

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: P196480

Luminaire Tested: **NAV-AF-04-D-UNV-AFL-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196480  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-04-D-UNV-AFL-7030-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19804.3 lumens  
Efficiency: N/A  
Efficacy: 88.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 225  
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

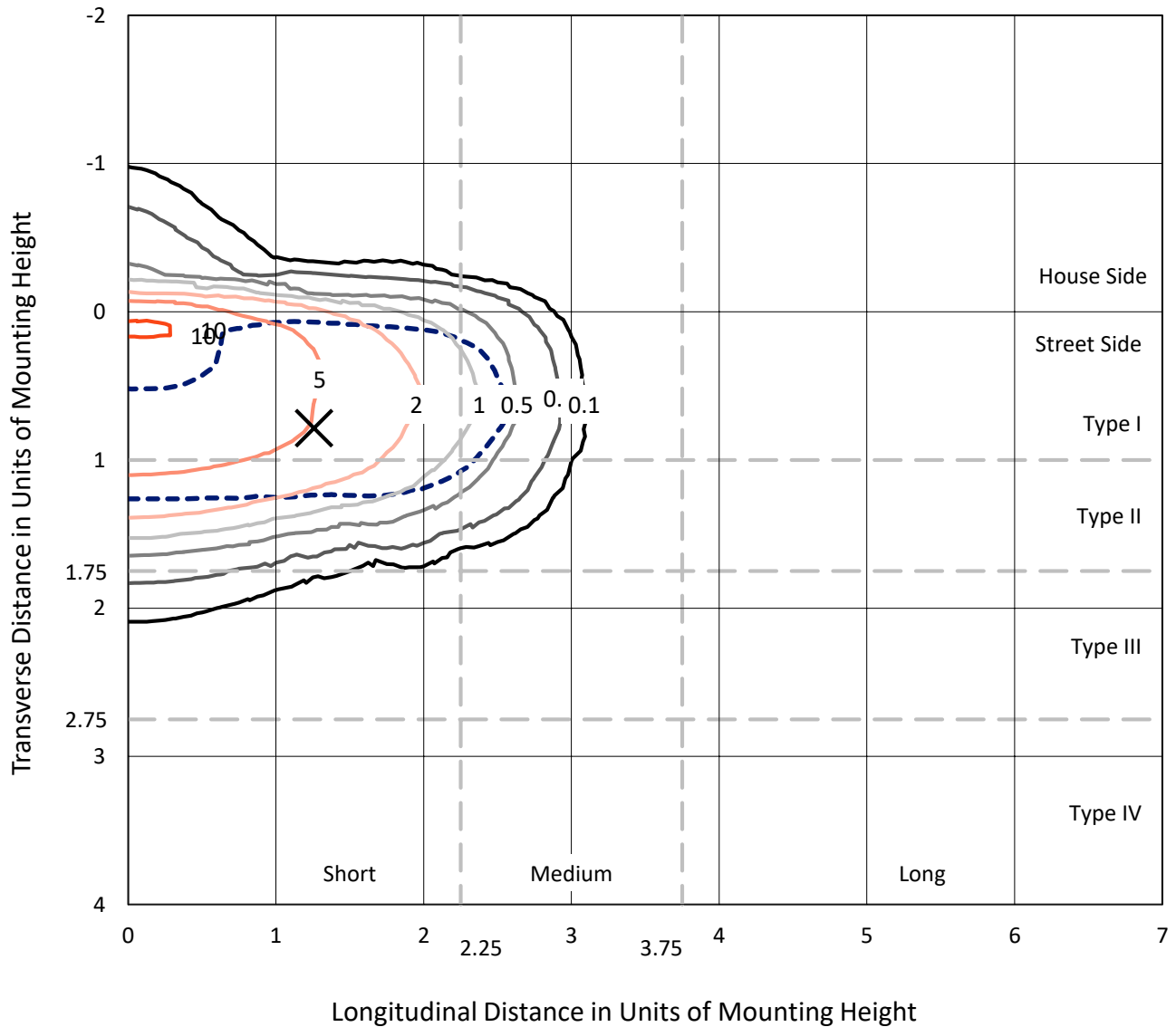


REPORT NUMBER: P196480

CATALOG NUMBER: NAV-AF-04-D-UNV-AFL-7030-HSS

### Iso-Footcandle Lines of Horizontal Illumination

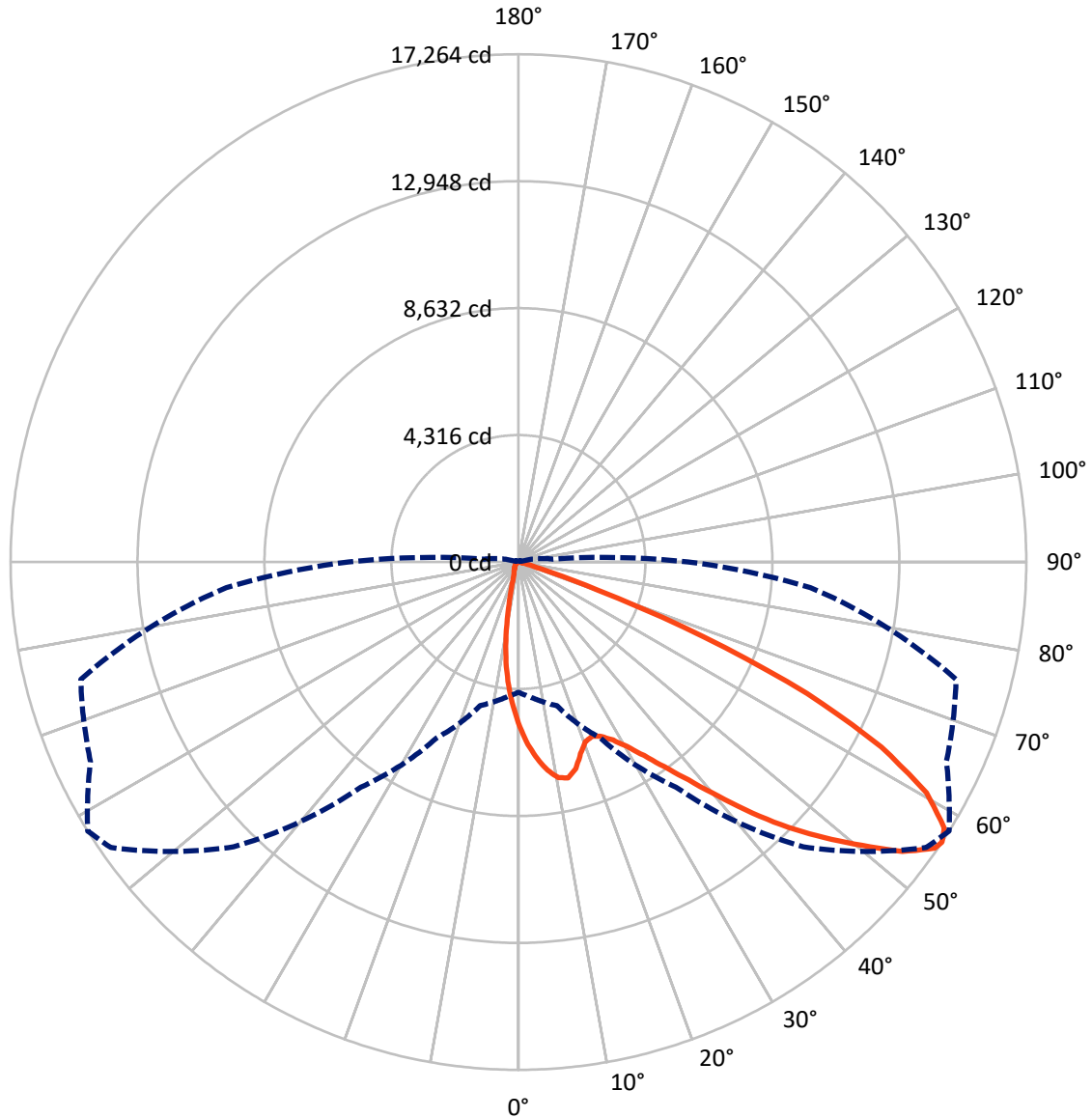
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P196480  
CATALOG NUMBER: NAV-AF-04-D-UNV-AFL-7030-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral      - - - Horizontal Cone Through 56-Deg Vertical

REPORT NUMBER: P196480

CATALOG NUMBER: NAV-AF-04-D-UNV-AFL-7030-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1236.2	0.0	1236.2
	% Fixture	6.2	0.0	6.2
<b>Street Side</b>	Lumens	18568.1	0.0	18568.1
	% Fixture	93.8	0.0	93.8
<b>Total</b>	Lumens	19804.3	0.0	19804.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	478.3	2.4
10°-20°	1113.0	5.6
20°-30°	1872.8	9.5
30°-40°	3207.0	16.2
40°-50°	4839.4	24.4
50°-60°	5030.4	25.4
60°-70°	2824.0	14.3
70°-80°	387.0	2.0
80°-90°	52.4	0.3
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°	19804.3	100.0
0°-180°	19804.3	100.0

