

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: P197079

Luminaire Tested: **NAV-AF-03-D-UNV-SL3-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-SL3-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12548 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 166
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

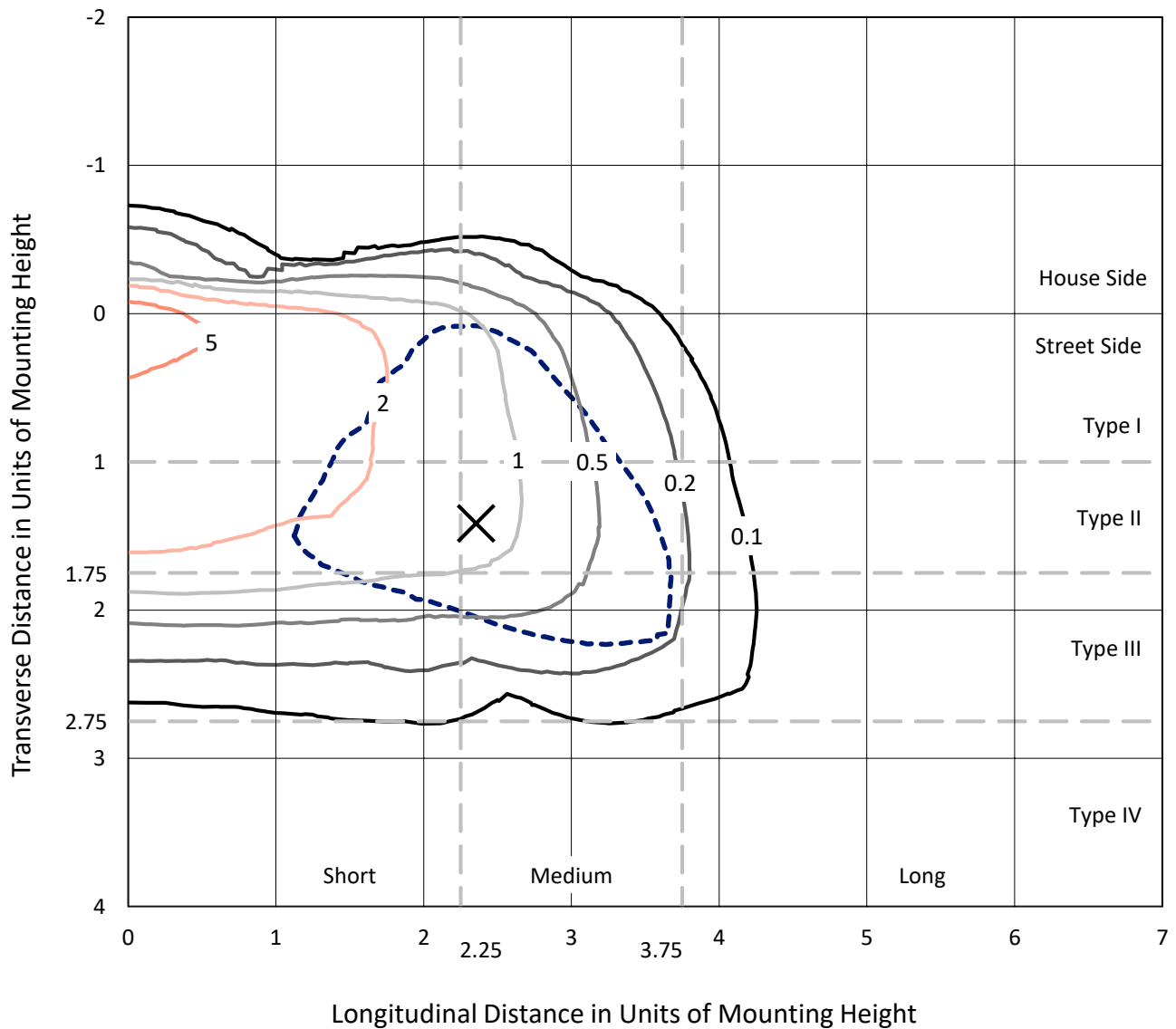


REPORT NUMBER: P197079

CATALOG NUMBER: NAV-AF-03-D-UNV-SL3-8030-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

