

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: P960912

Luminaire Tested: **NAV-SB1D-740-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960912
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-SB1D-740-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8436.8 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

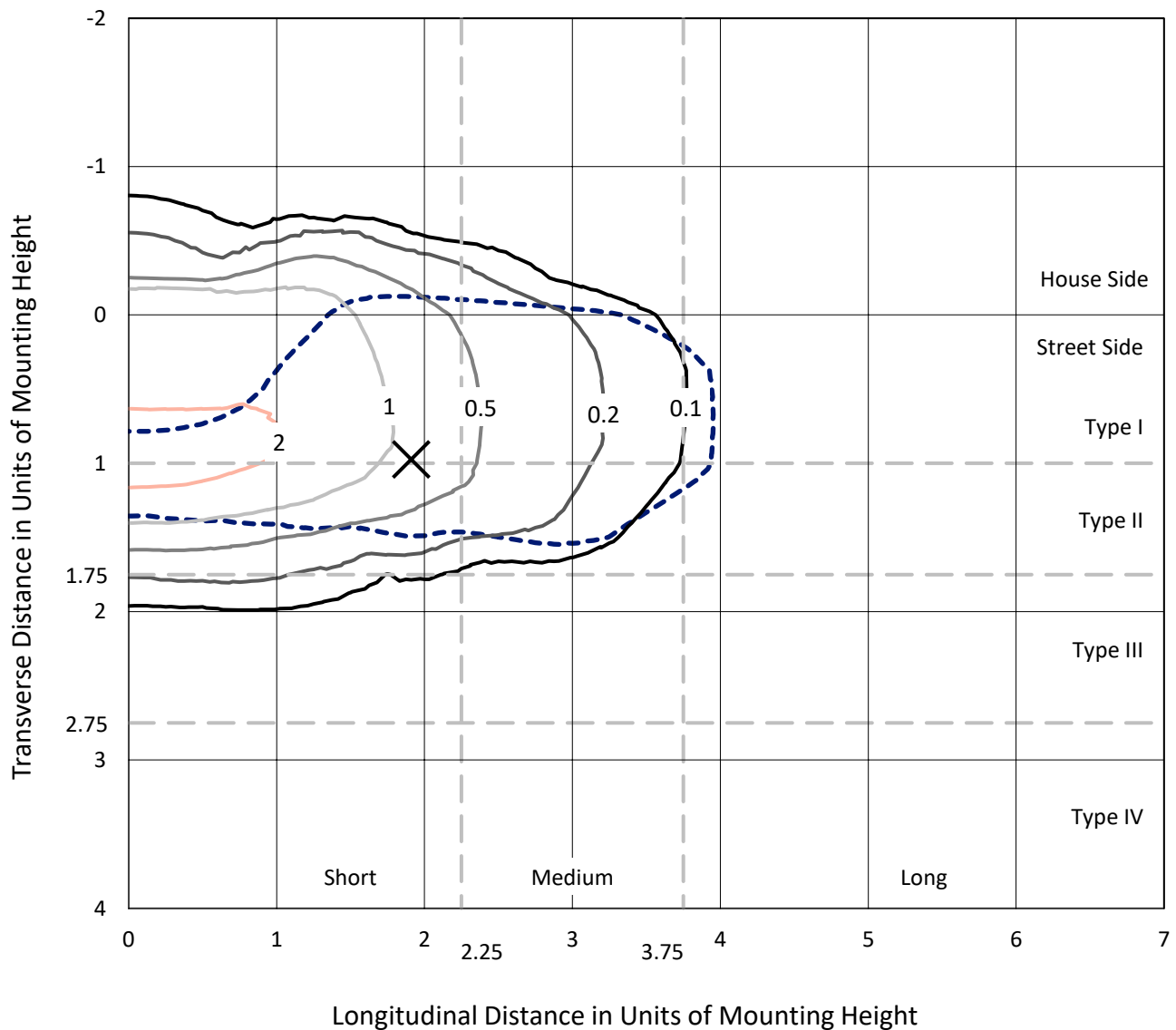
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

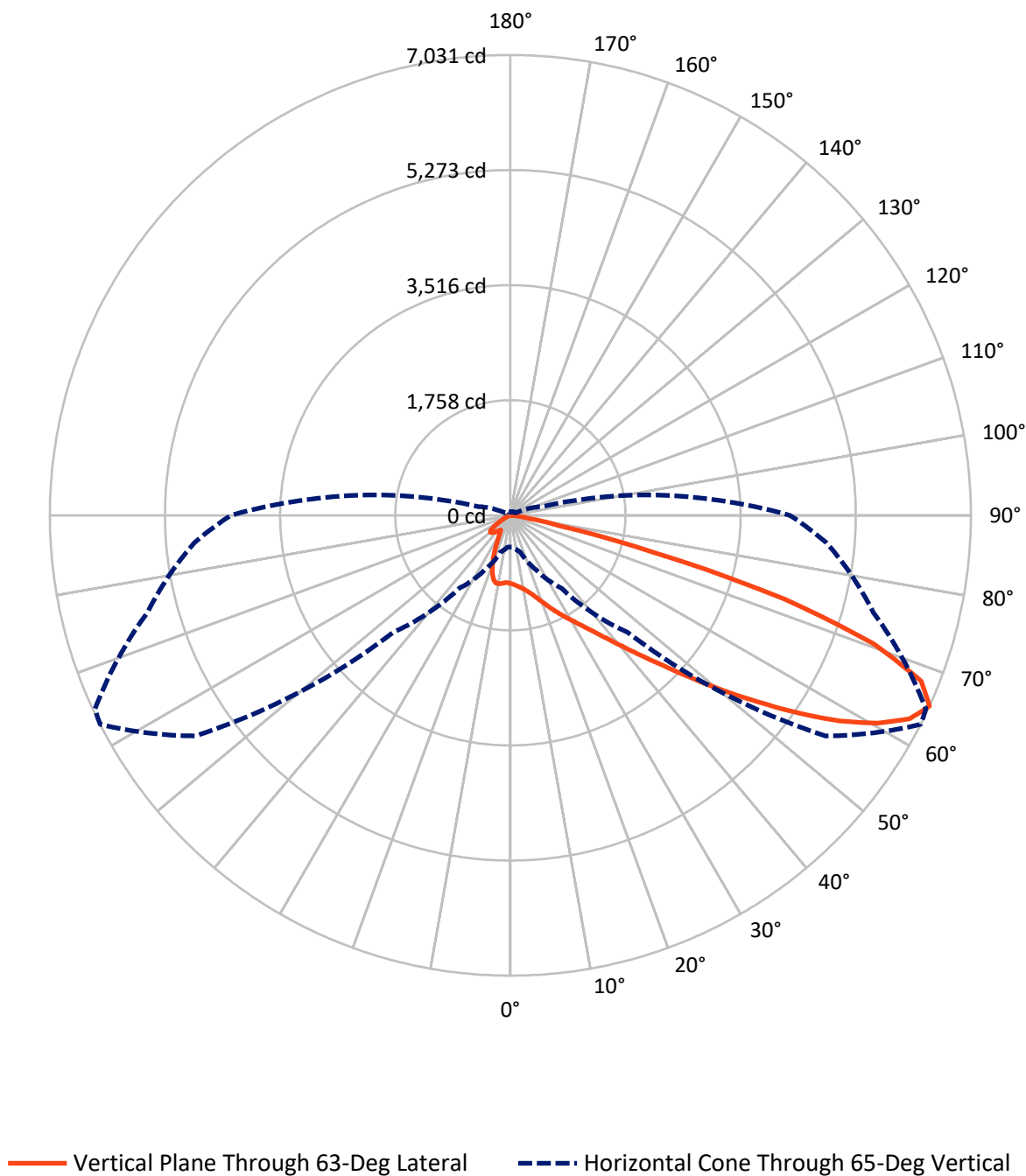
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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	1240.1	0.0	1240.1
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	7196.6	0.0	7196.6
	% Fixture	85.3	0.0	85.3
Total	Lumens	8436.8	0.0	8436.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	1.2
10°-20°	272.2	3.2
20°-30°	474.0	5.6
30°-40°	854.3	10.1
40°-50°	1694.4	20.1
50°-60°	2308.0	27.4
60°-70°	1842.2	21.8
70°-80°	833.6	9.9
80°-90°	59.9	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°	8436.8	100.0
0°-180°	8436.8	100.0

Coefficient of Utilization



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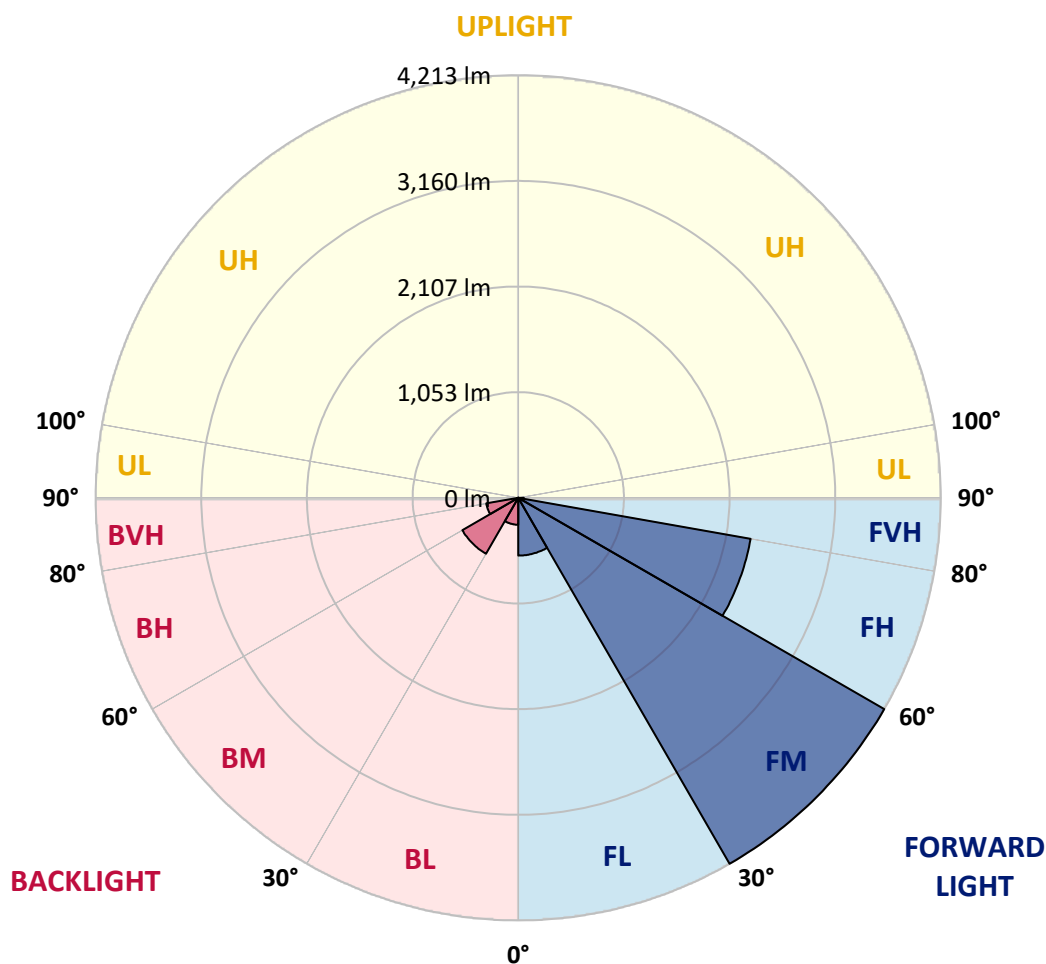
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	575.9	6.8			
FM	(30°-60°)	4213.1	49.9			
FH	(60°-80°)	2352.1	27.9			G2/5000
FVH	(80°-90°)	55.5	0.7			G1/100
BL	(0°-30°)	268.4	3.2	B1/500		
BM	(30°-60°)	643.6	7.6	B1/1000		
