

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: P963020

Luminaire Tested: **NAV-SB2D-740-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963020
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-SB2D-740-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA 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: 16865.3 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

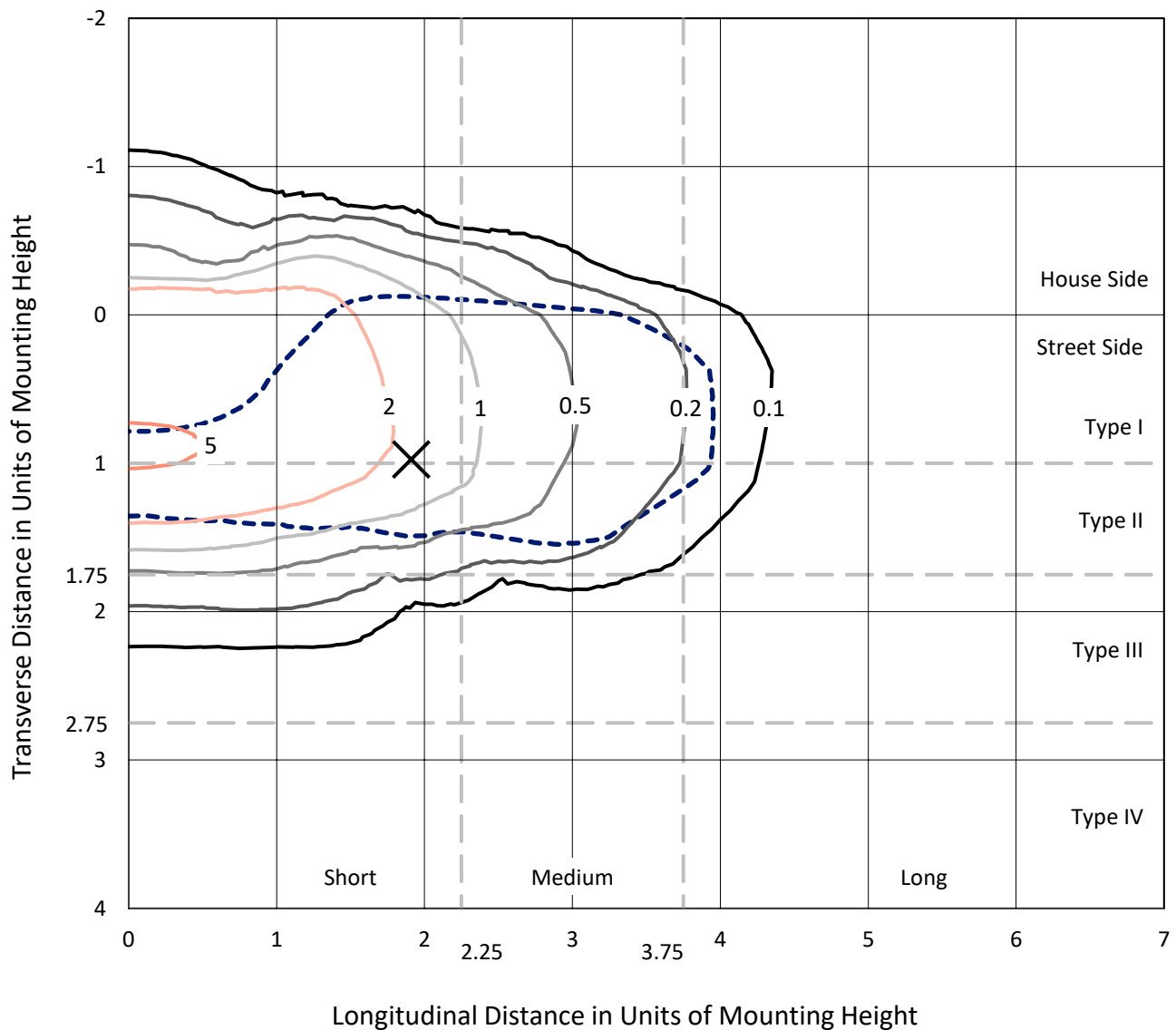
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

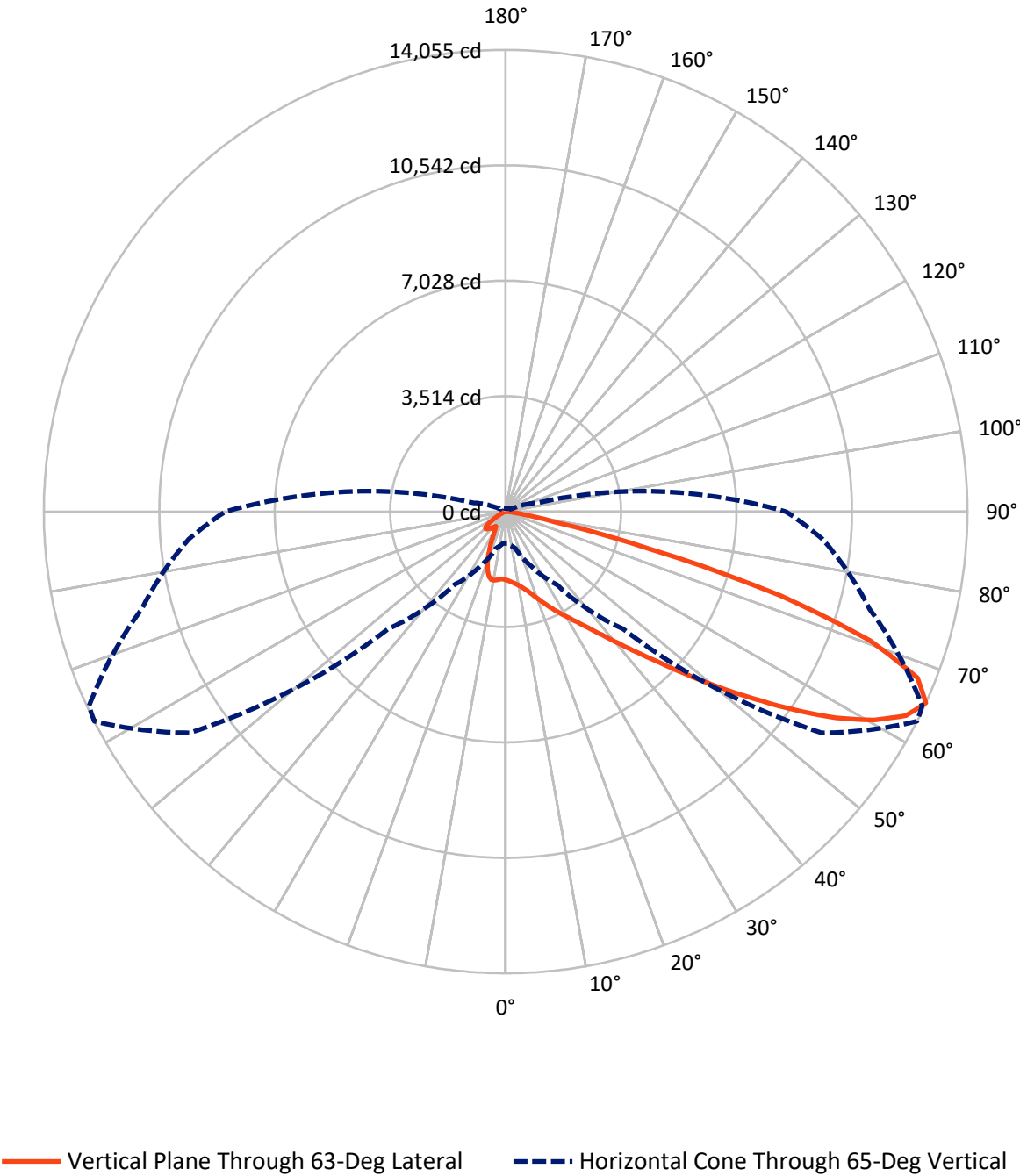
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 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	2479.1	0.0	2479.1
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	14386.3	0.0	14386.3
	% Fixture	85.3	0.0	85.3
Total	Lumens	16865.3	0.0	16865.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.1	1.2
10°-20°	544.2	3.2
20°-30°	947.5	5.6
30°-40°	1707.8	10.1
40°-50°	3387.1	20.1
50°-60°	4613.8	27.4
60°-70°	3682.7	21.8
70°-80°	1666.5	9.9
80°-90°	119.8	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°	16865.3	100.0
0°-180°	16865.3	100.0

Coefficient of Utilization



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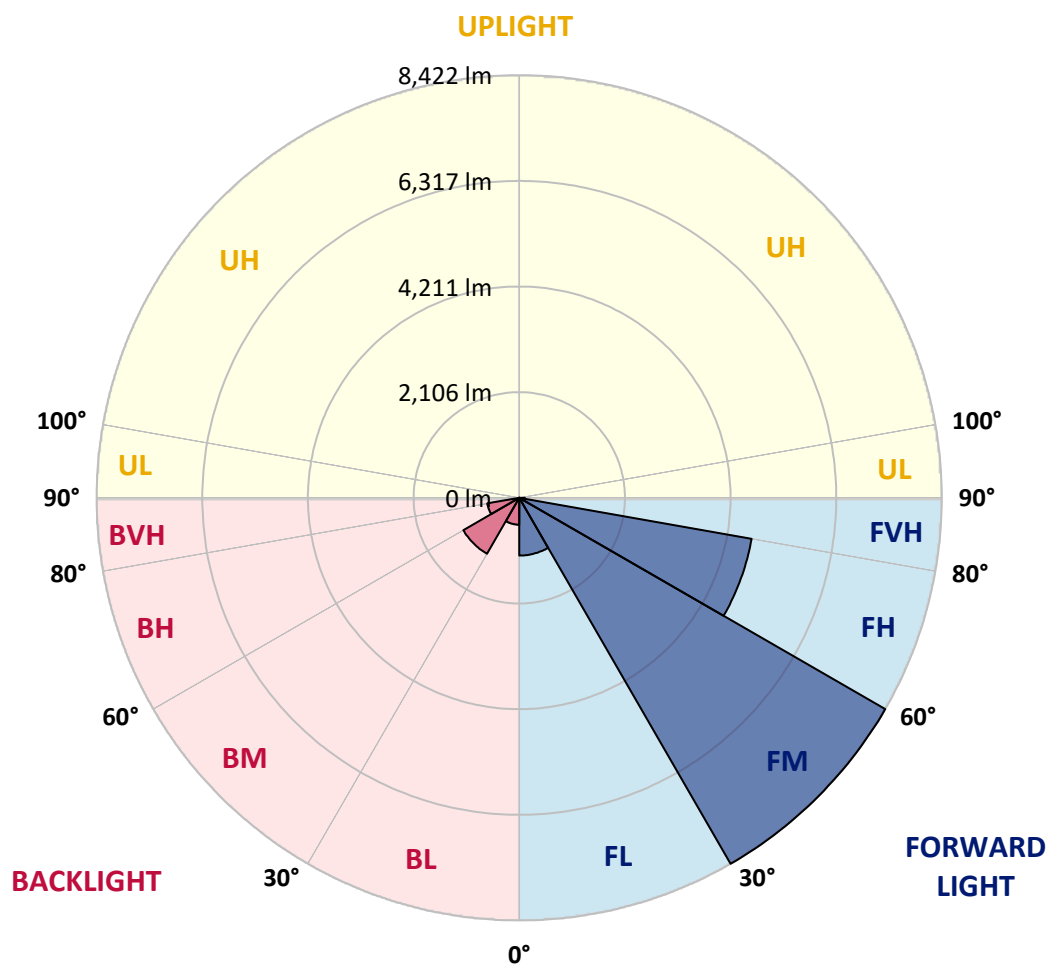
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1151.3	6.8			
FM	(30°-60°)	8422.1	49.9			
FH	(60°-80°)	4702.0	27.9			G2/5000
FVH	(80°-90°)	110.9	0.7			G2/225
BL	(0°-30°)	536.5	3.2	B2/1000		
