

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: P882718

Luminaire Tested: **NAV-SB2D-722-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882718  
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-SB2D-722-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

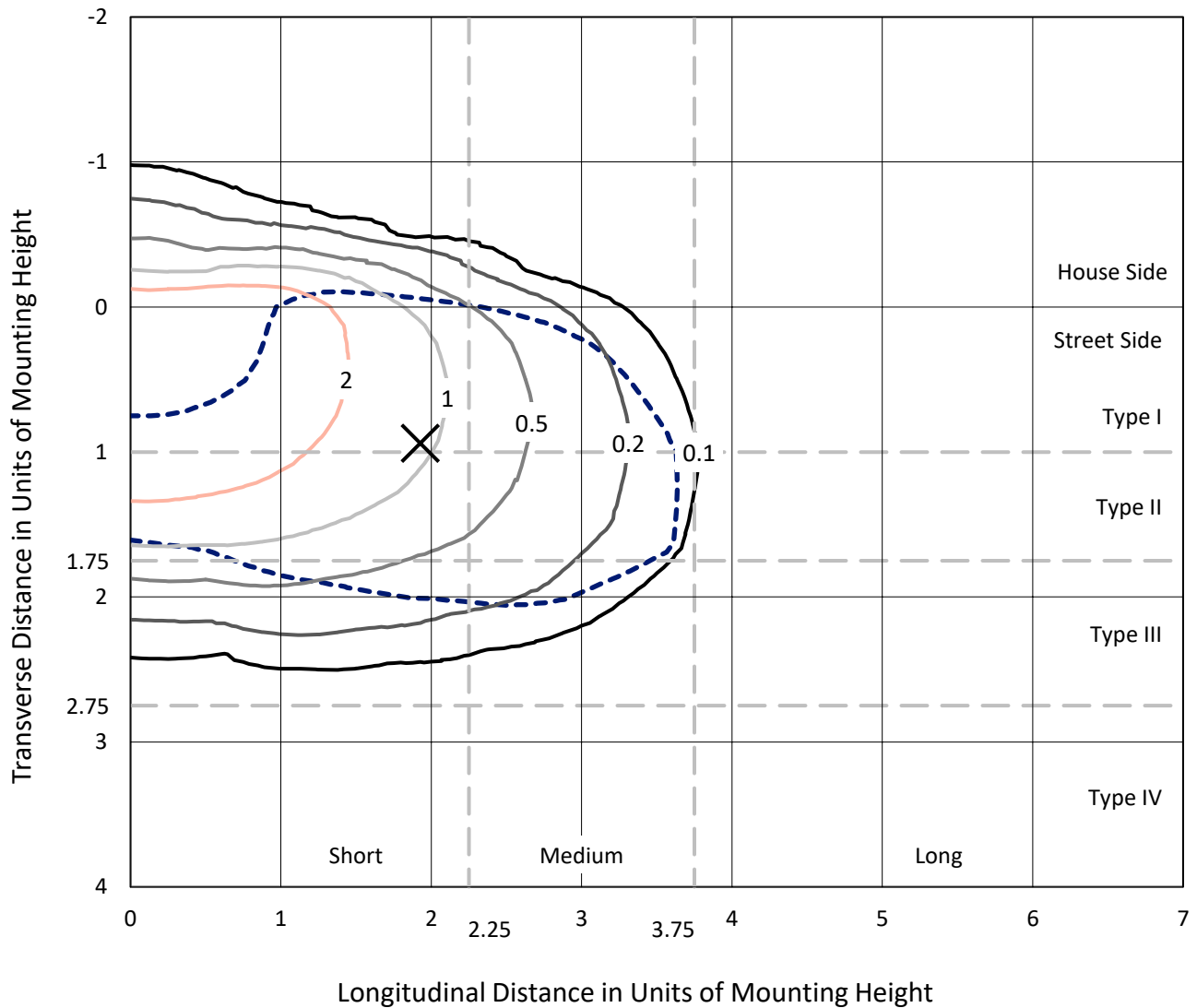
Lumens per Lamp: N/A  
Luminaire Lumens: 12962 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

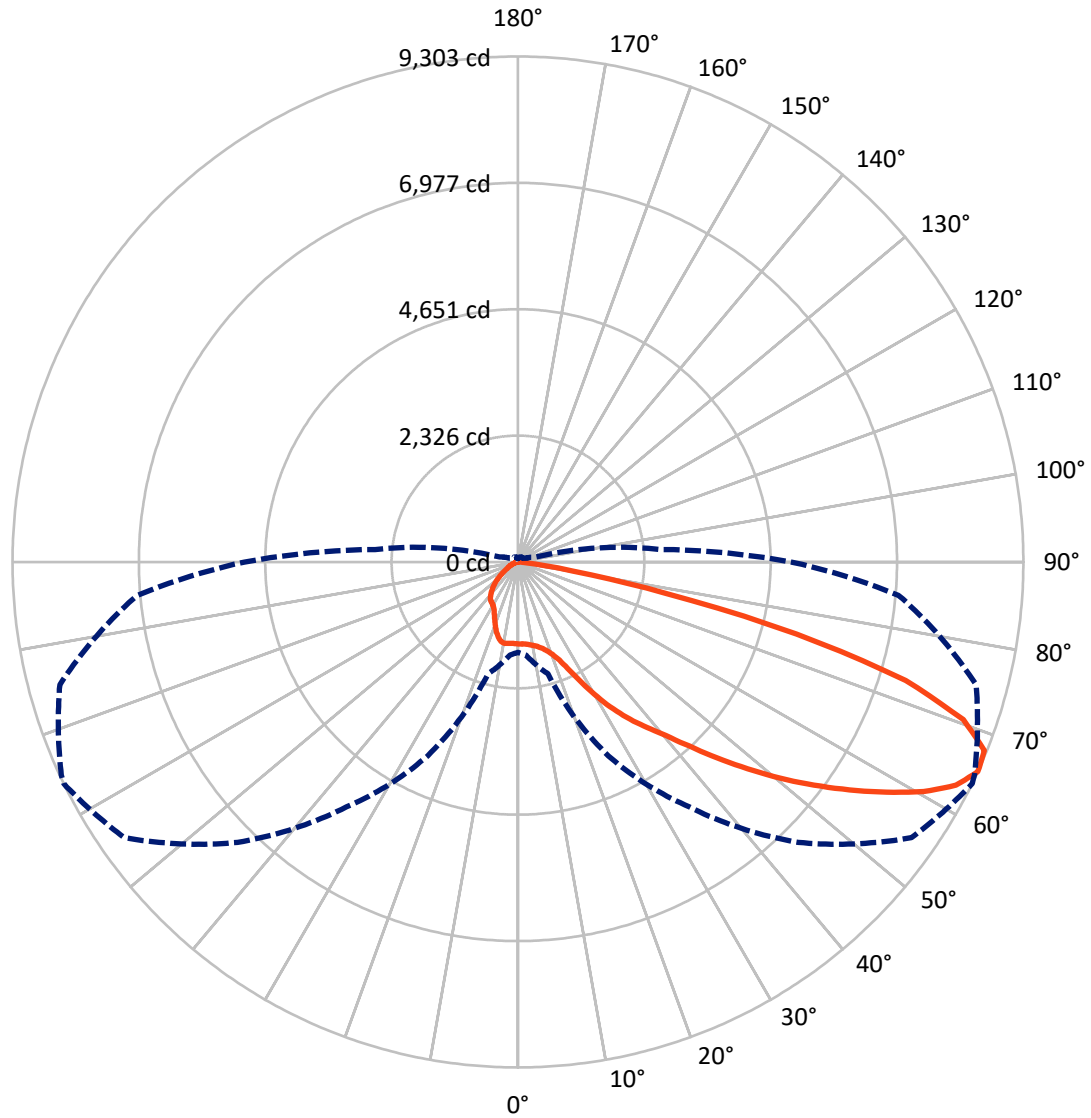
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 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	1733.4	0.0	1733.4
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	11228.6	0.0	11228.6
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	12962.0	0.0	12962.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.1	1.1
10°-20°	377.3	2.9
20°-30°	714.9	5.5
30°-40°	1446.6	11.2
40°-50°	2464.2	19.0
50°-60°	3351.2	25.9
60°-70°	3146.9	24.3
70°-80°	1260.8	9.7
80°-90°	61.1	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°	12962.0	100.0
0°-180°	12962.0	100.0

**Coefficient of Utilization**



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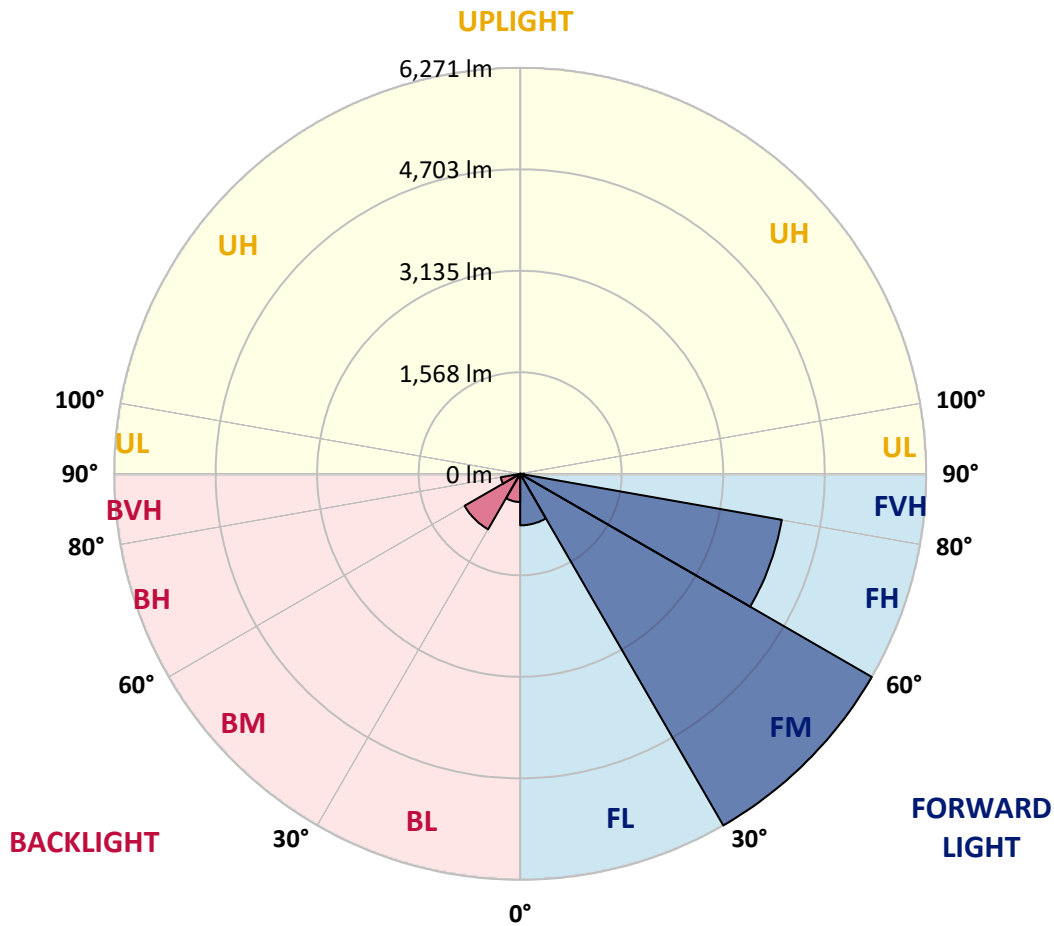
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	796.0	6.1			
FM (30°-60°)	6271.0	48.4			
FH (60°-80°)	4103.5	31.7			G2/5000
FVH (80°-90°)	58.1	0.4			G1/100
BL (0°-30°)	435.2	3.4	B1/500		
BM (30°-60°)	991.0	7.6	B1/1000		
