

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: P884496

Luminaire Tested: **NAV-SB5B-830-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884496
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18257 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G3

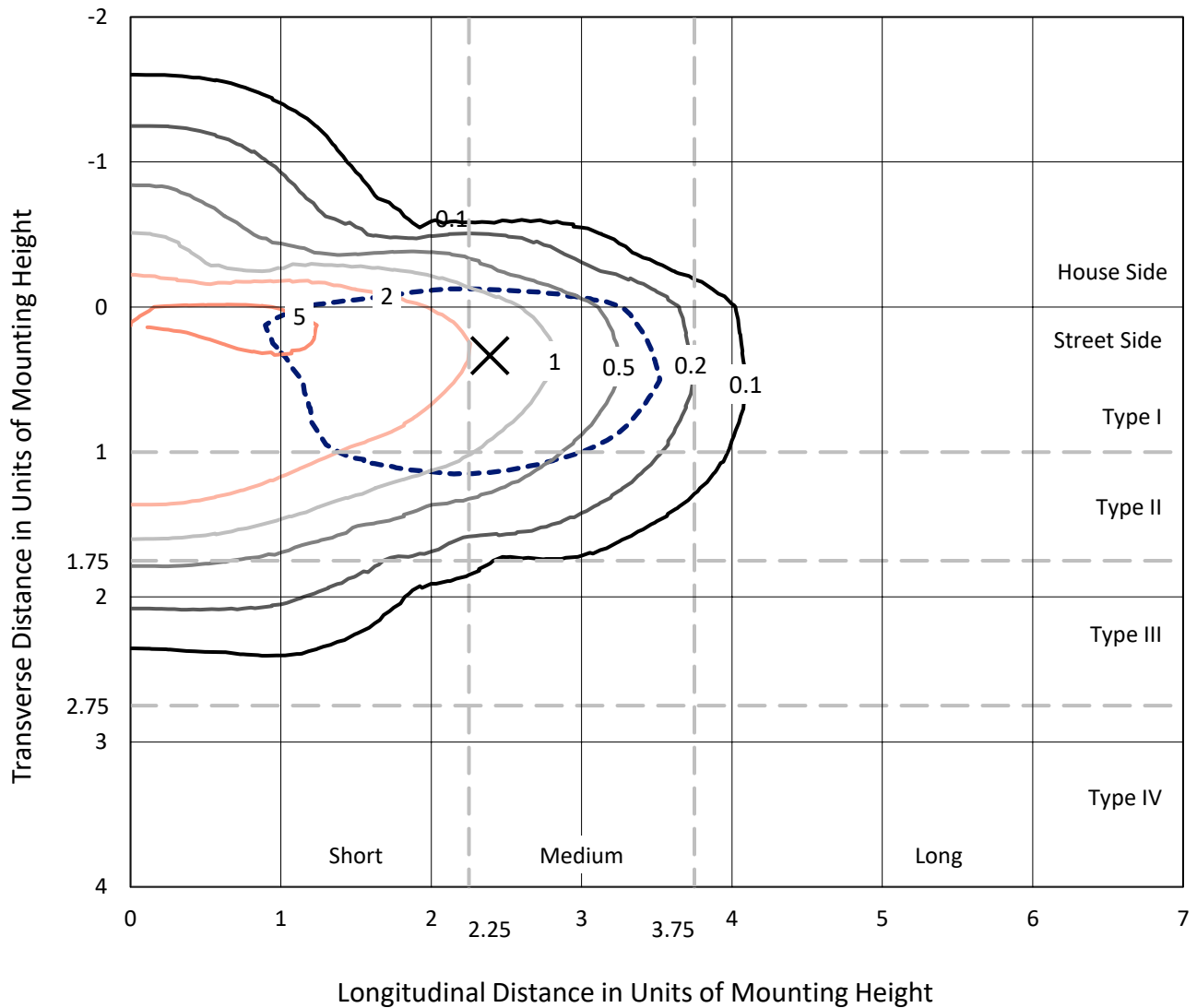
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

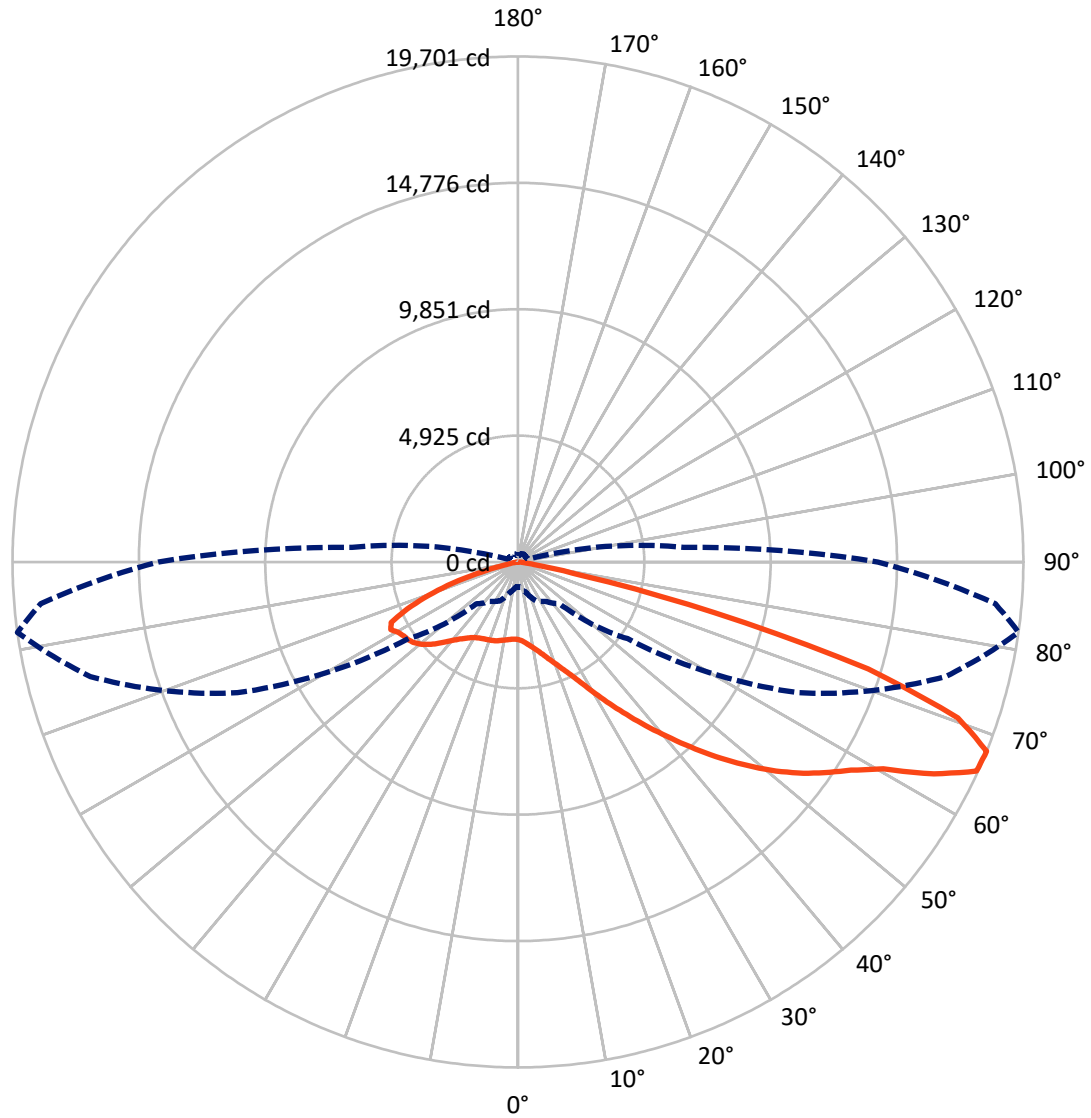
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3307.1	0.0	3307.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14949.9	0.0	14949.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	18257.0	0.0	18257.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.5	1.5
10°-20°	700.2	3.8
20°-30°	1121.6	6.1
30°-40°	1983.2	10.9
40°-50°	3474.8	19.0
50°-60°	4634.5	25.4
60°-70°	4314.5	23.6
70°-80°	1655.9	9.1
80°-90°	102.8	0.6
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°	18257.0	100.0
0°-180°	18257.0	100.0

Coefficient of Utilization



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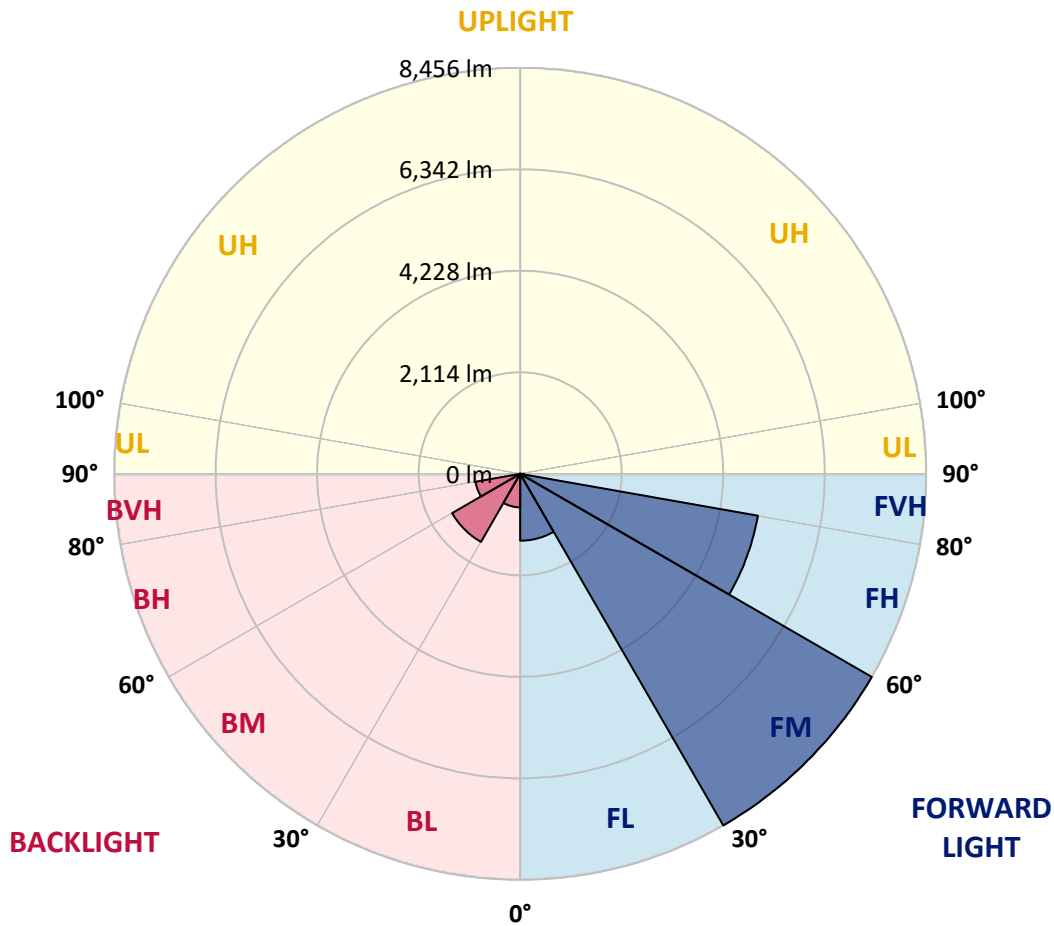
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1392.8	7.6			
FM (30°-60°)	8455.9	46.3			
FH (60°-80°)	5026.4	27.5			G3/7500
FVH (80°-90°)	74.8	0.4			G1/100
BL (0°-30°)	698.4	3.8	B2/1000		
BM (30°-60°)	1636.7	9.0	B2/2500		
BH (60°-80°)	943.9	5.2	B2/1000		G2/1000
BVH (80°-90°)	28.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6
