

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: P963499

Luminaire Tested: **NAV-SB3A-735-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P963499  
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-SB3A-735-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

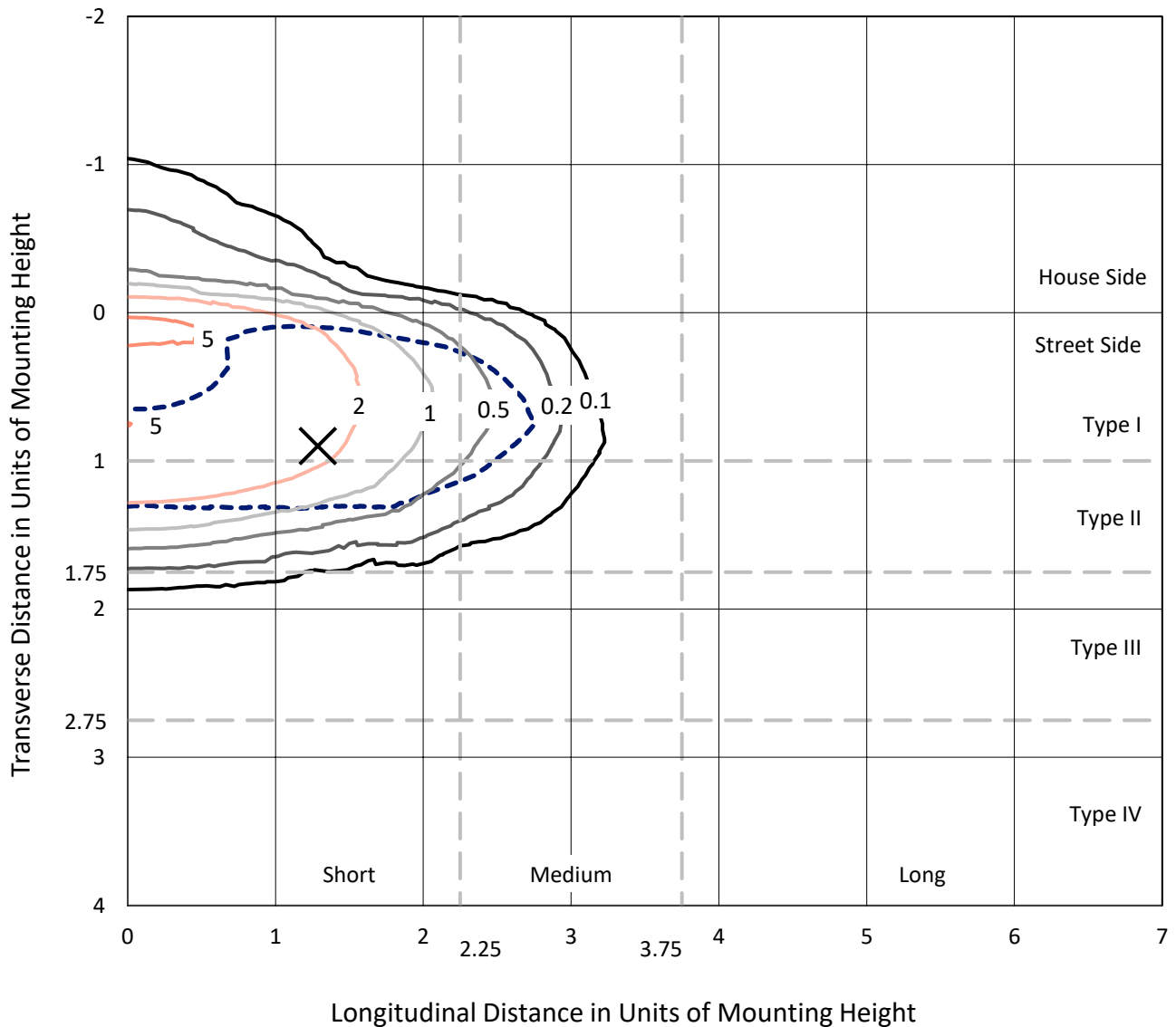
Lumens per Lamp: N/A  
Luminaire Lumens: 11761.8 lumens  
Efficiency: N/A  
Efficacy: 138.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 84.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

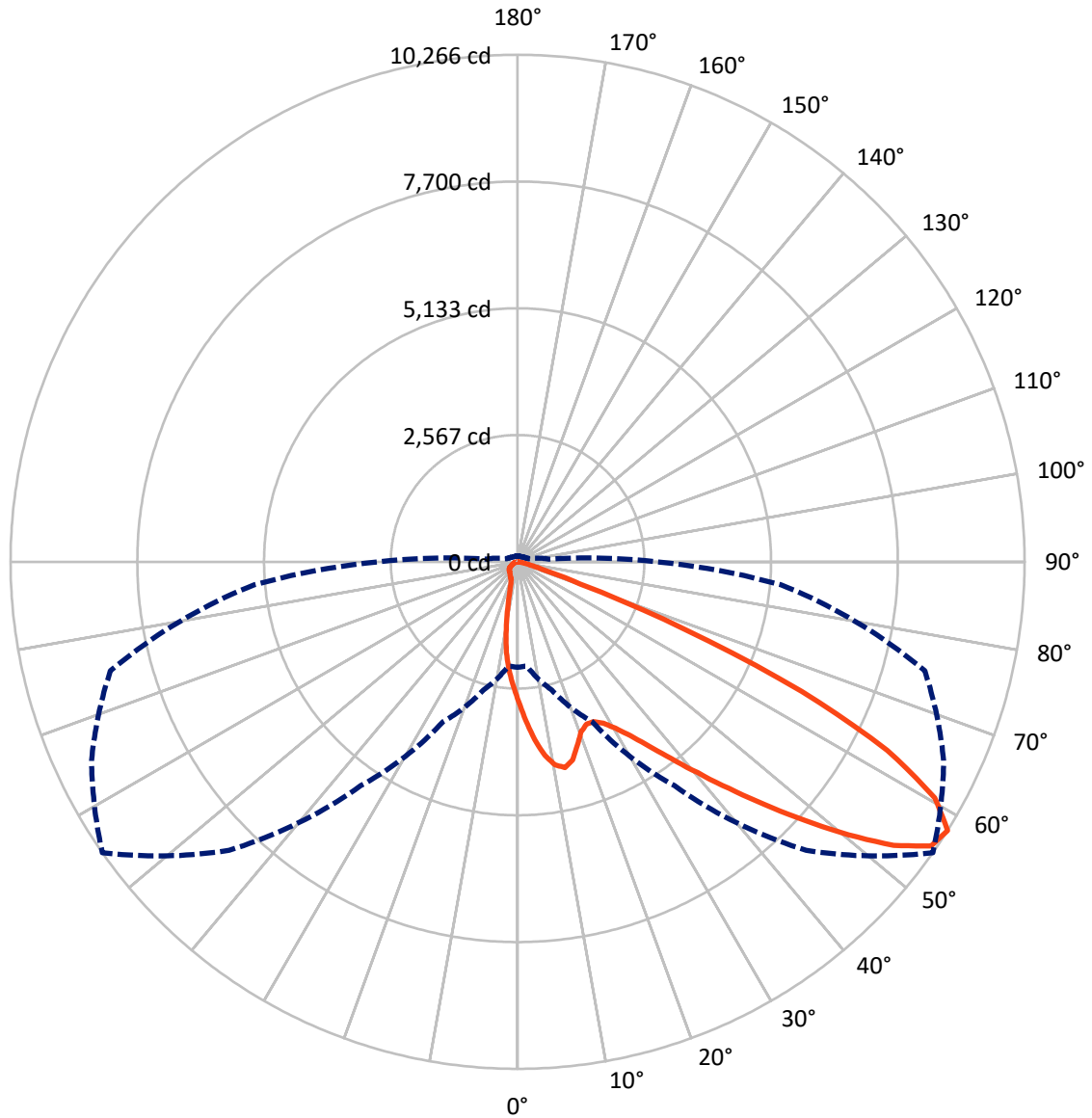
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 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	918.5	0.0	918.5
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	10843.3	0.0	10843.3
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	11761.8	0.0	11761.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	263.7	2.2
10°-20°	637.0	5.4
20°-30°	1019.2	8.7
30°-40°	1725.1	14.7
40°-50°	2832.2	24.1
50°-60°	3112.8	26.5
60°-70°	1785.5	15.2
70°-80°	364.8	3.1
80°-90°	21.5	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°	11761.8	100.0
0°-180°	11761.8	100.0

**Coefficient of Utilization**

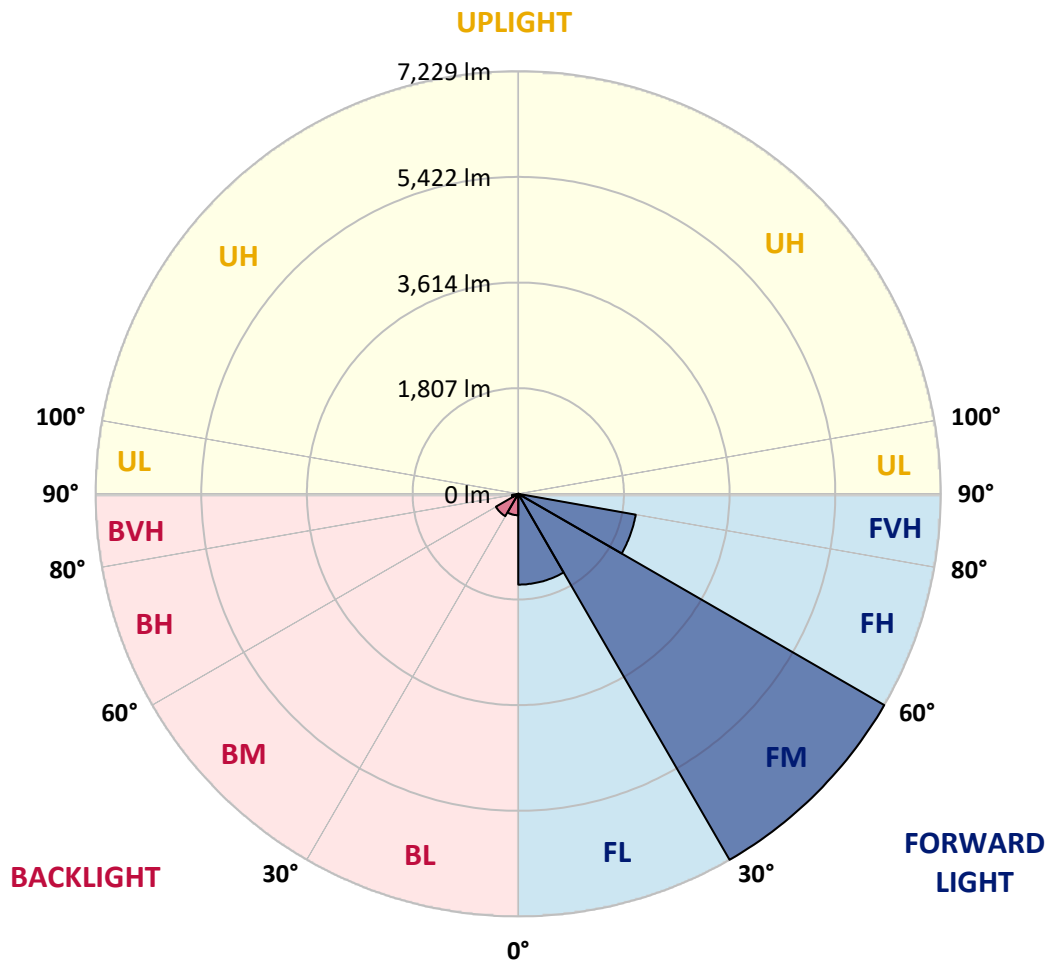


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1553.2	13.2			
FM (30°-60°)	7228.9	61.5			
