

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: P196958

Luminaire Tested: **NAV-AF-02-D-UNV-AFL-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196958
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-02-D-UNV-AFL-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8343 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

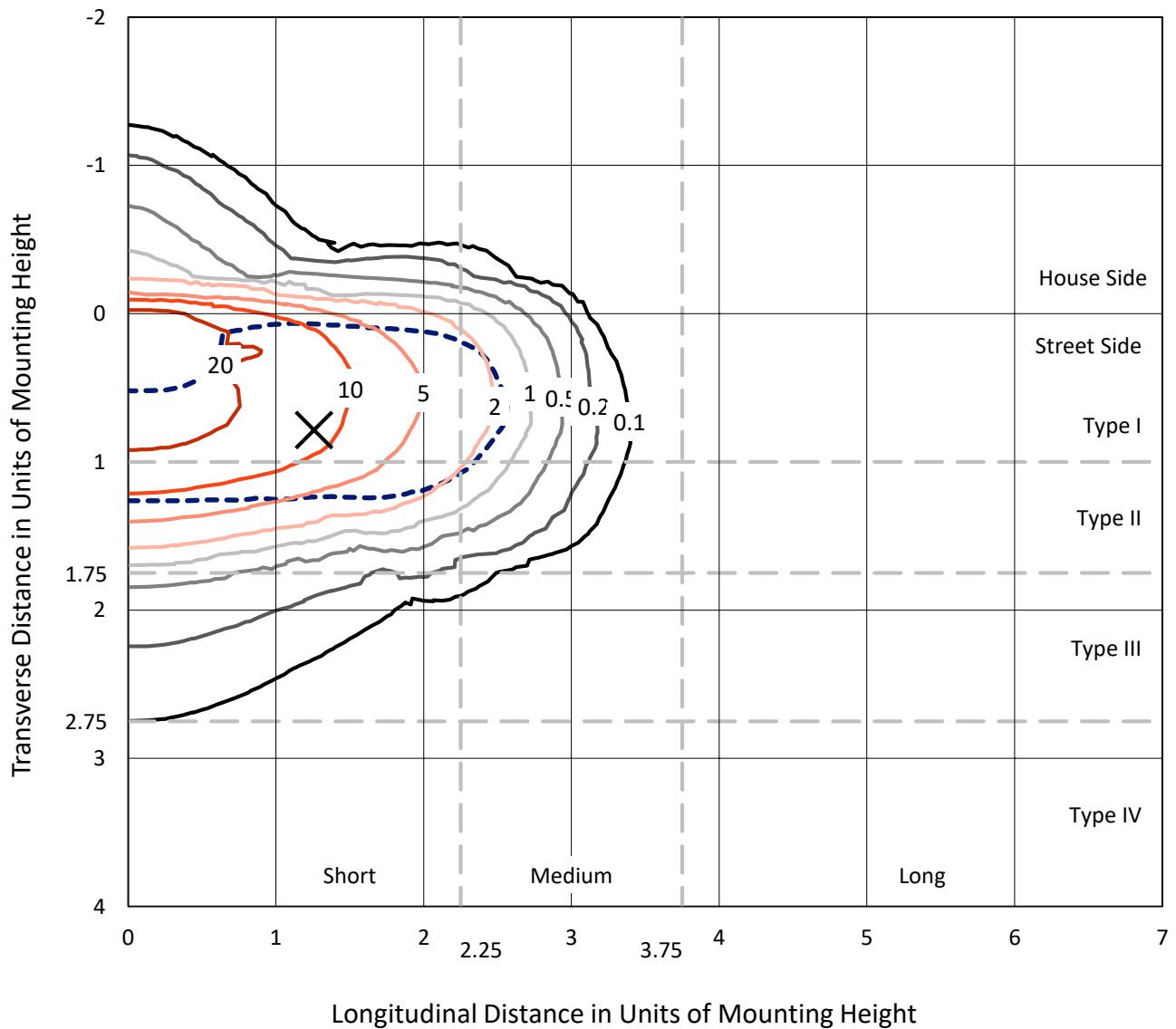
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196958
 CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-8030-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

