

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: P883098

Luminaire Tested: **NAV-SB3B-740-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883098  
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-SB3B-740-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

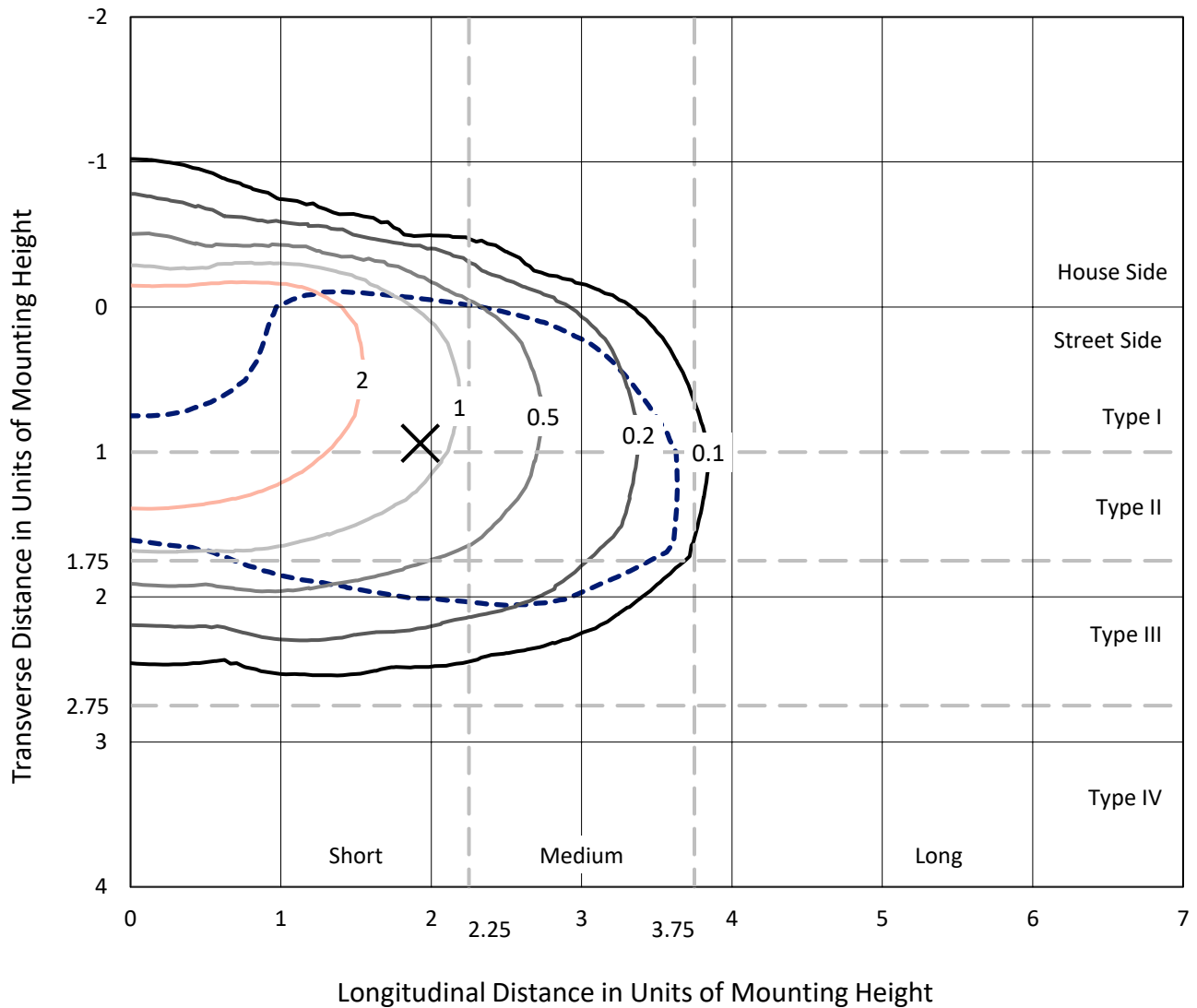
Lumens per Lamp: N/A  
Luminaire Lumens: 14281 lumens  
Efficiency: N/A  
Efficacy: 130.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 109.2  
Input Voltage (V): 120.0  
Input Current (Ain): 0.919  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.657  
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

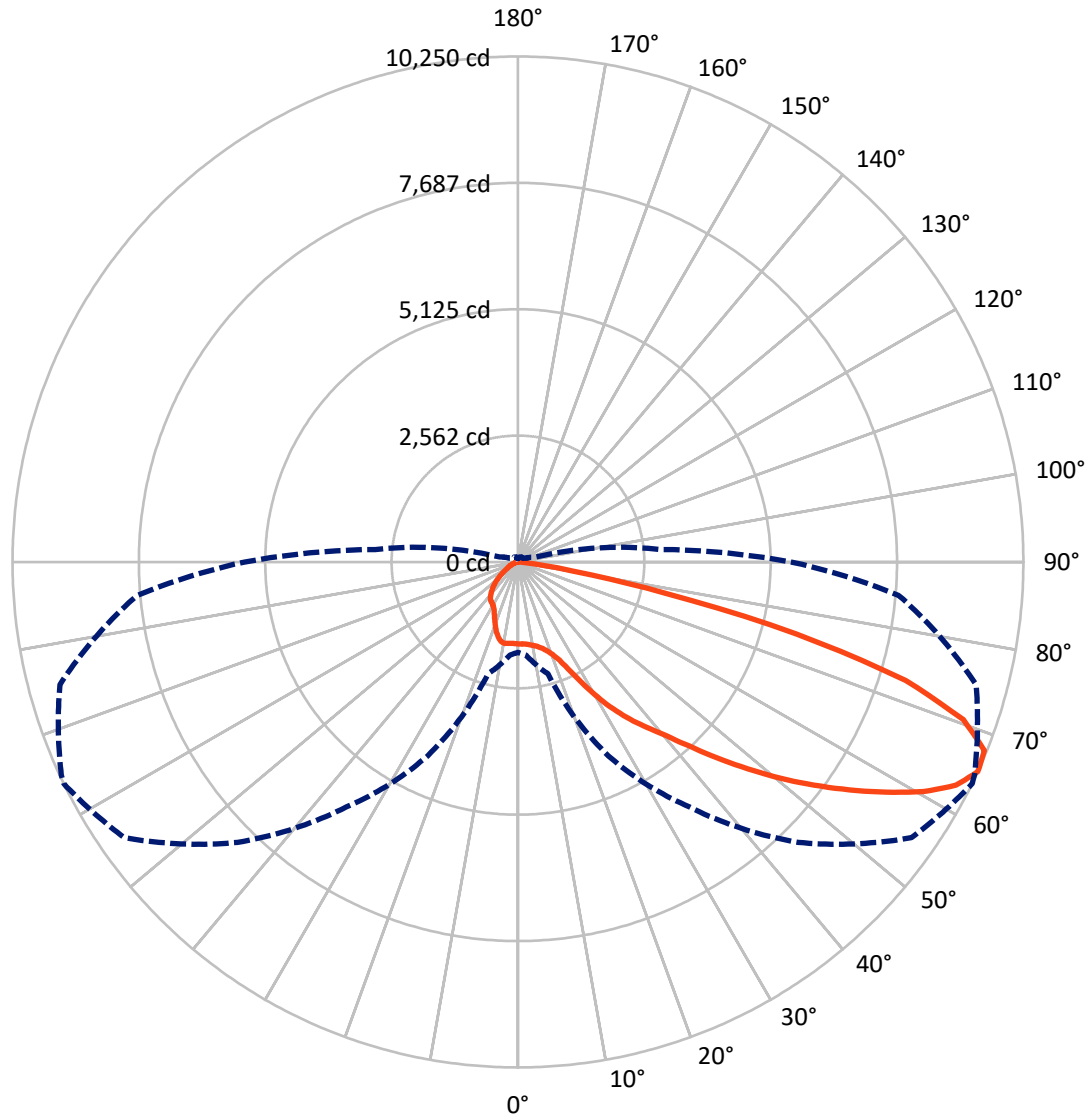
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	1909.8	0.0	1909.8
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	12371.2	0.0	12371.2
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	14281.0	0.0	14281.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.2	1.1
10°-20°	415.6	2.9
20°-30°	787.6	5.5
30°-40°	1593.8	11.2
40°-50°	2715.0	19.0
50°-60°	3692.2	25.9
60°-70°	3467.1	24.3
70°-80°	1389.1	9.7
80°-90°	67.3	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°	14281.0	100.0
0°-180°	14281.0	100.0

**Coefficient of Utilization**



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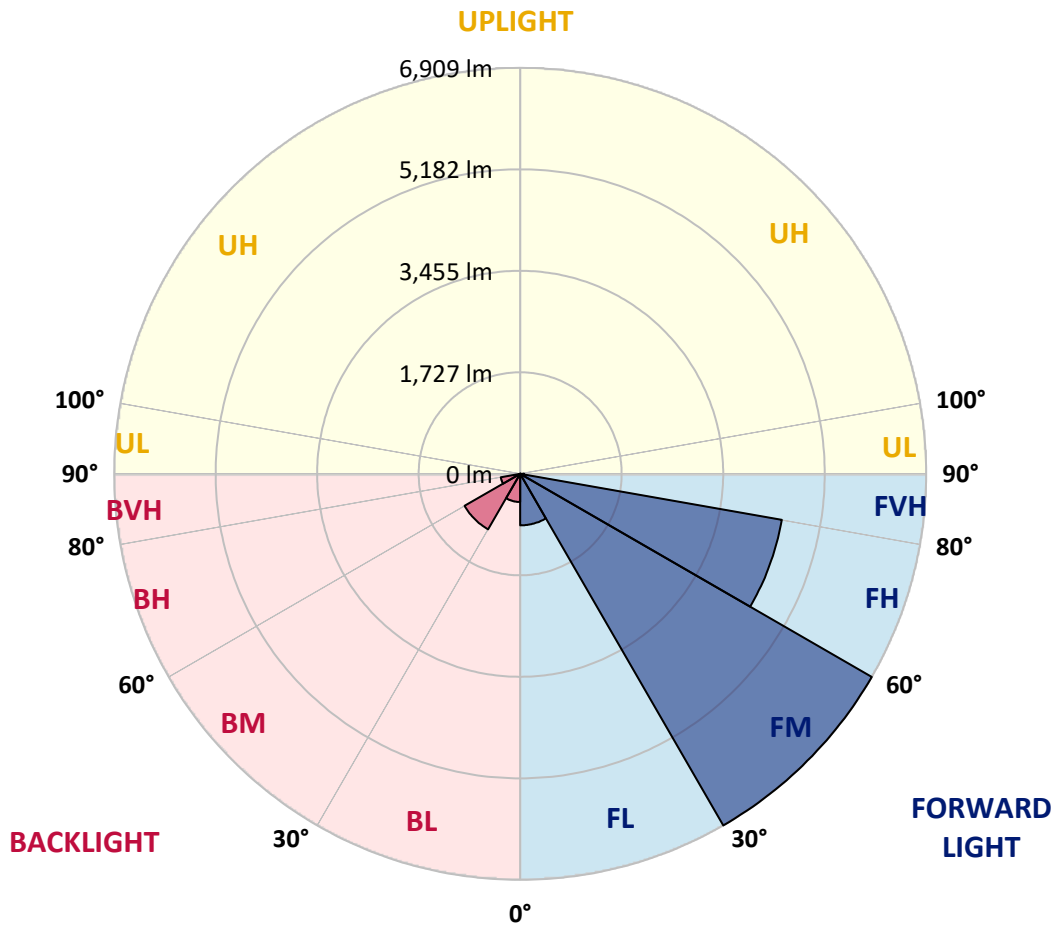
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	877.0	6.1			
FM (30°-60°)	6909.1	48.4			