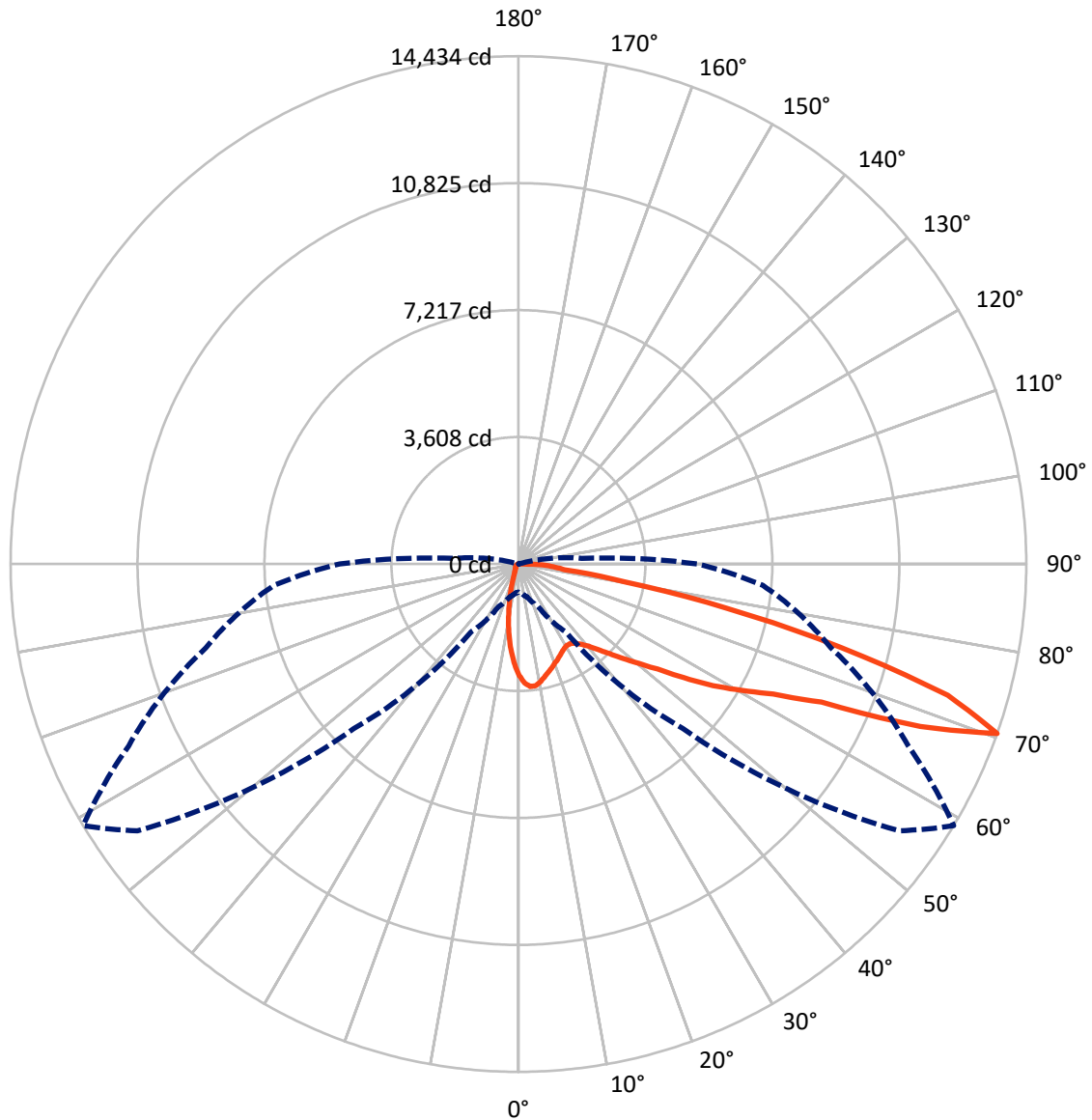


Based on 20 foot mounting height. Maximum calculated value = 8.4 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P197079

CATALOG NUMBER: NAV-AF-03-D-UNV-SL3-8030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P197079

