

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: P196612

Luminaire Tested: **NAV-AF-04-D-UNV-SL3-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196612
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-04-D-UNV-SL3-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15525.7 lumens
Efficiency: N/A
Efficacy: 120.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

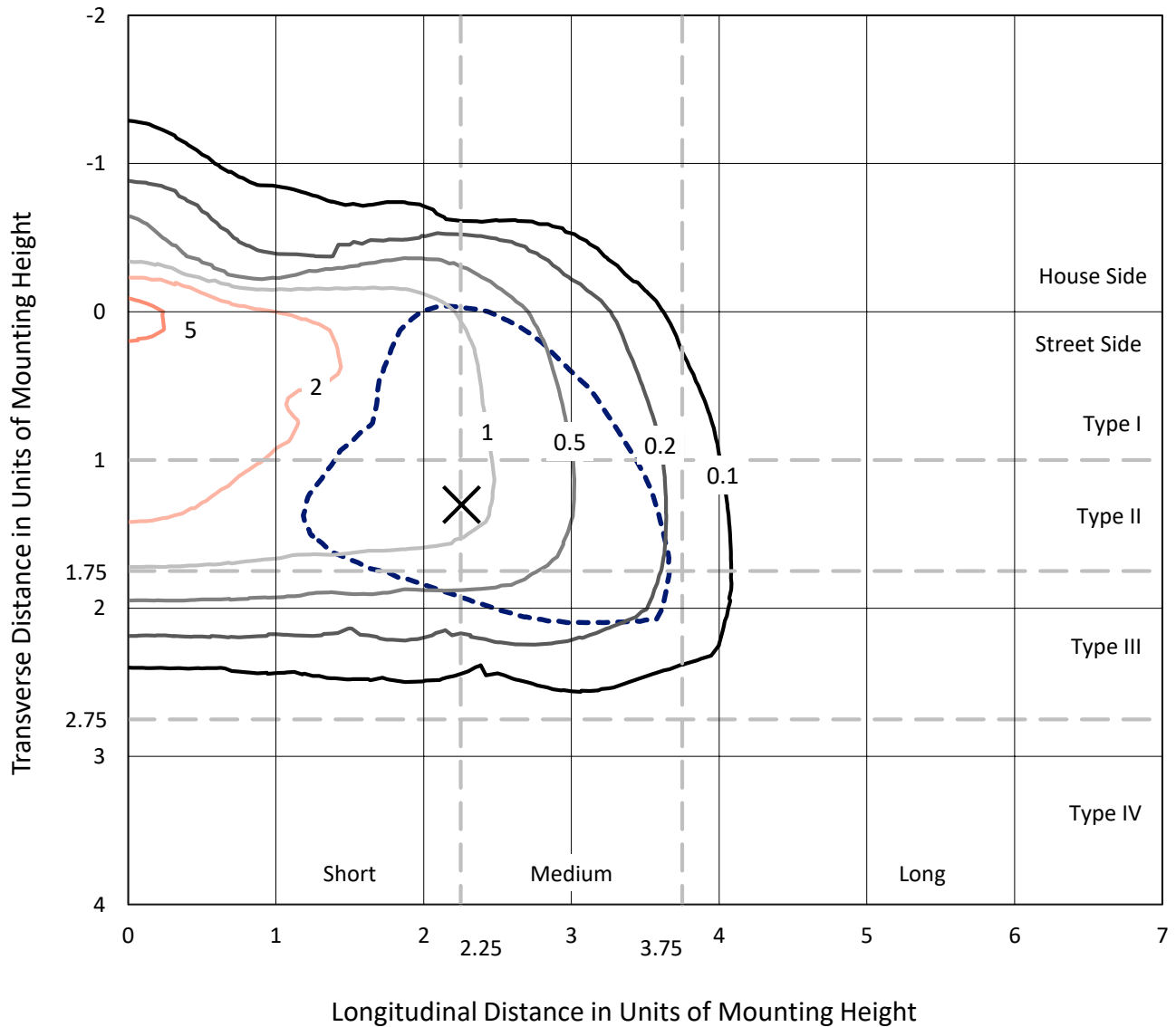
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196612
 CATALOG NUMBER: NAV-AF-04-D-UNV-SL3-7030-600

