

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: P884169

Luminaire Tested: **NAV-SB4D-835-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884169  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-835-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

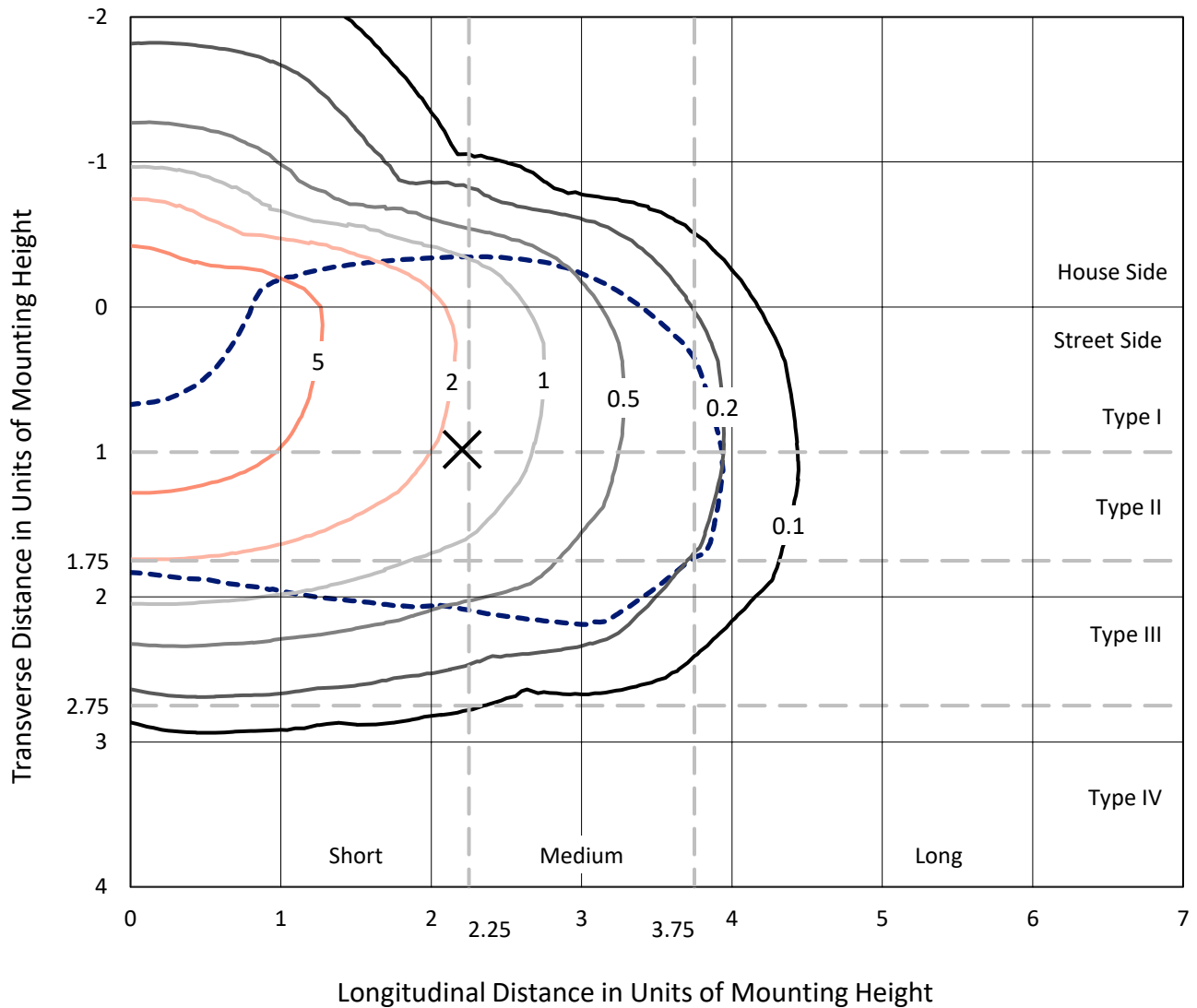
Lumens per Lamp: N/A  
Luminaire Lumens: 34820 lumens  
Efficiency: N/A  
Efficacy: 118.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

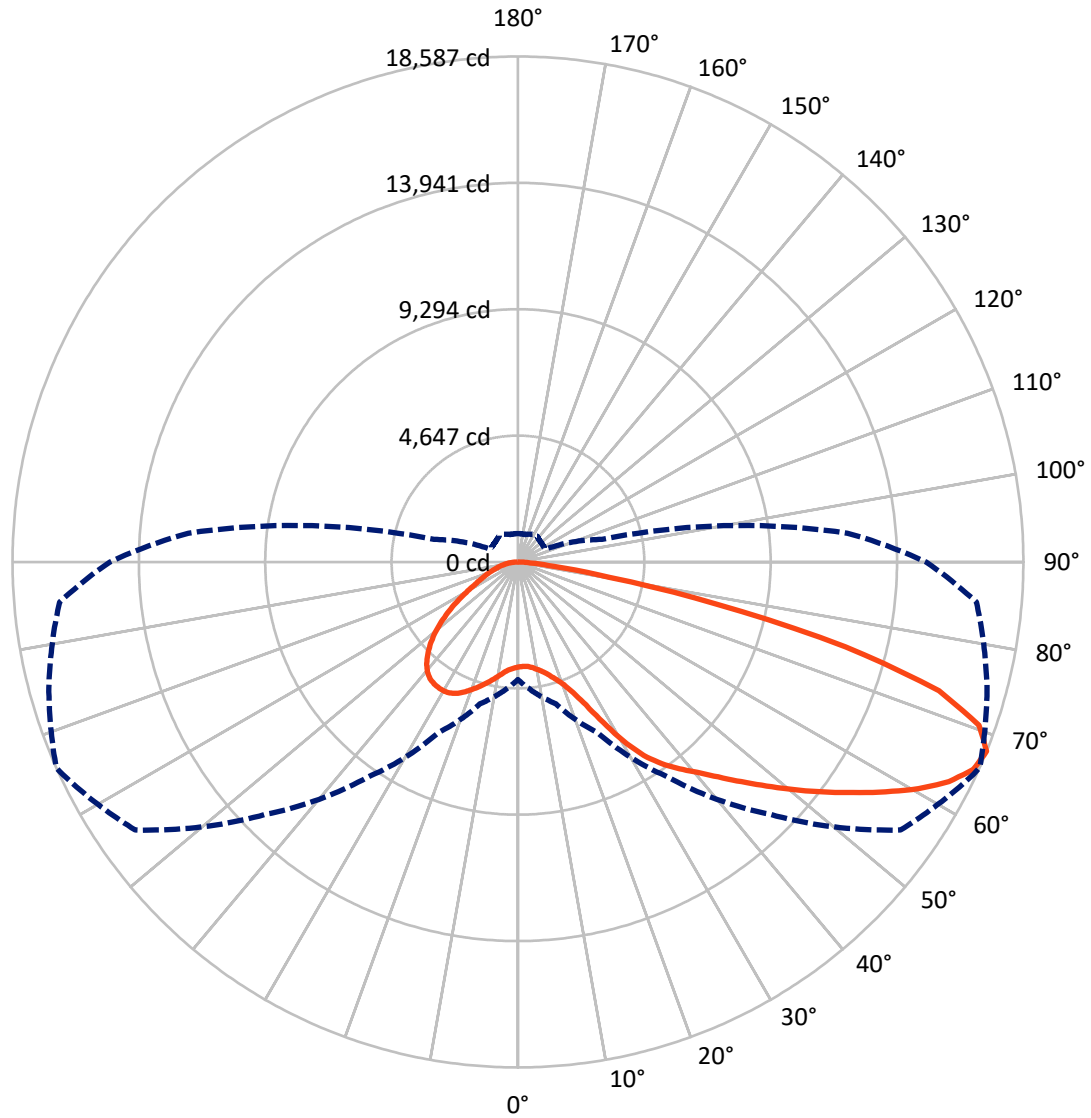
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8657.9	0.0	8657.9
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	26162.1	0.0	26162.1
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	34820.0	0.0	34820.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	382.9	1.1
10°-20°	1265.1	3.6
20°-30°	2438.3	7.0
30°-40°	4275.3	12.3
40°-50°	6355.9	18.3
50°-60°	8056.8	23.1
60°-70°	7883.4	22.6
70°-80°	3760.4	10.8
80°-90°	401.9	1.2
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°	34820.0	100.0
0°-180°	34820.0	100.0

**Coefficient of Utilization**



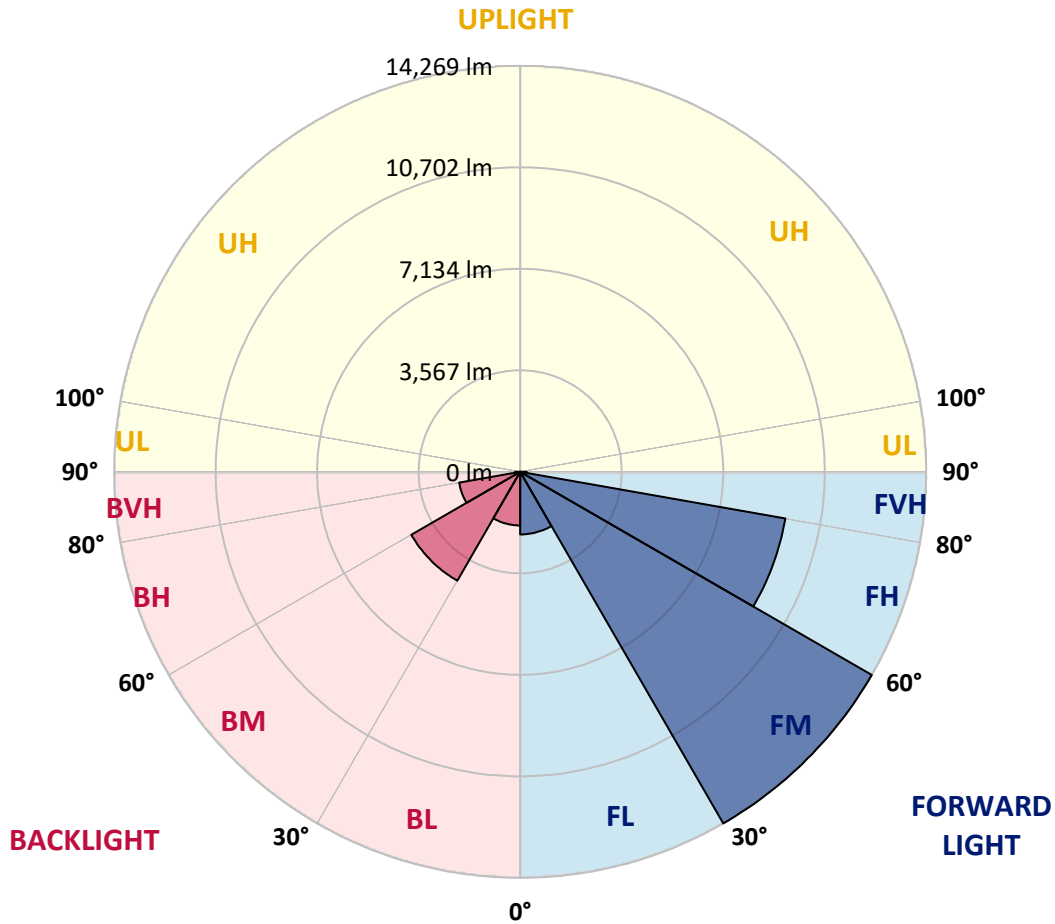
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2200.3	6.3			
FM (30°-60°)	14268.9	41.0			
FH (60°-80°)	9465.0	27.2			G4/12000
FVH (80°-90°)	227.9	0.7			G3/500
BL (0°-30°)	1886.0	5.4	B3/2500		
BM (30°-60°)	4419.1	12.7	B3/5000		
BH (60°-80°)	2178.8	6.3	B3/2500		G3/2500
BVH (80°-90°)	174.0	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0
