6	20.8	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	33.9	7.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.1	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)