CATALOG NUMBER: NAV-AF-03-D-UNV-SL3-8030-HSS

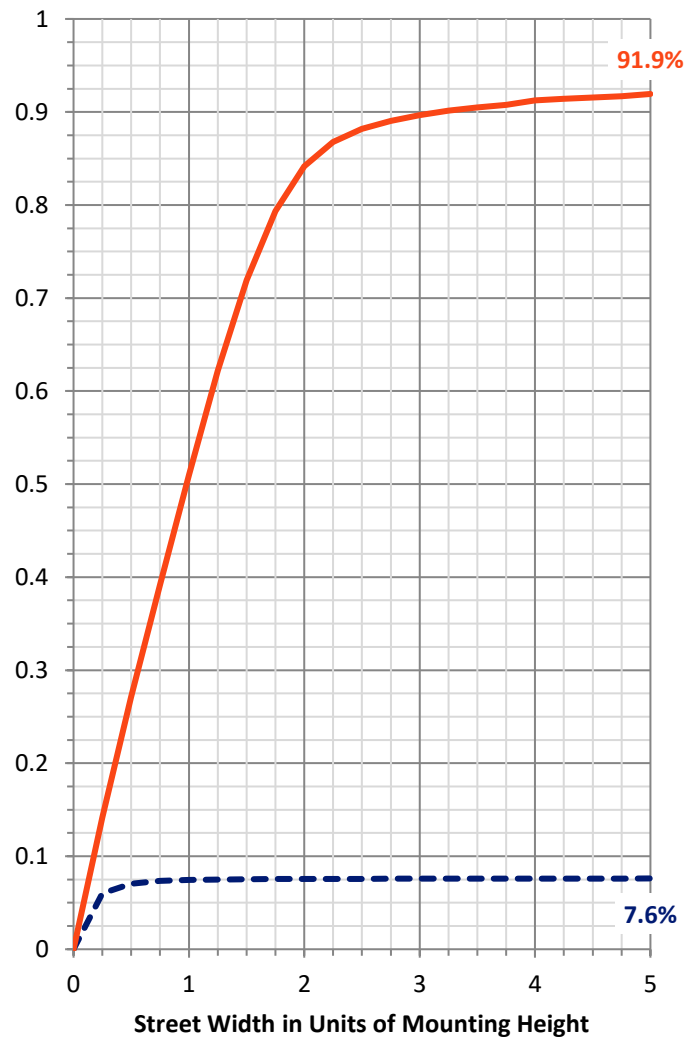
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	964.6	0.0	964.6
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	11583.4	0.0	11583.4
	% Fixture	92.3	0.0	92.3
Total	Lumens	12548.0	0.0	12548.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.9	2.1
10°-20°	547.2	4.4
20°-30°	740.8	5.9
30°-40°	1069.1	8.5
40°-50°	1775.5	14.1
50°-60°	2715.8	21.6
60°-70°	3377.8	26.9
70°-80°	1867.2	14.9
80°-90°	193.6	1.5
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°	12548.0	100.0
0°-180°	12548.0	100.0

