

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: P883608

Luminaire Tested: **NAV-SB4A-740-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883608  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-740-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15371 lumens  
Efficiency: N/A  
Efficacy: 134.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

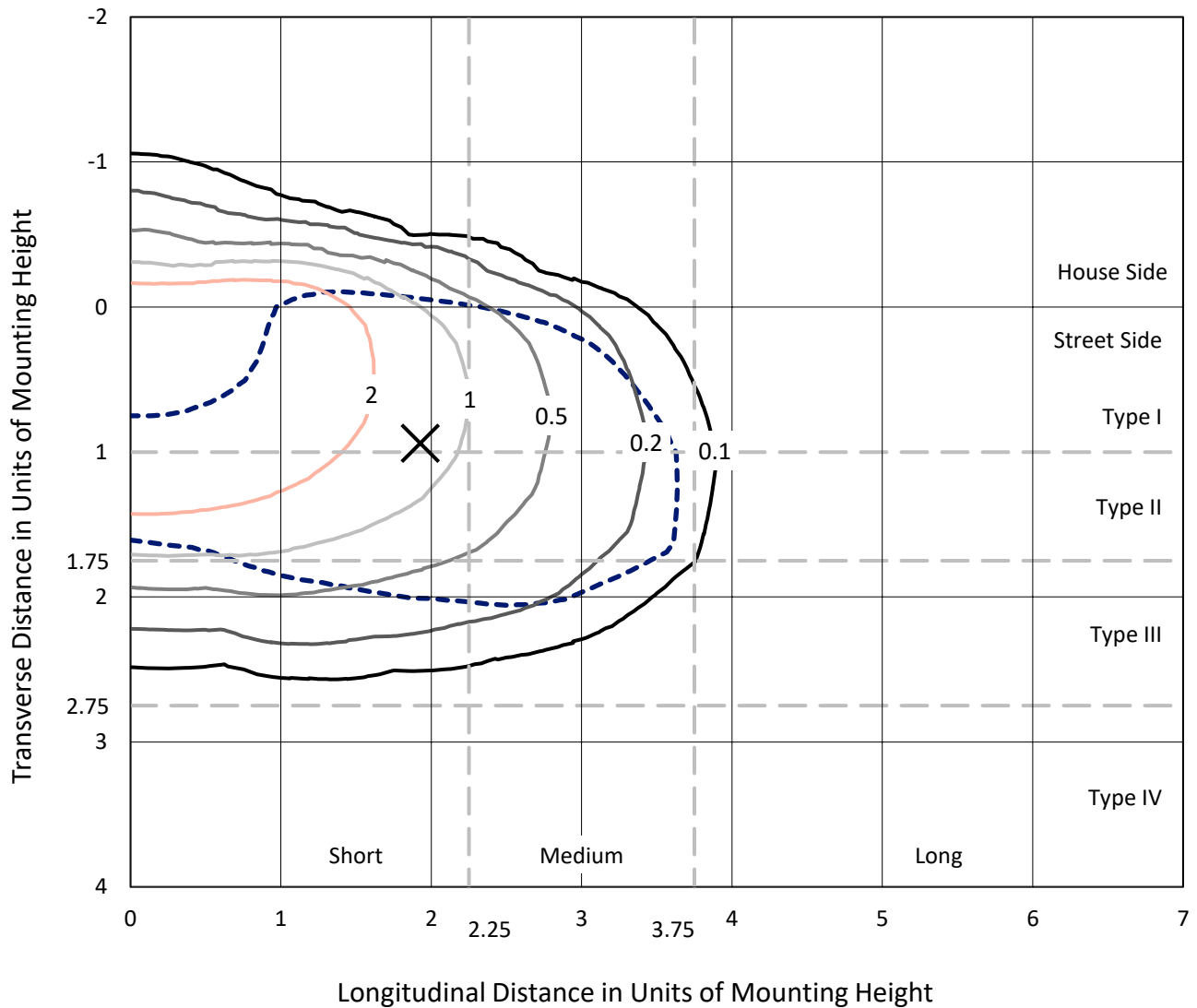
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

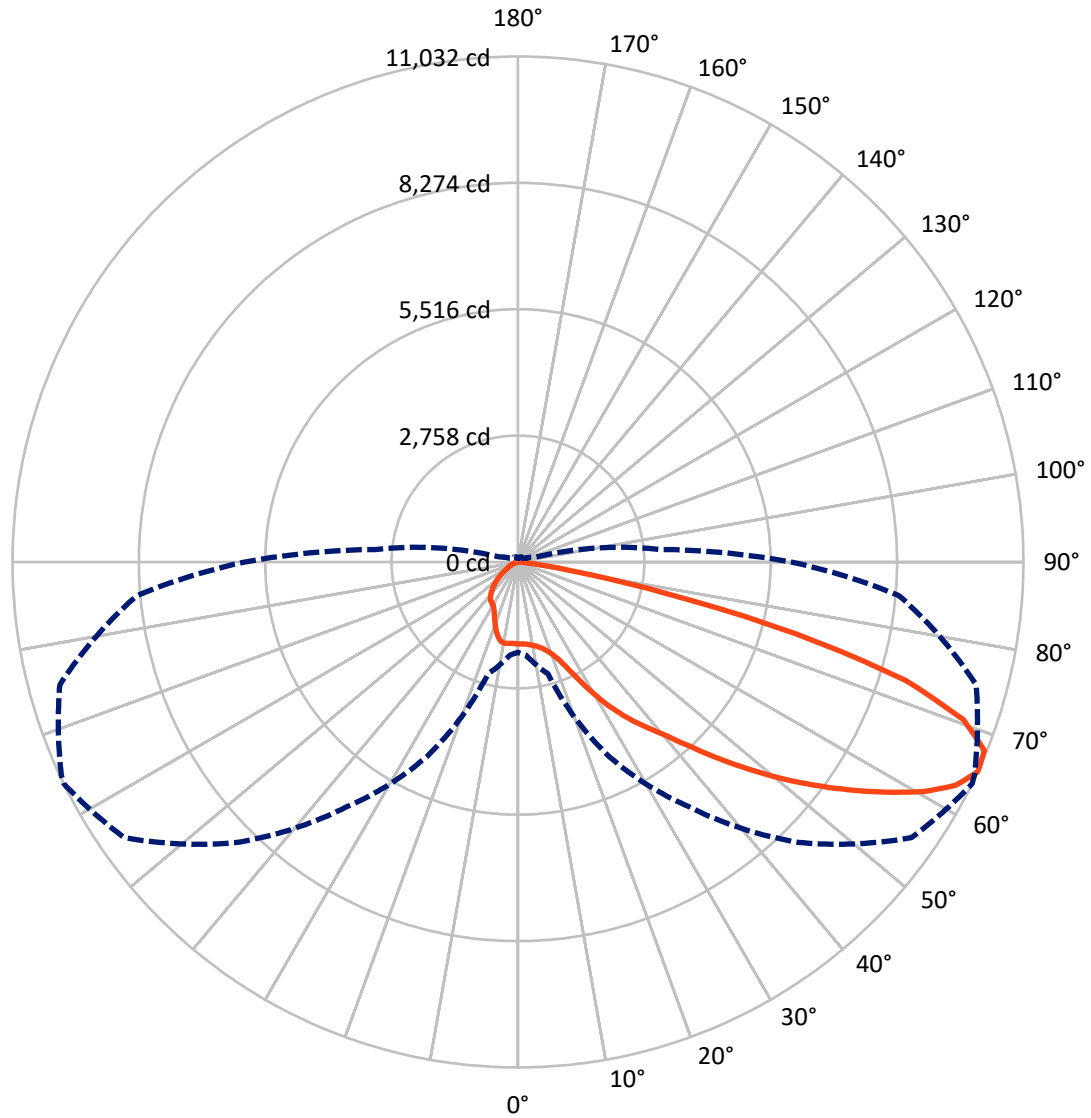
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2055.6	0.0	2055.6
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	13315.4	0.0	13315.4
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	15371.0	0.0	15371.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.9	1.1
10°-20°	447.4	2.9
20°-30°	847.7	5.5
30°-40°	1715.4	11.2
40°-50°	2922.2	19.0
50°-60°	3974.0	25.9
60°-70°	3731.8	24.3
70°-80°	1495.1	9.7
80°-90°	72.4	0.5
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°	15371.0	100.0
0°-180°	15371.0	100.0

**Coefficient of Utilization**



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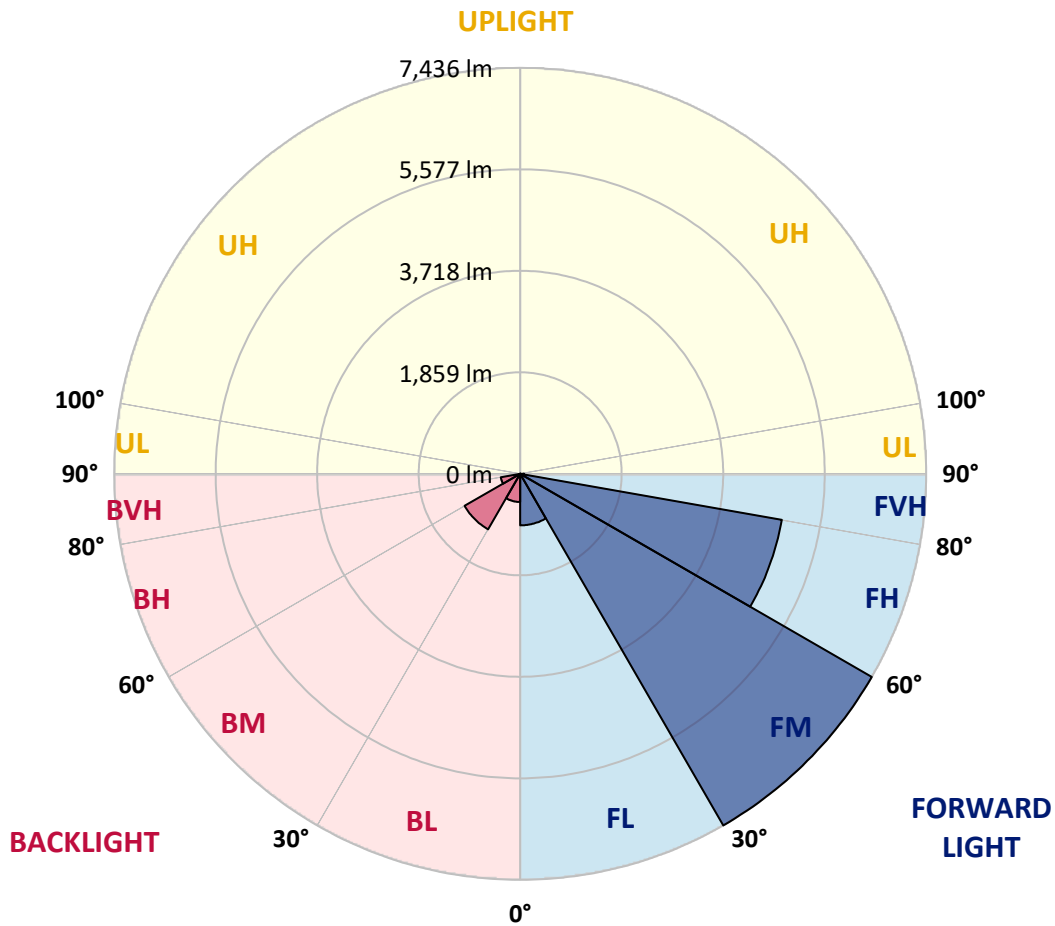
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	944.0	6.1			
FM (30°-60°)	7436.5	48.4			
FH (60°-80°)	4866.1	31.7			G2/5000
FVH (80°-90°)	68.9	0.4			G1/100
BL (0°-30°)	516.1	3.4	B2/1000		
BM (30°-60°)	1175.2	7.6	B2/2500		
