

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: P196478

Luminaire Tested: **NAV-AF-02-D-UNV-AFL-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196478
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-7030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 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: 9888 lumens
Efficiency: N/A
Efficacy: 87.5 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

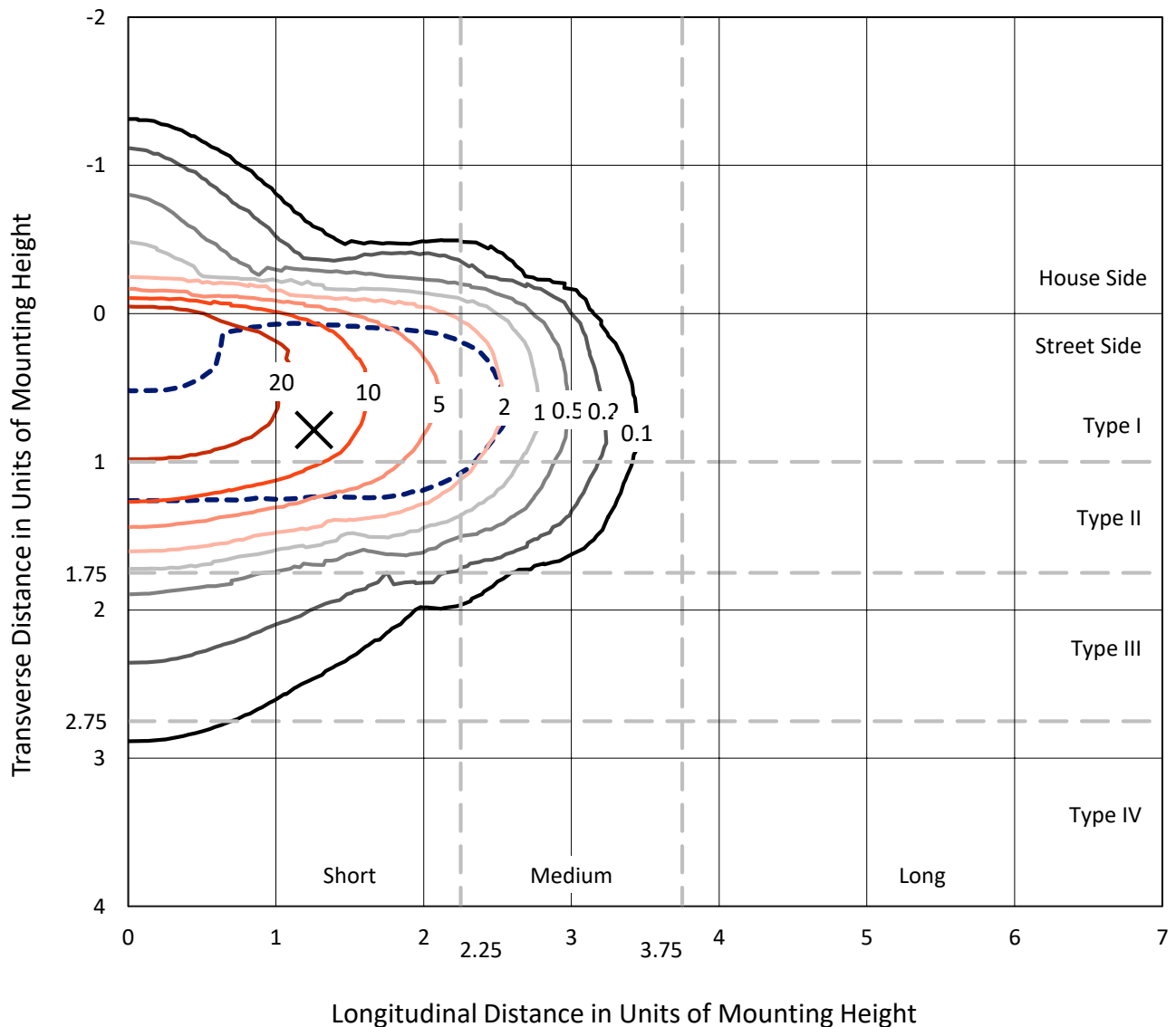
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196478
 CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

