

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: P883486

Luminaire Tested: **NAV-SB3D-835-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883486
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-SB3D-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3500K, 900mA 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: 18806 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G3

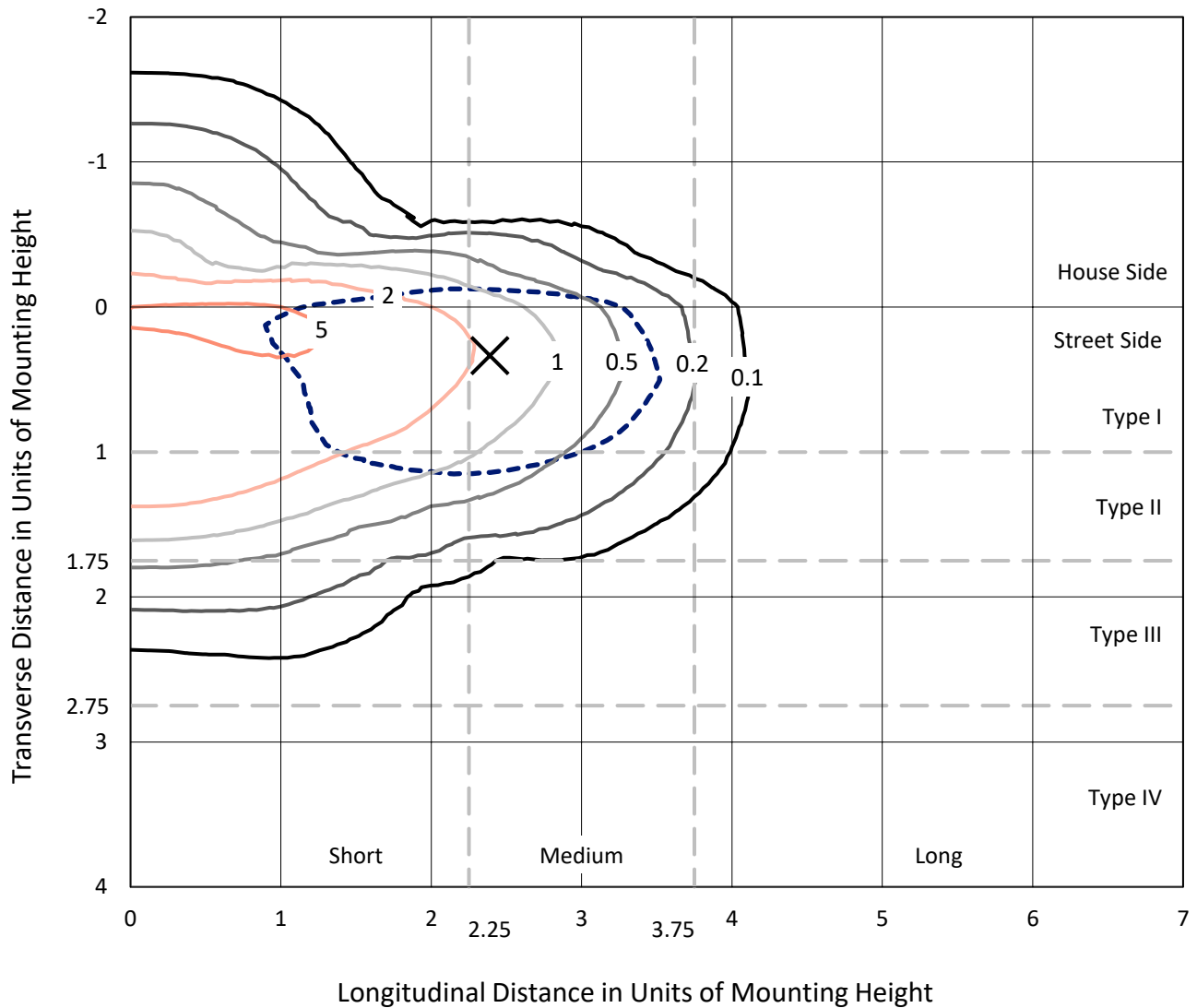
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

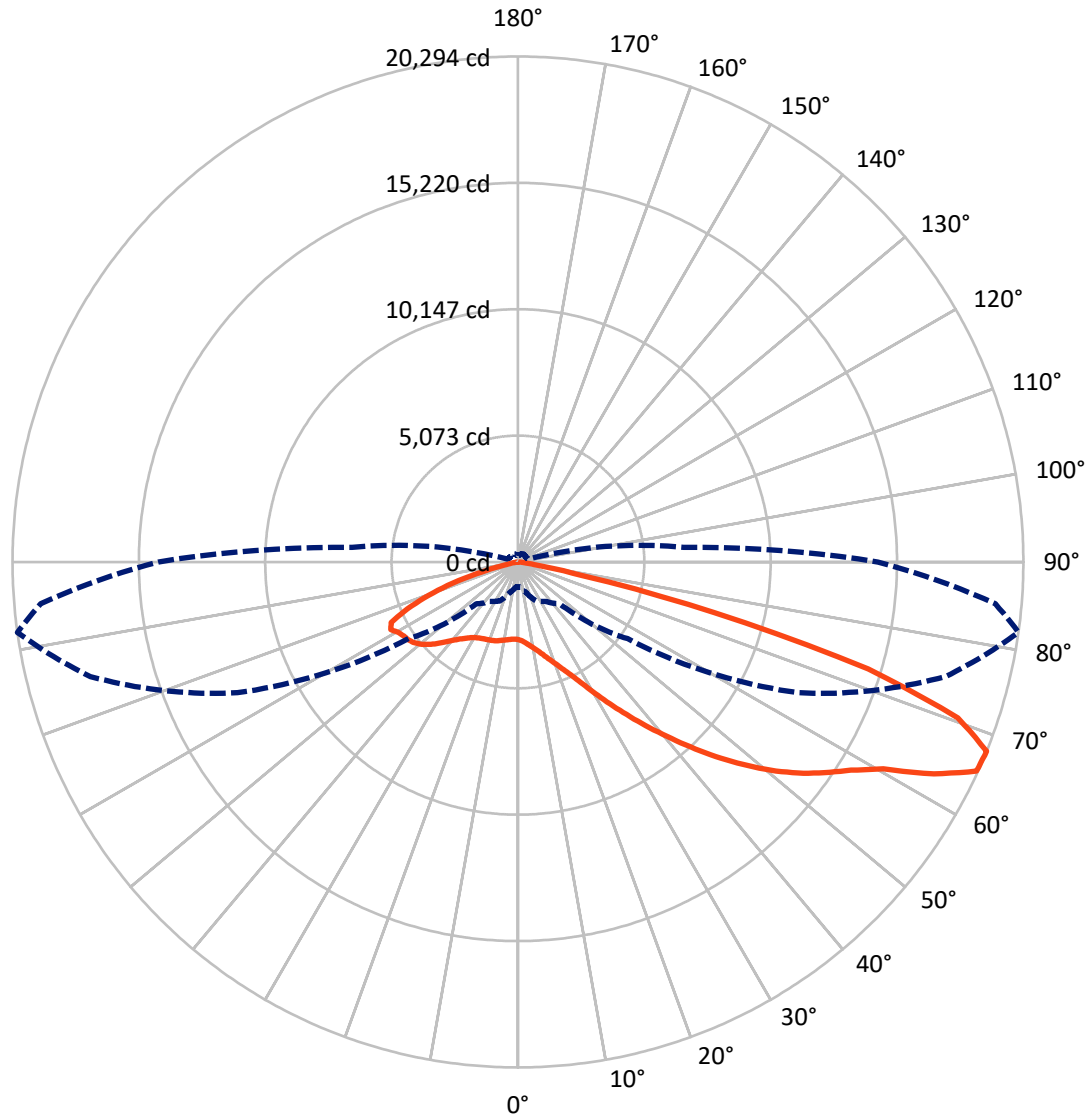
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 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	3406.5	0.0	3406.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	15399.5	0.0	15399.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	18806.0	0.0	18806.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.6	1.5
10°-20°	721.3	3.8
20°-30°	1155.3	6.1
30°-40°	2042.9	10.9
40°-50°	3579.3	19.0
50°-60°	4773.8	25.4
60°-70°	4444.2	23.6
70°-80°	1705.7	9.1
80°-90°	105.9	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°	18806.0	100.0
0°-180°	18806.0	100.0

Coefficient of Utilization



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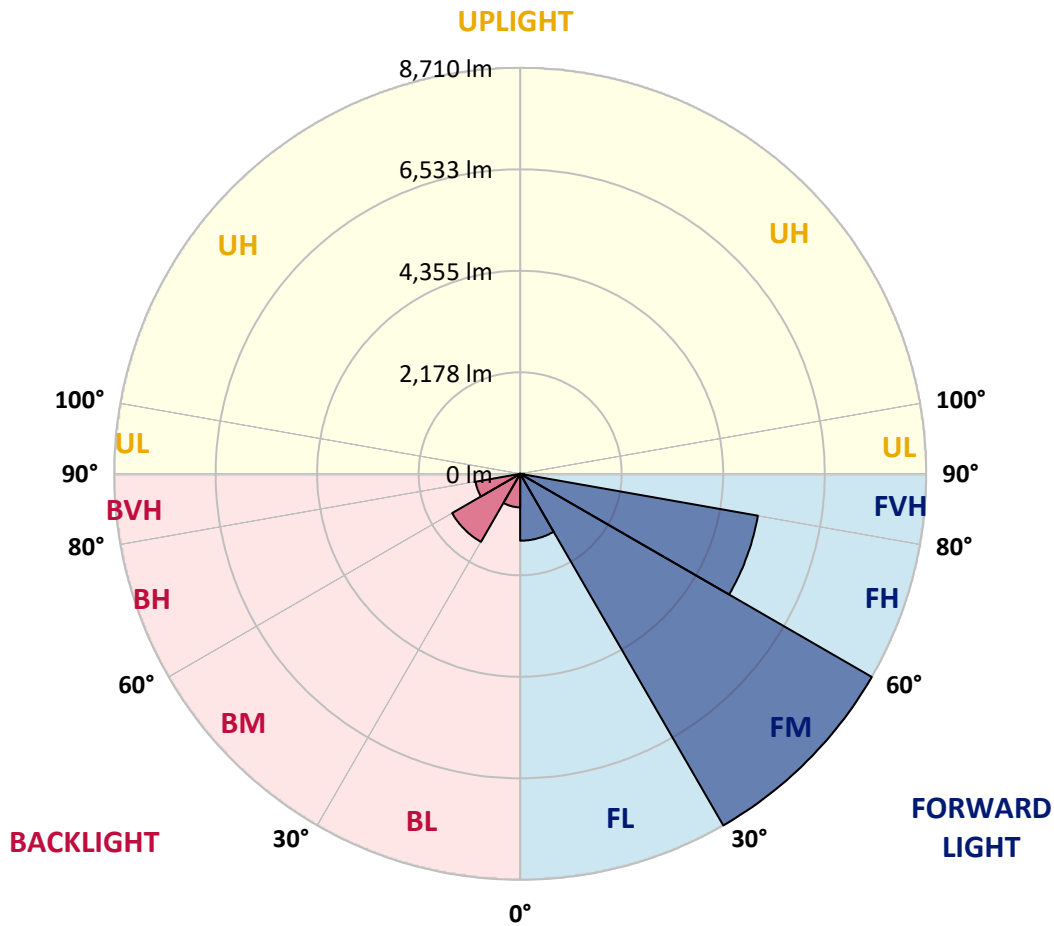
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1434.7	7.6			
FM (30°-60°)	8710.2	46.3			
FH (60°-80°)	5177.6	27.5			G3/7500
FVH (80°-90°)	77.0	0.4			G1/100
BL (0°-30°)	719.5	3.8	B2/1000		
BM (30°-60°)	1685.9	9.0	B2/2500		
