

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: P966304

Luminaire Tested: **NAV-SB4B-830-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966304
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-830-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 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: 17598.2 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

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

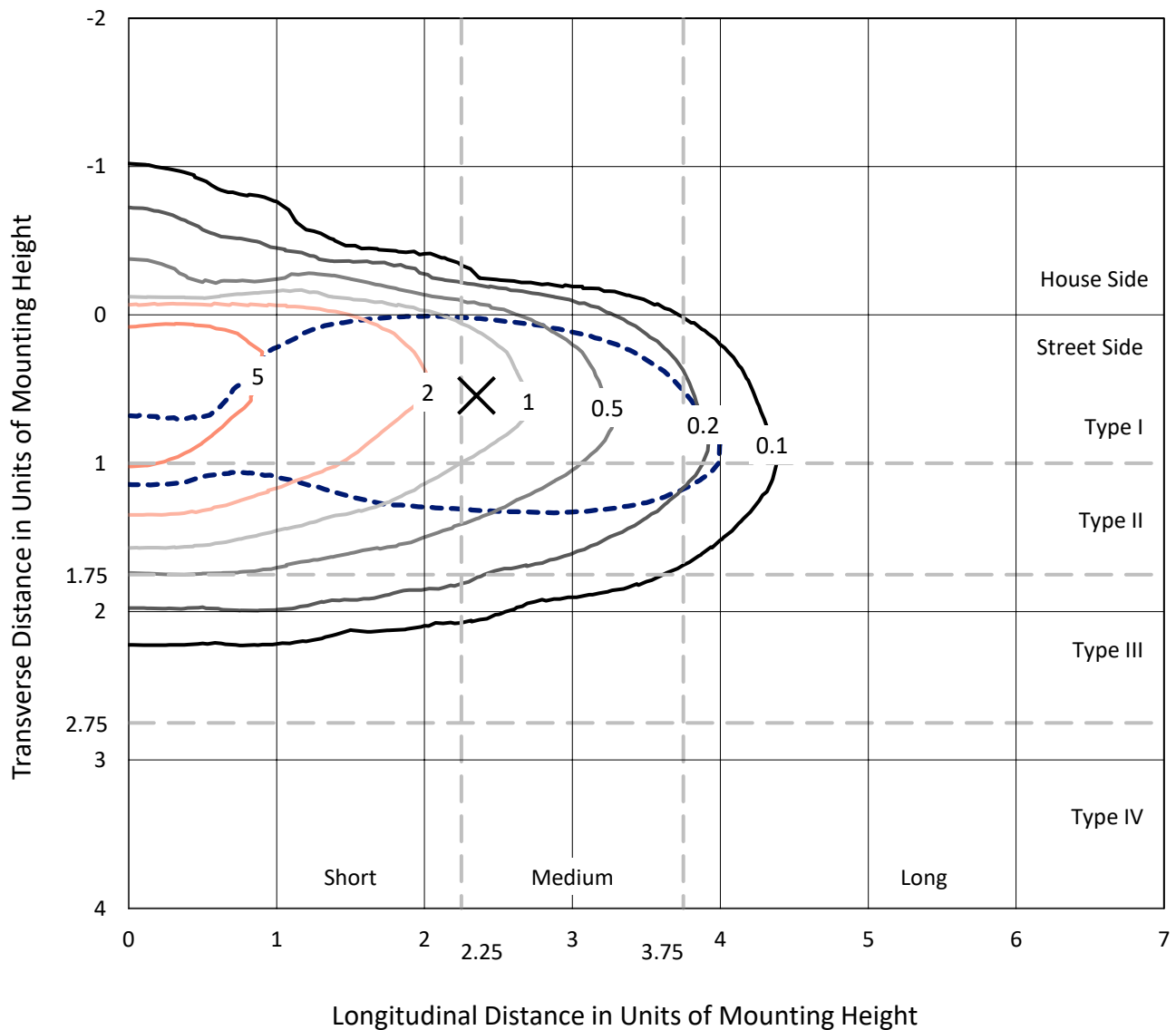


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Iso-Footcandle Lines of Horizontal Illumination

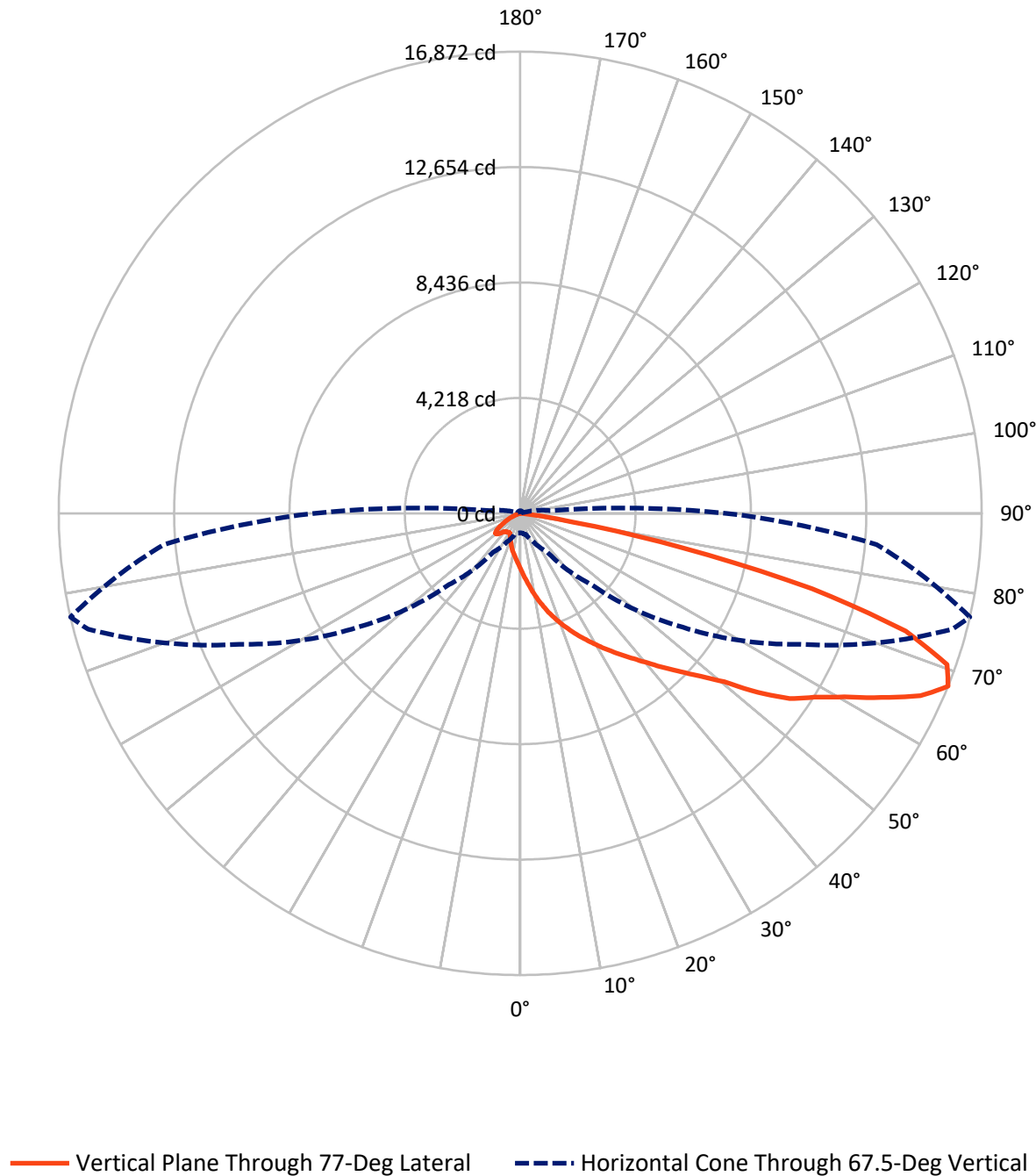
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 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	1294.7	0.0	1294.7
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	16303.5	0.0	16303.5
	% Fixture	92.6	0.0	92.6
Total	Lumens	17598.2	0.0	17598.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.1	1.2
10°-20°	725.3	4.1
20°-30°	1399.7	8.0
30°-40°	2429.9	13.8
40°-50°	3528.2	20.0
50°-60°	4051.6	23.0
60°-70°	3517.6	20.0
70°-80°	1656.8	9.4
80°-90°	81.9	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°	17598.2	100.0
0°-180°	17598.2	100.0

Coefficient of Utilization



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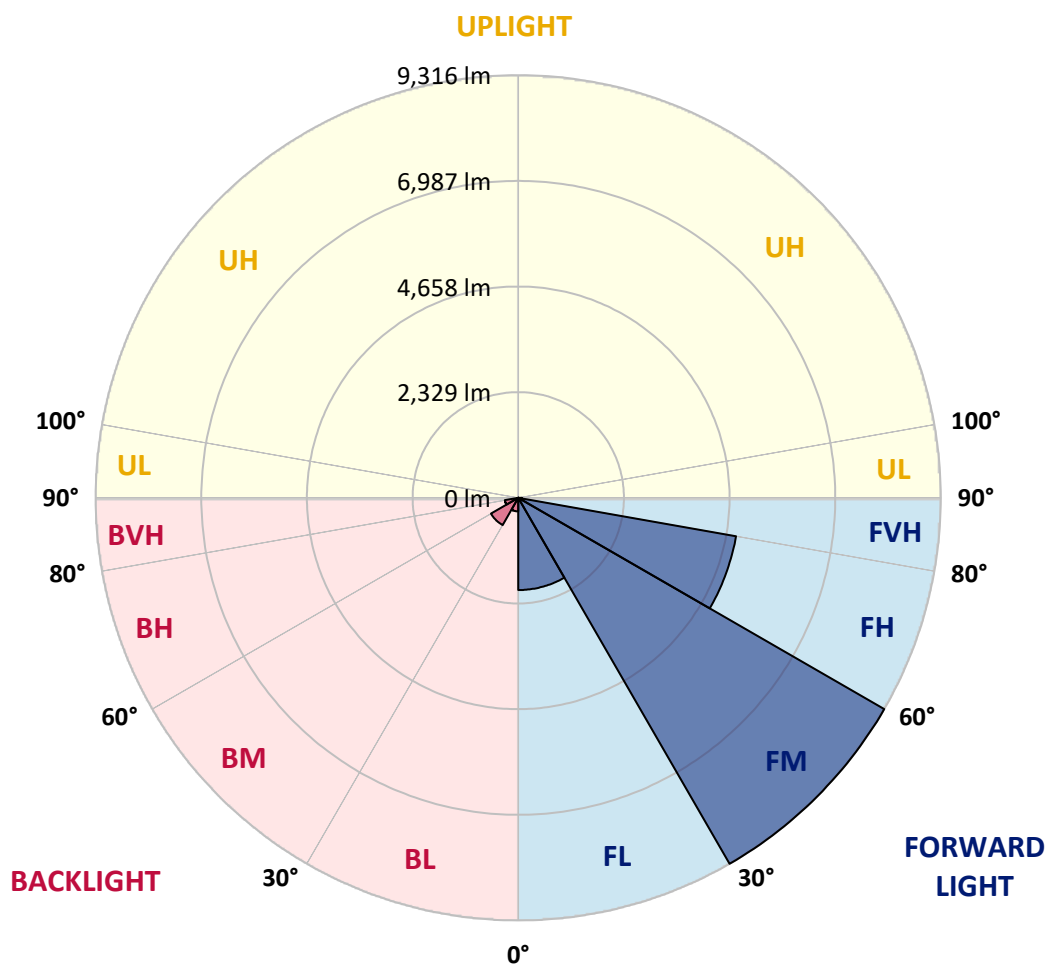
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2032.4	11.5			
