

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: P883434

Luminaire Tested: **NAV-SB3D-740-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883434  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-740-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

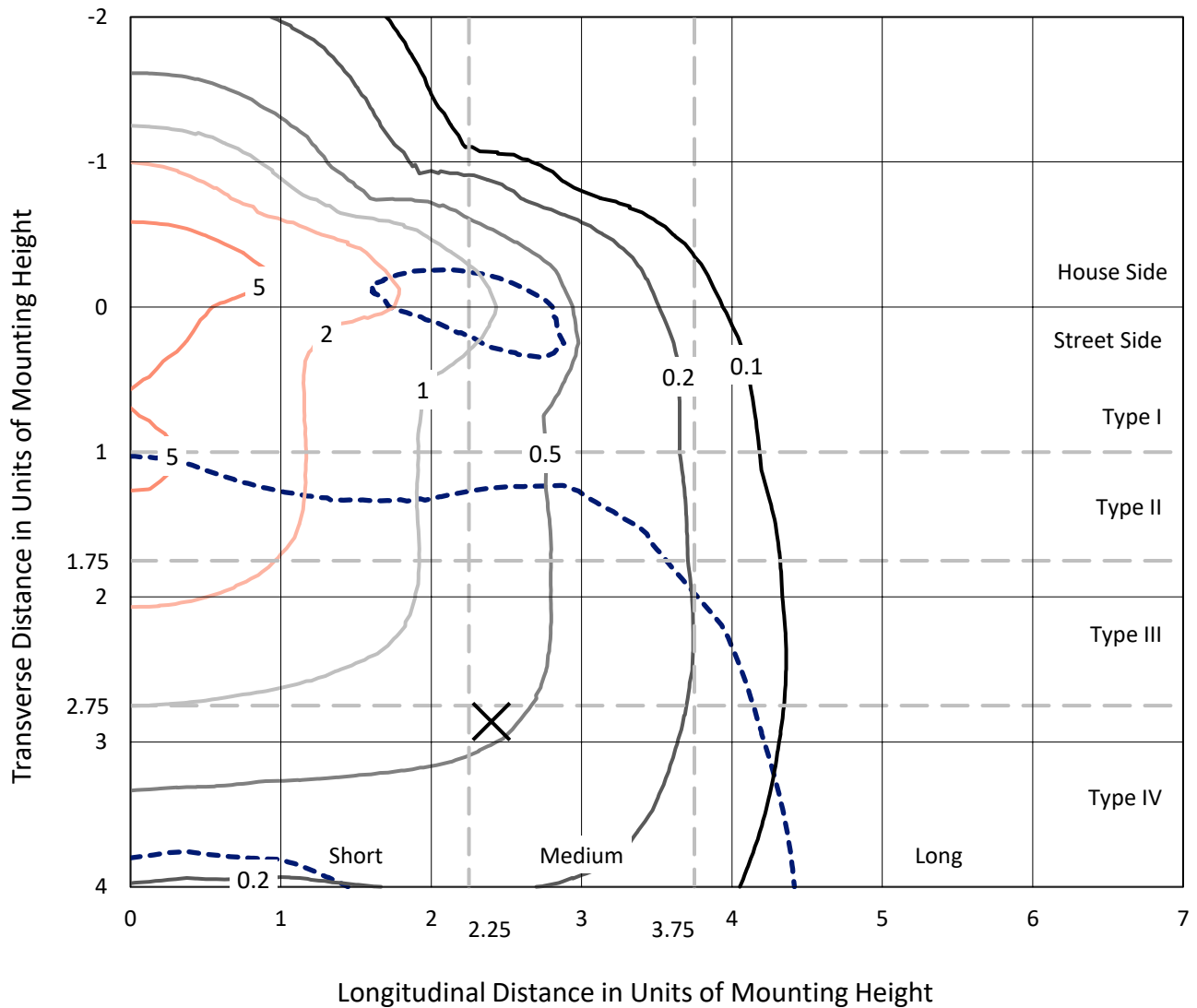
Lumens per Lamp: N/A  
Luminaire Lumens: 32620 lumens  
Efficiency: N/A  
Efficacy: 149.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
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

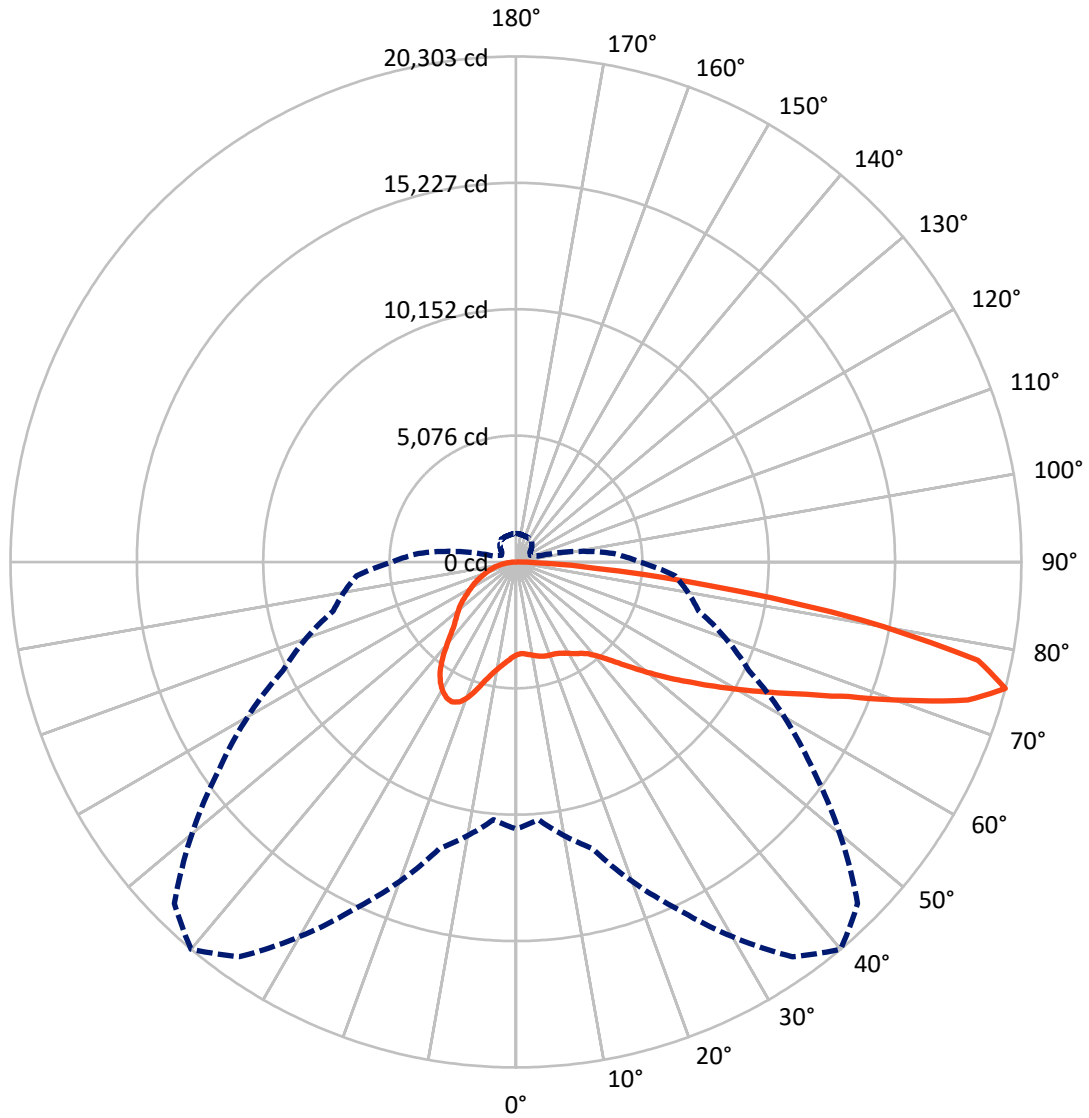
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10106.8	0.0	10106.8
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	22513.2	0.0	22513.2
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	32620.0	0.0	32620.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	372.3	1.1
10°-20°	1250.1	3.8
20°-30°	2282.6	7.0
30°-40°	3237.4	9.9
40°-50°	4371.4	13.4
50°-60°	5880.7	18.0
60°-70°	7464.0	22.9
70°-80°	6774.0	20.8
80°-90°	987.4	3.0
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°	32620.0	100.0
0°-180°	32620.0	100.0

**Coefficient of Utilization**



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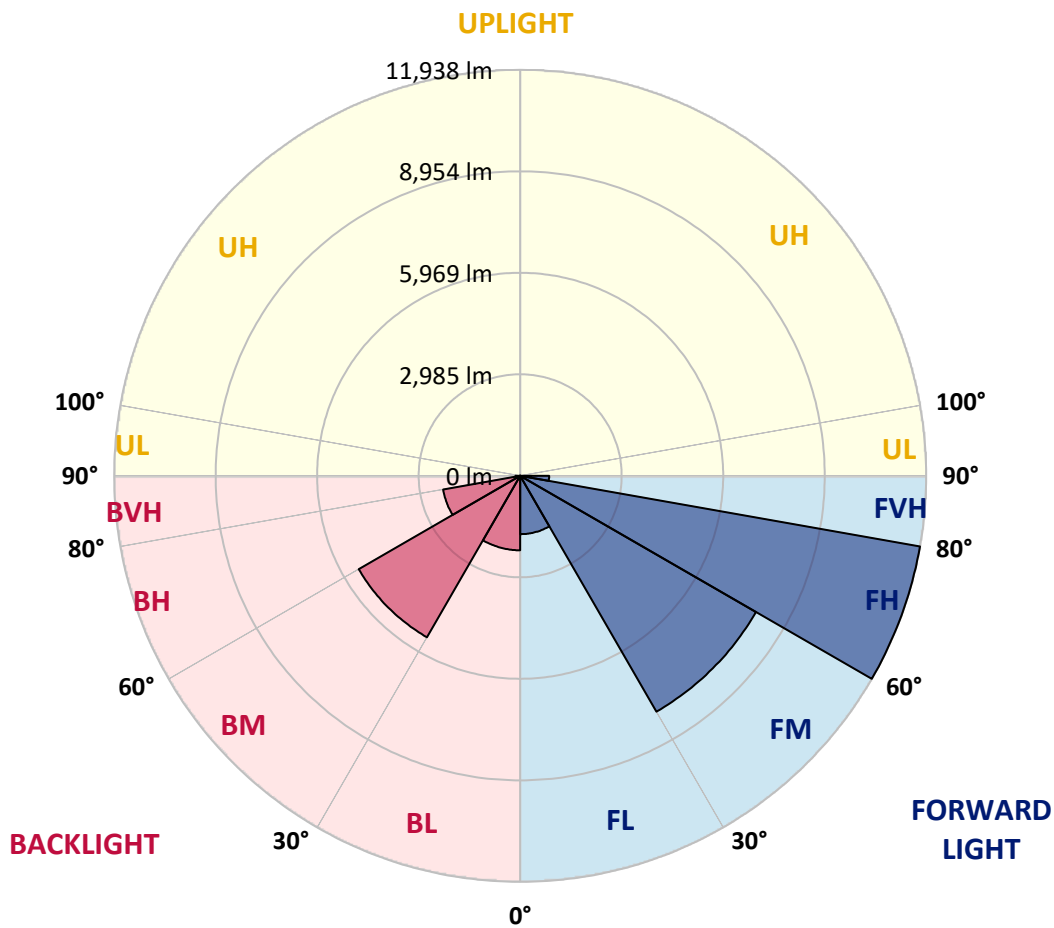
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1715.8	5.3			
FM (30°-60°)	8007.5	24.5			
FH (60°-80°)	11938.4	36.6			G4/12000
FVH (80°-90°)	851.5	2.6			G5
BL (0°-30°)	2189.2	6.7	B3/2500		
BM (30°-60°)	5482.0	16.8	B4/8500		
