

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: P196433

Luminaire Tested: **NAV-AF-05-D-UNV-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196433
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-7030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 3000K, 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: 29896.6 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G2

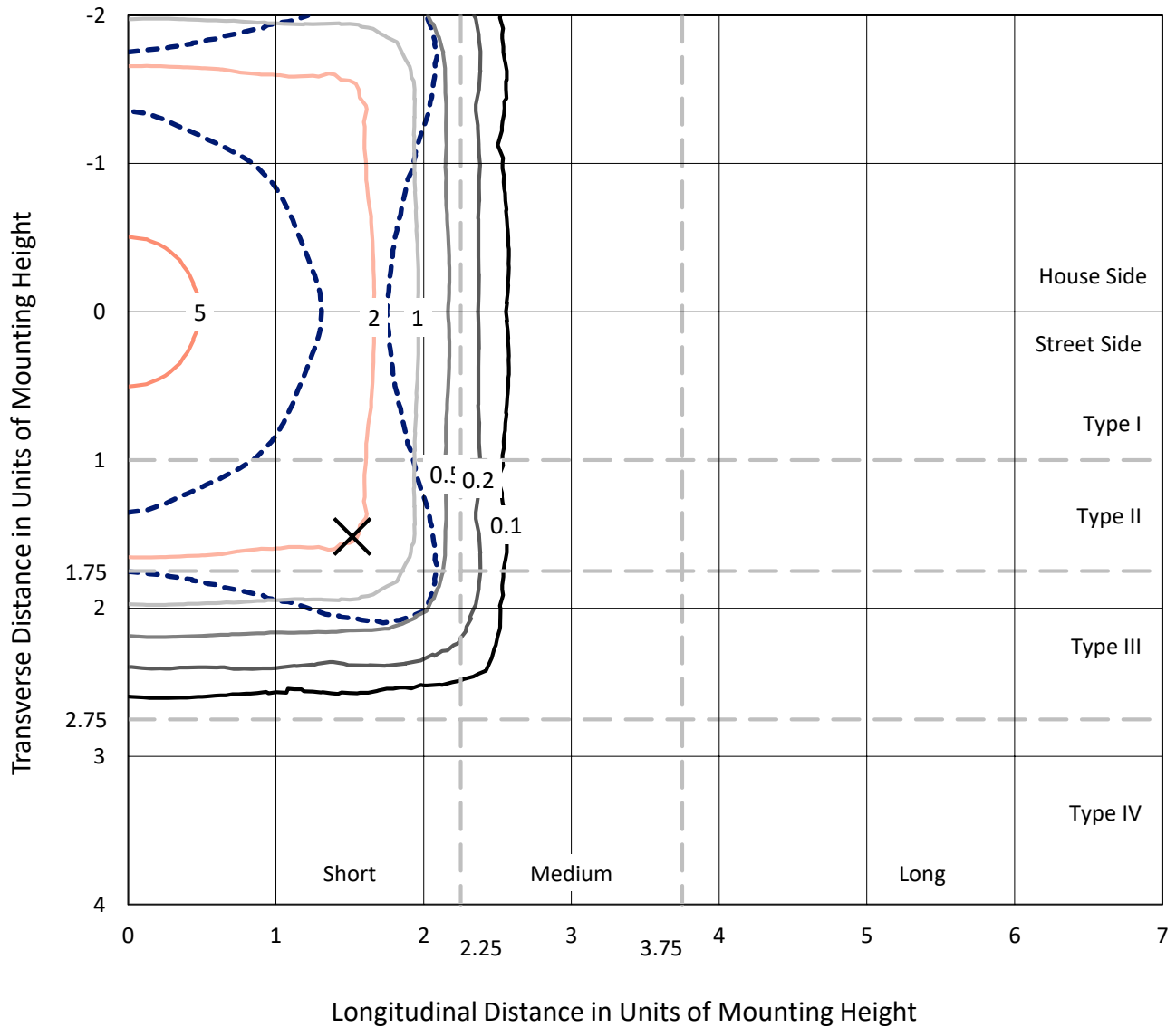
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196433
 CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030

