

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: P966687

Luminaire Tested: **NAV-SB4C-735-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966687
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-735-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23698 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

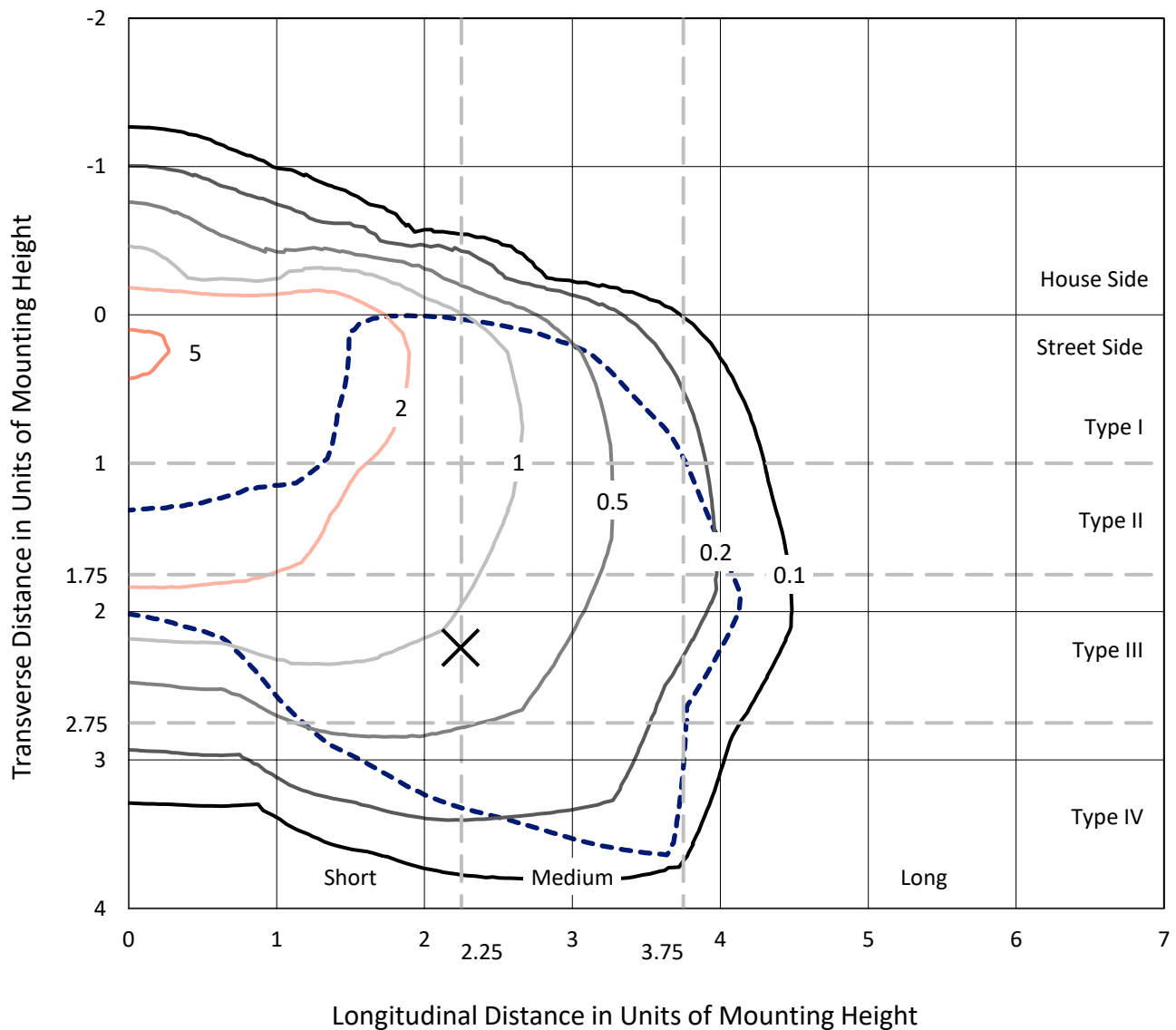
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

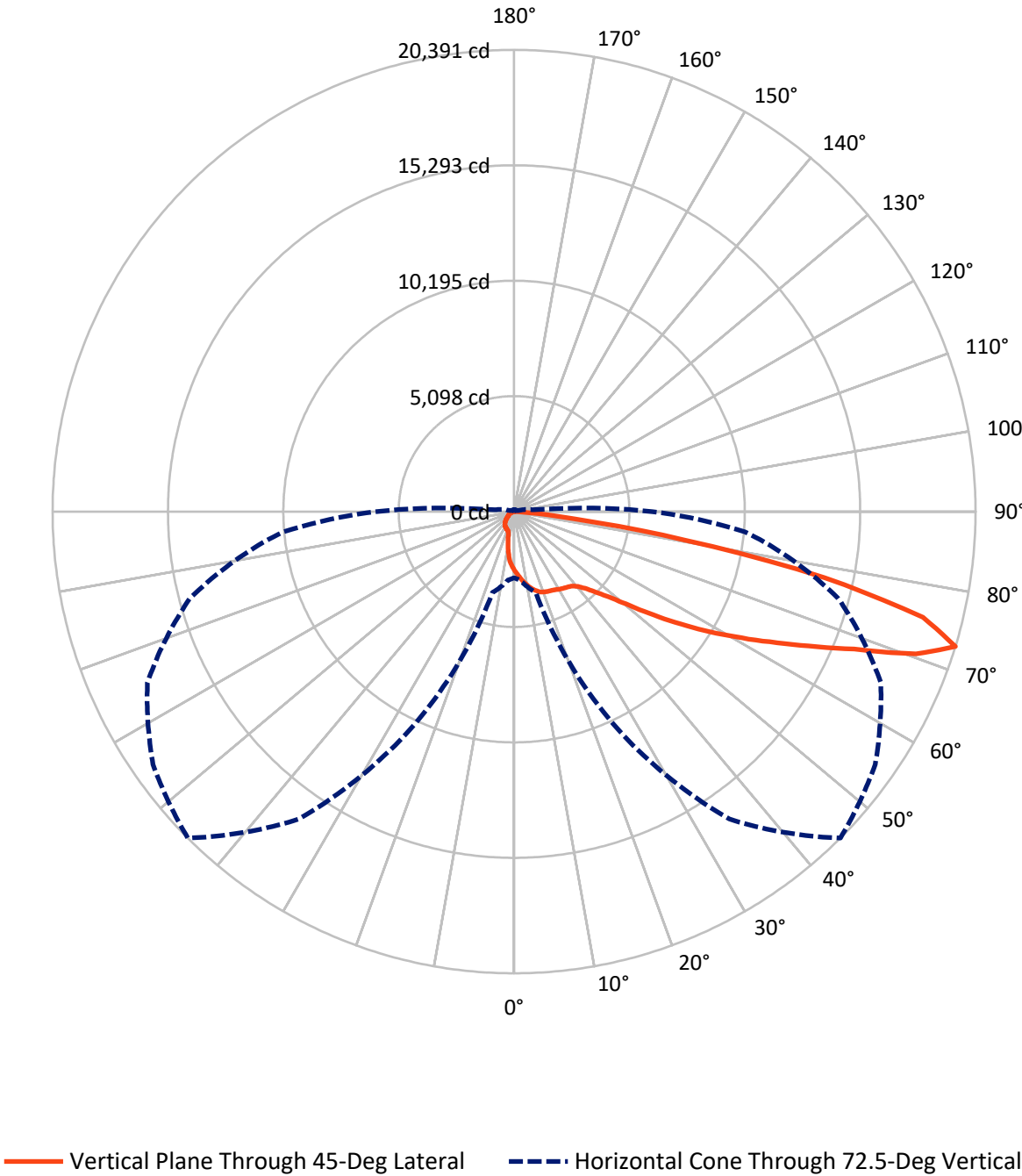
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2490.0	0.0	2490.0
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	21208.0	0.0	21208.0
	% Fixture	89.5	0.0	89.5
Total	Lumens	23698.0	0.0	23698.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.6	1.0
10°-20°	714.9	3.0
20°-30°	1174.0	5.0
30°-40°	1665.0	7.0
40°-50°	2752.0	11.6
50°-60°	4943.7	20.9
60°-70°	6864.6	29.0
70°-80°	4979.3	21.0
80°-90°	360.0	1.5
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°	23698.0	100.0
0°-180°	23698.0	100.0

Coefficient of Utilization



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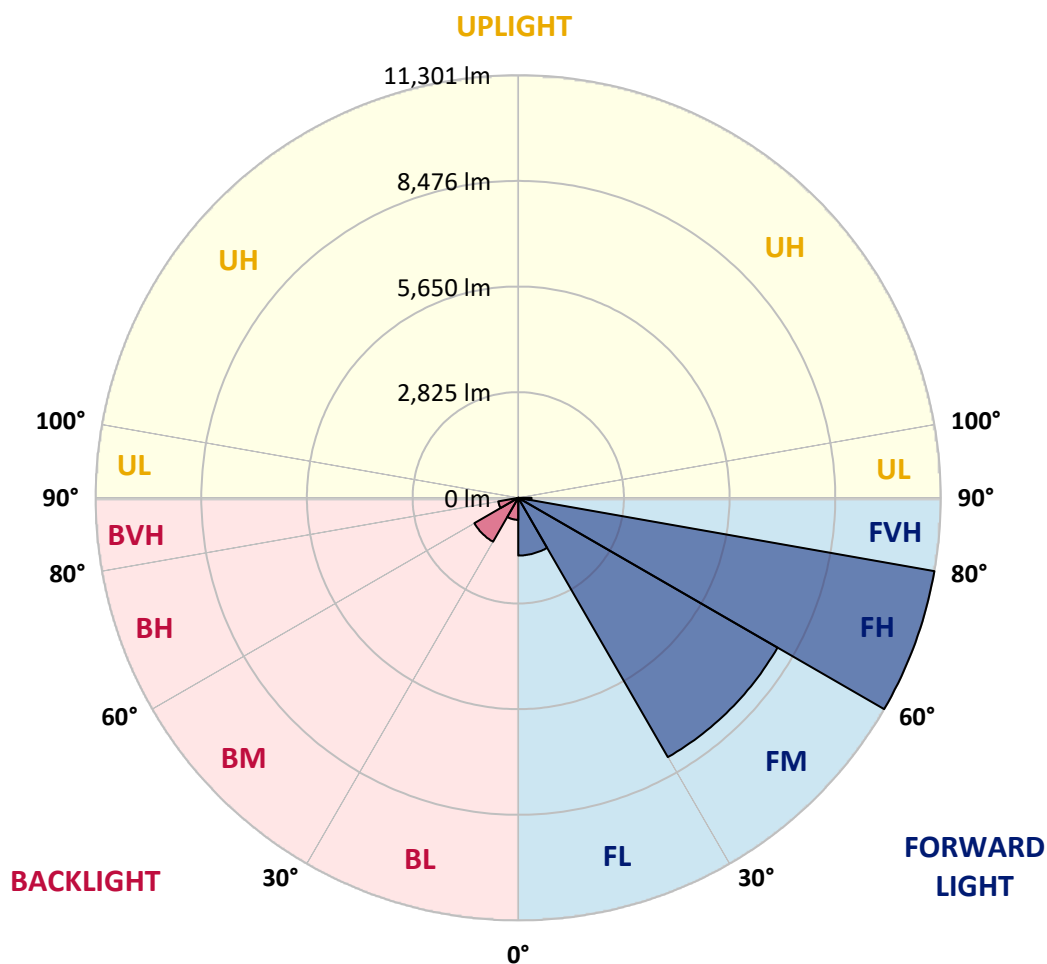
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1543.7	6.5			
FM	(30°-60°)	8006.4	33.8			
FH	(60°-80°)	11300.9	47.7			G4/12000
FVH	(80°-90°)	357.0	1.5			G3/500
BL	(0°-30°)	589.8	2.5	B2/1000		
BM	(30°-60°)	1354.2	5.7	B2/2500		
BH	(60°-80°)	543.0	2.3	B2/1000		G2/1000
