

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: P883796

Luminaire Tested: **NAV-SB4B-760-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883796
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-SB4B-760-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 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: 17966 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

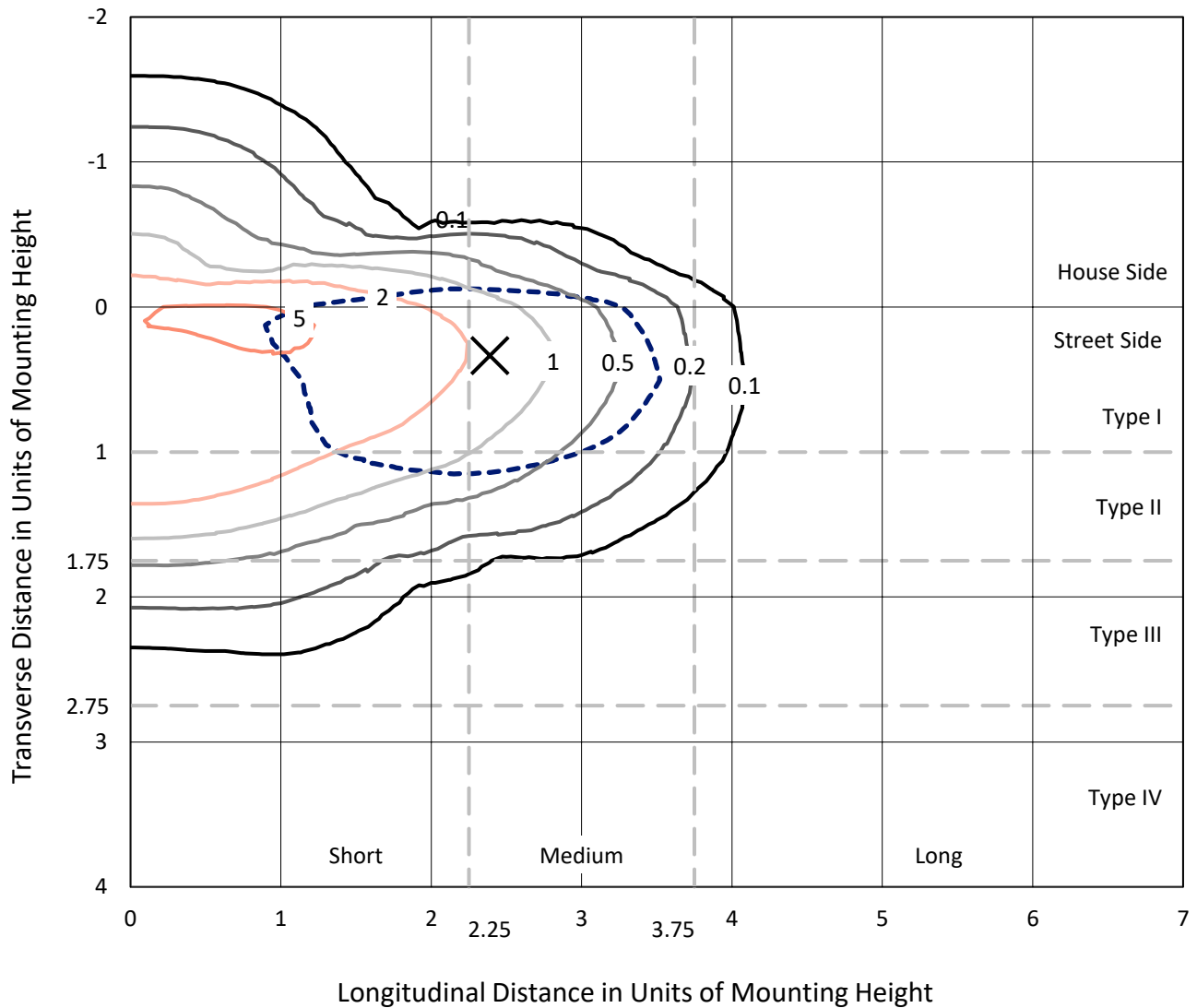
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

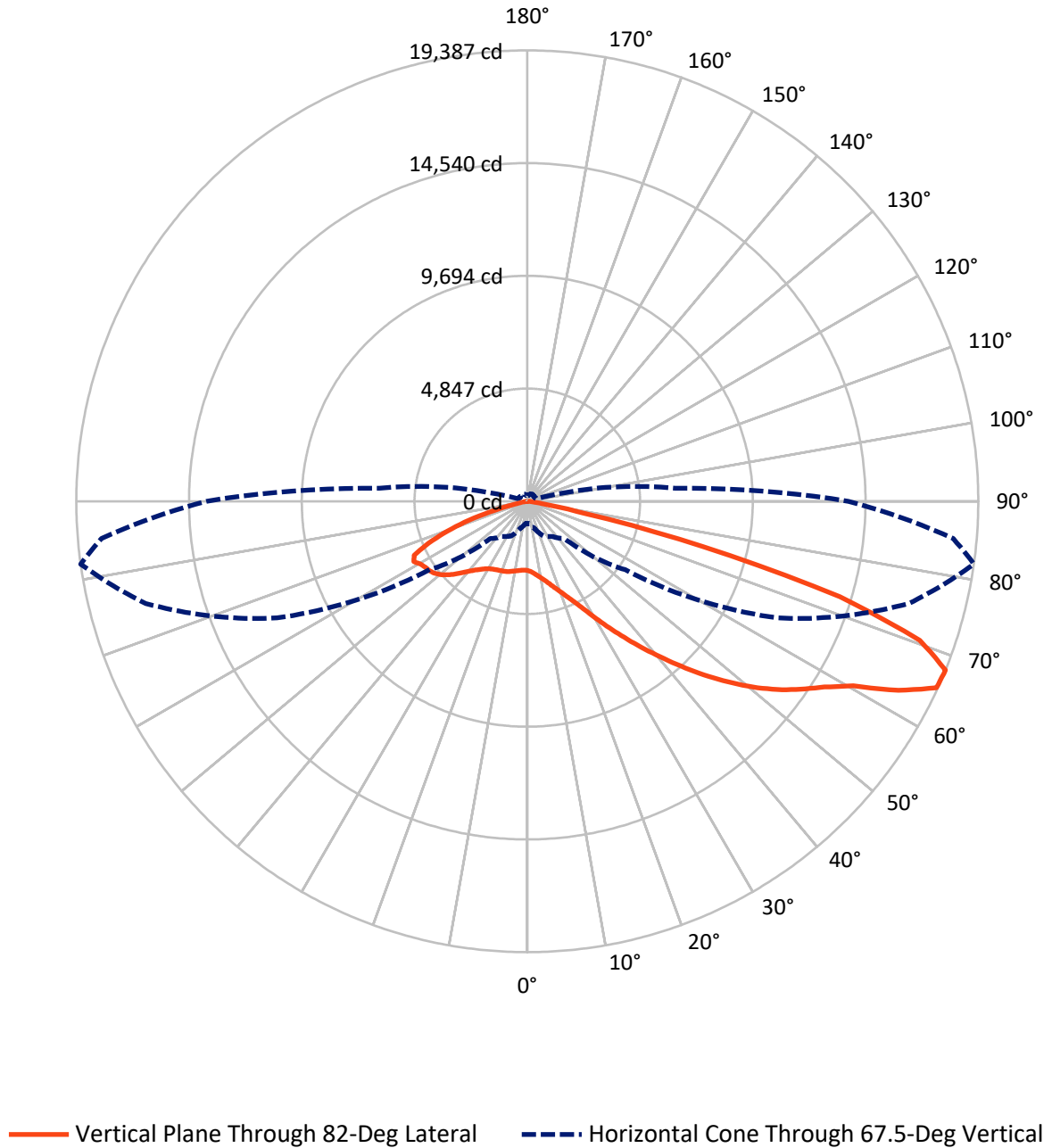
✕ Max cd
 - - - 1/2 Max cd



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



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3254.4	0.0	3254.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14711.6	0.0	14711.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	17966.0	0.0	17966.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.2	1.5
10°-20°	689.1	3.8
20°-30°	1103.7	6.1
30°-40°	1951.6	10.9
40°-50°	3419.5	19.0
50°-60°	4560.6	25.4
60°-70°	4245.7	23.6
70°-80°	1629.5	9.1
80°-90°	101.2	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°	17966.0	100.0
0°-180°	17966.0	100.0

Coefficient of Utilization



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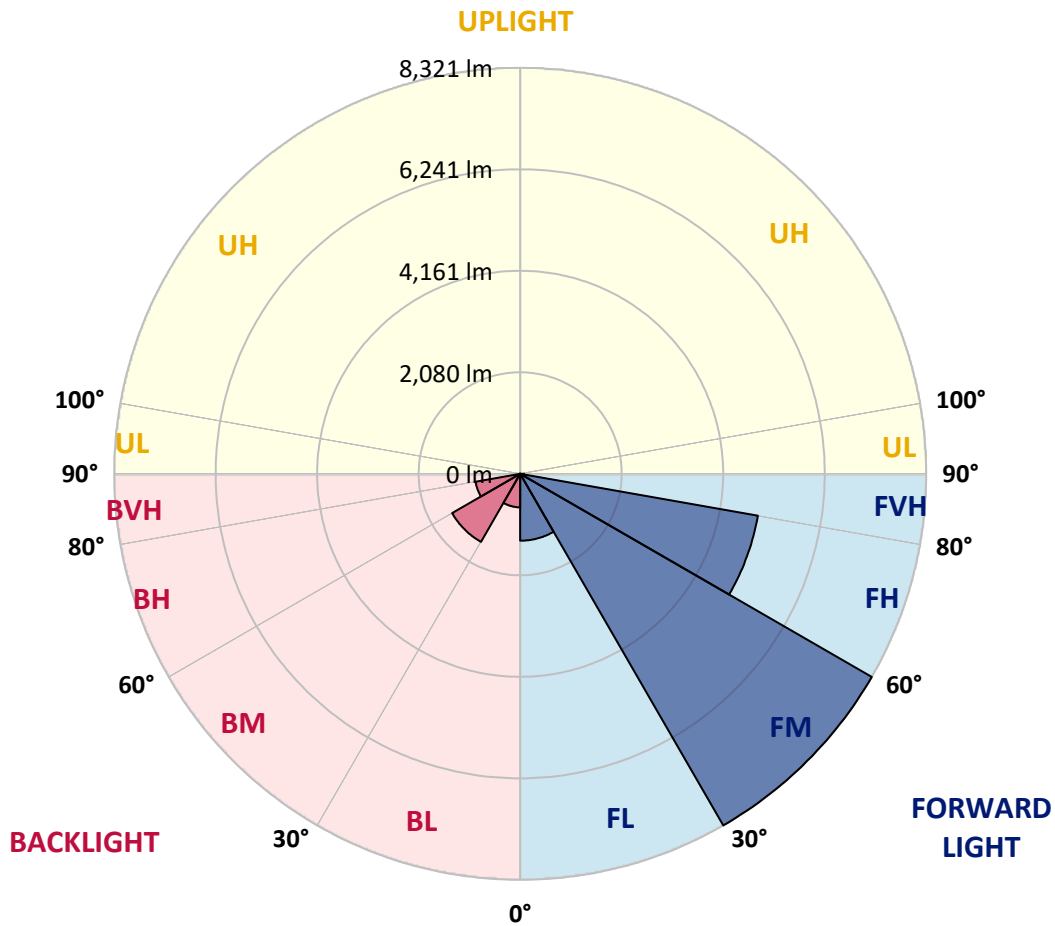
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1370.6	7.6			
FM (30°-60°)	8321.1	46.3			
FH (60°-80°)	4946.3	27.5			G2/5000
FVH (80°-90°)	73.6	0.4			G1/100
BL (0°-30°)	687.3	3.8	B2/1000		
