

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: P883976

Luminaire Tested: **NAV-SB4C-827-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883976
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-SB4C-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA 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: 18007 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

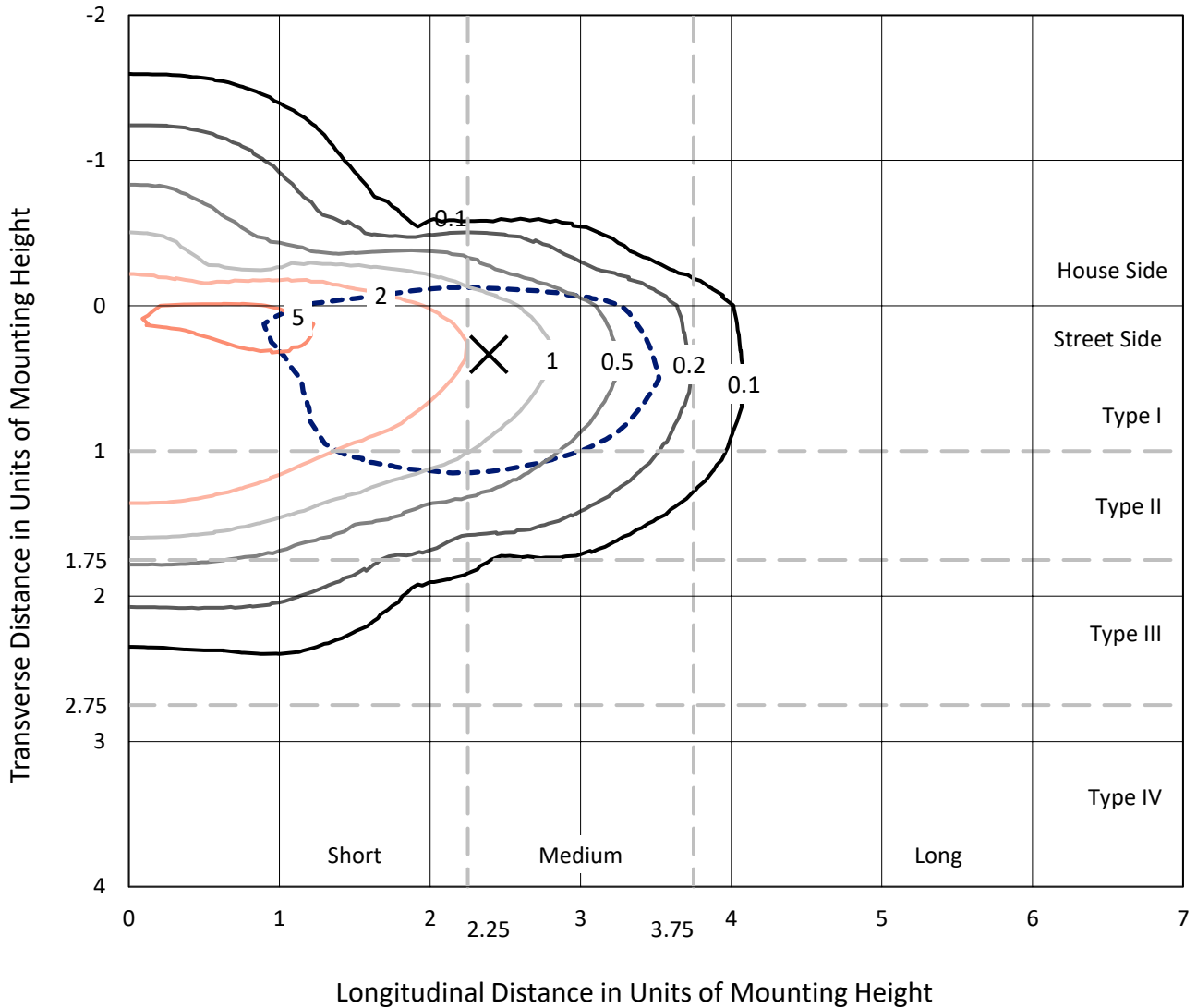
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

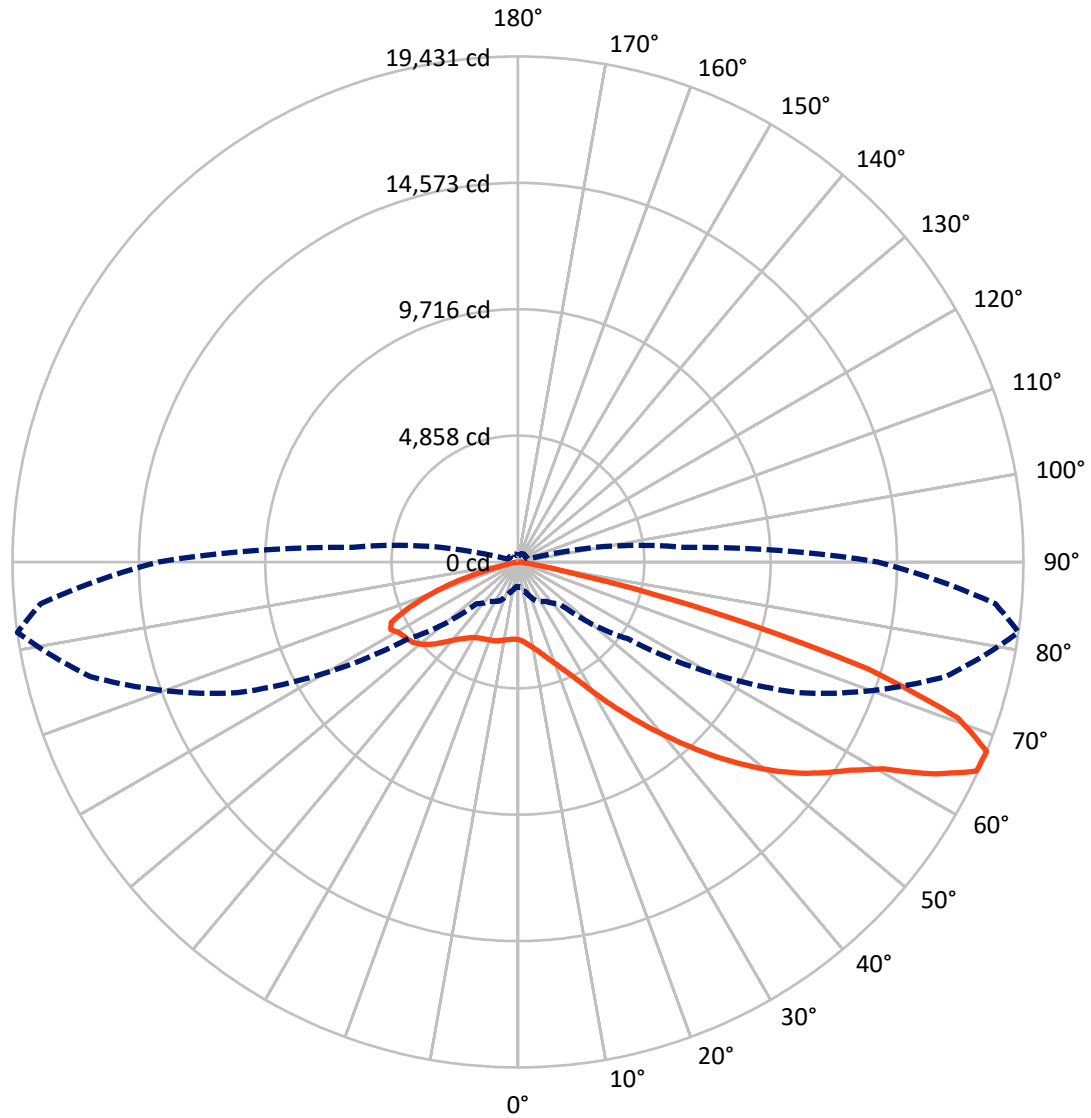
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 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	3261.8	0.0	3261.8
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14745.2	0.0	14745.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	18007.0	0.0	18007.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.8	1.5
10°-20°	690.6	3.8
20°-30°	1106.2	6.1
30°-40°	1956.1	10.9
40°-50°	3427.3	19.0
50°-60°	4571.0	25.4
60°-70°	4255.4	23.6
70°-80°	1633.2	9.1
80°-90°	101.4	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°	18007.0	100.0
0°-180°	18007.0	100.0

Coefficient of Utilization



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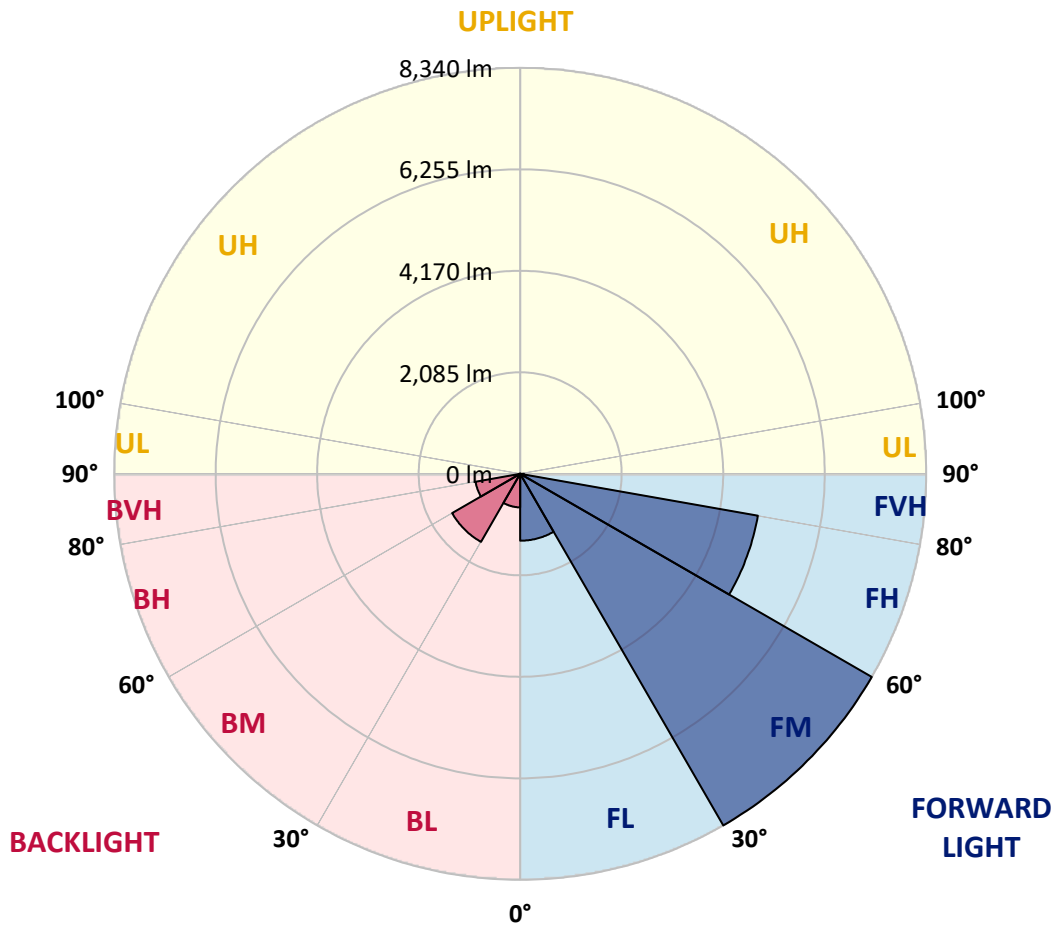
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1373.7	7.6			
FM (30°-60°)	8340.1	46.3			
FH (60°-80°)	4957.6	27.5			G2/5000
FVH (80°-90°)	73.8	0.4			G1/100
BL (0°-30°)	688.9	3.8	B2/1000		
BM (30°-60°)	1614.3	9.0	B2/2500		