BH	(60°-80°)	323.7	3.8	B1/500		G1/500
BVH	(80°-90°)	4.4	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3
2.5°	1065.6	1062.7	1066.8	1065.1	1063.8	1061.6	1060.4	1059.2	1056.9	1055.2	1048.3
5°	1068.6	1066.8	1070.8	1074.3	1077.8	1081.3	1083.0	1085.4	1083.0	1078.4	1071.4
7.5°	1044.2	1043.0	1051.8	1062.1	1077.8	1091.2	1105.7	1113.8	1114.4	1112.6	1105.1
10°	1042.4	1039.6	1048.3	1061.0	1081.3	1105.1	1130.7	1148.1	1150.4	1157.9	1149.8
12.5°	1069.7	1066.8	1079.0	1093.0	1113.8	1138.8	1170.1	1194.5	1197.9	1208.4	1202.6
15°	1115.5	1111.5	1125.4	1143.4	1170.1	1198.5	1231.6	1253.7	1256.5	1269.4	1258.9
17.5°	1168.9	1164.9	1181.1	1200.3	1229.3	1268.2	1306.5	1330.9	1334.3	1342.4	1323.4
20°	1237.5	1232.3	1245.0	1262.4	1293.1	1339.6	1385.4	1420.2	1419.7	1419.7	1388.4
22.5°	1316.9	1308.8	1319.9	1333.8	1362.8	1419.1	1480.0	1521.3	1521.3	1505.0	1453.3
25°	1402.3	1394.1	1406.3	1419.1	1444.6	1508.5	1579.8	1631.0	1633.2	1605.5	1523.0
27.5°	1509.1	1498.7	1507.9	1523.0	1538.1	1603.1	1687.9	1747.0	1748.2	1705.3	1589.2
30°	1714.5	1684.9	1655.9	1639.7	1646.7	1711.0	1801.6	1867.1	1873.0	1813.7	1661.1
32.5°	2090.6	2084.8	1982.7	1849.2	1779.5	1827.2	1928.7	2007.7	2011.2	1935.1	1754.6
35°	2675.1	2668.2	2503.9	2249.7	2022.7	1982.7	2083.1	2176.6	2174.2	2088.3	1875.9
37.5°	3372.8	3366.4	3149.9	2809.7	2442.4	2217.8	2282.2	2380.3	2394.8	2282.2	2032.6
