

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: P197009

Luminaire Tested: **NAV-AF-05-D-UNV-RW-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197009
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-8030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25073 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

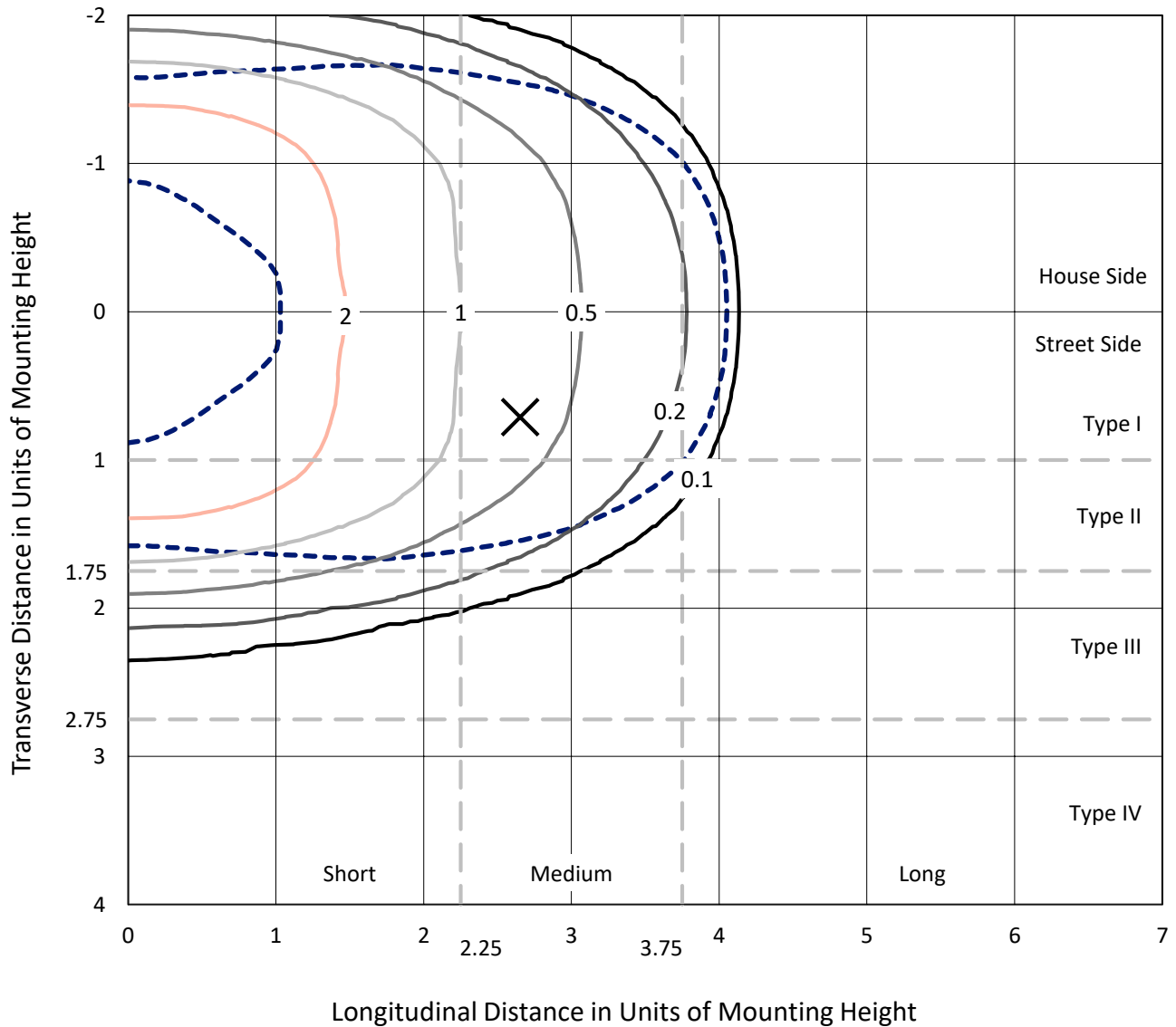
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197009
 CATALOG NUMBER: NAV-AF-05-D-UNV-RW-8030