FM	(30°-60°)	9316.0	52.9			
FH	(60°-80°)	4874.7	27.7			G2/5000
FVH	(80°-90°)	80.4	0.5			G1/100
BL	(0°-30°)	299.7	1.7	B1/500		
BM	(30°-60°)	693.7	3.9	B1/1000		
BH	(60°-80°)	299.7	1.7	B1/500		G1/500
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3
2.5°	2809.6	2827.1	2801.9	2753.9	2681.7	2634.8	2520.0	2411.8	2291.6	2253.4	2133.1
5°	3424.8	3440.1	3411.7	3359.2	3263.1	3171.4	3020.5	2794.3	2559.3	2484.0	2270.9
7.5°	3880.5	3889.3	3878.4	3830.3	3738.5	3634.6	3466.3	3198.6	2850.0	2767.0	2440.2
10°	4208.3	4236.8	4233.6	4214.9	4153.7	4069.6	3890.4	3585.4	3175.7	3068.5	2631.5
12.5°	4425.8	4457.5	4476.1	4517.7	4514.4	4460.8	4303.5	3981.1	3500.3	3374.6	2846.7
15°	4489.2	4523.1	4594.2	4690.3	4775.6	4802.8	4692.4	4369.1	3857.6	3697.0	3067.5
17.5°	4453.2	4505.6	4590.9	4742.8	4929.6	5053.1	5041.1	4743.9	4182.2	3998.5	3283.9
20°	4533.0	4583.2	4649.9	4777.7	4995.2	5219.2	5308.9	5102.2	4504.6	4312.2	3511.1
22.5°	4974.4	4965.7	4972.3	4993.0	5123.1	5344.9	5529.6	5428.0	4823.6	4627.0	3751.6
25°	5673.8	5634.5	5567.8	5455.3	5422.5	5529.6	5722.0	5716.4	5160.3	4949.3	3997.5
27.5°	6476.0	6469.4	6313.1	6042.1	5889.1	5847.6	5939.4	5997.3	5493.5	5268.4	4244.4
30°	7244.2	7261.7	7050.8	6749.1	6468.3	6305.5	6222.5	6264.0	5832.2	5612.6	4499.0
32.5°	7913.0	7931.6	7702.1	7349.0	7001.6	6804.9	6630.0	6527.3	6201.7	5962.3	4778.9
35°	8478.0	8496.5	8233.2	7843.0	7472.6	7294.4	7096.7	6815.8	6573.2	6350.3	5090.3