FH (60°-80°)	2041.1	17.4			G2/5000
FVH (80°-90°)	20.1	0.2			G1/100
BL (0°-30°)	366.7	3.1	B1/500		
BM (30°-60°)	441.1	3.8	B1/1000		
BH (60°-80°)	109.2	0.9	B0/110		G0/110
BVH (80°-90°)	1.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3
2.5°	3516.8	3472.6	3466.0	3457.3	3373.2	3310.1	3218.7	3118.7	3006.2	2891.6	2840.9
5°	4062.9	4028.1	4021.6	3981.0	3885.3	3777.8	3615.4	3410.2	3200.6	2953.9	2848.1
7.5°	4168.8	4162.3	4192.0	4190.6	4177.5	4092.6	3955.6	3711.1	3396.4	3030.8	2866.9
10°	3696.7	3713.4	3801.8	3879.4	4089.0	4210.9	4181.2	3979.5	3598.1	3118.7	2888.0
12.5°	3266.6	3247.0	3310.1	3397.9	3641.5	4004.2	4274.7	4203.6	3828.7	3218.0	2919.2
15°	2996.8	2988.8	3024.4	3065.0	3250.6	3616.2	4165.9	4385.7	4050.6	3335.5	2966.4
17.5°	2910.5	2903.9	2914.8	2924.9	3045.4	3328.2	3907.0	4497.4	4263.1	3469.6	3018.5
20°	2980.8	2972.1	2970.7	2962.7	3012.8	3205.7	3672.7	4505.3	4453.8	3591.5	3063.5
22.5°	3186.1	3176.0	3140.4	3108.5	3112.8	3222.3	3568.3	4425.5	4597.4	3705.4	3091.8
25°	3558.1	3541.5	3467.5	3360.2	3292.0	3338.4	3584.2	4320.4	4734.5	3794.6	3078.0
27.5°	4023.7	4002.0	3907.0	3747.4	3591.5	3534.9	3699.5	4247.9	4848.4	3862.7	3048.2
30°	4480.0	4451.7	4358.1	4234.1	4006.3	3828.0	3907.7	4279.8	4984.0	3933.8	3009.1
32.5°	4972.4	4945.5	4821.5	4667.7	4479.2	4239.2	4192.8	4435.7	5150.1	4033.2	2981.5