2.5°	3196.8	3215.2	3204.6	3199.4	3190.2	3177.0	3166.5	3133.7	3099.5	3077.1	3069.3
5°	3261.2	3279.6	3278.3	3283.5	3290.1	3294.0	3291.4	3254.6	3206.0	3167.8	3145.5
7.5°	3206.0	3227.0	3244.1	3270.4	3316.4	3365.0	3388.7	3380.8	3330.8	3278.3	3250.7
10°	3049.5	3071.9	3112.6	3174.4	3271.7	3376.8	3464.9	3505.7	3474.1	3416.3	3378.2
12.5°	2763.0	2785.3	2865.5	2999.6	3162.6	3345.3	3513.5	3622.6	3630.5	3572.7	3528.0
15°	2440.9	2463.3	2548.7	2717.0	2965.4	3258.5	3539.8	3746.2	3815.9	3765.9	3712.0
17.5°	2241.2	2260.9	2325.3	2460.7	2719.6	3085.0	3530.6	3877.7	4036.7	3997.3	3932.9
20°	2180.7	2197.8	2228.0	2322.6	2538.2	2905.0	3470.2	4001.2	4274.6	4252.3	4180.0
22.5°	2245.1	2260.9	2270.1	2312.1	2447.5	2786.7	3393.9	4127.4	4550.7	4553.3	4465.2
25°	2393.6	2409.4	2398.9	2425.2	2484.3	2749.8	3365.0	4275.9	4897.7	4926.6	4826.7
27.5°	2638.1	2639.4	2614.5	2613.1	2622.3	2805.1	3395.2	4435.0	5335.4	5389.3	5265.7
30°	3128.4	3108.7	3012.7	2908.9	2861.6	2970.7	3479.4	4622.9	5852.0	5947.9	5792.8
32.5°	3884.2	3855.3	3679.2	3430.7	3181.0	3237.5	3630.5	4837.2	6414.6	6588.1	6398.8
35°	4704.4	4696.6	4512.5	4143.2	3706.8	3617.4	3876.3	5118.5	7028.4	7304.4	7079.7
37.5°	5466.8	5462.9	5357.7	4922.6	4391.6	4147.1	4270.7	5486.5	7685.6	8085.2	7819.7
40°	6163.5	6175.3	6070.2	5681.1	5146.1	4826.7	4807.0	5941.3	8416.5	8935.7	8620.2
42.5°	6765.5	6778.7	6672.2	6384.3	5891.4	5578.6	5465.5	6498.7	9130.2	9849.2	9475.9
