

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: P884458

Luminaire Tested: **NAV-SB5B-740-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24160 lumens
Efficiency: N/A
Efficacy: 132.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

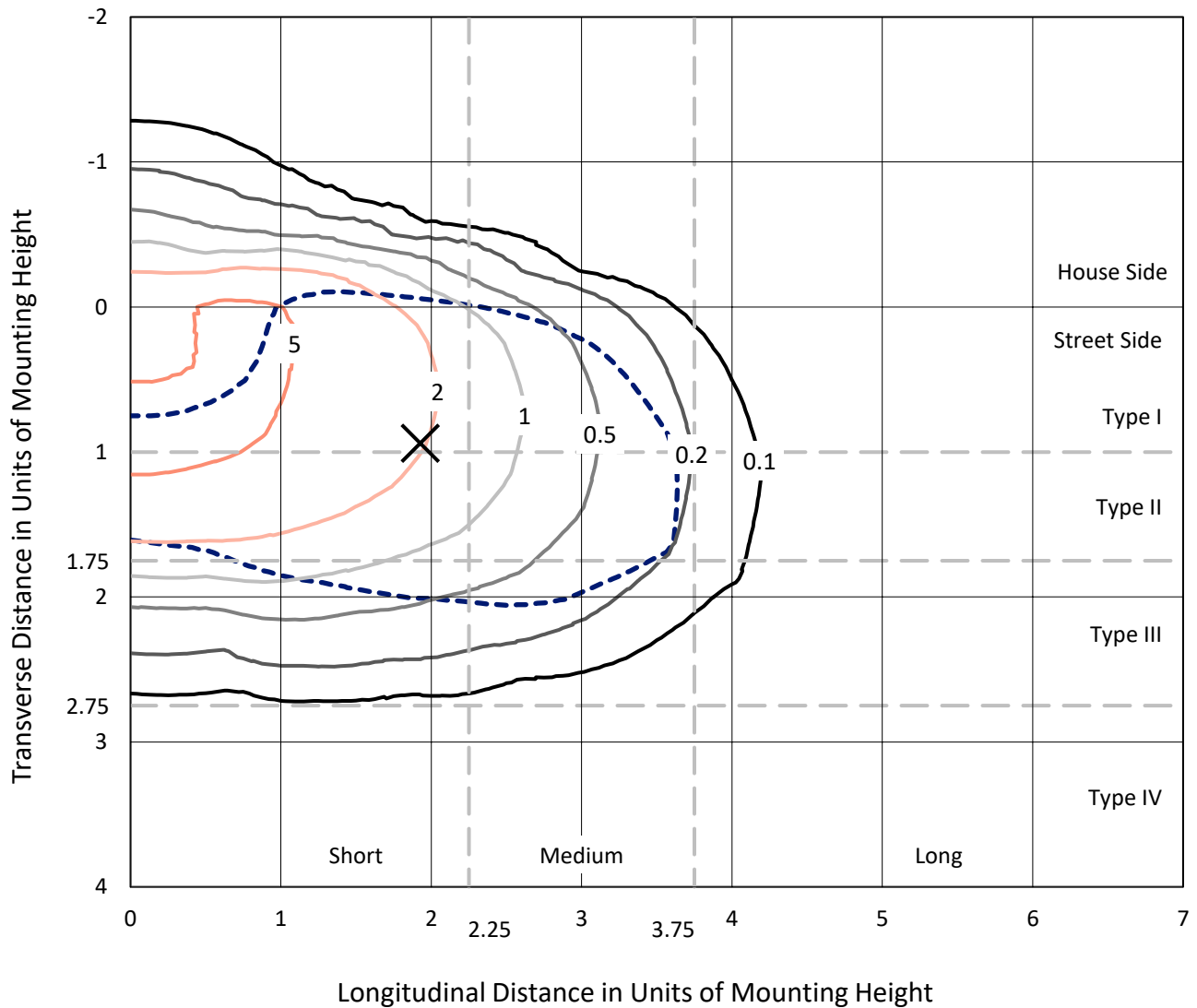
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884458
 CATALOG NUMBER: NAV-SB5B-740-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