Iso-Footcandle Lines of Horizontal Illumination

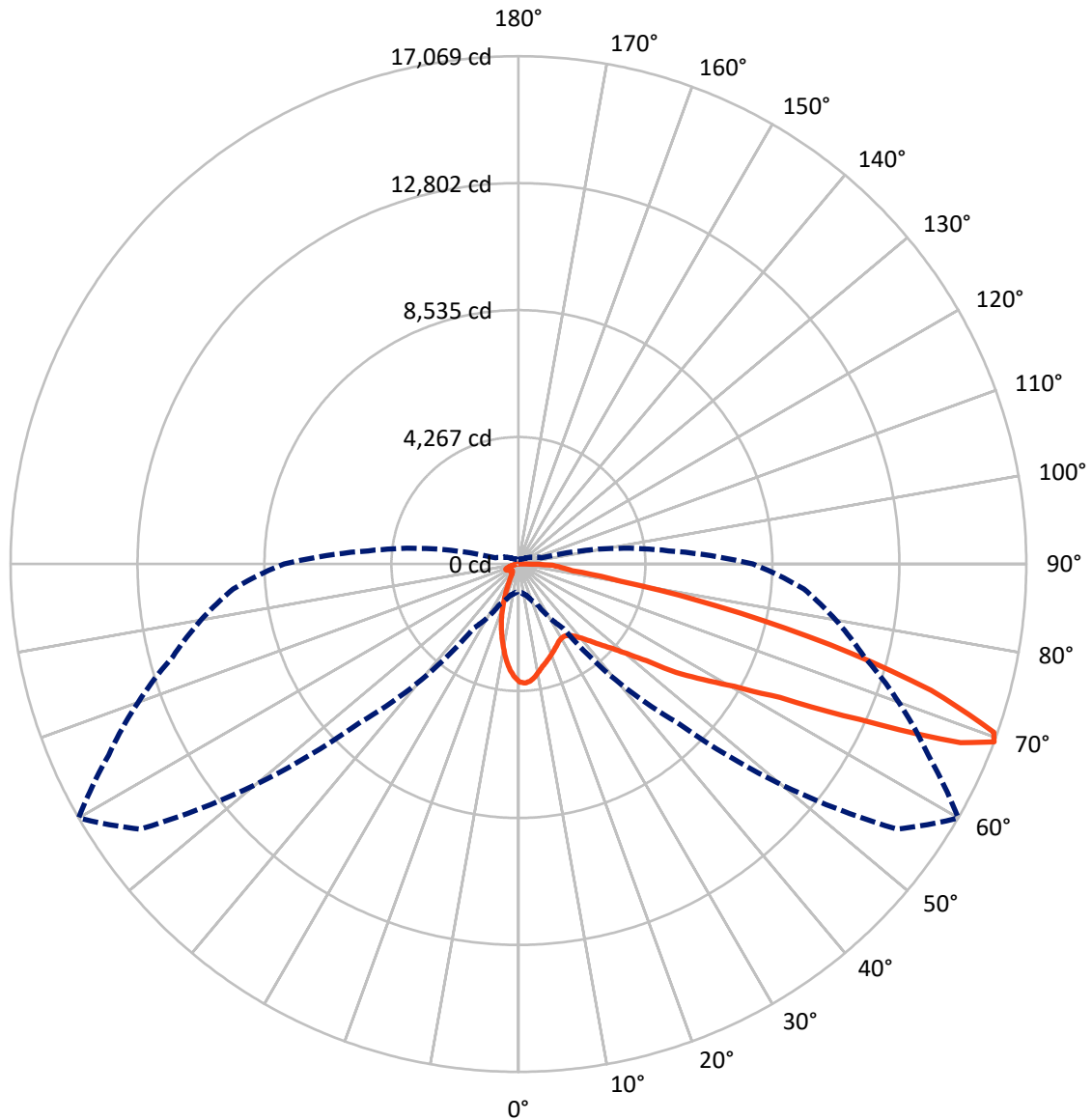
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P196612
CATALOG NUMBER: NAV-AF-04-D-UNV-SL3-7030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P196612

CATALOG NUMBER: NAV-AF-04-D-UNV-SL3-7030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2214.5	0.0	2214.5
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	13311.3	0.0	13311.3
	% Fixture	85.7	0.0	85.7
Total	Lumens	15525.7	0.0	15525.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.1	2.2
10°-20°	719.6	4.6
20°-30°	917.9	5.9
30°-40°	1263.2	8.1
40°-50°	2046.1	13.2
50°-60°	3211.2	20.7
60°-70°	4281.1	27.6
70°-80°	2381.3	15.3
80°-90°	369.3	2.4
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°	15525.7	100.0
0°-180°	15525.7	100.0