**Coefficient of Utilization**



REPORT NUMBER: P196480

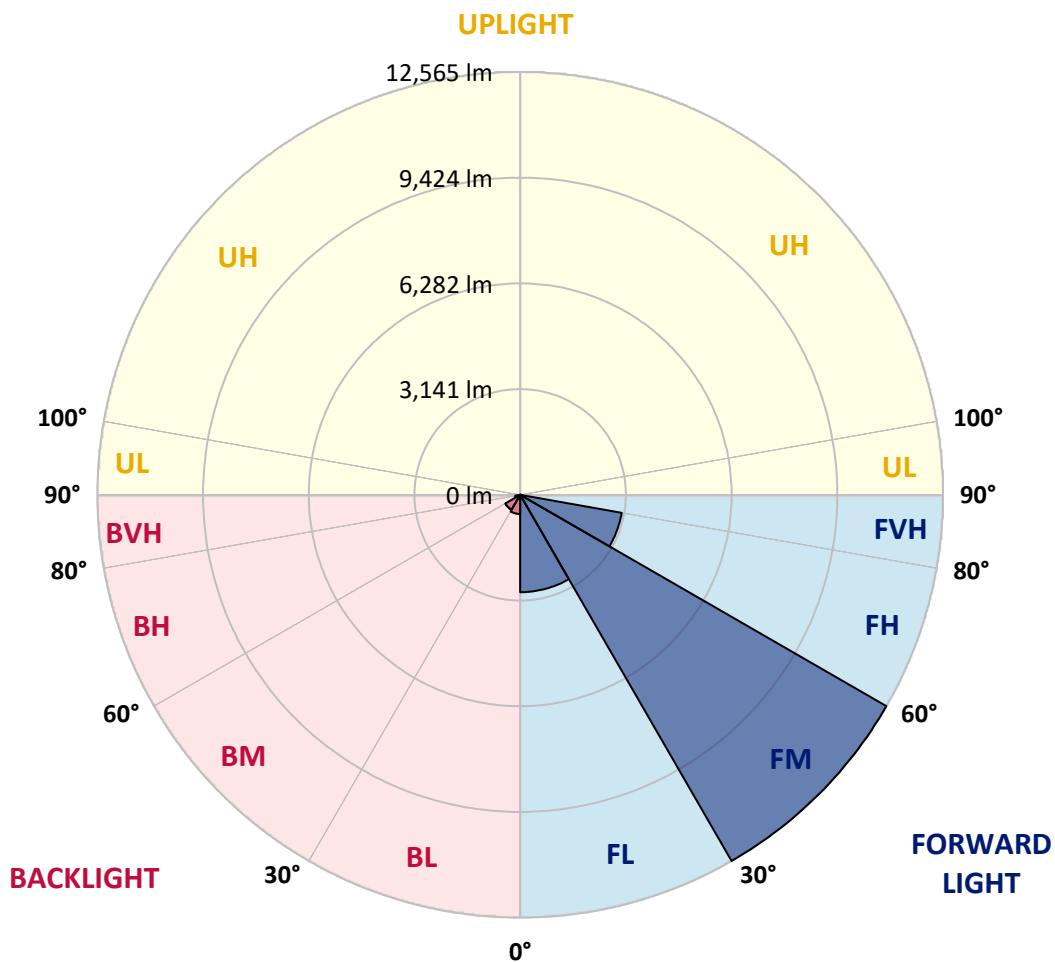
CATALOG NUMBER: NAV-AF-04-D-UNV-AFL-7030-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2893.9	14.6			
FM	(30°-60°)	12564.7	63.4			
FH	(60°-80°)	3064.4	15.5			G2/5000
FVH	(80°-90°)	45.2	0.2			G1/100
BL	(0°-30°)	570.3	2.9	B2/1000		
BM	(30°-60°)	512.1	2.6	B1/1000		
BH	(60°-80°)	146.6	0.7	B1/500		G1/500
BVH	(80°-90°)	7.2	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-G2**

