

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: P969328

Luminaire Tested: **NAV-SB5D-740-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 56691.7 lumens
Efficiency: N/A
Efficacy: 155.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

Input Watts (W): 364.9
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

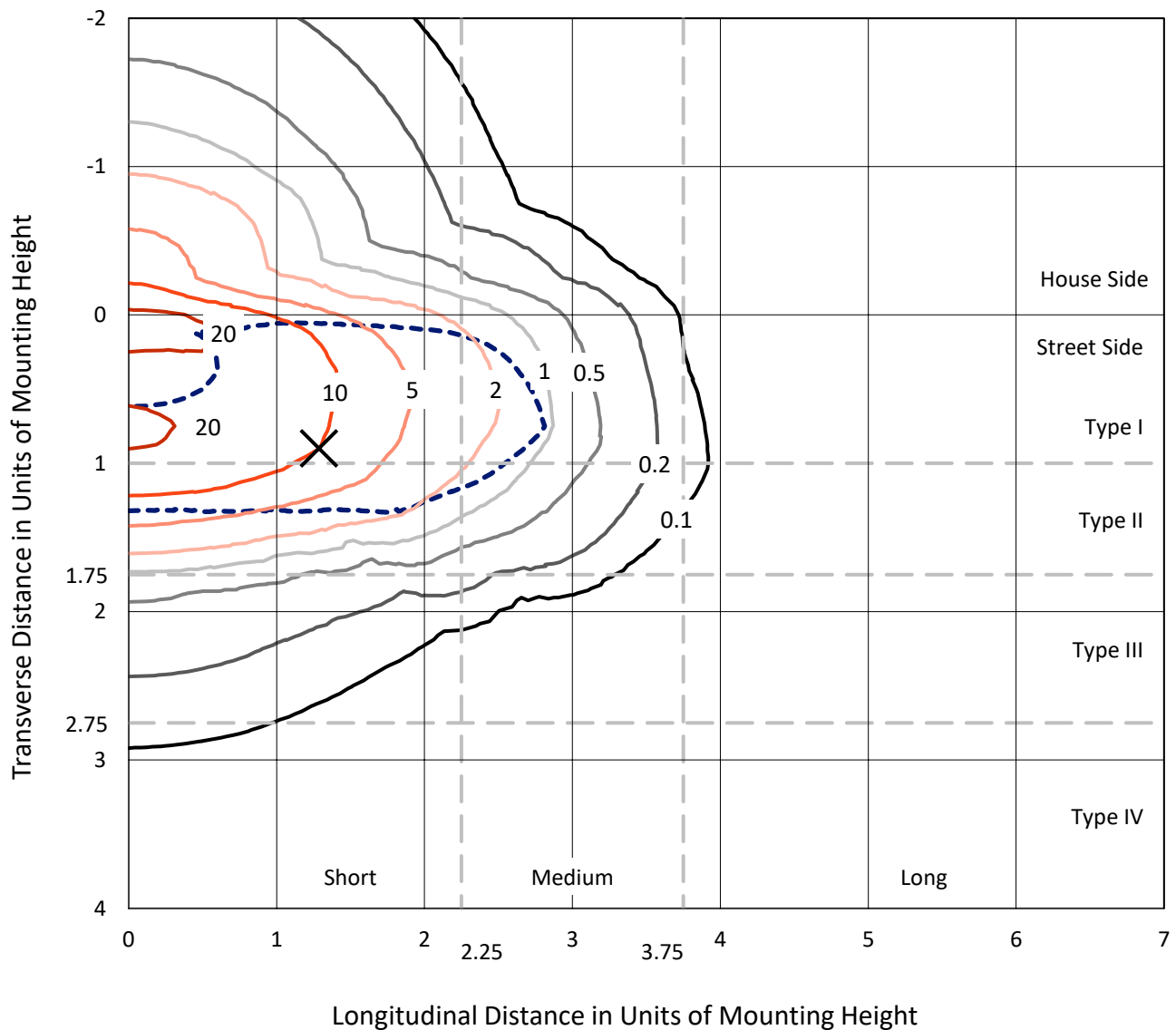


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

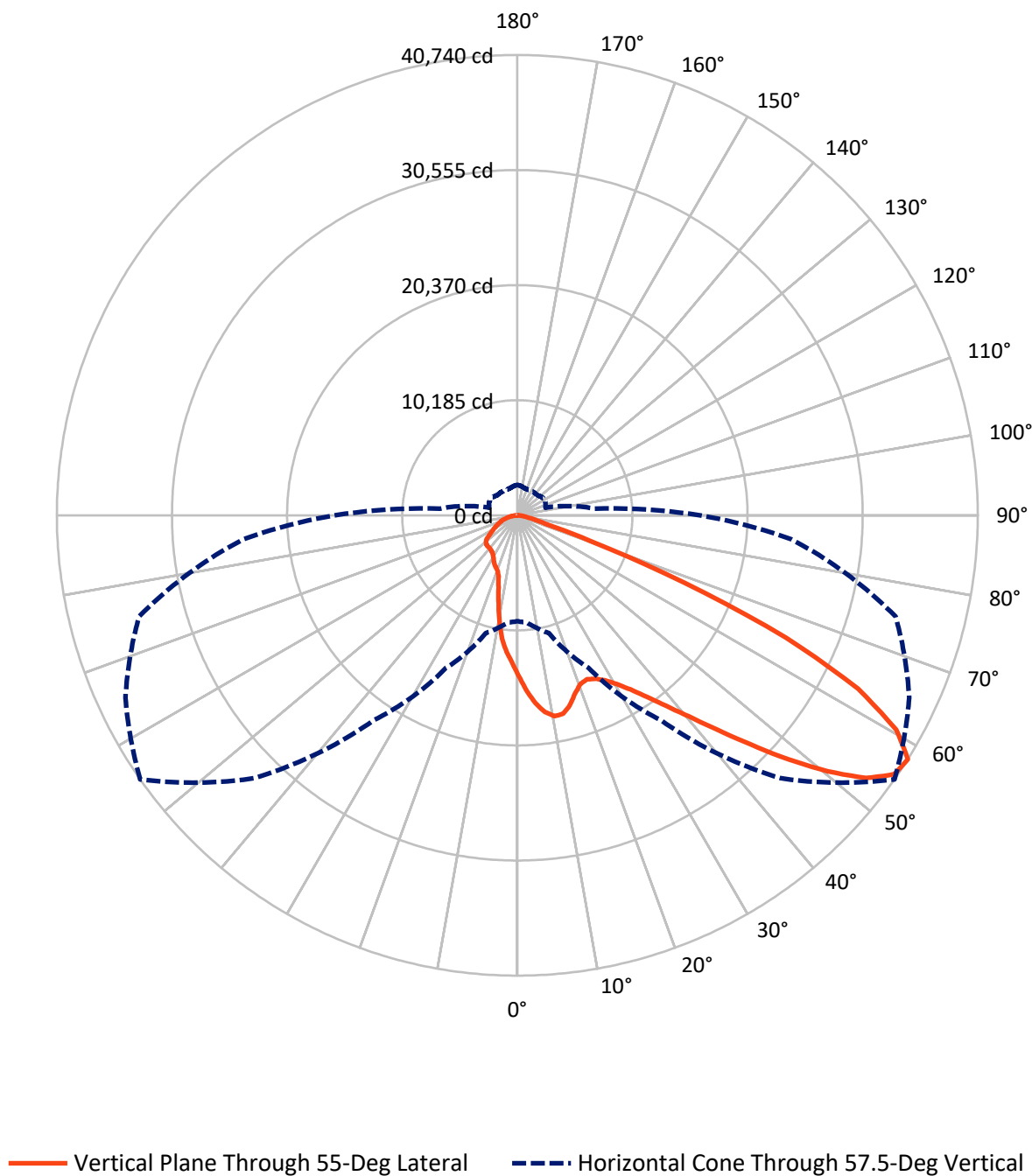


Based on 25 foot mounting height. Maximum calculated value = 27.5 fc

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	10258.1	0.0	10258.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	46433.6	0.0	46433.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	56691.7	0.0	56691.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1318.1	2.3
10°-20°	3327.1	5.9
20°-30°	5309.1	9.4
30°-40°	8405.6	14.8
40°-50°	12865.6	22.7
50°-60°	13780.2	24.3
60°-70°	8669.2	15.3
70°-80°	2563.6	4.5
80°-90°	453.3	0.8
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°	56691.7	100.0
0°-180°	56691.7	100.0