BM	(30°-60°)	1286.5	7.6	B2/2500		
BH	(60°-80°)	647.2	3.8	B2/1000		G2/1000
BVH	(80°-90°)	8.9	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°	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5
2.5°	2130.3	2124.4	2132.5	2129.0	2126.8	2122.2	2119.8	2117.4	2112.8	2109.3	2095.4
5°	2136.0	2132.5	2140.7	2147.7	2154.5	2161.5	2165.0	2169.7	2165.0	2155.8	2141.8
7.5°	2087.3	2085.0	2102.4	2123.3	2154.5	2181.3	2210.3	2226.5	2227.7	2224.2	2209.1
10°	2083.8	2078.0	2095.4	2120.9	2161.5	2209.1	2260.2	2295.0	2299.6	2314.8	2298.5
12.5°	2138.4	2132.5	2156.9	2184.8	2226.5	2276.4	2339.0	2387.8	2394.8	2415.6	2404.0
15°	2230.0	2221.9	2249.8	2285.8	2339.0	2395.9	2462.0	2506.1	2512.0	2537.5	2516.6
17.5°	2336.8	2328.6	2361.1	2399.4	2457.4	2535.1	2611.7	2660.5	2667.5	2683.7	2645.4
20°	2473.6	2463.2	2488.8	2523.5	2585.0	2677.9	2769.5	2839.1	2838.0	2838.0	2775.3
22.5°	2632.6	2616.4	2638.5	2666.2	2724.2	2836.8	2958.7	3041.1	3041.1	3008.6	2905.3
25°	2803.2	2787.0	2811.3	2836.8	2887.8	3015.5	3158.2	3260.3	3264.9	3209.3	3044.6
27.5°	3016.7	2995.8	3014.3	3044.6	3074.7	3204.7	3374.0	3492.4	3494.7	3408.8	3176.8
30°	3427.4	3368.3	3310.2	3277.7	3291.7	3420.4	3601.4	3732.5	3744.1	3625.8	3320.7
32.5°	4179.2	4167.6	3963.5	3696.6	3557.4	3652.5	3855.5	4013.3	4020.3	3868.3	3507.4
35°	5347.6	5333.7	5005.4	4497.2	4043.5	3963.5	4164.2	4350.9	4346.3	4174.6	3750.0
37.5°	6742.2	6729.5	6296.7	5616.8	4882.4	4433.3	4562.2	4758.3	4787.3	4562.2	4063.2
