

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: P270565

Luminaire Tested: **NAV-AF-05-D-UNV-5NQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270565
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-05-D-UNV-5NQ-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26856.3 lumens
Efficiency: N/A
Efficacy: 96.3 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

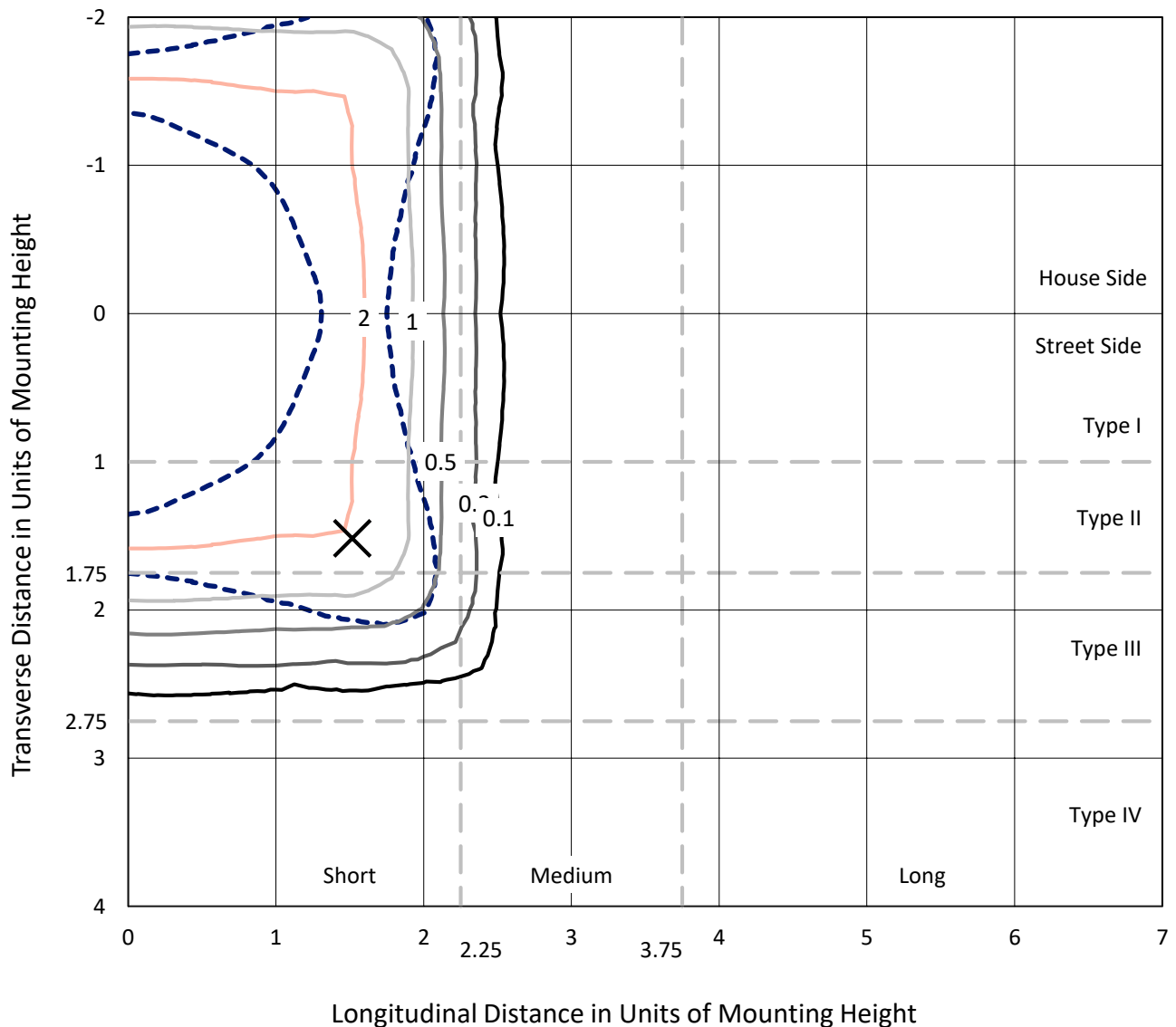
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270565
 CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7027

Iso-Footcandle Lines of Horizontal Illumination

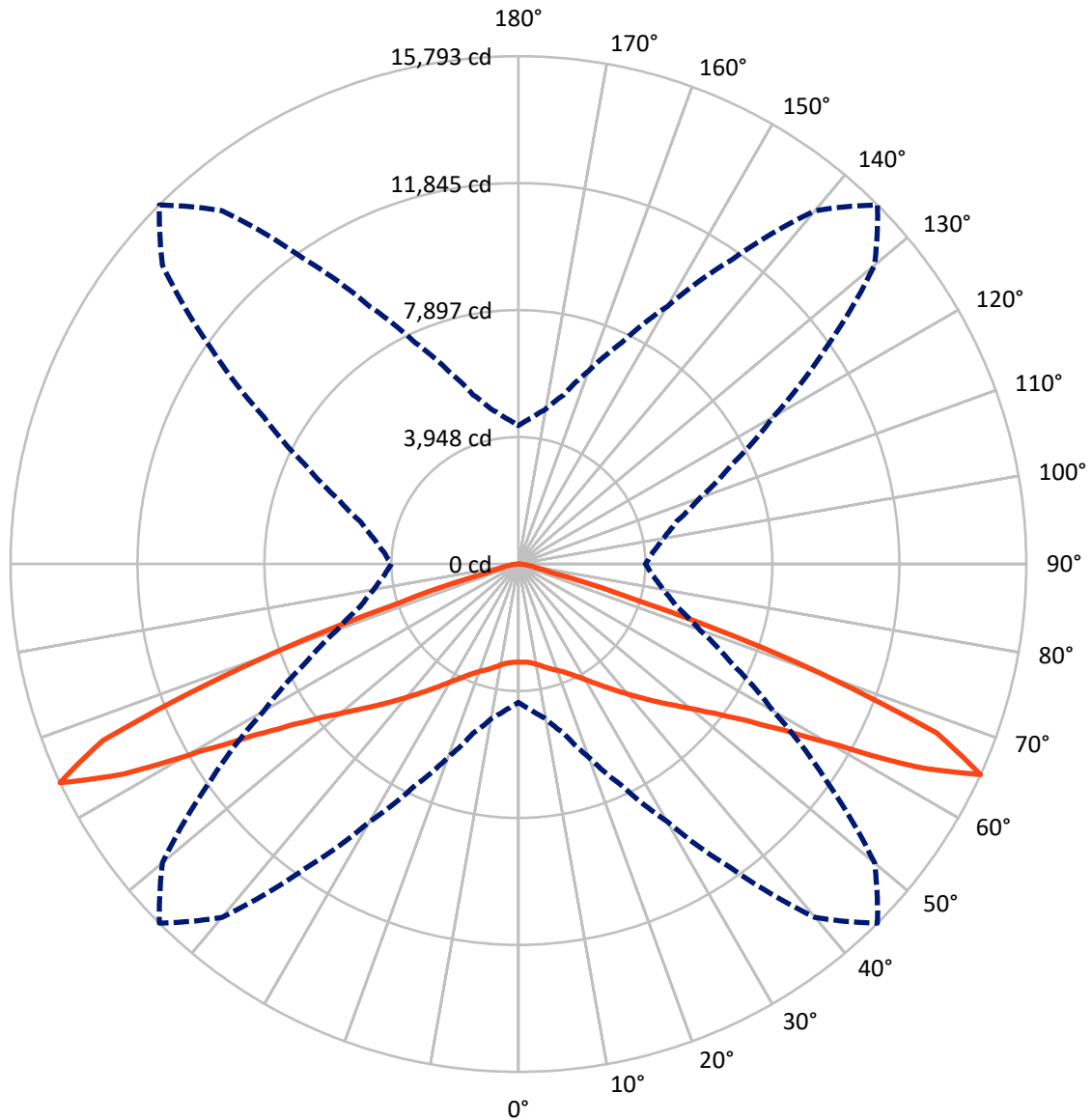
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270565
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270565
 CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7027

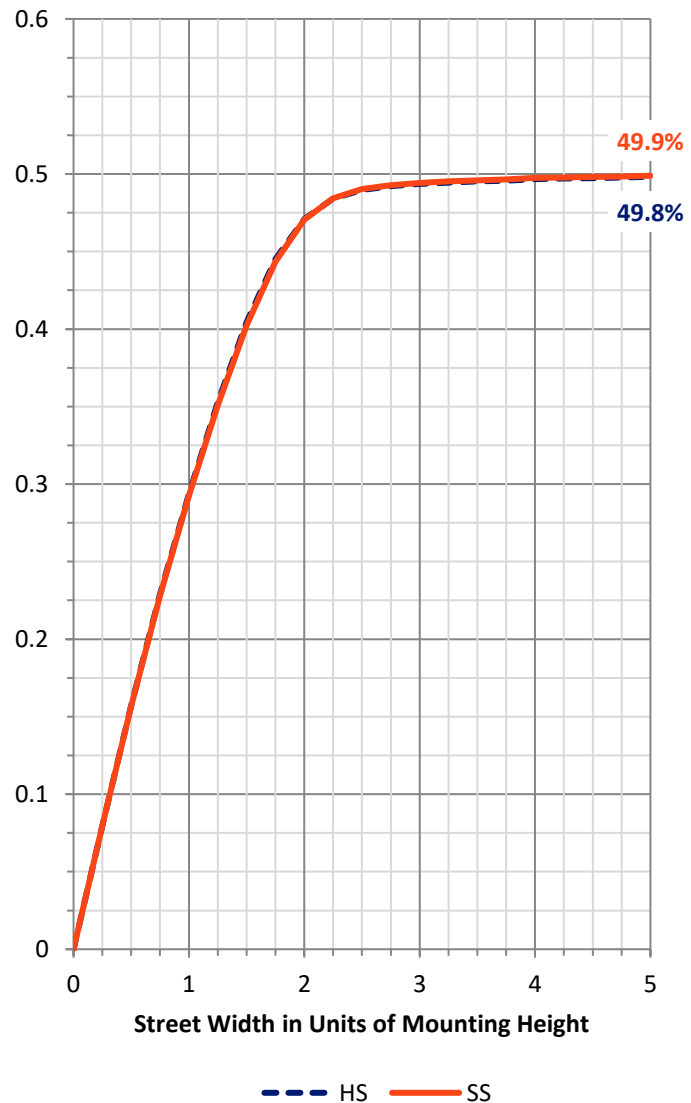
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13428.1	0.0	13428.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13428.1	0.0	13428.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	26856.3	0.0	26856.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.5	1.1
10°-20°	953.5	3.6
