

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: P196569

Luminaire Tested: **NAV-AF-03-D-UNV-SL2-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196569
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)
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-SL2-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13877 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G3

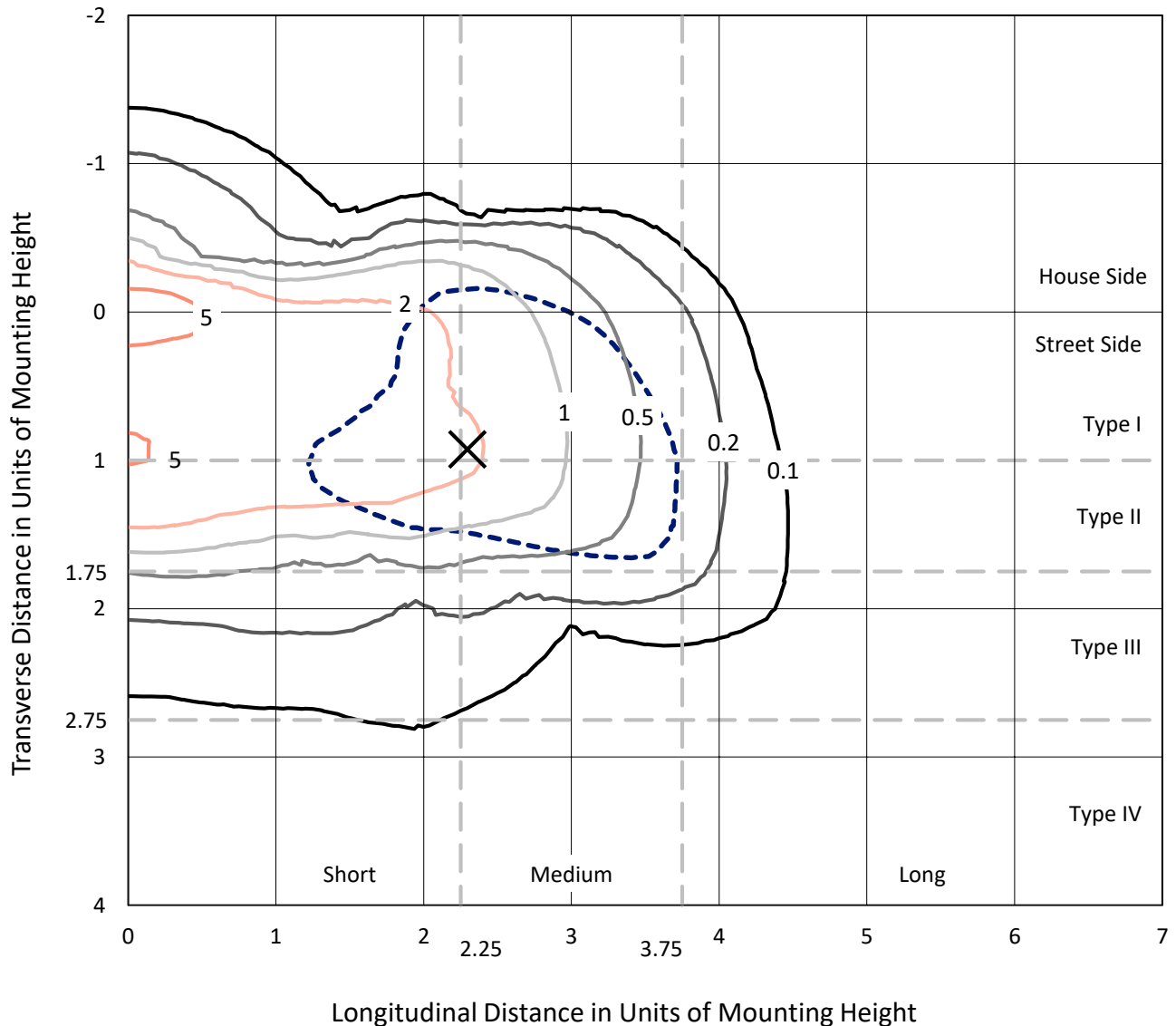
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196569
 CATALOG NUMBER: NAV-AF-03-D-UNV-SL2-7030-800

