

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: P270672

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270672  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-SL2-7027-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25529.4 lumens  
Efficiency: N/A  
Efficacy: 76.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B2 - U0 - G4

Input Watts (W): 333  
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: 25 FT

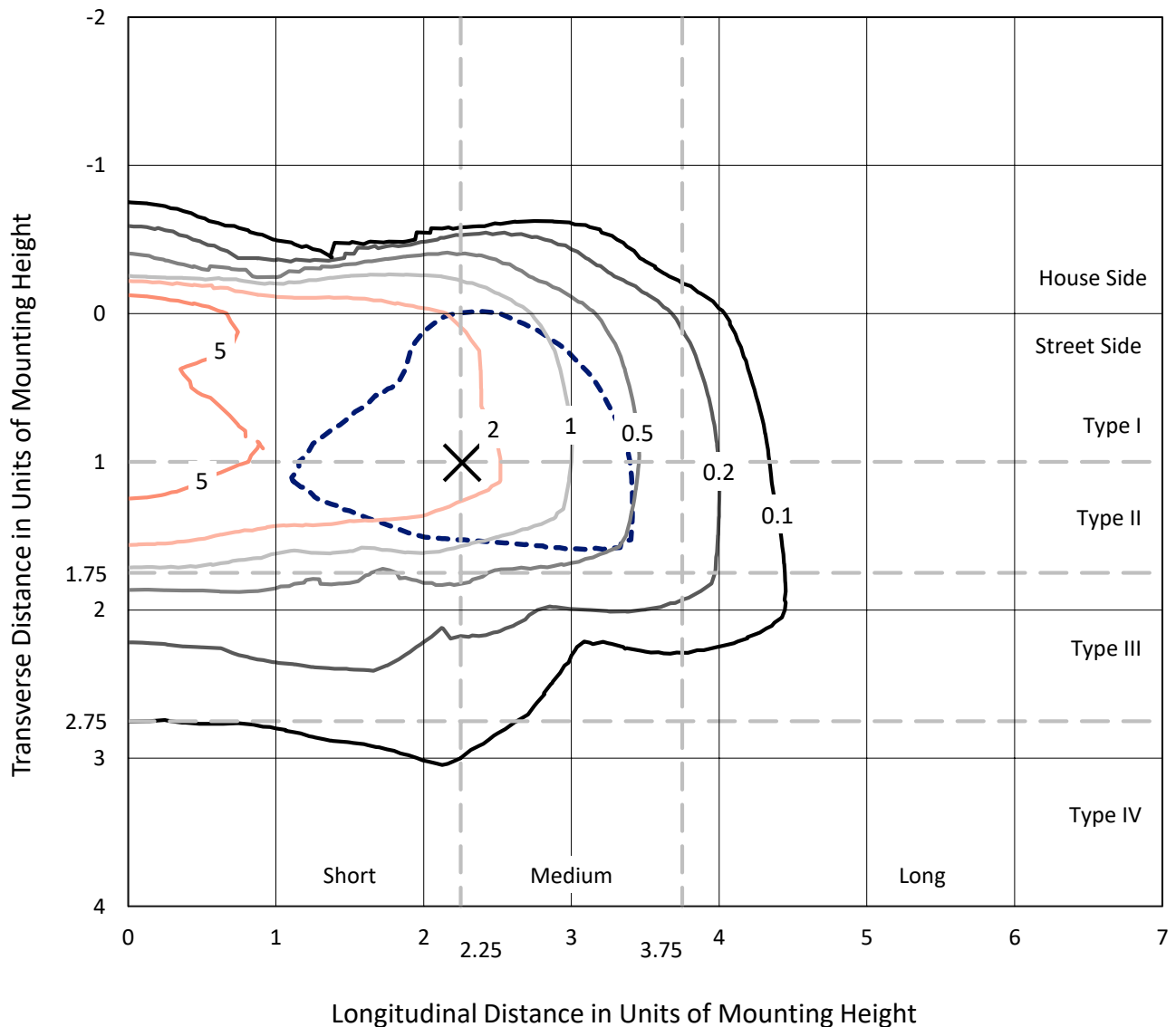


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

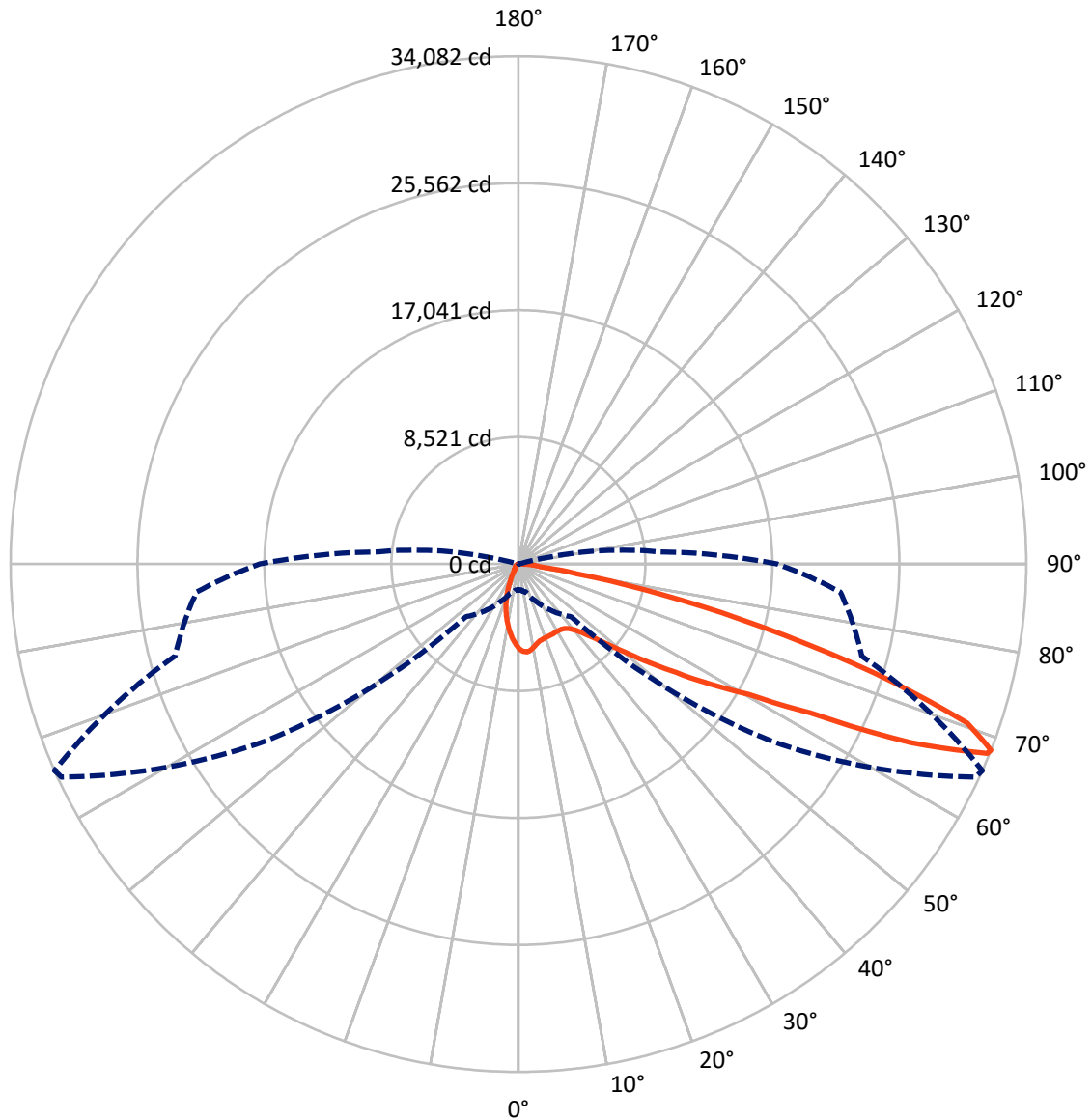


Based on 25 foot mounting height. Maximum calculated value = 9.1 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2585.9	0.0	2585.9
	% Fixture	10.1	0.0	10.1
<b>Street Side</b>	Lumens	22943.5	0.0	22943.5
	% Fixture	89.9	0.0	89.9
<b>Total</b>	Lumens	25529.4	0.0	25529.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	466.3	1.8
10°-20°	1003.2	3.9
20°-30°	1453.8	5.7
30°-40°	2225.5	8.7
40°-50°	3806.5	14.9
50°-60°	5954.4	23.3
60°-70°	6856.3	26.9
70°-80°	3431.0	13.4
80°-90°	332.3	1.3
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°	25529.4	100.0
0°-180°	25529.4	100.0



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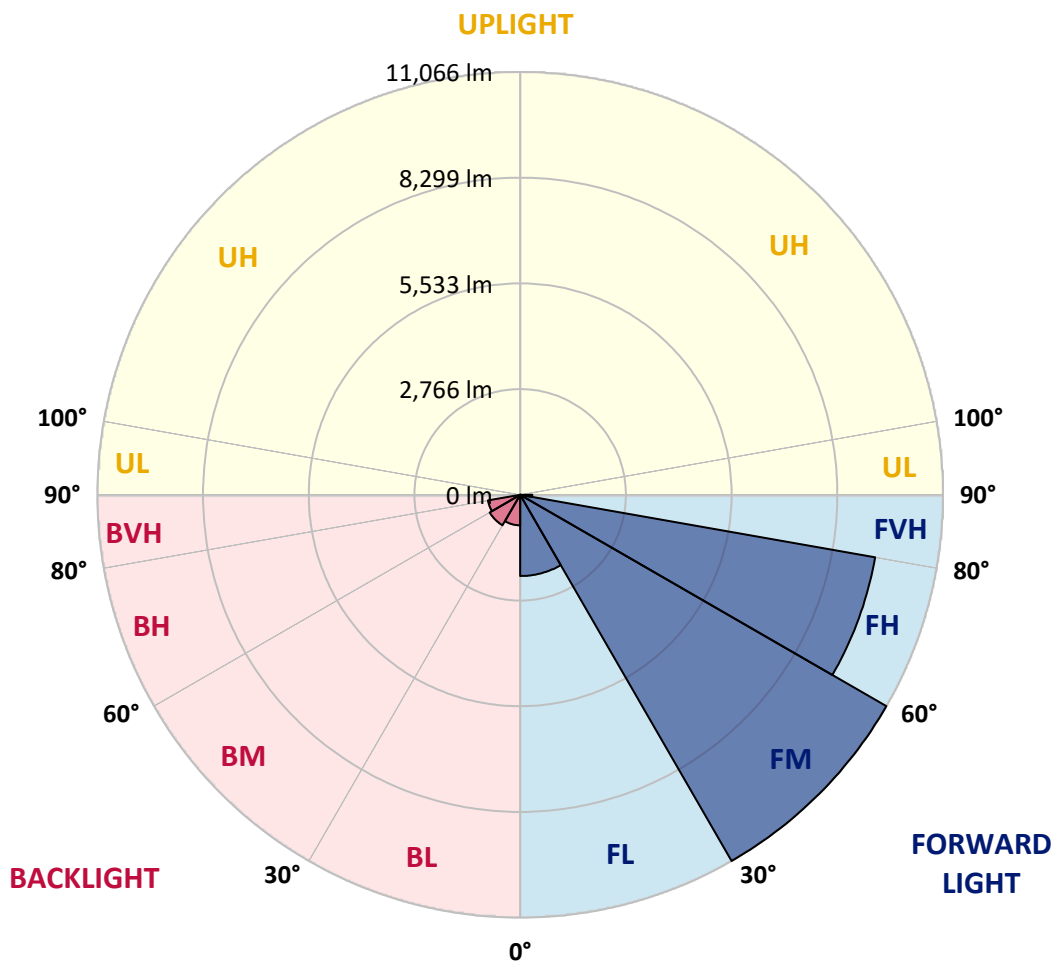
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2125.2	8.3			
FM (30°-60°)	11065.6	43.3			
FH (60°-80°)	9433.0	36.9			G4/12000
FVH (80°-90°)	319.7	1.3			G3/500
BL (0°-30°)	798.1	3.1	B2/1000		