Iso-Footcandle Lines of Horizontal Illumination

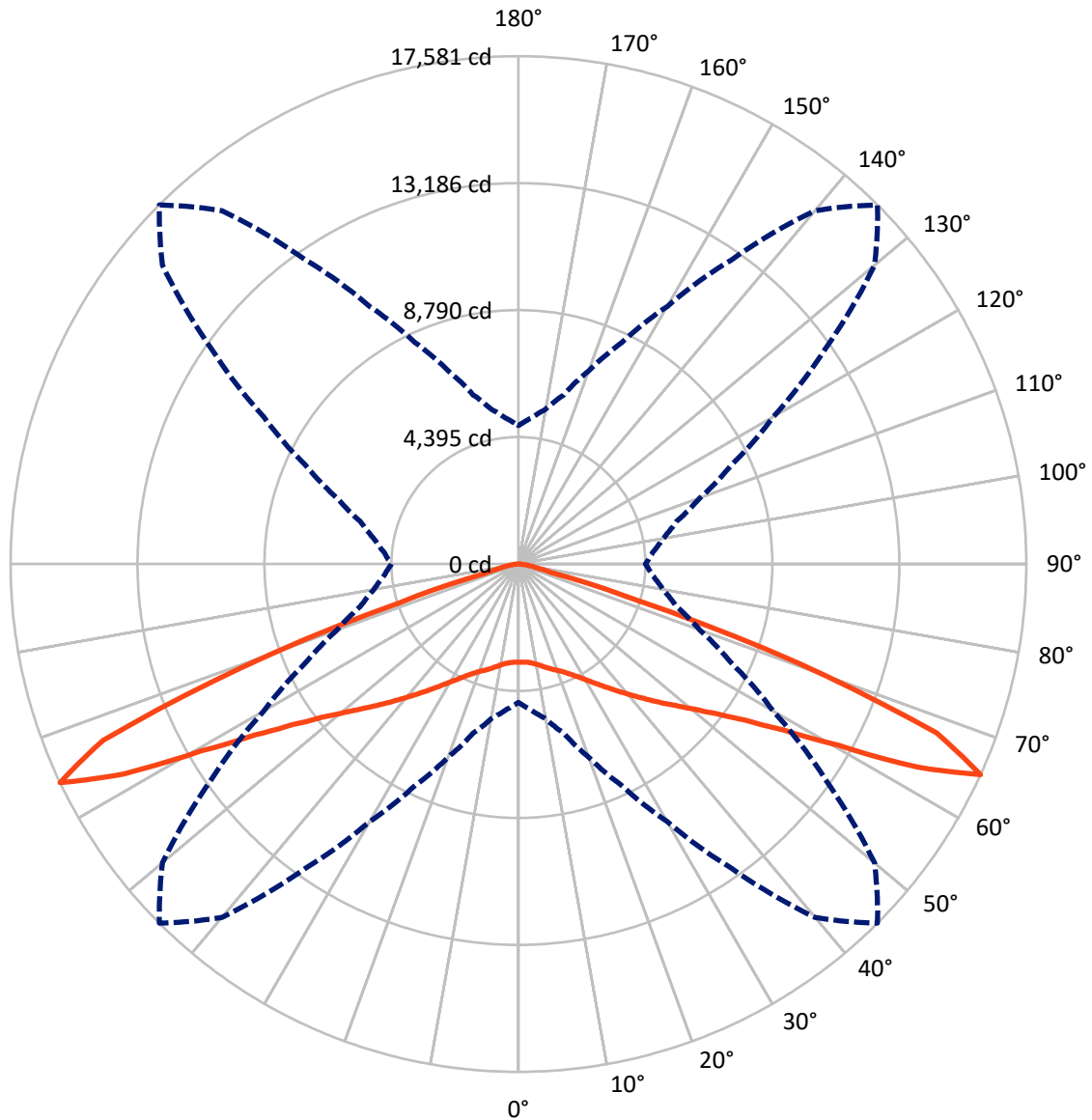
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196433
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196433
 CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030