20°-30°	1778.6	6.6
30°-40°	2999.1	11.2
40°-50°	4871.4	18.1
50°-60°	7632.6	28.4
60°-70°	7204.8	26.8
70°-80°	971.0	3.6
80°-90°	147.9	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°	26856.3	100.0
0°-180°	26856.3	100.0



REPORT NUMBER: P270565

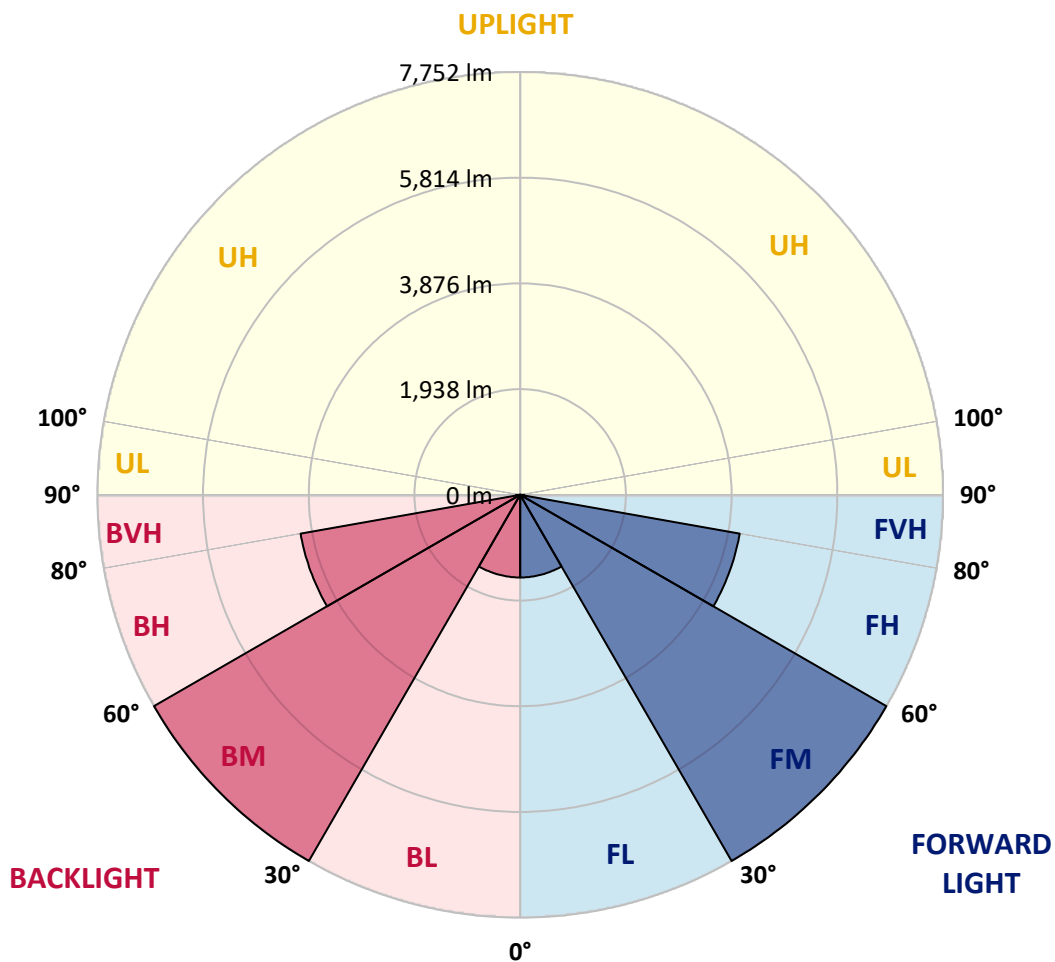
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1514.8	5.6			
FM	(30°-60°)	7751.5	28.9			
FH	(60°-80°)	4087.9	15.2			G2/5000
FVH	(80°-90°)	74.0	0.3			G1/100
BL	(0°-30°)	1514.8	5.6	B3/2500		
BM	(30°-60°)	7751.5	28.9	B4/8500		
BH	(60°-80°)	4087.9	15.2	B4/5000		G2/5000
BVH	(80°-90°)	74.0	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: P270565
 CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9
2.5°	3080.0	3080.0	3085.0	3083.3	3076.7	3071.7	3066.5	3059.8	3056.6	3053.2	3051.5
5°	3096.6	3096.6	3101.7	3100.1	3095.0	3088.4	3085.0	3080.0	3075.0	3071.7	3073.3
7.5°	3138.5	3140.1	3141.8	3140.1	3135.2	3130.1	3123.4	3121.8	3115.1	3110.1	3113.4
10°	3202.1	3202.1	3203.7	3205.4	3202.1	3190.4	3190.4	3187.0	3180.3	3173.6	3175.2
12.5°	3272.3	3272.3	3274.1	3274.1	3274.1	3267.3	3269.0	3267.3	3259.1	3255.6	3259.1
15°	3340.9	3342.7	3342.7	3345.9	3345.9	3347.7	3354.4	3354.4	3350.9	3349.3	3349.3
