

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: P967208

Luminaire Tested: **NAV-SB4D-735-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967208
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32784.6 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 293.6
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

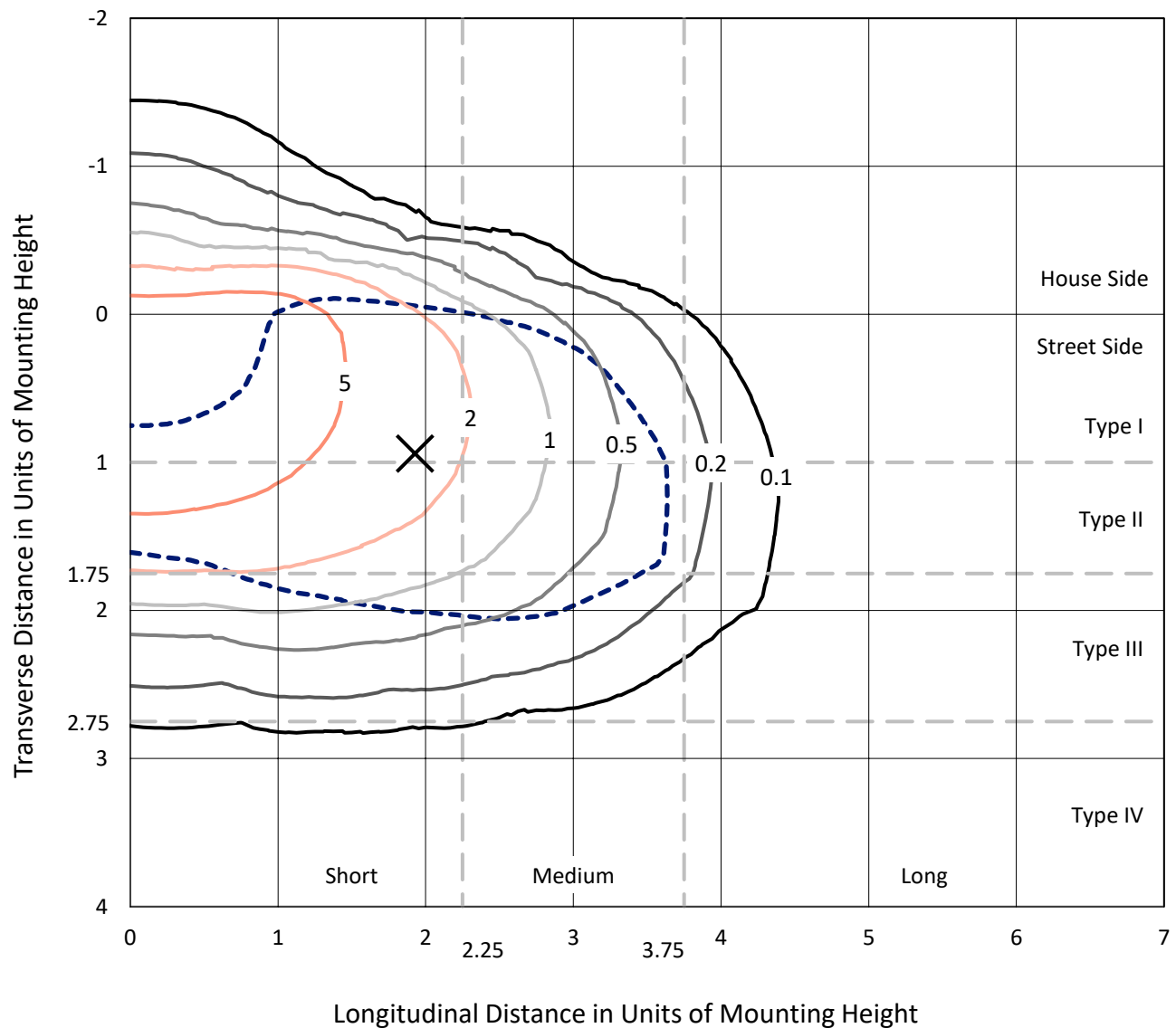


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

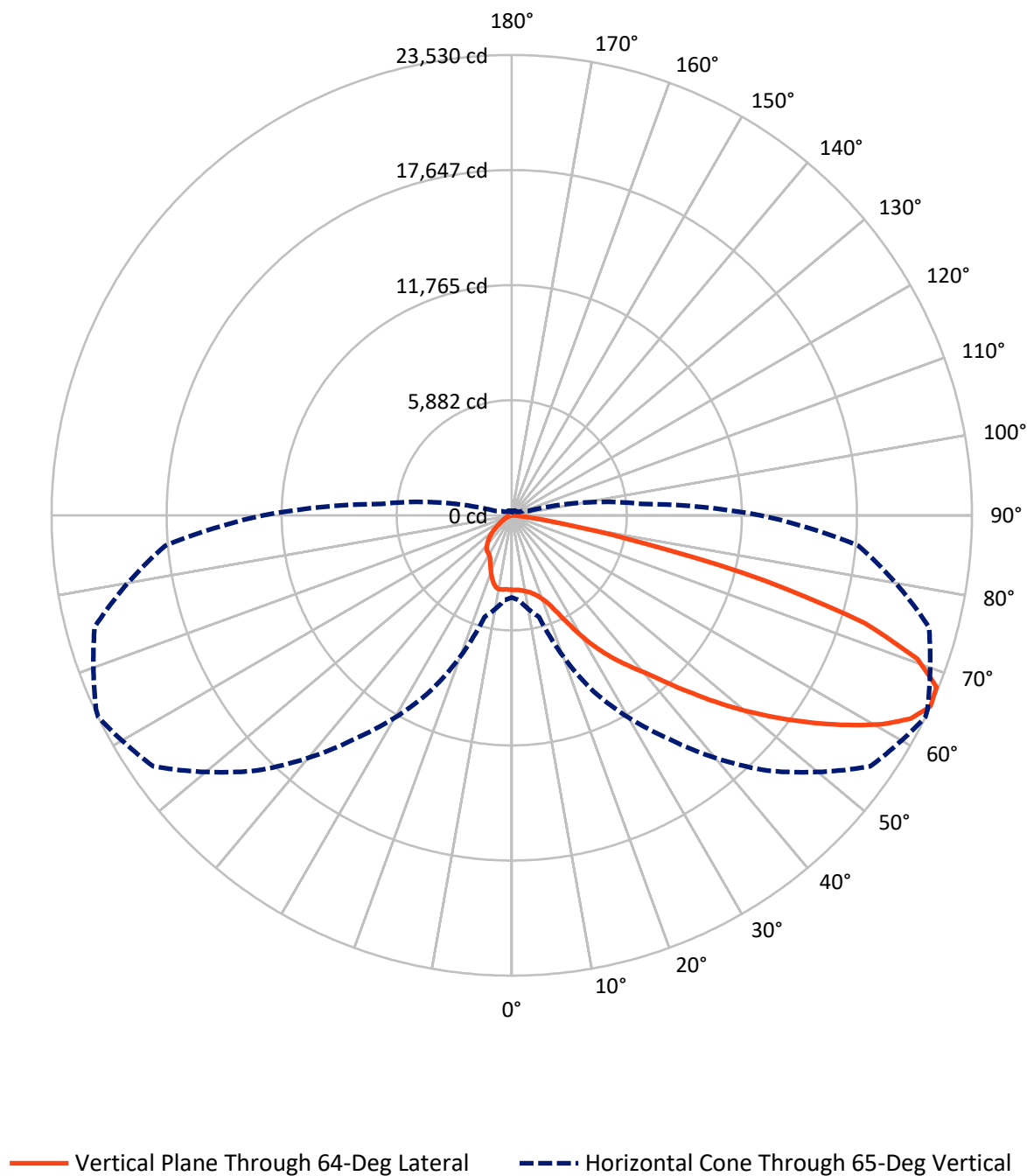


Based on 25 foot mounting height. Maximum calculated value = 9.6 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4384.3	0.0	4384.3
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	28400.3	0.0	28400.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	32784.6	0.0	32784.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.8	1.1
10°-20°	954.2	2.9
20°-30°	1808.1	5.5
30°-40°	3658.8	11.2
40°-50°	6232.8	19.0
50°-60°	8476.1	25.9
60°-70°	7959.5	24.3
70°-80°	3188.9	9.7
80°-90°	154.5	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°	32784.6	100.0
0°-180°	32784.6	100.0

Coefficient of Utilization



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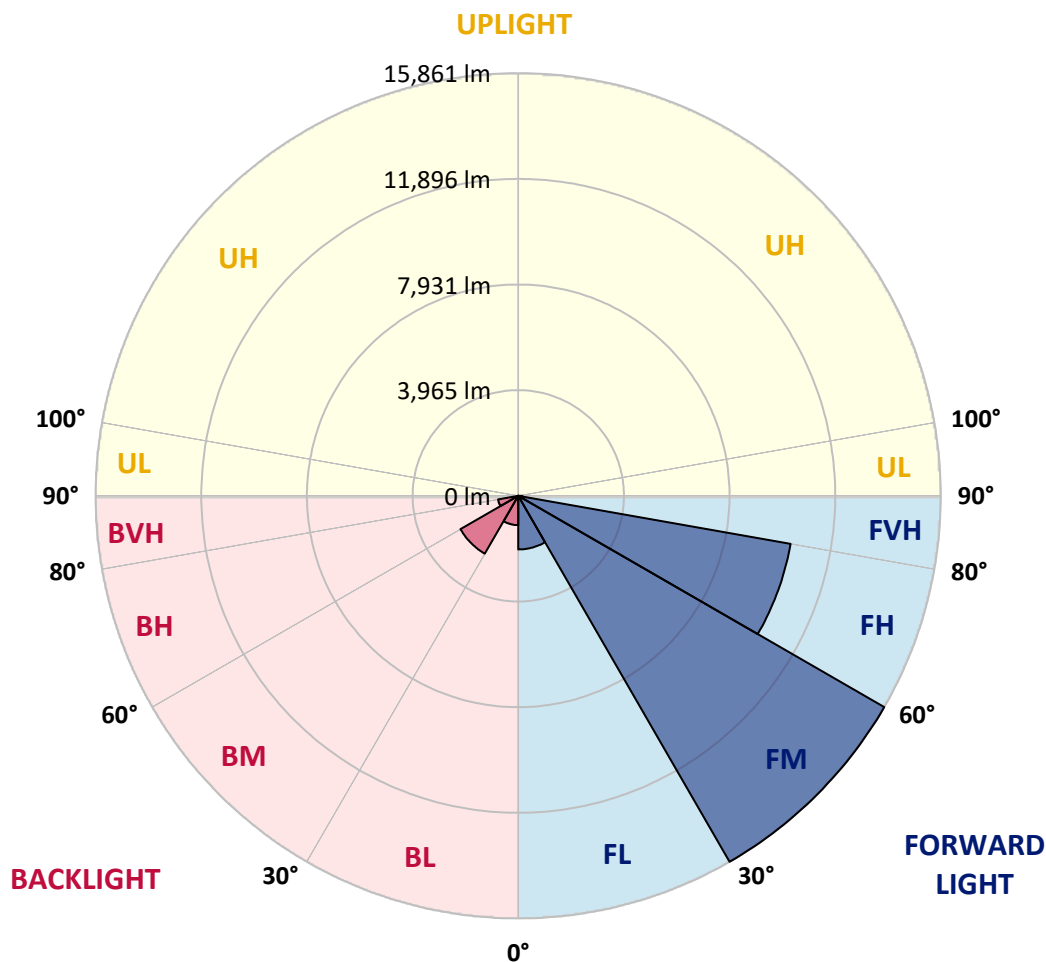
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2013.4	6.1			
FM	(30°-60°)	15861.2	48.4			
FH	(60°-80°)	10378.9	31.7			G4/12000
FVH	(80°-90°)	146.9	0.4			G2/225
BL	(0°-30°)	1100.8	3.4	B3/2500		
BM	(30°-60°)	2506.5	7.6	B3/5000		
BH	(60°-80°)	769.5	2.3	B2/1000		G2/1000