BH (60°-80°)	304.2	2.3	B1/500		G1/500
BVH (80°-90°)	3.0	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-G2**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6
2.5°	1502.4	1512.8	1510.2	1507.6	1506.7	1508.5	1509.4	1508.5	1508.5	1508.5	1509.4
5°	1473.7	1482.4	1482.4	1488.5	1497.2	1507.6	1515.4	1517.2	1518.9	1521.5	1520.6
7.5°	1419.0	1425.9	1431.1	1451.1	1472.9	1500.7	1524.1	1536.3	1538.0	1547.6	1551.1
10°	1381.6	1390.3	1399.0	1419.9	1451.1	1492.8	1532.8	1562.4	1566.7	1589.3	1599.7
12.5°	1379.9	1388.6	1399.9	1422.5	1459.0	1503.3	1551.9	1594.5	1602.3	1635.3	1657.1
15°	1398.1	1408.6	1419.0	1446.8	1485.9	1539.8	1591.9	1644.9	1652.7	1699.7	1723.1
17.5°	1435.5	1449.4	1457.2	1485.0	1526.7	1586.7	1655.3	1716.2	1723.1	1777.9	1807.4
20°	1509.4	1525.9	1528.5	1551.1	1591.9	1656.2	1737.9	1813.5	1822.2	1884.7	1917.8
22.5°	1662.3	1685.7	1664.9	1676.2	1712.7	1777.0	1865.6	1961.2	1973.4	2044.6	2074.2
25°	1931.7	1964.7	1910.8	1891.7	1907.3	1974.2	2085.5	2206.2	2220.1	2277.5	2292.3
27.5°	2460.8	2418.3	2336.6	2256.6	2209.7	2248.0	2373.1	2522.5	2539.9	2595.5	2578.2
30°	3042.2	3004.8	2894.4	2717.2	2606.0	2599.9	2715.4	2882.3	2902.3	2955.3	2902.3
32.5°	3624.4	3588.7	3468.8	3250.7	3057.8	2962.2	3042.2	3227.3	3237.7	3271.6	3193.4
35°	4197.0	4160.5	4040.6	3817.3	3580.0	3362.8	3347.2	3555.7	3559.2	3594.8	3478.4
37.5°	4773.1	4742.7	4615.0	4396.0	4162.2	3862.4	3717.3	3866.8	3871.1	3905.9	3785.1
