

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: P884100

Luminaire Tested: **NAV-SB4D-730-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884100  
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-SB4D-730-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

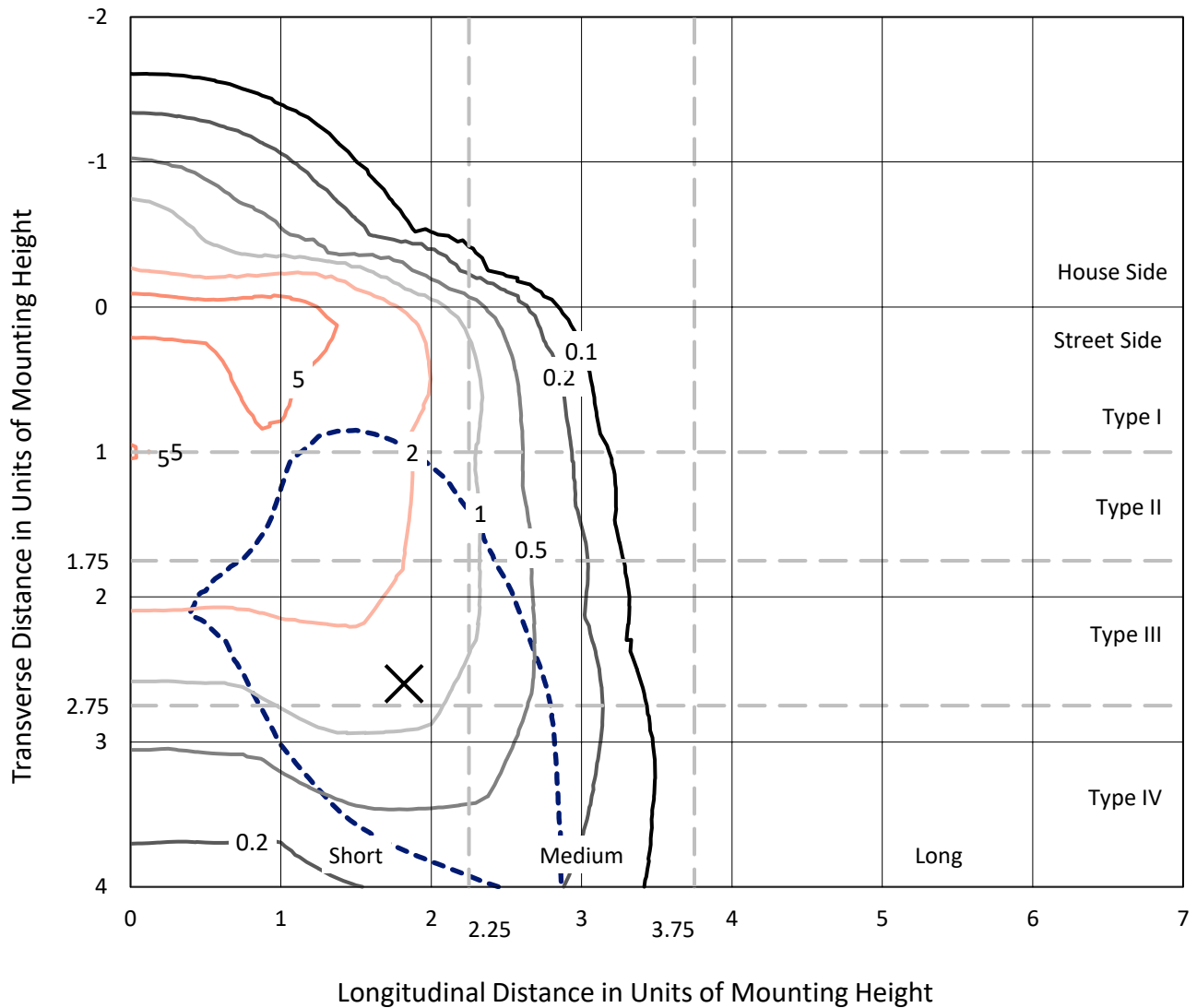
Lumens per Lamp: N/A  
Luminaire Lumens: 30737 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 2.469  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

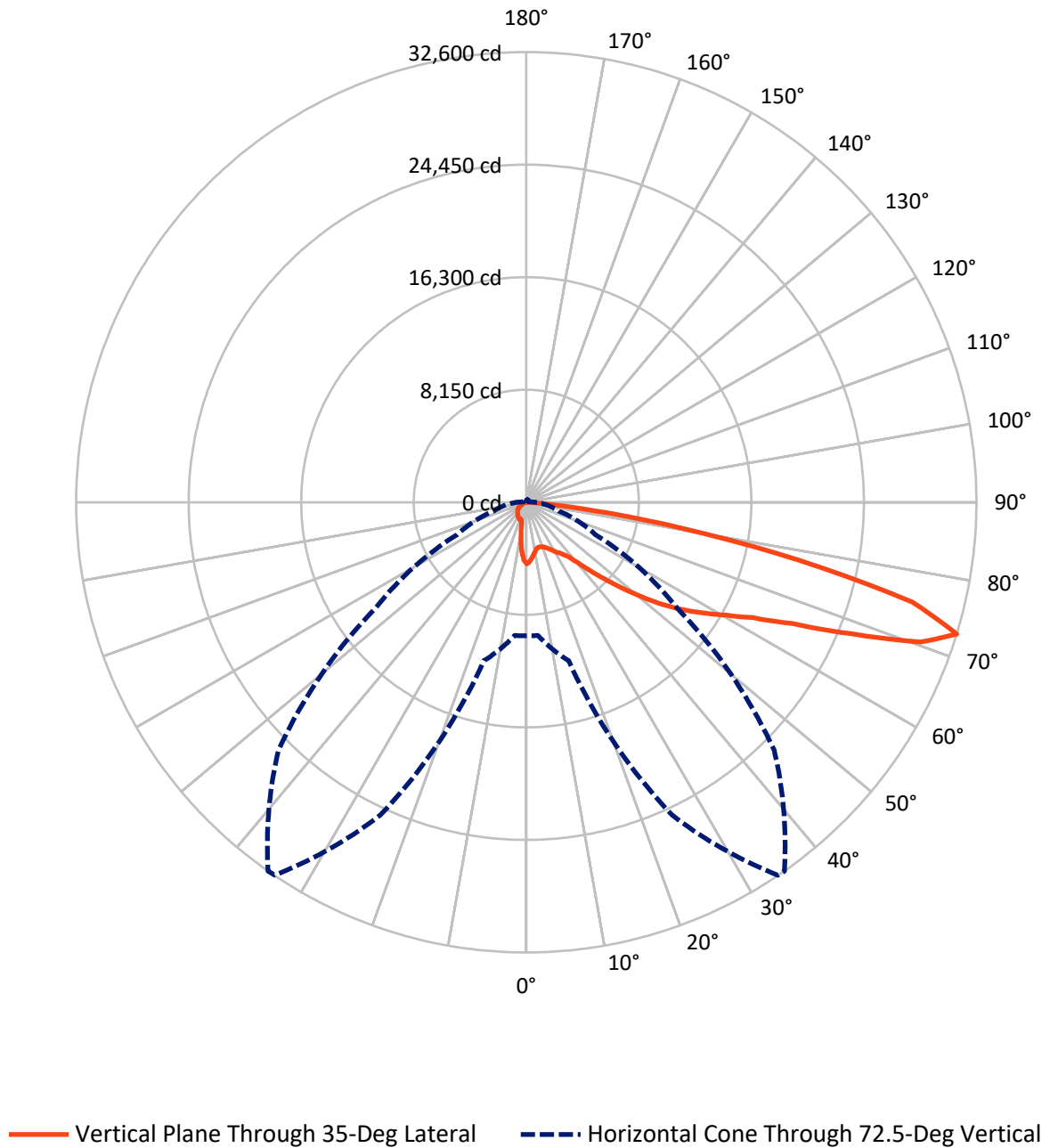
✕ Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3459.3	0.0	3459.3
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	27277.7	0.0	27277.7
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	30737.0	0.0	30737.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	366.1	1.2
10°-20°	856.4	2.8
20°-30°	1391.2	4.5
30°-40°	2321.1	7.6
40°-50°	4391.6	14.3
50°-60°	6978.3	22.7
60°-70°	8632.6	28.1
70°-80°	5366.1	17.5
80°-90°	433.7	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°	30737.0	100.0
0°-180°	30737.0	100.0

**Coefficient of Utilization**



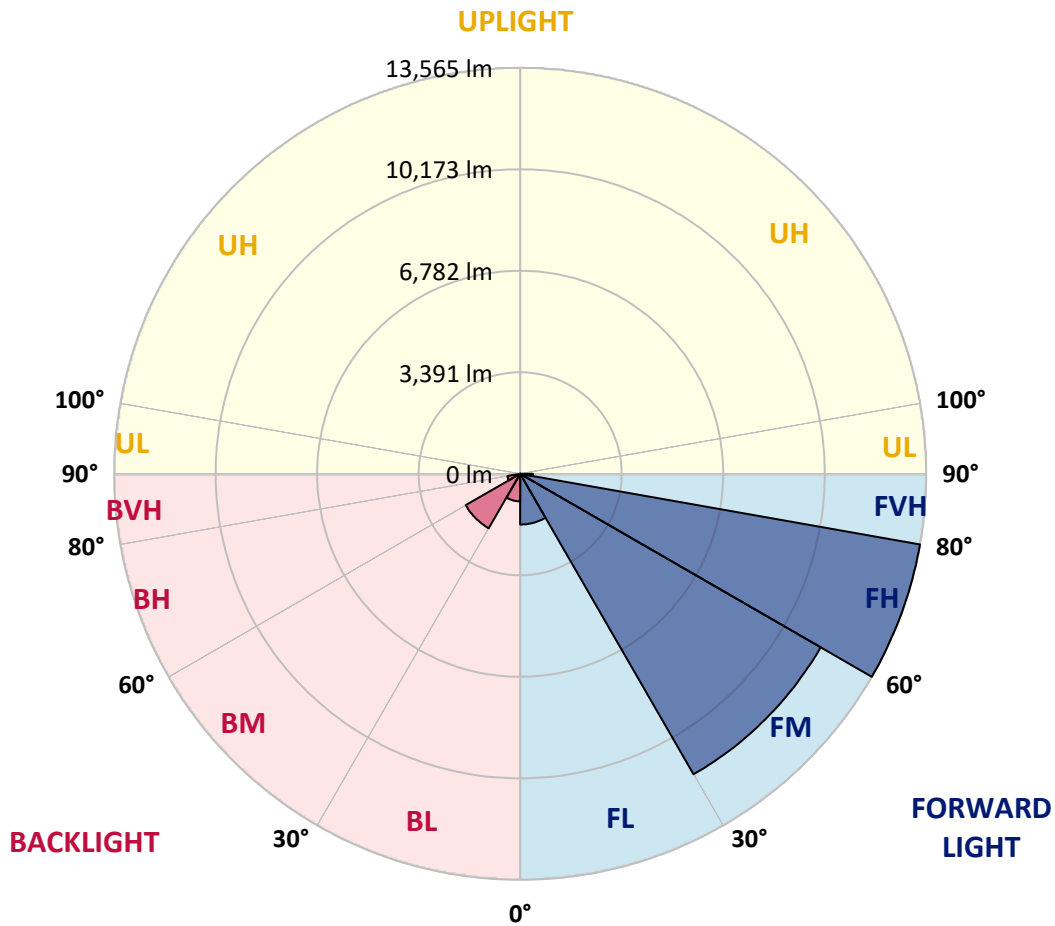
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1694.4	5.5			
FM (30°-60°)	11590.9	37.7			
FH (60°-80°)	13564.6	44.1			G5
FVH (80°-90°)	427.8	1.4			G3/500
BL (0°-30°)	919.2	3.0	B2/1000		
BM (30°-60°)	2100.1	6.8	B2/2500		
BH (60°-80°)	434.1	1.4	B1/500		G1/500