2.5°	3821.7	3843.7	3838.2	3829.1	3827.2	3830.9	3836.4	3841.9	3840.0	3849.2	3863.8
5°	3810.8	3832.7	3830.9	3830.9	3838.2	3852.9	3862.0	3871.1	3862.0	3873.0	3893.1
7.5°	3818.1	3834.6	3841.9	3849.2	3867.5	3894.9	3916.9	3937.0	3926.0	3938.8	3964.4
10°	3911.4	3924.2	3931.5	3931.5	3944.3	3975.4	3997.4	4034.0	4024.8	4044.9	4077.9
12.5°	4081.5	4094.3	4094.3	4087.0	4096.2	4116.3	4123.6	4163.9	4147.4	4180.3	4213.3
15°	4290.1	4315.7	4295.6	4282.8	4286.4	4306.6	4304.7	4335.8	4319.4	4346.8	4376.1
17.5°	4520.6	4553.5	4520.6	4518.8	4511.5	4533.4	4535.2	4562.7	4533.4	4553.5	4573.7
20°	4793.2	4838.9	4811.5	4820.6	4804.2	4813.3	4822.5	4862.7	4817.0	4831.6	4826.1
22.5°	5177.4	5232.3	5203.0	5237.8	5226.8	5219.5	5217.6	5289.0	5217.6	5223.1	5170.1
25°	5737.2	5803.1	5751.8	5799.4	5799.4	5823.2	5850.6	5942.1	5823.2	5788.4	5651.2
27.5°	6564.1	6630.0	6529.4	6558.6	6549.5	6608.0	6578.8	6805.6	6677.5	6620.8	6344.6
30°	7559.3	7676.4	7486.2	7478.8	7469.7	7563.0	7605.1	7755.1	7625.2	7568.5	7235.5
32.5°	8635.1	8757.6	8530.8	8464.9	8430.2	8486.9	8452.1	8572.9	8483.2	8395.4	7983.8
35°	9773.0	9893.7	9677.9	9549.8	9410.8	9291.8	9167.4	9198.5	9114.4	8980.8	8554.6
37.5°	10848.7	11070.1	10841.4	10704.2	10448.1	10215.7	9868.1	9723.6	9644.9	9522.4	9092.4
40°	11944.6	12070.8	11897.0	11779.9	11501.8	11137.8	10581.6	10276.1	10170.0	10051.1	9687.0
42.5°	12751.4	12872.1	12778.8	12698.3	12480.6	12058.0	11339.0	10956.7	10803.0	10669.4	10360.3
45°	13391.7	13481.3	13422.8	13452.0	13358.7	12948.9	12123.9	11686.6	11527.5	11364.6	11121.3