BH (60°-80°)	931.0	5.2	B2/1000		G2/1000
BVH (80°-90°)	27.7	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-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2
2.5°	3153.0	3171.1	3160.8	3155.6	3146.5	3133.5	3123.2	3090.8	3057.0	3035.0	3027.2
5°	3216.5	3234.7	3233.4	3238.6	3245.0	3248.9	3246.3	3210.0	3162.1	3124.5	3102.4
7.5°	3162.1	3182.8	3199.7	3225.6	3271.0	3318.9	3342.3	3334.5	3285.2	3233.4	3206.1
10°	3007.8	3029.8	3070.0	3130.9	3226.9	3330.6	3417.5	3457.7	3426.5	3369.5	3331.9
12.5°	2725.2	2747.2	2826.3	2958.5	3119.3	3299.5	3465.4	3573.0	3580.8	3523.8	3479.7
15°	2407.5	2429.6	2513.8	2679.8	2924.8	3213.9	3491.4	3694.9	3763.6	3714.4	3661.2
17.5°	2210.5	2229.9	2293.4	2427.0	2682.4	3042.8	3482.3	3824.6	3981.4	3942.5	3879.0
20°	2150.8	2167.7	2197.5	2290.8	2503.5	2865.2	3422.6	3946.4	4216.1	4194.0	4122.7
22.5°	2214.4	2229.9	2239.0	2280.5	2414.0	2748.5	3347.5	4070.9	4488.3	4490.9	4404.1
25°	2360.9	2376.4	2366.0	2392.0	2450.3	2712.2	3318.9	4217.4	4830.6	4859.1	4760.6
27.5°	2602.0	2603.3	2578.7	2577.4	2586.4	2766.6	3348.8	4374.3	5262.3	5315.5	5193.6
30°	3085.6	3066.1	2971.5	2869.1	2822.4	2930.0	3431.7	4559.6	5771.8	5866.5	5713.5
32.5°	3831.0	3802.5	3628.8	3383.8	3137.4	3193.2	3580.8	4771.0	6326.7	6497.8	6311.2
35°	4640.0	4632.2	4450.7	4086.4	3656.0	3567.9	3823.3	5048.4	6932.2	7204.4	6982.7
37.5°	5392.0	5388.1	5284.4	4855.2	4331.5	4090.3	4212.2	5411.4	7580.4	7974.5	7712.6