40°	7933.8	7886.2	7612.5	6956.9	5996.2	5213.0	5128.4	5258.2	5288.5	5021.6	4461.2
42.5°	8836.5	8795.9	8656.6	8247.2	7344.4	6366.4	5795.5	5845.4	5879.0	5558.8	4918.4
45°	9304.1	9294.8	9350.6	9312.2	8718.1	7781.8	6749.2	6541.5	6554.3	6154.0	5437.0
47.5°	9370.2	9365.6	9619.7	9979.4	9899.3	9378.3	7973.3	7409.4	7364.1	6825.8	6000.9
50°	8980.4	8971.1	9458.4	10132.5	10688.3	10719.7	9363.3	8387.5	8287.7	7520.8	6589.1
52.5°	7735.5	7733.1	8533.7	9655.7	10965.6	11893.8	10737.0	9461.9	9294.8	8256.4	7211.0
55°	5952.1	5995.0	6912.8	8238.9	10459.7	12458.9	11970.4	10654.7	10398.2	8996.6	7784.2
57.5°	4216.3	4279.1	5186.4	6367.5	8891.1	12124.7	12804.6	11849.7	11573.6	9734.5	8365.4
60°	2264.8	2320.5	3229.0	4638.7	6614.6	10878.5	13244.3	12887.0	12625.9	10435.3	8889.9
62.5°	1349.4	1368.0	1743.8	2994.6	4473.9	8310.9	13057.6	13677.1	13462.5	11023.6	9345.8
65°	968.8	972.3	1161.4	1828.6	2716.1	5049.5	11747.6	14055.4	13989.2	11466.9	9683.5
67.5°	815.7	813.3	892.3	1214.8	1850.6	2529.4	9003.6	13520.5	13801.3	11747.6	9875.0
70°	699.7	703.2	795.9	889.9	1391.1	1431.7	4476.3	11772.0	12370.6	11821.8	9863.4
72.5°	520.9	532.6	618.4	811.0	1050.0	985.0	1545.5	8728.6	9811.1	11138.5	9351.7
75°	367.8	373.6	435.1	682.2	783.2	717.1	788.9	4512.3	5899.9	8539.5	7654.2
77.5°	283.1	293.6	329.5	476.8	771.6	503.6	482.7	1561.7	2399.4	5158.5	5247.9
80°	153.1	171.7	237.9	344.6	541.8	356.2	239.0	621.9	813.3	2412.1	2023.5
