

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: P968149

Luminaire Tested: **NAV-SB5B-722-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P968149  
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-SB5B-722-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

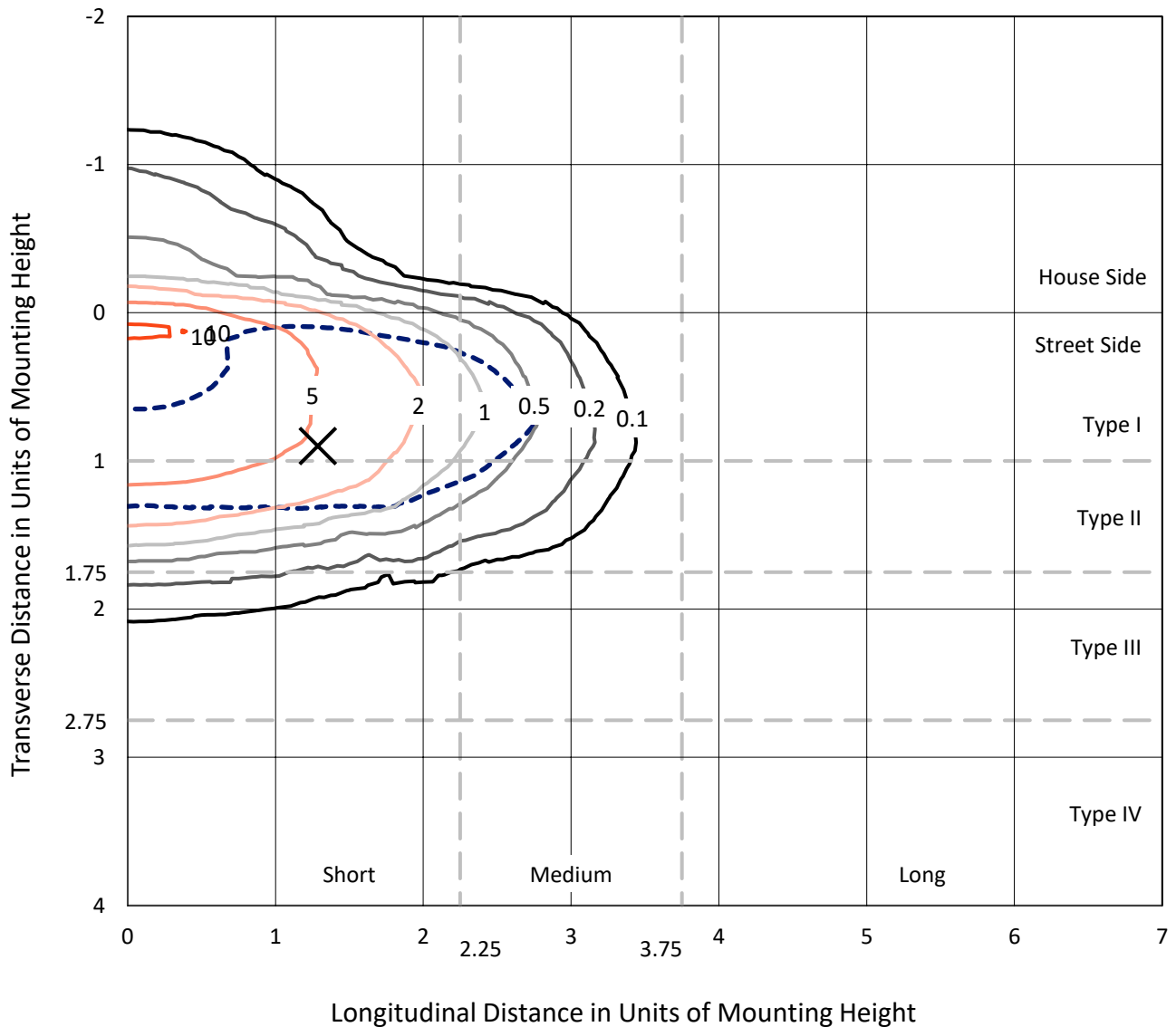
Lumens per Lamp: N/A  
Luminaire Lumens: 20535.9 lumens  
Efficiency: N/A  
Efficacy: 112.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 182.7  
Input Voltage (V): NR  
Input Current (Ain): 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

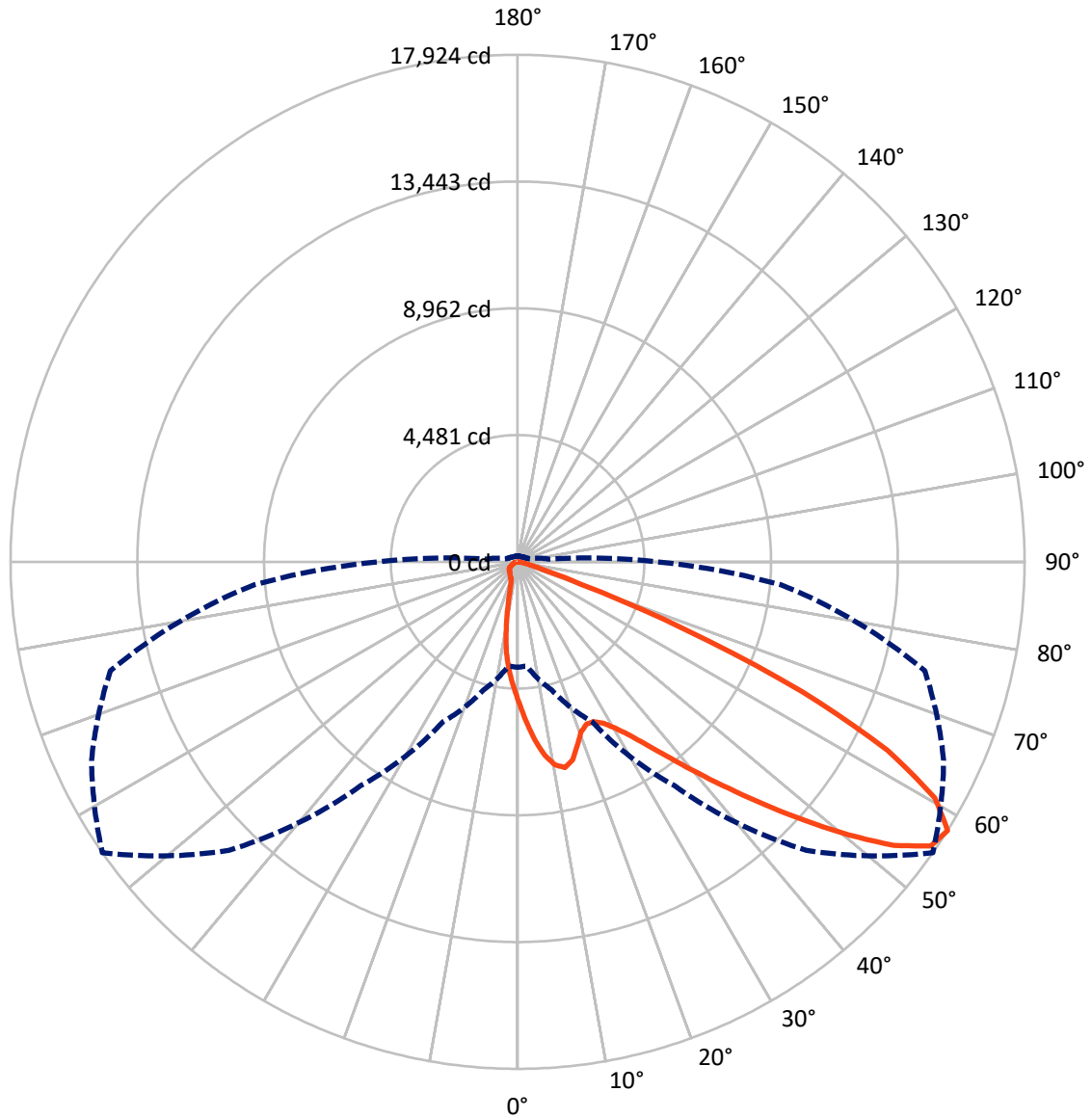
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1603.8	0.0	1603.8
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	18932.1	0.0	18932.1
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	20535.9	0.0	20535.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	460.4	2.2
10°-20°	1112.2	5.4
20°-30°	1779.5	8.7
30°-40°	3011.9	14.7
40°-50°	4945.0	24.1
50°-60°	5434.9	26.5
60°-70°	3117.4	15.2
70°-80°	637.0	3.1
80°-90°	37.6	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°	20535.9	100.0
0°-180°	20535.9	100.0

**Coefficient of Utilization**

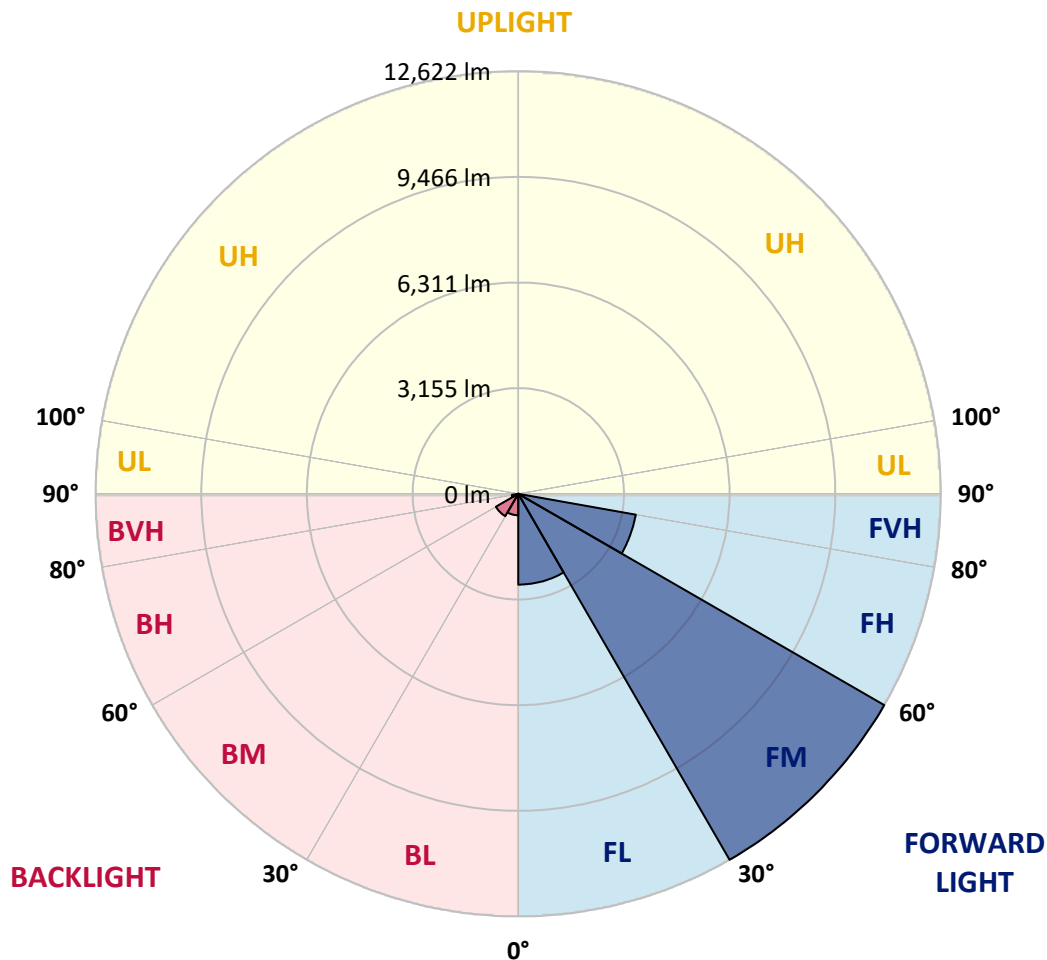


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2711.9	13.2			
FM (30°-60°)	12621.5	61.5			
FH (60°-80°)	3563.7	17.4			G2/5000
FVH (80°-90°)	35.0	0.2			G1/100