Coefficient of Utilization



REPORT NUMBER: P196612

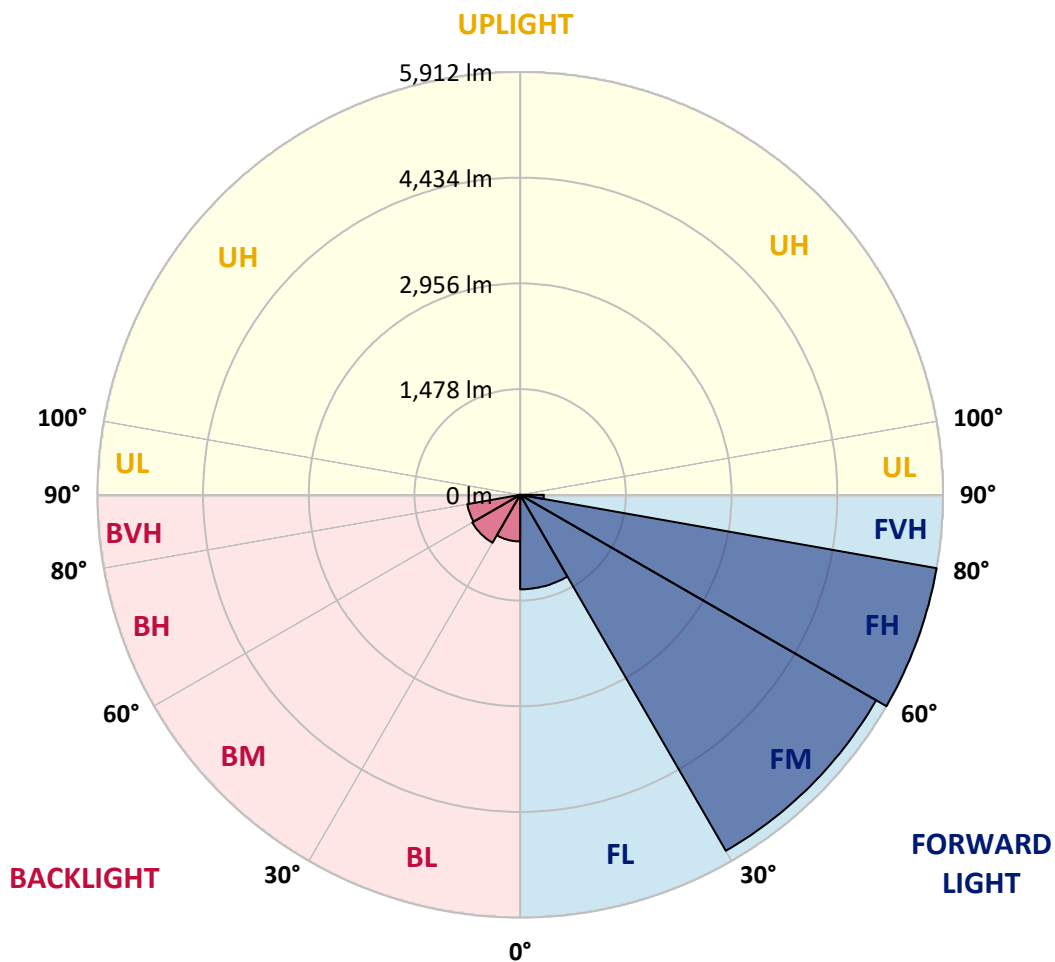
CATALOG NUMBER: NAV-AF-04-D-UNV-SL3-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1320.9	8.5			
FM	(30°-60°)	5746.8	37.0			
FH	(60°-80°)	5911.6	38.1			G3/7500
FVH	(80°-90°)	331.9	2.1			G3/500
BL	(0°-30°)	652.6	4.2	B2/1000		
BM	(30°-60°)	773.6	5.0	B1/1000		
BH	(60°-80°)	750.8	4.8	B2/1000		G2/1000
BVH	(80°-90°)	37.4	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