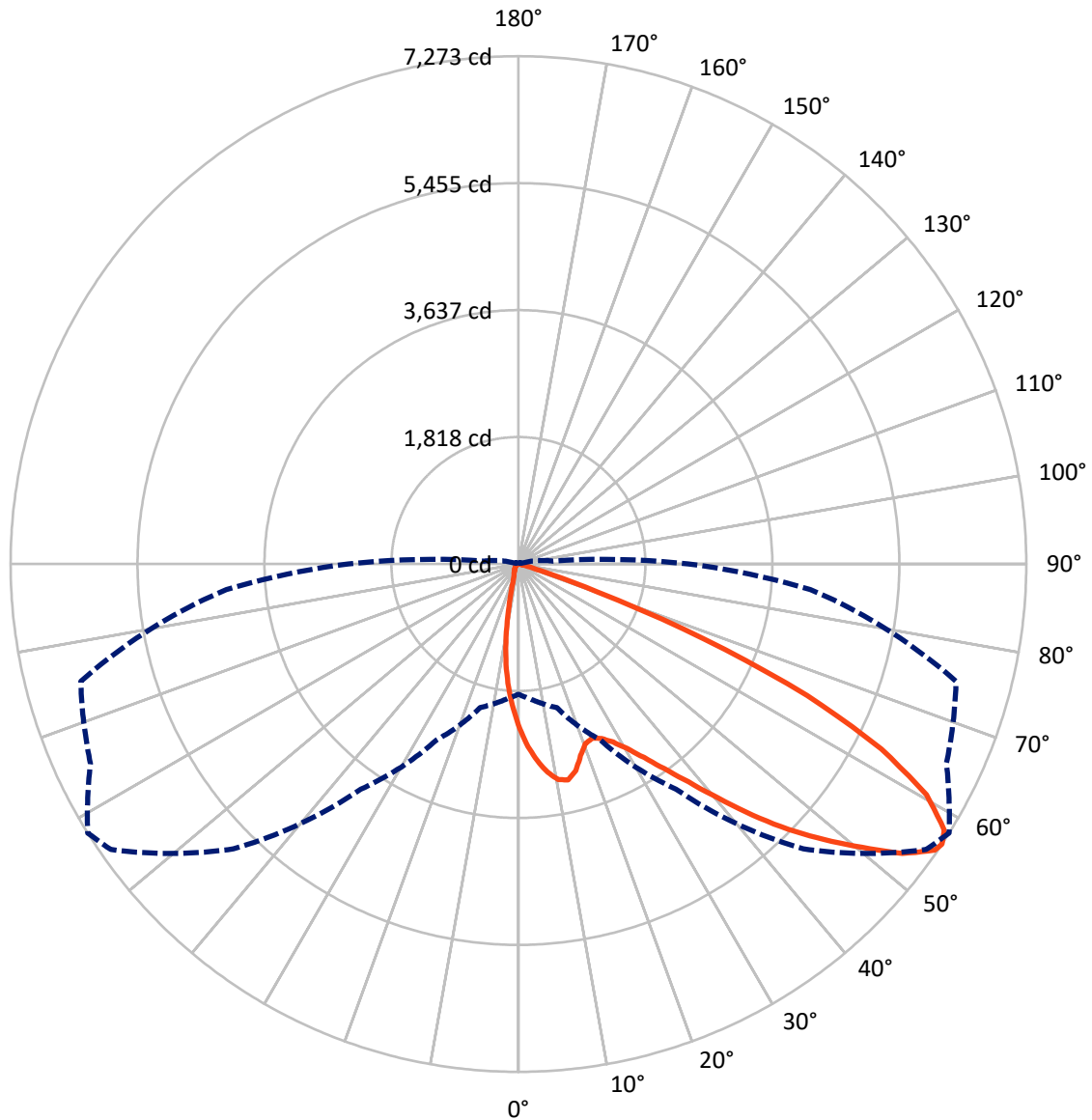


Based on 10 foot mounting height. Maximum calculated value = 29.4 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P196958

CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-8030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