Coefficient of Utilization



--- HS — SS

REPORT NUMBER: P197079

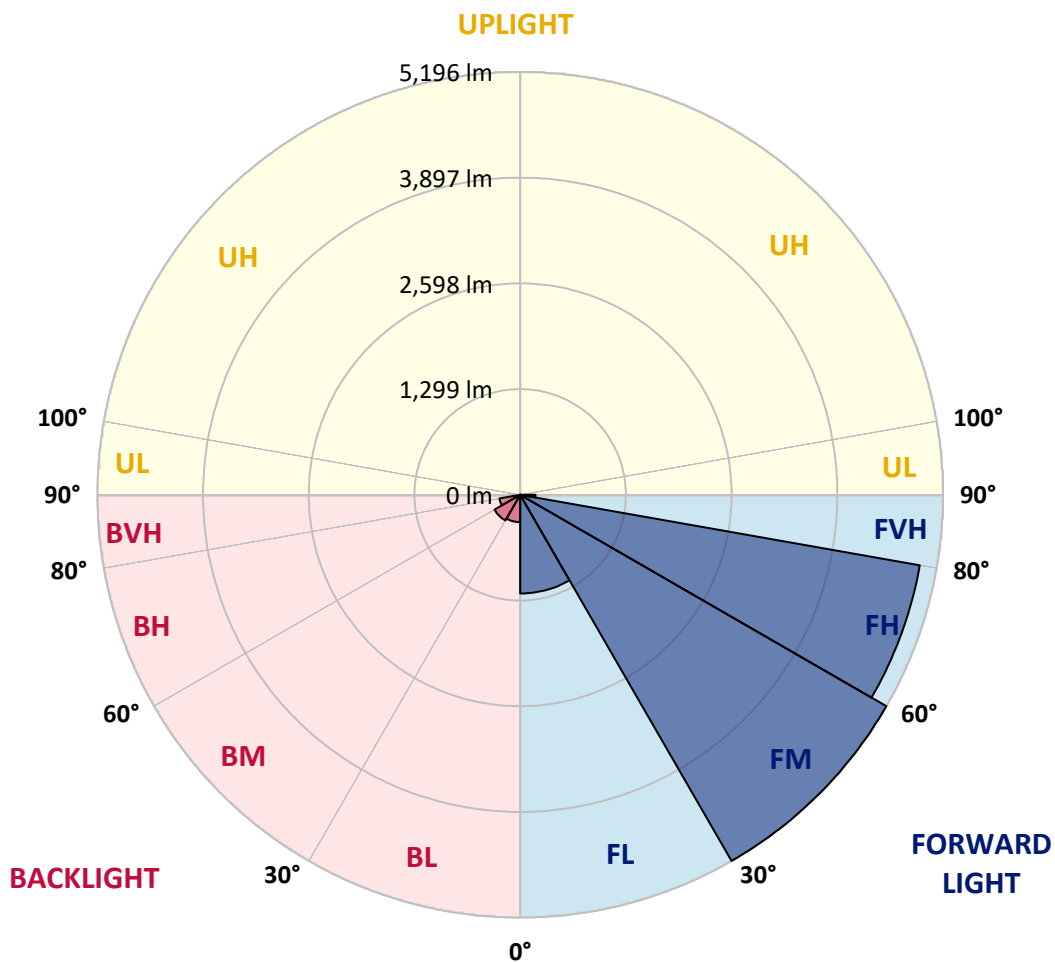
CATALOG NUMBER: NAV-AF-03-D-UNV-SL3-8030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1212.8	9.7			
FM	(30°-60°)	5196.3	41.4			
FH	(60°-80°)	4986.3	39.7			G2/5000
FVH	(80°-90°)	188.0	1.5			G2/225
BL	(0°-30°)	336.1	2.7	B1/500		
BM	(30°-60°)	364.1	2.9	B1/1000		
BH	(60°-80°)	258.8	2.1	B1/500		G1/500
BVH	(80°-90°)	5.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