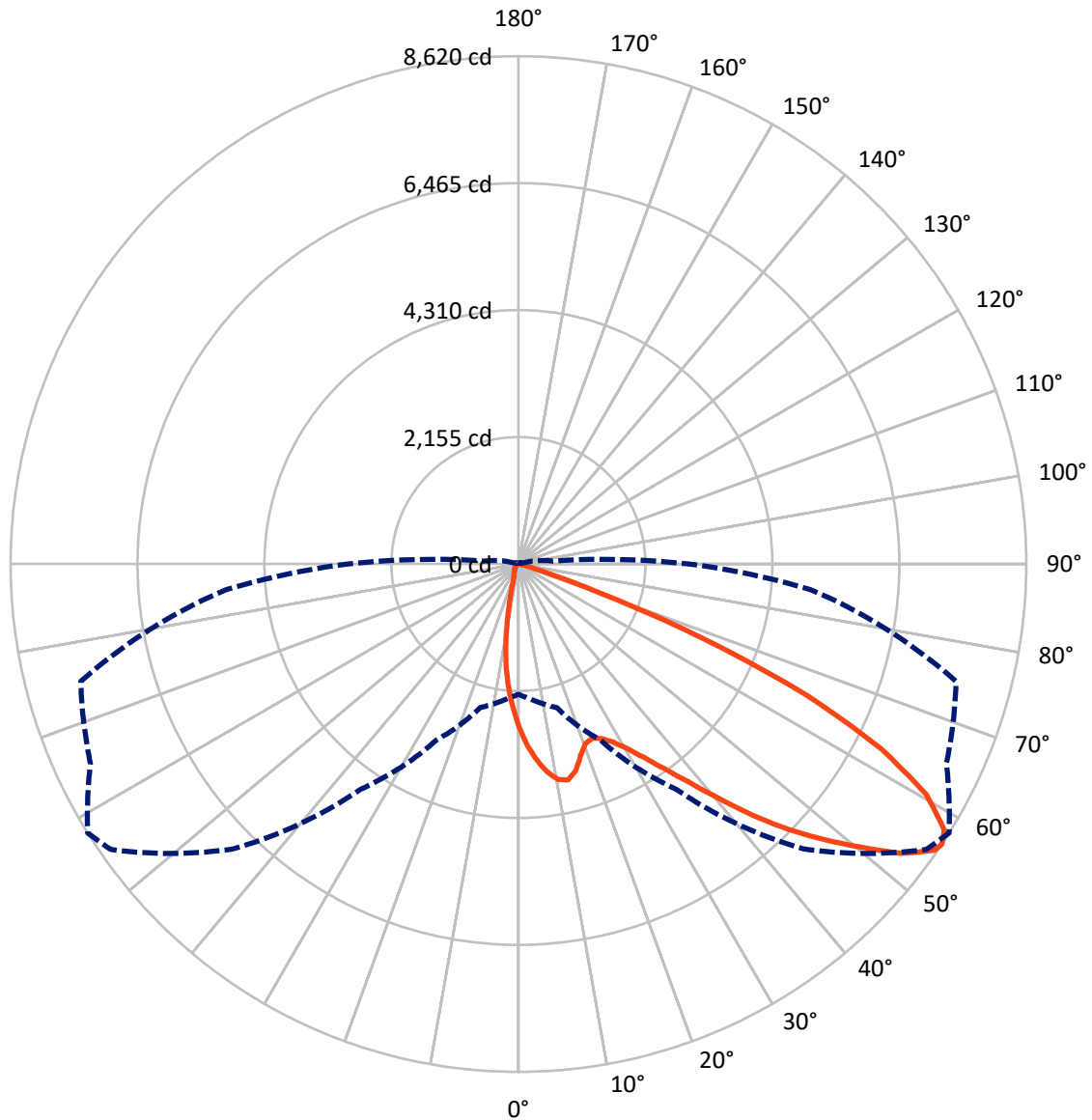
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 34.8 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P196478
CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-7030-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196478

CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-7030-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	617.2	0.0	617.2
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	9270.8	0.0	9270.8
	% Fixture	93.8	0.0	93.8
Total	Lumens	9888.0	0.0	9888.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.8	2.4
10°-20°	555.7	5.6
20°-30°	935.1	9.5
30°-40°	1601.2	16.2
40°-50°	2416.2	24.4
50°-60°	2511.6	25.4
60°-70°	1410.0	14.3
70°-80°	193.2	2.0
80°-90°	26.2	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°	9888.0	100.0
0°-180°	9888.0	100.0