35°	5595.4	5553.3	5377.0	5167.5	4967.4	4724.3	4578.6	4704.8	5371.3	4184.8	2996.8
37.5°	6304.7	6248.1	6058.2	5768.7	5507.6	5235.7	5048.5	5074.7	5695.5	4387.8	3043.9
40°	6973.4	6921.9	6746.3	6473.7	6145.9	5815.8	5616.4	5558.4	6142.9	4635.2	3126.6
42.5°	7374.5	7328.0	7254.0	7138.7	6862.4	6525.9	6274.2	6148.8	6672.4	4931.1	3227.4
45°	7396.9	7356.3	7455.6	7589.8	7535.5	7311.3	7004.5	6774.6	7204.0	5208.8	3331.9
47.5°	7037.2	7009.7	7311.3	7779.9	8013.4	8107.6	7824.8	7348.3	7642.8	5408.3	3374.6
50°	6056.6	6046.5	6667.3	7527.5	8195.5	8805.4	8690.1	7882.1	7982.9	5511.2	3334.0
52.5°	5251.6	5214.6	5576.5	6719.6	7930.7	9172.4	9535.8	8405.8	8220.8	5530.8	3239.0
55°	3983.2	3950.5	4404.5	5367.6	7077.1	9041.8	10154.4	8946.1	8391.3	5480.8	3068.5
57.5°	2136.6	2116.3	2690.0	3572.6	5532.3	8258.5	10266.1	9517.6	8534.9	5348.0	2829.9
60°	831.9	828.2	1042.9	1733.4	3362.3	6718.8	9702.5	9860.7	8624.8	5184.9	2630.6
62.5°	503.4	514.2	549.0	778.2	1485.3	4173.9	8403.6	9470.5	8685.0	5035.5	2465.8
65°	416.3	417.1	421.4	534.5	711.5	1746.4	6326.5	8186.8	8536.3	4769.3	2232.3
67.5°	356.8	363.4	380.1	424.2	501.8	765.9	3642.2	6341.7	7631.9	4149.9	1868.3
70°	281.4	290.1	311.1	348.8	387.2	479.4	1346.1	4219.6	5830.4	3128.1	1412.9
72.5°	237.2	236.5	247.3	283.6	307.5	337.2	517.8	2364.4	3388.4	1493.3	699.2
75°	183.5	190.8	204.5	237.2	251.6	244.5	280.6	863.8	1214.1	452.5	237.9