Type II Short





REPORT NUMBER: P196480

CATALOG NUMBER: NAV-AF-04-D-UNV-AFL-7030-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1
2.5°	6746.4	6705.7	6663.4	6584.8	6512.3	6400.5	6246.4	6208.5	6087.7	5888.2	5702.3
5°	7328.2	7320.7	7292.0	7228.5	7149.9	7013.9	6840.1	6723.9	6536.4	6222.2	5864.1
7.5°	6983.8	7047.1	7151.4	7299.5	7399.2	7385.6	7252.6	7151.4	6965.6	6536.4	6022.7
10°	5886.8	5898.8	6042.4	6353.7	6846.1	7305.5	7479.4	7452.1	7281.4	6811.4	6161.7
12.5°	5499.9	5507.4	5540.7	5640.4	5960.7	6601.5	7388.6	7530.7	7517.0	7074.3	6309.8
15°	5530.1	5534.6	5543.7	5575.5	5666.1	5988.0	6929.3	7290.5	7668.2	7323.6	6454.8
17.5°	5768.9	5765.8	5737.2	5706.9	5735.7	5841.4	6460.9	6841.7	7636.4	7533.7	6574.2
20°	6234.3	6249.4	6152.7	6018.2	5948.7	5953.2	6229.8	6515.3	7458.1	7696.9	6663.4
22.5°	6888.5	6899.0	6740.4	6507.7	6303.7	6201.0	6278.0	6429.2	7252.6	7848.0	6736.0
25°	7669.7	7669.7	7447.5	7116.7	6800.9	6575.8	6509.2	6566.7	7174.1	8018.7	6808.4
27.5°	8512.8	8543.0	8252.9	7819.2	7402.2	7072.9	6864.3	6853.8	7234.5	8233.2	6890.0
30°	9429.9	9457.2	9112.7	8582.4	8088.3	7666.6	7346.4	7276.7	7465.6	8521.9	7009.4
32.5°	10342.6	10365.2	9984.4	9443.6	8867.9	8372.3	7950.7	7840.5	7881.2	8943.4	7184.7
35°	11503.1	11507.5	11025.6	10381.9	9766.9	9185.2	8651.8	8543.0	8497.6	9475.3	7436.9
37.5°	12426.2	12390.0	12084.7	11475.8	10770.2	10162.8	9535.7	9393.7	9284.9	10223.2	7828.3
40°	12643.8	12643.8	12598.4	12415.6	11855.0	11270.3	10662.9	10451.4	10211.2	11104.1	8354.2
42.5°	12077.2	12113.5	12412.6	12810.0	12814.6	12439.8	11846.0	11667.7	11244.6	12107.3	8928.3
45°	10809.4	10820.1	11537.8	12610.6	13338.8	13553.4	13115.3	12868.9	12282.7	13150.0	9454.1
47.5°	10353.2	10386.4	10691.6	12003.1	13378.1	14455.4	14333.0	13994.6	13243.7	14101.9	9945.3
50°	9652.1	9692.8	10066.0	11108.6	13024.6	15034.2	15498.0	15135.3	14118.5	14895.1	10188.4
52.5°	7975.0	8038.3	8565.7	9925.5	12140.7	15058.3	16564.8	16347.2	15014.5	15319.7	10159.8
55°	5487.9	5534.6	6149.6	7748.2	10357.7	14319.4	17024.1	17173.7	15813.7	15415.0	10020.7
56°	4427.1	4602.4	5052.7	6601.5	9342.3	13690.8	16918.4	17264.4	16051.1	15399.8	9960.3
57.5°	2926.7	2960.0	3451.1	4783.7	7502.0	12326.5	16440.9	17070.8	16356.2	15322.7	9916.5
60°	1376.4	1391.6	1568.4	2207.5	4060.0	8982.8	14889.1	15934.7	16468.1	15161.1	9914.9
62.5°	897.6	900.6	921.7	1053.1	1660.5	4892.5	12343.1	13848.1	15541.8	15142.9	9886.4
65°	738.8	746.5	720.8	737.4	868.8	1844.9	8706.3	10795.9	13367.6	14716.7	9562.9
67.5°	651.1	652.8	618.0	598.3	636.1	809.8	4386.3	6809.9	9998.1	12504.8	7876.7
70°	593.9	592.3	553.0	507.7	509.1	537.9	1429.3	2828.5	5531.7	7424.9	4522.3
72.5°	527.2	530.4	507.7	444.2	423.1	380.8	537.9	763.0	1882.6	2384.2	1192.1
75°	462.3	456.2	433.6	392.9	353.6	255.3	270.4	324.8	491.0	486.5	256.9
77.5°	350.5	344.5	355.1	335.4	276.5	178.3	148.0	169.3	222.2	207.0	104.3
80°	267.4	264.4	241.8	287.2	252.3	134.5	101.3	104.3	120.8	110.4	51.4
82.5°	193.4	191.9	182.8	176.8	160.2	98.3	77.0	81.6	90.6	77.0	37.8
85°	74.1	74.1	143.5	120.8	110.4	66.4	54.4	58.9	69.5	55.9	25.6
87.5°	12.1	12.1	96.7	80.1	49.8	33.3	34.8	37.8	40.8	33.3	19.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196480