Coefficient of Utilization



REPORT NUMBER: P196478

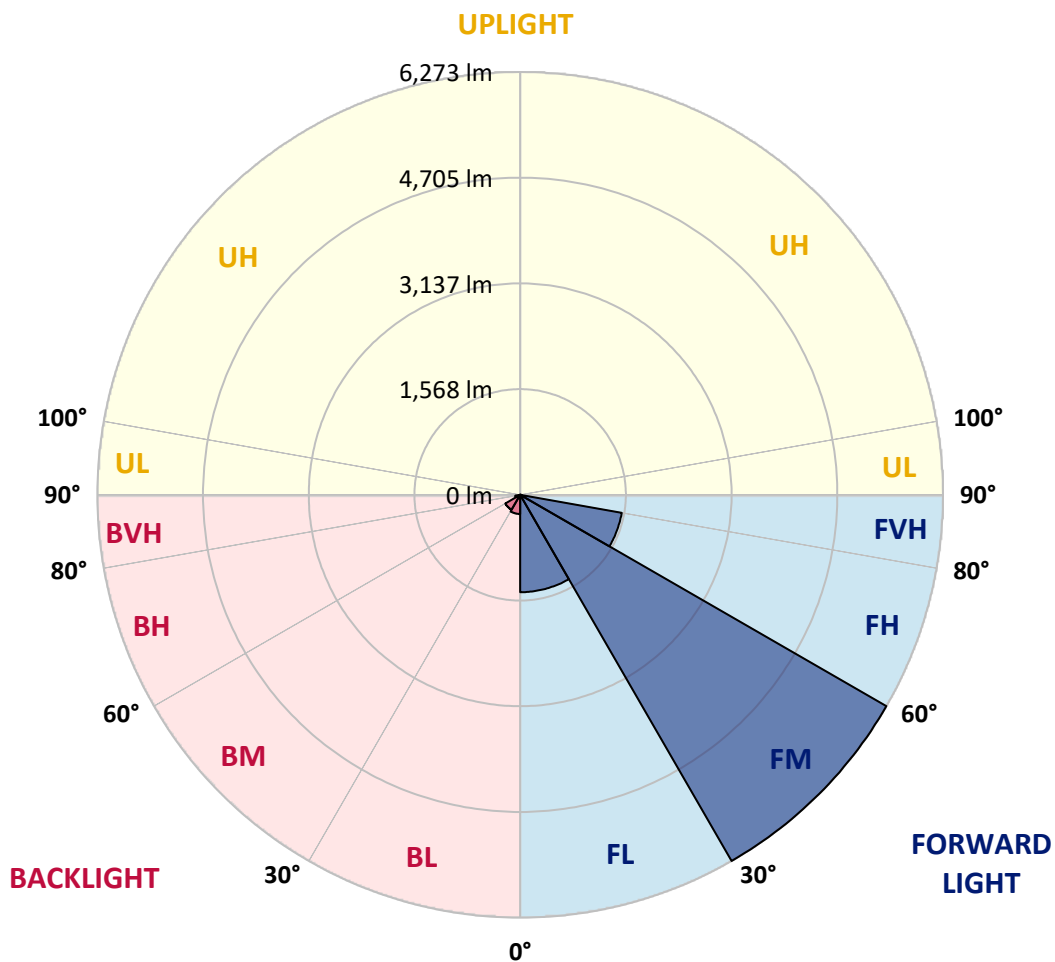
CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1444.9	14.6			
FM	(30°-60°)	6273.3	63.4			
FH	(60°-80°)	1530.0	15.5			G1/1800
FVH	(80°-90°)	22.6	0.2			G1/100
BL	(0°-30°)	284.7	2.9	B1/500		
BM	(30°-60°)	255.7	2.6	B1/1000		
BH	(60°-80°)	73.2	0.7	B0/110		G0/110
BVH	(80°-90°)	3.6	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-G1