77.5°	143.6	149.4	161.7	193.6	208.2	173.3	161.7	308.9	390.2	162.5	107.3
80°	64.6	69.6	110.3	142.9	169.7	119.6	87.7	158.2	173.3	74.0	54.4
82.5°	11.6	19.6	64.6	75.4	87.0	77.6	45.7	82.0	84.9	29.7	18.9
85°	0.7	1.4	22.4	27.6	34.8	25.4	13.7	32.6	28.3	10.1	7.3
87.5°	0.0	0.0	0.0	0.7	0.7	3.6	4.3	5.8	4.3	3.6	2.9
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°	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3	2834.3
2.5°	2788.6	2685.6	2585.6	2503.6	2455.7	2374.5	2320.8	2312.1	2289.6	2309.2
5°	2735.0	2550.7	2364.4	2197.5	2060.5	1883.5	1751.5	1695.7	1647.1	1663.8
7.5°	2709.6	2418.8	2128.6	1843.6	1550.6	1267.7	1057.4	969.6	902.9	912.4
10°	2675.5	2281.6	1827.0	1391.7	999.4	720.2	575.1	521.4	491.7	492.4
12.5°	2649.4	2117.8	1476.6	943.6	608.5	459.8	414.8	401.8	393.1	393.8
15°	2636.3	1924.8	1130.7	628.8	435.1	389.5	378.6	372.8	367.0	366.2
17.5°	2614.6	1710.2	827.5	459.1	380.8	364.8	355.4	348.8	341.6	340.2
20°	2582.0	1466.5	604.9	388.1	356.8	344.5	331.5	322.8	314.1	312.6
22.5°	2521.7	1209.0	464.9	359.0	339.4	325.6	309.7	299.5	290.8	289.4
25°	2410.1	967.5	391.7	340.9	324.2	307.5	290.1	276.3	268.3	266.9
27.5°	2268.6	760.0	355.4	324.2	304.6	289.4	269.8	256.8	249.5	248.0
30°	2101.8	585.3	334.4	305.3	281.4	268.3	250.9	240.1	235.7	235.7
32.5°	1922.0	467.8	325.6	286.5	261.1	246.6	232.8	228.5	227.0	226.3