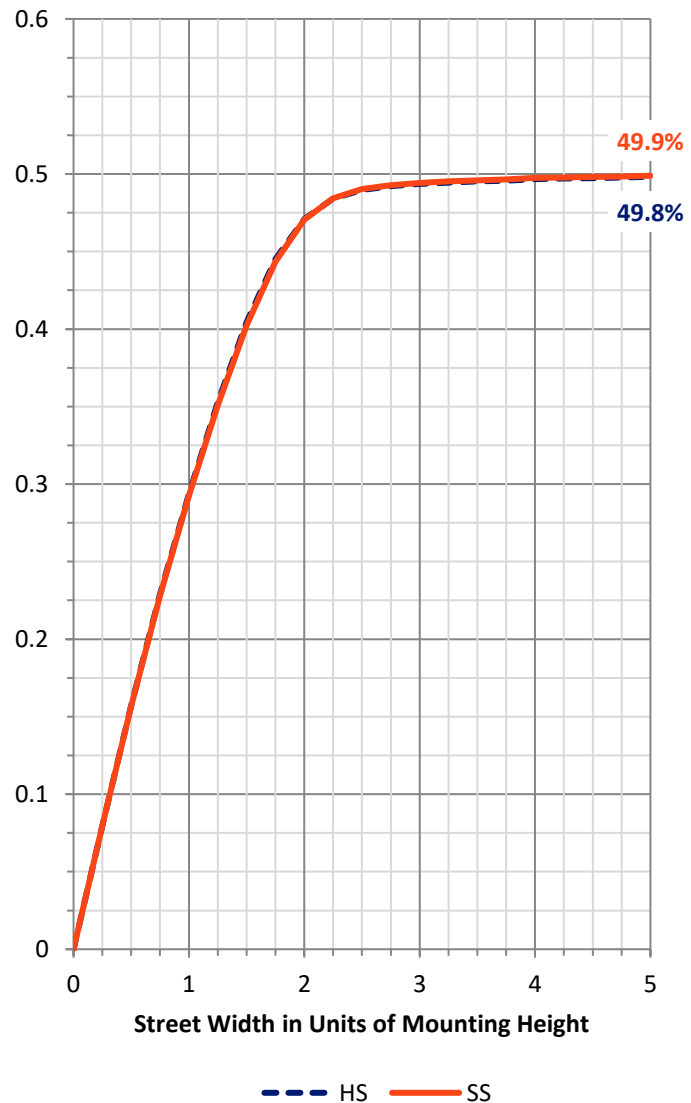
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14948.3	0.0	14948.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14948.3	0.0	14948.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	29896.6	0.0	29896.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.2	1.1
10°-20°	1061.4	3.6
20°-30°	1980.0	6.6
30°-40°	3338.6	11.2
40°-50°	5422.8	18.1
50°-60°	8496.6	28.4
60°-70°	8020.4	26.8
70°-80°	1080.9	3.6
80°-90°	164.7	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°	29896.6	100.0
0°-180°	29896.6	100.0