BVH (80°-90°)	5.9	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°	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8
2.5°	4256.6	4292.7	4299.4	4310.7	4310.7	4324.2	4346.7	4378.2	4430.0	4457.1	4475.1
5°	3923.3	3950.3	3984.1	4011.1	4062.9	4069.7	4157.5	4243.1	4362.5	4452.6	4515.6
7.5°	3587.7	3619.3	3664.3	3729.6	3797.2	3817.5	3950.3	4094.5	4283.7	4452.6	4558.4
10°	3351.3	3353.5	3394.0	3459.4	3567.5	3592.2	3754.4	3959.3	4195.8	4425.5	4599.0
12.5°	3218.4	3234.1	3252.2	3301.7	3405.3	3421.1	3594.5	3835.5	4108.0	4409.8	4646.3
15°	3218.4	3229.6	3240.9	3265.7	3349.0	3362.5	3515.7	3756.6	4062.9	4416.5	4722.8
17.5°	3252.2	3270.2	3261.2	3290.4	3378.3	3387.3	3522.4	3734.1	4060.7	4459.3	4839.9
20°	3333.2	3346.7	3328.7	3346.7	3434.6	3452.6	3592.2	3776.9	4099.0	4533.6	4986.3
22.5°	3461.6	3468.4	3425.6	3439.1	3529.2	3551.7	3713.9	3898.5	4191.3	4653.0	5182.3
25°	3623.8	3637.3	3572.0	3587.7	3673.3	3700.3	3887.3	4081.0	4337.7	4817.4	5432.3
27.5°	3810.7	3817.5	3761.1	3758.9	3869.3	3907.5	4096.7	4306.2	4533.6	5024.6	5747.6
30°	4024.7	4044.9	3990.9	3981.9	4121.5	4153.0	4340.0	4583.2	4821.9	5335.4	6195.8
32.5°	4193.6	4209.3	4177.8	4200.3	4342.2	4367.0	4635.0	4975.1	5274.6	5776.9	6806.1
35°	4436.8	4445.8	4373.7	4414.3	4576.4	4639.5	5038.1	5524.6	5844.4	6330.9	7603.4
37.5°	5317.4	5317.4	5011.1	4810.7	4966.1	5022.4	5589.9	6216.0	6547.1	7074.1	8607.9
40°	6535.8	6515.6	6067.4	5657.5	5637.2	5747.6	6375.9	7087.6	7454.7	7966.0	9738.4
42.5°	7835.4	7803.8	7193.5	6788.1	6720.5	6758.8	7283.6	8161.9	8535.8	9053.8	10954.6