REPORT NUMBER: P197079

CATALOG NUMBER: NAV-AF-03-D-UNV-SL3-8030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9
2.5°	3586.6	3580.9	3557.2	3552.5	3526.0	3473.0	3411.5	3386.9	3336.7	3257.2	3169.2
5°	3646.2	3649.1	3651.0	3640.5	3636.8	3593.2	3525.1	3495.7	3428.5	3297.9	3137.0
7.5°	3422.8	3430.4	3454.1	3464.5	3509.9	3527.0	3512.8	3493.8	3440.8	3286.5	3060.3
10°	3187.1	3201.3	3226.9	3243.9	3299.8	3345.2	3403.0	3407.7	3396.3	3248.7	2974.2
12.5°	2984.6	2997.8	3026.2	3060.3	3117.1	3175.8	3261.9	3292.2	3330.1	3224.1	2912.6
15°	2810.4	2814.2	2841.6	2884.2	2959.0	3039.5	3141.7	3186.2	3260.0	3214.6	2865.3
17.5°	2658.0	2658.9	2676.9	2715.7	2806.6	2912.6	3031.9	3090.6	3184.3	3201.3	2823.6
20°	2557.7	2556.7	2557.7	2578.5	2658.9	2784.8	2929.7	2991.2	3111.4	3185.2	2781.1
22.5°	2523.6	2518.9	2497.1	2489.5	2540.6	2651.4	2824.6	2905.1	3046.1	3180.5	2749.8
25°	2565.2	2562.4	2516.0	2472.5	2477.2	2546.3	2717.6	2816.1	2995.0	3197.5	2742.2
27.5°	2699.6	2694.0	2623.0	2537.8	2483.8	2496.1	2638.1	2741.3	2954.3	3239.2	2752.7
30°	2875.7	2876.7	2800.9	2697.8	2570.9	2500.9	2595.5	2693.0	2926.8	3301.7	2775.4
32.5°	3071.7	3070.7	3016.8	2897.5	2735.6	2588.0	2614.5	2696.8	2930.6	3393.5	2818.9
35°	3274.2	3263.8	3245.8	3140.8	2951.4	2740.4	2700.6	2761.2	2970.4	3514.7	2892.7
37.5°	3508.0	3504.2	3522.2	3411.5	3218.4	2964.7	2852.0	2892.7	3070.7	3693.6	3012.0
40°	3880.0	3859.2	3867.7	3717.2	3519.4	3266.6	3064.1	3074.5	3230.7	3930.2	3200.4
42.5°	4589.0	4504.8	4346.7	4064.6	3850.7	3601.7	3341.4	3323.4	3456.9	4217.0	3448.4
45°	5436.2	5339.7	4941.1	4448.0	4182.0	3961.4	3684.1	3635.8	3735.2	4558.7	3768.3
47.5°	6143.3	6039.2	5511.0	4848.4	4519.0	4332.5	4063.7	4006.9	4068.4	4955.3	4152.6
50°	6384.7	6326.9	5863.1	5181.6	4858.8	4749.0	4539.8	4445.1	4460.3	5383.2	4601.3
52.5°	6273.9	6254.1	5943.6	5409.7	5173.1	5209.0	5061.4	4962.0	4944.9	5850.8	5097.3
55°	6040.1	6030.7	5879.2	5536.5	5450.4	5630.3	5793.1	5706.9	5546.0	6347.8	5507.2
57.5°	5706.0	5742.0	5850.8	5780.8	5791.2	6075.2	6472.7	6517.2	6276.8	6743.4	5811.1
60°	4813.4	4909.9	5408.8	6043.0	6528.6	6815.4	7200.6	7283.9	6895.8	7014.2	6162.2
62.5°	3558.2	3696.4	4407.3	5572.5	6934.6	8222.9	8169.0	8132.1	7486.5	7376.7	6801.2
65°	2090.0	2251.9	2853.0	4354.3	6322.2	9127.9	9977.0	9465.8	8386.7	8130.2	7818.8
67.5°	1041.2	1042.2	1313.9	2298.3	4672.3	8496.5	12616.0	12320.7	10300.7	9240.5	8220.1
70°	800.8	822.6	972.1	1335.6	2362.7	6617.5	13220.9	14433.5	12224.1	9191.3	6974.4
72.5°	678.7	692.9	865.2	1162.4	1766.3	3633.0	11445.1	12758.0	11664.7	7765.7	5140.9
75°	488.4	499.8	765.8	1054.5	1626.2	1802.3	7850.9	9462.0	8752.1	5462.7	2829.3
77.5°	121.2	120.2	266.9	855.7	1454.9	1501.3	4504.8	6067.6	5021.6	2236.8	727.0
80°	54.0	52.1	60.6	179.9	1353.6	1417.0	1981.2	3064.1	1926.3	362.5	222.4
82.5°	37.9	36.0	37.9	66.3	452.5	1314.8	1197.4	1328.1	705.2	124.0	94.7
85°	12.3	11.4	20.8	55.8	126.8	758.2	1168.1	992.0	524.4	53.0	63.4
87.5°	1.9	1.9	7.6	30.3	36.9	252.7	685.3	687.2	235.7	31.2	28.4
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: P197079