BH (60°-80°)	2299.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	136.0	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1
2.5°	3673.0	3693.8	3688.6	3681.7	3681.7	3683.4	3681.7	3693.8	3705.9	3718.0	3737.1
5°	3711.1	3731.9	3721.5	3712.8	3705.9	3704.2	3699.0	3697.3	3704.2	3719.8	3745.7
7.5°	3785.5	3806.3	3790.7	3775.1	3761.3	3754.4	3747.4	3737.1	3731.9	3740.5	3776.9
10°	3868.6	3889.3	3870.3	3842.6	3820.1	3811.5	3804.5	3794.2	3787.2	3792.4	3832.2
12.5°	3951.6	3972.4	3946.4	3908.3	3878.9	3873.7	3865.1	3861.6	3859.9	3858.2	3898.0
15°	4029.5	4046.8	4013.9	3968.9	3937.8	3929.1	3920.5	3925.6	3934.3	3944.7	3989.7
17.5°	4090.0	4107.3	4058.9	4000.0	3970.6	3967.2	3962.0	3979.3	4003.5	4029.5	4084.8
20°	4145.4	4162.7	4100.4	4020.8	3986.2	3986.2	3987.9	4024.3	4058.9	4096.9	4173.1
22.5°	4223.2	4237.1	4160.9	4051.9	4001.8	4005.2	4019.1	4055.4	4098.7	4150.6	4256.1
25°	4339.1	4349.5	4256.1	4110.8	4053.7	4064.1	4076.2	4093.5	4135.0	4195.5	4337.4
27.5°	4526.0	4534.6	4411.8	4214.6	4128.1	4145.4	4162.7	4150.6	4169.6	4221.5	4403.2
30°	4789.0	4794.2	4638.5	4377.2	4254.4	4263.0	4266.5	4216.3	4180.0	4221.5	4449.9
32.5°	5100.4	5098.7	4913.5	4574.4	4398.0	4389.3	4359.9	4261.3	4176.5	4212.8	4491.4
35°	5583.1	5564.1	5325.3	4851.3	4560.6	4507.0	4437.8	4311.5	4193.8	4204.2	4527.7
37.5°	6382.4	6323.6	5993.1	5304.6	4802.8	4666.1	4564.1	4392.8	4231.9	4200.7	4571.0
40°	7283.8	7209.4	6846.1	5925.7	5166.1	4946.4	4782.1	4508.7	4294.2	4216.3	4635.0
42.5°	8353.0	8247.5	7856.5	6657.5	5626.4	5308.0	5060.6	4655.8	4385.9	4266.5	4721.5