BH (60°-80°)	972.3	5.2	B2/1000		G2/1000
BVH (80°-90°)	28.9	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°	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5
2.5°	3292.9	3311.8	3301.0	3295.6	3286.1	3272.6	3261.7	3227.9	3192.7	3169.7	3161.6
5°	3359.2	3378.2	3376.8	3382.3	3389.0	3393.1	3390.4	3352.5	3302.4	3263.1	3240.1
7.5°	3302.4	3324.0	3341.6	3368.7	3416.1	3466.2	3490.6	3482.4	3431.0	3376.8	3348.4
10°	3141.2	3164.3	3206.2	3269.9	3370.1	3478.4	3569.1	3611.1	3578.6	3519.0	3479.7
12.5°	2846.1	2869.1	2951.7	3089.8	3257.7	3445.9	3619.2	3731.6	3739.7	3680.1	3634.1
15°	2514.3	2537.4	2625.4	2798.7	3054.6	3356.5	3646.3	3858.9	3930.6	3879.2	3823.7
17.5°	2308.5	2328.9	2395.2	2534.7	2801.4	3177.8	3636.8	3994.3	4158.1	4117.5	4051.1
20°	2246.3	2263.9	2295.0	2392.5	2614.5	2992.3	3574.5	4121.5	4403.2	4380.1	4305.7
22.5°	2312.6	2328.9	2338.3	2381.7	2521.1	2870.4	3496.0	4251.5	4687.5	4690.2	4599.5
25°	2465.6	2481.9	2471.0	2498.1	2559.0	2832.5	3466.2	4404.5	5044.9	5074.7	4971.8
27.5°	2717.4	2718.8	2693.1	2691.7	2701.2	2889.4	3497.3	4568.3	5495.8	5551.3	5424.1
30°	3222.5	3202.2	3103.3	2996.4	2947.6	3060.0	3584.0	4762.0	6027.9	6126.8	5967.0
32.5°	4001.0	3971.2	3789.8	3533.9	3276.6	3334.9	3739.7	4982.7	6607.4	6786.2	6591.2
35°	4845.9	4837.8	4648.2	4267.8	3818.2	3726.2	3992.9	5272.4	7239.8	7524.1	7292.6
37.5°	5631.2	5627.2	5518.8	5070.7	4523.7	4271.8	4399.1	5651.5	7916.7	8328.4	8054.9
