

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: P884760

Luminaire Tested: **NAV-SB5D-722-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884760
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-722-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31155 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

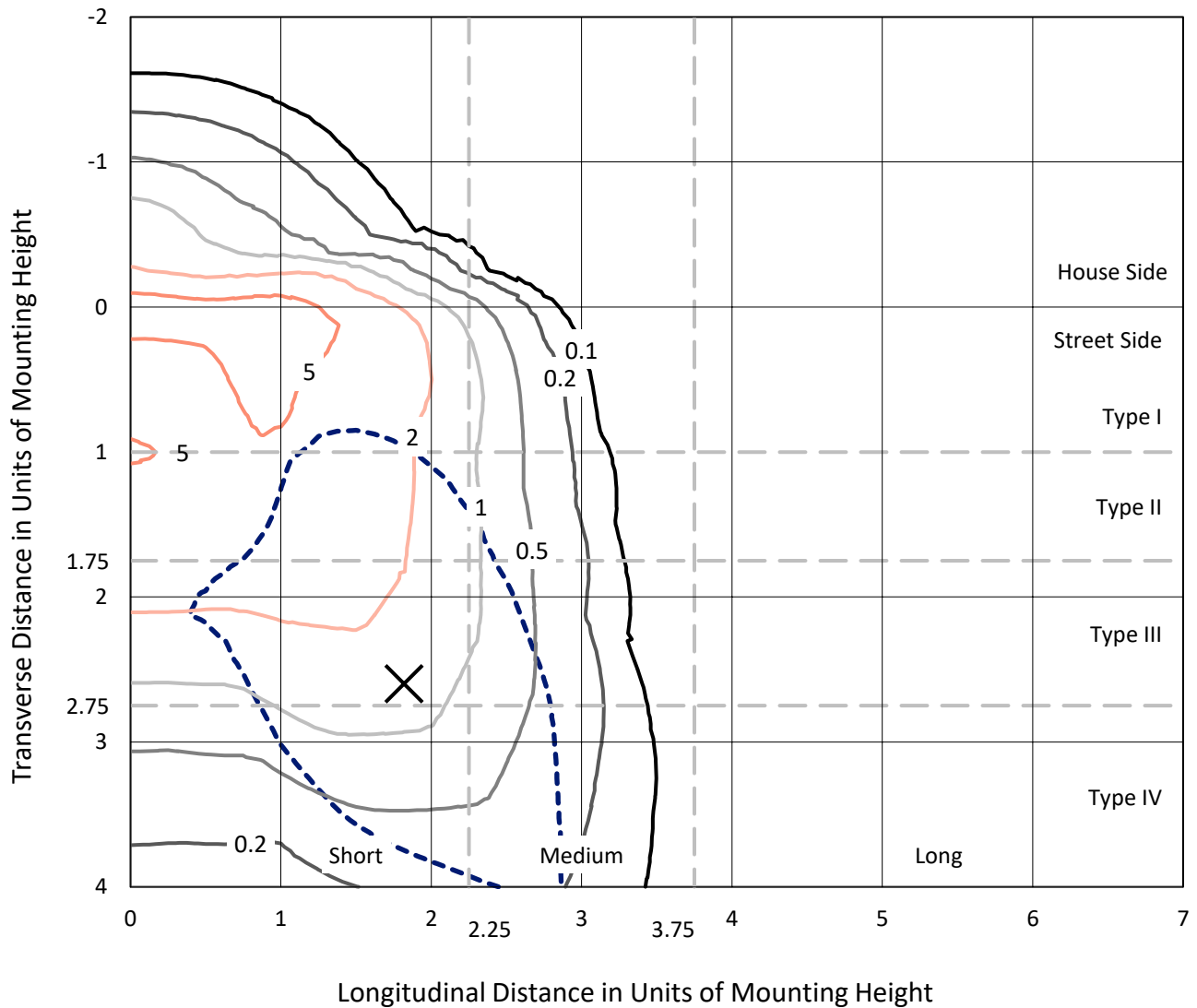
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

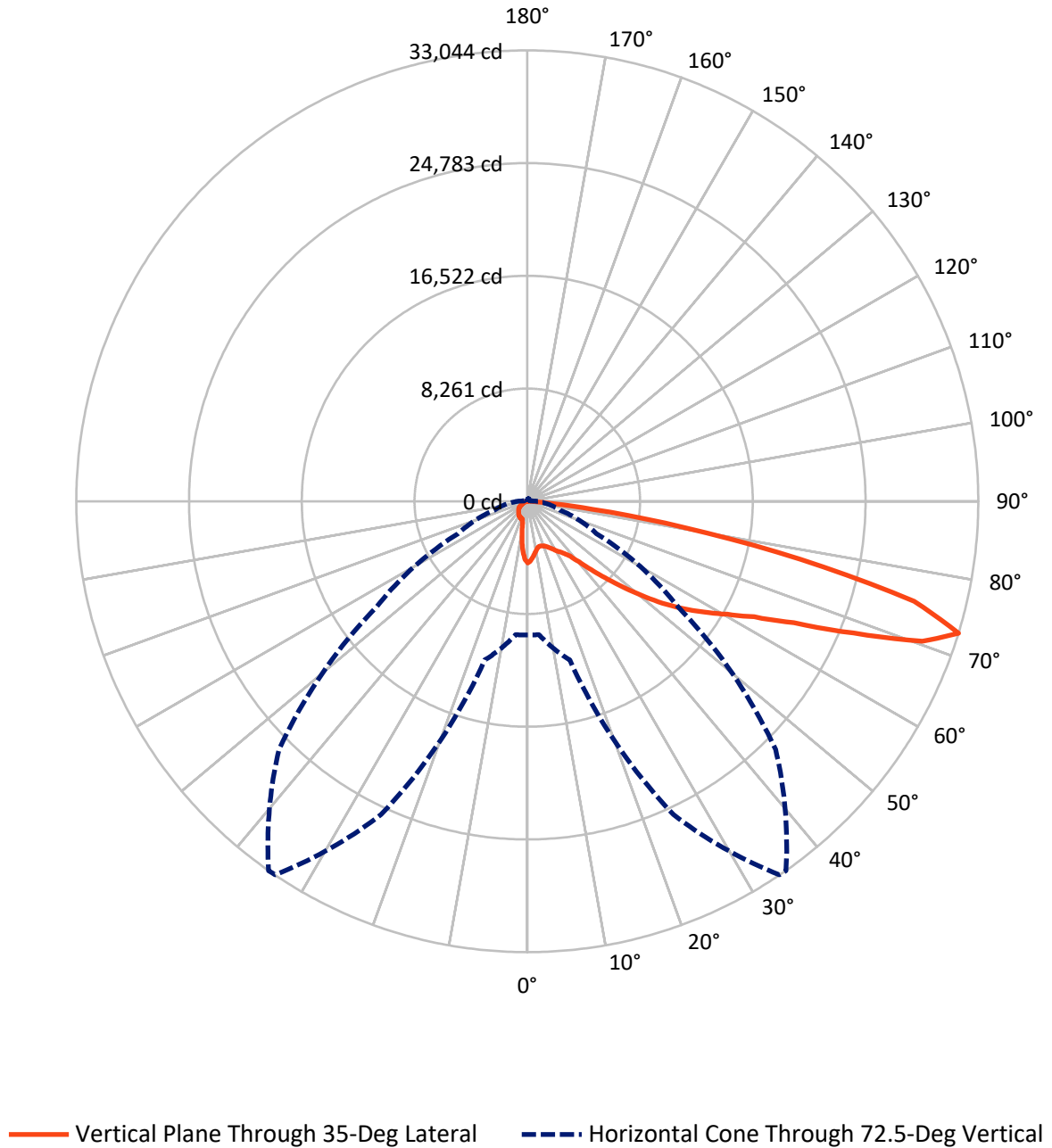
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3506.4	0.0	3506.4
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	27648.6	0.0	27648.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	31155.0	0.0	31155.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.0	1.2
10°-20°	868.0	2.8
20°-30°	1410.1	4.5
30°-40°	2352.7	7.6
40°-50°	4451.4	14.3
50°-60°	7073.2	22.7
60°-70°	8750.0	28.1
70°-80°	5439.1	17.5
80°-90°	439.6	1.4
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°	31155.0	100.0
0°-180°	31155.0	100.0

Coefficient of Utilization



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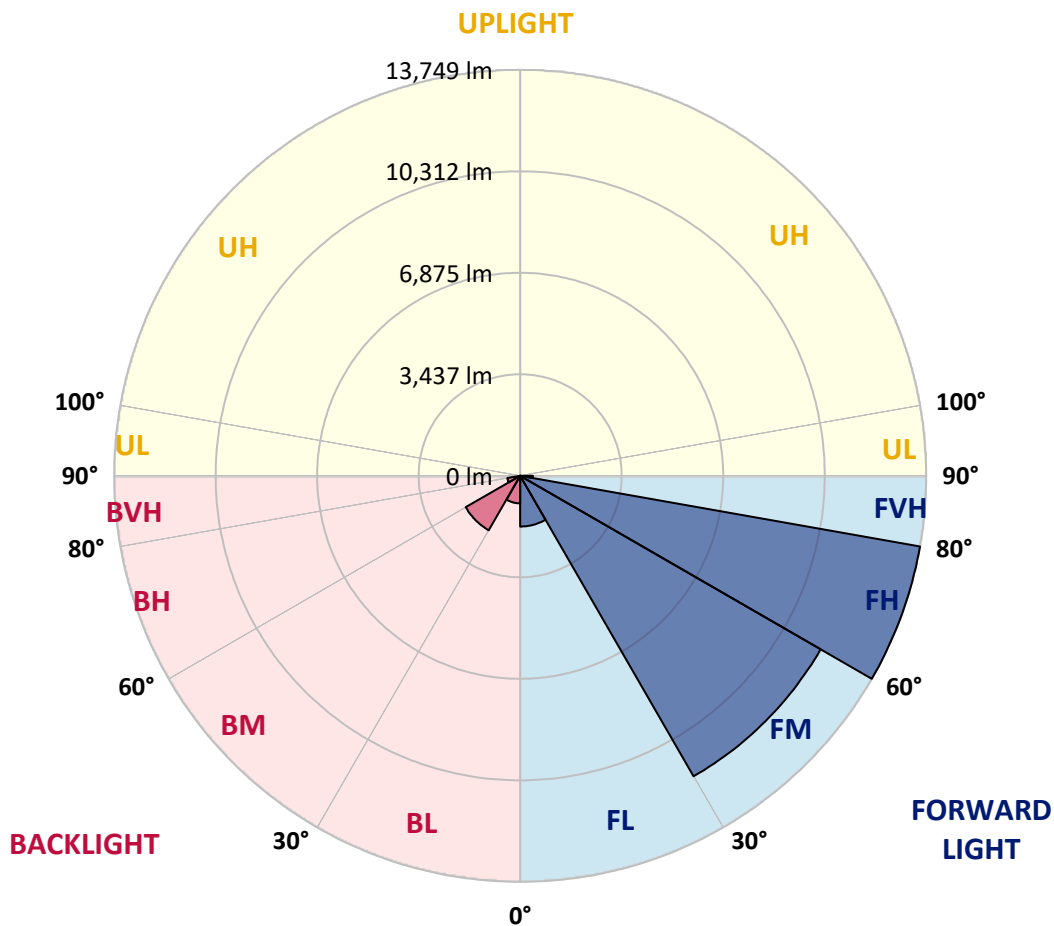
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1717.4	5.5			
FM (30°-60°)	11748.5	37.7			
FH (60°-80°)	13749.1	44.1			G5
FVH (80°-90°)	433.6	1.4			G3/500
BL (0°-30°)	931.7	3.0	B2/1000		
BM (30°-60°)	2128.7	6.8	B2/2500		
BH (60°-80°)	440.0	1.4	B1/500		G1/500
BVH (80°-90°)	6.0	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4