45°	9666.2	9526.0	8972.4	7482.8	6205.9	5782.1	5451.6	4878.9	4526.0	4363.4	4851.3
47.5°	10993.2	11027.8	10240.6	8427.4	6901.5	6366.8	5941.2	5214.6	4730.2	4519.1	5060.6
50°	12403.2	12427.5	11501.8	9474.1	7690.4	7027.8	6491.4	5590.0	5013.9	4740.5	5373.8
52.5°	13503.6	13507.1	12647.2	10569.3	8512.2	7754.4	7084.8	6019.1	5342.6	5034.7	5790.7
55°	14192.2	14183.5	13450.0	11605.7	9456.8	8517.4	7742.3	6507.0	5744.0	5380.7	6314.9
57.5°	14692.2	14666.2	14003.6	12496.7	10463.8	9418.8	8486.2	7060.6	6218.1	5792.4	7005.3
60°	14882.5	14866.9	14379.0	13266.6	11522.6	10415.3	9344.4	7680.0	6756.1	6278.6	7892.8
62.5°	14955.2	14984.6	14747.5	14012.2	12655.8	11519.1	10287.3	8420.5	7361.7	6828.8	8828.8
65°	15211.2	15264.9	15216.4	14988.0	13936.1	12811.5	11538.2	9301.1	8022.6	7418.8	9806.3
67.5°	15718.1	15771.8	15792.5	16155.9	15500.2	14422.3	13098.7	10398.0	8795.9	8031.2	10541.6
70°	15706.0	15690.5	16057.3	17084.9	17458.6	16652.4	15202.6	11747.5	9718.1	8539.9	10635.1
72.5°	14296.0	14171.4	15038.2	17074.6	19088.4	18981.2	17771.8	13488.0	10513.9	8602.2	9228.5
75°	10725.0	10392.8	11924.0	15387.7	19360.1	20303.0	19405.0	14567.6	10325.4	7600.4	6422.2
77.5°	4586.6	4252.6	6057.2	11391.1	17327.2	18979.4	17906.8	12709.5	8242.3	5026.0	3154.0
80°	1200.7	1199.0	1830.5	5164.4	11783.9	14015.7	12296.0	8207.7	4709.4	1795.9	870.3
82.5°	496.5	484.4	673.0	2008.7	5757.8	7865.1	6418.7	3660.9	1700.7	486.2	288.9
85°	185.1	183.4	327.0	693.8	2031.2	3244.0	2347.8	936.0	423.9	237.0	129.8
87.5°	51.9	50.2	70.9	240.5	494.8	750.9	401.4	154.0	119.4	93.4	38.1