47.5°	13649.6	13744.8	13838.1	14011.9	14171.0	13869.2	12967.2	12476.9	12308.6	12142.2	11902.5
50°	13620.4	13717.3	13988.1	14357.6	14851.6	14751.0	13856.4	13318.5	13163.0	12972.7	12751.4
52.5°	13386.2	13496.0	13843.6	14458.3	15244.9	15411.4	14761.9	14187.5	14041.1	13814.3	13592.9
55°	12771.5	12837.3	13358.7	14229.6	15338.2	15872.4	15649.2	15113.2	14966.8	14650.3	14408.9
57.5°	11631.7	11726.9	12486.1	13613.0	15104.1	16185.3	16428.6	16086.5	15945.6	15490.1	15237.6
60°	10144.4	10296.2	11165.2	12577.6	14507.6	16183.4	17136.6	17043.3	16926.2	16317.0	16053.5
62.5°	8461.3	8636.9	9473.0	11114.0	13464.9	15724.2	17579.3	17844.6	17784.2	17079.9	16743.3
65°	6498.3	6619.0	7451.4	9220.5	11842.1	14738.2	17630.5	18391.6	18402.6	17659.8	17103.7
67.5°	4326.7	4674.3	5396.9	6919.0	9668.7	13126.4	17180.5	18481.2	18587.4	17859.2	16922.5
70°	2111.2	2568.6	3276.6	4496.8	6919.0	10654.8	16004.1	17745.8	17981.8	17277.5	15843.2
72.5°	876.3	1024.5	1410.5	2219.1	3971.8	7189.8	13640.5	15751.7	16188.9	15309.0	13320.3
75°	590.9	640.3	806.8	1137.9	1809.3	3545.5	9837.0	11745.2	12449.5	11562.2	9451.0
77.5°	455.5	486.6	587.3	795.8	1075.7	1341.0	5265.2	7078.2	7442.3	6889.8	4917.6
80°	358.6	382.4	439.1	579.9	762.9	717.1	1794.7	3207.1	3417.4	2866.8	1580.7
82.5°	311.0	320.2	314.7	393.3	506.8	418.9	589.1	1183.7	1306.2	947.7	515.9
85°	225.0	250.6	261.6	243.3	268.9	212.2	241.5	418.9	461.0	411.6	290.9
87.5°	91.5	135.4	166.5	157.3	98.8	60.4	75.0	122.6	140.9	153.7	95.1