82.5°	78.9	88.1	165.9	248.3	308.6	311.0	118.4	258.7	335.3	744.9	277.3
85°	31.4	38.3	111.4	136.9	159.0	153.1	53.4	104.4	120.6	206.5	84.7
87.5°	7.0	11.6	40.6	31.4	30.1	32.5	12.8	24.4	23.2	24.4	15.1
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°	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5	2081.5
2.5°	2094.3	2089.7	2076.9	2062.9	2046.7	2037.4	2031.7	2030.4	2022.3	2016.5	2022.3
5°	2129.0	2124.4	2100.0	2071.0	2039.7	2015.4	1992.2	1971.3	1941.1	1935.3	1932.9
7.5°	2198.7	2185.9	2146.5	2107.0	2047.8	1977.1	1891.2	1792.6	1704.4	1677.7	1665.0
10°	2284.5	2267.1	2217.3	2147.7	2016.5	1823.9	1616.2	1423.6	1270.5	1227.5	1211.3
12.5°	2382.0	2366.9	2300.8	2172.0	1885.4	1536.2	1218.3	979.3	830.8	793.7	783.2
15°	2498.0	2476.0	2384.4	2134.9	1651.1	1167.3	836.5	694.9	641.6	634.7	627.7
17.5°	2621.0	2585.0	2458.6	2001.4	1335.5	829.6	646.3	605.7	582.4	575.5	572.1
20°	2733.6	2687.1	2502.6	1799.6	997.8	646.3	578.9	552.3	531.4	523.3	518.6
22.5°	2846.1	2780.0	2502.6	1524.6	748.4	573.2	531.4	507.1	482.7	472.2	466.4
25°	2963.3	2875.1	2458.6	1218.3	602.2	525.6	486.2	459.5	438.6	425.8	421.2
27.5°	3077.0	2955.2	2357.6	928.2	536.1	483.8	444.3	418.8	399.1	389.8	389.8
30°	3184.9	3034.1	2216.0	704.3	493.1	443.2	406.1	384.1	364.3	355.1	356.2
32.5°	3331.1	3133.8	2065.3	577.8	456.0	405.0	371.3	350.4	333.0	326.1	326.1
35°	3534.1	3281.2	1935.3	567.3	424.7	373.6	340.0	320.2	302.8	297.0	297.0
37.5°	3821.9	3519.0	1866.8	636.9	399.1	345.7	314.5	293.6	277.3	272.6	271.5