2.5°	4314.5	4351.0	4357.9	4369.3	4369.3	4383.0	4405.8	4437.8	4490.3	4517.7	4535.9
5°	3976.7	4004.1	4038.3	4065.7	4118.2	4125.0	4214.1	4300.8	4421.8	4513.1	4577.0
7.5°	3636.5	3668.5	3714.1	3780.3	3848.8	3869.4	4004.1	4150.2	4341.9	4513.1	4620.4
10°	3396.8	3399.1	3440.2	3506.4	3616.0	3641.1	3805.4	4013.2	4252.9	4485.7	4661.5
12.5°	3262.1	3278.1	3296.4	3346.6	3451.6	3467.6	3643.4	3887.6	4163.9	4469.7	4709.4
15°	3262.1	3273.6	3285.0	3310.1	3394.5	3408.2	3563.5	3807.7	4118.2	4476.6	4787.1
17.5°	3296.4	3314.6	3305.5	3335.2	3424.2	3433.4	3570.3	3784.9	4115.9	4520.0	4905.8
20°	3378.6	3392.3	3374.0	3392.3	3481.3	3499.6	3641.1	3828.3	4154.7	4595.3	5054.1
22.5°	3508.7	3515.5	3472.2	3485.9	3577.2	3600.0	3764.4	3951.5	4248.3	4716.3	5252.8
25°	3673.0	3686.7	3620.5	3636.5	3723.3	3750.7	3940.1	4136.5	4396.7	4882.9	5506.1
27.5°	3862.5	3869.4	3812.3	3810.0	3921.9	3960.7	4152.4	4364.7	4595.3	5093.0	5825.7
30°	4079.4	4099.9	4045.1	4036.0	4177.5	4209.5	4399.0	4645.5	4887.5	5408.0	6280.0
32.5°	4250.6	4266.6	4234.6	4257.4	4401.3	4426.4	4698.0	5042.7	5346.3	5855.4	6898.7
35°	4497.1	4506.3	4433.2	4474.3	4638.7	4702.6	5106.7	5599.7	5923.9	6417.0	7706.8
37.5°	5389.7	5389.7	5079.3	4876.1	5033.6	5090.7	5665.9	6300.6	6636.1	7170.3	8724.9
40°	6624.7	6604.2	6149.9	5734.4	5713.9	5825.7	6462.6	7184.0	7556.1	8074.3	9870.9
42.5°	7941.9	7909.9	7291.3	6880.4	6811.9	6850.7	7382.6	8272.9	8651.9	9176.9	11103.6