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°	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1	3730.1
2.5°	3742.3	3750.9	3766.5	3778.6	3794.2	3811.5	3835.7	3851.2	3866.8	3877.2	3870.3
5°	3757.8	3776.9	3816.6	3856.4	3903.2	3946.4	3996.6	4032.9	4062.3	4071.0	4074.4
7.5°	3792.4	3823.6	3891.0	3958.5	4032.9	4103.8	4176.5	4238.8	4289.0	4308.0	4309.7
10°	3853.0	3894.5	3989.7	4084.8	4183.4	4292.4	4385.9	4475.8	4546.8	4576.2	4577.9
12.5°	3929.1	3981.0	4105.6	4237.1	4373.7	4524.3	4645.4	4756.1	4844.3	4884.1	4884.1
15°	4027.7	4095.2	4254.4	4430.8	4631.5	4840.9	4994.9	5117.7	5216.3	5264.8	5261.3
17.5°	4135.0	4225.0	4425.6	4692.1	4979.3	5254.4	5434.3	5524.3	5626.4	5673.1	5671.3
20°	4238.8	4349.5	4636.7	5024.3	5406.6	5699.0	5844.3	5868.6	5875.5	5880.7	5894.5
22.5°	4346.1	4494.9	4901.4	5443.0	5853.0	6055.4	6076.2	5972.4	5827.0	5759.6	5778.6
25°	4463.7	4660.9	5247.5	5904.9	6237.1	6261.3	6102.1	5849.5	5574.4	5448.2	5467.2
27.5°	4577.9	4853.0	5662.7	6346.1	6513.9	6301.1	5958.5	5600.4	5268.2	5135.0	5150.6
30°	4692.1	5072.7	6121.2	6731.9	6640.2	6202.5	5731.9	5332.2	4998.3	4858.2	4873.8
32.5°	4808.0	5328.8	6648.9	7010.4	6617.7	5993.1	5449.9	5031.2	4737.1	4590.0	4609.0
35°	4939.5	5643.7	7148.9	7162.7	6467.2	5685.2	5077.9	4671.3	4415.3	4297.6	4323.6
37.5°	5110.8	6043.3	7590.0	7200.8	6204.2	5233.6	4616.0	4245.7	4034.6	3981.0	4019.1
40°	5323.6	6524.3	7927.4	7140.2	5814.9	4685.2	4110.8	3814.9	3695.5	3707.6	3749.2
42.5°	5600.4	7062.4	8164.4	6984.5	5273.4	4119.4	3667.9	3536.4	3593.5	3641.9	3686.9