BM (30°-60°)	920.8	3.6	B1/1000		
BH (60°-80°)	854.4	3.3	B2/1000		G2/1000
BVH (80°-90°)	12.6	0.0			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7
2.5°	5982.4	5986.3	5984.2	5990.3	5986.3	5956.2	5924.2	5856.1	5862.1	5773.9	5675.8
5°	5561.4	5595.5	5629.6	5663.6	5745.7	5818.0	5904.1	5924.2	5924.2	5848.1	5703.7
7.5°	5132.6	5134.5	5172.6	5218.8	5328.9	5461.2	5661.7	5841.9	5846.0	5866.0	5707.7
10°	4809.9	4819.9	4845.9	4896.0	5006.3	5136.6	5361.1	5643.6	5665.6	5813.9	5667.6
12.5°	4559.3	4571.4	4599.4	4657.6	4757.8	4892.1	5128.6	5451.3	5481.3	5763.9	5655.5
15°	4367.0	4383.0	4405.1	4463.1	4571.4	4713.6	4972.2	5322.9	5359.0	5743.9	5693.6
17.5°	4286.8	4286.8	4284.8	4324.9	4433.1	4577.5	4848.0	5254.7	5300.9	5759.8	5757.9
20°	4320.8	4314.9	4272.8	4262.7	4328.9	4473.2	4749.8	5210.7	5262.8	5789.8	5836.0
22.5°	4501.2	4489.2	4395.0	4316.9	4296.9	4393.0	4683.7	5180.6	5242.8	5852.0	5940.2
25°	4884.1	4848.0	4717.7	4541.3	4383.0	4372.9	4637.5	5164.6	5230.7	5924.2	6054.4
27.5°	5381.0	5371.1	5162.6	4926.1	4621.5	4439.2	4623.4	5152.6	5218.8	5976.2	6146.7
30°	5998.3	6002.4	5761.9	5453.3	4992.3	4625.6	4667.7	5146.6	5214.8	5980.2	6186.6
32.5°	6635.6	6639.6	6439.2	6108.6	5499.3	4946.2	4791.9	5174.6	5236.8	5964.2	6184.7
35°	7249.0	7254.9	7134.7	6868.1	6176.7	5391.1	5026.3	5270.9	5314.9	5974.3	6180.7
37.5°	8024.5	8048.5	7900.2	7651.8	7026.5	6044.4	5409.1	5465.3	5501.3	6056.5	6210.7
40°	9347.3	9315.2	8890.3	8469.4	7948.4	6840.1	5962.2	5799.9	5811.9	6268.9	6325.0