BH (60°-80°)	360.8	2.3	B1/500		G1/500
BVH (80°-90°)	3.5	0.0			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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8
2.5°	1781.6	1794.0	1790.9	1787.8	1786.8	1788.8	1789.9	1788.8	1788.8	1788.8	1789.9
5°	1747.6	1757.9	1757.9	1765.1	1775.4	1787.8	1797.1	1799.1	1801.2	1804.3	1803.3
7.5°	1682.7	1690.9	1697.1	1720.8	1746.6	1779.6	1807.4	1821.8	1823.9	1835.2	1839.3
10°	1638.4	1648.7	1659.0	1683.7	1720.8	1770.3	1817.7	1852.7	1857.9	1884.7	1897.0
12.5°	1636.3	1646.6	1660.0	1686.8	1730.1	1782.7	1840.4	1890.9	1900.1	1939.3	1965.0
15°	1658.0	1670.3	1682.7	1715.7	1762.0	1825.9	1887.8	1950.6	1959.9	2015.5	2043.4
17.5°	1702.3	1718.8	1728.0	1761.0	1810.5	1881.6	1963.0	2035.1	2043.4	2108.3	2143.3
20°	1789.9	1809.4	1812.5	1839.3	1887.8	1964.0	2060.9	2150.5	2160.8	2235.0	2274.2
22.5°	1971.2	1999.0	1974.3	1987.7	2031.0	2107.2	2212.3	2325.7	2340.1	2424.6	2459.7
25°	2290.7	2329.8	2265.9	2243.3	2261.8	2341.2	2473.0	2616.3	2632.8	2700.8	2718.3
27.5°	2918.2	2867.7	2770.8	2676.0	2620.4	2665.7	2814.1	2991.4	3012.0	3077.9	3057.3
30°	3607.6	3563.2	3432.4	3222.2	3090.3	3083.1	3220.1	3418.0	3441.7	3504.5	3441.7
32.5°	4297.9	4255.7	4113.5	3854.9	3626.1	3512.8	3607.6	3827.0	3839.4	3879.6	3786.9
35°	4977.0	4933.7	4791.5	4526.7	4245.4	3987.8	3969.2	4216.5	4220.7	4262.9	4124.8
37.5°	5660.2	5624.1	5472.6	5213.0	4935.8	4580.3	4408.2	4585.4	4590.6	4631.8	4488.6
