

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: P966149

Luminaire Tested: **NAV-SB4B-735-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966149
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-735-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19585.7 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

Input Watts (W): 147
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

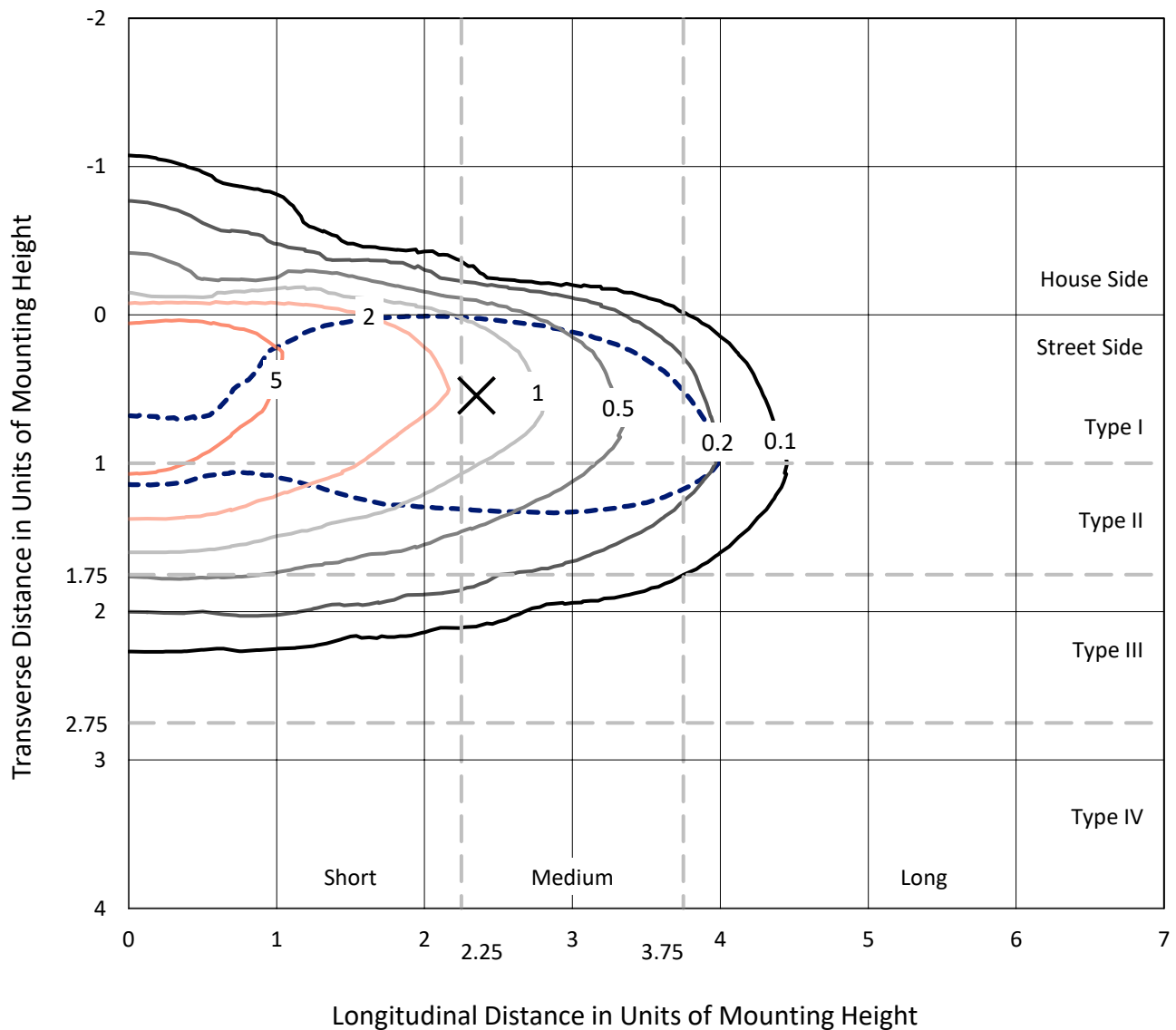


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Iso-Footcandle Lines of Horizontal Illumination

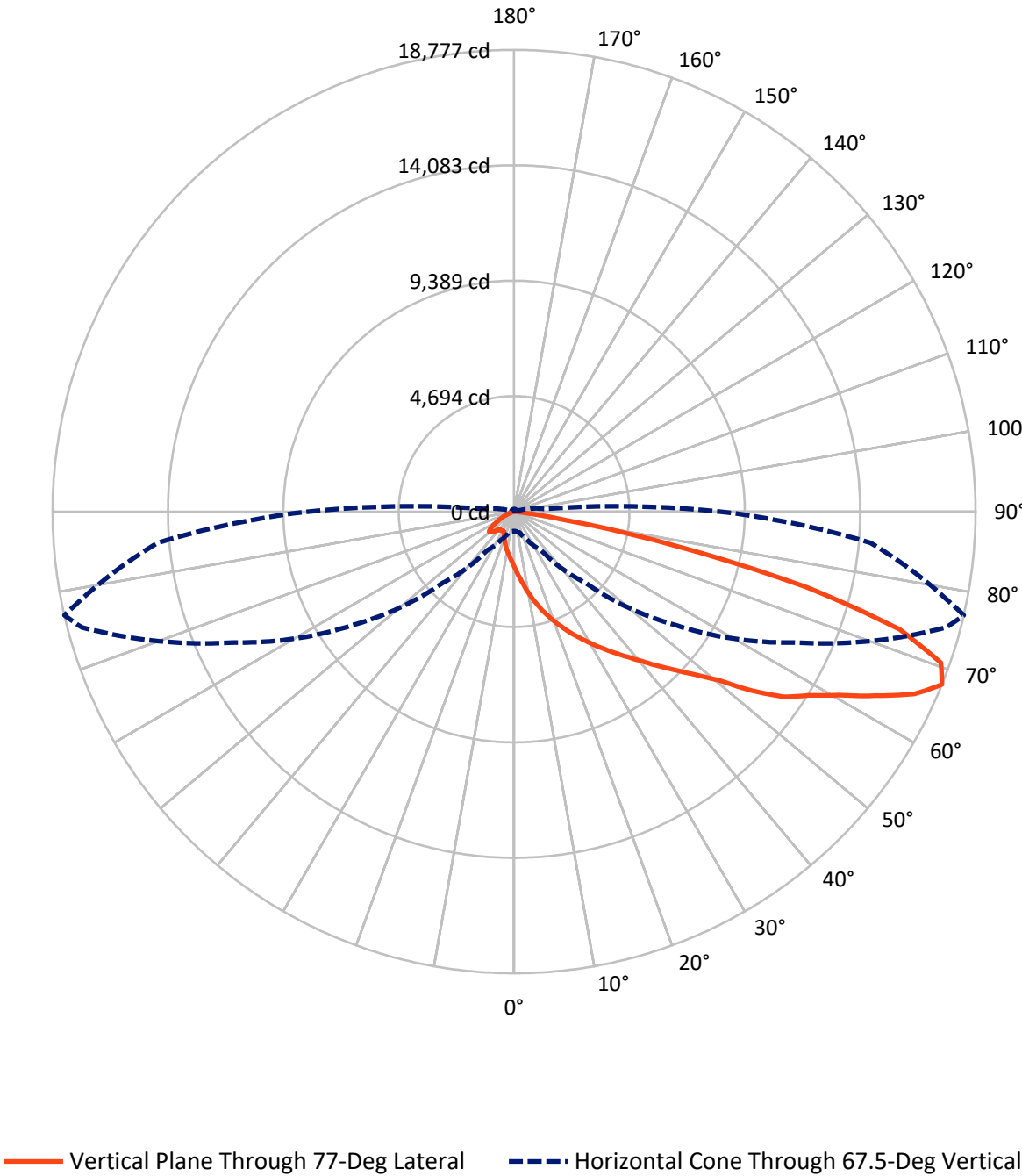
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1440.9	0.0	1440.9
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	18144.8	0.0	18144.8
	% Fixture	92.6	0.0	92.6
Total	Lumens	19585.7	0.0	19585.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.5	1.2
10°-20°	807.2	4.1
20°-30°	1557.8	8.0
30°-40°	2704.4	13.8
40°-50°	3926.6	20.0
50°-60°	4509.2	23.0
60°-70°	3914.8	20.0
70°-80°	1843.9	9.4
80°-90°	91.2	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°	19585.7	100.0
0°-180°	19585.7	100.0

Coefficient of Utilization



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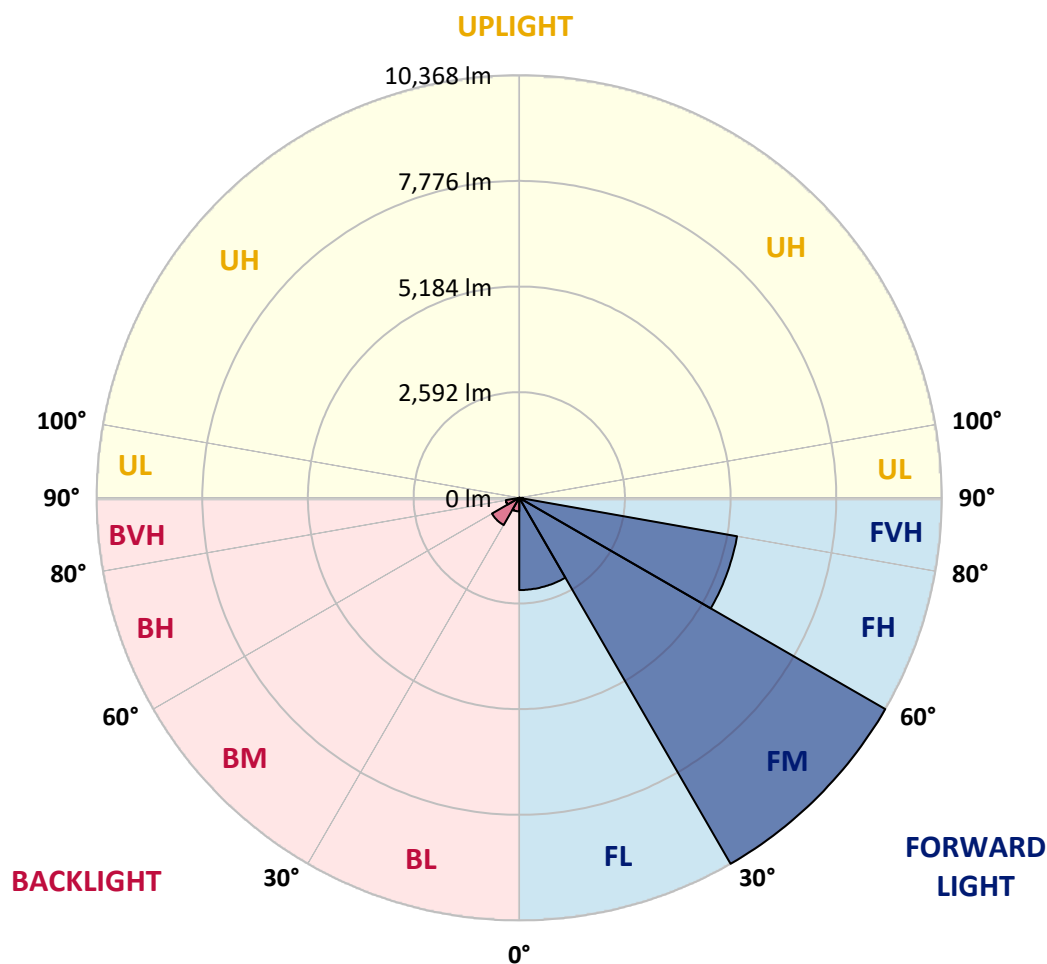
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2261.9	11.5			
FM	(30°-60°)	10368.1	52.9			
FH	(60°-80°)	5425.2	27.7			G3/7500
FVH	(80°-90°)	89.5	0.5			G1/100
BL	(0°-30°)	333.6	1.7	B1/500		