40°	6348.8	6361.0	6252.7	5851.9	5300.8	4971.8	4951.5	6120.0	8669.6	9204.4	8879.4
42.5°	6969.0	6982.5	6872.8	6576.3	6068.6	5746.3	5629.9	6694.1	9404.8	10145.4	9760.9
45°	7390.0	7474.0	7457.7	7220.8	6856.6	6522.1	6445.0	7414.4	10242.9	11143.3	10692.4
47.5°	7509.2	7586.4	7708.2	7740.7	7518.7	7189.7	7281.7	8282.3	11090.5	12142.5	11629.4
50°	7215.4	7287.1	7540.3	7877.5	8031.8	7930.3	8095.5	9212.5	11958.4	13139.1	12548.7
52.5°	6635.9	6709.0	7028.5	7562.0	8191.6	8511.1	8911.9	10129.2	12799.2	14082.8	13419.3
55°	5797.8	5874.9	6285.2	6889.1	7887.0	8750.8	9593.0	11044.4	13569.6	14931.7	14204.6
57.5°	4657.7	4714.6	5141.1	5986.0	7120.6	8512.5	10095.3	12043.7	14295.4	15765.8	14983.2
60°	3035.6	3085.7	3581.3	4523.7	5850.6	7716.4	10195.5	13158.0	15259.4	16850.3	16032.5
62.5°	2018.8	2052.6	2346.5	3038.3	4120.2	6187.7	9609.2	14047.6	16673.0	18737.8	17832.0
65°	1385.1	1419.0	1712.8	2194.8	2661.9	4093.1	7923.5	13929.8	17953.8	20236.6	19165.6
67.5°	988.4	1016.8	1266.0	1720.9	1926.7	2377.6	5371.3	12424.2	17769.7	20293.5	19237.4
70°	708.1	724.4	930.2	1340.4	1531.4	1428.5	2986.9	9502.3	15558.6	18739.1	17772.4
72.5°	495.6	501.0	645.9	1020.9	1233.5	1042.6	1421.7	6335.3	11767.5	14708.3	13778.1
75°	335.8	342.6	434.6	748.8	989.8	796.1	752.8	3397.1	6908.0	8141.5	7298.0
77.5°	205.8	208.5	280.3	511.8	740.6	606.6	484.7	1439.3	2672.8	2624.0	2236.8
80°	116.4	116.4	178.7	318.2	505.0	391.3	339.9	612.0	846.2	743.3	655.3
82.5°	65.0	66.3	130.0	197.7	334.4	231.5	186.8	283.0	365.6	323.6	281.6