40°	6079.1	6090.8	5987.0	5603.3	5075.6	4760.6	4741.1	5860.0	8301.2	8813.3	8502.2
42.5°	6672.9	6685.8	6580.8	6296.9	5810.7	5502.2	5390.7	6409.7	9005.2	9714.4	9346.2
45°	7076.1	7156.4	7140.9	6914.0	6565.3	6245.0	6171.1	7099.4	9807.7	10669.9	10238.1
47.5°	7190.2	7264.1	7380.7	7411.9	7199.2	6884.2	6972.4	7930.4	10619.3	11626.6	11135.3
50°	6908.8	6977.5	7220.0	7542.8	7690.6	7593.4	7751.5	8821.1	11450.3	12580.8	12015.6
52.5°	6353.9	6424.0	6729.9	7240.7	7843.6	8149.5	8533.3	9698.8	12255.4	13484.5	12849.2
55°	5551.4	5625.3	6018.2	6596.4	7551.9	8379.0	9185.4	10575.2	12993.1	14297.3	13601.1
57.5°	4459.8	4514.3	4922.7	5731.6	6818.1	8150.8	9666.4	11532.0	13688.0	15096.0	14346.6
60°	2906.7	2954.6	3429.1	4331.5	5602.0	7388.5	9762.3	12599.0	14611.1	16134.4	15351.4
62.5°	1933.0	1965.4	2246.8	2909.3	3945.1	5924.8	9201.0	13450.8	15964.6	17941.7	17074.4
65°	1326.3	1358.7	1640.0	2101.6	2548.8	3919.2	7586.9	13338.0	17191.0	19376.9	18351.4
67.5°	946.4	973.6	1212.2	1647.8	1844.9	2276.6	5143.1	11896.3	17014.7	19431.3	18420.1
70°	678.0	693.6	890.7	1283.5	1466.3	1367.8	2860.0	9098.5	14897.6	17943.0	17017.3
72.5°	474.5	479.7	618.4	977.5	1181.1	998.3	1361.3	6066.1	11267.5	14083.4	13192.8
75°	321.5	328.0	416.2	716.9	947.7	762.3	720.8	3252.8	6614.5	7795.6	6987.9
77.5°	197.1	199.7	268.4	490.1	709.2	580.8	464.1	1378.1	2559.2	2512.5	2141.7
80°	111.5	111.5	171.1	304.7	483.6	374.7	325.4	586.0	810.3	711.8	627.5
82.5°	62.2	63.5	124.5	189.3	320.2	221.7	178.9	271.0	350.0	309.9	269.7