REPORT NUMBER: P196433

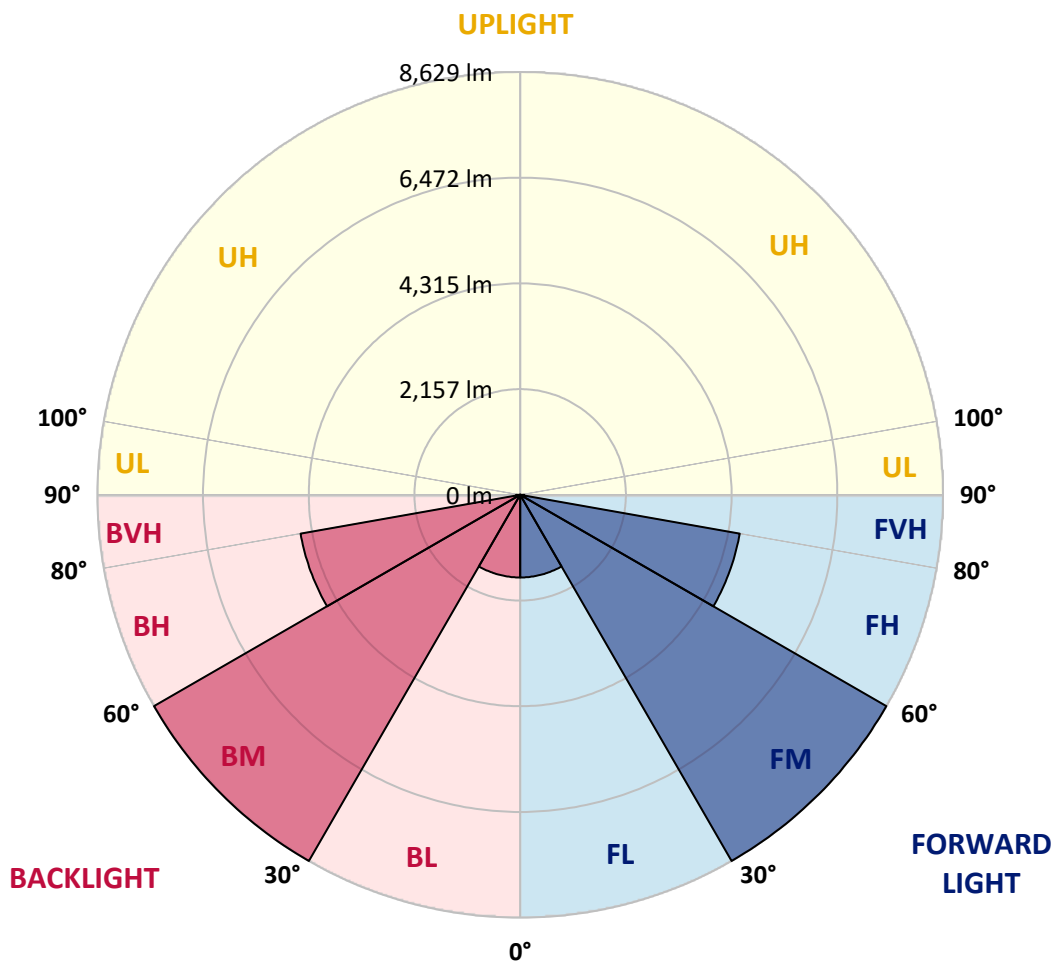
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1686.3	5.6			
FM (30°-60°)	8629.0	28.9			
FH (60°-80°)	4550.7	15.2			G2/5000
FVH (80°-90°)	82.3	0.3			G1/100
BL (0°-30°)	1686.3	5.6	B3/2500		
BM (30°-60°)	8629.0	28.9	B5		
BH (60°-80°)	4550.7	15.2	B4/5000		G2/5000
BVH (80°-90°)	82.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G2

