

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: P966799

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
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: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19535.5 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

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



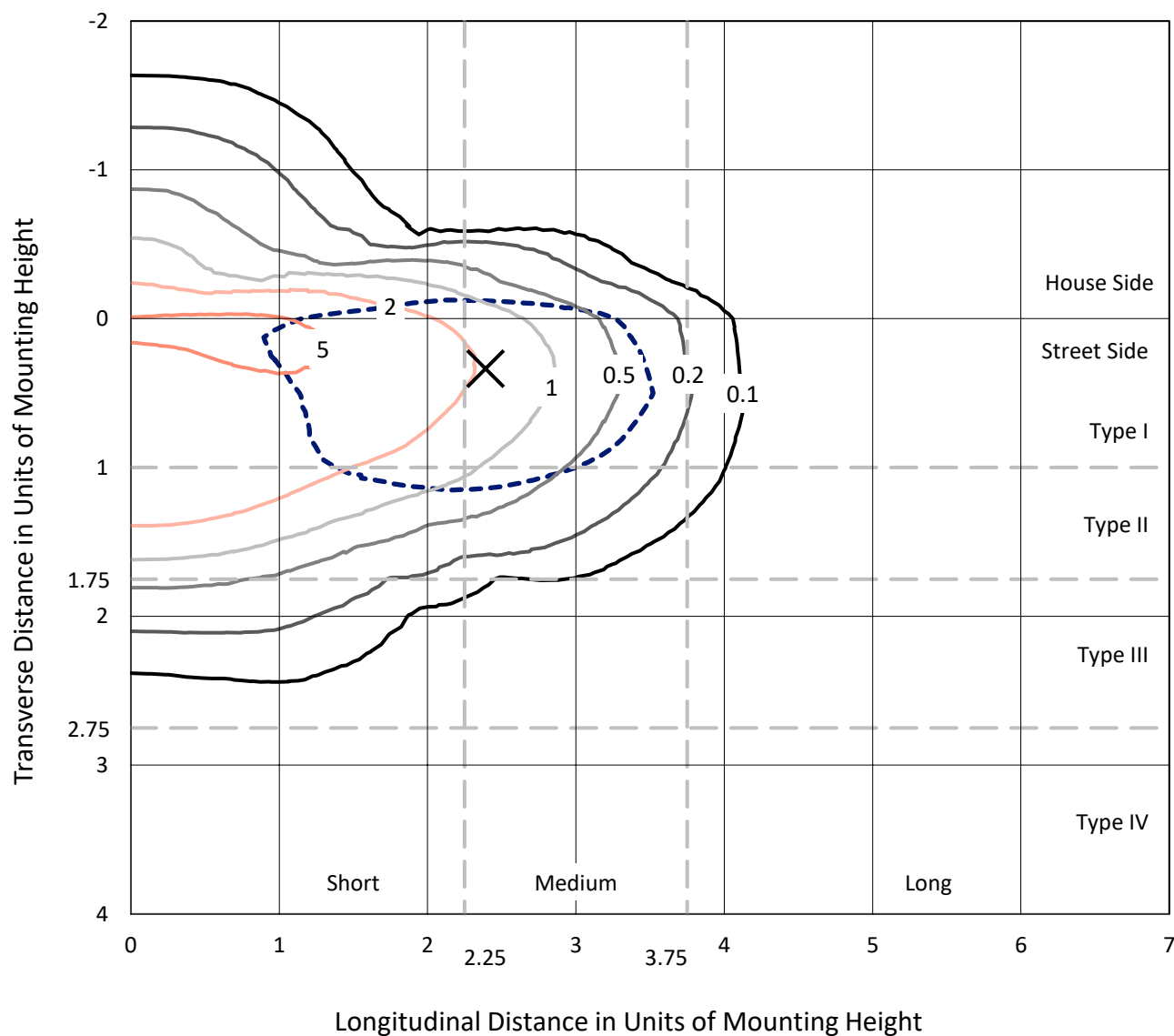
REPORT NUMBER: P966799

CATALOG NUMBER: NAV-SB4C-827-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