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: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1
2.5°	2835.6	2840.4	2837.2	2817.7	2785.4	2767.6	2758.0	2725.6	2704.6	2667.4	2628.5
5°	3096.0	3115.4	3104.1	3065.3	3003.8	2960.1	2947.2	2880.9	2821.0	2751.4	2670.5
7.5°	3372.6	3382.3	3361.3	3311.2	3228.6	3154.2	3142.9	3050.7	2955.3	2848.5	2738.5
10°	3612.0	3623.3	3591.0	3518.2	3424.3	3332.2	3316.0	3214.1	3100.8	2969.8	2829.1
12.5°	3812.6	3823.9	3781.8	3694.5	3591.0	3495.6	3479.4	3372.6	3248.0	3102.5	2927.8
15°	3964.6	3985.6	3929.0	3835.2	3723.6	3628.2	3620.1	3514.9	3393.6	3231.8	3045.9
17.5°	4053.6	4074.6	4021.2	3908.0	3812.6	3731.7	3722.0	3634.6	3521.4	3366.1	3160.7
20°	4068.1	4087.6	4030.9	3932.3	3853.0	3788.3	3783.5	3720.3	3637.8	3489.1	3285.2
22.5°	4024.5	4048.7	3997.0	3917.8	3862.7	3828.8	3822.2	3786.7	3739.8	3613.6	3401.7
25°	3979.2	3998.6	3959.8	3890.2	3861.1	3857.9	3862.7	3856.3	3846.5	3739.8	3537.6
27.5°	3976.0	3997.0	3953.3	3887.0	3870.8	3904.7	3909.7	3940.3	3948.4	3854.6	3668.6
30°	4003.4	4018.0	3976.0	3906.4	3898.3	3976.0	3977.5	4032.6	4045.5	3951.7	3798.0
32.5°	4063.3	4079.5	4037.4	3935.5	3924.2	4032.6	4037.4	4110.1	4131.3	4055.2	3933.8
35°	4204.0	4223.4	4174.9	4016.4	3976.0	4086.0	4100.5	4186.2	4228.2	4165.2	4074.6
37.5°	4555.0	4498.4	4432.1	4179.7	4094.1	4170.0	4194.3	4294.5	4369.0	4296.2	4242.8
40°	5426.9	5248.9	5041.9	4457.9	4301.1	4349.6	4369.0	4469.3	4571.2	4500.1	4474.1