Type II Short





REPORT NUMBER: P196478

CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5
2.5°	3368.4	3348.0	3327.0	3287.7	3251.4	3195.7	3118.7	3099.8	3039.5	2939.9	2847.1
5°	3658.9	3655.0	3640.7	3609.1	3569.8	3502.0	3415.2	3357.1	3263.6	3106.6	2927.8
7.5°	3486.8	3518.4	3570.6	3644.6	3694.3	3687.5	3621.1	3570.6	3477.8	3263.6	3007.1
10°	2939.2	2945.2	3016.8	3172.3	3418.1	3647.5	3734.3	3720.8	3635.5	3400.8	3076.4
12.5°	2746.0	2749.8	2766.3	2816.1	2976.1	3296.1	3689.0	3759.9	3753.2	3532.2	3150.4
15°	2761.1	2763.3	2767.9	2783.7	2829.0	2989.7	3459.7	3640.0	3828.6	3656.6	3222.8
17.5°	2880.3	2878.8	2864.4	2849.4	2863.6	2916.5	3225.8	3415.9	3812.7	3761.5	3282.3
20°	3112.7	3120.2	3072.0	3004.7	2970.1	2972.3	3110.4	3252.9	3723.8	3842.8	3327.0
22.5°	3439.3	3444.6	3365.4	3249.2	3147.3	3096.1	3134.5	3209.9	3621.1	3918.4	3363.1
25°	3829.3	3829.3	3718.4	3553.2	3395.6	3283.1	3249.9	3278.7	3581.8	4003.6	3399.4
27.5°	4250.3	4265.4	4120.5	3904.1	3695.8	3531.4	3427.3	3422.0	3612.1	4110.8	3440.0
30°	4708.2	4721.7	4549.8	4285.0	4038.3	3827.8	3668.0	3633.2	3727.5	4254.8	3499.7
32.5°	5163.9	5175.2	4985.1	4715.0	4427.6	4180.2	3969.6	3914.5	3935.0	4465.3	3587.2
35°	5743.2	5745.5	5504.8	5183.5	4876.5	4586.0	4319.7	4265.4	4242.7	4730.8	3713.1
37.5°	6204.2	6186.0	6033.8	5729.7	5377.4	5074.1	4761.0	4690.1	4635.8	5104.3	3908.5
40°	6312.8	6312.8	6290.2	6199.0	5919.0	5627.1	5323.7	5218.2	5098.2	5544.2	4171.1
42.5°	6029.9	6048.0	6197.4	6395.8	6398.1	6211.0	5914.5	5825.4	5614.3	6045.0	4457.8
45°	5397.0	5402.3	5760.5	6296.3	6659.9	6767.0	6548.2	6425.2	6132.5	6565.5	4720.3
47.5°	5169.2	5185.8	5338.2	5993.0	6679.4	7217.3	7156.3	6987.2	6612.4	7040.7	4965.5
50°	4819.1	4839.5	5025.8	5546.3	6502.9	7506.3	7737.8	7556.8	7049.1	7436.8	5086.9
52.5°	3981.7	4013.4	4276.7	4955.7	6061.6	7518.3	8270.5	8161.8	7496.5	7648.9	5072.6
55°	2740.0	2763.3	3070.4	3868.6	5171.5	7149.5	8499.9	8574.5	7895.5	7696.4	5003.2
56°	2210.5	2297.9	2522.7	3296.1	4664.5	6835.6	8447.1	8619.8	8013.9	7688.9	4973.1
57.5°	1461.3	1477.8	1723.0	2388.4	3745.6	6154.3	8208.6	8523.2	8166.4	7650.4	4951.1
60°	687.2	694.8	783.1	1102.2	2027.1	4484.9	7433.9	7955.9	8222.2	7569.7	4950.4
62.5°	448.1	449.6	460.2	525.9	829.1	2442.7	6162.7	6914.0	7759.8	7560.6	4936.0
65°	368.9	372.7	359.9	368.1	433.8	921.2	4346.9	5390.2	6674.2	7347.9	4774.6
67.5°	325.1	325.9	308.5	298.8	317.6	404.4	2190.0	3400.0	4991.8	6243.4	3932.7
70°	296.5	295.8	276.1	253.5	254.2	268.6	713.7	1412.2	2761.8	3707.1	2258.0
72.5°	263.4	264.9	253.5	221.8	211.2	190.1	268.6	381.0	939.9	1190.5	595.3
75°	230.9	227.8	216.6	196.1	176.6	127.5	135.1	162.2	245.2	242.9	128.3
77.5°	175.1	172.0	177.3	167.5	138.1	89.0	74.0	84.4	110.9	103.4	52.0
80°	133.6	131.9	120.7	143.3	125.9	67.2	50.6	52.0	60.3	55.0	25.6
82.5°	96.5	95.8	91.2	88.3	80.0	49.0	38.5	40.8	45.3	38.5	18.9
85°	36.9	36.9	71.7	60.3	55.0	33.3	27.2	29.4	34.8	27.9	12.8
87.5°	6.0	6.0	48.3	40.0	24.9	16.6	17.4	18.9	20.3	16.6	9.9
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: P196478

