

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: P884486

Luminaire Tested: **NAV-SB5B-827-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16953 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

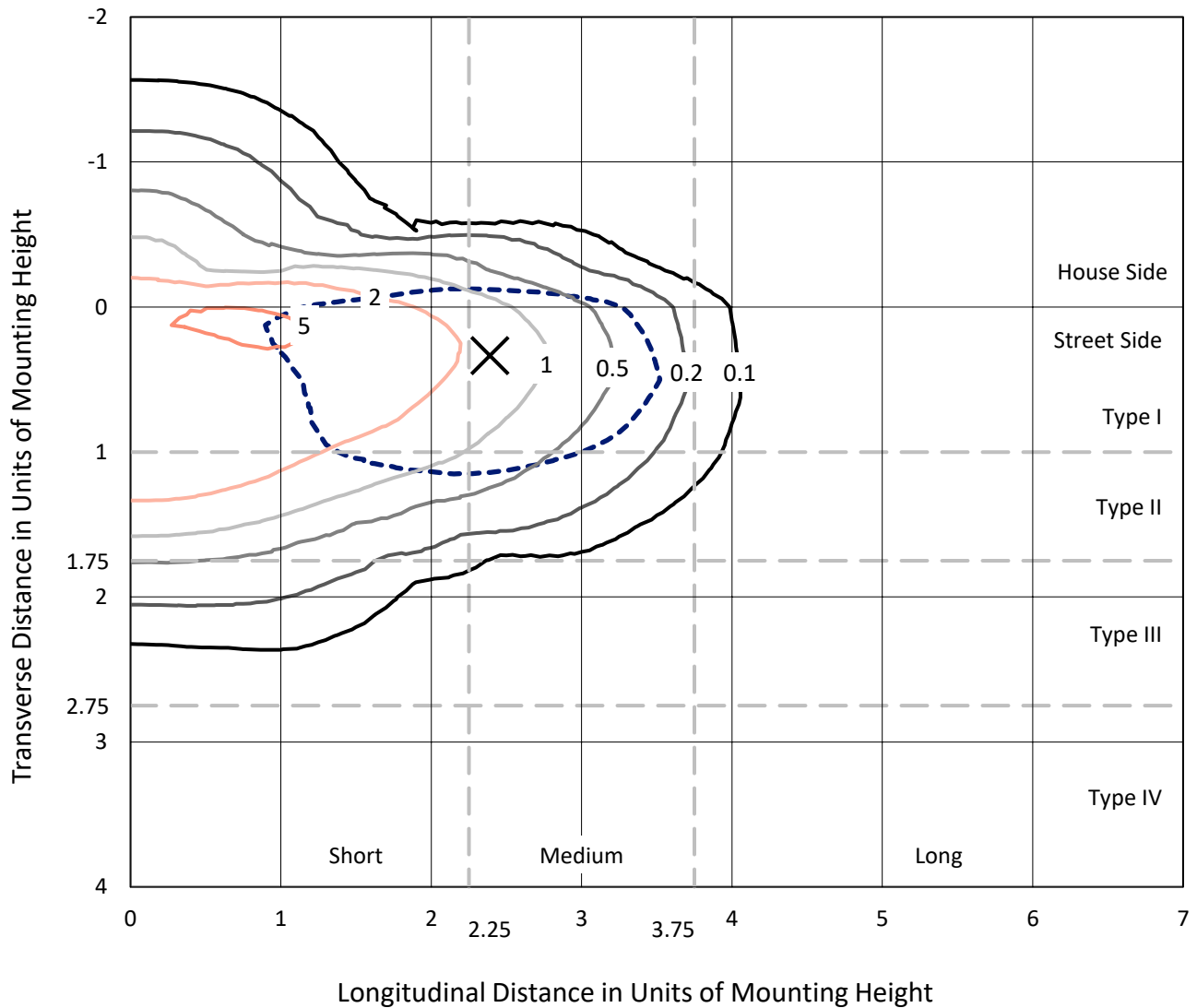
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

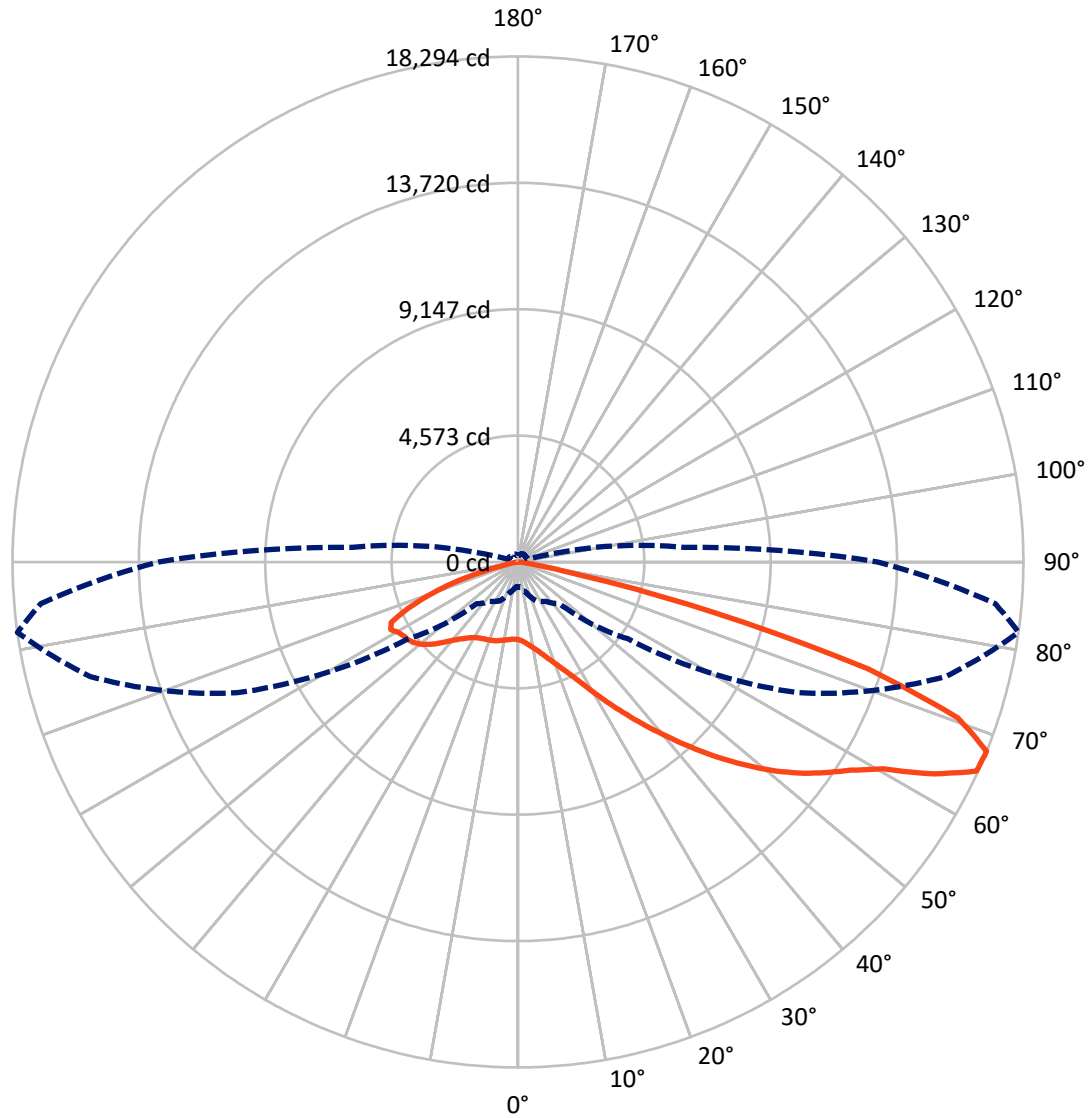
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3070.9	0.0	3070.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13882.1	0.0	13882.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	16953.0	0.0	16953.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.2	1.5
10°-20°	650.2	3.8
20°-30°	1041.4	6.1
30°-40°	1841.6	10.9
40°-50°	3226.7	19.0
50°-60°	4303.5	25.4
60°-70°	4006.3	23.6
70°-80°	1537.6	9.1
80°-90°	95.5	0.6
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°	16953.0	100.0
0°-180°	16953.0	100.0

Coefficient of Utilization



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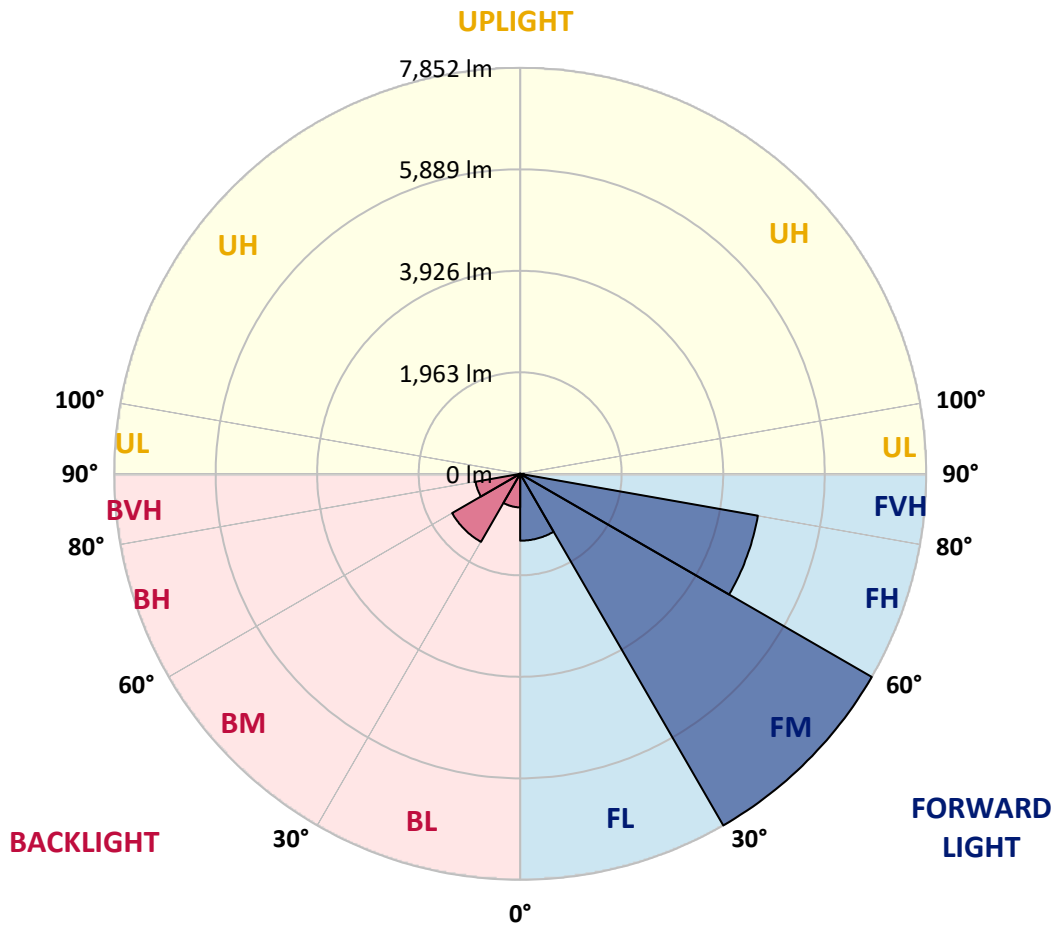
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1293.3	7.6			
FM (30°-60°)	7851.9	46.3			
FH (60°-80°)	4667.4	27.5			G2/5000
FVH (80°-90°)	69.4	0.4			G1/100
BL (0°-30°)	648.6	3.8	B2/1000		
BM (30°-60°)	1519.8	9.0	B2/2500		
BH (60°-80°)	876.5	5.2	B2/1000		G2/1000
BVH (80°-90°)	26.1	0.2			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5
2.5°	2968.4	2985.5	2975.8	2970.9	2962.3	2950.1	2940.4	2909.8	2878.1	2857.4	2850.0