REPORT NUMBER: P196958

CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-8030-HSS

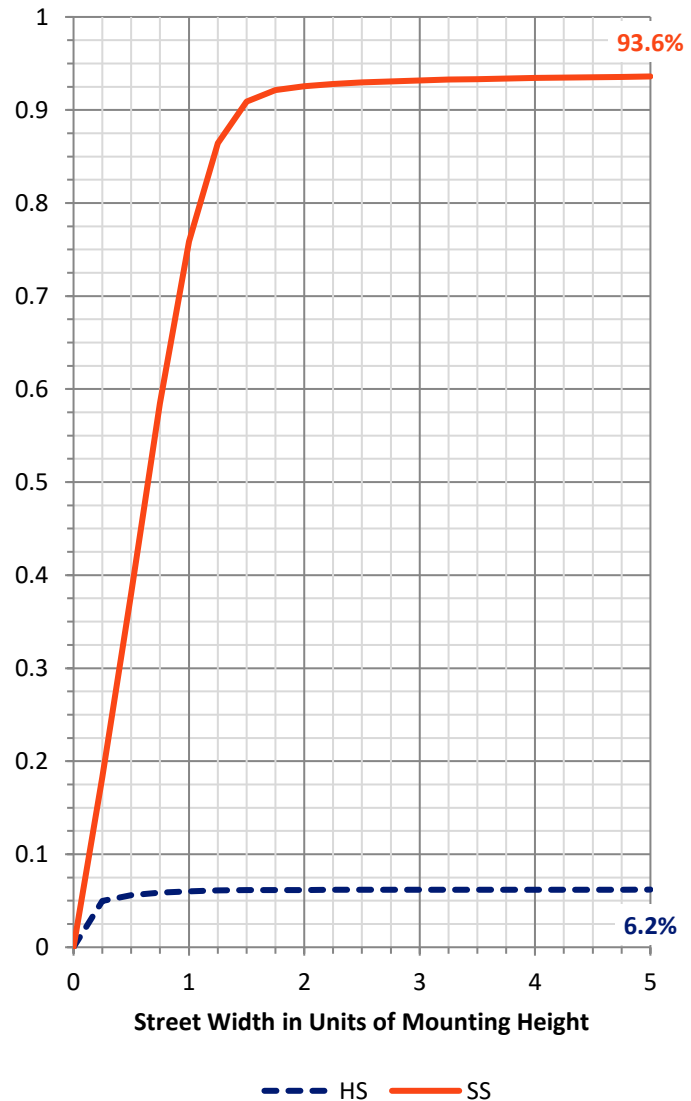
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	520.8	0.0	520.8
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	7822.2	0.0	7822.2
	% Fixture	93.8	0.0	93.8
Total	Lumens	8343.0	0.0	8343.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.5	2.4
10°-20°	468.9	5.6
20°-30°	789.0	9.5
30°-40°	1351.0	16.2
40°-50°	2038.7	24.4
50°-60°	2119.2	25.4
60°-70°	1189.7	14.3
70°-80°	163.0	2.0
80°-90°	22.1	0.3
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°	8343.0	100.0
0°-180°	8343.0	100.0



