

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: P196428

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28936.2 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

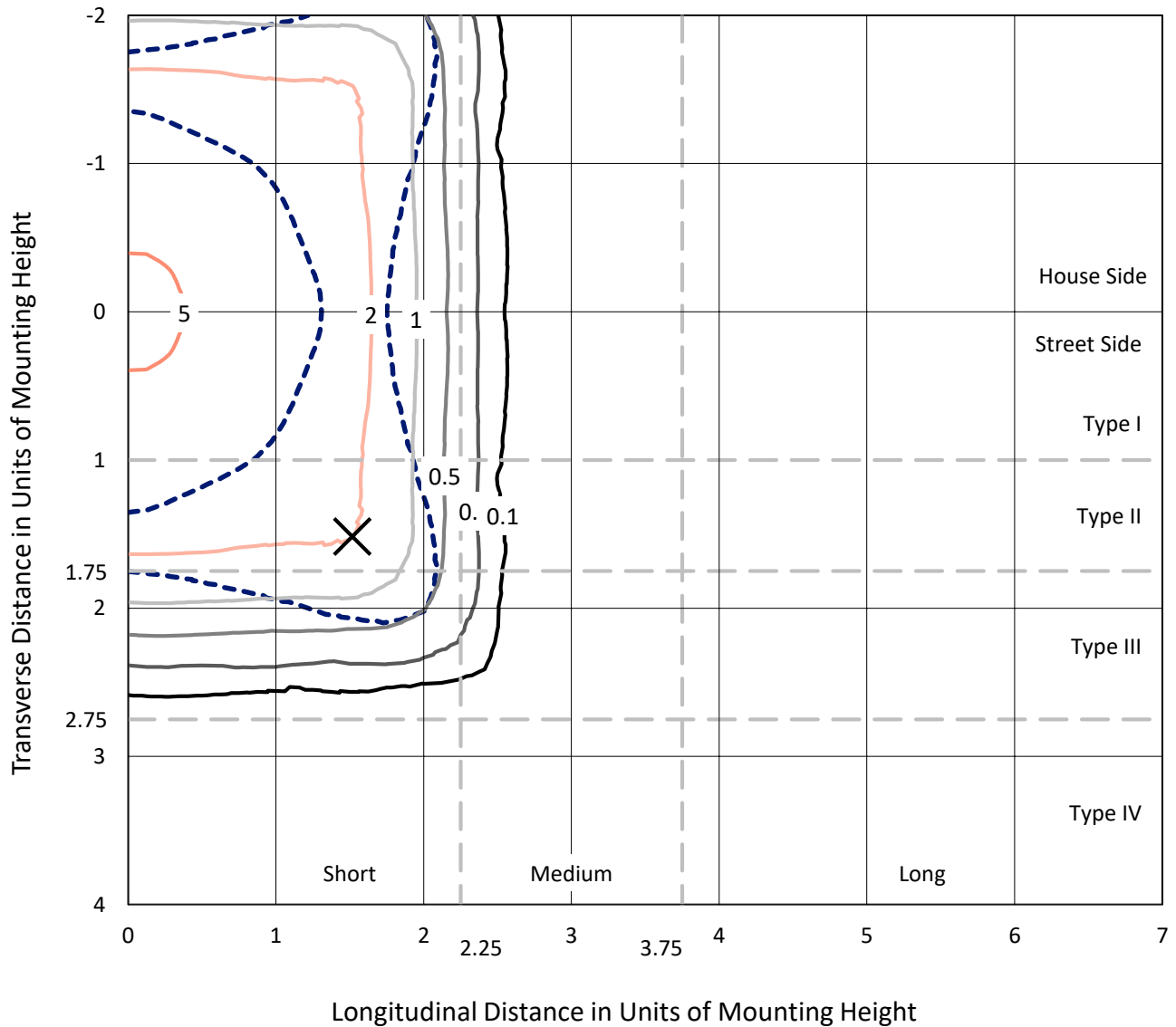
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196428
 CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7030-800