5°	3028.2	3045.3	3044.1	3049.0	3055.1	3058.8	3056.3	3022.1	2977.0	2941.6	2920.8
7.5°	2977.0	2996.5	3012.4	3036.8	3079.5	3124.7	3146.6	3139.3	3092.9	3044.1	3018.5
10°	2831.7	2852.5	2890.3	2947.7	3038.0	3135.7	3217.4	3255.3	3226.0	3172.3	3136.9
12.5°	2565.6	2586.4	2660.8	2785.3	2936.7	3106.4	3262.6	3363.9	3371.2	3317.5	3276.0
15°	2266.6	2287.4	2366.7	2522.9	2753.6	3025.8	3287.0	3478.6	3543.3	3496.9	3446.9
17.5°	2081.1	2099.4	2159.2	2284.9	2525.4	2864.7	3278.5	3600.7	3748.4	3711.8	3652.0
20°	2024.9	2040.8	2068.9	2156.8	2356.9	2697.5	3222.3	3715.4	3969.3	3948.6	3881.4
22.5°	2084.7	2099.4	2107.9	2147.0	2272.7	2587.6	3151.5	3832.6	4225.6	4228.1	4146.3
25°	2222.7	2237.3	2227.5	2252.0	2306.9	2553.4	3124.7	3970.5	4547.9	4574.7	4481.9
27.5°	2449.7	2450.9	2427.7	2426.5	2435.0	2604.7	3152.7	4118.2	4954.3	5004.3	4889.6
30°	2905.0	2886.7	2797.6	2701.1	2657.2	2758.5	3230.9	4292.8	5434.0	5523.1	5379.1
32.5°	3606.8	3579.9	3416.4	3185.7	2953.8	3006.3	3371.2	4491.7	5956.4	6117.5	5941.7
35°	4368.4	4361.1	4190.2	3847.2	3442.0	3359.0	3599.5	4752.9	6526.4	6782.7	6574.0
37.5°	5076.4	5072.7	4975.1	4571.0	4077.9	3850.9	3965.6	5094.7	7136.7	7507.7	7261.2
40°	5723.3	5734.3	5636.6	5275.3	4778.5	4481.9	4463.6	5517.0	7815.3	8297.5	8004.5
42.5°	6282.3	6294.5	6195.6	5928.3	5470.6	5180.1	5075.1	6034.5	8478.1	9145.8	8799.1