40°	5184.1	5197.1	5109.4	4939.9	4739.2	4411.6	4132.7	4197.9	4171.8	4230.0	4157.9
42.5°	5536.9	5563.0	5486.5	5401.3	5284.9	4996.4	4647.1	4635.8	4594.1	4625.4	4550.7
45°	5841.9	5863.6	5795.0	5775.0	5772.4	5569.9	5209.3	5141.5	5083.3	5077.2	4987.7
47.5°	5954.0	5995.7	6025.2	6092.2	6222.5	6137.3	5790.6	5685.5	5620.3	5572.5	5430.9
50°	5996.6	6040.9	6141.7	6336.3	6644.8	6681.3	6369.3	6251.2	6171.2	6084.3	5875.8
52.5°	5939.2	6018.3	6153.9	6481.4	6928.9	7117.5	6924.6	6821.2	6730.0	6588.3	6279.0
55°	5601.2	5680.3	5957.5	6479.7	7070.6	7423.4	7449.4	7403.4	7300.9	7077.5	6604.8
57.5°	4888.7	5006.0	5444.8	6259.0	7068.0	7686.7	7963.9	7996.9	7882.2	7562.4	6861.2
60°	3901.6	4060.6	4595.8	5769.8	6849.9	7829.2	8414.8	8579.9	8458.3	8040.3	7068.8
62.5°	2722.4	2906.6	3413.2	5003.4	6351.1	7726.6	8744.2	9049.2	8957.1	8467.8	7148.8
65°	1660.5	1719.6	2128.0	3937.2	5503.0	7297.4	8845.8	9302.9	9272.5	8729.4	7030.6
67.5°	1106.2	1155.7	1273.0	2699.8	4271.7	6439.7	8602.5	9258.6	9267.3	8686.8	6597.9
70°	666.5	709.1	785.5	1570.2	2768.5	5097.2	7849.2	8693.8	8744.2	8117.7	5777.6
72.5°	274.6	303.3	372.8	711.7	1433.8	3235.1	6250.3	7464.2	7581.5	6825.5	4434.2
75°	155.5	170.3	219.0	357.1	622.2	1507.6	3786.0	5298.8	5471.7	4704.5	2667.7
77.5°	103.4	110.4	141.6	231.1	350.2	514.4	1618.0	2760.6	3090.8	2569.5	1154.8
80°	69.5	75.6	97.3	154.7	227.7	220.7	515.3	1022.7	1258.2	882.8	281.5
