

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: P961050

Luminaire Tested: **NAV-SB1D-835-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-835-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8251.3 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

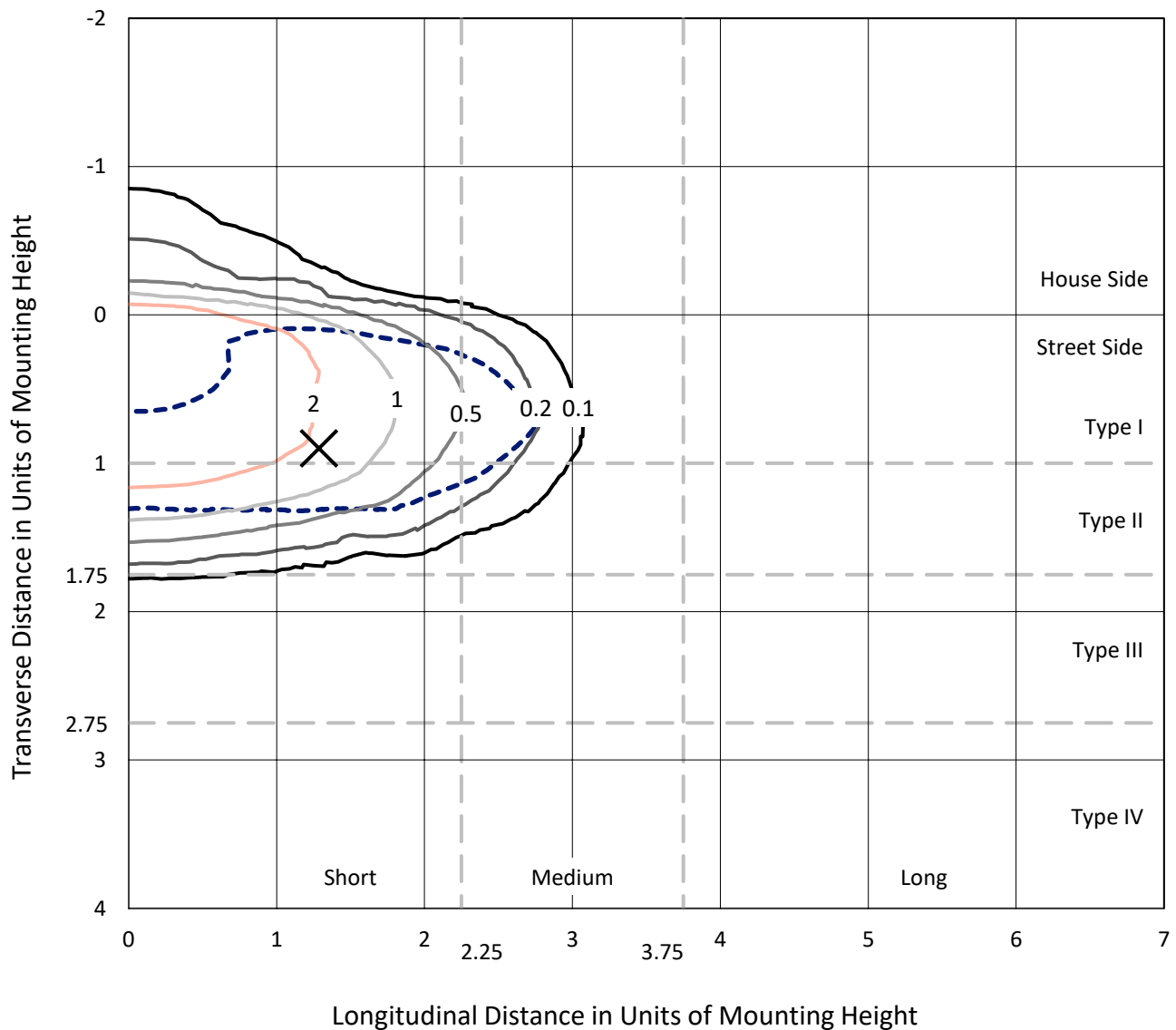
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

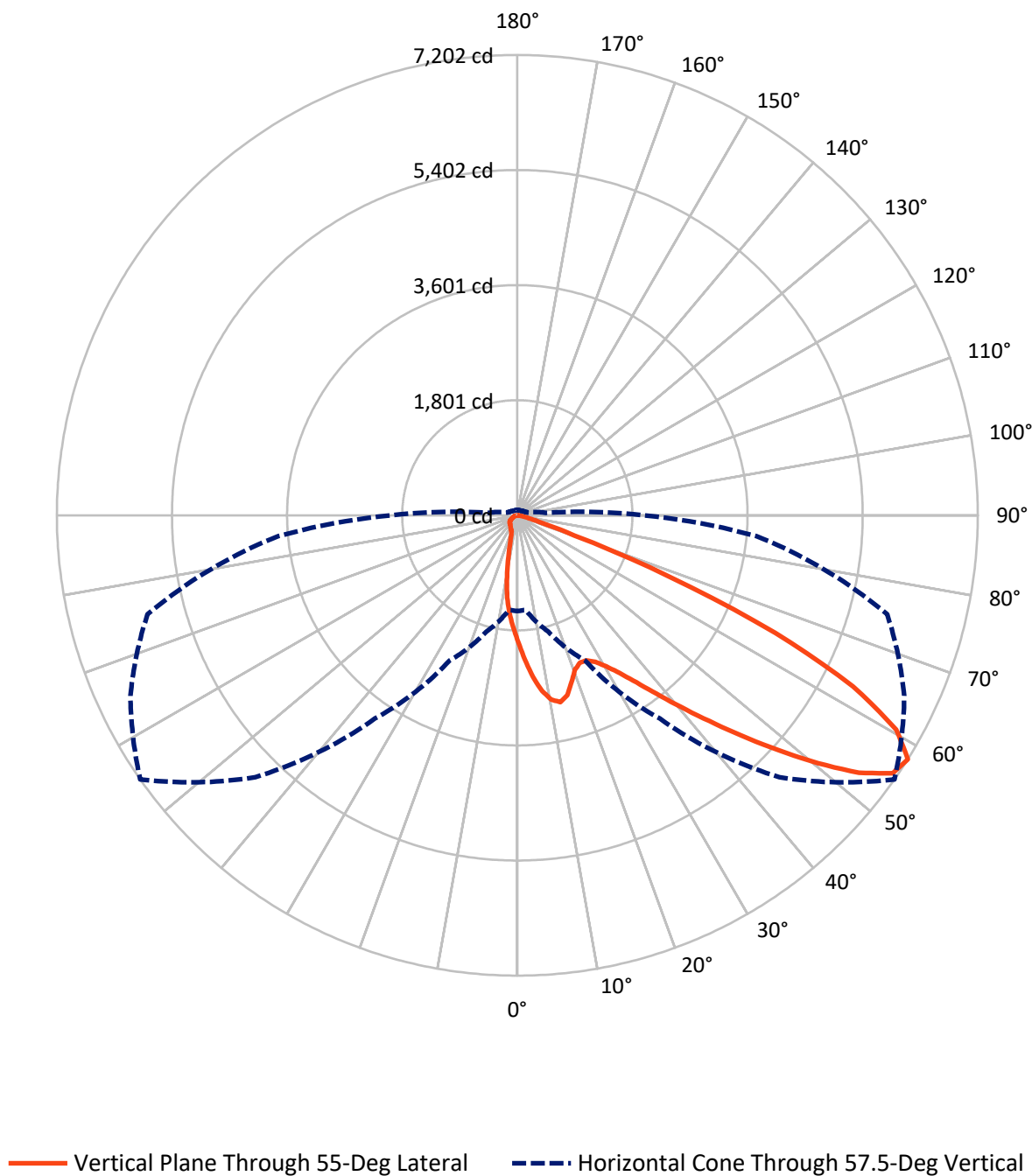
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	644.4	0.0	644.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	7606.9	0.0	7606.9
	% Fixture	92.2	0.0	92.2
Total	Lumens	8251.3	0.0	8251.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.0	2.2
10°-20°	446.9	5.4
20°-30°	715.0	8.7
30°-40°	1210.2	14.7
40°-50°	1986.9	24.1
50°-60°	2183.7	26.5
60°-70°	1252.6	15.2
70°-80°	255.9	3.1
80°-90°	15.1	0.2
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°	8251.3	100.0
0°-180°	8251.3	100.0

Coefficient of Utilization



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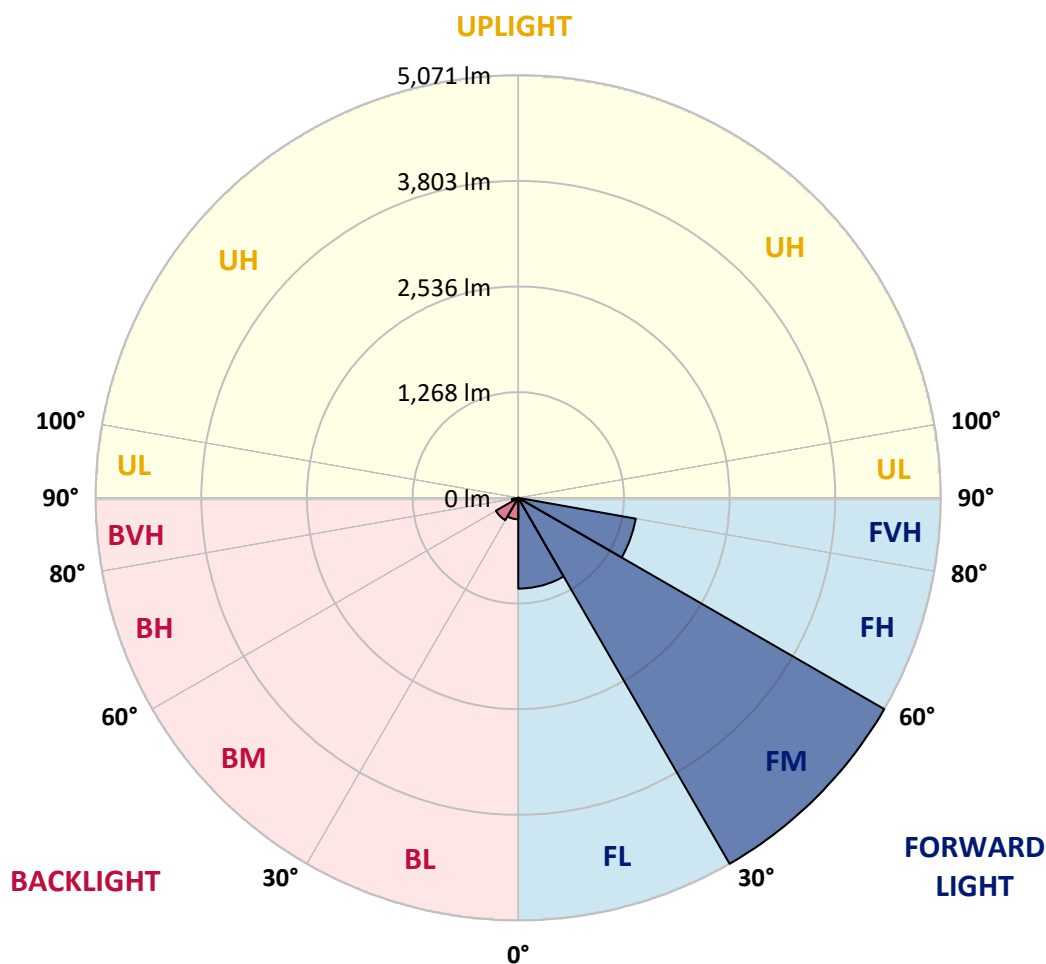
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1089.6	13.2			
FM	(30°-60°)	5071.3	61.5			
FH	(60°-80°)	1431.9	17.4			G1/1800
FVH	(80°-90°)	14.1	0.2			G1/100
BL	(0°-30°)	257.3	3.1	B1/500		
BM	(30°-60°)	309.5	3.8	B1/1000		