FH (60°-80°)	4521.0	31.7			G2/5000
FVH (80°-90°)	64.0	0.4			G1/100
BL (0°-30°)	479.5	3.4	B1/500		
BM (30°-60°)	1091.8	7.6	B2/2500		
BH (60°-80°)	335.2	2.3	B1/500		G1/500
BVH (80°-90°)	3.3	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°	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0
2.5°	1655.3	1666.8	1663.9	1661.0	1660.1	1662.0	1662.9	1662.0	1662.0	1662.0	1662.9
5°	1623.7	1633.3	1633.3	1640.0	1649.5	1661.0	1669.6	1671.6	1673.5	1676.3	1675.4
7.5°	1563.4	1571.0	1576.8	1598.8	1622.7	1653.4	1679.2	1692.6	1694.5	1705.1	1708.9
10°	1522.2	1531.8	1541.4	1564.3	1598.8	1644.8	1688.8	1721.3	1726.1	1751.0	1762.5
12.5°	1520.3	1529.9	1542.3	1567.2	1607.4	1656.2	1709.9	1756.8	1765.4	1801.8	1825.7
15°	1540.4	1551.9	1563.4	1594.0	1637.1	1696.5	1753.9	1812.3	1820.9	1872.6	1898.5
17.5°	1581.6	1596.9	1605.5	1636.1	1682.1	1748.1	1823.8	1890.8	1898.5	1958.8	1991.3
20°	1662.9	1681.1	1684.0	1708.9	1753.9	1824.7	1914.7	1998.0	2007.6	2076.5	2112.9
22.5°	1831.4	1857.3	1834.3	1846.8	1887.0	1957.8	2055.5	2160.8	2174.2	2252.7	2285.2
25°	2128.2	2164.6	2105.2	2084.2	2101.4	2175.1	2297.7	2430.8	2446.1	2509.3	2525.5
27.5°	2711.3	2664.3	2574.4	2486.3	2434.6	2476.7	2614.6	2779.2	2798.4	2859.6	2840.5
30°	3351.7	3310.6	3189.0	2993.7	2871.1	2864.4	2991.8	3175.6	3197.6	3256.0	3197.6
32.5°	3993.2	3953.9	3821.8	3581.5	3369.0	3263.7	3351.7	3555.7	3567.1	3604.5	3518.3
35°	4624.1	4583.9	4451.7	4205.7	3944.3	3705.0	3687.8	3917.5	3921.4	3960.6	3832.3