45°	9110.7	9101.6	8535.4	7983.0	7859.7	7983.0	8530.9	9546.7	9818.4	10370.8	12334.0
47.5°	10090.0	10090.0	9676.8	9316.2	9252.2	9325.3	10085.5	10959.8	10934.7	11642.3	13532.5
50°	11217.7	11208.6	10816.0	10660.7	10726.9	10829.7	11875.2	12448.2	12089.8	12891.0	14603.2
52.5°	12007.6	12062.4	11927.7	11902.6	12240.4	12418.5	13692.3	13904.6	13123.9	14075.8	15404.4
55°	12633.1	12697.0	12852.2	13028.0	13678.6	13911.5	15452.4	15285.7	13989.1	15103.1	15865.6
57.5°	13518.8	13427.5	13667.2	14014.2	15066.6	15347.4	17157.6	16589.2	14685.3	15936.3	15915.8
60°	14594.0	14607.7	14648.8	15087.1	16452.2	16812.9	18837.8	17821.9	15132.8	16447.7	15358.8
62.5°	15886.1	15906.6	15991.1	16664.5	18312.7	18652.9	20627.5	18830.9	15338.2	16303.9	13920.6
65°	15797.1	15883.8	16826.6	19130.0	21141.1	21476.7	22716.3	19538.6	15027.8	14988.9	11334.2
67.5°	14390.9	14532.4	16109.8	22074.8	25405.4	25779.8	25241.1	19677.8	13687.7	11656.0	7394.0
70°	12546.3	12596.6	14493.6	24722.9	30343.2	30722.1	27501.0	18146.1	10386.8	6501.5	3312.4
72.5°	9797.8	9809.2	12035.0	25336.9	33023.2	33043.7	25727.3	13470.9	5586.0	2497.4	1150.5
75°	6999.1	6930.6	8060.6	20547.6	29053.4	29286.2	19287.5	6318.8	2134.4	1180.2	573.0
77.5°	3752.9	3828.3	4561.1	12185.7	20070.5	20467.7	10523.8	1821.7	1086.6	803.6	378.9
80°	1159.7	1223.6	1869.6	5579.2	11368.4	11608.1	3901.3	810.4	757.9	573.0	248.8
82.5°	365.3	378.9	872.0	2344.4	4718.6	4828.1	1130.0	458.8	518.2	378.9	146.1
85°	105.0	107.3	388.1	874.3	1166.5	1189.3	317.3	178.1	296.8	235.1	75.3