REPORT NUMBER: P196958

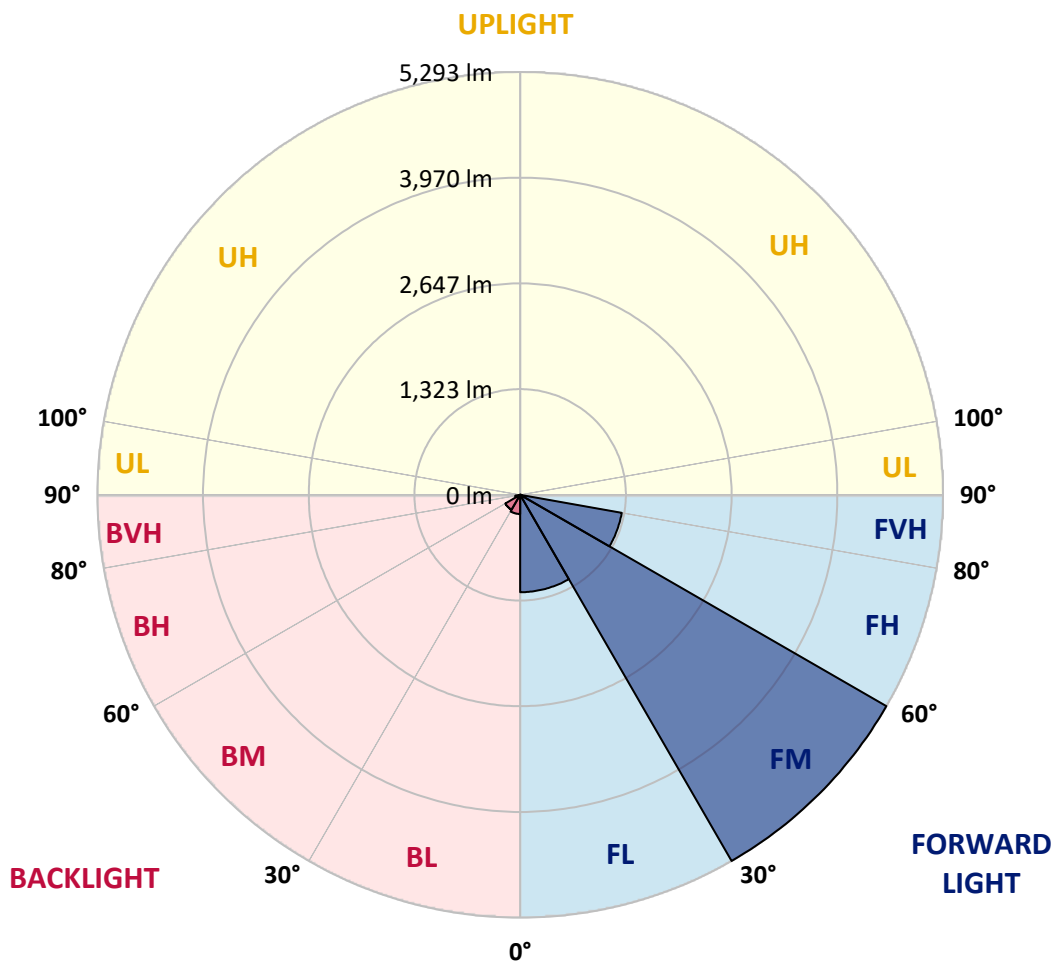
CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-8030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1219.1	14.6			
FM	(30°-60°)	5293.2	63.4			
FH	(60°-80°)	1290.9	15.5			G1/1800
FVH	(80°-90°)	19.0	0.2			G1/100
BL	(0°-30°)	240.2	2.9	B1/500		
BM	(30°-60°)	215.7	2.6	B0/220		
BH	(60°-80°)	61.8	0.7	B0/110		G0/110
BVH	(80°-90°)	3.0	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-G1

