

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: P884326

Luminaire Tested: **NAV-SB5A-830-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884326
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-SB5A-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA 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: 14544 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

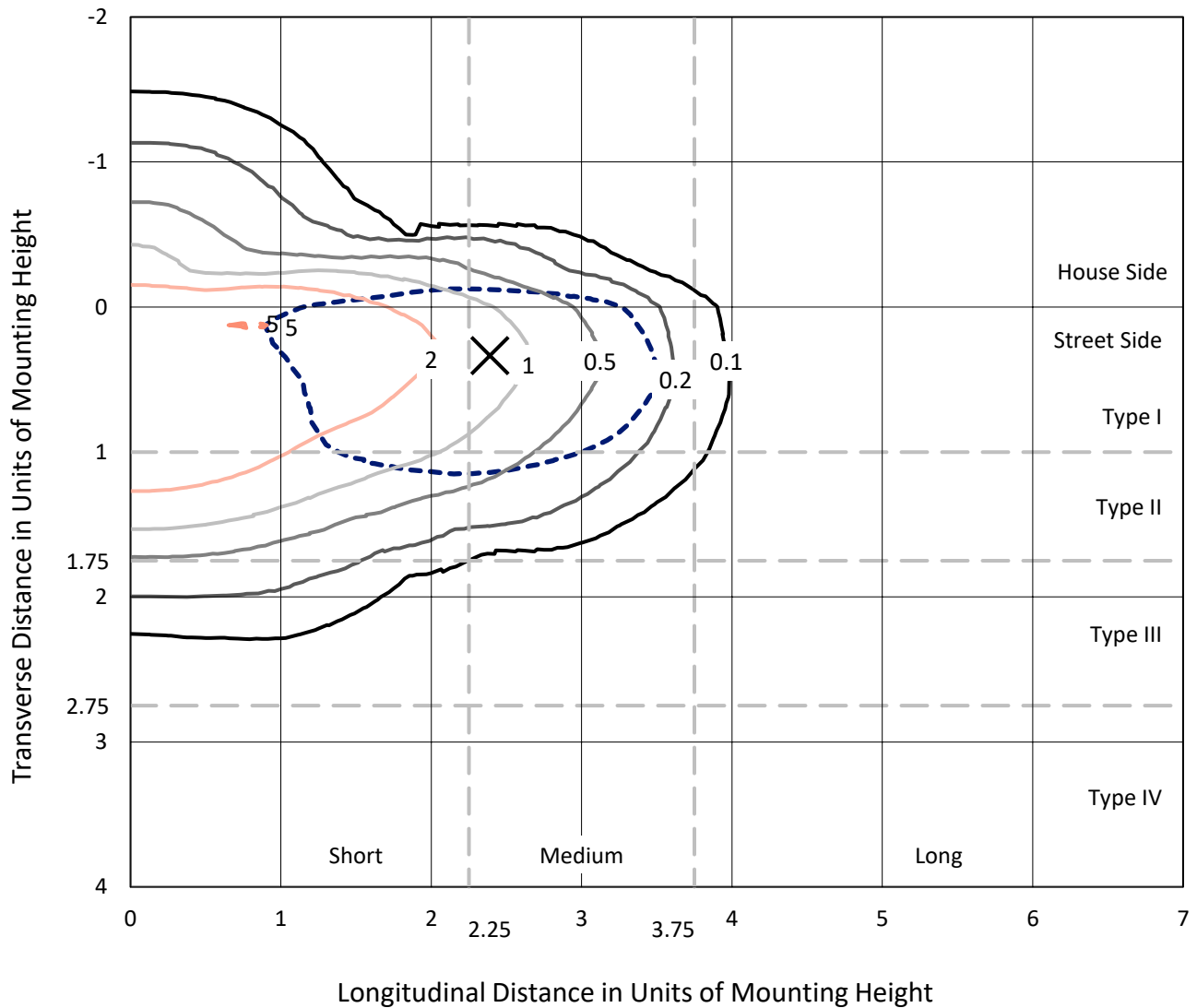
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

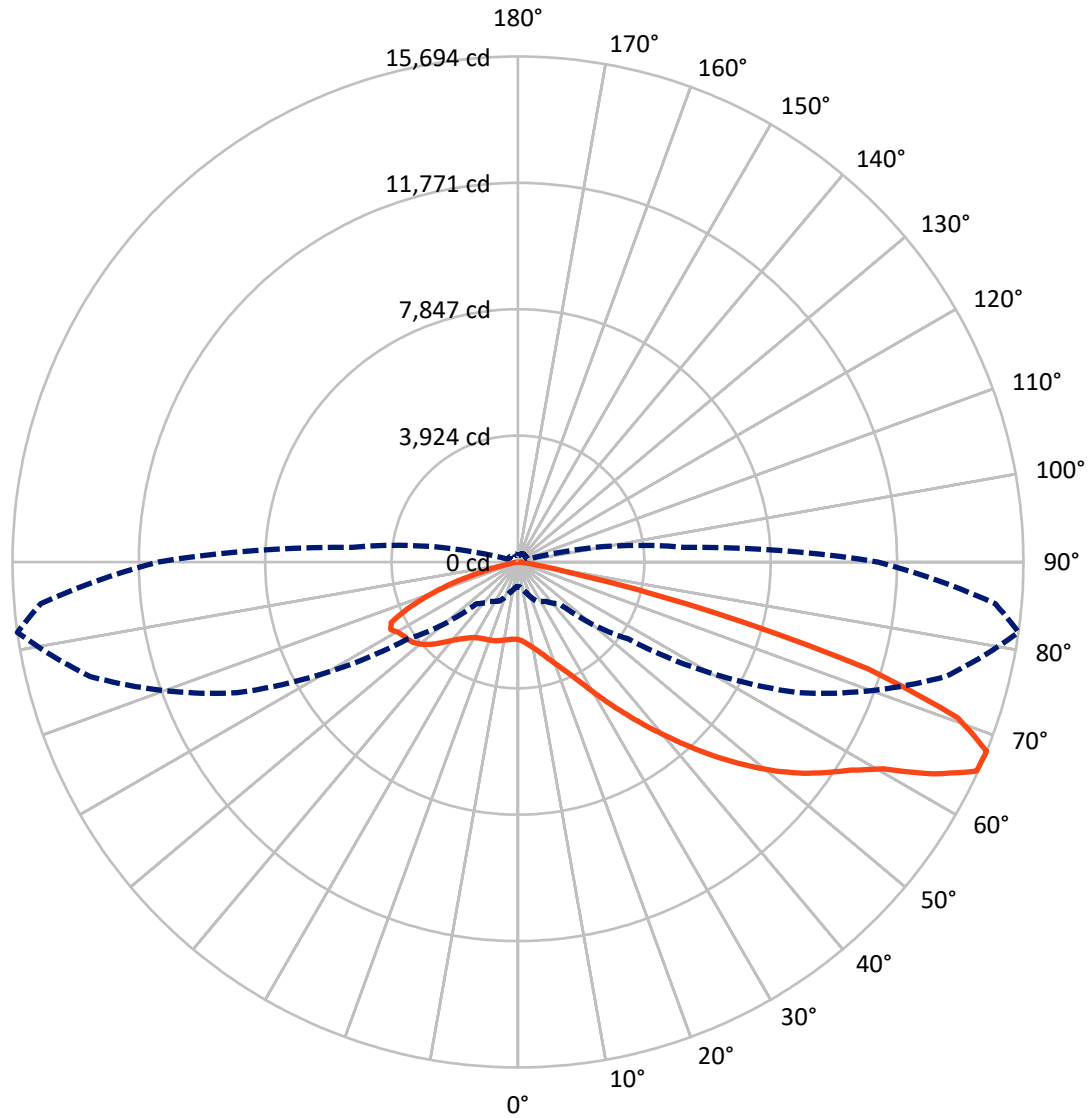
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 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	2634.5	0.0	2634.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11909.5	0.0	11909.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	14544.0	0.0	14544.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.7	1.5
10°-20°	557.8	3.8
20°-30°	893.5	6.1
30°-40°	1579.9	10.9
40°-50°	2768.2	19.0
50°-60°	3691.9	25.4
60°-70°	3437.0	23.6
70°-80°	1319.1	9.1
80°-90°	81.9	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°	14544.0	100.0
0°-180°	14544.0	100.0

Coefficient of Utilization



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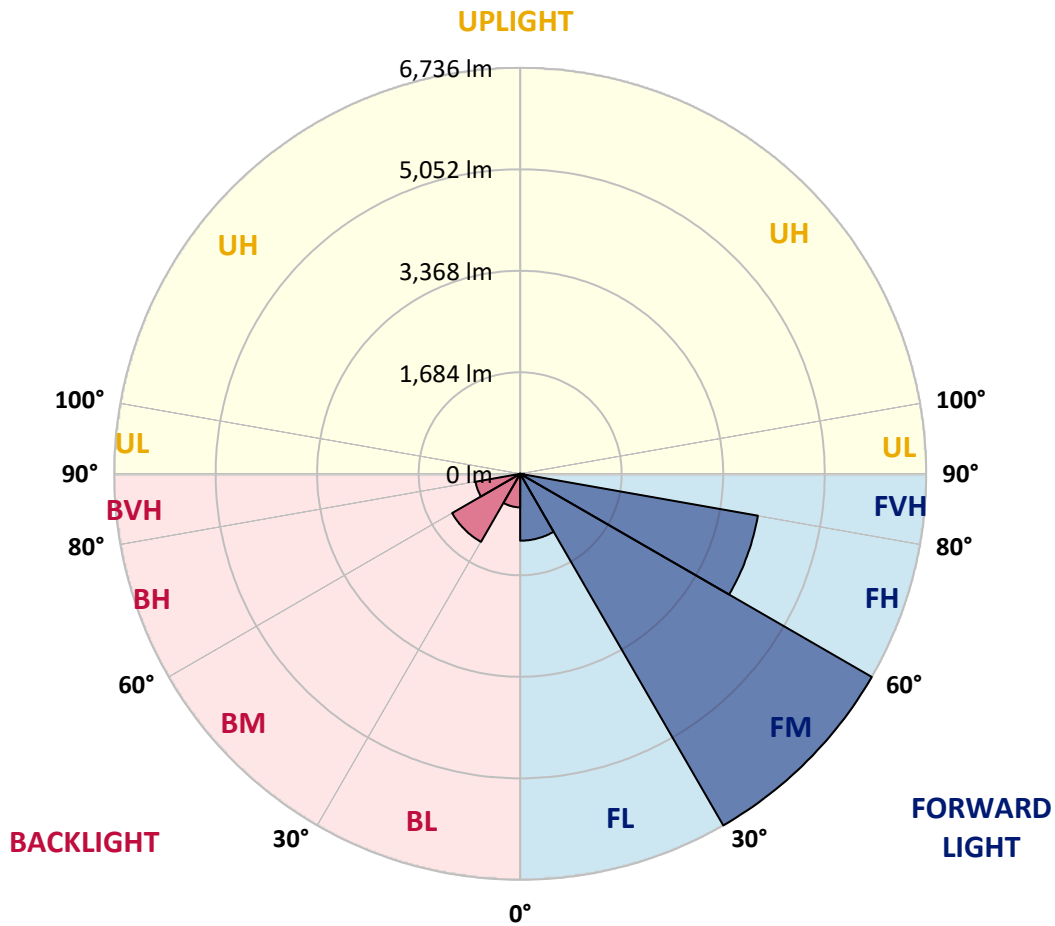
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1109.5	7.6			
FM (30°-60°)	6736.2	46.3			
FH (60°-80°)	4004.2	27.5			G2/5000
FVH (80°-90°)	59.6	0.4			G1/100
BL (0°-30°)	556.4	3.8	B2/1000		
BM (30°-60°)	1303.8	9.0	B2/2500		