BH	(60°-80°)	76.6	0.9	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4
2.5°	2467.1	2436.1	2431.5	2425.4	2366.4	2322.1	2258.0	2187.8	2108.9	2028.6	1992.9
5°	2850.2	2825.8	2821.2	2792.7	2725.6	2650.2	2536.4	2392.4	2245.3	2072.3	1998.0
7.5°	2924.5	2919.9	2940.8	2939.8	2930.6	2871.1	2775.0	2603.5	2382.6	2126.3	2011.3
10°	2593.2	2605.0	2667.0	2721.5	2868.6	2954.0	2933.1	2791.7	2524.1	2187.8	2026.0
12.5°	2291.6	2277.9	2322.1	2383.6	2554.6	2809.0	2998.8	2948.9	2685.9	2257.5	2047.8
15°	2102.3	2096.7	2121.6	2150.1	2280.4	2536.8	2922.5	3076.6	2841.6	2339.9	2081.0
17.5°	2041.8	2037.2	2044.8	2051.9	2136.4	2334.8	2740.8	3155.1	2990.6	2434.1	2117.5
20°	2091.1	2085.1	2084.0	2078.4	2113.5	2248.8	2576.5	3160.6	3124.5	2519.6	2149.1
22.5°	2235.1	2227.9	2203.0	2180.7	2183.8	2260.5	2503.3	3104.6	3225.3	2599.4	2169.0
25°	2496.1	2484.4	2432.5	2357.2	2309.4	2341.9	2514.4	3030.8	3321.4	2662.0	2159.3
27.5°	2822.7	2807.5	2740.8	2628.9	2519.6	2479.9	2595.3	2980.0	3401.3	2709.8	2138.5
30°	3142.8	3123.0	3057.3	2970.3	2810.5	2685.4	2741.4	3002.3	3496.4	2759.7	2111.0
32.5°	3488.3	3469.4	3382.4	3274.6	3142.2	2973.8	2941.3	3111.8	3612.9	2829.4	2091.6
35°	3925.3	3895.8	3772.2	3625.1	3484.7	3314.2	3211.9	3300.5	3768.1	2935.7	2102.3
37.5°	4422.9	4383.2	4250.0	4046.9	3863.7	3673.0	3541.7	3560.0	3995.6	3078.2	2135.4