17.5°	3421.3	3424.6	3426.2	3431.3	3433.0	3436.2	3443.1	3444.7	3446.3	3441.3	3443.1
20°	3528.4	3530.0	3535.0	3536.6	3543.4	3543.4	3546.7	3545.0	3541.7	3535.0	3535.0
22.5°	3648.7	3652.1	3662.2	3662.2	3670.6	3665.5	3667.2	3662.2	3653.8	3650.4	3647.1
25°	3806.1	3811.1	3819.5	3816.1	3819.5	3811.1	3811.1	3811.1	3806.1	3801.0	3799.3
27.5°	4005.2	3996.7	4005.2	3998.4	3996.7	3990.1	3991.8	3988.4	3983.4	3981.6	3975.0
30°	4212.6	4202.5	4207.5	4209.2	4205.9	4204.2	4197.5	4192.5	4184.1	4185.8	4180.8
32.5°	4450.2	4440.1	4445.2	4446.8	4443.5	4446.8	4445.2	4433.4	4423.3	4430.0	4430.0
35°	4732.9	4726.3	4739.5	4744.6	4734.5	4729.5	4722.7	4709.5	4694.5	4704.5	4706.1
37.5°	5072.5	5064.1	5074.2	5087.6	5069.1	5059.2	5032.3	5012.3	5002.2	5007.2	5013.9
40°	5425.6	5427.2	5455.5	5458.9	5438.9	5427.2	5400.4	5370.2	5341.9	5341.9	5350.2
42.5°	5796.9	5802.0	5835.4	5847.1	5840.4	5818.6	5781.9	5745.0	5708.2	5714.8	5725.0
45°	6216.8	6210.2	6245.2	6273.8	6268.6	6261.9	6226.8	6159.9	6126.5	6124.9	6141.5
47.5°	6658.4	6671.8	6708.6	6757.2	6755.6	6738.7	6693.6	6631.6	6569.8	6574.9	6594.8
50°	7173.8	7192.2	7254.1	7302.6	7309.2	7304.3	7250.7	7178.7	7091.8	7096.8	7123.6