BH (60°-80°)	751.9	5.2	B2/1000		G2/1000
BVH (80°-90°)	22.4	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°	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4
2.5°	2546.6	2561.3	2552.9	2548.7	2541.4	2530.9	2522.5	2496.4	2469.1	2451.3	2445.1
5°	2597.9	2612.6	2611.5	2615.7	2621.0	2624.1	2622.0	2592.7	2554.0	2523.6	2505.8
7.5°	2554.0	2570.7	2584.3	2605.3	2641.9	2680.7	2699.5	2693.2	2653.4	2611.5	2589.6
10°	2429.3	2447.1	2479.6	2528.8	2606.3	2690.1	2760.2	2792.7	2767.6	2721.5	2691.1
12.5°	2201.1	2218.9	2282.7	2389.6	2519.4	2664.9	2799.0	2885.9	2892.2	2846.1	2810.5
15°	1944.5	1962.3	2030.4	2164.4	2362.3	2595.8	2819.9	2984.3	3039.8	3000.0	2957.1
17.5°	1785.4	1801.1	1852.4	1960.2	2166.5	2457.6	2812.6	3089.0	3215.7	3184.3	3133.0
20°	1737.2	1750.8	1774.9	1850.3	2022.0	2314.2	2764.4	3187.5	3405.3	3387.5	3329.9
22.5°	1788.5	1801.1	1808.4	1841.9	1949.8	2219.9	2703.7	3288.0	3625.2	3627.3	3557.1
25°	1906.8	1919.4	1911.0	1932.0	1979.1	2190.6	2680.7	3406.3	3901.6	3924.6	3845.1
27.5°	2101.6	2102.6	2082.7	2081.7	2089.0	2234.6	2704.7	3533.0	4250.3	4293.2	4194.8
30°	2492.2	2476.5	2400.0	2317.3	2279.6	2366.5	2771.8	3682.8	4661.8	4738.3	4614.7
32.5°	3094.3	3071.2	2930.9	2733.0	2534.1	2579.1	2892.2	3853.4	5110.0	5248.2	5097.4
35°	3747.7	3741.4	3594.8	3300.6	2952.9	2881.7	3088.0	4077.5	5599.0	5818.9	5639.8
37.5°	4355.0	4351.9	4268.1	3921.5	3498.5	3303.7	3402.1	4370.7	6122.6	6440.9	6229.4