Iso-Footcandle Lines of Horizontal Illumination

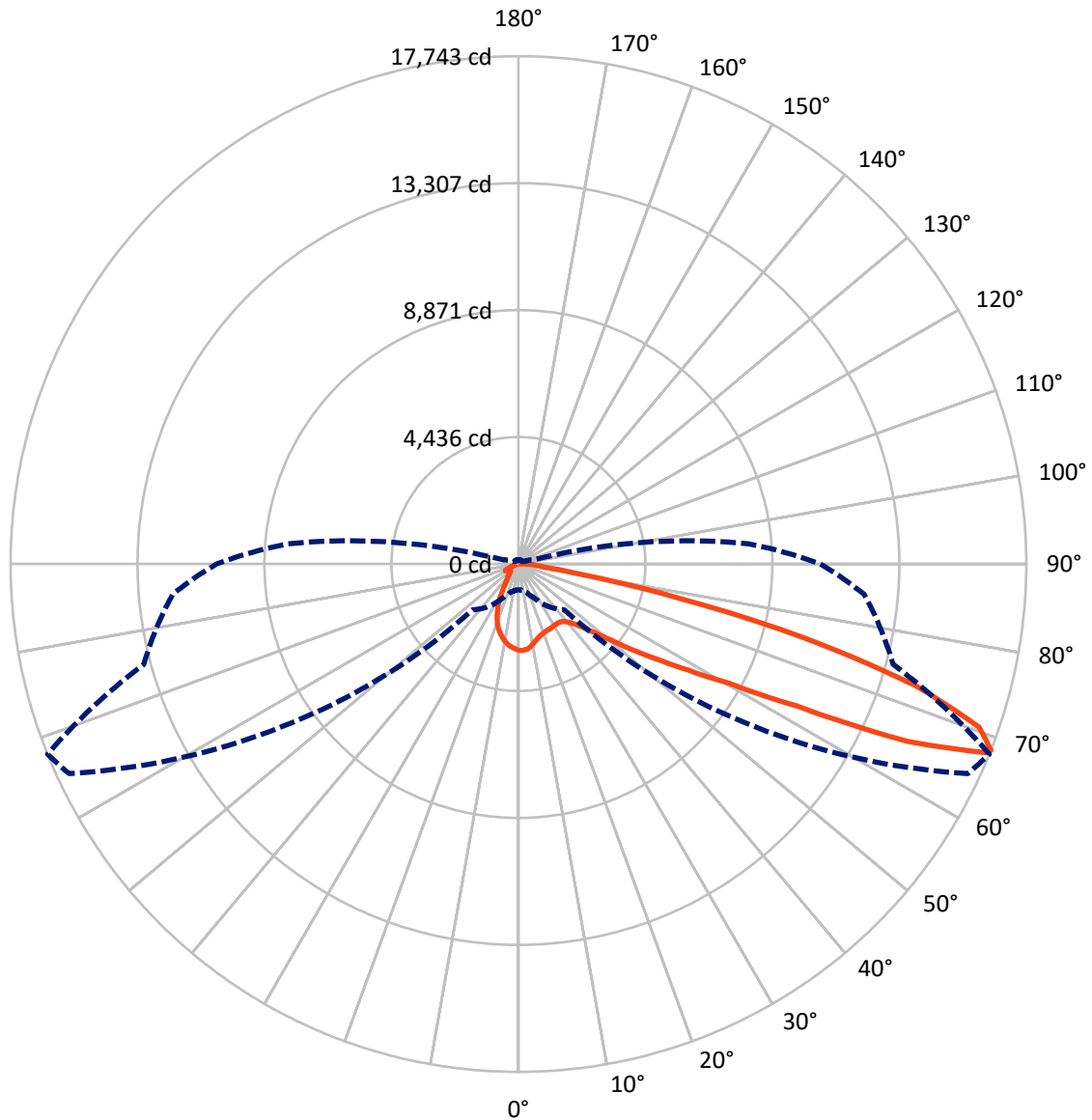
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.5 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P196569
CATALOG NUMBER: NAV-AF-03-D-UNV-SL2-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P196569

CATALOG NUMBER: NAV-AF-03-D-UNV-SL2-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2270.3	0.0	2270.3
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	11606.7	0.0	11606.7
	% Fixture	83.6	0.0	83.6
Total	Lumens	13877.0	0.0	13877.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.7	1.9
10°-20°	600.1	4.3
20°-30°	811.6	5.8
30°-40°	1144.3	8.2
40°-50°	1881.6	13.6
50°-60°	2916.7	21.0
60°-70°	3781.7	27.3
70°-80°	2170.1	15.6
80°-90°	312.2	2.2
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°	13877.0	100.0
0°-180°	13877.0	100.0