Coefficient of Utilization



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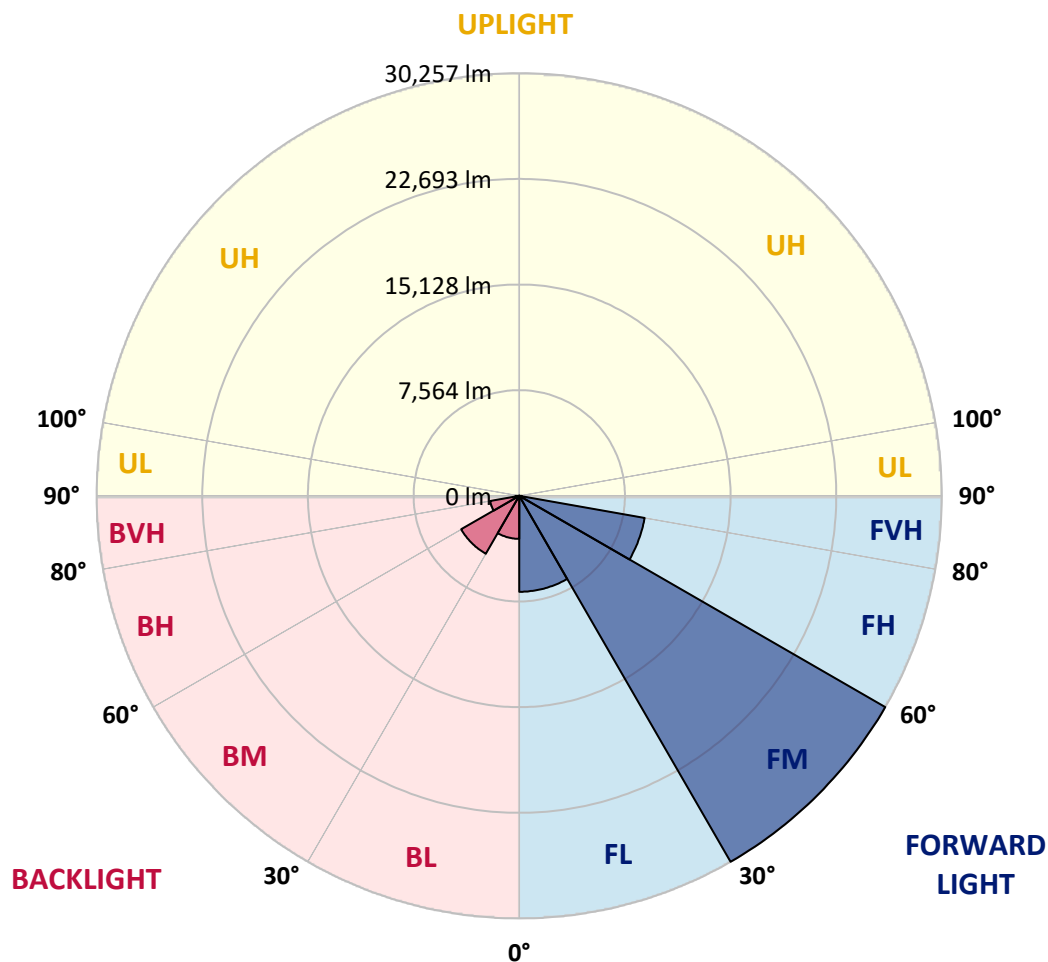
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6871.0	12.1			
FM	(30°-60°)	30256.8	53.4			
FH	(60°-80°)	9114.3	16.1			G4/12000
FVH	(80°-90°)	191.5	0.3			G2/225
BL	(0°-30°)	3083.2	5.4	B4/5000		
BM	(30°-60°)	4794.5	8.5	B3/5000		
BH	(60°-80°)	2118.5	3.7	B3/2500		G3/2500
BVH	(80°-90°)	261.8	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1
2.5°	16297.6	16285.9	16350.4	16130.5	15981.1	15778.8	15512.2	15172.3	14805.9	14419.1	14252.0
5°	17765.9	17663.3	17730.8	17566.7	17402.4	17097.7	16702.1	16148.2	15471.1	14700.3	14290.1
7.5°	17534.4	17464.1	17637.0	17783.4	17906.5	17868.5	17578.3	16998.1	16124.7	15005.2	14410.3
10°	15667.5	15588.4	15831.6	16338.7	17083.1	17730.8	18082.4	17721.9	16792.9	15339.3	14527.5
12.5°	14020.5	13982.3	14143.6	14553.9	15380.3	16622.9	18018.0	18355.0	17487.5	15735.0	14685.8
15°	13317.1	13270.2	13372.8	13580.8	14108.4	15266.0	17431.8	18788.8	18170.4	16192.1	14937.7
17.5°	13161.8	13109.0	13153.0	13261.4	13601.3	14483.6	16546.8	19002.7	18882.6	16702.1	15148.8
20°	13449.0	13405.1	13410.9	13405.1	13642.4	14342.8	15931.3	18920.6	19503.8	17171.0	15354.0
22.5°	14143.6	14070.3	14073.2	13917.9	14046.8	14589.0	15770.1	18700.8	20057.7	17581.3	15509.3
25°	15274.9	15142.9	15169.3	14773.6	14738.5	15140.0	16022.2	18530.8	20608.6	17909.5	15538.6
27.5°	16822.2	16672.8	16593.6	16004.6	15723.2	15922.5	16535.0	18589.4	21130.4	18193.8	15465.3
30°	18756.5	18574.7	18413.6	17578.3	17068.4	16995.1	17332.1	18976.3	21745.8	18492.7	15339.3
32.5°	21127.4	20916.5	20623.3	19515.5	18797.5	18413.6	18363.8	19665.0	22466.8	18873.7	15274.9
35°	23949.6	23674.2	23258.1	21824.9	20916.5	20131.0	19723.7	20658.5	23454.4	19448.1	15348.0
37.5°	26856.9	26546.3	26165.3	24459.7	23343.0	22185.4	21382.4	22006.6	24770.3	20227.7	15541.5
40°	29538.6	29189.7	28835.2	27317.1	26118.4	24723.4	23413.4	23712.4	26379.2	21159.7	15869.8
42.5°	31121.2	30863.2	30728.4	29907.8	28981.7	27566.1	25939.7	25734.5	28187.5	22232.2	16244.9
45°	31050.7	30945.3	31361.4	31701.4	31481.5	30696.2	28899.7	27970.6	30001.5	23161.3	16590.6