BM (30°-60°)	1610.6	9.0	B2/2500		
BH (60°-80°)	928.9	5.2	B2/1000		G2/1000
BVH (80°-90°)	27.6	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°	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4
2.5°	3145.8	3163.9	3153.6	3148.4	3139.3	3126.4	3116.1	3083.7	3050.1	3028.1	3020.3
5°	3209.2	3227.3	3226.0	3231.2	3237.6	3241.5	3238.9	3202.7	3154.9	3117.4	3095.4
7.5°	3154.9	3175.6	3192.4	3218.2	3263.5	3311.4	3334.7	3326.9	3277.7	3226.0	3198.8
10°	3000.9	3022.9	3063.0	3123.8	3219.5	3323.0	3409.7	3449.8	3418.7	3361.8	3324.3
12.5°	2719.0	2740.9	2819.8	2951.8	3112.2	3292.0	3457.5	3564.9	3572.7	3515.8	3471.8
15°	2402.0	2424.0	2508.1	2673.7	2918.2	3206.6	3483.4	3686.5	3755.0	3705.9	3652.9
17.5°	2205.4	2224.8	2288.2	2421.4	2676.3	3035.9	3474.4	3815.8	3972.4	3933.6	3870.2
20°	2145.9	2162.7	2192.5	2285.6	2497.8	2858.6	3414.9	3937.4	4206.5	4184.5	4113.4
22.5°	2209.3	2224.8	2233.9	2275.3	2408.5	2742.2	3339.8	4061.6	4478.1	4480.7	4394.0
25°	2355.5	2371.0	2360.6	2386.5	2444.7	2706.0	3311.4	4207.8	4819.6	4848.1	4749.8
27.5°	2596.1	2597.4	2572.8	2571.5	2580.5	2760.3	3341.1	4364.3	5250.3	5303.4	5181.8
30°	3078.5	3059.1	2964.7	2862.5	2816.0	2923.3	3423.9	4549.3	5758.7	5853.1	5700.5
32.5°	3822.3	3793.9	3620.5	3376.1	3130.3	3185.9	3572.7	4760.1	6312.3	6483.1	6296.8
35°	4629.5	4621.7	4440.6	4077.1	3647.7	3559.7	3814.6	5036.9	6916.4	7188.0	6966.8
37.5°	5379.7	5375.8	5272.3	4844.2	4321.6	4081.0	4202.6	5399.1	7563.1	7956.4	7695.1