40°	4892.0	4855.8	4732.7	4541.5	4311.5	4080.0	3940.1	3899.4	4309.4	3251.7	2193.4
42.5°	5173.4	5140.8	5088.9	5008.0	4814.1	4578.1	4401.6	4313.5	4680.9	3459.3	2264.1
45°	5189.2	5160.7	5230.4	5324.5	5286.3	5129.1	4913.8	4752.6	5053.8	3654.1	2337.4
47.5°	4936.8	4917.4	5129.1	5457.8	5621.6	5687.7	5489.3	5155.0	5361.6	3794.0	2367.4
50°	4248.9	4241.8	4677.3	5280.7	5749.3	6177.2	6096.3	5529.6	5600.3	3866.3	2338.9
52.5°	3684.2	3658.2	3912.1	4714.0	5563.6	6434.6	6689.6	5896.8	5767.2	3880.0	2272.2
55°	2794.3	2771.4	3089.9	3765.5	4964.8	6343.1	7123.5	6275.9	5886.7	3844.9	2152.7
57.5°	1498.9	1484.6	1887.1	2506.3	3881.1	5793.6	7202.0	6676.8	5987.4	3751.8	1985.3
60°	583.5	581.1	731.6	1216.0	2358.7	4713.5	6806.6	6917.5	6050.5	3637.3	1845.4
62.5°	353.1	360.7	385.2	545.9	1042.0	2928.1	5895.4	6643.7	6092.7	3532.6	1729.9
65°	292.0	292.5	295.6	374.9	499.1	1225.2	4438.1	5743.2	5988.5	3345.8	1566.1
67.5°	250.3	254.9	266.6	297.7	352.1	537.3	2555.1	4448.8	5354.0	2911.3	1310.7
70°	197.4	203.6	218.2	244.8	271.7	336.3	944.3	2960.1	4090.2	2194.4	991.1
72.5°	166.4	165.8	173.5	199.0	215.8	236.6	363.3	1658.7	2377.1	1047.6	490.5
75°	128.7	133.8	143.5	166.4	176.5	171.5	196.9	606.0	851.7	317.4	166.9
77.5°	100.8	104.9	113.5	135.8	146.1	121.6	113.5	216.8	273.8	114.0	75.3