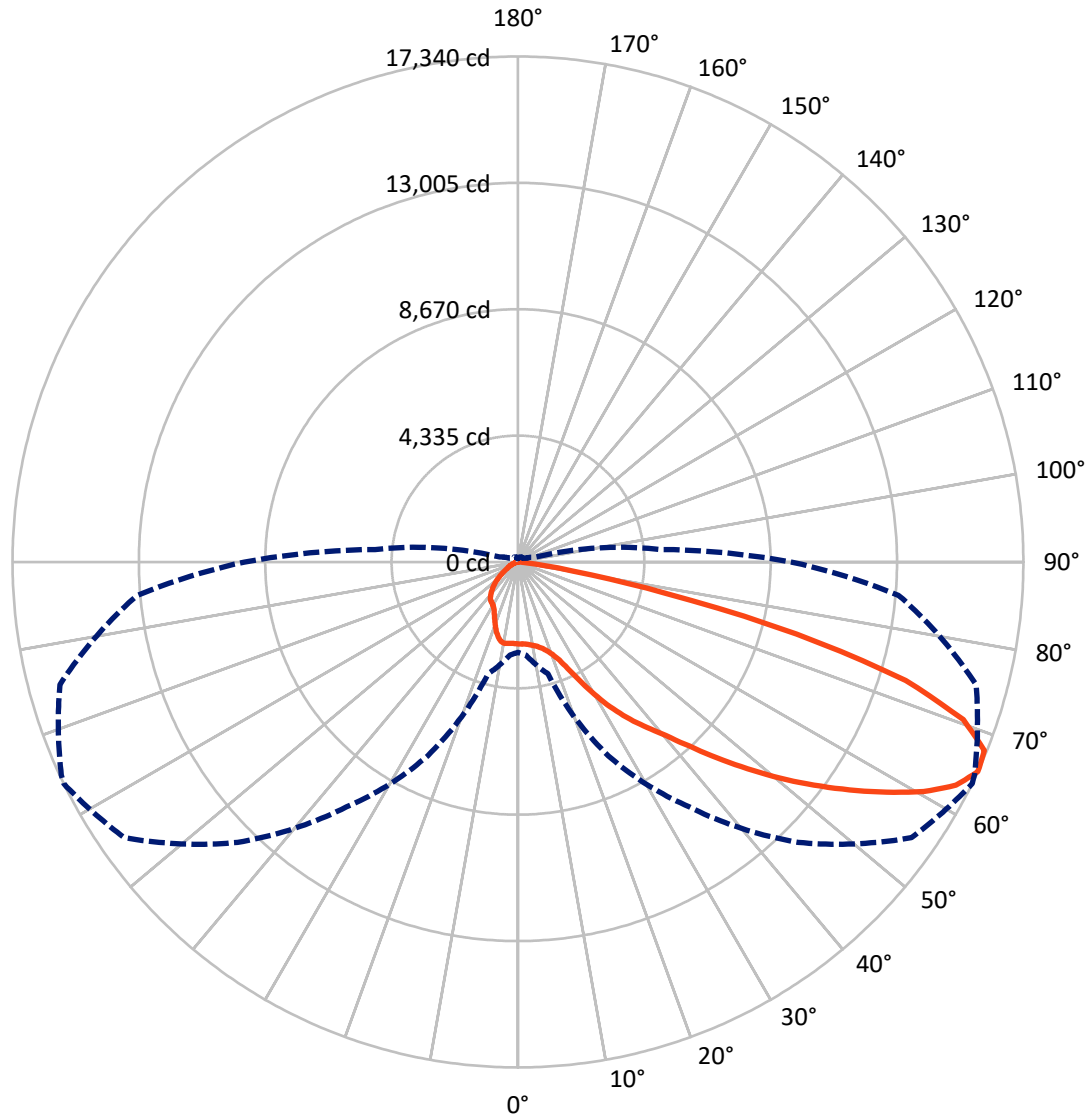
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
 Type III - Short - N/A

REPORT NUMBER: P884458
CATALOG NUMBER: NAV-SB5B-740-U-T3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P884458

CATALOG NUMBER: NAV-SB5B-740-U-T3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3230.9	0.0	3230.9
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	20929.1	0.0	20929.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	24160.0	0.0	24160.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.3	1.1
10°-20°	703.2	2.9
20°-30°	1332.5	5.5
30°-40°	2696.3	11.2
40°-50°	4593.1	19.0
50°-60°	6246.3	25.9
60°-70°	5865.6	24.3
70°-80°	2350.0	9.7
80°-90°	113.9	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°	24160.0	100.0
0°-180°	24160.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884458