52.5°	7635.6	7662.3	7734.1	7834.6	7896.6	7924.9	7889.9	7822.9	7734.1	7739.2	7767.6
55°	8053.8	8095.5	8202.7	8339.9	8463.7	8579.1	8630.9	8629.3	8564.0	8579.1	8615.9
57.5°	8316.4	8375.0	8537.2	8758.0	9004.0	9236.6	9437.4	9626.3	9668.2	9746.8	9746.8
60°	7963.5	8100.6	8316.4	8694.4	9178.1	9700.0	10265.4	10815.9	11170.6	11449.8	11299.3
62.5°	6650.2	6852.5	7155.4	7653.9	8406.8	9338.6	10474.5	11754.4	13089.5	13905.9	13307.0
65°	4302.9	4557.2	4886.8	5447.2	6395.8	7595.3	9249.9	11550.2	14344.1	15793.0	14454.5
67.5°	1704.8	1877.1	2077.9	2476.0	3299.1	4477.0	6333.9	9171.2	12666.1	14033.1	12532.3
70°	814.8	843.1	881.6	966.9	1172.7	1582.6	2544.5	4518.7	7767.6	9208.0	7582.0
72.5°	588.8	593.9	612.4	640.8	700.9	784.6	953.6	1382.0	2678.4	3894.7	2681.8
75°	446.6	453.4	463.4	478.4	510.2	550.4	614.0	736.2	916.8	1057.3	915.2
77.5°	339.6	346.2	354.7	369.7	386.5	414.8	438.4	486.8	563.7	593.9	590.5
80°	247.7	259.3	272.6	286.1	297.8	311.2	312.9	336.2	379.8	408.2	399.8
82.5°	157.3	167.4	202.5	217.5	219.1	222.5	220.9	222.5	246.0	266.0	259.3
85°	100.4	107.1	125.5	142.2	138.9	145.5	145.5	142.2	132.2	113.7	135.6
87.5°	50.1	51.8	60.2	75.3	72.0	63.6	62.0	62.0	45.2	38.4	41.9