37.5°	8982.8	8977.4	8624.3	8231.0	7867.1	7726.1	7622.3	7171.0	6955.6	6740.4	5435.6
40°	9281.2	9304.1	9002.5	8568.7	8215.7	8113.0	8106.4	7611.3	7397.2	7188.4	5813.7
42.5°	9368.6	9409.0	9190.5	8834.2	8514.1	8402.5	8574.1	8087.9	7910.8	7707.5	6241.0
45°	9211.3	9250.5	9151.1	8904.2	8717.3	8645.2	8976.2	8581.8	8459.4	8258.3	6722.9
47.5°	8752.3	8801.5	8825.5	8773.0	8770.8	8844.0	9336.9	9102.0	9110.7	8905.2	7281.3
50°	7863.8	7946.8	8167.6	8353.3	8640.8	9001.4	9687.7	9665.9	9845.0	9668.0	8009.1
52.5°	6248.6	6366.7	7127.2	7635.4	8281.3	8971.9	10073.5	10570.7	11133.4	10874.4	9035.3
55°	5021.5	5021.5	5640.0	6590.6	7579.7	8777.4	10241.7	11158.6	12010.9	11949.8	9757.6
57.5°	4093.6	4142.8	4537.3	5377.7	6564.5	8314.1	10345.5	11528.0	12718.0	12673.2	10463.6
60°	2526.5	2632.6	3377.9	4207.3	5409.3	7489.0	10280.0	11901.7	13575.9	13611.9	11313.7
62.5°	1422.8	1462.2	1794.4	3027.0	4206.2	6379.8	9778.4	12110.5	14673.1	14826.0	12190.2
65°	982.5	1002.1	1130.0	1884.0	2915.6	5079.4	8798.2	11980.4	15772.4	16081.6	12933.3
67.5°	713.6	723.4	803.2	1150.8	1729.9	3682.7	7261.7	11324.7	16354.9	16871.8	13075.4
70°	548.6	555.1	613.1	756.2	1021.7	2273.0	5273.8	10021.0	15933.0	16550.5	12347.6
72.5°	445.9	452.4	497.2	559.5	677.5	1344.2	3196.5	8138.1	14070.9	14737.6	10511.7
75°	376.0	384.7	425.1	465.6	531.1	863.4	1499.4	5667.2	10581.6	11018.7	7309.8
77.5°	208.7	192.3	345.3	385.8	448.0	546.4	701.6	3335.2	5926.2	6047.6	3243.4