Iso-Footcandle Lines of Horizontal Illumination

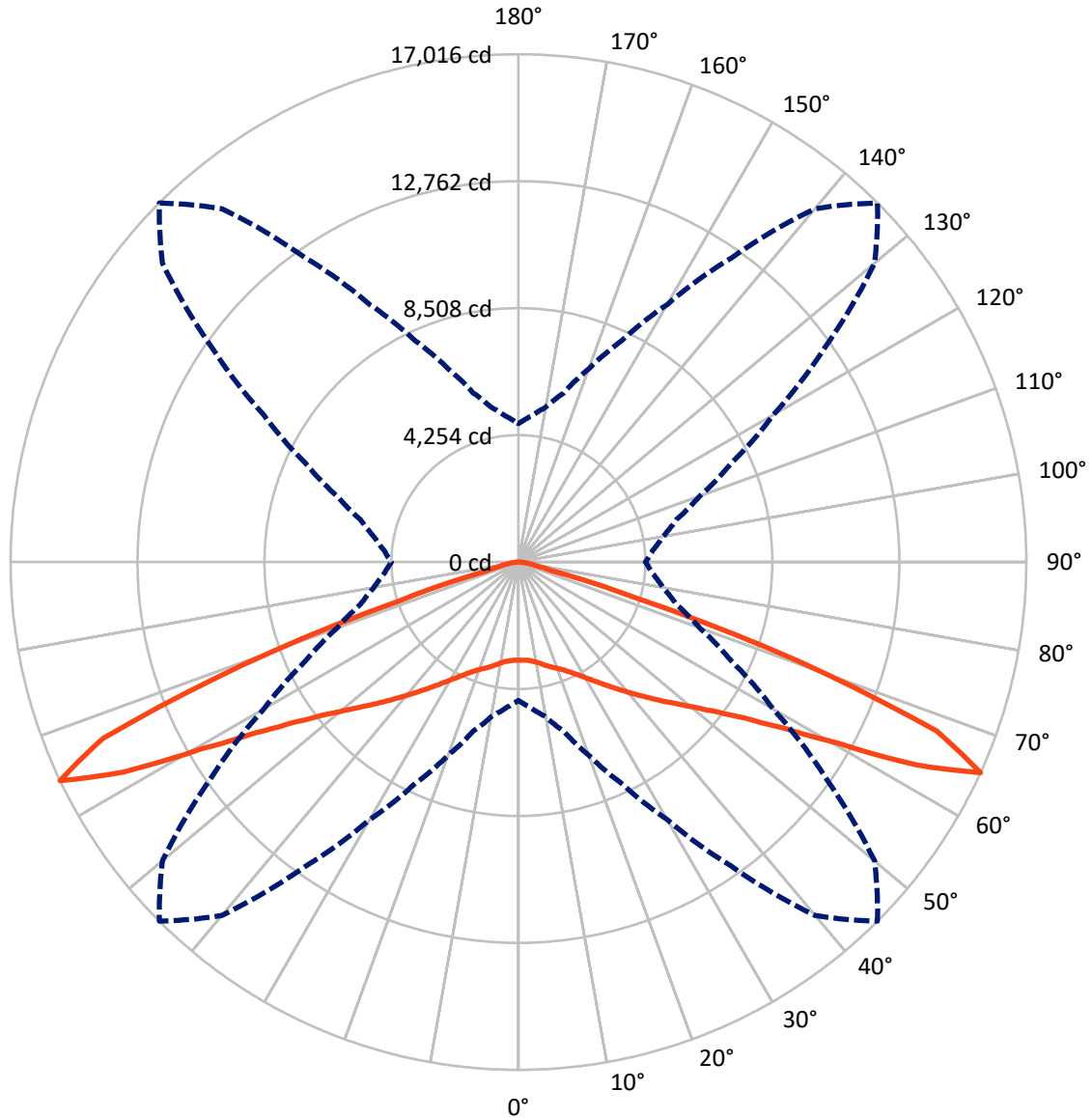
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196428
CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P196428

CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14468.1	0.0	14468.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14468.1	0.0	14468.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	28936.2	0.0	28936.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.5	1.1
10°-20°	1027.3	3.6
20°-30°	1916.4	6.6
30°-40°	3231.3	11.2
40°-50°	5248.6	18.1
50°-60°	8223.7	28.4
60°-70°	7762.8	26.8
70°-80°	1046.2	3.6
80°-90°	159.3	0.6
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°	28936.2	100.0
0°-180°	28936.2	100.0