45°	7174.3	7255.8	7240.0	7010.0	6656.4	6331.7	6256.8	7198.0	9943.9	10818.0	10380.3
47.5°	7290.0	7364.9	7483.2	7514.8	7299.2	6979.8	7069.2	8040.5	10766.7	11788.1	11289.9
50°	7004.7	7074.4	7320.2	7647.5	7797.4	7698.8	7859.1	8943.6	11609.3	12755.5	12182.4
52.5°	6442.2	6513.1	6823.3	7341.2	7952.5	8262.7	8651.8	9833.5	12425.6	13671.7	13027.6
55°	5628.5	5703.4	6101.7	6688.0	7656.7	8495.3	9312.9	10722.0	13173.5	14495.8	13790.0
57.5°	4521.7	4576.9	4991.0	5811.2	6912.7	8264.0	9800.6	11692.1	13878.0	15305.5	14545.8
60°	2947.0	2995.6	3476.7	4391.6	5679.8	7491.1	9897.9	12773.9	14813.9	16358.4	15564.5
62.5°	1959.9	1992.7	2278.0	2949.6	3999.9	6007.1	9328.7	13637.5	16186.2	18190.8	17311.4
65°	1344.7	1377.6	1662.8	2130.7	2584.2	3973.6	7692.2	13523.1	17429.7	19645.9	18606.1
67.5°	959.6	987.2	1229.0	1670.7	1870.5	2308.2	5214.5	12061.5	17250.9	19701.1	18675.8
70°	687.5	703.2	903.0	1301.3	1486.7	1386.8	2899.7	9224.9	15104.4	18192.1	17253.6
72.5°	481.1	486.3	627.0	991.1	1197.5	1012.1	1380.2	6150.3	11424.0	14279.0	13375.9
75°	326.0	332.6	421.9	726.9	960.9	772.9	730.8	3298.0	6706.4	7903.8	7084.9
77.5°	199.8	202.4	272.1	496.9	719.0	588.9	470.6	1397.3	2594.7	2547.4	2171.5
80°	113.0	113.0	173.5	308.9	490.3	379.9	329.9	594.1	821.5	721.6	636.2
82.5°	63.1	64.4	126.2	191.9	324.7	224.8	181.4	274.7	354.9	314.2	273.4
85°	26.3	28.9	77.6	90.7	155.1	111.7	73.6	115.7	131.4	117.0	85.4
87.5°	2.6	3.9	23.7	17.1	18.4	22.3	10.5	22.3	18.4	18.4	13.1