BL (0°-30°)	640.3	3.1	B2/1000		
BM (30°-60°)	770.2	3.8	B1/1000		
BH (60°-80°)	190.7	0.9	B1/500		G1/500
BVH (80°-90°)	2.5	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 II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6
2.5°	6140.3	6063.0	6051.6	6036.3	5889.4	5779.4	5619.8	5445.0	5248.7	5048.6	4960.1
5°	7093.7	7032.9	7021.6	6950.6	6783.4	6596.1	6312.5	5954.0	5588.1	5157.6	4972.7
7.5°	7278.6	7267.2	7319.1	7316.6	7293.8	7145.7	6906.3	6479.5	5930.0	5291.8	5005.6
10°	6454.2	6483.3	6637.9	6773.4	7139.3	7352.0	7300.2	6948.1	6282.0	5445.0	5042.4
12.5°	5703.3	5669.2	5779.4	5932.5	6358.0	6991.1	7463.4	7339.4	6684.7	5618.5	5096.8
15°	5232.3	5218.4	5280.4	5351.3	5675.5	6313.7	7273.5	7657.3	7072.2	5823.6	5179.1
17.5°	5081.6	5070.2	5089.2	5107.0	5317.1	5810.9	6821.5	7852.2	7443.2	6058.0	5270.2
20°	5204.4	5189.3	5186.7	5172.8	5260.1	5597.0	6412.5	7866.2	7776.3	6270.6	5348.8
22.5°	5562.8	5545.0	5483.0	5427.3	5434.9	5626.1	6230.2	7726.9	8027.0	6469.5	5398.2
25°	6212.4	6183.3	6054.1	5866.7	5747.7	5828.7	6257.9	7543.3	8266.3	6625.2	5374.1
27.5°	7025.4	6987.3	6821.5	6542.9	6270.6	6171.8	6459.3	7416.6	8465.1	6744.2	5322.2
30°	7821.9	7772.5	7609.1	7392.6	6994.9	6683.4	6822.7	7472.4	8701.9	6868.3	5253.8
32.5°	8681.6	8634.8	8418.2	8149.8	7820.5	7401.4	7320.3	7744.6	8991.9	7041.9	5205.7
35°	9769.4	9696.0	9388.3	9022.3	8672.8	8248.6	7994.1	8214.3	9378.1	7306.5	5232.3