Iso-Footcandle Lines of Horizontal Illumination

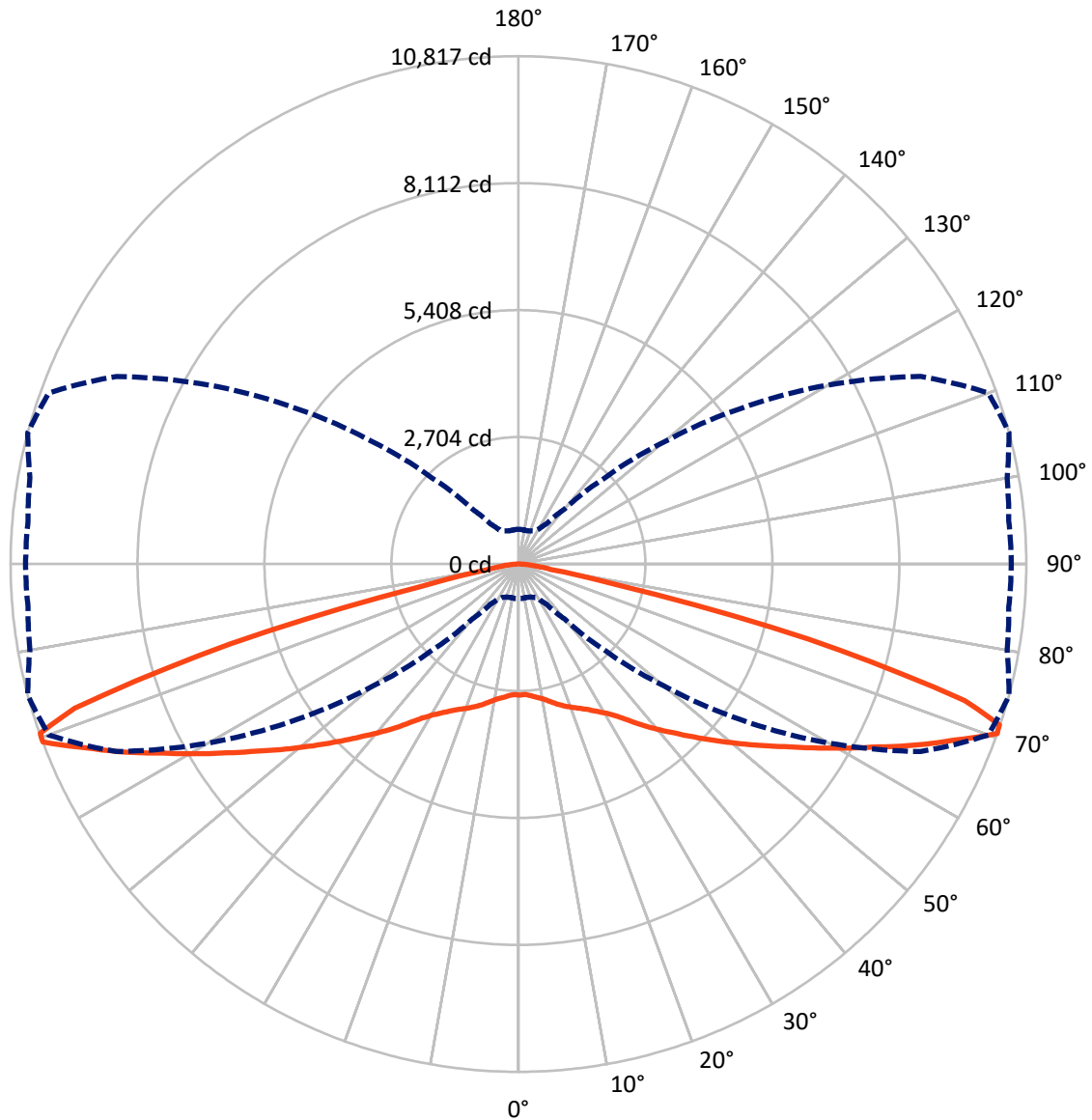
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P197009
CATALOG NUMBER: NAV-AF-05-D-UNV-RW-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P197009