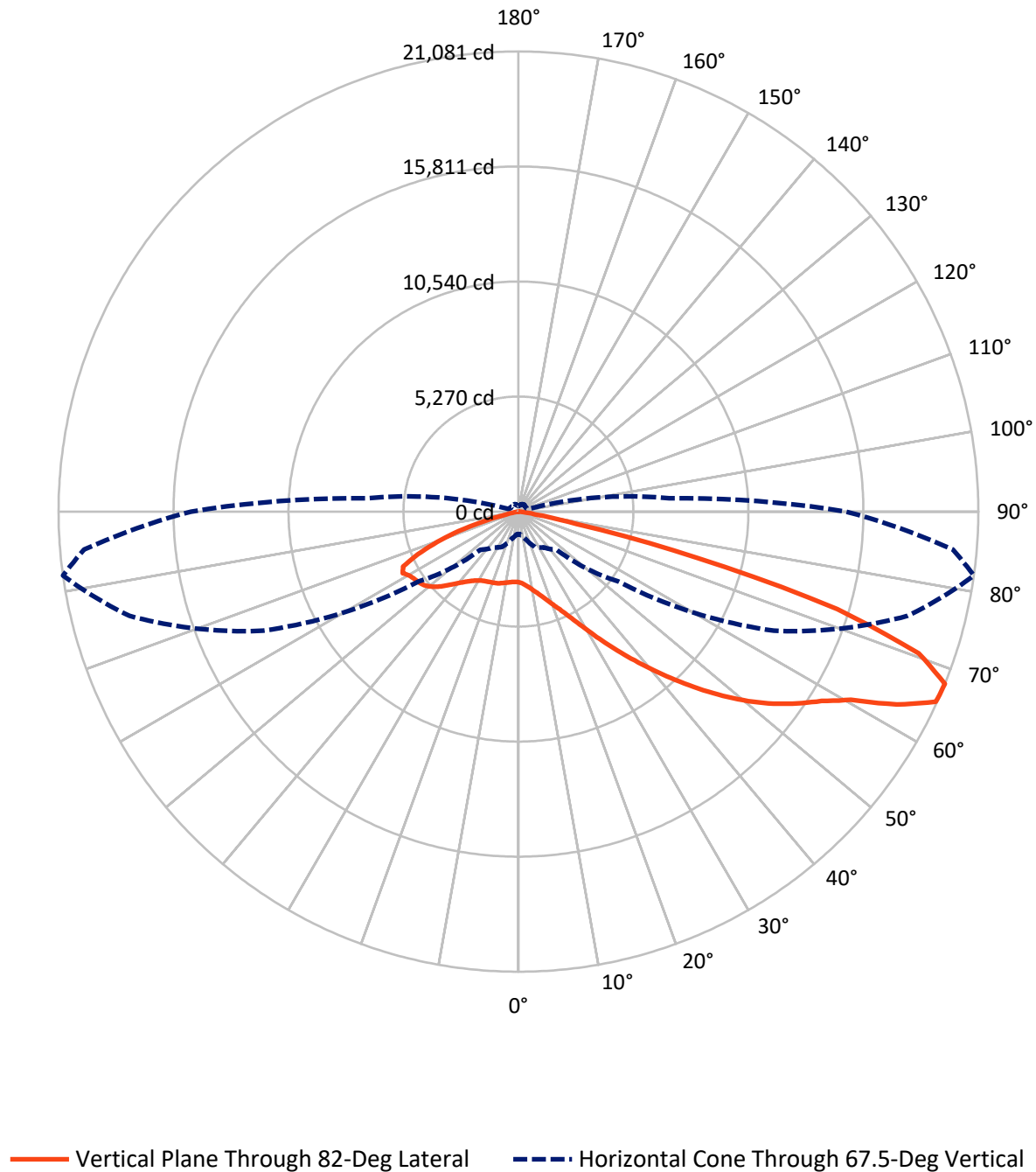


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
Type II - Medium - N/A

REPORT NUMBER: P966799

CATALOG NUMBER: NAV-SB4C-827-U-T2-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3538.7	0.0	3538.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	15996.8	0.0	15996.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	19535.5	0.0	19535.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.3	1.5
10°-20°	749.3	3.8
20°-30°	1200.1	6.1
30°-40°	2122.1	10.9
40°-50°	3718.2	19.0
50°-60°	4959.0	25.4
60°-70°	4616.6	23.6
70°-80°	1771.8	9.1
80°-90°	110.0	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°	19535.5	100.0
0°-180°	19535.5	100.0