40°	6147.6	6163.0	6059.0	5858.0	5620.0	5231.5	4900.8	4978.0	4947.1	5016.2	4930.6
42.5°	6565.9	6596.9	6506.2	6405.2	6267.1	5925.0	5510.8	5497.4	5447.9	5485.0	5396.4
45°	6927.6	6953.4	6872.0	6848.3	6845.2	6605.1	6177.5	6097.1	6028.1	6020.8	5914.7
47.5°	7060.5	7110.0	7145.0	7224.4	7379.0	7278.0	6866.8	6742.1	6664.9	6608.2	6440.2
50°	7111.0	7163.6	7283.1	7513.9	7879.7	7923.0	7553.1	7413.0	7318.2	7215.1	6967.8
52.5°	7043.0	7136.8	7297.5	7686.0	8216.7	8440.3	8211.5	8088.9	7980.7	7812.8	7445.9
55°	6642.2	6736.0	7064.7	7684.0	8384.7	8803.0	8833.9	8779.3	8657.7	8392.9	7832.3
57.5°	5797.2	5936.3	6456.7	7422.2	8381.6	9115.2	9443.9	9483.1	9347.1	8967.9	8136.3
60°	4626.7	4815.2	5450.0	6842.1	8122.9	9284.2	9978.7	10174.5	10030.3	9534.6	8382.6
62.5°	3228.4	3446.8	4047.6	5933.3	7531.5	9162.6	10369.3	10731.0	10621.7	10041.6	8477.4
65°	1969.2	2039.2	2523.5	4668.9	6525.8	8653.6	10489.8	11031.9	10995.8	10351.8	8337.3
67.5°	1311.7	1370.5	1509.6	3201.6	5065.6	7636.6	10201.3	10979.3	10989.6	10301.3	7824.1
70°	790.3	840.8	931.5	1862.0	3283.0	6044.5	9307.9	10309.5	10369.3	9626.3	6851.4
72.5°	325.6	359.6	442.1	843.9	1700.2	3836.3	7411.9	8851.4	8990.6	8094.1	5258.3
75°	184.4	202.0	259.7	423.5	737.8	1787.8	4489.6	6283.6	6488.7	5578.8	3163.4
77.5°	122.6	130.9	168.0	274.1	415.3	610.0	1918.7	3273.7	3665.3	3047.0	1369.4
80°	82.4	89.6	115.4	183.4	270.0	261.7	611.0	1212.8	1492.1	1046.9	333.9
82.5°	55.6	56.7	82.4	120.6	171.1	126.7	180.3	377.1	474.0	302.9	126.7