Type V Short





REPORT NUMBER: P196433

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7
2.5°	3428.7	3428.7	3434.2	3432.4	3425.0	3419.4	3413.7	3406.2	3402.6	3398.8	3397.0
5°	3447.2	3447.2	3452.8	3451.0	3445.4	3438.0	3434.2	3428.7	3423.1	3419.4	3421.2
7.5°	3493.8	3495.6	3497.5	3495.6	3490.1	3484.5	3477.0	3475.2	3467.8	3462.2	3465.9
10°	3564.6	3564.6	3566.4	3568.3	3564.6	3551.6	3551.6	3547.8	3540.3	3532.9	3534.7
12.5°	3642.8	3642.8	3644.7	3644.7	3644.7	3637.2	3639.1	3637.2	3628.0	3624.2	3628.0
15°	3719.1	3721.1	3721.1	3724.7	3724.7	3726.7	3734.1	3734.1	3730.3	3728.5	3728.5
17.5°	3808.6	3812.3	3814.1	3819.7	3821.6	3825.2	3832.9	3834.7	3836.5	3830.9	3832.9
20°	3927.8	3929.6	3935.2	3937.0	3944.5	3944.5	3948.2	3946.3	3942.6	3935.2	3935.2
22.5°	4061.8	4065.5	4076.8	4076.8	4086.1	4080.5	4082.4	4076.8	4067.4	4063.7	4060.0
25°	4237.0	4242.5	4251.9	4248.1	4251.9	4242.5	4242.5	4242.5	4237.0	4231.3	4229.4
27.5°	4458.6	4449.2	4458.6	4451.1	4449.2	4441.8	4443.7	4439.9	4434.3	4432.4	4425.0
30°	4689.5	4678.3	4683.8	4685.7	4682.0	4680.1	4672.7	4667.1	4657.8	4659.7	4654.1
32.5°	4954.0	4942.8	4948.4	4950.2	4946.5	4950.2	4948.4	4935.3	4924.1	4931.5	4931.5
35°	5268.7	5261.3	5276.1	5281.7	5270.5	5264.9	5257.4	5242.6	5225.9	5237.1	5238.9
37.5°	5646.7	5637.4	5648.6	5663.5	5643.0	5631.9	5602.0	5579.7	5568.5	5574.1	5581.5
40°	6039.8	6041.6	6073.1	6076.9	6054.6	6041.6	6011.8	5978.2	5946.6	5946.6	5955.9
42.5°	6453.2	6458.8	6496.0	6509.0	6501.6	6477.3	6436.4	6395.4	6354.4	6361.8	6373.1
45°	6920.6	6913.2	6952.2	6984.0	6978.3	6970.8	6931.7	6857.3	6820.1	6818.3	6836.8
47.5°	7412.2	7427.1	7468.1	7522.2	7520.4	7501.6	7451.4	7382.4	7313.6	7319.2	7341.4
50°	7985.9	8006.4	8075.3	8129.3	8136.7	8131.2	8071.5	7991.4	7894.6	7900.2	7930.0
52.5°	8500.0	8529.7	8609.7	8721.5	8790.5	8822.1	8783.1	8708.5	8609.7	8615.3	8647.0
55°	8965.5	9012.0	9131.3	9284.0	9421.8	9550.3	9608.0	9606.2	9533.5	9550.3	9591.3
57.5°	9257.9	9323.1	9503.7	9749.5	10023.3	10282.2	10505.8	10716.1	10762.7	10850.2	10850.2
60°	8865.0	9017.6	9257.9	9678.7	10217.1	10798.1	11427.5	12040.3	12435.2	12746.0	12578.5
62.5°	7403.0	7628.3	7965.4	8520.4	9358.5	10395.8	11660.3	13085.1	14571.3	15480.1	14813.4
65°	4790.0	5073.1	5440.0	6063.9	7119.9	8455.2	10297.1	12857.8	15968.0	17580.9	16090.9
67.5°	1897.8	2089.6	2313.1	2756.3	3672.6	4983.8	7050.9	10209.5	14100.0	15621.7	13951.1
70°	907.0	938.6	981.4	1076.4	1305.5	1761.8	2832.6	5030.3	8647.0	10250.4	8440.3
72.5°	655.5	661.1	681.7	713.3	780.3	873.4	1061.6	1538.4	2981.6	4335.6	2985.4
75°	497.2	504.7	515.9	532.6	568.0	612.7	683.5	819.5	1020.6	1177.0	1018.8
77.5°	378.0	385.4	394.9	411.6	430.3	461.8	488.0	541.9	627.5	661.1	657.4
80°	275.7	288.7	303.5	318.5	331.5	346.4	348.3	374.3	422.8	454.4	445.1
82.5°	175.1	186.3	225.4	242.1	243.9	247.7	245.9	247.7	273.8	296.1	288.7
85°	111.8	119.2	139.7	158.3	154.6	162.0	162.0	158.3	147.2	126.6	150.9
87.5°	55.8	57.7	67.0	83.8	80.1	70.8	69.0	69.0	50.3	42.8	46.6
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: P196433