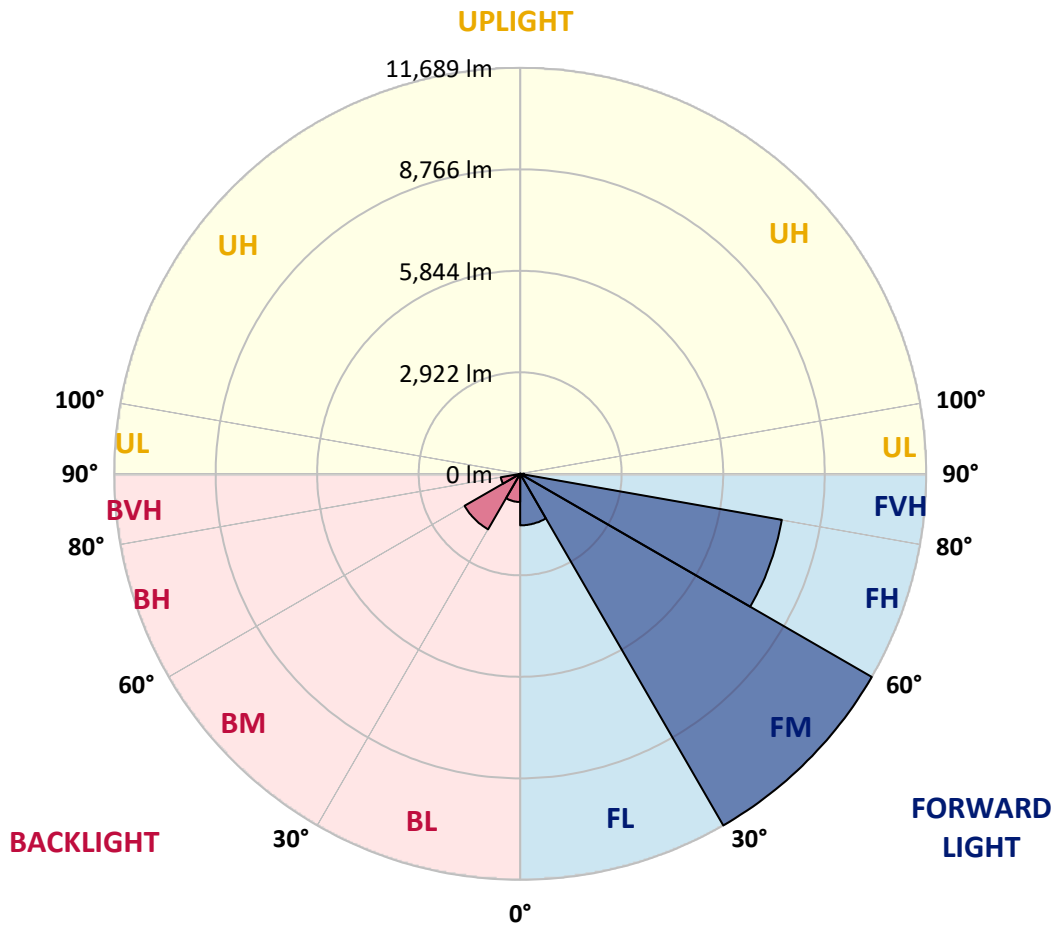
CATALOG NUMBER: NAV-SB5B-740-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1483.7	6.1			
FM (30°-60°)	11688.6	48.4			
FH (60°-80°)	7648.5	31.7			G4/12000
FVH (80°-90°)	108.3	0.4			G2/225
BL (0°-30°)	811.2	3.4	B2/1000		
BM (30°-60°)	1847.1	7.6	B2/2500		
BH (60°-80°)	567.1	2.3	B2/1000		G2/1000
BVH (80°-90°)	5.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Short