82.5°	46.9	47.8	69.5	101.7	144.2	106.9	152.1	318.0	399.7	255.5	106.9
85°	26.9	26.1	51.3	59.1	64.3	44.3	46.1	95.6	125.1	107.7	60.8
87.5°	3.5	5.2	20.0	15.6	8.7	9.6	9.6	16.5	24.3	26.1	13.0
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6	1507.6
2.5°	1509.4	1508.5	1505.9	1503.3	1497.2	1493.7	1495.5	1493.7	1492.8	1493.7	1497.2
5°	1520.6	1518.0	1511.1	1502.4	1490.2	1475.5	1465.9	1452.0	1439.0	1431.1	1432.9
7.5°	1551.1	1548.5	1538.9	1514.6	1475.5	1413.8	1357.3	1307.8	1270.4	1248.7	1249.5
10°	1599.7	1595.4	1580.6	1526.7	1424.2	1289.5	1177.4	1084.4	1023.6	994.9	992.3
12.5°	1657.1	1651.9	1625.8	1515.4	1326.9	1116.6	961.9	858.5	802.0	776.8	774.2
15°	1724.9	1717.9	1666.6	1461.6	1185.2	925.4	783.8	706.5	670.0	647.4	648.2
17.5°	1809.1	1797.0	1697.0	1380.7	1031.4	779.4	674.3	616.1	583.9	562.2	560.5
20°	1918.6	1898.6	1721.4	1284.3	889.8	687.3	600.4	551.8	527.4	508.3	504.9
22.5°	2071.6	2042.9	1750.9	1180.0	789.9	623.9	545.7	510.1	490.1	468.4	464.9
25°	2261.0	2227.1	1787.4	1083.6	721.2	569.2	505.7	476.2	452.7	427.5	424.9
27.5°	2526.0	2465.2	1830.9	1004.5	662.1	522.2	469.2	436.2	409.3	388.4	384.1
30°	2821.5	2721.5	1869.1	956.7	608.3	478.8	421.4	388.4	363.2	348.4	345.8
32.5°	3101.3	2965.7	1894.3	935.9	559.6	429.3	369.3	333.7	314.6	310.2	312.8
35°	3365.4	3186.4	1891.7	915.9	516.2	379.7	318.0	281.5	266.8	269.4	269.4
37.5°	3669.5	3421.9	1873.4	884.6	480.5	334.5	273.7	241.6	228.5	229.4	232.9