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-8030

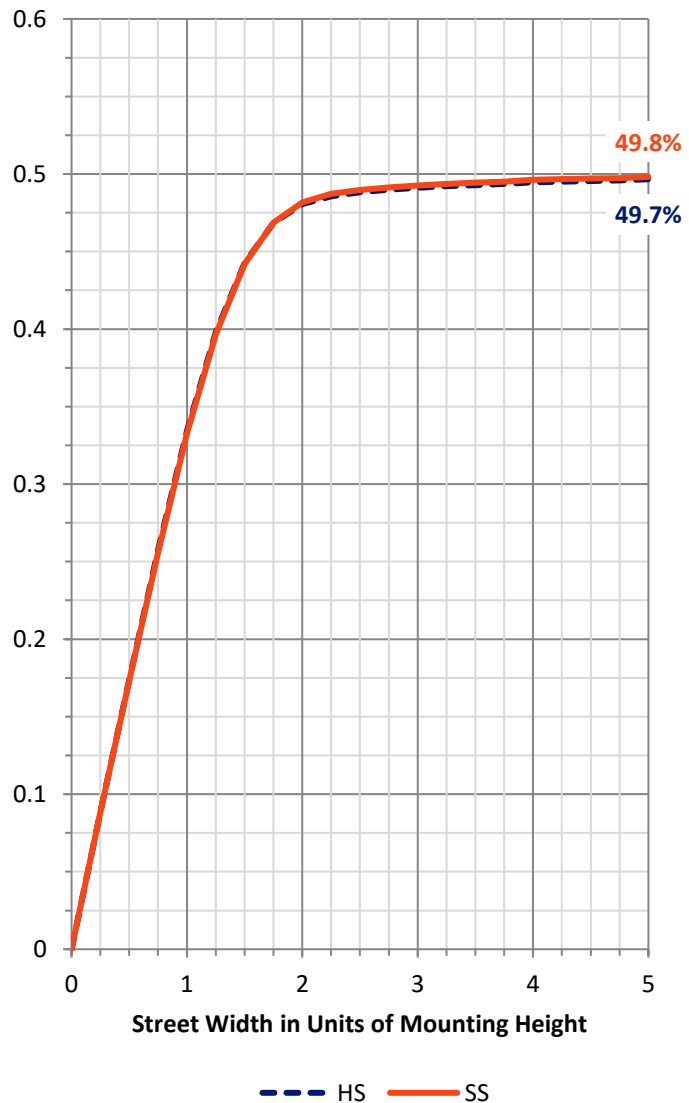
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12536.5	0.0	12536.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12536.5	0.0	12536.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	25073.0	0.0	25073.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.8	1.1
10°-20°	830.6	3.3
20°-30°	1560.0	6.2
30°-40°	2747.9	11.0
40°-50°	4554.2	18.2
50°-60°	6335.6	25.3
60°-70°	5980.9	23.9
70°-80°	2554.5	10.2
80°-90°	241.4	1.0
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°	25073.0	100.0
0°-180°	25073.0	100.0

