

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: P967918

Luminaire Tested: **NAV-SB5A-835-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967918
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16464.6 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

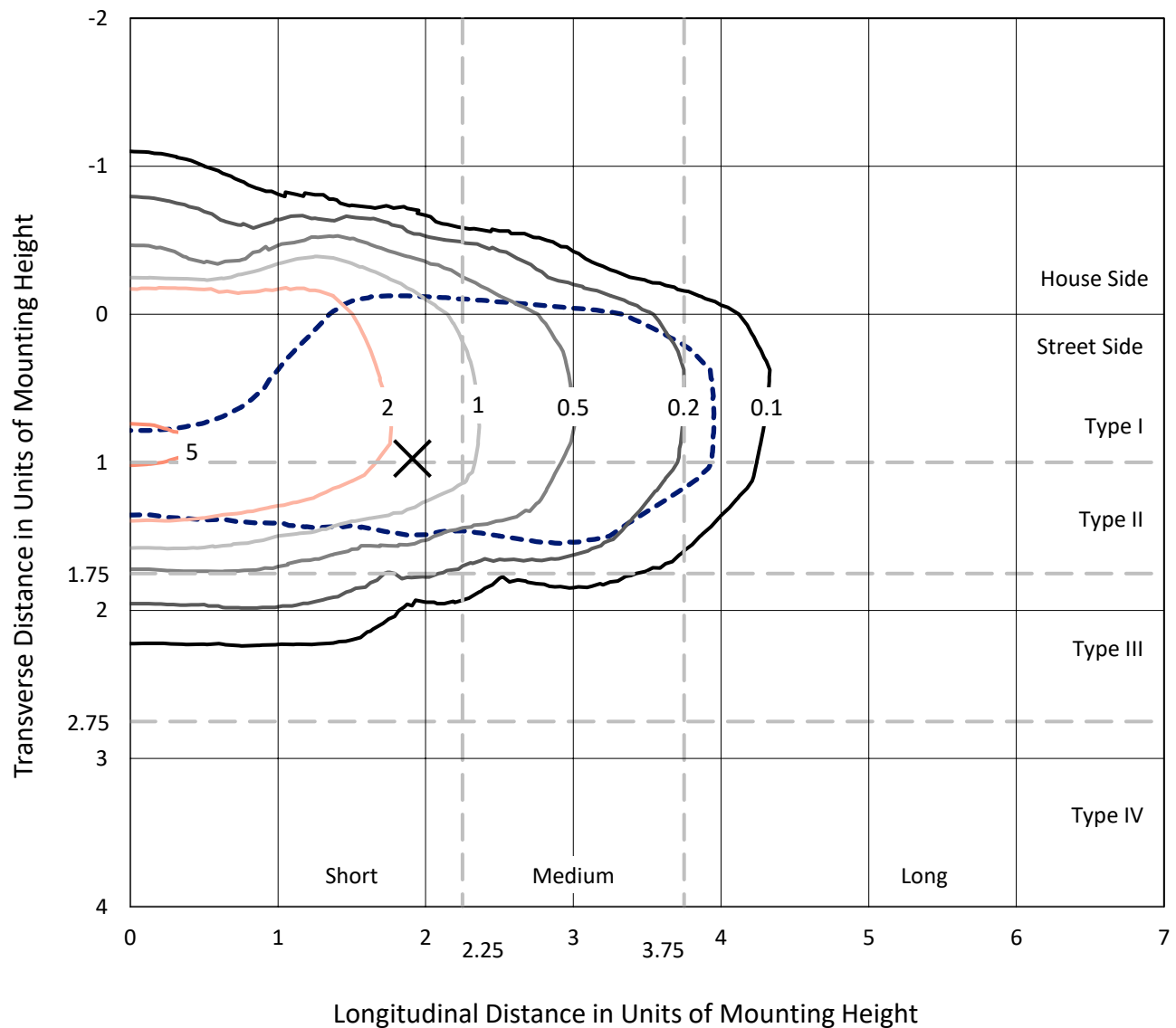
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

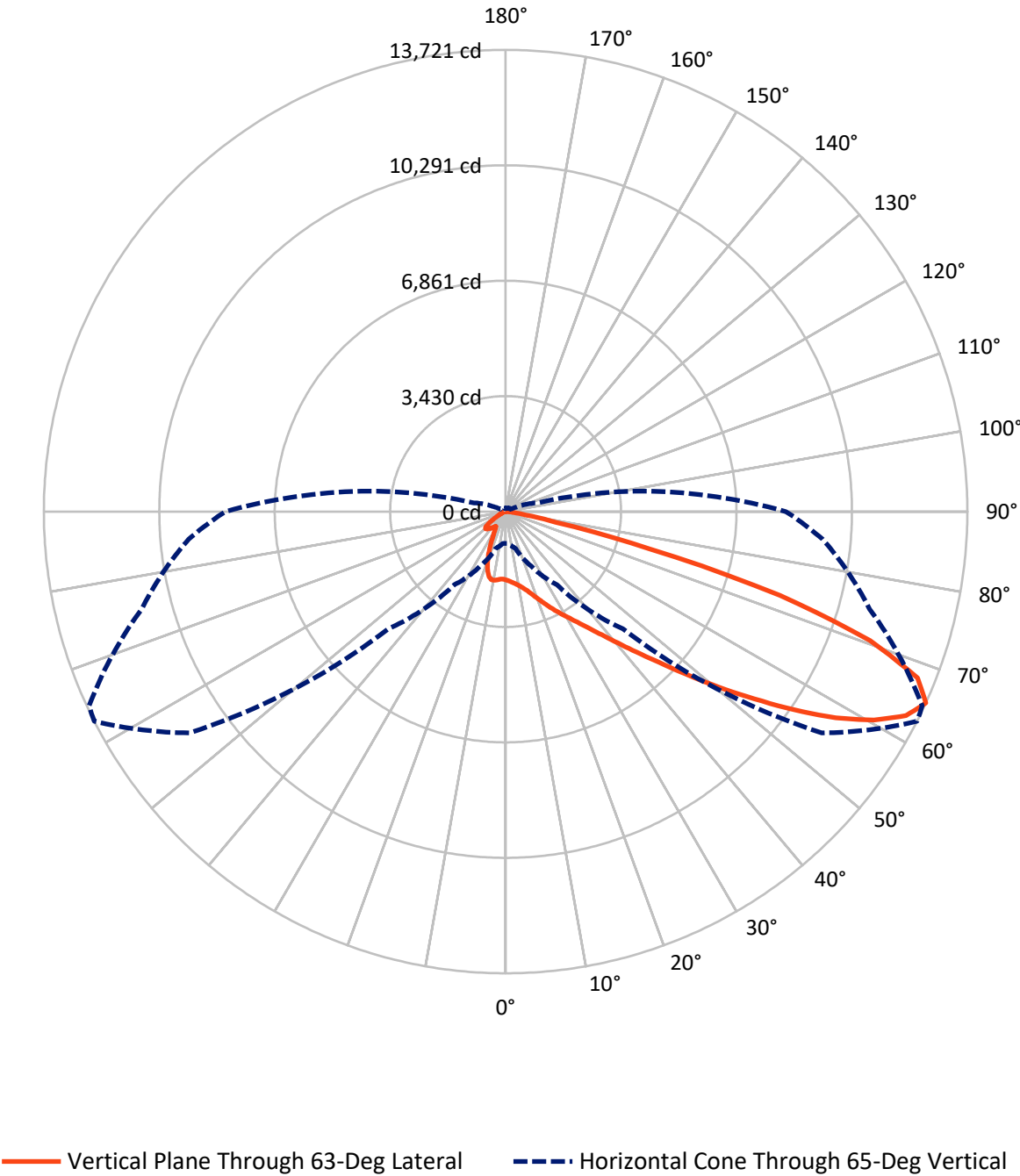
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2420.2	0.0	2420.2
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	14044.4	0.0	14044.4
	% Fixture	85.3	0.0	85.3
Total	Lumens	16464.6	0.0	16464.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.5	1.2
10°-20°	531.2	3.2
20°-30°	925.0	5.6
30°-40°	1667.2	10.1
40°-50°	3306.6	20.1
50°-60°	4504.1	27.4
60°-70°	3595.2	21.8
70°-80°	1626.9	9.9
80°-90°	116.9	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°	16464.6	100.0
0°-180°	16464.6	100.0

Coefficient of Utilization



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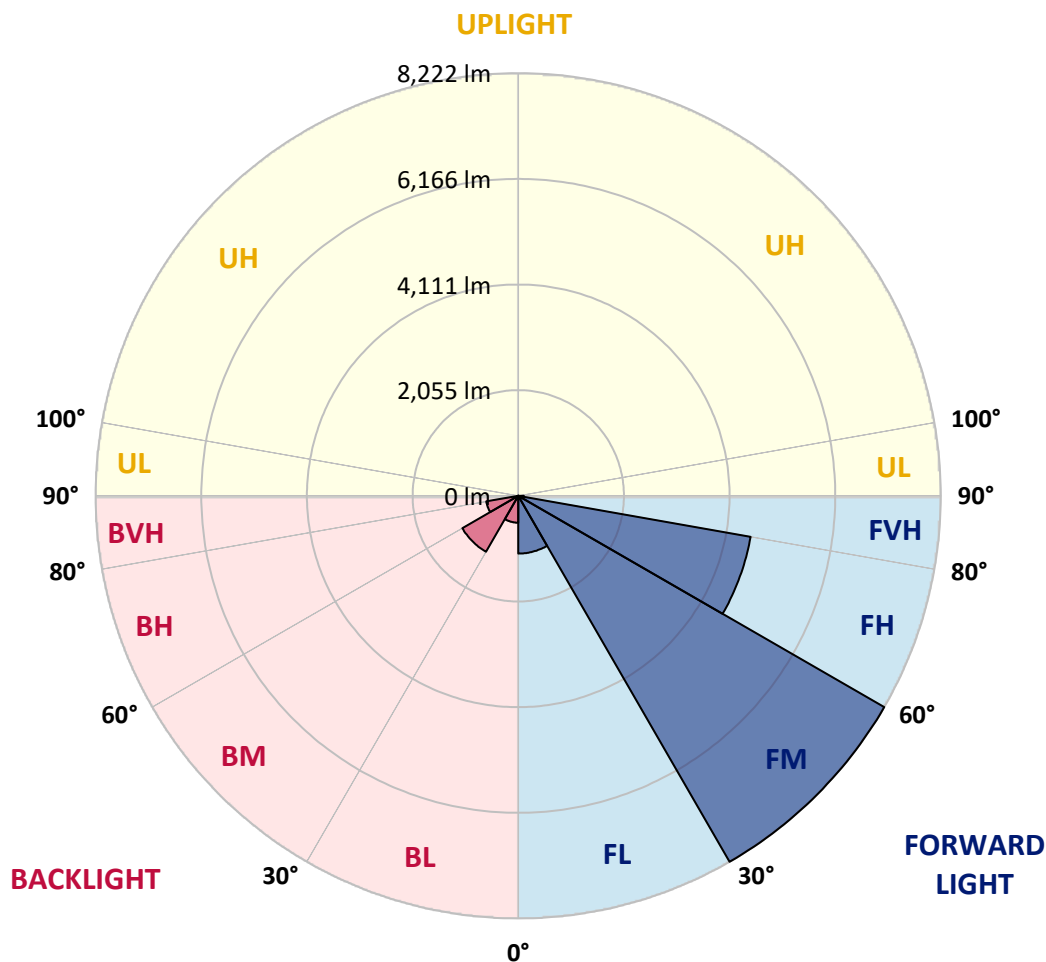
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1123.9	6.8			
FM	(30°-60°)	8222.0	49.9			
FH	(60°-80°)	4590.2	27.9			G2/5000
FVH	(80°-90°)	108.3	0.7			G2/225
BL	(0°-30°)	523.8	3.2	B2/1000		
BM	(30°-60°)	1255.9	7.6	B2/2500		
BH	(60°-80°)	631.8	3.8	B2/1000		G2/1000
BVH	(80°-90°)	8.7	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1