40°	4177.0	3841.6	1903.9	706.6	381.7	321.4	291.2	270.3	256.5	250.6	249.5
42.5°	4598.2	4239.6	2109.3	759.9	370.1	300.5	269.2	246.0	236.7	234.4	234.4
45°	5082.0	4677.0	2423.8	816.8	351.6	280.7	247.1	229.7	222.7	221.6	220.5
47.5°	5631.9	5157.4	2788.1	887.5	333.0	262.2	229.7	218.1	212.3	210.0	210.0
50°	6177.2	5641.2	3162.8	927.0	318.0	244.8	215.8	206.5	201.9	200.7	200.7
52.5°	6748.1	6138.9	3465.7	889.9	305.1	230.9	204.2	197.2	192.6	191.5	191.5
55°	7292.3	6541.5	3517.9	755.3	279.6	217.0	191.5	188.0	182.1	182.1	181.0
57.5°	7761.0	6743.4	3148.9	554.6	254.1	196.1	178.7	175.2	170.6	169.4	168.2
60°	8191.4	6685.4	2430.8	373.6	226.2	175.2	162.5	160.1	155.5	149.6	148.5
62.5°	8433.9	6430.1	1662.7	243.6	198.4	153.1	143.9	142.7	132.2	120.6	118.4
65°	8525.5	5905.7	1037.3	177.5	165.9	131.1	124.1	121.9	106.7	94.0	92.9
67.5°	8445.5	5042.5	523.3	140.4	131.1	109.1	102.1	102.1	91.6	80.1	78.9
70°	8125.3	3780.1	220.5	112.5	101.0	83.5	83.5	88.1	77.7	65.0	63.9
72.5°	7430.3	2543.3	117.2	85.9	75.4	59.1	68.5	72.0	61.5	48.7	48.7
75°	5906.9	1551.2	81.2	63.9	47.6	41.8	52.2	54.5	41.8	32.5	31.4
77.5°	4040.0	891.0	54.5	40.6	30.1	24.4	36.0	33.6	22.0	15.1	16.2
80°	1774.1	371.3	31.4	18.6	11.6	9.3	12.8	9.3	7.0	4.6	4.6
82.5°	207.7	87.0	11.6	7.0	4.6	2.4	1.1	0.0	0.0	0.0	0.0
85°	42.9	10.5	5.8	2.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.1	2.4	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)