87.5°	11.4	36.5	146.1	146.1	102.7	100.4	34.2	38.8	84.5	29.7	13.7
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°	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4	4515.4
2.5°	4524.5	4526.8	4497.1	4446.9	4392.1	4346.5	4289.4	4243.7	4211.8	4202.7	4218.6
5°	4556.5	4540.5	4456.1	4303.1	4120.5	3963.0	3787.2	3647.9	3556.6	3517.8	3531.5
7.5°	4604.4	4558.8	4373.9	4072.5	3723.3	3412.8	3097.8	2853.5	2698.3	2620.7	2632.1
10°	4645.5	4554.2	4236.9	3739.2	3205.1	2734.8	2310.2	2015.7	1851.4	1773.7	1776.0
12.5°	4684.3	4551.9	4058.8	3344.3	2620.7	2045.4	1650.5	1504.4	1458.7	1442.7	1438.2
15°	4757.4	4558.8	3835.1	2892.3	2038.6	1545.5	1401.6	1399.4	1408.5	1403.9	1401.6
17.5°	4857.8	4565.6	3581.7	2412.9	1572.9	1362.8	1356.0	1376.5	1390.2	1383.4	1381.1
20°	4987.9	4593.0	3312.4	1938.1	1351.4	1317.2	1333.2	1351.4	1362.8	1351.4	1349.1
22.5°	5170.6	4641.0	3017.9	1556.9	1280.7	1289.8	1303.5	1324.0	1335.4	1319.5	1317.2
25°	5394.3	4716.3	2728.0	1353.7	1246.4	1257.8	1278.4	1301.2	1314.9	1298.9	1296.6
27.5°	5684.2	4837.3	2460.9	1308.1	1212.2	1219.0	1248.7	1282.9	1301.2	1280.7	1280.7
30°	6104.2	5035.9	2230.3	1328.6	1191.6	1175.6	1216.7	1264.7	1285.2	1267.0	1264.7
32.5°	6661.2	5316.7	2088.8	1360.6	1182.5	1125.4	1164.2	1225.9	1260.1	1248.7	1248.7
35°	7391.7	5743.6	2034.0	1397.1	1175.6	1072.9	1100.3	1166.5	1225.9	1237.3	1237.3
37.5°	8277.5	6337.1	2050.0	1413.1	1155.1	1029.5	1043.2	1100.3	1177.9	1214.5	1223.6