42.5°	10888.4	10848.3	10120.8	9395.4	8896.3	7800.1	6669.7	6313.0	6311.0	6625.5	6573.4
45°	12215.2	12191.1	11425.5	10457.4	9946.5	8860.3	7541.5	7052.6	7028.5	7242.9	7026.5
47.5°	13157.0	13137.1	12557.9	11587.9	11160.9	10026.6	8629.7	8060.6	8010.5	8050.5	7762.0
50°	13249.2	13227.3	13024.7	12401.6	12579.9	11738.2	9974.5	9381.3	9317.1	9255.0	8874.3
52.5°	12387.4	12385.4	12491.7	12451.5	13573.8	13940.6	11623.9	11014.7	10938.5	10780.2	10401.4
55°	10625.8	10615.8	11018.6	11603.9	13551.8	16213.2	14139.1	12958.6	12858.3	12541.7	12044.7
57.5°	7764.0	7711.9	8553.7	9794.1	12599.8	17207.4	18133.2	15373.7	15207.2	14203.2	13437.7
60°	4286.8	4306.8	5389.1	6858.1	10345.3	17010.9	21808.8	18189.4	17752.5	15636.2	14864.6
62.5°	2403.0	2453.0	3258.7	4457.2	6595.5	15417.7	23780.9	23035.3	21983.2	17307.6	16668.3
65°	1817.7	1847.9	2252.6	3439.2	4158.6	10774.1	24095.5	29811.2	28903.4	19840.8	19540.1
67.5°	1711.5	1735.5	1934.1	2851.8	3787.9	5587.5	21726.6	33819.5	33933.7	23295.8	21764.8
68°	1723.6	1753.6	1951.9	2743.7	3781.8	4998.3	20716.6	33839.5	34082.1	23853.1	21688.6
70°	1583.3	1591.3	2064.2	2691.5	3665.5	3938.1	14986.9	31520.7	31955.6	24516.5	19688.4
72.5°	605.3	607.3	926.0	2330.8	3839.9	3960.2	7549.5	24913.2	24935.2	21335.9	15349.6
75°	314.6	264.6	290.6	729.6	3667.5	3859.9	3787.9	17010.9	16904.8	14429.7	9405.3
77.5°	216.4	184.4	194.5	252.6	1525.1	3858.0	2735.6	9782.2	9760.1	6138.6	2683.4
80°	122.3	106.2	116.2	212.4	535.1	3621.4	2549.2	4204.6	3962.2	1078.2	434.9