35°	1753.0	406.1	321.3	271.2	242.9	229.2	223.3	224.1	227.0	227.0
37.5°	1602.8	386.5	319.1	260.3	227.0	214.6	218.3	224.8	221.9	221.9
40°	1467.2	388.8	317.6	252.4	213.9	206.7	213.9	208.9	201.6	200.9
42.5°	1363.5	406.8	314.8	245.9	206.0	200.9	198.0	190.0	189.3	190.8
45°	1288.0	422.8	314.1	242.9	197.3	187.9	184.2	176.2	190.8	194.3
47.5°	1198.8	422.8	314.1	232.8	182.8	179.2	173.3	164.6	179.2	182.8
50°	1083.5	396.0	301.8	221.2	171.2	169.0	158.9	147.9	145.0	147.2
52.5°	937.8	347.4	270.5	205.2	159.6	155.2	142.9	134.9	132.7	132.7
55°	771.7	290.8	228.5	182.0	147.2	139.3	130.6	126.9	124.7	123.3
57.5°	627.3	238.6	183.5	161.7	135.6	125.5	122.6	118.2	114.6	112.4
60°	515.0	187.9	151.6	143.6	124.0	114.6	113.9	108.0	98.6	97.2
62.5°	397.4	137.8	127.6	124.7	112.4	104.4	103.0	91.4	76.9	74.0
65°	280.6	107.3	103.0	109.5	100.0	92.9	89.2	71.8	56.6	54.4
67.5°	197.3	89.9	81.2	95.7	87.0	77.6	75.4	60.9	47.2	45.7
70°	140.7	73.3	66.7	82.0	69.6	68.2	63.9	50.7	38.4	37.0
72.5°	99.3	55.9	51.5	71.0	47.9	58.7	52.2	39.2	29.0	27.6
75°	73.3	39.9	36.3	41.3	34.8	44.3	37.0	26.1	18.1	17.4
77.5°	53.7	25.4	21.7	20.3	20.3	27.6	20.3	10.9	8.0	7.3
80°	37.7	11.6	10.1	8.7	8.0	6.6	2.9	1.4	0.7	0.7
82.5°	22.4	5.1	5.1	3.6	2.2	0.0	0.0	0.0	0.0	0.0
85°	5.1	2.2	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.7	0.7	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

(END OF REPORT)