85°	25.9	28.5	76.5	89.5	153.0	110.2	72.6	114.1	129.6	115.4	84.3
87.5°	2.6	3.9	23.3	16.9	18.2	22.0	10.4	22.0	18.2	18.2	13.0
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°	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2	2983.2
2.5°	3002.6	2983.2	2933.9	2876.8	2801.6	2765.3	2716.1	2682.4	2653.9	2656.4	2630.5
5°	3060.9	3011.7	2901.5	2764.0	2592.9	2471.0	2341.4	2251.9	2179.3	2163.8	2128.8
7.5°	3141.3	3063.5	2870.4	2622.7	2333.6	2114.5	1918.8	1793.0	1703.5	1675.0	1646.5
10°	3245.0	3132.2	2830.2	2445.1	2029.0	1750.2	1540.2	1441.7	1380.7	1360.0	1344.4
12.5°	3365.6	3211.3	2777.0	2228.6	1715.2	1446.8	1313.3	1264.0	1244.6	1238.1	1234.2
15°	3517.3	3309.9	2696.6	1971.9	1449.4	1261.5	1204.4	1197.9	1200.5	1197.9	1196.6
17.5°	3697.5	3417.5	2565.7	1707.4	1270.5	1166.8	1146.1	1151.3	1157.7	1156.4	1153.8
20°	3894.6	3523.8	2398.4	1472.8	1148.7	1099.4	1087.7	1092.9	1098.1	1095.5	1094.2
22.5°	4118.8	3637.9	2213.1	1290.0	1067.0	1037.2	1024.2	1025.5	1025.5	1020.3	1017.7
25°	4387.2	3763.6	2018.6	1160.3	1004.8	981.4	965.9	960.7	952.9	937.3	934.7
27.5°	4707.4	3897.2	1831.9	1069.6	955.5	933.4	915.3	902.3	882.9	857.0	854.4
30°	5067.9	4059.2	1673.7	1012.5	916.6	894.6	873.8	854.4	825.8	793.4	790.8
32.5°	5491.8	4232.9	1558.3	974.9	881.6	858.3	833.6	810.3	779.2	746.8	748.1
35°	5997.4	4443.0	1490.9	949.0	854.4	823.3	796.0	770.1	746.8	718.2	715.6
37.5°	6545.8	4666.0	1470.2	936.0	836.2	788.2	757.1	739.0	736.4	719.5	718.2