37.5°	11007.8	10909.1	10577.3	10072.1	9616.1	9141.3	8814.6	8860.2	9944.1	7661.1	5314.6
40°	12175.4	12085.5	11779.0	11302.9	10730.5	10154.4	9806.1	9704.8	10725.4	8092.8	5458.9
42.5°	12875.5	12794.6	12665.4	12464.0	11981.6	11394.0	10954.6	10735.5	11649.8	8609.5	5634.9
45°	12914.8	12844.0	13017.4	13251.7	13156.7	12765.5	12229.8	11828.4	12578.0	9094.4	5817.3
47.5°	12286.8	12238.6	12765.5	13583.4	13991.1	14155.8	13661.9	12830.0	13344.1	9442.7	5892.0
50°	10574.7	10557.0	11640.9	13142.8	14309.0	15374.0	15172.7	13762.0	13938.0	9622.5	5821.1
52.5°	9169.1	9104.6	9736.5	11732.2	13846.8	16014.7	16649.1	14676.3	14353.4	9656.7	5655.2
55°	6954.4	6897.4	7690.2	9371.8	12356.4	15786.7	17729.2	15619.7	14650.9	9569.3	5357.7
57.5°	3730.5	3695.0	4696.7	6237.7	9659.2	14419.2	17924.3	16617.4	14901.7	9337.5	4941.0
60°	1452.4	1446.1	1820.9	3026.4	5870.5	11730.8	16940.4	17216.4	15058.7	9052.7	4592.8
62.5°	878.8	897.8	958.6	1358.7	2593.4	7287.4	14672.5	16535.1	15163.7	8791.8	4305.4
65°	726.8	728.2	735.7	933.3	1242.2	3049.2	11045.8	14293.8	14904.2	8327.1	3897.7
67.5°	623.0	634.4	663.5	740.8	876.3	1337.2	6359.3	11072.4	13325.1	7245.7	3262.0
70°	491.3	506.6	543.2	609.1	676.2	837.0	2350.2	7367.3	10179.7	5461.5	2466.8
72.5°	414.1	412.8	431.8	495.1	536.9	588.9	904.2	4128.1	5916.1	2607.3	1220.7
75°	320.4	333.0	357.1	414.1	439.4	426.7	490.1	1508.2	2119.8	790.2	415.3