REPORT NUMBER: P196612

CATALOG NUMBER: NAV-AF-04-D-UNV-SL3-7030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4
2.5°	4066.9	4077.9	4077.9	4069.0	4064.0	4035.2	4018.2	4006.2	3985.3	3946.6	3911.7
5°	3921.7	3942.5	3951.5	3955.5	3981.4	3972.3	3973.4	3965.4	3947.5	3905.7	3848.9
7.5°	3654.8	3658.8	3674.7	3701.6	3764.3	3808.1	3844.0	3851.0	3846.9	3816.1	3736.4
10°	3392.0	3398.9	3417.8	3463.6	3523.4	3586.1	3663.8	3695.5	3719.5	3709.6	3609.1
12.5°	3174.0	3175.0	3195.9	3248.6	3315.3	3393.9	3499.5	3549.3	3606.0	3628.9	3516.4
15°	2963.8	2977.8	2997.7	3061.5	3144.1	3243.6	3365.0	3433.8	3508.5	3574.2	3444.7
17.5°	2804.5	2815.5	2827.5	2880.2	2975.7	3100.2	3250.6	3324.2	3422.9	3523.4	3371.0
20°	2717.0	2721.0	2712.1	2737.8	2818.6	2953.0	3127.1	3215.7	3333.2	3474.6	3295.4
22.5°	2699.0	2699.0	2666.2	2661.2	2697.1	2810.5	2999.7	3108.2	3251.5	3440.8	3227.7
25°	2782.7	2776.8	2715.0	2658.2	2645.2	2703.1	2878.2	3011.6	3181.8	3439.7	3176.9
27.5°	2940.9	2932.9	2856.4	2760.8	2678.2	2653.3	2784.7	2921.0	3127.1	3473.6	3151.0
30°	3138.2	3135.0	3057.4	2938.0	2801.6	2673.1	2747.9	2874.3	3090.3	3536.2	3150.1
32.5°	3354.2	3340.2	3292.4	3172.9	2995.7	2783.7	2769.7	2876.2	3080.3	3628.0	3172.9
35°	3584.1	3574.2	3562.2	3441.7	3242.6	2978.9	2866.3	2945.0	3129.1	3755.3	3237.7
37.5°	3876.8	3865.8	3885.8	3754.3	3536.2	3234.6	3029.5	3082.3	3228.7	3940.6	3358.1
40°	4397.4	4365.7	4309.9	4107.8	3878.8	3548.3	3265.5	3273.5	3398.9	4188.5	3551.3
42.5°	5252.7	5150.2	4874.4	4503.0	4240.3	3912.7	3573.3	3535.3	3633.9	4516.0	3832.0
45°	6109.9	5994.4	5528.5	4934.1	4614.6	4303.9	3953.4	3862.9	3926.6	4897.3	4193.4
47.5°	6663.5	6606.7	6081.1	5365.1	5006.8	4730.1	4388.5	4239.3	4285.0	5329.3	4639.4
50°	6825.8	6777.0	6363.8	5702.7	5377.2	5244.8	4927.1	4729.1	4737.1	5834.1	5174.1
52.5°	6704.2	6684.4	6410.6	5911.8	5717.6	5787.4	5672.8	5397.1	5331.5	6387.8	5753.5
55°	6542.0	6549.0	6443.4	6121.9	6064.1	6293.2	6648.5	6426.5	6147.8	6964.1	6356.8
57.5°	6031.2	6036.2	6313.0	6522.1	6725.2	7002.0	7408.3	7314.6	6990.0	7586.4	7032.8
60°	4856.5	4895.3	5511.6	6439.4	7480.9	8398.8	8498.3	8337.0	7886.0	8303.1	7911.9
62.5°	3469.6	3504.5	4218.3	5590.2	7392.3	9979.7	10511.4	9870.3	9101.7	9375.4	9148.5
65°	1822.9	1817.0	2369.5	3862.9	6226.3	10346.2	13683.3	12592.2	11149.6	10849.9	10343.1
67.5°	1018.6	1051.3	1265.4	1948.3	4058.0	9105.6	15709.4	16030.9	13996.9	12019.7	10291.3
69°	941.9	952.7	1096.1	1506.3	2645.2	7512.6	15535.1	17069.3	15197.6	12024.7	9628.4
70°	914.9	926.8	1057.3	1387.8	2222.2	6155.6	14901.0	16947.9	15489.3	11757.9	9025.1
72.5°	820.3	836.3	962.7	1247.5	1872.7	3172.9	12002.7	14505.7	14030.8	10276.5	6997.9
75°	700.0	726.8	917.9	1238.6	1774.2	2017.0	8004.6	10807.1	10442.7	7349.5	3970.4
77.5°	289.7	292.7	401.2	907.0	1861.8	1930.4	4302.0	6845.6	6060.2	3222.7	1195.8
80°	202.1	198.1	200.2	264.9	1502.4	1943.4	2207.2	3481.5	2706.1	850.2	559.5
82.5°	170.2	168.3	176.2	166.3	508.7	2205.2	1845.8	1814.9	1274.4	458.1	266.8
85°	112.5	109.5	144.3	151.4	241.9	1751.2	1985.2	1426.7	949.8	245.0	113.5
87.5°	54.7	55.7	82.6	102.6	128.4	554.5	1901.5	1128.0	733.7	106.5	45.8
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: P196612