Coefficient of Utilization



REPORT NUMBER: P196569

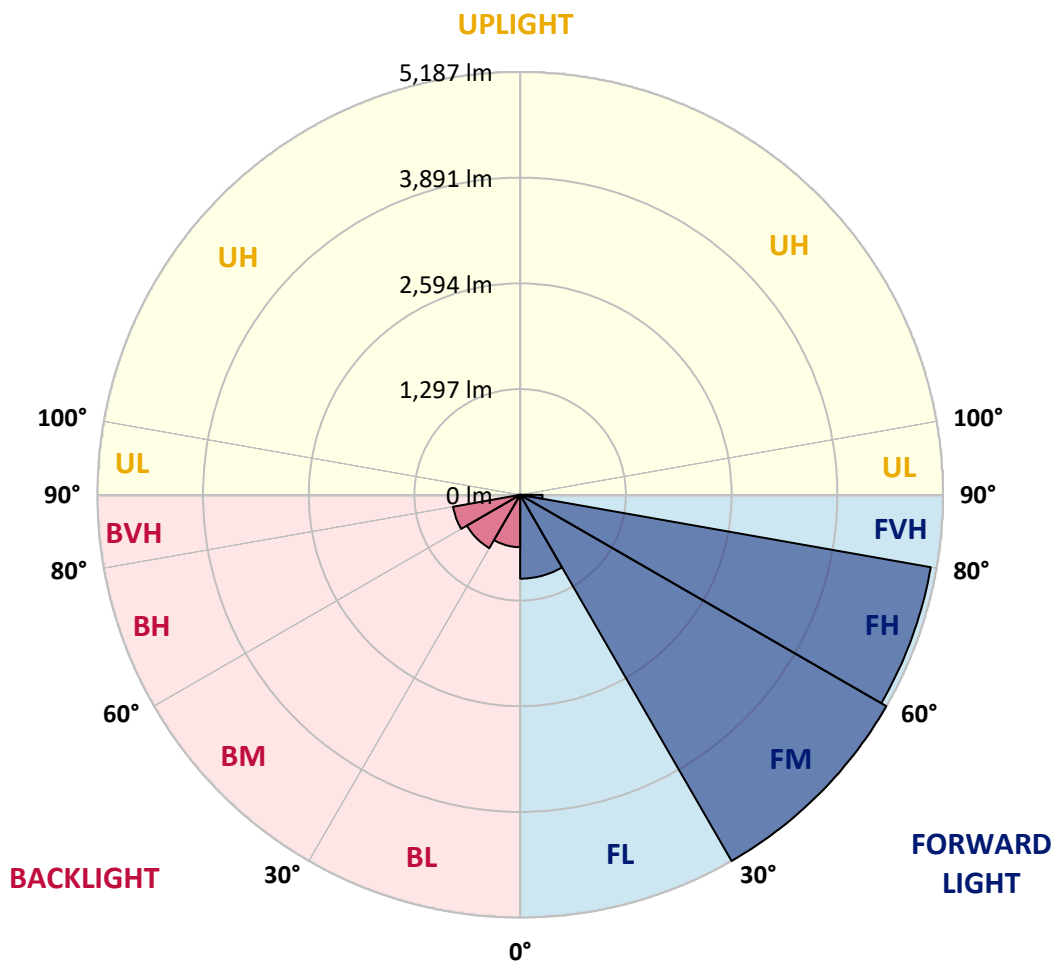
CATALOG NUMBER: NAV-AF-03-D-UNV-SL2-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1028.5	7.4			
FM (30°-60°)	5187.5	37.4			
FH (60°-80°)	5115.7	36.9			G3/7500
FVH (80°-90°)	275.0	2.0			G3/500
BL (0°-30°)	641.8	4.6	B2/1000		
BM (30°-60°)	755.1	5.4	B1/1000		
BH (60°-80°)	836.1	6.0	B2/1000		G2/1000
BVH (80°-90°)	37.2	0.3			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 II Medium