40°	4910.0	4919.4	4835.7	4525.7	4099.5	3845.1	3829.4	4733.0	6704.8	7118.4	6867.1
42.5°	5389.6	5400.1	5315.2	5085.9	4693.2	4444.0	4354.0	5177.0	7273.4	7846.2	7548.8
45°	5715.2	5780.2	5767.6	5584.4	5302.7	5044.0	4984.3	5734.1	7921.5	8617.9	8269.2
47.5°	5807.4	5867.1	5961.3	5986.4	5814.7	5560.3	5631.5	6405.3	8577.1	9390.7	8993.8
50°	5580.2	5635.7	5831.5	6092.2	6211.6	6133.0	6260.8	7124.7	9248.3	10161.4	9704.8
52.5°	5132.0	5188.5	5435.7	5848.2	6335.1	6582.3	6892.2	7833.6	9898.5	10891.2	10378.1
55°	4483.8	4543.5	4860.8	5327.8	6099.5	6767.6	7418.9	8541.4	10494.3	11547.8	10985.5
57.5°	3602.1	3646.1	3976.0	4629.4	5506.9	6583.3	7807.4	9314.2	11055.6	12192.8	11587.6
60°	2347.7	2386.4	2769.7	3498.5	4524.7	5967.6	7884.9	10176.0	11801.2	13031.5	12399.1
62.5°	1561.3	1587.5	1814.7	2349.8	3186.4	4785.4	7431.5	10864.0	12894.4	14491.2	13790.7
65°	1071.2	1097.4	1324.6	1697.4	2058.7	3165.5	6127.8	10772.9	13885.0	15650.4	14822.1
67.5°	764.4	786.4	979.1	1330.9	1490.1	1838.8	4154.0	9608.5	13742.5	15694.4	14877.6
70°	547.6	560.2	719.4	1036.7	1184.3	1104.7	2310.0	7348.8	12032.6	14492.3	13744.6
72.5°	383.2	387.4	499.5	789.5	953.9	806.3	1099.5	4899.5	9100.6	11375.0	10655.6
75°	259.7	264.9	336.1	579.1	765.5	615.7	582.2	2627.3	5342.5	6296.4	5644.0
77.5°	159.2	161.3	216.8	395.8	572.8	469.1	374.9	1113.1	2067.0	2029.3	1729.9
80°	90.1	90.1	138.2	246.1	390.6	302.6	262.8	473.3	654.5	574.9	506.8
82.5°	50.3	51.3	100.5	152.9	258.6	179.1	144.5	218.9	282.7	250.3	217.8