45°	8988.5	8979.5	8420.9	7875.9	7754.3	7875.9	8416.4	9418.6	9686.6	10231.7	12168.6
47.5°	9954.7	9954.7	9547.0	9191.2	9128.1	9200.2	9950.2	10812.7	10788.0	11486.1	13351.0
50°	11067.2	11058.2	10670.9	10517.7	10583.0	10684.4	11715.9	12281.2	11927.6	12718.1	14407.2
52.5°	11846.5	11900.5	11767.7	11742.9	12076.2	12251.9	13508.6	13718.1	12947.8	13887.0	15197.7
55°	12463.6	12526.7	12679.8	12853.2	13495.1	13724.8	15245.0	15080.6	13801.4	14900.5	15652.7
57.5°	13337.4	13247.4	13483.8	13826.2	14864.4	15141.4	16927.4	16366.6	14488.3	15722.5	15702.2
60°	14398.2	14411.7	14452.3	14884.7	16231.5	16587.3	18585.0	17582.8	14929.7	16227.0	15152.7
62.5°	15673.0	15693.2	15776.6	16441.0	18067.0	18402.6	20350.7	18578.3	15132.4	16085.1	13733.8
65°	15585.1	15670.7	16600.9	18873.3	20857.5	21188.6	22411.5	19276.5	14826.1	14787.8	11182.1
67.5°	14197.8	14337.4	15893.7	21778.6	25064.6	25433.9	24902.4	19413.8	13504.1	11499.7	7294.8
70°	12378.0	12427.6	14299.1	24391.2	29936.0	30309.9	27132.1	17902.6	10247.4	6414.2	3267.9
72.5°	9666.4	9677.6	11873.5	24997.0	32580.1	32600.4	25382.1	13290.1	5511.1	2463.9	1135.1
75°	6905.2	6837.6	7952.5	20271.9	28663.6	28893.3	19028.7	6234.0	2105.8	1164.4	565.3
77.5°	3702.6	3776.9	4499.9	12022.2	19801.2	20193.1	10382.6	1797.2	1072.0	792.8	373.9
80°	1144.1	1207.2	1844.5	5504.3	11215.9	11452.4	3849.0	799.5	747.7	565.3	245.5
82.5°	360.3	373.9	860.3	2313.0	4655.3	4763.4	1114.8	452.7	511.2	373.9	144.1