REPORT NUMBER: P884458

CATALOG NUMBER: NAV-SB5B-740-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1
2.5°	2800.3	2819.8	2814.9	2810.1	2808.4	2811.7	2813.3	2811.7	2811.7	2811.7	2813.3
5°	2746.9	2763.1	2763.1	2774.4	2790.6	2810.1	2824.6	2827.9	2831.1	2836.0	2834.4
7.5°	2644.9	2657.8	2667.5	2704.8	2745.3	2797.1	2840.8	2863.5	2866.7	2884.6	2891.0
10°	2575.2	2591.4	2607.6	2646.5	2704.8	2782.5	2857.0	2912.1	2920.2	2962.3	2981.7
12.5°	2572.0	2588.2	2609.2	2651.3	2719.4	2802.0	2892.7	2972.0	2986.6	3048.1	3088.6
15°	2606.0	2625.4	2644.9	2696.7	2769.6	2870.0	2967.2	3066.0	3080.5	3168.0	3211.7
17.5°	2675.6	2701.5	2716.1	2767.9	2845.7	2957.4	3085.4	3198.8	3211.7	3313.8	3368.8
20°	2813.3	2844.1	2848.9	2891.0	2967.2	3087.0	3239.3	3380.2	3396.4	3513.0	3574.5
22.5°	3098.4	3142.1	3103.2	3124.3	3192.3	3312.1	3477.3	3655.5	3678.2	3811.0	3866.1
25°	3600.4	3662.0	3561.6	3525.9	3555.1	3679.8	3887.1	4112.2	4138.2	4245.1	4272.6
27.5°	4586.8	4507.4	4355.2	4206.2	4118.7	4190.0	4423.2	4701.8	4734.2	4837.8	4805.4
30°	5670.3	5600.7	5395.0	5064.6	4857.3	4845.9	5061.3	5372.3	5409.6	5508.4	5409.6
32.5°	6755.5	6689.1	6465.6	6059.0	5699.5	5521.3	5670.3	6015.3	6034.7	6097.9	5952.1
35°	7822.8	7754.8	7531.3	7115.0	6672.9	6268.0	6238.8	6627.5	6634.0	6700.4	6483.4
37.5°	8896.6	8839.9	8601.9	8193.7	7758.0	7199.3	6928.8	7207.4	7215.5	7280.2	7055.1
40°	9662.7	9687.0	9523.4	9207.6	8833.5	8222.9	7703.0	7824.4	7775.8	7884.4	7749.9
42.5°	10320.3	10368.9	10226.3	10067.6	9850.6	9312.9	8661.8	8640.7	8563.0	8621.3	8482.0
45°	10888.8	10929.3	10801.3	10764.1	10759.2	10381.8	9709.7	9583.4	9474.8	9463.5	9296.7
47.5°	11097.7	11175.5	11230.5	11355.2	11598.2	11439.5	10793.2	10597.2	10475.8	10386.7	10122.7
50°	11177.1	11259.7	11447.5	11810.3	12385.3	12453.3	11871.9	11651.6	11502.6	11340.7	10951.9
52.5°	11070.2	11217.6	11470.2	12080.8	12914.9	13266.4	12906.8	12714.1	12544.0	12280.0	11703.4
55°	10440.1	10587.5	11104.2	12077.6	13178.9	13836.5	13885.1	13799.3	13608.1	13191.9	12310.8
57.5°	9112.0	9330.7	10148.6	11666.2	13174.1	14327.3	14843.9	14905.5	14691.7	14095.6	12788.6
60°	7272.1	7568.5	8566.2	10754.3	12767.5	14592.9	15684.5	15992.2	15765.5	14986.4	13175.7
62.5°	5074.3	5417.7	6361.9	9325.8	11837.9	14401.8	16298.3	16866.8	16695.2	15783.3	13324.7
65°	3095.1	3205.2	3966.5	7338.5	10257.1	13601.7	16487.8	17339.8	17283.1	16270.8	13104.4
67.5°	2061.8	2154.1	2372.8	5032.2	7962.1	12003.1	16034.3	17257.2	17273.4	16191.4	12297.9
70°	1242.3	1321.6	1464.1	2926.7	5160.1	9500.8	14630.1	16204.4	16298.3	15130.6	10768.9
72.5°	511.8	565.3	694.8	1326.5	2672.4	6029.9	11650.0	13912.6	14131.3	12722.2	8265.0
75°	289.9	317.4	408.1	665.7	1159.7	2810.1	7056.7	9876.5	10198.8	8768.7	4972.3
77.5°	192.7	205.7	264.0	430.8	652.7	958.8	3015.8	5145.6	5761.0	4789.2	2152.5
80°	129.6	140.9	181.4	288.3	424.3	411.4	960.4	1906.3	2345.2	1645.5	524.8
82.5°	87.5	89.1	129.6	189.5	268.9	199.2	283.4	592.8	745.0	476.2	199.2
85°	50.2	48.6	95.6	110.1	119.9	82.6	85.8	178.2	233.2	200.8	113.4
87.5°	6.5	9.7	37.3	29.2	16.2	17.8	17.8	30.8	45.3	48.6	24.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P884458