45°	6661.9	6737.6	6722.9	6509.3	6181.0	5879.5	5809.9	6683.9	9233.6	10045.3	9638.9
47.5°	6769.3	6838.9	6948.7	6978.0	6777.8	6481.2	6564.2	7466.2	9997.7	10946.1	10483.5
50°	6504.4	6569.1	6797.4	7101.3	7240.4	7148.9	7297.8	8304.8	10780.1	11844.4	11312.3
52.5°	5982.0	6047.9	6336.0	6816.9	7384.5	7672.5	8033.8	9131.1	11538.1	12695.2	12097.1
55°	5226.5	5296.1	5665.9	6210.3	7109.8	7888.6	8647.8	9956.2	12232.6	13460.5	12805.0
57.5°	4198.8	4250.0	4634.5	5396.2	6419.0	7673.7	9100.6	10857.0	12886.8	14212.4	13506.9
60°	2736.5	2781.7	3228.4	4077.9	5274.1	6956.0	9190.9	11861.5	13755.9	15190.0	14452.8
62.5°	1819.9	1850.4	2115.3	2739.0	3714.2	5578.0	8662.4	12663.4	15030.1	16891.5	16074.9
65°	1248.6	1279.2	1544.0	1978.5	2399.6	3689.8	7142.8	12557.3	16184.8	18242.7	17277.2
67.5°	891.0	916.7	1141.2	1551.3	1736.9	2143.3	4842.0	11200.0	16018.8	18293.9	17341.9
70°	638.4	653.0	838.5	1208.4	1380.5	1287.7	2692.6	8566.0	14025.6	16892.7	16021.2
72.5°	446.7	451.6	582.2	920.3	1111.9	939.8	1281.6	5711.1	10608.0	13259.1	12420.6
75°	302.7	308.8	391.8	675.0	892.2	717.7	678.6	3062.4	6227.4	7339.3	6578.9
77.5°	185.5	188.0	252.7	461.4	667.7	546.8	437.0	1297.5	2409.4	2365.5	2016.4
80°	105.0	105.0	161.1	286.8	455.3	352.7	306.4	551.7	762.9	670.1	590.8
82.5°	58.6	59.8	117.2	178.2	301.5	208.7	168.4	255.1	329.6	291.7	253.9
85°	24.4	26.9	72.0	84.2	144.0	103.7	68.4	107.4	122.1	108.6	79.3
87.5°	2.4	3.7	22.0	15.9	17.1	20.7	9.8	20.7	17.1	17.1	12.2