80°	130.1	134.4	274.3	310.4	344.2	275.4	321.2	1284.0	2054.5	1951.7	628.3
82.5°	7.7	17.5	210.9	224.1	236.1	118.0	121.3	436.0	495.1	454.6	111.4
85°	0.0	0.0	96.1	77.6	82.0	33.9	35.0	101.7	66.6	72.2	21.8
87.5°	0.0	0.0	0.0	2.2	0.0	3.3	6.6	8.7	3.3	4.4	7.7
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°	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3	2029.3
2.5°	2056.7	1980.2	1825.0	1673.1	1549.6	1434.9	1352.9	1275.3	1235.9	1233.8	1231.5
5°	2119.0	1958.3	1648.0	1373.6	1152.9	975.9	861.1	779.2	737.7	723.4	721.3
7.5°	2206.4	1964.8	1492.8	1111.4	851.3	699.4	633.9	607.6	598.8	589.1	586.8
10°	2316.7	1980.2	1354.0	895.0	671.0	594.5	568.3	557.3	550.7	544.2	542.0
12.5°	2440.2	1994.3	1216.3	743.1	590.1	550.7	532.2	519.1	510.3	502.7	500.5
15°	2560.4	2003.2	1073.2	637.1	548.6	516.9	497.2	483.0	471.0	462.3	461.1
17.5°	2679.6	2015.2	938.7	573.7	514.8	483.0	463.3	445.9	436.0	426.2	425.1
20°	2811.8	2012.9	811.9	528.9	480.8	449.2	428.3	411.9	402.1	391.2	390.1
22.5°	2934.2	2002.0	700.5	490.7	445.9	415.2	392.3	376.0	366.1	357.3	356.3
25°	3075.1	1993.3	607.6	455.7	413.1	382.5	357.3	342.0	331.1	323.5	322.4
27.5°	3210.6	1980.2	539.9	424.0	381.4	351.9	327.8	310.4	300.5	295.1	295.1
30°	3344.0	1976.9	514.8	393.4	353.0	323.5	299.4	283.0	275.4	273.2	272.1
32.5°	3504.6	1985.6	525.6	382.5	326.8	297.2	274.3	262.3	254.6	254.6	254.6
35°	3676.2	1983.5	542.0	392.3	309.2	271.0	253.5	245.9	238.2	238.2	238.2