Coefficient of Utilization



REPORT NUMBER: P966799

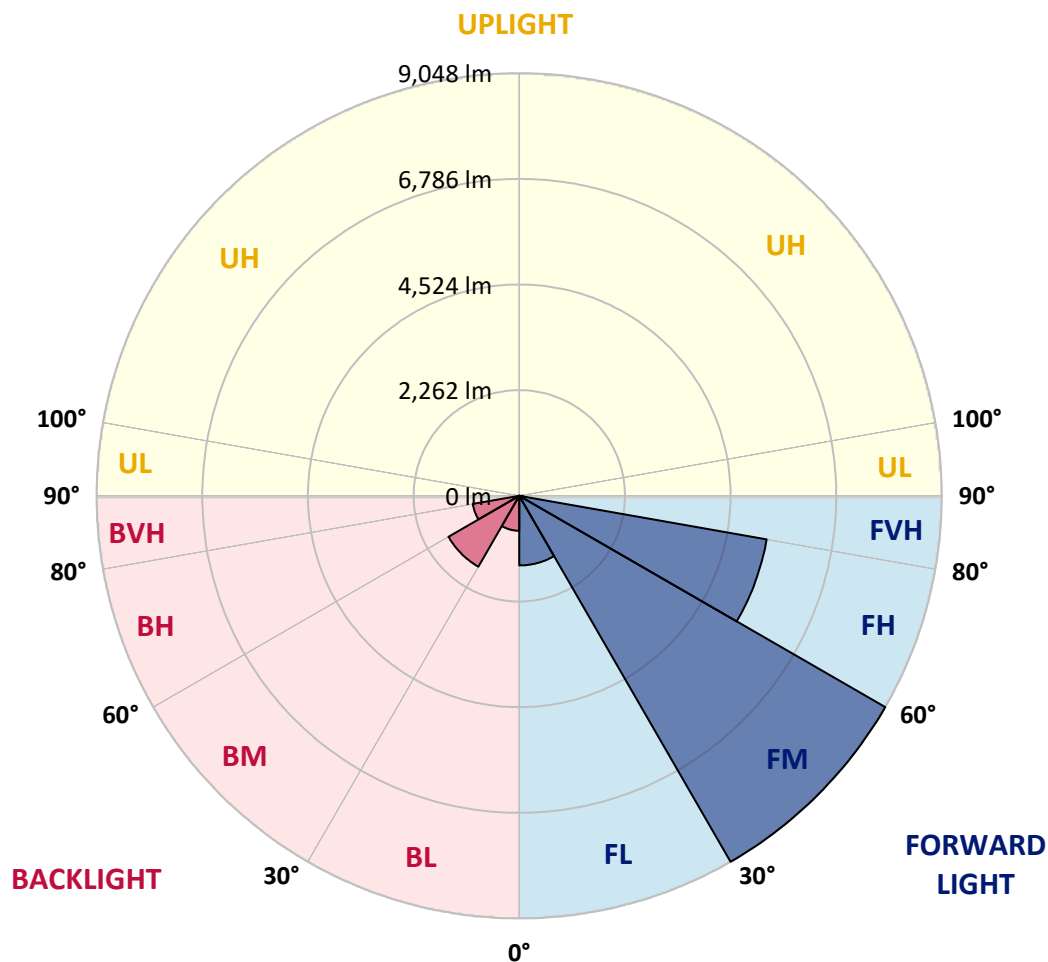
CATALOG NUMBER: NAV-SB4C-827-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1490.3	7.6			
FM	(30°-60°)	9048.0	46.3			
FH	(60°-80°)	5378.4	27.5			G3/7500
FVH	(80°-90°)	80.0	0.4			G1/100
BL	(0°-30°)	747.4	3.8	B2/1000		
BM	(30°-60°)	1751.3	9.0	B2/2500		
BH	(60°-80°)	1010.0	5.2	B3/2500		G3/2500
BVH	(80°-90°)	30.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