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: P270565

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7027

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9	3054.9
2.5°	3046.5	3049.8	3044.9	3044.9	3043.2	3046.5	3041.5	3041.5
5°	3069.9	3075.0	3073.3	3073.3	3076.7	3080.0	3078.3	3076.7
7.5°	3111.8	3115.1	3118.5	3120.2	3123.4	3121.8	3125.2	3123.4
10°	3175.2	3171.9	3176.9	3171.9	3173.6	3170.3	3171.9	3171.9
12.5°	3255.6	3250.5	3247.3	3243.9	3243.9	3237.2	3237.2	3238.8
15°	3347.7	3339.3	3332.6	3329.3	3325.9	3325.9	3320.9	3324.2
17.5°	3438.1	3429.5	3418.0	3418.0	3412.9	3409.5	3406.3	3414.5
20°	3533.4	3524.9	3518.3	3516.7	3506.5	3503.2	3504.8	3515.0
22.5°	3643.7	3638.8	3638.8	3635.4	3628.8	3623.8	3623.8	3635.4
25°	3792.6	3782.7	3784.3	3785.9	3782.7	3782.7	3779.3	3787.7
27.5°	3975.0	3966.6	3971.6	3975.0	3971.6	3976.6	3971.6	3978.4
30°	4189.2	4184.1	4189.2	4194.1	4185.8	4185.8	4182.5	4187.4
32.5°	4445.2	4438.4	4441.8	4441.8	4430.0	4420.0	4406.6	4416.6
35°	4726.3	4717.8	4724.5	4729.5	4716.1	4706.1	4686.0	4694.5
37.5°	5035.7	5039.0	5047.3	5069.1	5065.8	5049.1	5034.0	5040.7
40°	5381.9	5398.8	5435.6	5450.6	5447.2	5430.6	5410.4	5413.7