42.5°	6735.5	6525.2	6192.0	5098.6	4613.2	4637.5	4652.1	4739.4	4883.4	4826.7	4833.3
45°	7901.7	7825.7	7486.0	6192.0	5197.2	5077.4	5095.3	5140.6	5352.4	5331.4	5373.5
47.5°	8797.9	8754.2	8492.1	7447.2	6183.9	5616.2	5666.3	5687.3	5993.0	6067.4	6180.6
50°	9486.9	9470.8	9236.2	8563.3	7473.1	6410.3	6428.2	6382.9	6840.6	7025.0	7240.2
52.5°	10137.1	10192.2	10019.1	9600.2	8849.6	7450.4	7447.2	7233.6	7851.6	8129.8	8496.9
55°	10724.4	10743.7	10761.6	10658.1	10234.2	8634.5	8603.7	8254.3	9024.3	9312.2	9710.1
57.5°	11275.9	11284.0	11442.6	11654.5	11675.5	9905.9	9849.2	9430.3	10305.5	10510.9	10755.1
60°	11646.4	11683.6	12018.4	12607.2	12864.4	11217.7	11187.0	10759.9	11609.2	11704.6	11659.3
62.5°	11112.5	11339.1	12183.4	13351.2	13986.9	12671.9	12657.3	12256.1	12980.8	12903.2	12514.9
65°	8995.2	9378.5	10863.5	13854.3	15088.5	14295.9	14316.9	13889.9	14389.7	14137.4	13210.5
67.5°	6292.3	6696.6	8453.3	13894.8	16319.4	16203.0	16324.4	15654.6	15886.0	15319.9	13375.5
70°	4351.2	4559.9	5703.5	13024.5	17278.6	18829.9	18826.7	17822.2	17374.1	15858.5	12534.4
72.5°	2926.2	3034.5	3704.1	10332.9	16573.4	20390.8	20297.0	19478.5	17875.5	14831.3	10240.7
75°	1234.2	1313.4	1714.6	5807.0	13111.9	18655.2	18401.2	17214.0	15882.7	11678.7	6389.3
77.5°	391.4	425.4	676.1	2078.6	7222.4	14022.5	13754.1	10750.2	10645.1	5858.8	2335.8
80°	186.0	216.8	380.2	834.7	2842.0	7626.7	7589.5	4877.0	4579.3	1582.0	469.0
82.5°	80.9	95.4	210.3	446.5	1271.4	2720.8	2775.7	1659.6	1373.3	600.1	144.0