BVH	(80°-90°)	7.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2
2.5°	3800.0	3826.4	3819.8	3813.2	3811.0	3815.4	3817.6	3815.4	3815.4	3815.4	3817.6
5°	3727.5	3749.4	3749.4	3764.8	3786.9	3813.2	3833.0	3837.4	3841.8	3848.4	3846.2
7.5°	3589.0	3606.6	3619.8	3670.3	3725.3	3795.6	3854.9	3885.7	3890.1	3914.3	3923.1
10°	3494.5	3516.5	3538.5	3591.2	3670.3	3775.8	3877.0	3951.7	3962.6	4019.7	4046.2
12.5°	3490.1	3512.1	3540.7	3597.9	3690.1	3802.2	3925.2	4033.0	4052.7	4136.3	4191.2
15°	3536.2	3562.6	3589.0	3659.4	3758.3	3894.5	4026.4	4160.5	4180.3	4299.0	4358.2
17.5°	3630.8	3665.9	3685.7	3756.0	3861.6	4013.2	4186.8	4340.7	4358.2	4496.7	4571.4
20°	3817.6	3859.3	3865.9	3923.1	4026.4	4189.0	4395.6	4586.8	4608.8	4767.1	4850.6
22.5°	4204.4	4263.7	4211.0	4239.6	4331.9	4494.5	4718.7	4960.5	4991.2	5171.4	5246.2
25°	4885.8	4969.2	4833.0	4784.6	4824.2	4993.4	5274.8	5580.2	5615.4	5760.4	5797.8
27.5°	6224.2	6116.5	5909.9	5707.7	5589.0	5685.7	6002.2	6380.2	6424.2	6564.8	6520.8
30°	7694.5	7600.0	7320.9	6872.5	6591.3	6575.8	6868.1	7290.1	7340.6	7474.7	7340.6
32.5°	9167.1	9076.9	8773.6	8222.0	7734.0	7492.3	7694.5	8162.7	8189.0	8274.7	8076.9
35°	10615.4	10523.1	10219.8	9655.0	9055.0	8505.6	8466.0	8993.5	9002.2	9092.4	8797.8
37.5°	12072.6	11995.6	11672.5	11118.7	10527.5	9769.3	9402.2	9780.2	9791.2	9879.2	9573.6
40°	13112.1	13145.1	12923.1	12494.5	11986.9	11158.3	10452.7	10617.6	10551.7	10698.9	10516.5