CATALOG NUMBER: NAV-SB5B-740-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1	2810.1
2.5°	2813.3	2811.7	2806.8	2802.0	2790.6	2784.1	2787.4	2784.1	2782.5	2784.1	2790.6
5°	2834.4	2829.5	2816.5	2800.3	2777.7	2750.1	2732.3	2706.4	2682.1	2667.5	2670.8
7.5°	2891.0	2886.2	2868.4	2823.0	2750.1	2635.1	2529.9	2437.5	2367.9	2327.4	2329.0
10°	2981.7	2973.6	2946.1	2845.7	2654.6	2403.5	2194.6	2021.3	1907.9	1854.5	1849.6
12.5°	3088.6	3078.9	3030.3	2824.6	2473.2	2081.2	1792.9	1600.2	1494.9	1447.9	1443.1
15°	3215.0	3202.0	3106.5	2724.2	2209.2	1724.9	1460.9	1316.8	1248.7	1206.6	1208.2
17.5°	3372.1	3349.4	3163.1	2573.6	1922.5	1452.8	1256.8	1148.3	1088.4	1047.9	1044.7
20°	3576.1	3538.9	3208.5	2393.8	1658.5	1281.1	1119.2	1028.5	983.1	947.5	941.0
22.5°	3861.2	3807.8	3263.6	2199.5	1472.2	1162.9	1017.1	950.7	913.5	873.0	866.5
25°	4214.3	4151.1	3331.6	2019.7	1344.3	1060.9	942.6	887.6	843.8	796.9	792.0
27.5°	4708.3	4594.9	3412.6	1872.3	1234.2	973.4	874.6	813.1	762.8	724.0	715.9
30°	5258.9	5072.7	3483.8	1783.2	1133.7	892.4	785.5	724.0	677.0	649.5	644.6
32.5°	5780.5	5527.8	3530.8	1744.3	1043.0	800.1	688.3	621.9	586.3	578.2	583.1
35°	6272.8	5939.2	3525.9	1707.1	962.1	707.8	592.8	524.8	497.2	502.1	502.1
37.5°	6839.7	6378.1	3491.9	1648.8	895.7	623.6	510.2	450.3	426.0	427.6	434.1
40°	7498.9	6885.0	3470.9	1538.6	822.8	545.8	442.2	393.6	375.8	369.3	367.7
42.5°	8201.8	7375.8	3474.1	1413.9	732.1	476.2	395.2	354.7	338.5	333.6	332.0
45°	8908.0	7843.9	3479.0	1284.4	636.5	422.7	361.2	327.2	317.4	311.0	311.0
47.5°	9572.0	8242.3	3388.3	1145.1	542.6	382.2	333.6	311.0	302.9	294.8	294.8
50°	10190.7	8507.9	3169.6	983.1	468.1	349.8	312.6	296.4	288.3	280.2	280.2
52.5°	10671.7	8550.0	2808.4	816.3	416.2	325.5	299.6	285.1	275.3	267.2	265.6
55°	10885.5	8286.0	2295.0	660.8	375.8	304.5	286.7	272.1	260.8	252.7	251.0
57.5°	10830.5	7730.5	1789.7	531.2	336.9	283.4	270.5	260.8	247.8	234.8	233.2
60°	10560.0	6987.1	1349.2	442.2	301.3	260.8	252.7	244.6	226.7	207.3	204.1
62.5°	10091.9	6052.6	962.1	366.0	262.4	234.8	231.6	225.1	199.2	163.6	160.3
65°	9376.0	4917.2	647.9	304.5	225.1	205.7	207.3	196.0	162.0	121.5	118.2
67.5°	8329.8	3595.6	414.6	249.4	187.9	171.7	173.3	166.8	137.7	103.7	98.8
70°	6996.8	2380.9	270.5	189.5	150.6	132.8	142.5	144.1	116.6	84.2	81.0
72.5°	5129.4	1405.8	189.5	140.9	110.1	92.3	116.6	119.9	93.9	63.2	59.9
75°	2923.4	667.3	142.5	102.0	68.0	64.8	90.7	90.7	64.8	42.1	38.9
77.5°	1227.7	278.6	100.4	66.4	38.9	37.3	61.5	56.7	32.4	19.4	19.4
80°	354.7	124.7	53.4	32.4	16.2	14.6	24.3	17.8	8.1	3.2	3.2
82.5°	139.3	55.1	21.1	13.0	6.5	6.5	3.2	0.0	0.0	0.0	0.0
85°	82.6	22.7	9.7	4.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	21.1	4.9	3.2	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)