40°	3968.8	3945.0	3808.1	3480.2	2999.6	2607.8	2565.4	2630.5	2645.5	2512.1	2231.6
42.5°	4420.4	4400.1	4330.4	4125.5	3674.0	3184.7	2899.1	2924.1	2940.9	2780.7	2460.4
45°	4654.3	4649.7	4677.5	4658.4	4361.2	3892.8	3376.2	3272.3	3278.8	3078.5	2719.8
47.5°	4687.4	4685.1	4812.2	4992.2	4952.1	4691.4	3988.6	3706.5	3683.8	3414.6	3001.9
50°	4492.4	4487.8	4731.5	5068.7	5346.7	5362.4	4683.9	4195.8	4145.9	3762.3	3296.2
52.5°	3869.6	3868.5	4268.9	4830.2	5485.5	5949.8	5371.1	4733.2	4649.7	4130.2	3607.3
55°	2977.5	2998.9	3458.0	4121.5	5232.4	6232.4	5988.0	5329.9	5201.7	4500.5	3894.0
57.5°	2109.2	2140.5	2594.5	3185.3	4447.7	6065.3	6405.4	5927.8	5789.6	4869.7	4184.8
60°	1132.9	1160.8	1615.3	2320.5	3308.9	5441.9	6625.4	6446.6	6316.0	5220.2	4447.1
62.5°	675.1	684.3	872.4	1498.0	2238.1	4157.5	6531.9	6841.9	6734.6	5514.5	4675.2
65°	484.6	486.4	581.0	914.7	1358.7	2525.9	5876.6	7031.1	6998.0	5736.2	4844.2
67.5°	408.1	406.8	446.3	607.7	925.8	1265.3	4504.0	6763.6	6904.0	5876.6	4939.9
70°	350.0	351.8	398.2	445.2	695.9	716.3	2239.2	5888.8	6188.3	5913.8	4934.0
72.5°	260.6	266.4	309.3	405.7	525.3	492.8	773.2	4366.4	4907.9	5571.9	4678.1
75°	184.0	186.9	217.6	341.3	391.8	358.6	394.7	2257.3	2951.4	4271.8	3829.0
77.5°	141.7	146.9	164.8	238.5	386.0	251.9	241.5	781.3	1200.3	2580.5	2625.2
80°	76.6	85.9	119.0	172.4	271.0	178.1	119.5	311.1	406.8	1206.6	1012.2
82.5°	39.5	44.1	83.0	124.2	154.4	155.6	59.2	129.5	167.7	372.6	138.7