80°	45.3	48.9	77.3	100.2	119.1	83.9	61.6	110.9	121.6	51.9	38.1
82.5°	8.1	13.7	45.3	52.9	61.1	54.4	32.1	57.5	59.6	20.9	13.2
85°	0.5	1.0	15.8	19.4	24.4	17.8	9.6	22.9	19.9	7.1	5.1
87.5°	0.0	0.0	0.0	0.5	0.5	2.6	3.1	4.1	3.1	2.6	2.0
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°	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4	1988.4
2.5°	1956.3	1884.1	1813.8	1756.3	1722.7	1665.7	1628.1	1622.1	1606.3	1620.0
5°	1918.6	1789.4	1658.7	1541.6	1445.5	1321.3	1228.8	1189.5	1155.5	1167.2
7.5°	1900.9	1696.8	1493.3	1293.3	1087.8	889.4	741.8	680.3	633.4	640.0
10°	1876.9	1600.6	1281.7	976.4	701.1	505.2	403.4	365.8	344.9	345.4
12.5°	1858.6	1485.6	1035.9	661.9	426.9	322.6	291.0	281.9	275.7	276.2
15°	1849.4	1350.3	793.2	441.2	305.2	273.3	265.6	261.5	257.5	257.0
17.5°	1834.1	1199.8	580.6	322.1	267.1	255.9	249.3	244.8	239.6	238.6
20°	1811.3	1028.8	424.4	272.2	250.3	241.7	232.5	226.4	220.3	219.2
22.5°	1769.0	848.2	326.2	251.8	238.1	228.5	217.3	210.1	204.0	203.1
25°	1690.7	678.8	274.7	239.1	227.4	215.8	203.6	193.8	188.3	187.3
27.5°	1591.5	533.2	249.3	227.4	213.7	203.1	189.3	180.1	175.1	174.0
30°	1474.5	410.6	234.5	214.2	197.4	188.3	176.0	168.4	165.3	165.3
32.5°	1348.3	328.2	228.5	201.0	183.2	173.0	163.3	160.3	159.3	158.8
35°	1229.7	285.0	225.4	190.2	170.5	160.8	156.7	157.2	159.3	159.3