2.5°	2079.6	2074.0	2081.9	2078.5	2076.2	2071.7	2069.4	2067.1	2062.6	2059.2	2045.6
5°	2085.3	2081.9	2089.8	2096.6	2103.4	2110.2	2113.5	2118.2	2113.5	2104.5	2090.9
7.5°	2037.7	2035.4	2052.5	2072.9	2103.4	2129.4	2157.7	2173.6	2174.7	2171.4	2156.6
10°	2034.3	2028.7	2045.6	2070.5	2110.2	2156.6	2206.5	2240.4	2245.0	2259.7	2243.8
12.5°	2087.5	2081.9	2105.7	2132.8	2173.6	2222.3	2283.5	2331.1	2337.8	2358.2	2346.9
15°	2177.0	2169.1	2196.3	2231.4	2283.5	2338.9	2403.5	2446.6	2452.3	2477.2	2456.8
17.5°	2281.2	2273.3	2305.0	2342.4	2399.0	2475.0	2549.7	2597.2	2604.0	2619.9	2582.5
20°	2414.9	2404.6	2429.7	2463.6	2523.7	2614.3	2703.7	2771.7	2770.6	2770.6	2709.4
22.5°	2570.1	2554.2	2575.7	2602.9	2659.6	2769.4	2888.3	2968.8	2968.8	2937.0	2836.3
25°	2736.5	2720.8	2744.5	2769.4	2819.3	2943.9	3083.2	3182.8	3187.3	3133.0	2972.2
27.5°	2945.0	2924.6	2942.7	2972.2	3001.6	3128.5	3293.8	3409.4	3411.6	3327.9	3101.3
30°	3345.9	3288.2	3231.5	3199.8	3213.5	3339.1	3515.9	3643.9	3655.2	3539.6	3241.8
32.5°	4079.9	4068.6	3869.3	3608.7	3472.8	3565.7	3763.9	3918.0	3924.7	3776.4	3424.1
35°	5220.5	5207.0	4886.4	4390.3	3947.4	3869.3	4065.3	4247.6	4243.1	4075.4	3660.9
37.5°	6582.0	6569.5	6147.1	5483.3	4766.4	4328.0	4453.7	4645.2	4673.5	4453.7	3966.6
40°	7745.3	7698.9	7431.6	6791.5	5853.8	5089.1	5006.5	5133.3	5162.8	4902.3	4355.2
42.5°	8626.5	8586.9	8451.0	8051.2	7169.9	6215.1	5657.8	5706.5	5739.3	5426.7	4801.4