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°	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6
2.5°	3044.3	3024.6	2974.6	2916.8	2840.5	2803.7	2753.8	2719.6	2690.7	2693.3	2667.0
5°	3103.4	3053.5	2941.8	2802.4	2628.9	2505.4	2373.9	2283.2	2209.6	2193.8	2158.3
7.5°	3184.9	3106.1	2910.2	2659.1	2366.0	2143.9	1945.4	1817.9	1727.2	1698.3	1669.4
10°	3290.1	3175.7	2869.5	2479.1	2057.1	1774.5	1561.6	1461.7	1399.9	1378.9	1363.1
12.5°	3412.3	3255.9	2815.6	2259.6	1739.0	1466.9	1331.5	1281.6	1261.9	1255.3	1251.4
15°	3566.1	3355.8	2734.1	1999.3	1469.6	1279.0	1221.1	1214.6	1217.2	1214.6	1213.2
17.5°	3748.8	3464.9	2601.3	1731.1	1288.2	1183.0	1162.0	1167.2	1173.8	1172.5	1169.9
20°	3948.6	3572.7	2431.7	1493.2	1164.6	1114.7	1102.8	1108.1	1113.3	1110.7	1109.4
22.5°	4176.0	3688.4	2243.8	1307.9	1081.8	1051.6	1038.4	1039.7	1039.7	1034.5	1031.8
25°	4448.1	3815.9	2046.6	1176.4	1018.7	995.0	979.3	974.0	966.1	950.4	947.7
27.5°	4772.8	3951.3	1857.3	1084.4	968.8	946.4	928.0	914.9	895.1	868.9	866.2
30°	5138.2	4115.6	1697.0	1026.6	929.3	907.0	885.9	866.2	837.3	804.4	801.8
32.5°	5568.0	4291.7	1580.0	988.5	893.8	870.2	845.2	821.5	790.0	757.1	758.4
35°	6080.7	4504.6	1511.6	962.2	866.2	834.7	807.1	780.8	757.1	728.2	725.6
37.5°	6636.7	4730.7	1490.6	949.0	847.8	799.2	767.6	749.2	746.6	729.5	728.2
40°	7245.3	4998.9	1506.4	941.2	828.1	765.0	730.8	726.9	733.5	703.2	704.5