45°	5960.3	7621.2	8311.5	6719.8	4660.9	3640.2	3406.6	3437.8	3481.0	3486.2	3520.8
47.5°	6420.5	8186.9	8408.4	6320.1	4036.4	3302.8	3240.5	3247.4	3238.8	3202.5	3230.1
50°	6994.9	8737.1	8494.9	5790.7	3505.2	3091.7	3008.7	2984.5	2865.1	2747.4	2763.0
52.5°	7648.9	9242.3	8531.2	5133.3	3091.7	2915.3	2780.3	2628.1	2404.9	2368.5	2380.6
55°	8375.5	9709.4	8437.8	4325.3	2744.0	2688.6	2484.5	2301.1	2276.8	2245.7	2250.9
57.5°	9244.0	10212.9	8247.5	3423.9	2387.6	2423.9	2224.9	2245.7	2202.4	2154.0	2145.3
60°	10193.9	10733.7	7913.6	2602.1	2019.1	2093.4	2157.5	2155.7	2143.6	2103.8	2090.0
62.5°	11048.6	11076.2	7256.1	1993.1	1695.5	1837.4	2012.1	2010.4	2000.0	1977.5	1968.9
65°	11557.2	11024.3	6159.2	1569.2	1429.1	1626.3	1814.9	1828.7	1830.5	1828.7	1828.7
67.5°	11467.2	10417.1	4654.0	1249.1	1209.4	1411.8	1619.4	1638.4	1652.3	1655.7	1659.2
70°	10449.9	9083.1	3034.6	996.5	1013.9	1223.2	1434.3	1453.3	1465.4	1479.3	1486.2
72.5°	8145.4	6678.3	1737.0	806.2	842.6	1060.6	1250.9	1273.4	1280.3	1306.2	1316.6
75°	4963.7	3927.4	937.7	635.0	692.0	906.6	1069.2	1095.2	1107.3	1138.4	1141.9
77.5°	2359.9	1700.7	534.6	494.8	557.1	740.5	903.1	932.5	899.7	917.0	903.1
80°	797.6	631.5	337.4	377.2	425.6	577.9	723.2	752.6	683.4	679.9	673.0
82.5°	278.5	256.1	214.5	250.9	275.1	413.5	546.7	584.8	508.7	506.9	482.7
85°	109.0	103.8	119.4	136.7	164.4	254.3	359.9	378.9	313.2	252.6	249.1
87.5°	22.5	24.2	29.4	31.1	50.2	88.2	129.8	159.2	126.3	107.3	98.6
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)