47.5°	29392.0	29462.3	30391.4	32302.2	33143.3	33553.6	32270.0	30165.7	31578.3	23856.0	16746.0
50°	24878.7	24937.3	27088.5	31209.0	33571.2	35883.5	35613.8	32308.0	32800.4	24280.8	16710.9
52.5°	21306.2	21344.3	22267.5	27967.6	32158.6	37055.8	38626.6	34327.2	33694.3	24398.1	16514.5
55°	16048.5	16180.4	17215.0	21942.2	28483.5	36126.7	40461.3	36408.1	34259.9	24409.8	16309.4
57.5°	9375.3	9518.9	10796.7	14893.9	22138.5	32888.4	40739.6	38254.4	34643.8	24316.0	16186.3
60°	4592.4	4653.9	5210.8	7827.9	13651.2	26648.9	38500.6	39148.3	34857.8	24266.2	16180.4
62.5°	3094.8	3086.1	3109.4	3862.7	6725.9	17121.2	33834.9	37583.3	34743.5	24075.7	16121.8
65°	2661.1	2628.8	2540.9	2710.9	3484.6	7830.8	26141.8	32911.7	33873.1	23598.0	15720.3
67.5°	2300.6	2303.5	2306.5	2253.7	2488.2	3613.5	15975.2	25925.0	30748.9	21335.5	14172.9
70°	1905.0	1931.3	1943.1	1943.1	2028.1	2370.9	6819.7	17768.9	24254.5	16728.4	11415.1
72.5°	1735.0	1679.3	1685.2	1655.9	1655.9	1805.3	2746.1	10072.8	15280.7	9410.5	6966.3
75°	1415.5	1450.7	1456.5	1436.0	1368.7	1377.4	1629.4	4226.1	6538.4	3903.7	3443.6
77.5°	1222.1	1222.1	1233.8	1219.1	1166.4	1031.6	1087.3	1638.3	2224.4	1600.1	1720.4
80°	981.7	978.9	1028.7	1058.0	975.9	762.0	694.5	905.6	987.7	703.4	893.9
82.5°	477.8	507.0	706.3	806.0	741.5	550.9	425.0	562.7	527.6	310.7	401.5
85°	278.4	263.7	316.5	448.4	425.0	304.8	205.1	293.0	275.5	158.3	161.2
87.5°	87.9	82.1	64.5	152.4	123.1	85.0	55.7	85.0	76.2	35.2	35.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1	14205.1
2.5°	14043.9	13698.1	13355.2	13041.6	12851.1	12728.0	12604.9	12467.2	12414.5	12335.4
5°	13903.2	13235.0	12640.1	12127.3	11661.2	11294.9	10925.7	10626.7	10491.9	10582.7
7.5°	13821.2	12854.0	11936.7	10996.0	10090.4	9366.6	8736.4	8293.9	8094.6	8144.4
10°	13747.9	12423.2	11025.3	9539.5	8238.2	7341.4	6696.6	6359.6	6233.6	6260.0
12.5°	13680.5	11939.7	9926.3	7971.5	6588.2	5996.2	5811.5	5814.5	5838.0	5855.5
15°	13668.8	11356.5	8698.4	6600.0	5697.3	5659.2	5858.5	5984.5	6051.9	6072.4
17.5°	13651.2	10659.0	7446.9	5665.1	5480.4	5738.4	5923.0	6005.0	6057.7	6060.7