BM	(30°-60°)	772.1	3.9	B1/1000		
BH	(60°-80°)	333.6	1.7	B1/500		G1/500
BVH	(80°-90°)	1.7	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-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5
2.5°	3126.9	3146.3	3118.4	3064.9	2984.6	2932.3	2804.6	2684.2	2550.4	2507.9	2374.1
5°	3811.7	3828.7	3797.0	3738.7	3631.7	3529.5	3361.6	3109.8	2848.4	2764.4	2527.3
7.5°	4318.8	4328.6	4316.4	4262.9	4160.7	4045.2	3857.9	3559.8	3171.9	3079.5	2715.8
10°	4683.6	4715.3	4711.6	4690.9	4622.9	4529.2	4329.7	3990.4	3534.3	3415.1	2928.6
12.5°	4925.6	4961.0	4981.6	5027.8	5024.2	4964.6	4789.5	4430.7	3895.5	3755.7	3168.3
15°	4996.3	5034.0	5113.0	5220.0	5314.8	5345.3	5222.5	4862.4	4293.2	4114.5	3414.0
17.5°	4956.1	5014.5	5109.3	5278.4	5486.4	5623.8	5610.4	5279.6	4654.4	4450.1	3654.7
20°	5044.8	5100.8	5175.0	5317.3	5559.3	5808.7	5908.4	5678.5	5013.3	4799.2	3907.7
22.5°	5536.2	5526.5	5533.8	5556.9	5701.7	5948.5	6154.1	6040.9	5368.4	5149.5	4175.2
25°	6314.6	6270.8	6196.6	6071.4	6034.9	6154.1	6368.1	6362.1	5743.0	5508.2	4448.9
27.5°	7207.3	7200.0	7026.1	6724.5	6554.2	6508.0	6610.1	6674.6	6113.9	5863.4	4723.8
30°	8062.3	8081.8	7847.1	7511.4	7198.8	7017.6	6925.1	6971.3	6490.9	6246.5	5007.1
32.5°	8806.6	8827.3	8571.9	8179.1	7792.4	7573.4	7378.8	7264.5	6902.0	6635.6	5318.5
35°	9435.4	9456.1	9163.0	8728.8	8316.5	8118.3	7898.1	7585.5	7315.5	7067.5	5665.2
37.5°	9997.3	9991.3	9598.4	9160.5	8755.6	8598.6	8483.1	7980.9	7741.2	7501.7	6049.4