45°	9083.0	9073.9	9128.3	9090.9	8511.0	7596.9	6588.8	6386.1	6398.6	6007.7	5307.8
47.5°	9147.6	9143.0	9391.2	9742.2	9664.1	9155.5	7783.8	7233.3	7189.1	6663.6	5858.3
50°	8767.0	8757.9	9233.6	9891.8	10434.3	10464.8	9140.7	8188.2	8090.7	7342.1	6432.5
52.5°	7551.6	7549.3	8330.9	9426.2	10705.0	11611.2	10481.9	9237.1	9073.9	8060.2	7039.6
55°	5810.7	5852.5	6748.5	8043.2	10211.2	12162.8	11685.9	10401.5	10151.1	8782.8	7599.1
57.5°	4116.2	4177.4	5063.1	6216.2	8679.8	11836.6	12500.3	11568.2	11298.6	9503.3	8166.7
60°	2211.0	2265.4	3152.3	4528.4	6457.4	10620.0	12929.7	12580.7	12325.9	10187.4	8678.7
62.5°	1317.3	1335.5	1702.4	2923.5	4367.6	8113.4	12747.2	13352.1	13142.6	10761.7	9123.8
65°	945.8	949.1	1133.9	1785.1	2651.6	4929.4	11468.4	13721.4	13656.8	11194.3	9453.4
67.5°	796.3	794.0	871.0	1185.9	1806.7	2469.2	8789.7	13199.2	13473.3	11468.4	9640.3
70°	683.1	686.4	777.1	868.8	1358.1	1397.7	4369.9	11492.2	12076.8	11541.0	9629.0
72.5°	508.6	519.9	603.7	791.7	1025.1	961.7	1508.7	8521.2	9578.0	10873.8	9129.5
75°	359.1	364.7	424.8	666.0	764.5	700.0	770.2	4405.0	5759.7	8336.5	7472.4
77.5°	276.3	286.6	321.6	465.6	753.3	491.6	471.2	1524.6	2342.4	5035.9	5123.2
80°	149.5	167.6	232.2	336.4	529.0	347.8	233.3	607.1	794.0	2354.8	1975.4
82.5°	77.0	86.1	162.0	242.4	301.2	303.6	115.5	252.6	327.4	727.1	270.7
85°	30.5	37.4	108.8	133.7	155.2	149.5	52.1	102.0	117.8	201.6	82.7