42.5°	14004.4	14070.4	13877.0	13661.5	13367.0	12637.4	11753.9	11725.3	11619.8	11698.9	11509.9
45°	14775.9	14830.8	14657.2	14606.7	14600.0	14087.9	13175.9	13004.4	12857.2	12841.8	12615.4
47.5°	15059.4	15164.9	15239.6	15408.8	15738.5	15523.1	14646.2	14380.2	14215.4	14094.6	13736.3
50°	15167.0	15279.2	15534.1	16026.4	16806.6	16899.0	16109.9	15811.0	15608.8	15389.0	14861.6
52.5°	15022.0	15222.0	15564.8	16393.4	17525.3	18002.2	17514.3	17252.8	17022.0	16663.7	15881.4
55°	14167.0	14367.0	15068.1	16389.0	17883.6	18775.8	18841.8	18725.3	18466.0	17901.1	16705.6
57.5°	12364.9	12661.5	13771.5	15830.8	17876.9	19441.8	20142.9	20226.4	19936.2	19127.5	17353.9
60°	9868.2	10270.3	11624.2	14593.4	17325.3	19802.2	21283.5	21701.1	21393.4	20336.3	17879.2
62.5°	6885.7	7351.7	8633.0	12655.0	16063.8	19542.9	22116.5	22887.9	22655.0	21417.6	18081.3
65°	4200.0	4349.5	5382.4	9958.3	13918.7	18457.2	22373.7	23529.7	23452.8	22079.1	17782.4
67.5°	2797.8	2923.1	3219.8	6828.6	10804.4	16288.0	21758.3	23417.7	23439.6	21971.5	16687.9
70°	1685.7	1793.4	1986.9	3971.5	7002.2	12892.3	19852.8	21989.0	22116.5	20531.9	14613.2
72.5°	694.5	767.0	942.9	1800.0	3626.3	8182.5	15808.8	18879.2	19175.8	17263.8	11215.4
75°	393.4	430.8	553.8	903.3	1573.6	3813.2	9575.9	13402.2	13839.6	11898.9	6747.3
77.5°	261.6	279.1	358.2	584.7	885.7	1301.1	4092.3	6982.4	7817.6	6498.9	2920.8
80°	175.8	191.2	246.2	391.2	575.8	558.2	1303.3	2586.8	3182.4	2233.0	712.1
82.5°	118.7	120.8	175.8	257.2	364.8	270.3	384.6	804.4	1011.0	646.2	270.3