20°	13580.8	9773.9	6292.2	5219.6	5433.5	5656.3	5770.5	5835.0	5879.0	5893.6
22.5°	13364.0	8789.2	5392.5	5020.2	5246.0	5424.7	5559.5	5632.8	5659.2	5676.8
25°	12974.2	7687.2	4771.2	4829.8	4985.1	5210.8	5319.2	5333.9	5325.1	5351.4
27.5°	12464.3	6506.2	4384.3	4571.9	4771.2	4964.6	5023.2	5014.4	4996.9	5026.2
30°	11848.8	5445.2	4138.1	4281.7	4554.3	4730.2	4782.9	4762.4	4727.2	4759.5
32.5°	11198.2	4577.8	3935.9	4079.5	4375.5	4548.4	4601.2	4580.7	4554.3	4580.7
35°	10591.5	3971.1	3748.3	3944.7	4234.9	4404.8	4472.3	4475.2	4475.2	4507.4
37.5°	10034.8	3616.5	3593.0	3859.7	4138.1	4290.5	4387.3	4393.2	4267.1	4275.9
40°	9518.9	3467.1	3522.7	3804.1	4044.3	4190.9	4196.8	3868.6	3637.0	3631.2
42.5°	9096.9	3437.7	3543.2	3798.1	3977.0	3982.8	3569.6	3314.6	3250.2	3253.0
45°	8701.2	3428.9	3590.1	3798.1	3877.3	3440.6	3162.2	3094.8	3100.7	3124.1
47.5°	8258.7	3393.8	3598.9	3745.5	3590.1	3059.6	2977.6	2948.3	2936.5	2942.5
50°	7775.1	3267.7	3487.6	3640.0	3097.8	2895.5	2792.9	2784.2	2798.9	2807.6
52.5°	7265.2	3062.6	3297.0	3449.4	2872.0	2751.9	2637.6	2658.1	2722.6	2743.1
55°	6931.2	2822.2	3045.0	3068.4	2713.8	2617.1	2520.4	2567.3	2687.4	2725.6
57.5°	6843.2	2567.3	2757.8	2731.4	2511.7	2499.9	2441.2	2482.3	2634.7	2690.4
60°	6816.8	2338.7	2476.4	2455.9	2315.3	2370.9	2356.3	2376.8	2429.6	2447.1
62.5°	6611.7	2157.0	2224.4	2195.1	2139.4	2236.1	2271.3	2227.3	2268.3	2288.9
65°	6090.0	2010.4	1978.2	1957.7	1981.1	2069.1	2139.4	2051.5	2089.6	2148.2
67.5°	5228.3	1811.2	1723.2	1746.7	1820.0	1866.8	1957.7	1858.0	1890.3	1989.9
70°	4229.0	1559.1	1480.0	1547.4	1617.8	1714.4	1729.1	1661.7	1737.9	1849.3
72.5°	2992.3	1304.2	1248.4	1386.2	1409.7	1535.7	1503.5	1471.2	1576.8	1614.8
75°	2074.9	1052.2	1019.9	1125.3	1210.4	1318.8	1295.4	1333.4	1556.2	1573.8
77.5°	1312.9	817.6	797.1	864.6	981.7	1102.0	1140.0	1573.8	2658.1	2763.6
80°	762.0	609.6	586.1	638.9	741.5	852.8	1099.0	1931.3	1752.5	1732.0
82.5°	425.0	419.1	389.8	404.5	495.3	615.4	1553.3	1359.9	1104.8	1140.0
85°	199.3	246.2	211.0	202.2	278.4	721.0	1037.5	776.6	515.8	504.1
87.5°	52.8	46.8	46.8	52.8	117.3	621.4	413.3	331.2	196.4	190.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)