40°	9284.2	7028.8	2141.3	1397.1	1132.3	993.0	995.3	1038.7	1107.2	1162.0	1180.2
42.5°	10322.9	7836.9	2310.2	1337.7	1111.7	961.1	954.2	983.9	1029.5	1068.4	1084.3
45°	11311.3	8667.8	2476.9	1255.5	1086.6	929.1	913.1	924.5	933.7	949.7	958.8
47.5°	12174.2	9252.2	2428.9	1180.2	1052.4	892.6	865.2	860.6	833.2	830.9	828.7
50°	12770.1	9380.1	2157.3	1104.9	1002.2	851.5	808.1	780.7	732.8	710.0	712.2
52.5°	12959.5	8875.6	1762.3	1029.5	920.0	796.7	735.1	691.7	632.3	611.8	609.5
55°	12708.4	7887.1	1408.5	938.2	805.8	723.7	655.2	598.1	550.2	525.0	525.0
57.5°	12094.3	6629.3	1114.0	830.9	684.8	641.5	573.0	515.9	474.8	449.7	445.1
60°	11076.2	5264.2	881.2	703.1	584.4	552.4	481.7	445.1	408.6	378.9	372.1
62.5°	9530.7	3757.5	691.7	557.0	488.5	452.0	410.9	383.5	340.1	299.0	292.2
65°	7437.4	2298.8	534.2	408.6	392.6	374.4	349.3	324.2	271.7	230.6	223.7
67.5°	4691.2	1088.9	381.2	308.2	310.5	301.3	289.9	269.4	230.6	194.0	189.5
70°	2065.9	527.3	251.1	235.1	230.6	230.6	239.7	232.8	196.3	162.1	155.2
72.5°	703.1	283.1	187.2	178.1	166.6	164.4	200.9	194.0	157.5	125.6	118.7
75°	367.5	189.5	137.0	127.8	100.4	121.0	159.8	150.7	111.9	82.2	75.3
77.5°	239.7	134.7	93.6	82.2	57.1	79.9	118.7	105.0	66.2	41.1	36.5
80°	150.7	89.0	54.8	38.8	27.4	43.4	63.9	45.7	25.1	9.1	6.8
82.5°	79.9	45.7	20.5	13.7	11.4	13.7	16.0	11.4	4.6	0.0	0.0
85°	32.0	16.0	6.8	4.6	2.3	0.0	4.6	2.3	0.0	0.0	0.0
87.5°	11.4	2.3	0.0	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)