REPORT NUMBER: P196569

CATALOG NUMBER: NAV-AF-03-D-UNV-SL2-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5
2.5°	2938.8	2962.4	2962.4	2979.6	2995.1	3007.7	3018.7	3018.7	3018.7	3011.4	3004.9
5°	2629.8	2661.4	2666.0	2709.5	2766.6	2836.4	2914.4	2983.3	2996.9	3022.2	3032.2
7.5°	2414.8	2424.9	2442.1	2472.0	2530.0	2616.1	2738.5	2892.6	2929.8	3009.5	3051.3
10°	2262.6	2270.7	2285.2	2315.2	2367.7	2445.7	2566.3	2766.6	2828.2	2969.6	3052.1
12.5°	2151.1	2157.5	2171.1	2198.2	2251.8	2321.5	2444.7	2653.3	2729.4	2929.8	3064.8
15°	2064.1	2075.0	2085.9	2112.1	2166.5	2233.6	2358.7	2570.8	2653.3	2898.0	3088.4
17.5°	2029.6	2035.1	2036.9	2050.5	2099.4	2167.3	2292.5	2512.8	2597.9	2872.7	3106.6
20°	2051.4	2052.3	2034.2	2025.1	2053.2	2115.7	2237.2	2469.3	2556.3	2850.0	3113.8
22.5°	2146.6	2146.6	2099.4	2059.5	2040.5	2079.5	2200.1	2439.3	2533.6	2832.8	3113.8
25°	2327.9	2319.7	2246.3	2167.3	2083.1	2066.7	2176.5	2420.3	2516.5	2823.7	3102.0
27.5°	2566.3	2559.1	2465.7	2348.7	2196.4	2094.0	2168.4	2404.9	2499.2	2810.1	3076.6
30°	2856.4	2850.0	2743.9	2590.7	2365.9	2180.2	2187.4	2394.1	2485.5	2787.4	3034.0
32.5°	3145.5	3141.9	3057.6	2900.8	2599.9	2326.0	2237.2	2392.2	2478.3	2760.2	2982.3
35°	3436.5	3436.5	3384.9	3252.4	2914.4	2545.4	2341.4	2425.8	2491.9	2745.8	2938.0
37.5°	3866.1	3848.9	3752.8	3615.9	3310.4	2830.1	2510.1	2496.5	2544.5	2770.3	2923.4
40°	4531.5	4481.7	4241.5	4011.2	3742.9	3194.5	2756.6	2633.3	2662.3	2853.7	2957.8
42.5°	5227.7	5148.9	4830.7	4462.7	4189.8	3644.2	3080.2	2855.5	2854.5	3015.0	3067.6
45°	5825.0	5784.3	5439.8	4973.1	4700.2	4149.8	3489.0	3185.5	3152.7	3265.2	3278.8
47.5°	6172.3	6145.1	5937.4	5513.2	5305.6	4747.4	4007.6	3643.1	3581.5	3648.6	3627.7
50°	6076.2	6102.4	6042.7	5826.0	5956.5	5586.7	4668.4	4270.5	4153.5	4220.5	4169.9
52.5°	5570.4	5641.0	5694.6	5736.2	6330.9	6709.8	5498.8	5053.7	4956.6	4944.8	4895.9
55°	4659.4	4771.8	4940.3	5246.7	6230.3	7611.8	6949.1	6000.9	5859.6	5785.2	5804.3
57.5°	3170.9	3341.3	3704.9	4287.7	5707.2	7996.1	9093.8	7224.8	6985.4	6720.7	6782.4
60°	1746.8	1889.1	2321.5	2908.9	4513.4	7939.0	10994.8	9213.5	8460.3	7758.6	7885.6
62.5°	1130.4	1161.2	1482.9	1987.0	2770.3	7009.0	12050.9	12537.6	10941.3	9127.4	9306.0
65°	908.3	930.1	1087.7	1602.8	1929.9	4508.9	12097.9	15985.9	14933.5	10987.5	10993.0
67.5°	887.4	897.4	989.1	1347.9	1810.2	2454.7	10457.3	17345.7	17589.5	13183.1	12121.6
68°	900.2	911.9	1004.4	1306.3	1809.4	2262.6	9665.0	17324.8	17742.7	13550.3	12121.6
70°	794.1	808.6	1024.3	1351.5	1732.3	1945.4	6618.3	16404.7	17077.3	14394.2	11501.5
72.5°	415.1	403.3	506.8	1066.9	1949.8	2026.9	3496.3	13705.3	14490.2	13330.8	9936.9
75°	323.6	294.6	283.7	421.5	1715.1	2102.1	2030.6	9741.1	10334.0	9609.7	6641.9
77.5°	304.7	269.3	248.3	249.3	755.1	2187.4	1642.6	5732.7	5732.7	4584.1	2119.4
80°	244.7	212.1	198.6	226.6	364.4	2016.1	1714.2	2612.5	2228.2	1184.8	583.8
82.5°	161.3	144.1	145.0	184.0	276.4	1346.2	1985.2	1290.0	969.0	524.9	343.5
85°	102.4	88.0	97.9	128.7	206.7	600.1	1965.2	896.5	641.8	294.6	171.3
87.5°	51.7	39.9	48.9	67.0	125.9	172.2	1618.1	800.5	476.0	122.4	93.4
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: P196569