85°	31.9	30.9	60.8	70.1	76.3	52.6	54.6	113.3	148.4	127.8	72.1
87.5°	4.1	6.2	23.7	18.5	10.3	11.3	11.3	19.6	28.9	30.9	15.5
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°	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8	1787.8
2.5°	1789.9	1788.8	1785.7	1782.7	1775.4	1771.3	1773.4	1771.3	1770.3	1771.3	1775.4
5°	1803.3	1800.2	1791.9	1781.6	1767.2	1749.7	1738.3	1721.9	1706.4	1697.1	1699.2
7.5°	1839.3	1836.2	1824.9	1796.1	1749.7	1676.5	1609.5	1550.8	1506.5	1480.7	1481.8
10°	1897.0	1891.9	1874.4	1810.5	1688.9	1529.2	1396.2	1286.0	1213.9	1179.8	1176.8
12.5°	1965.0	1958.9	1927.9	1797.1	1573.5	1324.1	1140.7	1018.1	951.1	921.2	918.1
15°	2045.4	2037.2	1976.4	1733.2	1405.5	1097.4	929.5	837.7	794.5	767.7	768.7
17.5°	2145.4	2130.9	2012.4	1637.4	1223.1	924.3	799.6	730.6	692.5	666.7	664.6
20°	2275.2	2251.5	2041.3	1523.0	1055.2	815.1	712.0	654.3	625.5	602.8	598.7
22.5°	2456.6	2422.6	2076.3	1399.3	936.7	739.9	647.1	604.9	581.2	555.4	551.3
25°	2681.2	2641.0	2119.6	1285.0	855.3	674.9	599.7	564.7	536.9	507.0	503.9
27.5°	2995.5	2923.3	2171.1	1191.2	785.2	619.3	556.4	517.3	485.3	460.6	455.5
30°	3345.8	3227.3	2216.5	1134.5	721.3	567.8	499.8	460.6	430.7	413.2	410.1
32.5°	3677.6	3516.9	2246.4	1109.8	663.6	509.0	437.9	395.7	373.0	367.9	371.0
35°	3990.9	3778.6	2243.3	1086.1	612.1	450.3	377.1	333.9	316.3	319.4	319.4
37.5°	4351.5	4057.9	2221.6	1049.0	569.8	396.7	324.6	286.5	271.0	272.0	276.2