85°	15.7	19.2	55.8	68.5	79.5	76.6	26.6	52.3	60.4	103.3	42.3
87.5°	3.5	5.8	20.3	15.7	15.1	16.3	6.4	12.2	11.6	12.2	7.6
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°	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3	1041.3
2.5°	1047.7	1045.3	1038.9	1032.0	1023.9	1019.2	1016.3	1015.7	1011.7	1008.8	1011.7
5°	1065.1	1062.7	1050.5	1036.1	1020.4	1008.2	996.6	986.2	971.0	968.1	967.0
7.5°	1099.9	1093.5	1073.8	1054.0	1024.4	989.0	946.1	896.8	852.6	839.3	832.9
10°	1142.9	1134.2	1109.2	1074.3	1008.8	912.5	808.5	712.2	635.5	614.1	606.0
12.5°	1191.6	1184.1	1151.0	1086.5	943.2	768.4	609.5	489.8	415.5	397.0	391.8
15°	1249.6	1238.6	1192.8	1067.9	825.9	583.9	418.5	347.7	320.9	317.4	314.0
17.5°	1311.2	1293.1	1229.9	1001.2	668.1	415.0	323.3	303.0	291.4	287.9	286.2
20°	1367.5	1344.2	1251.9	900.3	499.2	323.3	289.7	276.2	265.8	261.8	259.4
22.5°	1423.7	1390.6	1251.9	762.7	374.3	286.7	265.8	253.7	241.5	236.3	233.3
25°	1482.4	1438.3	1229.9	609.5	301.2	262.9	243.2	229.8	219.4	213.0	210.7
27.5°	1539.2	1478.4	1179.4	464.3	268.1	242.0	222.3	209.5	199.7	195.1	195.1
30°	1593.3	1517.8	1108.5	352.3	246.7	221.7	203.2	192.1	182.2	177.6	178.1
32.5°	1666.3	1567.7	1033.1	289.0	228.1	202.5	185.7	175.3	166.6	163.1	163.1
35°	1767.9	1641.4	968.1	283.8	212.4	186.9	170.0	160.2	151.5	148.6	148.6
37.5°	1911.8	1760.4	933.9	318.7	199.7	172.9	157.3	146.9	138.7	136.4	135.8