85°	68.2	65.9	129.7	149.4	162.7	112.1	116.4	241.8	316.5	272.5	153.9
87.5°	8.8	13.2	50.5	39.6	21.9	24.2	24.2	41.7	61.5	65.9	33.0
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°	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2	3813.2
2.5°	3817.6	3815.4	3808.8	3802.2	3786.9	3778.0	3782.5	3778.0	3775.8	3778.0	3786.9
5°	3846.2	3839.5	3822.0	3800.0	3769.2	3731.9	3707.7	3672.6	3639.6	3619.8	3624.2
7.5°	3923.1	3916.5	3892.3	3830.7	3731.9	3575.8	3432.9	3307.7	3213.2	3158.2	3160.5
10°	4046.2	4035.2	3997.8	3861.6	3602.2	3261.5	2978.0	2742.9	2589.0	2516.5	2509.9
12.5°	4191.2	4178.0	4112.1	3833.0	3356.1	2824.2	2432.9	2171.5	2028.6	1964.8	1958.3
15°	4362.6	4345.1	4215.4	3696.7	2997.8	2340.7	1982.5	1786.8	1694.5	1637.3	1639.6
17.5°	4575.8	4545.1	4292.3	3492.3	2608.8	1971.4	1705.5	1558.2	1476.9	1422.0	1417.6
20°	4852.8	4802.2	4353.9	3248.3	2250.6	1738.5	1518.6	1395.6	1334.0	1285.8	1276.9
22.5°	5239.6	5167.0	4428.6	2984.6	1997.8	1578.0	1380.3	1290.1	1239.5	1184.6	1175.8
25°	5718.7	5633.0	4520.9	2740.6	1824.2	1439.6	1279.1	1204.4	1145.0	1081.3	1074.7
27.5°	6389.0	6235.2	4630.7	2540.7	1674.7	1320.9	1186.8	1103.3	1035.1	982.5	971.4
30°	7136.3	6883.5	4727.5	2419.8	1538.4	1211.0	1065.9	982.5	918.7	881.3	874.7
32.5°	7844.0	7501.2	4791.3	2367.0	1415.4	1085.7	934.1	844.0	795.6	784.6	791.2
35°	8512.1	8059.4	4784.6	2316.5	1305.5	960.4	804.4	712.1	674.8	681.3	681.3
37.5°	9281.4	8655.0	4738.5	2237.4	1215.3	846.1	692.3	611.0	578.0	580.3	589.0