REPORT NUMBER: P196428

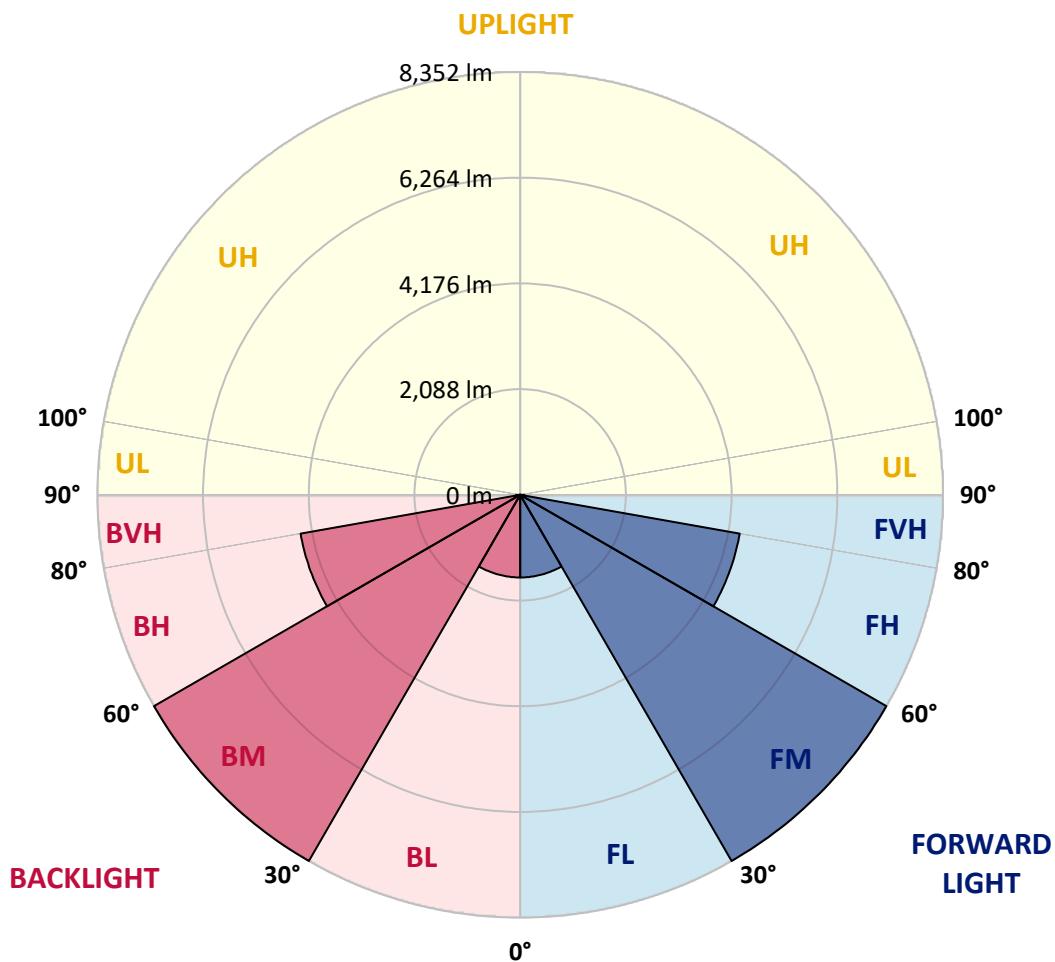
CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1632.1	5.6			
FM	(30°-60°)	8351.8	28.9			
FH	(60°-80°)	4404.5	15.2			G2/5000
FVH	(80°-90°)	79.7	0.3			G1/100
BL	(0°-30°)	1632.1	5.6	B3/2500		
BM	(30°-60°)	8351.8	28.9	B4/8500		
BH	(60°-80°)	4404.5	15.2	B4/5000		G2/5000
BVH	(80°-90°)	79.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P196428