85°	20.9	23.0	61.8	72.3	123.6	89.0	58.6	92.1	104.7	93.2	68.1
87.5°	2.1	3.1	18.8	13.6	14.7	17.8	8.4	17.8	14.7	14.7	10.5
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°	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4	2409.4
2.5°	2425.2	2409.4	2369.7	2323.6	2262.9	2233.5	2193.7	2166.5	2143.5	2145.6	2124.6
5°	2472.3	2432.5	2343.5	2232.5	2094.3	1995.8	1891.1	1818.9	1760.2	1747.7	1719.4
7.5°	2537.2	2474.4	2318.3	2118.3	1884.8	1707.9	1549.8	1448.2	1375.9	1352.9	1329.9
10°	2621.0	2529.9	2285.9	1974.9	1638.8	1413.6	1244.0	1164.4	1115.2	1098.4	1085.9
12.5°	2718.4	2593.7	2243.0	1800.0	1385.4	1168.6	1060.7	1021.0	1005.2	1000.0	996.9
15°	2840.9	2673.3	2178.0	1592.7	1170.7	1018.9	972.8	967.5	969.6	967.5	966.5
17.5°	2986.4	2760.2	2072.3	1379.1	1026.2	942.4	925.7	929.9	935.1	934.0	931.9
20°	3145.6	2846.1	1937.2	1189.5	927.8	888.0	878.5	882.7	886.9	884.8	883.8
22.5°	3326.7	2938.2	1787.5	1041.9	861.8	837.7	827.2	828.3	828.3	824.1	822.0
25°	3543.5	3039.8	1630.4	937.2	811.5	792.7	780.1	775.9	769.6	757.1	755.0
27.5°	3802.1	3147.7	1479.6	863.9	771.7	753.9	739.3	728.8	713.1	692.2	690.1
30°	4093.2	3278.6	1351.8	817.8	740.3	722.5	705.8	690.1	667.0	640.8	638.7
32.5°	4435.6	3418.9	1258.7	787.4	712.0	693.2	673.3	654.5	629.3	603.1	604.2
35°	4844.0	3588.5	1204.2	766.5	690.1	664.9	642.9	622.0	603.1	580.1	578.0
37.5°	5287.0	3768.6	1187.4	756.0	675.4	636.7	611.5	596.9	594.8	581.2	580.1