CATALOG NUMBER: NAV-AF-03-D-UNV-SL3-8030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9	3172.9
2.5°	3124.7	3068.8	2990.2	2911.7	2840.7	2767.8	2709.1	2681.7	2669.4	2652.3	2615.4
5°	3052.7	2951.4	2779.2	2609.7	2451.6	2300.2	2170.5	2096.7	2017.2	2013.4	1974.6
7.5°	2937.2	2793.4	2521.7	2258.5	2017.2	1786.2	1587.4	1458.7	1370.6	1315.7	1277.9
10°	2808.5	2623.9	2264.2	1894.1	1565.6	1257.1	1001.5	834.9	733.6	682.5	653.1
12.5°	2706.3	2474.4	2010.5	1544.8	1133.1	779.0	541.4	420.3	366.3	345.5	336.0
15°	2618.2	2337.1	1772.9	1232.4	756.3	447.7	313.3	273.6	265.0	265.0	264.1
17.5°	2529.3	2204.6	1542.0	925.8	476.1	293.4	247.1	241.4	242.3	245.2	245.2
20°	2445.0	2078.7	1319.5	659.8	312.4	234.8	224.3	222.4	225.3	229.1	228.1
22.5°	2376.9	1967.9	1111.3	453.4	240.4	213.0	206.4	203.5	205.4	208.2	207.3
25°	2328.6	1873.3	920.1	316.2	209.2	194.0	186.5	182.7	180.8	182.7	181.7
27.5°	2299.2	1793.8	740.2	237.6	187.4	175.1	165.7	158.1	153.3	153.3	151.5
30°	2280.3	1719.0	580.3	196.9	169.4	156.2	142.9	132.5	124.9	123.1	122.1
32.5°	2279.4	1654.6	433.5	174.2	152.4	137.3	121.2	107.9	99.4	97.5	96.6
35°	2303.0	1602.6	319.0	157.1	137.3	119.3	101.3	87.1	79.5	79.5	78.6
37.5°	2364.6	1572.3	241.4	143.9	124.9	104.1	85.2	71.9	65.3	67.2	67.2
40°	2479.1	1566.6	196.9	133.5	114.5	90.9	69.1	58.7	55.8	58.7	58.7
42.5°	2654.2	1596.9	175.1	125.9	105.1	77.6	57.7	50.2	49.2	52.1	52.1
45°	2882.3	1656.5	162.8	119.3	94.7	64.4	48.3	43.5	42.6	46.4	46.4
47.5°	3158.7	1737.0	151.5	111.7	84.2	53.0	40.7	36.9	36.9	40.7	41.6
50°	3486.3	1845.8	140.1	104.1	75.7	44.5	34.1	31.2	32.2	36.0	36.9
52.5°	3863.0	1979.3	129.7	97.5	66.3	36.0	28.4	26.5	27.5	31.2	32.2
55°	4187.7	2095.7	117.4	90.9	54.0	29.3	23.7	22.7	23.7	28.4	28.4
57.5°	4470.7	2207.4	106.0	80.5	42.6	23.7	18.9	18.9	20.8	25.6	26.5
60°	4846.5	2383.5	96.6	68.2	32.2	18.0	15.1	16.1	18.9	22.7	23.7
62.5°	5511.9	2682.6	84.2	56.8	23.7	14.2	12.3	13.3	17.0	21.8	22.7
65°	6344.9	2965.6	70.0	47.3	18.0	10.4	9.5	12.3	17.0	21.8	22.7
67.5°	6259.7	2579.4	54.9	37.9	13.3	8.5	7.6	11.4	16.1	21.8	22.7
70°	5076.5	1808.0	40.7	25.6	10.4	7.6	7.6	11.4	16.1	20.8	21.8
72.5°	3521.3	1006.2	31.2	17.0	9.5	7.6	6.6	10.4	15.1	20.8	21.8
75°	1675.4	308.6	24.6	12.3	8.5	6.6	5.7	10.4	15.1	20.8	21.8
77.5°	321.8	78.6	19.9	10.4	7.6	6.6	5.7	9.5	15.1	19.9	20.8
80°	108.9	35.0	16.1	9.5	7.6	6.6	5.7	9.5	14.2	18.9	19.9
82.5°	59.6	19.9	14.2	8.5	7.6	5.7	4.7	8.5	13.3	18.9	19.9
85°	46.4	14.2	11.4	8.5	7.6	5.7	4.7	8.5	13.3	18.0	18.9
87.5°	23.7	10.4	9.5	8.5	7.6	5.7	4.7	7.6	12.3	17.0	18.9
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)