42.5°	7889.4	5317.0	1532.7	932.0	800.5	730.8	698.0	698.0	692.7	650.7	650.7
45°	8586.0	5683.7	1558.9	909.6	767.6	696.7	671.7	662.5	640.1	599.4	598.1
47.5°	9288.0	6057.0	1578.7	868.9	728.2	667.7	645.4	624.4	591.5	554.7	553.4
50°	9954.4	6392.2	1557.6	808.4	683.5	640.1	616.5	587.6	552.1	527.1	523.2
52.5°	10549.8	6682.7	1468.2	737.4	636.2	611.2	590.2	560.0	531.0	504.8	502.1
55°	11067.7	6918.0	1310.5	670.4	594.1	586.2	565.2	527.1	487.7	465.3	462.7
57.5°	11564.6	7096.8	1113.3	615.2	556.0	558.6	527.1	492.9	456.1	432.5	429.8
60°	12225.8	7336.0	913.5	563.9	515.3	523.2	489.0	464.0	418.0	387.8	383.8
62.5°	13282.6	7708.0	725.6	500.8	467.9	470.6	456.1	425.9	370.7	335.2	332.6
65°	14121.2	7571.3	571.8	432.5	414.1	418.0	418.0	385.1	326.0	285.2	281.3
67.5°	14026.6	6482.9	456.1	365.4	362.8	365.4	374.6	347.0	289.2	256.3	251.1
70°	12921.1	5156.6	365.4	303.6	315.5	308.9	335.2	316.8	260.3	227.4	223.5
72.5°	10543.3	3714.7	278.7	251.1	241.9	252.4	302.3	285.2	216.9	180.1	176.1
75°	6160.9	1982.2	207.7	198.5	174.8	210.3	268.1	243.2	165.6	132.8	128.8
77.5°	2005.9	691.4	152.5	145.9	130.1	169.6	228.7	205.1	135.4	105.2	101.2
80°	537.6	209.0	103.8	96.0	84.1	126.2	181.4	163.0	97.3	68.4	67.0
82.5°	215.6	88.1	60.5	53.9	46.0	86.8	143.3	131.4	72.3	43.4	43.4
85°	69.7	28.9	22.3	17.1	21.0	53.9	85.4	89.4	51.3	22.3	17.1
87.5°	9.2	3.9	3.9	5.3	3.9	9.2	26.3	25.0	14.5	2.6	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)