CATALOG NUMBER: NAV-AF-04-D-UNV-AFL-7030-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1	5607.1
2.5°	5592.1	5490.9	5268.7	5054.3	4866.9	4661.3	4557.1	4436.3	4390.9	4300.2	4309.3
5°	5649.5	5438.0	4992.3	4522.3	4091.6	3653.5	3342.2	3049.1	2886.0	2724.3	2724.3
7.5°	5708.5	5385.1	4696.1	3945.2	3219.9	2468.9	1937.0	1510.9	1273.8	1115.1	1110.5
10°	5749.2	5317.1	4359.1	3275.8	2206.1	1272.3	767.5	604.4	545.4	519.7	518.2
12.5°	5802.1	5249.2	3975.4	2487.1	1225.4	604.4	479.0	453.3	442.7	436.7	436.7
15°	5847.4	5152.4	3510.0	1672.6	643.6	453.3	412.5	403.3	402.0	400.4	402.0
17.5°	5858.1	5014.9	2952.4	979.1	466.9	395.8	377.7	370.2	370.2	368.6	368.6
20°	5833.9	4833.6	2336.0	604.4	403.3	364.2	344.5	335.4	333.9	333.9	333.9
22.5°	5783.9	4602.4	1727.1	457.8	367.1	335.4	309.8	300.7	300.7	302.2	303.7
25°	5722.0	4329.0	1186.1	394.3	340.1	305.2	279.4	270.4	273.4	276.5	278.1
27.5°	5643.5	4002.6	776.7	341.4	303.7	275.0	252.3	246.3	252.3	258.4	261.3
30°	5564.9	3644.5	525.9	296.2	262.9	241.8	228.2	226.6	235.7	249.3	250.9
32.5°	5513.6	3277.3	397.3	265.9	231.2	213.0	207.0	210.0	223.7	238.7	241.8
35°	5509.0	2919.2	338.4	241.8	210.0	193.4	190.3	199.4	214.5	226.6	229.7
37.5°	5580.0	2583.8	306.7	223.7	193.4	176.8	172.3	188.9	202.4	214.5	217.5
40°	5723.5	2283.1	285.6	207.0	179.8	160.2	157.2	170.8	184.3	198.0	202.4
42.5°	5903.4	2002.0	261.3	190.3	164.7	142.0	139.0	149.5	163.3	182.8	185.8
45°	6059.0	1740.6	235.7	172.3	148.0	122.4	120.8	133.0	143.5	161.7	164.7
47.5°	6190.4	1523.1	211.5	152.6	127.0	108.8	107.3	113.3	119.4	136.0	139.0
50°	6120.9	1338.8	187.4	125.4	102.7	93.6	92.3	92.3	99.8	116.4	119.4
52.5°	5950.2	1223.9	164.7	104.3	84.5	80.1	75.5	77.0	84.5	92.3	93.6
55°	5812.7	1169.5	145.1	92.3	71.0	66.4	62.0	60.4	62.0	58.9	55.9
56°	5779.5	1163.4	140.5	89.1	68.0	62.0	55.9	52.9	51.4	45.4	43.8
57.5°	5764.3	1163.4	133.0	83.1	63.5	55.9	48.4	42.3	36.3	31.6	31.6
60°	5752.3	1171.0	123.9	72.5	54.4	45.4	34.8	25.6	21.2	21.2	21.2
62.5°	5726.6	1168.0	113.3	60.4	46.9	34.8	21.2	16.6	15.1	16.6	18.1
65°	5438.0	1084.8	99.8	48.4	36.3	24.1	12.1	12.1	13.5	16.6	18.1
67.5°	4381.9	821.9	81.6	37.8	25.6	18.1	10.6	10.6	13.5	16.6	18.1
70°	2407.0	433.6	69.5	27.2	19.6	15.1	10.6	9.1	13.5	16.6	18.1
72.5°	587.9	181.4	63.5	21.2	18.1	13.5	9.1	9.1	13.5	16.6	18.1
75°	145.1	136.0	51.4	16.6	15.1	12.1	9.1	9.1	13.5	16.6	18.1
77.5°	68.0	179.8	34.8	15.1	13.5	10.6	9.1	9.1	13.5	16.6	16.6
80°	40.8	136.0	21.2	13.5	12.1	10.6	9.1	9.1	13.5	16.6	18.1
82.5°	24.1	39.4	15.1	13.5	12.1	9.1	9.1	9.1	13.5	16.6	18.1
85°	21.2	19.6	15.1	13.5	12.1	10.6	9.1	9.1	15.1	18.1	18.1
87.5°	16.6	15.1	13.5	12.1	12.1	10.6	9.1	9.1	13.5	16.6	18.1
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)