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°	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0	3862.0
2.5°	3865.7	3878.5	3887.6	3898.6	3905.9	3916.9	3938.8	3951.6	3953.5	3962.6	3960.8
5°	3900.4	3918.7	3938.8	3968.1	4001.0	4028.5	4070.6	4099.8	4110.8	4120.0	4118.1
7.5°	3975.4	4001.0	4037.6	4088.9	4136.4	4173.0	4224.2	4259.0	4293.8	4306.6	4308.4
10°	4087.0	4123.6	4176.7	4246.2	4297.4	4345.0	4398.0	4427.3	4462.1	4476.7	4484.0
12.5°	4226.1	4264.5	4334.0	4431.0	4478.5	4511.5	4529.8	4522.4	4529.8	4542.6	4546.2
15°	4385.2	4427.3	4506.0	4610.2	4643.2	4613.9	4573.7	4537.1	4531.6	4535.2	4548.0
17.5°	4573.7	4604.8	4696.2	4784.0	4760.3	4639.5	4551.7	4493.2	4463.9	4454.7	4467.6
20°	4837.1	4837.1	4912.1	4967.0	4807.8	4602.9	4465.7	4370.6	4310.2	4284.6	4279.1
22.5°	5157.3	5128.0	5175.6	5137.1	4798.7	4500.5	4310.2	4145.6	4054.1	4017.5	4012.0
25°	5563.4	5528.6	5515.8	5278.0	4732.8	4337.7	4028.5	3829.1	3748.6	3728.4	3732.1
27.5°	6176.3	6088.5	5922.0	5354.8	4612.1	4081.5	3699.2	3514.4	3468.7	3470.5	3476.0
30°	6992.2	6816.6	6408.6	5367.6	4414.5	3719.3	3362.6	3230.8	3208.9	3218.0	3249.1
32.5°	7747.8	7581.3	6906.2	5309.1	4110.8	3364.4	3060.7	2972.9	2939.9	2950.9	2965.6
35°	8340.5	8294.8	7367.3	5226.8	3737.6	3031.4	2789.9	2714.9	2650.9	2636.3	2647.2
37.5°	8900.3	8882.0	7713.0	5111.5	3368.0	2795.4	2572.2	2473.4	2380.1	2328.9	2330.7
40°	9515.0	9496.7	7939.9	4934.1	3040.6	2590.5	2376.5	2246.6	2131.3	2038.0	2047.2
42.5°	10206.6	10098.6	8047.8	4679.8	2762.5	2416.7	2217.3	2041.7	1889.8	1803.9	1809.3