87.5°	6.8	11.4	39.7	30.5	29.4	31.7	12.5	23.8	22.7	23.8	14.8
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°	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1	2032.1
2.5°	2044.5	2040.0	2027.6	2013.9	1998.0	1989.0	1983.4	1982.2	1974.3	1968.6	1974.3
5°	2078.5	2074.0	2050.2	2021.8	1991.3	1967.5	1944.8	1924.4	1895.0	1889.3	1887.0
7.5°	2146.5	2133.9	2095.5	2057.0	1999.2	1930.1	1846.2	1750.0	1663.9	1637.8	1625.4
10°	2230.3	2213.3	2164.6	2096.6	1968.6	1780.6	1577.8	1389.8	1240.2	1198.4	1182.5
12.5°	2325.4	2310.7	2246.1	2120.4	1840.6	1499.7	1189.3	956.0	811.0	774.8	764.5
15°	2438.7	2417.2	2327.7	2084.1	1611.8	1139.5	816.6	678.4	626.4	619.6	612.7
17.5°	2558.7	2523.7	2400.1	1953.9	1303.7	809.9	630.9	591.2	568.6	561.8	558.4
20°	2668.6	2623.3	2443.2	1756.7	974.2	630.9	565.2	539.2	518.8	510.9	506.4
22.5°	2778.5	2713.9	2443.2	1488.3	730.6	559.5	518.8	495.0	471.2	461.0	455.3
25°	2892.9	2806.8	2400.1	1189.3	587.8	513.1	474.6	448.5	428.1	415.7	411.1
27.5°	3003.9	2885.0	2301.6	906.1	523.3	472.3	433.8	408.9	389.6	380.6	380.6
30°	3109.2	2961.9	2163.5	687.6	481.4	432.7	396.5	374.9	355.7	346.6	347.8
32.5°	3251.9	3059.4	2016.2	564.1	445.2	395.3	362.4	342.0	325.1	318.3	318.3
35°	3450.2	3203.2	1889.3	553.9	414.6	364.7	331.9	312.6	295.6	290.0	290.0
37.5°	3731.1	3435.4	1822.4	621.9	389.6	337.5	307.0	286.6	270.7	266.2	265.1