REPORT NUMBER: P966799

CATALOG NUMBER: NAV-SB4C-827-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3
2.5°	3420.6	3440.3	3429.0	3423.4	3413.6	3399.5	3388.2	3353.1	3316.5	3292.6	3284.2
5°	3489.5	3509.2	3507.9	3513.5	3520.5	3524.7	3521.9	3482.5	3430.5	3389.7	3365.8
7.5°	3430.5	3453.0	3471.3	3499.4	3548.7	3600.6	3625.9	3617.5	3564.1	3507.9	3478.2
10°	3263.1	3287.0	3330.6	3396.7	3500.8	3613.3	3707.5	3751.2	3717.4	3655.5	3614.8
12.5°	2956.5	2980.4	3066.2	3209.7	3384.0	3579.5	3759.6	3876.3	3884.7	3822.8	3775.1
15°	2611.9	2635.8	2727.2	2907.2	3173.1	3486.7	3787.7	4008.6	4083.1	4029.7	3972.0
17.5°	2398.1	2419.2	2488.1	2633.0	2910.1	3301.1	3777.8	4149.2	4319.3	4277.2	4208.2
20°	2333.4	2351.7	2384.0	2485.3	2715.9	3108.4	3713.2	4281.4	4574.0	4550.1	4472.7
22.5°	2402.3	2419.2	2429.0	2474.0	2618.9	2981.8	3631.6	4416.4	4869.4	4872.1	4777.9
25°	2561.3	2578.1	2566.9	2595.0	2658.3	2942.4	3600.6	4575.4	5240.6	5271.6	5164.7
27.5°	2822.8	2824.3	2797.5	2796.1	2805.9	3001.5	3633.0	4745.5	5709.0	5766.6	5634.4
30°	3347.4	3326.4	3223.7	3112.6	3062.0	3178.7	3723.0	4946.6	6261.7	6364.4	6198.5
32.5°	4156.2	4125.3	3936.8	3670.9	3403.7	3464.2	3884.7	5175.9	6863.7	7049.4	6846.9
35°	5033.9	5025.5	4828.6	4433.3	3966.3	3870.7	4147.8	5476.9	7520.6	7815.9	7575.5
37.5°	5849.7	5845.5	5732.9	5267.4	4699.1	4437.5	4569.8	5870.8	8223.9	8651.4	8367.3
40°	6595.1	6607.8	6495.2	6078.9	5506.5	5164.7	5143.6	6357.4	9005.9	9561.4	9223.9
42.5°	7239.3	7253.3	7139.4	6831.4	6304.0	5969.2	5848.2	6953.8	9769.6	10538.9	10139.5
45°	7676.7	7763.9	7747.1	7500.8	7122.5	6775.1	6695.0	7702.1	10640.2	11575.5	11107.2
47.5°	7800.5	7880.6	8007.2	8041.0	7810.3	7468.6	7564.2	8603.5	11520.7	12613.5	12080.4
50°	7495.3	7569.8	7832.8	8183.1	8343.4	8237.9	8409.5	9569.8	12422.3	13648.7	13035.4
52.5°	6893.3	6969.2	7301.2	7855.3	8509.3	8841.2	9257.6	10522.0	13295.7	14629.0	13939.9
55°	6022.7	6102.8	6529.0	7156.3	8192.9	9090.2	9965.0	11472.8	14096.0	15510.9	14755.6
57.5°	4838.4	4897.4	5340.5	6218.2	7396.8	8842.7	10486.9	12510.8	14849.9	16377.3	15564.4
60°	3153.4	3205.4	3720.2	4699.1	6077.5	8015.7	10591.0	13668.4	15851.3	17503.9	16654.4
62.5°	2097.0	2132.3	2437.4	3156.2	4280.0	6427.8	9982.0	14592.5	17319.7	19464.6	18523.7
65°	1438.9	1474.1	1779.2	2279.9	2765.1	4251.9	8230.9	14470.1	18650.3	21021.6	19909.1
67.5°	1026.7	1056.3	1315.1	1787.7	2001.4	2469.8	5579.6	12906.1	18458.9	21080.7	19983.6
70°	735.6	752.5	966.3	1392.5	1590.8	1483.9	3102.8	9870.9	16162.1	19466.0	18461.8
72.5°	514.8	520.4	670.9	1060.5	1281.4	1083.0	1476.8	6581.0	12223.9	15278.9	14312.6
75°	348.8	355.9	451.5	777.8	1028.2	827.1	782.0	3528.9	7176.0	8457.3	7581.1
77.5°	213.8	216.6	291.1	531.7	769.4	630.1	503.5	1495.1	2776.4	2725.8	2323.6
80°	121.0	121.0	185.6	330.6	524.6	406.5	353.0	635.7	879.0	772.1	680.7
82.5°	67.5	68.9	135.0	205.3	347.4	240.5	194.1	294.0	379.8	336.2	292.5
85°	28.1	31.0	83.0	97.1	165.9	119.5	78.7	123.8	140.6	125.2	91.4
87.5°	2.8	4.2	25.3	18.2	19.7	23.9	11.3	23.9	19.7	19.7	14.0
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: P966799