CATALOG NUMBER: NAV-AF-04-D-UNV-SL3-7030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4	3961.4
2.5°	3897.8	3867.9	3841.0	3807.1	3781.3	3759.3	3729.4	3728.5	3723.4	3730.4	3732.4
5°	3811.1	3761.4	3685.7	3601.0	3541.3	3462.7	3386.0	3360.2	3331.2	3328.2	3337.3
7.5°	3680.7	3603.1	3473.6	3344.2	3214.7	3082.3	2956.9	2893.1	2831.5	2812.6	2821.5
10°	3535.3	3436.7	3238.7	3027.6	2845.4	2648.2	2457.1	2333.7	2221.1	2173.3	2185.3
12.5°	3421.8	3296.4	3017.6	2743.8	2471.0	2188.4	1936.4	1692.5	1508.4	1425.8	1430.6
15°	3324.2	3163.9	2810.5	2446.2	2104.7	1717.3	1367.9	1085.2	923.9	864.1	862.2
17.5°	3218.8	3024.7	2594.5	2169.4	1726.3	1247.5	915.9	748.7	684.9	665.1	665.1
20°	3106.2	2881.2	2368.5	1867.7	1328.1	871.2	689.0	624.2	600.4	594.4	593.4
22.5°	3001.7	2740.9	2141.5	1546.1	960.7	661.0	586.4	561.5	557.6	562.4	562.4
25°	2919.1	2617.5	1911.5	1207.7	698.9	553.5	521.7	518.7	533.6	551.5	554.5
27.5°	2857.3	2506.9	1684.6	882.0	549.6	481.9	470.9	483.9	518.7	554.5	561.5
30°	2814.5	2412.3	1412.7	634.1	458.1	422.2	427.1	450.0	502.8	557.6	572.4
32.5°	2795.6	2335.6	1138.9	486.9	391.2	371.4	384.3	414.2	468.9	523.7	541.6
35°	2813.5	2279.9	886.1	404.3	342.5	327.6	342.5	373.3	409.1	436.1	447.0
37.5°	2878.2	2260.0	667.0	358.4	310.7	295.6	307.7	328.6	344.5	354.4	359.4
40°	3014.7	2280.9	522.7	334.6	292.7	275.8	278.7	288.8	299.7	307.7	308.6
42.5°	3231.7	2349.6	464.9	325.6	281.8	259.8	254.9	261.7	273.8	284.7	286.7
45°	3520.5	2464.2	459.0	328.6	276.8	246.9	237.0	243.8	259.8	277.7	280.8
47.5°	3893.8	2645.2	486.9	344.5	279.8	240.0	225.0	231.9	252.8	276.8	280.8
50°	4335.7	2896.1	538.6	368.3	293.7	240.0	220.0	225.9	247.9	274.8	278.7
52.5°	4856.5	3245.6	592.4	392.2	313.6	248.9	222.1	221.0	240.9	265.8	270.9
55°	5430.9	3679.8	644.2	413.2	324.6	260.8	227.0	215.0	231.0	250.9	254.9
57.5°	6106.9	4274.0	734.8	433.1	330.5	269.8	232.9	209.1	218.1	231.9	234.9
60°	7023.8	5147.2	911.0	467.0	341.4	273.8	234.0	203.1	202.1	212.1	213.0
62.5°	8219.6	6169.7	1079.3	506.8	363.4	274.8	230.0	199.1	189.1	192.2	192.2
65°	9069.8	6545.9	1030.5	540.7	383.3	273.8	225.9	196.1	179.1	174.3	174.3
67.5°	8585.9	5782.3	875.1	549.6	385.2	262.9	217.0	189.1	170.2	158.3	158.3
69°	7875.1	5068.5	803.5	533.6	369.4	249.8	207.0	182.3	164.3	150.3	150.3
70°	7295.7	4527.9	759.7	514.7	350.4	239.0	198.1	175.3	158.3	146.3	145.4
72.5°	5446.9	3021.6	649.1	444.0	287.7	202.1	173.2	156.3	142.4	134.4	134.4
75°	2874.3	1514.4	531.6	362.4	222.1	161.2	142.4	131.4	123.5	122.5	121.5
77.5°	941.9	684.9	382.3	272.8	163.3	125.4	113.5	106.5	105.6	109.5	109.5
80°	508.7	409.1	246.0	184.2	113.5	93.6	87.6	86.7	89.6	95.6	95.6
82.5°	246.9	202.1	146.3	113.5	77.7	68.8	68.8	69.7	73.6	80.7	80.7
85°	106.5	95.6	84.6	63.7	47.7	42.8	48.7	53.7	56.7	61.7	63.7
87.5°	50.8	44.8	38.8	24.9	20.9	21.9	25.9	31.9	37.8	41.8	42.8
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)