40°	10329.3	10354.9	10019.2	9536.4	9143.5	9029.2	9021.9	8471.0	8232.6	8000.3	6470.3
42.5°	10426.6	10471.6	10228.4	9831.9	9475.6	9351.5	9542.4	9001.2	8804.2	8578.0	6945.8
45°	10251.5	10295.3	10184.6	9909.8	9701.8	9621.5	9990.1	9550.9	9414.7	9191.0	7482.2
47.5°	9740.7	9795.4	9822.2	9763.8	9761.4	9842.9	10391.3	10129.9	10139.6	9910.9	8103.6
50°	8752.0	8844.3	9090.0	9296.8	9616.7	10018.0	10781.8	10757.5	10956.9	10759.9	8913.7
52.5°	6954.3	7085.7	7932.2	8497.8	9216.5	9985.1	11211.1	11764.4	12390.8	12102.6	10055.7
55°	5588.5	5588.5	6276.9	7335.0	8435.6	9768.7	11398.4	12418.8	13367.4	13299.4	10859.7
57.5°	4555.9	4610.7	5049.8	5985.0	7305.8	9253.0	11513.9	12829.9	14154.3	14104.5	11645.3
60°	2811.9	2929.9	3759.3	4682.4	6020.2	8334.8	11440.9	13245.9	15109.1	15149.2	12591.5
62.5°	1583.5	1627.3	1997.0	3369.0	4681.3	7100.3	10882.7	13478.1	16330.2	16500.4	13566.9
65°	1093.4	1115.3	1257.6	2096.7	3244.8	5653.0	9791.8	13333.4	17553.7	17897.8	14394.0
67.5°	794.2	805.1	893.9	1280.6	1925.3	4098.7	8081.8	12603.7	18201.9	18777.2	14552.0
70°	610.6	617.9	682.3	841.6	1137.1	2529.7	5869.5	11152.7	17732.5	18419.7	13742.1
72.5°	496.2	503.5	553.4	622.7	754.1	1496.0	3557.5	9057.2	15660.1	16401.9	11698.8
75°	418.4	428.1	473.1	518.1	591.1	960.8	1668.7	6307.3	11776.6	12263.1	8135.3
77.5°	232.3	214.0	384.4	429.4	498.7	608.1	780.8	3711.9	6595.6	6730.6	3609.7