82.5°	62.2	52.1	62.2	178.4	332.7	2278.7	2479.1	1649.4	1469.0	256.6	282.5
85°	16.0	16.0	30.1	124.2	206.4	747.5	2222.5	1190.4	1070.2	112.2	200.4
87.5°	4.0	1.9	12.0	46.2	74.2	162.4	1232.6	663.4	571.2	58.1	116.2
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°	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7	5687.7
2.5°	5635.5	5579.5	5469.2	5344.9	5256.8	5160.7	5104.4	5036.3	4984.2	4938.2	4972.2
5°	5615.6	5507.2	5262.8	4988.3	4757.8	4537.2	4372.9	4216.6	4098.4	4024.2	4054.3
7.5°	5563.5	5403.1	5006.3	4577.5	4200.7	3846.0	3557.3	3298.8	3098.3	2990.2	3024.2
10°	5475.3	5248.7	4715.7	4120.4	3593.4	3092.3	2663.5	2278.7	1988.0	1851.8	1883.8
12.5°	5411.1	5112.6	4415.1	3679.5	2986.1	2274.7	1705.5	1264.6	1038.1	901.9	913.8
15°	5383.1	5006.3	4134.4	3214.7	2322.7	1461.1	921.9	667.4	589.2	561.1	563.1
17.5°	5387.0	4922.2	3867.9	2731.7	1653.4	839.7	565.2	509.1	497.0	491.1	491.1
20°	5397.0	4837.9	3591.3	2228.5	1058.2	541.0	471.0	452.9	446.9	438.9	440.9
22.5°	5427.2	4773.9	3312.8	1723.6	651.4	440.9	416.9	400.9	390.9	378.7	380.8
25°	5473.3	4725.8	3038.2	1240.6	458.9	384.8	362.7	340.6	322.8	308.7	310.6
27.5°	5501.3	4657.6	2745.6	845.8	380.8	336.7	306.6	276.6	256.6	244.5	242.5
30°	5481.3	4547.3	2412.9	555.2	336.7	290.6	254.5	220.4	200.4	190.4	190.4
32.5°	5427.2	4405.1	2046.2	404.9	298.5	250.4	206.4	176.3	162.4	156.3	158.3
35°	5365.0	4256.8	1655.3	342.8	268.6	212.4	168.3	144.3	138.2	136.4	136.4
37.5°	5330.9	4128.5	1280.7	310.6	240.4	176.3	138.2	124.2	118.2	118.2	118.2