85°	27.1	29.8	79.9	93.4	159.8	115.1	75.8	119.2	135.4	120.5	88.0
87.5°	2.7	4.1	24.4	17.6	19.0	23.0	10.8	23.0	19.0	19.0	13.5
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°	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5	3115.5
2.5°	3135.8	3115.5	3064.1	3004.5	2926.0	2888.0	2836.6	2801.4	2771.6	2774.3	2747.2
5°	3196.8	3145.3	3030.2	2886.7	2708.0	2580.7	2445.3	2351.9	2276.0	2259.8	2223.2
7.5°	3280.7	3199.5	2997.7	2739.1	2437.2	2208.3	2003.9	1872.6	1779.1	1749.3	1719.6
10°	3389.0	3271.2	2955.7	2553.6	2119.0	1827.9	1608.5	1505.6	1442.0	1420.3	1404.1
12.5°	3514.9	3353.8	2900.2	2327.5	1791.3	1511.0	1371.6	1320.1	1299.8	1293.1	1289.0
15°	3673.4	3456.7	2816.3	2059.4	1513.8	1317.4	1257.9	1251.1	1253.8	1251.1	1249.7
17.5°	3861.6	3569.1	2679.5	1783.2	1326.9	1218.6	1196.9	1202.3	1209.1	1207.8	1205.0
20°	4067.4	3680.1	2504.9	1538.1	1199.6	1148.2	1136.0	1141.4	1146.8	1144.1	1142.8
22.5°	4301.6	3799.3	2311.3	1347.2	1114.3	1083.2	1069.6	1071.0	1071.0	1065.6	1062.9
25°	4581.9	3930.6	2108.2	1211.8	1049.3	1025.0	1008.7	1003.3	995.2	978.9	976.2
27.5°	4916.3	4070.1	1913.2	1117.0	997.9	974.9	955.9	942.4	922.1	895.0	892.3
30°	5292.7	4239.3	1748.0	1057.5	957.3	934.2	912.6	892.3	862.5	828.6	825.9
32.5°	5735.5	4420.8	1627.5	1018.2	920.7	896.3	870.6	846.2	813.7	779.9	781.2
35°	6263.5	4640.1	1557.1	991.1	892.3	859.8	831.3	804.3	779.9	750.1	747.4
37.5°	6836.3	4873.0	1535.4	977.6	873.3	823.2	790.7	771.8	769.1	751.5	750.1