80°	144.7	149.5	305.2	345.4	383.1	306.5	357.5	1429.1	2286.5	2172.2	699.4
82.5°	8.5	19.5	234.7	249.3	262.7	131.3	135.0	485.2	550.9	505.9	124.0
85°	0.0	0.0	107.0	86.3	91.2	37.7	38.9	113.1	74.2	80.3	24.3
87.5°	0.0	0.0	0.0	2.5	0.0	3.7	7.3	9.7	3.7	4.8	8.5
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°	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5	2258.5
2.5°	2288.9	2203.8	2031.0	1862.0	1724.6	1596.8	1505.7	1419.3	1375.6	1373.1	1370.6
5°	2358.2	2179.5	1834.0	1528.8	1283.1	1086.1	958.4	867.2	820.9	805.1	802.7
7.5°	2455.6	2186.7	1661.3	1236.9	947.4	778.4	705.4	676.2	666.5	655.6	653.1
10°	2578.4	2203.8	1506.9	996.1	746.7	661.6	632.4	620.2	612.9	605.7	603.2
12.5°	2715.8	2219.6	1353.6	827.1	656.7	612.9	592.3	577.7	568.0	559.4	557.0
15°	2849.6	2229.4	1194.3	709.1	610.6	575.2	553.4	537.6	524.2	514.4	513.2
17.5°	2982.1	2242.7	1044.8	638.5	572.9	537.6	515.7	496.2	485.2	474.4	473.1
20°	3129.3	2240.2	903.6	588.7	535.2	499.9	476.7	458.5	447.6	435.4	434.2
22.5°	3265.5	2228.1	779.6	546.1	496.2	462.2	436.6	418.4	407.4	397.7	396.5
25°	3422.5	2218.4	676.2	507.2	459.7	425.7	397.7	380.7	368.5	360.0	358.7
27.5°	3573.3	2203.8	600.9	471.9	424.5	391.7	364.9	345.4	334.5	328.4	328.4
30°	3721.7	2200.2	572.9	437.9	392.9	360.0	333.2	315.0	306.5	304.0	302.9
32.5°	3900.4	2209.9	585.0	425.7	363.7	330.8	305.2	291.9	283.4	283.4	283.4
35°	4091.4	2207.4	603.2	436.6	344.2	301.7	282.2	273.7	265.2	265.2	265.2