Coefficient of Utilization



REPORT NUMBER: P197009

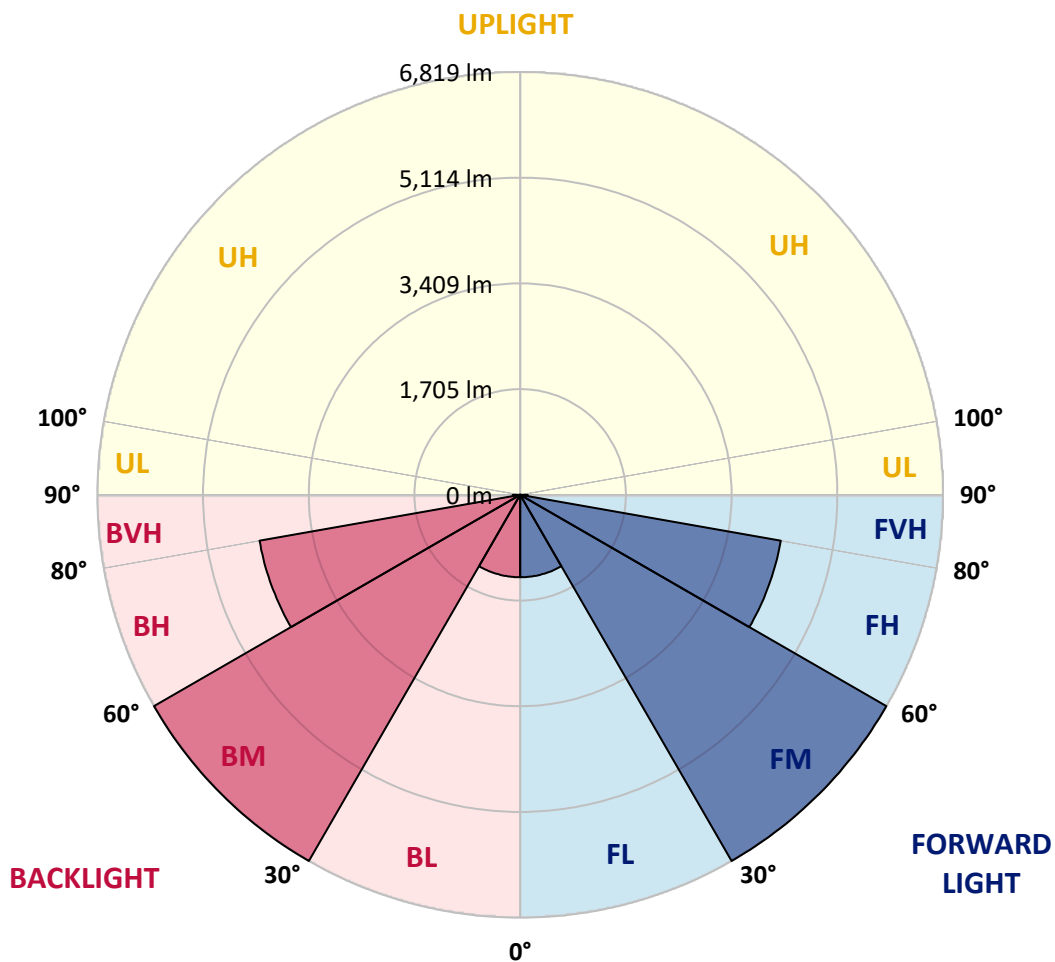
CATALOG NUMBER: NAV-AF-05-D-UNV-RW-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1329.2	5.3			
FM	(30°-60°)	6818.9	27.2			
FH	(60°-80°)	4267.7	17.0			G2/5000
FVH	(80°-90°)	120.7	0.5			G2/225
BL	(0°-30°)	1329.2	5.3	B3/2500		
BM	(30°-60°)	6818.9	27.2	B4/8500		
BH	(60°-80°)	4267.7	17.0	B4/5000		G4/5000
BVH	(80°-90°)	120.7	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium





REPORT NUMBER: P197009

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1
2.5°	2809.4	2807.8	2809.4	2804.7	2806.3	2804.7	2804.7	2798.4	2798.4	2795.3	2790.6
5°	2778.0	2781.1	2781.1	2781.1	2785.8	2785.8	2792.1	2793.7	2798.4	2803.1	2806.3
7.5°	2726.1	2727.7	2732.4	2735.6	2745.0	2757.6	2770.1	2784.3	2796.8	2812.5	2829.8
10°	2682.1	2685.3	2693.1	2701.0	2718.3	2734.0	2756.0	2778.0	2800.0	2826.7	2853.4
12.5°	2658.6	2663.3	2675.9	2688.4	2715.1	2735.6	2765.4	2800.0	2829.8	2855.0	2884.8
15°	2661.7	2663.3	2680.6	2697.8	2735.6	2763.8	2806.3	2847.1	2883.3	2911.5	2946.1
17.5°	2707.3	2710.4	2727.7	2752.8	2789.0	2825.1	2870.7	2913.1	2961.8	2994.8	3035.7
20°	2796.8	2801.6	2820.4	2847.1	2886.4	2924.1	2971.2	3015.2	3065.5	3104.8	3145.7
22.5°	2913.1	2921.0	2941.4	2974.4	3013.7	3059.2	3107.9	3153.5	3200.6	3239.9	3274.5
25°	3068.7	3078.1	3100.1	3133.1	3172.4	3221.1	3271.4	3318.5	3367.2	3397.1	3425.3
27.5°	3277.6	3293.4	3316.9	3343.6	3378.2	3430.1	3477.2	3516.5	3563.6	3596.6	3615.5
30°	3558.9	3580.9	3599.7	3628.0	3653.2	3708.2	3745.9	3777.3	3813.4	3832.3	3837.0
32.5°	3903.0	3923.4	3942.3	3962.7	3997.3	4047.6	4083.7	4101.0	4119.8	4116.7	4099.4
35°	4291.1	4306.8	4317.8	4354.0	4410.5	4443.5	4470.2	4476.5	4479.7	4446.7	4413.7
37.5°	4699.6	4718.5	4727.9	4784.5	4837.9	4875.6	4888.2	4902.3	4892.9	4837.9	4778.2
40°	5141.2	5161.6	5189.9	5238.6	5301.4	5337.6	5353.3	5351.7	5343.8	5279.4	5182.0
42.5°	5574.8	5600.0	5623.5	5708.4	5760.2	5821.5	5829.4	5827.8	5810.5	5736.7	5623.5
45°	5942.5	5972.3	6021.1	6115.3	6198.6	6272.5	6302.3	6313.3	6296.0	6217.5	6088.6
47.5°	6245.7	6266.2	6327.5	6442.2	6549.0	6657.4	6717.1	6759.5	6758.0	6701.4	6564.7
50°	6453.2	6476.7	6552.1	6681.0	6814.5	6941.8	7059.7	7155.5	7201.1	7160.2	7032.9
52.5°	6512.9	6542.7	6641.7	6795.7	6951.2	7122.5	7298.5	7468.2	7570.3	7595.5	7496.5
55°	6261.5	6294.5	6439.0	6652.7	6908.8	7161.8	7428.9	7670.9	7881.4	7978.8	7939.6
57.5°	5529.3	5552.8	5736.7	6013.2	6379.3	6824.0	7273.3	7716.4	8077.8	8330.8	8374.8
60°	4372.8	4402.7	4603.8	4896.0	5312.4	5874.9	6503.4	7229.4	7938.0	8517.8	8805.3
62.5°	2950.8	2971.2	3164.5	3431.6	3887.3	4429.4	5130.2	6049.3	7059.7	8095.1	8905.9
65°	1549.3	1549.3	1679.7	1866.7	2229.6	2715.1	3433.2	4375.9	5578.0	6871.1	8227.1
67.5°	898.8	897.2	927.0	969.5	1084.2	1280.6	1676.5	2369.5	3507.0	5012.3	6555.3
70°	741.6	736.9	732.2	732.2	749.5	779.3	854.8	1044.9	1528.8	2584.7	4033.4
71°	708.6	705.5	692.9	688.2	696.1	711.8	744.8	832.8	1085.7	1762.9	3012.1
72.5°	669.4	661.5	642.6	634.8	636.4	642.6	652.1	686.6	763.6	1002.5	1717.4
75°	609.6	590.8	567.2	556.2	551.5	549.9	549.9	559.4	576.7	604.9	703.9
77.5°	540.5	513.8	488.7	477.7	469.8	465.1	461.9	455.7	452.5	465.1	501.2
80°	457.2	429.0	408.5	402.2	397.5	388.1	375.5	363.0	355.1	361.4	383.4
82.5°	353.5	325.3	328.4	330.0	322.1	306.4	293.8	279.7	265.5	262.4	273.4
85°	281.3	267.1	257.7	278.1	260.8	242.0	224.7	201.1	168.1	138.3	150.8
87.5°	121.0	122.6	176.0	265.5	232.5	187.0	155.6	125.7	80.1	59.7	61.3
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: P197009