85°	103.6	105.9	382.9	862.6	1150.9	1173.4	313.1	175.7	292.8	232.0	74.3
87.5°	11.3	36.0	144.1	144.1	101.3	99.1	33.8	38.3	83.3	29.3	13.5
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°	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8	4454.8
2.5°	4463.8	4466.1	4436.8	4387.3	4333.2	4288.2	4231.9	4186.8	4155.3	4146.3	4162.0
5°	4495.4	4479.6	4396.3	4245.4	4065.2	3909.8	3736.4	3599.0	3508.9	3470.6	3484.1
7.5°	4542.7	4497.6	4315.2	4017.9	3673.3	3367.0	3056.2	2815.2	2662.1	2585.5	2596.8
10°	4583.2	4493.1	4180.1	3689.1	3162.1	2698.1	2279.2	1988.7	1826.5	1749.9	1752.2
12.5°	4621.5	4490.9	4004.4	3299.5	2585.5	2018.0	1628.3	1484.2	1439.1	1423.4	1418.9
15°	4693.6	4497.6	3783.7	2853.5	2011.2	1524.7	1382.8	1380.6	1389.6	1385.1	1382.8
17.5°	4792.6	4504.4	3533.7	2380.6	1551.8	1344.6	1337.8	1358.1	1371.6	1364.8	1362.6
20°	4921.0	4531.4	3267.9	1912.1	1333.3	1299.5	1315.3	1333.3	1344.6	1333.3	1331.0
22.5°	5101.2	4578.7	2977.4	1536.0	1263.5	1272.5	1286.0	1306.3	1317.5	1301.8	1299.5
25°	5321.9	4653.0	2691.4	1335.5	1229.7	1241.0	1261.2	1283.7	1297.3	1281.5	1279.2
27.5°	5607.9	4772.4	2427.9	1290.5	1195.9	1202.7	1231.9	1265.7	1283.7	1263.5	1263.5
30°	6022.3	4968.3	2200.4	1310.8	1175.6	1159.9	1200.4	1247.7	1268.0	1250.0	1247.7
32.5°	6571.9	5245.3	2060.7	1342.3	1166.6	1110.3	1148.6	1209.4	1243.2	1231.9	1231.9
35°	7292.6	5666.5	2006.7	1378.3	1159.9	1058.5	1085.6	1150.9	1209.4	1220.7	1220.7
37.5°	8166.4	6252.1	2022.5	1394.1	1139.6	1015.7	1029.2	1085.6	1162.1	1198.2	1207.2