77.5°	250.7	260.9	282.4	338.1	363.5	302.7	282.4	539.5	681.2	283.6	187.4
80°	112.7	121.6	192.5	249.5	296.3	208.9	153.2	276.0	302.7	129.1	95.0
82.5°	20.3	34.2	112.7	131.7	151.9	135.5	79.7	143.1	148.1	52.0	32.9
85°	1.2	2.6	39.3	48.1	60.8	44.3	24.1	57.0	49.4	17.7	12.7
87.5°	0.0	0.0	0.0	1.2	1.2	6.4	7.6	10.1	7.6	6.4	5.0
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°	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6	4948.6
2.5°	4868.9	4689.1	4514.3	4371.2	4287.7	4145.8	4052.1	4037.0	3997.7	4031.8
5°	4775.2	4453.5	4128.1	3836.9	3597.5	3288.5	3058.1	2960.6	2875.7	2904.8
7.5°	4730.9	4223.1	3716.5	3218.9	2707.3	2213.5	1846.2	1693.0	1576.6	1593.0
10°	4671.3	3983.8	3189.8	2430.0	1745.0	1257.5	1004.2	910.5	858.5	859.8
12.5°	4625.7	3697.6	2578.2	1647.5	1062.4	802.8	724.3	701.5	686.3	687.6
15°	4603.0	3360.8	1974.2	1097.9	759.7	680.0	661.0	650.9	640.7	639.5
17.5°	4564.9	2985.9	1444.8	801.6	664.8	636.9	620.4	609.1	596.4	593.9
20°	4508.0	2560.4	1056.1	677.4	623.0	601.5	578.7	563.5	548.3	545.8
22.5°	4402.9	2110.9	811.7	626.8	592.7	568.6	540.7	523.0	507.8	505.2
25°	4207.8	1689.2	683.8	595.1	566.0	536.9	506.6	482.5	468.5	466.0
27.5°	3960.9	1327.1	620.4	566.0	531.9	505.2	471.1	448.2	435.6	433.1
30°	3669.7	1021.9	583.7	533.1	491.3	468.5	438.1	419.1	411.5	411.5
32.5°	3355.6	816.7	568.6	500.2	455.8	430.5	406.5	398.9	396.4	395.0