37.5°	3891.5	1986.8	555.1	408.7	302.7	249.2	239.3	229.5	225.1	225.1	225.1
40°	4212.8	2094.9	548.6	422.9	300.5	233.9	214.2	210.9	207.7	207.7	207.7
42.5°	4606.1	2329.8	557.3	424.0	299.4	222.9	196.7	203.3	195.6	194.5	193.4
45°	5036.7	2586.7	613.1	401.1	298.4	217.5	188.0	195.6	183.6	183.6	183.6
47.5°	5464.0	2841.3	669.8	368.3	295.1	216.4	180.3	175.9	172.7	173.7	173.7
50°	6053.0	3049.0	691.8	323.5	287.4	214.2	166.2	167.2	165.0	167.2	167.2
52.5°	6694.5	3092.6	665.5	273.2	265.6	207.7	156.3	160.6	159.6	161.7	161.7
55°	7094.4	3045.7	549.7	227.3	231.6	181.4	146.5	155.2	155.2	155.2	155.2
57.5°	7507.5	2845.7	390.1	184.7	192.3	148.6	137.7	149.8	148.6	147.5	147.5
60°	7804.8	2522.2	256.8	151.9	153.0	122.4	127.8	140.9	139.9	134.4	134.4
62.5°	8026.7	2164.8	165.0	128.9	117.0	110.4	117.0	127.8	123.5	111.4	109.3
65°	8001.5	1669.8	126.8	110.4	96.1	96.1	101.7	111.4	98.4	78.7	76.5
67.5°	7534.9	1130.0	105.0	92.9	80.9	79.7	84.2	92.9	84.2	66.6	64.5
70°	6701.0	738.7	84.2	72.2	64.5	59.0	67.8	79.7	71.0	53.5	51.4
72.5°	5438.9	450.3	63.3	52.5	46.9	38.2	53.5	65.6	56.8	39.4	37.1
75°	3518.8	229.5	43.7	33.9	25.1	23.0	39.4	49.2	39.4	24.1	20.8
77.5°	1346.3	96.1	24.1	15.3	13.1	11.0	21.8	29.5	16.4	5.4	4.4
80°	259.0	40.4	12.0	7.7	6.6	4.4	3.3	2.2	0.0	0.0	0.0
82.5°	44.8	13.1	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.4	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)