CATALOG NUMBER: NAV-SB4C-827-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3	3236.3
2.5°	3257.4	3236.3	3182.9	3121.0	3039.4	3000.1	2946.7	2910.1	2879.1	2881.9	2853.8
5°	3320.8	3267.3	3147.8	2998.6	2813.0	2680.8	2540.2	2443.1	2364.4	2347.5	2309.5
7.5°	3407.9	3323.6	3114.0	2845.4	2531.8	2294.1	2081.7	1945.2	1848.2	1817.2	1786.3
10°	3520.5	3398.1	3070.4	2652.7	2201.2	1898.8	1671.0	1564.0	1497.9	1475.4	1458.6
12.5°	3651.3	3483.9	3012.8	2417.8	1860.8	1569.7	1424.7	1371.3	1350.2	1343.3	1339.0
15°	3815.9	3590.8	2925.6	2139.3	1572.5	1368.6	1306.7	1299.6	1302.5	1299.6	1298.2
17.5°	4011.3	3707.5	2783.5	1852.4	1378.4	1265.9	1243.3	1249.0	1256.0	1254.6	1251.8
20°	4225.2	3822.8	2602.1	1597.8	1246.2	1192.7	1180.1	1185.7	1191.4	1188.5	1187.1
22.5°	4468.5	3946.7	2400.9	1399.4	1157.5	1125.2	1111.1	1112.5	1112.5	1106.9	1104.1
25°	4759.6	4083.1	2189.9	1258.8	1090.1	1064.8	1047.9	1042.2	1033.8	1016.9	1014.1
27.5°	5107.1	4227.9	1987.4	1160.4	1036.6	1012.7	993.0	979.0	957.9	929.7	926.9
30°	5498.0	4403.8	1815.8	1098.5	994.4	970.5	948.0	926.9	896.0	860.8	857.9
32.5°	5957.9	4592.2	1690.6	1057.7	956.4	931.1	904.4	879.0	845.3	810.2	811.6
35°	6506.5	4820.1	1617.4	1029.6	926.9	893.1	863.6	835.5	810.2	779.2	776.4
37.5°	7101.4	5062.0	1595.0	1015.5	907.2	855.2	821.4	801.8	798.9	780.6	779.2
40°	7752.7	5349.0	1611.8	1007.1	886.1	818.6	782.0	777.8	784.8	752.5	753.9
42.5°	8441.8	5689.3	1640.0	997.2	856.6	782.0	746.8	746.8	741.2	696.2	696.2
45°	9187.3	6081.7	1668.1	973.3	821.4	745.5	718.7	708.9	685.0	641.3	640.0
47.5°	9938.4	6481.2	1689.2	929.7	779.2	714.5	690.6	668.1	632.9	593.6	592.1
50°	10651.5	6839.8	1666.8	865.0	731.3	685.0	659.7	628.7	590.7	564.1	559.8
52.5°	11288.6	7150.7	1571.0	789.0	680.7	654.1	631.5	599.2	568.3	540.1	537.3
55°	11842.7	7402.4	1402.3	717.3	635.7	627.3	604.8	564.1	521.8	497.9	495.1
57.5°	12374.4	7593.7	1191.4	658.3	594.9	597.8	564.1	527.5	488.1	462.8	459.9
60°	13081.9	7849.7	977.5	603.4	551.3	559.8	523.3	496.5	447.3	414.9	410.7
62.5°	14212.8	8247.8	776.4	535.9	500.7	503.5	488.1	455.7	396.7	358.6	355.9
65°	15110.0	8101.5	611.8	462.8	443.0	447.3	447.3	412.2	348.8	305.2	301.0
67.5°	15008.8	6936.9	488.1	391.0	388.2	391.0	400.9	371.4	309.4	274.3	268.7
70°	13825.9	5517.7	391.0	324.9	337.5	330.6	358.6	339.0	278.5	243.3	239.1
72.5°	11281.6	3974.7	298.2	268.7	258.8	270.1	323.5	305.2	232.1	192.7	188.5
75°	6592.3	2121.0	222.2	212.4	187.1	225.1	286.9	260.2	177.2	142.1	137.9
77.5°	2146.4	739.8	163.2	156.1	139.2	181.4	244.8	219.5	144.8	112.5	108.3
80°	575.2	223.7	111.1	102.7	90.0	135.0	194.1	174.5	104.0	73.2	71.8
82.5°	230.6	94.2	64.7	57.7	49.2	92.9	153.3	140.6	77.4	46.4	46.4
85°	74.5	31.0	23.9	18.2	22.5	57.7	91.4	95.6	54.8	23.9	18.2
87.5°	9.8	4.2	4.2	5.6	4.2	9.8	28.1	26.8	15.5	2.8	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)