40°	10175.8	9342.9	4709.9	2087.9	1116.5	740.7	600.0	534.0	509.9	501.1	498.9
42.5°	11129.7	10008.8	4714.3	1918.7	993.4	646.2	536.3	481.3	459.3	452.7	450.6
45°	12087.9	10644.0	4720.8	1742.9	863.8	573.6	490.2	443.9	430.8	422.0	422.0
47.5°	12989.0	11184.6	4597.8	1553.8	736.3	518.6	452.7	422.0	411.0	400.0	400.0
50°	13828.6	11545.1	4301.1	1334.0	635.2	474.7	424.1	402.2	391.2	380.2	380.2
52.5°	14481.3	11602.2	3811.0	1107.7	564.9	441.8	406.6	386.8	373.6	362.6	360.4
55°	14771.5	11243.9	3114.3	896.7	509.9	413.2	389.0	369.2	353.8	342.9	340.7
57.5°	14696.8	10490.2	2428.5	720.9	457.2	384.6	367.1	353.8	336.3	318.7	316.5
60°	14329.7	9481.4	1830.8	600.0	408.8	353.8	342.9	331.9	307.7	281.4	277.0
62.5°	13694.5	8213.2	1305.5	496.7	356.1	318.7	314.3	305.4	270.3	222.0	217.6
65°	12723.1	6672.5	879.1	413.2	305.4	279.1	281.4	265.9	219.8	164.8	160.4
67.5°	11303.3	4879.1	562.6	338.5	254.9	233.0	235.1	226.4	186.9	140.6	134.1
70°	9494.5	3230.8	367.1	257.2	204.4	180.2	193.4	195.6	158.3	114.3	109.9
72.5°	6960.5	1907.7	257.2	191.2	149.4	125.3	158.3	162.7	127.5	85.7	81.3
75°	3967.1	905.5	193.4	138.5	92.4	87.9	123.1	123.1	87.9	57.1	52.8
77.5°	1665.9	378.0	136.2	90.1	52.8	50.5	83.5	76.9	44.0	26.3	26.3
80°	481.3	169.2	72.6	44.0	21.9	19.8	33.0	24.2	11.0	4.4	4.4
82.5°	189.0	74.7	28.6	17.6	8.8	8.8	4.4	0.0	0.0	0.0	0.0
85°	112.1	30.7	13.2	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	28.6	6.6	4.4	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)