35°	3060.6	709.1	561.0	473.6	424.2	400.2	390.0	391.2	396.4	396.4
37.5°	2798.5	675.0	557.2	454.6	396.4	374.8	381.2	392.6	387.4	387.4
40°	2561.7	678.8	554.6	440.6	373.5	360.9	373.5	364.7	352.0	350.8
42.5°	2380.7	710.4	549.6	429.3	359.7	350.8	345.7	331.8	330.5	333.0
45°	2249.0	738.2	548.3	424.2	344.4	328.0	321.6	307.7	333.0	339.4
47.5°	2093.2	738.2	548.3	406.5	319.1	312.7	302.7	287.4	312.7	319.1
50°	1891.8	691.4	526.7	386.2	298.9	295.0	277.4	258.3	253.3	257.1
52.5°	1637.3	606.6	472.3	358.3	278.6	271.0	249.5	235.5	231.8	231.8
55°	1347.4	507.8	398.9	317.9	257.1	243.1	228.0	221.6	217.8	215.2
57.5°	1095.3	416.6	320.4	282.4	236.8	219.0	214.0	206.4	200.1	196.3
60°	899.0	328.0	264.7	250.7	216.6	200.1	198.8	188.7	172.2	169.6
62.5°	693.9	240.6	222.8	217.8	196.3	182.3	179.8	159.6	134.3	129.1
65°	490.1	187.4	179.8	191.2	174.8	162.1	155.8	125.4	98.8	95.0
67.5°	344.4	157.0	141.9	167.2	151.9	135.5	131.7	106.4	82.3	79.7
70°	245.7	127.9	116.5	143.1	121.6	119.0	111.4	88.7	67.1	64.6
72.5°	173.4	97.5	89.9	124.1	83.5	102.6	91.1	68.4	50.6	48.1
75°	127.9	69.6	63.3	72.2	60.8	77.3	64.6	45.6	31.7	30.3
77.5°	93.7	44.3	38.0	35.5	35.5	48.1	35.5	19.0	13.9	12.7
80°	65.8	20.3	17.7	15.2	13.9	11.4	5.0	2.6	1.2	1.2
82.5°	39.3	8.8	8.8	6.4	3.8	0.0	0.0	0.0	0.0	0.0
85°	8.8	3.8	3.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	1.2	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)