CATALOG NUMBER: NAV-AF-02-D-UNV-AFL-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5	2799.5
2.5°	2792.0	2741.6	2630.6	2523.5	2429.9	2327.3	2275.4	2214.9	2192.3	2147.1	2151.6
5°	2820.7	2715.1	2492.5	2258.0	2042.9	1824.2	1668.7	1522.4	1440.9	1360.2	1360.2
7.5°	2850.1	2688.7	2344.7	1969.7	1607.6	1232.7	967.2	754.4	636.0	556.7	554.5
10°	2870.5	2654.8	2176.5	1635.5	1101.5	635.3	383.3	301.8	272.4	259.5	258.7
12.5°	2896.9	2620.8	1984.8	1241.7	611.9	301.8	239.2	226.2	221.0	218.0	218.0
15°	2919.5	2572.5	1752.5	835.1	321.3	226.2	206.0	201.5	200.7	200.0	200.7
17.5°	2924.8	2503.9	1474.1	488.8	233.2	197.6	188.6	184.8	184.8	184.1	184.1
20°	2912.8	2413.3	1166.4	301.8	201.5	181.8	172.0	167.5	166.7	166.7	166.7
22.5°	2887.8	2297.9	862.3	228.6	183.3	167.5	154.6	150.1	150.1	150.9	151.7
25°	2856.9	2161.3	592.1	196.8	169.8	152.4	139.6	135.1	136.6	138.1	138.8
27.5°	2817.7	1998.5	387.8	170.5	151.7	137.3	125.9	122.9	125.9	129.0	130.6
30°	2778.5	1819.6	262.6	147.8	131.2	120.7	113.9	113.2	117.7	124.4	125.2
32.5°	2752.8	1636.2	198.5	132.8	115.4	106.4	103.4	104.9	111.7	119.2	120.7
35°	2750.5	1457.5	169.1	120.7	104.9	96.5	95.0	99.5	107.1	113.2	114.7
37.5°	2786.0	1290.1	153.2	111.7	96.5	88.3	86.0	94.3	101.1	107.1	108.6
40°	2857.6	1139.9	142.6	103.4	89.8	80.0	78.4	85.2	92.0	98.9	101.1
42.5°	2947.5	999.6	130.6	95.0	82.3	70.9	69.4	74.8	81.5	91.2	92.8
45°	3025.2	869.0	117.7	86.0	74.0	61.0	60.3	66.4	71.7	80.8	82.3
47.5°	3090.7	760.5	105.7	76.2	63.4	54.3	53.5	56.6	59.5	67.8	69.4
50°	3056.1	668.4	93.5	62.6	51.4	46.8	46.0	46.0	49.8	58.1	59.5
52.5°	2970.9	611.1	82.3	52.0	42.3	40.0	37.7	38.5	42.3	46.0	46.8
55°	2902.2	583.9	72.4	46.0	35.5	33.3	30.9	30.1	30.9	29.4	27.9
56°	2885.5	580.9	70.2	44.5	34.0	30.9	27.9	26.4	25.6	22.6	21.9
57.5°	2878.0	580.9	66.4	41.5	31.6	27.9	24.1	21.1	18.1	15.9	15.9
60°	2872.0	584.6	61.8	36.2	27.2	22.6	17.4	12.8	10.6	10.6	10.6
62.5°	2859.2	583.1	56.6	30.1	23.4	17.4	10.6	8.3	7.5	8.3	9.1
65°	2715.1	541.7	49.8	24.1	18.1	12.0	6.0	6.0	6.8	8.3	9.1
67.5°	2187.8	410.4	40.8	18.9	12.8	9.1	5.3	5.3	6.8	8.3	9.1
70°	1201.8	216.6	34.8	13.5	9.9	7.5	5.3	4.5	6.8	8.3	9.1
72.5°	293.5	90.5	31.6	10.6	9.1	6.8	4.5	4.5	6.8	8.3	9.1
75°	72.4	67.8	25.6	8.3	7.5	6.0	4.5	4.5	6.8	8.3	9.1
77.5°	34.0	89.8	17.4	7.5	6.8	5.3	4.5	4.5	6.8	8.3	8.3
80°	20.3	67.8	10.6	6.8	6.0	5.3	4.5	4.5	6.8	8.3	9.1
82.5°	12.0	19.6	7.5	6.8	6.0	4.5	4.5	4.5	6.8	8.3	9.1
85°	10.6	9.9	7.5	6.8	6.0	5.3	4.5	4.5	7.5	9.1	9.1
87.5°	8.3	7.5	6.8	6.0	6.0	5.3	4.5	4.5	6.8	8.3	9.1
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)