Type II Short





REPORT NUMBER: P196958

CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-8030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2
2.5°	2842.1	2824.9	2807.1	2774.0	2743.4	2696.3	2631.4	2615.5	2564.6	2480.5	2402.3
5°	3087.2	3084.0	3071.9	3045.2	3012.1	2954.8	2881.6	2832.5	2753.6	2621.2	2470.4
7.5°	2942.0	2968.8	3012.7	3075.1	3117.1	3111.3	3055.3	3012.7	2934.4	2753.6	2537.2
10°	2479.9	2485.0	2545.5	2676.6	2884.1	3077.6	3150.8	3139.4	3067.4	2869.5	2595.8
12.5°	2317.0	2320.1	2334.1	2376.2	2511.1	2781.0	3112.6	3172.5	3166.7	2980.2	2658.1
15°	2329.7	2331.6	2335.4	2348.8	2387.0	2522.6	2919.1	3071.2	3230.4	3085.3	2719.2
17.5°	2430.3	2429.0	2416.9	2404.2	2416.3	2460.8	2721.8	2882.2	3217.0	3173.7	2769.5
20°	2626.3	2632.7	2591.9	2535.3	2506.0	2507.9	2624.4	2744.7	3141.9	3242.5	2807.1
22.5°	2901.9	2906.4	2839.6	2741.5	2655.6	2612.3	2644.8	2708.4	3055.3	3306.1	2837.6
25°	3231.0	3231.0	3137.4	2998.0	2865.0	2770.2	2742.2	2766.4	3022.2	3378.1	2868.2
27.5°	3586.2	3598.9	3476.7	3294.0	3118.4	2979.6	2891.7	2887.3	3047.7	3468.4	2902.6
30°	3972.6	3984.0	3838.9	3615.5	3407.3	3229.7	3094.8	3065.5	3145.1	3590.0	2952.9
32.5°	4357.0	4366.6	4206.2	3978.3	3735.8	3527.0	3349.4	3302.9	3320.1	3767.6	3026.7
35°	4845.9	4847.8	4644.7	4373.6	4114.5	3869.5	3644.8	3598.9	3579.8	3991.7	3133.0
37.5°	5234.8	5219.5	5091.0	4834.4	4537.2	4281.3	4017.1	3957.3	3911.5	4306.7	3297.9
40°	5326.5	5326.5	5307.4	5230.4	4994.2	4747.9	4492.0	4402.9	4301.7	4677.8	3519.4
42.5°	5087.8	5103.0	5229.1	5396.5	5398.4	5240.5	4990.4	4915.3	4737.0	5100.5	3761.2
45°	4553.7	4558.2	4860.5	5312.5	5619.3	5709.7	5525.1	5421.3	5174.3	5539.7	3982.8
47.5°	4361.5	4375.5	4504.1	5056.6	5635.8	6089.7	6038.1	5895.5	5579.2	5940.7	4189.6
50°	4066.1	4083.3	4240.5	4679.8	5486.9	6333.5	6528.9	6376.1	5947.7	6274.9	4292.1
52.5°	3359.6	3386.3	3608.5	4181.4	5114.5	6343.6	6978.3	6886.6	6325.2	6453.8	4280.0
55°	2311.9	2331.6	2590.7	3264.1	4363.4	6032.4	7171.8	7234.8	6661.9	6493.9	4221.5
56°	1865.0	1938.9	2128.5	2781.0	3935.7	5767.6	7127.2	7273.0	6761.8	6487.5	4196.0
57.5°	1233.0	1247.0	1453.8	2015.2	3160.4	5192.8	6926.1	7191.5	6890.4	6455.0	4177.5
60°	579.9	586.2	660.7	930.0	1710.4	3784.2	6272.3	6712.8	6937.5	6386.9	4176.9
62.5°	378.1	379.4	388.3	443.7	699.5	2061.1	5199.8	5833.8	6547.3	6379.3	4164.8
65°	311.3	314.4	303.6	310.6	366.0	777.2	3667.7	4548.0	5631.4	6199.8	4028.6
67.5°	274.3	275.0	260.3	252.1	268.0	341.2	1847.8	2868.8	4211.9	5267.9	3318.2
70°	250.2	249.5	233.0	213.9	214.5	226.6	602.2	1191.6	2330.3	3127.9	1905.1
72.5°	222.1	223.4	213.9	187.1	178.2	160.4	226.6	321.4	793.1	1004.4	502.2
75°	194.8	192.2	182.7	165.5	148.9	107.6	113.9	136.9	206.9	205.0	108.2
77.5°	147.7	145.1	149.6	141.3	116.5	75.1	62.4	71.3	93.6	87.2	43.9
80°	112.7	111.4	101.8	120.9	106.3	56.7	42.6	43.9	50.9	46.5	21.6
82.5°	81.5	80.8	77.0	74.5	67.5	41.4	32.5	34.4	38.2	32.5	15.9
85°	31.2	31.2	60.5	50.9	46.5	28.0	22.9	24.8	29.3	23.6	10.8
87.5°	5.1	5.1	40.7	33.7	21.0	14.0	14.6	15.9	17.2	14.0	8.3
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: P196958

CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-8030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2	2362.2
2.5°	2355.8	2313.1	2219.6	2129.2	2050.3	1963.7	1919.8	1868.8	1849.8	1811.6	1815.4
5°	2380.0	2290.9	2103.1	1905.1	1723.7	1539.1	1408.0	1284.5	1215.8	1147.7	1147.7
7.5°	2404.8	2268.6	1978.3	1662.0	1356.4	1040.1	816.0	636.5	536.6	469.8	467.8
10°	2422.0	2239.9	1836.4	1380.0	929.3	536.0	323.4	254.6	229.8	219.0	218.3
12.5°	2444.3	2211.3	1674.7	1047.7	516.2	254.6	201.8	191.0	186.5	184.0	184.0
15°	2463.4	2170.6	1478.7	704.6	271.2	191.0	173.8	170.0	169.3	168.7	169.3
17.5°	2467.8	2112.6	1243.8	412.5	196.7	166.8	159.1	155.9	155.9	155.3	155.3
20°	2457.6	2036.3	984.1	254.6	170.0	153.4	145.1	141.3	140.7	140.7	140.7
22.5°	2436.6	1938.9	727.6	192.9	154.7	141.3	130.5	126.7	126.7	127.3	127.9
25°	2410.5	1823.7	499.7	166.1	143.2	128.6	117.8	113.9	115.2	116.5	117.1
27.5°	2377.4	1686.2	327.2	143.9	127.9	115.8	106.3	103.8	106.3	108.8	110.1
30°	2344.3	1535.3	221.5	124.8	110.8	101.8	96.1	95.5	99.3	105.0	105.7
32.5°	2322.7	1380.6	167.4	112.0	97.4	89.8	87.2	88.5	94.2	100.6	101.8
35°	2320.8	1229.8	142.6	101.8	88.5	81.5	80.2	84.0	90.4	95.5	96.8
37.5°	2350.7	1088.5	129.2	94.2	81.5	74.5	72.6	79.6	85.3	90.4	91.7
40°	2411.2	961.8	120.3	87.2	75.7	67.5	66.2	71.9	77.7	83.4	85.3
42.5°	2486.9	843.4	110.1	80.2	69.4	59.8	58.6	63.0	68.7	77.0	78.3
45°	2552.5	733.3	99.3	72.6	62.4	51.6	50.9	56.0	60.5	68.1	69.4
47.5°	2607.9	641.6	89.1	64.3	53.5	45.8	45.2	47.7	50.3	57.3	58.6
50°	2578.6	564.0	78.9	52.8	43.3	39.5	38.8	38.8	42.0	49.0	50.3
52.5°	2506.6	515.6	69.4	43.9	35.6	33.7	31.8	32.5	35.6	38.8	39.5
55°	2448.7	492.7	61.1	38.8	29.9	28.0	26.1	25.5	26.1	24.8	23.6
56°	2434.7	490.1	59.2	37.6	28.6	26.1	23.6	22.3	21.6	19.1	18.5
57.5°	2428.4	490.1	56.0	35.0	26.7	23.6	20.4	17.8	15.3	13.4	13.4
60°	2423.3	493.3	52.2	30.6	22.9	19.1	14.6	10.8	8.9	8.9	8.9
62.5°	2412.4	492.0	47.7	25.5	19.7	14.6	8.9	7.0	6.4	7.0	7.6
65°	2290.9	457.0	42.0	20.4	15.3	10.2	5.1	5.1	5.7	7.0	7.6
67.5°	1845.9	346.3	34.4	15.9	10.8	7.6	4.5	4.5	5.7	7.0	7.6
70°	1014.0	182.7	29.3	11.5	8.3	6.4	4.5	3.8	5.7	7.0	7.6
72.5°	247.6	76.4	26.7	8.9	7.6	5.7	3.8	3.8	5.7	7.0	7.6
75°	61.1	57.3	21.6	7.0	6.4	5.1	3.8	3.8	5.7	7.0	7.6
77.5°	28.6	75.7	14.6	6.4	5.7	4.5	3.8	3.8	5.7	7.0	7.0
80°	17.2	57.3	8.9	5.7	5.1	4.5	3.8	3.8	5.7	7.0	7.6
82.5°	10.2	16.5	6.4	5.7	5.1	3.8	3.8	3.8	5.7	7.0	7.6
85°	8.9	8.3	6.4	5.7	5.1	4.5	3.8	3.8	6.4	7.6	7.6
87.5°	7.0	6.4	5.7	5.1	5.1	4.5	3.8	3.8	5.7	7.0	7.6
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)