37.5°	4330.9	2211.1	617.9	454.9	336.9	277.3	266.4	255.4	250.5	250.5	250.5
40°	4688.6	2331.5	610.6	470.7	334.5	260.2	238.4	234.7	231.0	231.0	231.0
42.5°	5126.3	2592.9	620.2	471.9	333.2	248.2	218.9	226.2	217.7	216.5	215.2
45°	5605.5	2878.8	682.3	446.4	332.0	242.0	209.2	217.7	204.3	204.3	204.3
47.5°	6081.1	3162.1	745.6	409.9	328.4	240.8	200.7	195.8	192.2	193.4	193.4
50°	6736.6	3393.3	769.9	360.0	319.9	238.4	184.9	186.0	183.7	186.0	186.0
52.5°	7450.5	3442.0	740.7	304.0	295.5	231.0	173.9	178.8	177.5	180.0	180.0
55°	7895.7	3389.6	611.7	253.0	257.8	201.9	163.0	172.7	172.7	172.7	172.7
57.5°	8355.4	3167.0	434.2	205.5	214.0	165.4	153.2	166.7	165.4	164.2	164.2
60°	8686.3	2807.1	285.8	169.0	170.3	136.2	142.3	156.9	155.7	149.5	149.5
62.5°	8933.1	2409.4	183.7	143.5	130.2	122.8	130.2	142.3	137.5	124.0	121.7
65°	8905.2	1858.4	141.0	122.8	107.0	107.0	113.1	124.0	109.5	87.5	85.2
67.5°	8385.8	1257.6	116.7	103.4	90.0	88.8	93.7	103.4	93.7	74.2	71.8
70°	7457.9	822.2	93.7	80.3	71.8	65.7	75.4	88.8	79.0	59.6	57.2
72.5°	6053.1	501.1	70.5	58.4	52.3	42.5	59.6	73.0	63.2	43.8	41.3
75°	3916.2	255.4	48.7	37.7	28.0	25.5	43.8	54.7	43.8	26.8	23.1
77.5°	1498.3	107.0	26.8	17.0	14.6	12.2	24.3	32.8	18.2	6.0	4.8
80°	288.2	45.0	13.4	8.5	7.3	4.8	3.7	2.5	0.0	0.0	0.0
82.5°	49.8	14.6	4.8	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	17.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.0	0.0	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)