37.5°	1124.4	271.2	223.9	182.7	159.3	150.6	153.1	157.7	155.7	155.7
40°	1029.3	272.8	222.8	177.0	150.1	145.0	150.1	146.6	141.4	140.9
42.5°	956.5	285.5	220.8	172.5	144.5	140.9	138.9	133.4	132.8	133.8
45°	903.6	296.6	220.3	170.5	138.4	131.8	129.3	123.6	133.8	136.3
47.5°	841.0	296.6	220.3	163.3	128.2	125.7	121.6	115.5	125.7	128.2
50°	760.1	277.8	211.7	155.2	120.0	118.6	111.4	103.8	101.8	103.3
52.5°	657.8	243.7	189.7	144.0	111.9	108.9	100.2	94.6	93.1	93.1
55°	541.3	204.0	160.3	127.7	103.3	97.7	91.5	89.1	87.5	86.5
57.5°	440.1	167.4	128.7	113.5	95.1	88.0	86.0	82.9	80.4	78.8
60°	361.2	131.8	106.3	100.8	87.0	80.4	79.8	75.8	69.2	68.2
62.5°	278.8	96.7	89.6	87.5	78.8	73.3	72.3	64.1	53.9	51.9
65°	196.9	75.3	72.3	76.9	70.2	65.1	62.6	50.3	39.7	38.1
67.5°	138.4	63.1	57.0	67.1	61.1	54.4	52.9	42.7	33.1	32.1
70°	98.7	51.4	46.8	57.5	48.9	47.9	44.8	35.6	27.0	25.9
72.5°	69.7	39.2	36.1	49.8	33.6	41.2	36.6	27.5	20.4	19.4
75°	51.4	28.0	25.4	29.0	24.4	31.1	25.9	18.3	12.7	12.2
77.5°	37.6	17.8	15.3	14.2	14.2	19.4	14.2	7.6	5.6	5.1
80°	26.4	8.1	7.1	6.1	5.6	4.6	2.0	1.0	0.5	0.5
82.5°	15.8	3.6	3.6	2.6	1.5	0.0	0.0	0.0	0.0	0.0
85°	3.6	1.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	0.5	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

(END OF REPORT)