37.5°	5258.8	5225.3	5084.6	4843.3	4585.8	4255.5	4095.6	4260.3	4265.1	4303.4	4170.3
40°	5711.6	5726.0	5629.3	5442.6	5221.5	4860.5	4553.2	4625.0	4596.3	4660.5	4581.0
42.5°	6100.3	6129.1	6044.8	5951.0	5822.7	5504.8	5120.0	5107.5	5061.6	5096.1	5013.7
45°	6436.4	6460.3	6384.7	6362.6	6359.8	6136.7	5739.4	5664.7	5600.6	5593.9	5495.3
47.5°	6559.9	6605.8	6638.4	6712.1	6855.7	6761.9	6379.9	6264.0	6192.2	6139.6	5983.5
50°	6606.8	6655.6	6766.7	6981.1	7321.0	7361.2	7017.5	6887.3	6799.2	6703.5	6473.7
52.5°	6543.6	6630.7	6780.1	7141.0	7634.0	7841.8	7629.2	7515.3	7414.8	7258.7	6917.9
55°	6171.2	6258.3	6563.7	7139.1	7790.1	8178.8	8207.5	8156.8	8043.8	7797.7	7276.9
57.5°	5386.1	5515.4	5998.9	6895.9	7787.2	8468.9	8774.3	8810.6	8684.3	8331.9	7559.4
60°	4298.6	4473.8	5063.5	6356.9	7546.9	8625.9	9271.1	9453.0	9319.0	8858.5	7788.2
62.5°	2999.4	3202.4	3760.5	5512.5	6997.4	8512.9	9634.0	9970.0	9868.5	9329.5	7876.2
65°	1829.5	1894.6	2344.6	4337.8	6063.0	8040.0	9746.0	10249.6	10216.0	9617.7	7746.0
67.5°	1218.7	1273.3	1402.5	2974.5	4706.4	7095.0	9477.9	10200.7	10210.3	9570.8	7269.3
70°	734.3	781.2	865.5	1730.0	3050.2	5615.9	8647.9	9578.4	9634.0	8943.7	6365.5
72.5°	302.5	334.1	410.7	784.1	1579.7	3564.3	6886.3	8223.8	8353.0	7520.1	4885.4
75°	171.4	187.6	241.3	393.5	685.5	1661.0	4171.2	5838.0	6028.5	5183.2	2939.1
77.5°	113.9	121.6	156.1	254.7	385.8	566.8	1782.6	3041.5	3405.3	2830.9	1272.3
80°	76.6	83.3	107.2	170.4	250.8	243.2	567.7	1126.8	1386.3	972.7	310.2