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°	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5
2.5°	2826.8	2808.5	2762.2	2708.5	2637.7	2603.5	2557.1	2525.4	2498.5	2501.0	2476.5
5°	2881.8	2835.4	2731.6	2602.3	2441.1	2326.4	2204.4	2120.1	2051.8	2037.1	2004.2
7.5°	2957.4	2884.2	2702.3	2469.2	2197.0	1990.8	1806.4	1688.1	1603.8	1577.0	1550.1
10°	3055.1	2948.9	2664.5	2302.0	1910.2	1647.8	1450.0	1357.3	1299.9	1280.4	1265.7
12.5°	3168.6	3023.4	2614.5	2098.2	1614.8	1362.2	1236.4	1190.1	1171.8	1165.6	1162.0
15°	3311.4	3116.1	2538.8	1856.5	1364.6	1187.6	1133.9	1127.8	1130.3	1127.8	1126.6
17.5°	3481.1	3217.4	2415.5	1607.5	1196.2	1098.5	1079.0	1083.9	1090.0	1088.8	1086.3
20°	3666.6	3317.5	2258.1	1386.6	1081.4	1035.0	1024.1	1028.9	1033.8	1031.4	1030.2
22.5°	3877.8	3424.9	2083.5	1214.5	1004.5	976.5	964.3	965.5	965.5	960.6	958.1
25°	4130.4	3543.3	1900.4	1092.4	945.9	924.0	909.3	904.4	897.1	882.5	880.0
27.5°	4431.9	3669.0	1724.7	1007.0	899.6	878.8	861.7	849.5	831.2	806.8	804.4
30°	4771.2	3821.6	1575.8	953.3	862.9	842.2	822.7	804.4	777.5	747.0	744.5
32.5°	5170.3	3985.2	1467.1	917.9	830.0	808.0	784.8	762.9	733.6	703.1	704.3
35°	5646.4	4182.9	1403.7	893.5	804.4	775.1	749.4	725.0	703.1	676.2	673.8
37.5°	6162.7	4392.8	1384.1	881.3	787.3	742.1	712.8	695.7	693.3	677.4	676.2
40°	6727.8	4641.8	1398.8	873.9	769.0	710.4	678.6	675.0	681.1	653.0	654.2