CATALOG NUMBER: NAV-AF-03-D-UNV-SL2-7030-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5	3019.5
2.5°	3004.9	2985.1	2975.1	2958.7	2938.8	2918.9	2905.3	2898.9	2895.4	2897.1	2896.3
5°	3026.8	3000.5	2957.8	2897.1	2834.6	2768.4	2717.6	2678.7	2654.2	2647.0	2645.1
7.5°	3043.1	3004.9	2925.2	2814.6	2707.7	2591.6	2492.9	2414.0	2360.5	2336.1	2335.1
10°	3040.3	2991.4	2865.5	2702.2	2545.4	2375.0	2220.0	2087.6	1991.6	1945.4	1943.5
12.5°	3043.1	2976.0	2792.0	2570.8	2346.1	2102.1	1871.9	1666.1	1522.8	1454.9	1452.2
15°	3054.1	2959.8	2716.7	2423.9	2113.1	1768.6	1439.5	1181.2	1050.6	1006.2	1006.2
17.5°	3053.0	2932.5	2629.8	2253.6	1836.5	1375.1	982.7	823.0	810.3	851.2	857.5
20°	3034.9	2889.1	2517.4	2051.4	1512.0	951.8	666.3	643.6	745.1	857.5	870.2
22.5°	3006.9	2832.8	2387.7	1816.7	1134.0	620.0	513.9	548.4	686.2	825.8	845.7
25°	2967.8	2764.8	2239.0	1543.8	754.2	446.0	428.8	471.4	568.3	661.8	676.2
27.5°	2910.7	2678.7	2076.8	1248.3	481.4	367.1	373.4	403.3	445.1	485.0	493.1
30°	2839.1	2578.1	1900.0	920.9	365.4	328.1	339.0	357.2	375.3	400.7	406.1
32.5°	2766.6	2475.6	1716.0	632.7	319.0	307.3	318.2	328.1	343.5	360.8	364.4
35°	2701.3	2380.4	1526.6	441.4	299.2	293.7	299.2	305.5	320.9	338.1	339.9
37.5°	2654.2	2302.5	1328.9	349.0	287.4	281.9	284.6	287.4	305.5	330.8	333.6
40°	2647.9	2250.8	1128.5	313.7	278.3	271.1	269.3	271.1	294.6	323.6	326.3
42.5°	2709.5	2253.6	932.7	299.2	271.1	262.9	255.6	259.3	280.1	302.7	304.7
45°	2855.5	2317.0	763.2	292.9	264.7	258.4	247.5	249.3	259.3	271.1	272.8
47.5°	3112.9	2455.7	633.6	289.2	259.3	253.8	240.3	234.8	235.7	242.0	242.0
50°	3524.3	2687.8	554.8	285.5	254.7	244.7	229.3	218.5	215.8	219.4	220.2
52.5°	4138.0	3085.7	516.7	278.3	246.6	232.9	215.8	204.9	200.4	204.0	204.0
55°	4967.6	3721.2	498.6	268.3	236.5	218.5	203.0	193.9	190.3	193.1	193.1
57.5°	5913.0	4547.0	529.4	254.7	223.9	203.0	192.2	185.8	183.1	185.8	186.8
60°	7036.2	5627.5	741.6	237.5	210.4	189.4	183.1	179.5	177.6	180.4	180.4
62.5°	8529.1	7065.1	1147.7	223.9	195.8	176.8	175.0	173.1	171.3	174.0	174.0
65°	10140.9	8373.2	1181.2	215.8	183.1	165.8	166.8	166.8	165.0	167.7	167.7
67.5°	10654.0	8259.9	659.9	205.7	167.7	155.0	158.7	158.7	157.8	160.5	159.5
68°	10545.1	8080.5	574.7	203.0	165.0	152.3	155.9	156.8	155.9	158.7	157.8
70°	9734.8	7094.2	378.0	187.6	153.2	143.2	148.7	149.5	148.7	152.3	151.5
72.5°	8036.0	5321.2	279.1	164.1	138.6	131.4	136.9	137.7	138.6	142.4	141.4
75°	5103.5	2938.8	220.2	139.7	124.2	117.9	123.3	125.9	127.9	133.3	130.6
77.5°	1397.8	892.0	178.5	118.8	107.0	104.3	107.8	111.5	113.3	119.6	115.2
80°	489.5	394.3	148.7	100.6	88.8	88.0	91.6	95.2	97.0	102.4	97.0
82.5°	297.3	257.5	118.8	78.8	69.8	69.0	73.4	77.0	78.8	78.8	75.3
85°	155.0	136.0	87.0	55.2	48.1	45.4	53.5	58.0	58.9	58.0	55.2
87.5°	87.0	77.0	46.2	26.3	21.8	22.6	28.1	34.4	37.1	36.3	34.4
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)