40°	4023.2	3693.9	1862.1	825.5	441.4	292.8	237.2	211.2	201.6	198.1	197.2
42.5°	4400.3	3957.2	1863.9	758.6	392.8	255.5	212.0	190.3	181.6	179.0	178.1
45°	4779.2	4208.3	1866.5	689.1	341.5	226.8	193.8	175.5	170.3	166.8	166.8
47.5°	5135.5	4422.0	1817.8	614.3	291.1	205.1	179.0	166.8	162.5	158.1	158.1
50°	5467.4	4564.6	1700.5	527.4	251.1	187.7	167.7	159.0	154.7	150.3	150.3
52.5°	5725.5	4587.1	1506.7	437.9	223.3	174.7	160.8	152.9	147.7	143.4	142.5
55°	5840.2	4445.5	1231.3	354.5	201.6	163.4	153.8	146.0	139.9	135.6	134.7
57.5°	5810.6	4147.5	960.2	285.0	180.7	152.1	145.1	139.9	132.9	126.0	125.1
60°	5665.5	3748.6	723.8	237.2	161.6	139.9	135.6	131.2	121.7	111.2	109.5
62.5°	5414.4	3247.2	516.2	196.4	140.8	126.0	124.3	120.8	106.9	87.8	86.0
65°	5030.3	2638.1	347.6	163.4	120.8	110.4	111.2	105.1	86.9	65.2	63.4
67.5°	4469.0	1929.1	222.4	133.8	100.8	92.1	93.0	89.5	73.9	55.6	53.0
70°	3753.8	1277.3	145.1	101.7	80.8	71.3	76.5	77.3	62.6	45.2	43.4
72.5°	2751.9	754.2	101.7	75.6	59.1	49.5	62.6	64.3	50.4	33.9	32.2
75°	1568.4	358.0	76.5	54.7	36.5	34.8	48.7	48.7	34.8	22.6	20.9
77.5°	658.7	149.5	53.9	35.6	20.9	20.0	33.0	30.4	17.4	10.4	10.4
80°	190.3	66.9	28.7	17.4	8.7	7.8	13.0	9.6	4.3	1.7	1.7
82.5°	74.7	29.5	11.3	7.0	3.5	3.5	1.7	0.0	0.0	0.0	0.0
85°	44.3	12.2	5.2	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.3	2.6	1.7	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)