40°	6065.3	6076.9	5973.4	5590.5	5064.1	4749.8	4730.4	5846.6	8282.3	8793.3	8482.8
42.5°	6657.7	6670.6	6565.8	6282.6	5797.5	5489.6	5378.4	6395.1	8984.7	9692.2	9324.9
45°	7060.0	7140.2	7124.6	6898.3	6550.3	6230.8	6157.1	7083.2	9785.4	10645.6	10214.8
47.5°	7173.8	7247.5	7363.9	7395.0	7182.8	6868.5	6956.5	7912.4	10595.1	11600.2	11109.9
50°	6893.1	6961.7	7203.5	7525.6	7673.1	7576.1	7733.9	8801.0	11424.2	12552.2	11988.2
52.5°	6339.5	6409.3	6714.6	7224.2	7825.7	8131.0	8513.9	9676.7	12227.5	13453.8	12819.9
55°	5538.8	5612.5	6004.5	6581.4	7534.7	8359.9	9164.5	10551.1	12963.5	14264.8	13570.2
57.5°	4449.7	4504.0	4911.4	5718.6	6802.6	8132.3	9644.4	11505.7	13656.8	15061.6	14313.9
60°	2900.0	2947.9	3421.3	4321.6	5589.2	7371.7	9740.1	12570.3	14577.8	16097.7	15316.4
62.5°	1928.6	1961.0	2241.6	2902.6	3936.1	5911.3	9180.0	13420.1	15928.2	17900.8	17035.5
65°	1323.3	1355.6	1636.3	2096.8	2543.0	3910.3	7569.6	13307.6	17151.9	19332.7	18309.6
67.5°	944.3	971.4	1209.4	1644.0	1840.7	2271.4	5131.3	11869.2	16976.0	19387.1	18378.1
70°	676.5	692.0	888.6	1280.6	1463.0	1364.6	2853.5	9077.8	14863.7	17902.1	16978.6
72.5°	473.4	478.6	617.0	975.3	1178.4	996.0	1358.2	6052.3	11241.9	14051.4	13162.7
75°	320.8	327.3	415.2	715.3	945.6	760.6	719.2	3245.4	6599.5	7777.9	6972.0
77.5°	196.6	199.2	267.8	488.9	707.5	579.5	463.1	1375.0	2553.4	2506.8	2136.9
80°	111.2	111.2	170.7	304.0	482.5	373.8	324.7	584.7	808.4	710.1	626.1
82.5°	62.1	63.4	124.2	188.9	319.5	221.2	178.5	270.3	349.2	309.1	269.0