40°	9159.6	6934.5	2112.5	1378.3	1117.1	979.7	982.0	1024.7	1092.3	1146.4	1164.4
42.5°	10184.4	7731.8	2279.2	1319.8	1096.8	948.2	941.4	970.7	1015.7	1054.0	1069.8
45°	11159.6	8551.5	2443.6	1238.7	1072.0	916.6	900.9	912.1	921.1	936.9	945.9
47.5°	12010.9	9128.1	2396.3	1164.4	1038.3	880.6	853.6	849.1	822.0	819.8	817.5
50°	12598.7	9254.2	2128.3	1090.1	988.7	840.1	797.3	770.2	723.0	700.4	702.7
52.5°	12785.7	8756.5	1738.7	1015.7	907.6	786.0	725.2	682.4	623.9	603.6	601.3
55°	12537.9	7781.3	1389.6	925.6	795.0	713.9	646.4	590.1	542.8	518.0	518.0
57.5°	11932.1	6540.3	1099.1	819.8	675.7	632.9	565.3	509.0	468.5	443.7	439.2
60°	10927.6	5193.5	869.3	693.7	576.6	545.0	475.2	439.2	403.1	373.9	367.1
62.5°	9402.9	3707.1	682.4	549.5	482.0	445.9	405.4	378.4	335.6	295.0	288.3
65°	7337.6	2268.0	527.0	403.1	387.4	369.4	344.6	319.8	268.0	227.5	220.7
67.5°	4628.2	1074.3	376.1	304.0	306.3	297.3	286.0	265.8	227.5	191.4	186.9
70°	2038.2	520.3	247.7	232.0	227.5	227.5	236.5	229.7	193.7	159.9	153.1
72.5°	693.7	279.3	184.7	175.7	164.4	162.2	198.2	191.4	155.4	123.9	117.1
75°	362.6	186.9	135.1	126.1	99.1	119.4	157.7	148.6	110.4	81.1	74.3
77.5°	236.5	132.9	92.3	81.1	56.3	78.8	117.1	103.6	65.3	40.5	36.0
80°	148.6	87.8	54.1	38.3	27.0	42.8	63.1	45.0	24.8	9.0	6.8
82.5°	78.8	45.0	20.3	13.5	11.3	13.5	15.8	11.3	4.5	0.0	0.0
85°	31.5	15.8	6.8	4.5	2.3	0.0	4.5	2.3	0.0	0.0	0.0
87.5°	11.3	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)