42.5°	7325.9	4937.2	1423.2	865.4	743.3	678.6	648.1	648.1	643.2	604.2	604.2
45°	7972.8	5277.8	1447.6	844.6	712.8	646.9	623.7	615.2	594.4	556.6	555.4
47.5°	8624.6	5624.4	1465.9	806.8	676.2	620.1	599.3	579.8	549.3	515.1	513.9
50°	9243.4	5935.6	1446.4	750.7	634.7	594.4	572.4	545.6	512.6	489.4	485.8
52.5°	9796.3	6205.4	1363.4	684.7	590.8	567.6	548.0	520.0	493.1	468.7	466.3
55°	10277.2	6423.9	1216.9	622.5	551.7	544.4	524.8	489.4	452.8	432.1	429.6
57.5°	10738.6	6589.9	1033.8	571.2	516.3	518.7	489.4	457.7	423.5	401.6	399.1
60°	11352.5	6812.0	848.3	523.6	478.5	485.8	454.1	430.9	388.1	360.1	356.4
62.5°	12333.9	7157.4	673.8	465.0	434.5	437.0	423.5	395.5	344.2	311.2	308.8
65°	13112.6	7030.5	530.9	401.6	384.5	388.1	388.1	357.6	302.7	264.9	261.2
67.5°	13024.7	6019.9	423.5	339.3	336.9	339.3	347.9	322.2	268.5	238.0	233.1
70°	11998.2	4788.3	339.3	282.0	292.9	286.8	311.2	294.2	241.7	211.2	207.5
72.5°	9790.2	3449.3	258.8	233.1	224.6	234.4	280.7	264.9	201.4	167.2	163.6
75°	5720.8	1840.6	192.9	184.3	162.3	195.3	249.0	225.8	153.8	123.3	119.6
77.5°	1862.6	642.0	141.6	135.5	120.8	157.5	212.4	190.4	125.7	97.6	94.0
80°	499.2	194.1	96.4	89.1	78.1	117.2	168.4	151.4	90.3	63.5	62.2
82.5°	200.2	81.8	56.1	50.0	42.7	80.6	133.0	122.1	67.1	40.3	40.3
85°	64.7	26.9	20.7	15.9	19.5	50.0	79.3	83.0	47.6	20.7	15.9
87.5°	8.5	3.7	3.7	4.9	3.7	8.5	24.4	23.2	13.4	2.4	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)