40°	5369.0	4030.2	947.9	286.6	212.4	146.3	116.2	106.2	104.3	104.3	104.3
42.5°	5531.4	3996.2	693.4	266.5	184.4	122.3	100.3	92.2	90.2	92.2	92.2
45°	5848.1	4070.4	525.1	246.6	158.3	100.3	86.1	80.2	80.2	82.1	82.1
47.5°	6385.2	4260.8	430.8	226.5	132.3	84.3	74.2	70.2	70.2	72.1	72.1
50°	7218.8	4613.4	386.8	204.5	110.2	72.1	62.2	60.1	60.1	62.2	64.0
52.5°	8485.4	5284.9	364.7	182.4	90.2	60.1	52.1	50.0	52.1	54.1	54.1
55°	9894.3	6144.6	338.8	160.3	76.1	50.0	42.1	42.1	44.0	48.1	48.1
57.5°	11207.1	6974.4	314.6	132.3	66.1	40.1	34.0	34.0	38.1	42.1	42.1
60°	12593.9	7788.0	282.5	106.2	56.1	32.1	28.0	28.0	34.0	38.1	40.1
62.5°	14307.5	8734.0	240.4	84.3	44.0	24.1	20.0	26.1	32.1	38.1	38.1
65°	16784.6	9910.5	188.4	66.1	34.0	18.1	16.0	24.1	30.1	36.1	38.1
67.5°	17684.4	9760.1	142.3	54.1	26.1	14.1	14.1	22.1	30.1	36.1	36.1
68°	17355.7	9431.3	136.4	52.1	24.1	14.1	14.1	22.1	30.1	36.1	36.1
70°	15123.1	7709.9	112.2	40.1	20.0	12.0	12.0	20.0	30.1	34.0	36.1
72.5°	11323.2	5122.6	96.2	26.1	18.1	12.0	10.1	20.0	28.0	34.0	34.0
75°	6495.4	2126.4	82.1	20.0	16.0	10.1	10.1	18.1	28.0	34.0	34.0
77.5°	1835.7	497.0	66.1	16.0	14.1	10.1	8.1	18.1	26.1	32.1	32.1
80°	336.7	148.3	52.1	14.1	12.0	10.1	8.1	18.1	26.1	32.1	32.1
82.5°	222.5	70.2	38.1	14.1	12.0	10.1	8.1	16.0	24.1	30.1	30.1
85°	166.4	50.0	24.1	14.1	12.0	10.1	8.1	16.0	24.1	30.1	30.1
87.5°	92.2	22.1	18.1	16.0	14.1	10.1	8.1	14.1	22.1	28.0	28.0
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)