40°	2089.5	1921.8	952.4	353.4	191.0	160.8	145.7	135.2	128.2	125.4	124.7
42.5°	2300.2	2120.8	1055.2	380.2	185.1	150.4	134.7	123.0	118.4	117.3	117.3
45°	2542.2	2339.7	1212.5	408.6	175.9	140.4	123.6	114.9	111.4	110.9	110.3
47.5°	2817.3	2579.9	1394.7	444.0	166.6	131.2	114.9	109.2	106.2	105.1	105.1
50°	3090.1	2821.9	1582.2	463.7	159.1	122.5	107.9	103.3	101.0	100.4	100.4
52.5°	3375.6	3071.0	1733.7	445.2	152.6	115.5	102.2	98.7	96.4	95.7	95.7
55°	3647.9	3272.3	1759.8	377.8	139.9	108.5	95.7	94.0	91.1	91.1	90.5
57.5°	3882.4	3373.4	1575.2	277.5	127.1	98.1	89.4	87.6	85.3	84.8	84.2
60°	4097.7	3344.4	1216.0	186.9	113.2	87.6	81.3	80.1	77.8	74.8	74.3
62.5°	4219.0	3216.7	831.7	121.9	99.2	76.6	72.0	71.3	66.2	60.4	59.2
65°	4264.8	2954.3	518.9	88.8	83.0	65.6	62.1	61.0	53.4	47.0	46.4
67.5°	4224.8	2522.4	261.8	70.2	65.6	54.5	51.0	51.0	45.8	40.1	39.5
70°	4064.6	1891.0	110.3	56.3	50.5	41.8	41.8	44.1	38.8	32.5	31.9
72.5°	3717.0	1272.2	58.6	42.9	37.7	29.6	34.2	36.0	30.7	24.4	24.4
75°	2954.9	776.0	40.6	31.9	23.8	20.9	26.1	27.3	20.9	16.3	15.7
77.5°	2021.0	445.8	27.3	20.3	15.1	12.2	18.0	16.8	11.1	7.6	8.1
80°	887.4	185.7	15.7	9.3	5.8	4.6	6.4	4.6	3.5	2.4	2.4
82.5°	103.9	43.6	5.8	3.5	2.4	1.1	0.6	0.0	0.0	0.0	0.0
85°	21.5	5.2	2.9	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.1	1.1	0.6	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)