CATALOG NUMBER: NAV-AF-06-D-UNV-5NQ-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4
2.5°	3318.5	3318.5	3323.8	3322.1	3314.9	3309.5	3304.1	3296.9	3293.3	3289.7	3287.8
5°	3336.6	3336.6	3341.9	3340.2	3334.7	3327.5	3323.8	3318.5	3313.1	3309.5	3311.3
7.5°	3381.6	3383.4	3385.2	3383.4	3378.0	3372.7	3365.4	3363.5	3356.3	3351.0	3354.6
10°	3450.1	3450.1	3451.9	3453.6	3450.1	3437.6	3437.6	3433.9	3426.7	3419.5	3421.2
12.5°	3525.8	3525.8	3527.6	3527.6	3527.6	3520.4	3522.2	3520.4	3511.4	3507.8	3511.4
15°	3599.6	3601.5	3601.5	3605.1	3605.1	3606.8	3614.1	3614.1	3610.5	3608.8	3608.8
17.5°	3686.2	3689.8	3691.7	3697.0	3698.9	3702.5	3709.7	3711.4	3713.2	3707.8	3709.7
20°	3801.5	3803.5	3808.8	3810.6	3817.8	3817.8	3821.5	3819.6	3816.0	3808.8	3808.8
22.5°	3931.3	3935.0	3945.8	3945.8	3954.7	3949.4	3951.2	3945.8	3936.7	3933.2	3929.6
25°	4100.8	4106.2	4115.2	4111.7	4115.2	4106.2	4106.2	4106.2	4100.8	4095.4	4093.6
27.5°	4315.3	4306.4	4315.3	4308.1	4306.4	4299.2	4300.9	4297.2	4291.9	4290.1	4282.9
30°	4538.8	4528.0	4533.3	4535.3	4531.6	4529.8	4522.6	4517.3	4508.1	4510.0	4504.5
32.5°	4794.9	4784.0	4789.4	4791.2	4787.6	4791.2	4789.4	4776.9	4766.0	4773.2	4773.2
35°	5099.4	5092.2	5106.7	5112.0	5101.2	5095.9	5088.6	5074.2	5057.9	5068.7	5070.6
37.5°	5465.3	5456.3	5467.2	5481.5	5461.8	5451.0	5422.1	5400.4	5389.6	5395.0	5402.3
40°	5845.7	5847.4	5878.1	5881.8	5860.1	5847.4	5818.6	5786.2	5755.6	5755.6	5764.5
42.5°	6245.8	6251.3	6287.4	6299.9	6292.7	6269.3	6229.6	6190.0	6150.3	6157.6	6168.3
45°	6698.2	6691.0	6728.9	6759.6	6754.2	6747.0	6709.1	6637.0	6600.9	6599.2	6617.2
47.5°	7174.2	7188.6	7228.3	7280.5	7278.8	7260.8	7211.9	7145.3	7078.6	7084.1	7105.6
50°	7729.3	7749.2	7815.9	7868.1	7875.3	7870.0	7812.2	7734.8	7641.0	7646.4	7675.3
52.5°	8226.9	8255.7	8333.2	8441.4	8508.0	8538.7	8500.8	8428.7	8333.2	8338.5	8369.3
55°	8677.5	8722.6	8837.9	8985.7	9119.1	9243.5	9299.4	9297.5	9227.3	9243.5	9283.1
57.5°	8960.5	9023.6	9198.4	9436.4	9701.3	9951.9	10168.2	10371.9	10417.0	10501.7	10501.7
60°	8580.1	8727.9	8960.5	9367.9	9888.8	10451.2	11060.5	11653.5	12035.7	12336.7	12174.4
62.5°	7165.1	7383.3	7709.6	8246.7	9057.8	10061.8	11285.8	12664.8	14103.1	14982.8	14337.5
65°	4636.2	4910.1	5265.2	5869.1	6891.2	8183.6	9966.3	12444.8	15455.0	17016.1	15574.1
67.5°	1836.7	2022.5	2238.7	2667.8	3554.6	4823.6	6824.5	9881.6	13647.1	15119.9	13503.0
70°	877.8	908.5	949.9	1041.9	1263.6	1705.2	2741.7	4868.7	8369.3	9921.3	8169.2
72.5°	634.5	639.9	659.7	690.4	755.3	845.4	1027.5	1488.8	2885.9	4196.3	2889.5
75°	481.3	488.5	499.4	515.4	549.8	593.1	661.6	793.1	987.8	1139.2	985.9
77.5°	365.9	373.1	382.2	398.4	416.4	447.0	472.2	524.6	607.5	639.9	636.3
80°	266.8	279.3	293.8	308.2	320.9	335.3	337.1	362.3	409.1	439.8	430.8
82.5°	169.5	180.3	218.1	234.4	236.1	239.8	237.9	239.8	265.0	286.6	279.3
85°	108.1	115.4	135.2	153.2	149.5	156.8	156.8	153.2	142.4	122.6	146.0
87.5°	54.1	55.8	64.9	81.1	77.5	68.5	66.6	66.6	48.6	41.4	45.1
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: P196428