85°	25.8	33.9	97.1	205.4	537.0	676.1	668.1	394.7	553.2	326.8	50.1
87.5°	0.0	0.0	32.4	46.9	55.0	38.8	43.7	33.9	153.6	90.6	17.8
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°	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1	2596.1
2.5°	2609.1	2583.2	2537.9	2495.9	2458.7	2421.5	2398.8	2366.5	2363.2	2363.2	2371.3
5°	2626.9	2584.8	2504.0	2418.3	2319.6	2225.8	2131.9	2041.4	2012.3	1991.2	2000.9
7.5°	2678.6	2612.3	2484.6	2321.2	2133.5	1928.1	1784.1	1628.8	1569.1	1536.7	1541.5
10°	2753.0	2662.4	2468.4	2182.1	1878.0	1598.2	1392.7	1224.5	1159.8	1132.3	1132.3
12.5°	2835.6	2723.9	2439.3	2009.0	1598.2	1263.3	1062.7	985.1	975.4	975.4	975.4
15°	2934.3	2798.4	2389.1	1805.2	1305.3	999.7	928.4	931.7	941.5	947.9	947.9
17.5°	3036.2	2877.6	2309.8	1577.1	1046.5	899.3	901.0	905.8	913.9	920.3	920.3
20°	3146.1	2956.9	2204.7	1334.4	897.7	870.2	875.1	880.0	886.4	889.7	891.2
22.5°	3264.2	3031.3	2080.1	1096.6	847.6	845.9	847.6	852.5	860.5	860.5	863.8
25°	3390.4	3113.7	1937.9	923.6	821.7	821.7	824.9	828.2	834.7	834.7	836.3
27.5°	3519.7	3189.8	1787.4	833.0	799.1	797.4	797.4	802.3	805.5	807.2	808.7
30°	3662.1	3278.8	1636.9	813.6	781.3	773.2	768.3	771.6	774.8	776.4	779.6
32.5°	3807.7	3364.5	1502.8	821.7	763.5	749.0	732.8	729.5	729.5	735.9	740.9
35°	3969.4	3458.4	1399.2	849.2	753.8	713.3	687.5	672.9	674.6	684.2	689.1
37.5°	4163.5	3571.5	1323.2	873.5	747.3	672.9	630.9	613.1	601.8	613.1	609.8