85°	25.9	28.5	76.3	89.3	152.6	109.9	72.4	113.8	129.4	115.1	84.1
87.5°	2.6	3.9	23.3	16.8	18.1	22.0	10.3	22.0	18.1	18.1	12.9
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°	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4	2976.4
2.5°	2995.8	2976.4	2927.2	2870.3	2795.3	2759.0	2709.9	2676.3	2647.8	2650.4	2624.5
5°	3054.0	3004.8	2894.9	2757.8	2587.0	2465.4	2336.1	2246.8	2174.4	2158.9	2123.9
7.5°	3134.2	3056.6	2863.8	2616.8	2328.3	2109.7	1914.4	1788.9	1699.7	1671.2	1642.8
10°	3237.6	3125.1	2823.7	2439.6	2024.3	1746.2	1536.7	1438.4	1377.6	1356.9	1341.4
12.5°	3357.9	3204.0	2770.7	2223.5	1711.3	1443.6	1310.3	1261.2	1241.8	1235.3	1231.4
15°	3509.3	3302.3	2690.5	1967.4	1446.1	1258.6	1201.7	1195.2	1197.8	1195.2	1193.9
17.5°	3689.1	3409.7	2559.8	1703.5	1267.6	1164.2	1143.5	1148.6	1155.1	1153.8	1151.2
20°	3885.7	3515.8	2393.0	1469.4	1146.0	1096.9	1085.3	1090.4	1095.6	1093.0	1091.7
22.5°	4109.5	3629.6	2208.0	1287.0	1064.6	1034.8	1021.9	1023.2	1023.2	1018.0	1015.4
25°	4377.2	3755.0	2014.0	1157.7	1002.5	979.2	963.7	958.5	950.7	935.2	932.6
27.5°	4696.7	3888.3	1827.7	1067.1	953.3	931.3	913.2	900.3	880.9	855.0	852.4
30°	5056.3	4050.0	1669.9	1010.2	914.5	892.5	871.8	852.4	824.0	791.6	789.0
32.5°	5479.3	4223.3	1554.8	972.7	879.6	856.3	831.7	808.4	777.4	745.1	746.4
35°	5983.8	4432.8	1487.5	946.8	852.4	821.4	794.2	768.3	745.1	716.6	714.0
37.5°	6530.9	4655.3	1466.8	933.9	834.3	786.5	755.4	737.3	734.7	717.9	716.6