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4	3291.4
2.5°	3282.4	3286.1	3280.6	3280.6	3278.9	3282.4	3277.0	3277.0
5°	3307.8	3313.1	3311.3	3311.3	3314.9	3318.5	3316.7	3314.9
7.5°	3352.7	3356.3	3359.9	3361.8	3365.4	3363.5	3367.2	3365.4
10°	3421.2	3417.6	3423.1	3417.6	3419.5	3415.9	3417.6	3417.6
12.5°	3507.8	3502.3	3498.7	3495.2	3495.2	3488.0	3488.0	3489.7
15°	3606.8	3597.9	3590.7	3587.1	3583.4	3583.4	3578.0	3581.6
17.5°	3704.2	3695.2	3682.6	3682.6	3677.2	3673.7	3670.0	3679.0
20°	3807.0	3798.0	3790.7	3789.0	3778.1	3774.6	3776.3	3787.2
22.5°	3926.0	3920.6	3920.6	3917.0	3909.8	3904.4	3904.4	3917.0
25°	4086.4	4075.6	4077.3	4079.2	4075.6	4075.6	4072.0	4081.0
27.5°	4282.9	4273.9	4279.2	4282.9	4279.2	4284.7	4279.2	4286.5
30°	4513.6	4508.1	4513.6	4519.0	4510.0	4510.0	4506.4	4511.8
32.5°	4789.4	4782.2	4785.8	4785.8	4773.2	4762.4	4748.0	4758.8
35°	5092.2	5083.2	5090.4	5095.9	5081.4	5070.6	5049.0	5057.9
37.5°	5425.7	5429.3	5438.3	5461.8	5458.1	5440.1	5423.8	5431.1
40°	5798.8	5816.9	5856.6	5872.6	5869.1	5851.1	5829.4	5833.1
42.5°	6220.5	6244.0	6285.4	6312.6	6299.9	6274.6	6247.7	6258.5
45°	6680.2	6716.2	6770.4	6797.4	6781.1	6754.2	6716.2	6736.2
47.5°	7167.0	7239.1	7311.2	7347.2	7341.7	7304.0	7255.3	7260.8
50°	7749.2	7844.7	7936.6	7972.6	7945.7	7888.0	7819.4	7817.7
52.5°	8473.8	8576.6	8652.2	8643.3	8576.6	8486.3	8408.9	8405.4
55°	9378.7	9412.9	9402.1	9324.6	9207.4	9066.9	8967.7	8951.5
57.5°	10472.8	10357.4	10188.0	9953.7	9690.5	9423.7	9243.5	9176.8
60°	11810.3	11289.4	10683.7	10045.7	9463.4	9027.2	8751.3	8583.7
62.5°	12915.3	11406.5	10052.8	8944.3	8037.5	7498.6	7121.8	6889.4
65°	12536.7	9854.5	7893.3	6464.0	5474.3	4917.3	4519.0	4254.0
67.5°	9685.1	6584.7	4582.2	3176.0	2408.2	2038.7	1780.9	1613.3
70°	4883.2	2525.4	1530.4	1079.7	922.9	858.0	814.7	789.5
72.5°	1433.1	957.1	795.0	703.0	647.2	607.5	582.3	569.6
75°	793.1	647.2	571.4	519.1	483.0	456.0	439.8	429.1
77.5°	546.2	470.5	432.6	398.4	369.6	349.7	337.1	326.2
80°	382.2	344.2	328.1	310.1	288.5	272.2	254.1	246.9
82.5°	254.1	237.9	234.4	219.9	207.3	189.2	156.8	146.0
85°	149.5	147.8	147.8	142.4	133.4	117.1	93.8	93.8
87.5°	52.2	54.1	55.8	59.4	57.7	48.6	39.7	37.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)