40°	4417.5	3738.2	1268.1	892.9	739.2	626.0	569.4	540.3	519.3	525.7	522.4
42.5°	4791.2	4000.2	1247.1	894.5	721.4	571.0	506.2	467.5	436.8	438.4	431.9
45°	5315.2	4414.3	1355.5	873.5	682.6	511.2	439.9	388.2	368.8	364.0	357.5
47.5°	6033.5	5017.7	1606.3	829.8	626.0	452.9	375.3	331.6	317.0	308.9	304.1
50°	6995.9	5792.5	1884.5	781.3	569.4	397.9	321.8	294.4	284.6	276.6	275.0
52.5°	8112.1	6578.6	2112.5	732.8	512.8	349.4	287.9	271.7	263.6	257.2	255.5
55°	9135.9	7120.5	2099.6	681.0	457.8	310.6	263.6	254.0	244.3	237.8	234.5
57.5°	9773.3	7196.5	1730.8	624.3	394.7	279.8	241.0	234.5	223.2	215.1	213.5
60°	10066.0	6763.0	1213.2	550.0	331.6	250.7	216.8	213.5	199.0	187.7	184.4
62.5°	10119.4	5957.4	808.7	457.8	276.6	223.2	192.5	187.7	168.2	148.8	139.1
65°	9902.6	4805.7	559.6	357.5	236.2	194.1	165.0	155.3	134.3	114.8	108.3
67.5°	9216.8	3374.2	389.8	257.2	200.6	153.6	131.0	127.8	111.6	95.4	90.6
70°	7959.9	1923.3	260.5	192.5	158.6	105.2	103.5	106.8	90.6	77.6	71.1
72.5°	6103.1	880.0	161.7	140.7	108.3	71.1	82.5	84.2	69.6	58.2	51.8
75°	3592.6	376.9	101.9	90.6	55.0	46.9	59.9	61.5	46.9	37.2	32.4
77.5°	1222.8	142.4	64.7	53.4	27.5	25.8	38.8	38.8	25.8	14.6	11.3
80°	278.2	53.4	32.4	21.0	12.9	11.3	12.9	11.3	6.5	1.6	0.0
82.5°	79.2	21.0	12.9	8.1	4.8	4.8	1.6	0.0	0.0	0.0	0.0
85°	22.7	9.7	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.7	1.6	0.0	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)