40°	7129.8	4919.2	1482.4	926.2	814.9	752.8	719.2	715.3	721.8	692.0	693.3
42.5°	7763.6	5232.2	1508.2	917.1	787.7	719.2	686.9	686.9	681.7	640.3	640.3
45°	8449.2	5593.1	1534.1	895.1	755.4	685.6	661.0	651.9	629.9	589.8	588.5
47.5°	9139.9	5960.5	1553.5	855.0	716.6	657.1	635.1	614.4	582.1	545.9	544.6
50°	9795.7	6290.3	1532.8	795.5	672.6	629.9	606.7	578.2	543.3	518.7	514.8
52.5°	10381.7	6576.2	1444.8	725.7	626.1	601.5	580.8	551.0	522.6	496.7	494.1
55°	10891.3	6807.7	1289.6	659.7	584.7	576.9	556.2	518.7	479.9	457.9	455.3
57.5°	11380.3	6983.6	1095.6	605.4	547.2	549.7	518.7	485.1	448.8	425.6	423.0
60°	12030.9	7219.1	899.0	554.9	507.1	514.8	481.2	456.6	411.3	381.6	377.7
62.5°	13070.9	7585.1	714.0	492.8	460.5	463.1	448.8	419.1	364.8	329.8	327.3
65°	13896.1	7450.6	562.7	425.6	407.5	411.3	411.3	379.0	320.8	280.7	276.8
67.5°	13803.0	6379.6	448.8	359.6	357.0	359.6	368.6	341.5	284.6	252.2	247.1
70°	12715.2	5074.4	359.6	298.8	310.4	304.0	329.8	311.7	256.1	223.8	219.9
72.5°	10375.2	3655.4	274.2	247.1	238.0	248.4	297.5	280.7	213.4	177.2	173.3
75°	6062.7	1950.6	204.4	195.3	172.0	207.0	263.9	239.3	163.0	130.6	126.8
77.5°	1973.9	680.4	150.0	143.6	128.1	166.9	225.1	201.8	133.2	103.5	99.6
80°	529.0	205.7	102.2	94.4	82.8	124.2	178.5	160.4	95.7	67.3	66.0
82.5°	212.1	86.7	59.5	53.0	45.3	85.4	141.0	129.4	71.1	42.7	42.7
85°	68.6	28.5	22.0	16.8	20.7	53.0	84.1	88.0	50.4	22.0	16.8
87.5°	9.1	3.9	3.9	5.2	3.9	9.1	25.9	24.6	14.2	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)