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7	3400.7
2.5°	3391.4	3395.1	3389.6	3389.6	3387.7	3391.4	3385.8	3385.8
5°	3417.4	3423.1	3421.2	3421.2	3425.0	3428.7	3426.8	3425.0
7.5°	3464.1	3467.8	3471.5	3473.4	3477.0	3475.2	3479.0	3477.0
10°	3534.7	3531.0	3536.6	3531.0	3532.9	3529.2	3531.0	3531.0
12.5°	3624.2	3618.5	3614.9	3611.1	3611.1	3603.7	3603.7	3605.5
15°	3726.7	3717.3	3709.9	3706.2	3702.4	3702.4	3696.8	3700.5
17.5°	3827.3	3817.8	3804.9	3804.9	3799.3	3795.5	3791.9	3801.1
20°	3933.4	3924.0	3916.6	3914.8	3903.5	3899.8	3901.6	3912.9
22.5°	4056.2	4050.7	4050.7	4047.0	4039.6	4034.0	4034.0	4047.0
25°	4222.0	4210.9	4212.7	4214.5	4210.9	4210.9	4207.1	4216.5
27.5°	4425.0	4415.7	4421.2	4425.0	4421.2	4426.8	4421.2	4428.8
30°	4663.4	4657.8	4663.4	4668.9	4659.7	4659.7	4656.0	4661.5
32.5°	4948.4	4940.9	4944.6	4944.6	4931.5	4920.4	4905.5	4916.6
35°	5261.3	5251.9	5259.3	5264.9	5250.0	5238.9	5216.5	5225.9
37.5°	5605.8	5609.5	5618.7	5643.0	5639.3	5620.7	5603.9	5611.3
40°	5991.2	6010.0	6050.9	6067.6	6063.9	6045.4	6022.9	6026.6
42.5°	6427.0	6451.3	6494.2	6522.0	6509.0	6482.9	6455.0	6466.2
45°	6902.0	6939.3	6995.1	7023.0	7006.2	6978.3	6939.3	6959.7
47.5°	7404.8	7479.4	7553.8	7591.0	7585.5	7546.3	7496.1	7501.6
50°	8006.4	8105.1	8200.0	8237.3	8209.4	8149.7	8078.9	8077.1
52.5°	8755.1	8861.2	8939.4	8930.1	8861.2	8768.0	8688.0	8684.3
55°	9689.9	9725.3	9714.1	9634.1	9512.9	9367.8	9265.3	9248.6
57.5°	10820.4	10701.2	10526.1	10284.0	10012.2	9736.5	9550.3	9481.4
60°	12202.3	11664.1	11038.4	10379.1	9777.5	9326.8	9041.9	8868.7
62.5°	13344.0	11785.1	10386.5	9241.1	8304.4	7747.5	7358.3	7118.0
65°	12952.8	10181.7	8155.3	6678.5	5656.1	5080.5	4668.9	4395.2
67.5°	10006.5	6803.2	4734.2	3281.5	2488.2	2106.3	1840.0	1666.9
70°	5045.1	2609.2	1581.2	1115.5	953.5	886.5	841.9	815.7
72.5°	1480.6	988.9	821.3	726.3	668.5	627.5	601.6	588.5
75°	819.5	668.5	590.3	536.4	499.1	471.2	454.4	443.3
77.5°	564.4	486.1	447.0	411.6	381.8	361.3	348.3	337.1
80°	394.9	355.7	338.9	320.3	297.9	281.3	262.6	255.1
82.5°	262.6	245.9	242.1	227.3	214.1	195.6	162.0	150.9
85°	154.6	152.8	152.8	147.2	137.7	121.1	96.8	96.8
87.5°	54.0	55.8	57.7	61.5	59.5	50.3	41.0	39.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)