40°	5771.8	3982.2	1200.0	749.7	659.7	609.4	582.2	579.1	584.3	560.2	561.3
42.5°	6284.9	4235.6	1221.0	742.4	637.7	582.2	556.0	556.0	551.8	518.3	518.3
45°	6839.9	4527.8	1241.9	724.6	611.5	555.0	535.1	527.8	510.0	477.5	476.4
47.5°	7399.0	4825.2	1257.6	692.2	580.1	531.9	514.1	497.4	471.2	441.9	440.8
50°	7929.9	5092.2	1240.9	644.0	544.5	510.0	491.1	468.1	439.8	419.9	416.8
52.5°	8404.3	5323.6	1169.6	587.4	506.8	486.9	470.2	446.1	423.0	402.1	400.0
55°	8816.8	5511.1	1044.0	534.0	473.3	467.0	450.3	419.9	388.5	370.7	368.6
57.5°	9212.7	5653.5	886.9	490.1	442.9	445.0	419.9	392.7	363.4	344.5	342.4
60°	9739.4	5844.0	727.8	449.2	410.5	416.8	389.5	369.6	333.0	308.9	305.8
62.5°	10581.3	6140.4	578.0	399.0	372.8	374.9	363.4	339.3	295.3	267.0	264.9
65°	11249.3	6031.5	455.5	344.5	329.8	333.0	333.0	306.8	259.7	227.2	224.1
67.5°	11173.9	5164.5	363.4	291.1	289.0	291.1	298.4	276.4	230.4	204.2	200.0
70°	10293.3	4107.9	291.1	241.9	251.3	246.1	267.0	252.4	207.3	181.2	178.0
72.5°	8399.0	2959.2	222.0	200.0	192.7	201.0	240.8	227.2	172.8	143.5	140.3
75°	4907.9	1579.1	165.4	158.1	139.3	167.5	213.6	193.7	131.9	105.8	102.6
77.5°	1597.9	550.8	121.5	116.2	103.7	135.1	182.2	163.4	107.9	83.8	80.6
80°	428.3	166.5	82.7	76.4	67.0	100.5	144.5	129.8	77.5	54.5	53.4
82.5°	171.7	70.2	48.2	42.9	36.6	69.1	114.1	104.7	57.6	34.6	34.6
85°	55.5	23.0	17.8	13.6	16.8	42.9	68.1	71.2	40.8	17.8	13.6
87.5°	7.3	3.1	3.1	4.2	3.1	7.3	20.9	19.9	11.5	2.1	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)