82.5°	51.7	52.7	76.6	112.0	158.9	117.8	167.5	350.4	440.4	281.5	117.8
85°	29.7	28.7	56.5	65.1	70.8	48.8	50.7	105.3	137.9	118.7	67.0
87.5°	3.8	5.7	22.0	17.2	9.6	10.5	10.5	18.2	26.8	28.7	14.4
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°	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0	1661.0
2.5°	1662.9	1662.0	1659.1	1656.2	1649.5	1645.7	1647.6	1645.7	1644.8	1645.7	1649.5
5°	1675.4	1672.5	1664.9	1655.3	1641.9	1625.6	1615.1	1599.8	1585.4	1576.8	1578.7
7.5°	1708.9	1706.0	1695.5	1668.7	1625.6	1557.6	1495.4	1440.8	1399.7	1375.7	1376.7
10°	1762.5	1757.7	1741.4	1682.1	1569.1	1420.7	1297.2	1194.8	1127.8	1096.2	1093.3
12.5°	1825.7	1820.0	1791.2	1669.6	1461.9	1230.2	1059.8	945.9	883.6	855.9	853.0
15°	1900.4	1892.7	1836.2	1610.3	1305.8	1019.6	863.5	778.3	738.1	713.2	714.2
17.5°	1993.2	1979.8	1869.7	1521.3	1136.4	858.8	742.9	678.8	643.3	619.4	617.5
20°	2113.9	2091.8	1896.5	1415.0	980.3	757.3	661.5	607.9	581.1	560.1	556.2
22.5°	2282.4	2250.8	1929.1	1300.1	870.2	687.4	601.2	562.0	540.0	516.0	512.2
25°	2491.1	2453.7	1969.3	1193.8	794.6	627.1	557.2	524.6	498.8	471.0	468.2
27.5°	2783.1	2716.0	2017.2	1106.7	729.5	575.4	517.0	480.6	450.9	427.9	423.2
30°	3108.6	2998.5	2059.3	1054.1	670.2	527.5	464.3	427.9	400.2	383.9	381.0
32.5°	3416.8	3267.5	2087.1	1031.1	616.5	472.9	406.9	367.6	346.6	341.8	344.7
35°	3707.9	3510.7	2084.2	1009.1	568.7	418.4	350.4	310.2	293.9	296.8	296.8