42.5°	5773.4	5795.2	5833.8	5858.7	5847.1	5823.6	5798.6	5808.6
45°	6200.1	6233.6	6283.7	6308.8	6293.7	6268.6	6233.6	6251.9
47.5°	6651.8	6718.8	6785.6	6819.0	6814.1	6778.9	6733.8	6738.7
50°	7192.2	7280.9	7366.1	7399.6	7374.5	7320.9	7257.3	7255.7
52.5°	7864.8	7960.1	8030.3	8022.0	7960.1	7876.3	7804.5	7801.2
55°	8704.5	8736.3	8726.2	8654.4	8545.5	8415.1	8323.1	8308.1
57.5°	9720.0	9612.9	9455.6	9238.2	8994.0	8746.3	8579.1	8517.2
60°	10961.4	10477.9	9915.9	9323.6	8783.2	8378.3	8122.4	7966.8
62.5°	11987.0	10586.6	9330.2	8301.3	7459.9	6959.6	6610.0	6394.1
65°	11635.6	9146.3	7325.9	5999.3	5080.9	4563.8	4194.1	3948.2
67.5°	8988.9	6111.3	4252.8	2947.8	2235.2	1892.1	1652.9	1497.4
70°	4532.0	2343.9	1420.4	1002.1	856.5	796.3	756.3	732.7
72.5°	1330.0	888.3	737.8	652.4	600.5	563.7	540.4	528.7
75°	736.2	600.5	530.3	481.9	448.3	423.3	408.2	398.2
77.5°	507.0	436.7	401.5	369.7	343.0	324.6	312.9	302.8
80°	354.7	319.5	304.4	287.7	267.6	252.7	235.9	229.2
82.5°	235.9	220.9	217.5	204.2	192.3	175.7	145.5	135.6
85°	138.9	137.3	137.3	132.2	123.7	108.8	87.0	87.0
87.5°	48.5	50.1	51.8	55.2	53.4	45.2	36.8	35.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)