40°	7146.1	4930.4	1485.7	928.3	816.8	754.5	720.8	716.9	723.4	693.6	694.9
42.5°	7781.3	5244.2	1511.7	919.2	789.5	720.8	688.4	688.4	683.2	641.7	641.7
45°	8468.5	5605.9	1537.6	897.1	757.1	687.1	662.5	653.4	631.4	591.2	589.9
47.5°	9160.8	5974.1	1557.0	857.0	718.2	658.6	636.6	615.8	583.4	547.1	545.8
50°	9818.1	6304.7	1536.3	797.3	674.2	631.4	608.0	579.5	544.5	519.9	516.0
52.5°	10405.4	6591.2	1448.1	727.3	627.5	602.9	582.1	552.3	523.8	497.8	495.2
55°	10916.2	6823.3	1292.6	661.2	586.0	578.2	557.5	519.9	481.0	458.9	456.4
57.5°	11406.2	6999.6	1098.1	606.7	548.4	551.0	519.9	486.2	449.9	426.5	423.9
60°	12058.4	7235.5	901.0	556.2	508.2	516.0	482.3	457.6	412.3	382.5	378.6
62.5°	13100.7	7602.4	715.6	494.0	461.5	464.1	449.9	420.1	365.6	330.6	328.0
65°	13927.9	7467.6	564.0	426.5	408.4	412.3	412.3	379.9	321.5	281.3	277.4
67.5°	13834.5	6394.1	449.9	360.4	357.8	360.4	369.5	342.3	285.2	252.8	247.6
70°	12744.2	5086.0	360.4	299.5	311.1	304.7	330.6	312.4	256.7	224.3	220.4
72.5°	10398.9	3663.8	274.8	247.6	238.5	248.9	298.2	281.3	213.9	177.6	173.7
75°	6076.5	1955.1	204.8	195.8	172.4	207.4	264.5	239.8	163.4	130.9	127.1
77.5°	1978.4	681.9	150.4	143.9	128.3	167.2	225.6	202.2	133.5	103.7	99.8
80°	530.3	206.1	102.4	94.6	83.0	124.5	178.9	160.8	95.9	67.4	66.1
82.5°	212.6	86.9	59.6	53.2	45.4	85.6	141.3	129.6	71.3	42.8	42.8
85°	68.7	28.5	22.0	16.9	20.7	53.2	84.3	88.2	50.6	22.0	16.9
87.5°	9.1	3.9	3.9	5.2	3.9	9.1	25.9	24.6	14.3	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)