37.5°	4043.0	3770.1	2064.1	974.6	529.4	368.6	301.6	266.1	251.8	252.7	256.6
40°	4432.6	4069.8	2051.6	909.5	486.3	322.6	261.4	232.6	222.1	218.3	217.3
42.5°	4848.1	4359.8	2053.5	835.8	432.7	281.5	233.6	209.7	200.1	197.2	196.3
45°	5265.5	4636.5	2056.4	759.2	376.2	249.9	213.5	193.4	187.6	183.8	183.8
47.5°	5658.0	4872.0	2002.8	676.9	320.7	225.9	197.2	183.8	179.0	174.2	174.2
50°	6023.7	5029.0	1873.6	581.1	276.7	206.8	184.8	175.2	170.4	165.6	165.6
52.5°	6308.1	5053.9	1660.1	482.5	246.0	192.4	177.1	168.5	162.8	158.0	157.0
55°	6434.5	4897.9	1356.6	390.6	222.1	180.0	169.5	160.8	154.1	149.3	148.4
57.5°	6401.9	4569.5	1057.9	314.0	199.1	167.5	159.9	154.1	146.5	138.8	137.9
60°	6242.0	4130.1	797.5	261.4	178.1	154.1	149.3	144.6	134.0	122.5	120.6
62.5°	5965.3	3577.7	568.7	216.4	155.1	138.8	136.9	133.1	117.8	96.7	94.8
65°	5542.2	2906.6	382.9	180.0	133.1	121.6	122.5	115.8	95.7	71.8	69.9
67.5°	4923.7	2125.4	245.1	147.4	111.1	101.5	102.4	98.6	81.4	61.3	58.4
70°	4135.8	1407.3	159.9	112.0	89.0	78.5	84.2	85.2	68.9	49.8	47.9
72.5°	3032.0	831.0	112.0	83.3	65.1	54.6	68.9	70.8	55.5	37.3	35.4
75°	1728.0	394.4	84.2	60.3	40.2	38.3	53.6	53.6	38.3	24.9	23.0
77.5°	725.7	164.7	59.4	39.3	23.0	22.0	36.4	33.5	19.1	11.5	11.5
80°	209.7	73.7	31.6	19.1	9.6	8.6	14.4	10.5	4.8	1.9	1.9
82.5°	82.3	32.6	12.4	7.7	3.8	3.8	1.9	0.0	0.0	0.0	0.0
85°	48.8	13.4	5.7	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.4	2.9	1.9	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)