45°	10962.1	10718.8	8046.0	4356.0	2528.3	2257.6	2047.2	1798.4	1657.5	1577.0	1573.3
47.5°	11763.5	11311.6	7947.2	3997.4	2301.5	2081.9	1783.7	1593.5	1500.2	1450.8	1439.8
50°	12590.4	11865.9	7778.9	3585.7	2069.1	1882.5	1619.1	1489.2	1417.8	1372.1	1355.6
52.5°	13367.9	12369.0	7575.8	3119.2	1833.1	1688.6	1545.9	1445.3	1370.3	1319.0	1297.1
55°	14090.5	12802.6	7288.6	2641.7	1641.0	1558.7	1511.1	1427.0	1341.0	1280.6	1256.8
57.5°	14732.7	13084.3	6792.8	2193.5	1503.8	1469.1	1474.5	1395.9	1297.1	1245.9	1212.9
60°	15266.9	13291.1	6059.2	1778.2	1392.2	1381.2	1417.8	1337.3	1222.1	1163.5	1137.9
62.5°	15587.0	13287.4	5159.1	1456.3	1297.1	1300.7	1342.8	1264.2	1147.1	1092.2	1075.7
65°	15559.6	12961.8	4171.2	1245.9	1205.6	1209.3	1264.2	1183.7	1084.9	1051.9	1050.1
67.5°	15008.9	12167.8	3199.7	1108.7	1105.0	1121.5	1185.5	1128.8	1046.5	1042.8	1048.3
70°	13517.9	10519.4	2305.1	998.9	1000.7	1024.5	1108.7	1094.0	1026.3	1033.6	1031.8
72.5°	10839.6	8020.4	1547.7	883.6	885.5	923.9	1035.5	1066.6	1006.2	1103.2	1117.8
75°	7219.1	5001.8	995.2	761.1	762.9	812.3	971.4	1013.5	951.3	1099.5	1108.7
77.5°	3468.7	2248.4	720.8	640.3	640.3	686.0	839.7	907.4	810.5	854.4	783.0
80°	1198.3	845.2	567.1	515.9	504.9	536.0	708.0	786.7	698.9	644.0	603.7
82.5°	472.0	439.1	455.5	400.7	364.1	384.2	550.7	649.5	514.1	464.7	462.9
85°	270.8	285.4	322.0	265.3	210.4	236.0	404.3	466.5	387.8	342.1	349.4
87.5°	73.2	100.6	148.2	137.2	95.1	100.6	192.1	258.0	223.2	172.0	177.5
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)