40°	4077.7	3750.4	1858.7	689.8	372.7	313.8	284.3	263.9	250.3	244.7	243.5
42.5°	4488.9	4138.8	2059.2	741.9	361.3	293.4	262.8	240.2	231.0	228.8	228.8
45°	4961.2	4565.9	2366.2	797.4	343.2	274.1	241.3	224.3	217.5	216.4	215.2
47.5°	5498.1	5034.8	2721.9	866.5	325.1	255.9	224.3	213.0	207.3	205.0	205.0
50°	6030.4	5507.1	3087.7	905.0	310.4	239.0	210.6	201.6	197.1	196.0	196.0
52.5°	6587.7	5993.1	3383.3	868.8	297.9	225.4	199.4	192.6	188.0	186.9	186.9
55°	7118.9	6386.1	3434.3	737.4	273.0	211.8	186.9	183.5	177.8	177.8	176.7
57.5°	7576.5	6583.2	3074.1	541.4	248.0	191.5	174.5	171.1	166.5	165.3	164.2
60°	7996.7	6526.6	2373.0	364.7	220.9	171.1	158.6	156.3	151.8	146.2	144.9
62.5°	8233.5	6277.3	1623.2	237.9	193.7	149.5	140.4	139.3	129.1	117.8	115.5
65°	8323.0	5765.4	1012.6	173.3	162.0	128.0	121.2	118.9	104.2	91.7	90.6
67.5°	8244.8	4922.7	510.9	137.0	128.0	106.5	99.6	99.6	89.5	78.1	77.0
70°	7932.2	3690.3	215.2	109.9	98.5	81.6	81.6	86.1	75.8	63.4	62.3
72.5°	7253.7	2482.9	114.4	83.8	73.6	57.8	66.8	70.2	60.1	47.6	47.6
75°	5766.5	1514.4	79.3	62.3	46.4	40.8	50.9	53.2	40.8	31.7	30.5
77.5°	3944.0	869.9	53.2	39.7	29.4	23.8	35.2	32.8	21.5	14.8	15.9
80°	1731.8	362.4	30.5	18.1	11.4	9.0	12.5	9.0	6.8	4.5	4.5
82.5°	202.7	85.0	11.4	6.8	4.5	2.3	1.1	0.0	0.0	0.0	0.0
85°	41.9	10.1	5.6	2.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.9	2.3	1.1	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)