40°	4770.9	4380.4	2208.2	978.9	523.5	347.3	281.3	250.4	239.1	234.9	233.9
42.5°	5218.1	4692.6	2210.3	899.6	465.8	302.9	251.4	225.7	215.4	212.3	211.2
45°	5667.4	4990.4	2213.4	817.1	405.0	268.9	229.8	208.1	202.0	197.8	197.8
47.5°	6089.9	5243.9	2155.7	728.5	345.2	243.2	212.3	197.8	192.7	187.5	187.5
50°	6483.5	5412.9	2016.6	625.5	297.8	222.6	198.9	188.6	183.4	178.3	178.3
52.5°	6789.5	5439.7	1786.8	519.3	264.8	207.1	190.6	181.4	175.2	170.0	169.0
55°	6925.6	5271.7	1460.1	420.4	239.1	193.7	182.4	173.1	165.9	160.7	159.7
57.5°	6890.5	4918.3	1138.6	338.0	214.3	180.3	172.1	165.9	157.7	149.4	148.4
60°	6718.4	4445.3	858.4	281.3	191.7	165.9	160.7	155.6	144.3	131.9	129.8
62.5°	6420.6	3850.7	612.1	232.9	166.9	149.4	147.4	143.2	126.7	104.1	102.0
65°	5965.2	3128.4	412.2	193.7	143.2	130.9	131.9	124.7	103.0	77.3	75.2
67.5°	5299.5	2287.6	263.8	158.7	119.5	109.2	110.3	106.1	87.6	65.9	62.9
70°	4451.5	1514.7	172.1	120.6	95.8	84.5	90.7	91.7	74.2	53.6	51.5
72.5°	3263.4	894.4	120.6	89.6	70.1	58.7	74.2	76.3	59.8	40.2	38.1
75°	1859.9	424.5	90.7	64.9	43.3	41.2	57.7	57.7	41.2	26.8	24.7
77.5°	781.1	177.2	63.9	42.2	24.7	23.7	39.2	36.1	20.6	12.4	12.4
80°	225.7	79.3	34.0	20.6	10.3	9.3	15.5	11.3	5.2	2.1	2.1
82.5°	88.6	35.0	13.4	8.2	4.1	4.1	2.1	0.0	0.0	0.0	0.0
85°	52.6	14.4	6.2	3.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.4	3.1	2.1	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)