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1	2792.1
2.5°	2789.0	2789.0	2784.3	2781.1	2781.1	2781.1	2778.0	2779.6
5°	2807.8	2811.0	2814.1	2812.5	2817.3	2822.0	2820.4	2818.8
7.5°	2839.3	2848.7	2858.1	2862.8	2869.1	2875.4	2877.0	2872.3
10°	2870.7	2889.5	2903.7	2916.3	2924.1	2930.4	2935.1	2933.5
12.5°	2910.0	2936.7	2961.8	2987.0	3004.2	3013.7	3023.1	3020.0
15°	2974.4	3004.2	3035.7	3068.7	3095.4	3109.5	3123.7	3120.5
17.5°	3062.4	3089.1	3114.2	3147.2	3180.2	3195.9	3211.6	3210.1
20°	3172.4	3192.8	3206.9	3225.8	3257.2	3274.5	3288.6	3283.9
22.5°	3298.1	3304.4	3305.9	3312.2	3337.3	3357.8	3376.6	3381.3
25°	3434.8	3430.1	3420.6	3415.9	3433.2	3455.2	3478.8	3485.0
27.5°	3604.5	3588.8	3565.2	3546.3	3551.0	3579.3	3606.0	3612.3
30°	3818.2	3782.0	3731.7	3695.6	3689.3	3719.2	3747.4	3756.9
32.5°	4061.7	4013.0	3943.9	3888.9	3865.3	3892.0	3917.1	3931.3
35°	4350.8	4297.4	4214.1	4143.4	4105.7	4123.0	4167.0	4182.7
37.5°	4693.3	4619.5	4526.8	4437.2	4374.4	4377.5	4424.7	4443.5
40°	5072.0	4965.2	4847.3	4735.8	4644.6	4638.3	4680.8	4694.9
42.5°	5466.4	5329.7	5191.4	5045.3	4932.2	4911.7	4966.7	4968.3
45°	5890.6	5714.7	5543.4	5373.7	5255.9	5219.7	5273.1	5279.4
47.5°	6343.2	6123.2	5920.5	5736.7	5609.4	5552.8	5604.7	5614.1
50°	6814.5	6586.7	6351.0	6146.8	5997.5	5928.4	5989.6	5995.9
52.5°	7281.2	7065.9	6831.8	6597.7	6417.0	6338.4	6410.7	6432.7
55°	7751.0	7543.6	7323.6	7089.5	6861.7	6792.5	6871.1	6894.7
57.5°	8239.7	8040.1	7840.6	7604.9	7383.3	7278.1	7362.9	7395.9
60°	8778.6	8602.6	8414.1	8176.8	7958.4	7835.9	7908.1	7945.8
62.5°	9308.1	9272.0	9100.7	8854.0	8577.5	8454.9	8516.2	8542.9
65°	9352.1	9938.2	9930.3	9685.2	9298.7	9092.9	9110.1	9122.7
67.5°	8162.7	9507.7	10367.2	10444.1	10013.6	9691.5	9653.8	9661.7
70°	5779.1	7625.3	9449.5	10646.8	10816.5	10566.7	10485.0	10497.6
71°	4630.5	6542.7	8550.8	10161.3	10804.0	10731.7	10686.1	10719.1
72.5°	2955.5	4820.6	6775.3	8701.6	9935.1	10288.6	10340.4	10360.9
75°	1073.2	2074.1	3510.2	5029.6	6374.6	7300.1	7809.1	7850.0
77.5°	576.7	743.2	1148.6	1715.8	2155.8	2391.5	2419.7	2430.7
80°	424.2	491.8	562.5	642.6	692.9	702.4	685.1	648.9
82.5°	300.1	339.4	367.7	396.0	416.4	399.1	331.5	253.0
85°	174.4	191.7	207.4	221.5	224.7	212.1	139.8	114.7
87.5°	69.1	75.4	73.8	83.3	80.1	73.8	55.0	47.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)