40°	7463.2	5149.2	1551.7	969.5	853.0	788.0	752.8	748.8	755.5	724.4	725.7
42.5°	8126.6	5476.9	1578.7	960.0	824.6	752.8	719.0	719.0	713.5	670.2	670.2
45°	8844.2	5854.6	1605.8	937.0	790.7	717.6	691.9	682.4	659.4	617.4	616.1
47.5°	9567.3	6239.2	1626.1	895.0	750.1	687.8	664.8	643.1	609.3	571.4	570.0
50°	10253.7	6584.4	1604.5	832.7	704.1	659.4	635.0	605.2	568.7	542.9	538.9
52.5°	10867.1	6883.7	1512.4	759.6	655.3	629.6	607.9	576.8	547.0	519.9	517.2
55°	11400.5	7126.0	1349.9	690.5	612.0	603.9	582.2	542.9	502.3	479.3	476.6
57.5°	11912.4	7310.2	1146.8	633.7	572.7	575.4	542.9	507.7	469.8	445.5	442.8
60°	12593.4	7556.6	941.0	580.9	530.8	538.9	503.7	478.0	430.6	399.4	395.4
62.5°	13682.0	7939.8	747.4	515.9	482.0	484.7	469.8	438.7	381.8	345.3	342.6
65°	14545.9	7798.9	589.0	445.5	426.5	430.6	430.6	396.7	335.8	293.8	289.8
67.5°	14448.4	6677.9	469.8	376.4	373.7	376.4	385.9	357.5	297.9	264.0	258.6
70°	13309.7	5311.7	376.4	312.8	325.0	318.2	345.3	326.3	268.1	234.2	230.2
72.5°	10860.3	3826.4	287.0	258.6	249.1	260.0	311.4	293.8	223.4	185.5	181.4
75°	6346.1	2041.8	213.9	204.5	180.1	216.6	276.2	250.5	170.6	136.8	132.7
77.5°	2066.2	712.2	157.1	150.3	134.0	174.7	235.6	211.2	139.5	108.3	104.3
80°	553.8	215.3	107.0	98.8	86.7	130.0	186.8	167.9	100.2	70.4	69.1
82.5°	222.1	90.7	62.3	55.5	47.4	89.4	147.6	135.4	74.5	44.7	44.7
85°	71.8	29.8	23.0	17.6	21.7	55.5	88.0	92.1	52.8	23.0	17.6
87.5°	9.5	4.1	4.1	5.4	4.1	9.5	27.1	25.7	14.9	2.7	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)