

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: STREETWORKS

Report Number: P196071

Luminaire Tested: **NVN-AF-03-LED-U-SL2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196071
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-03-LED-U-SL2-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15115.1 lumens
Efficiency: N/A
Efficacy: 91.1 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

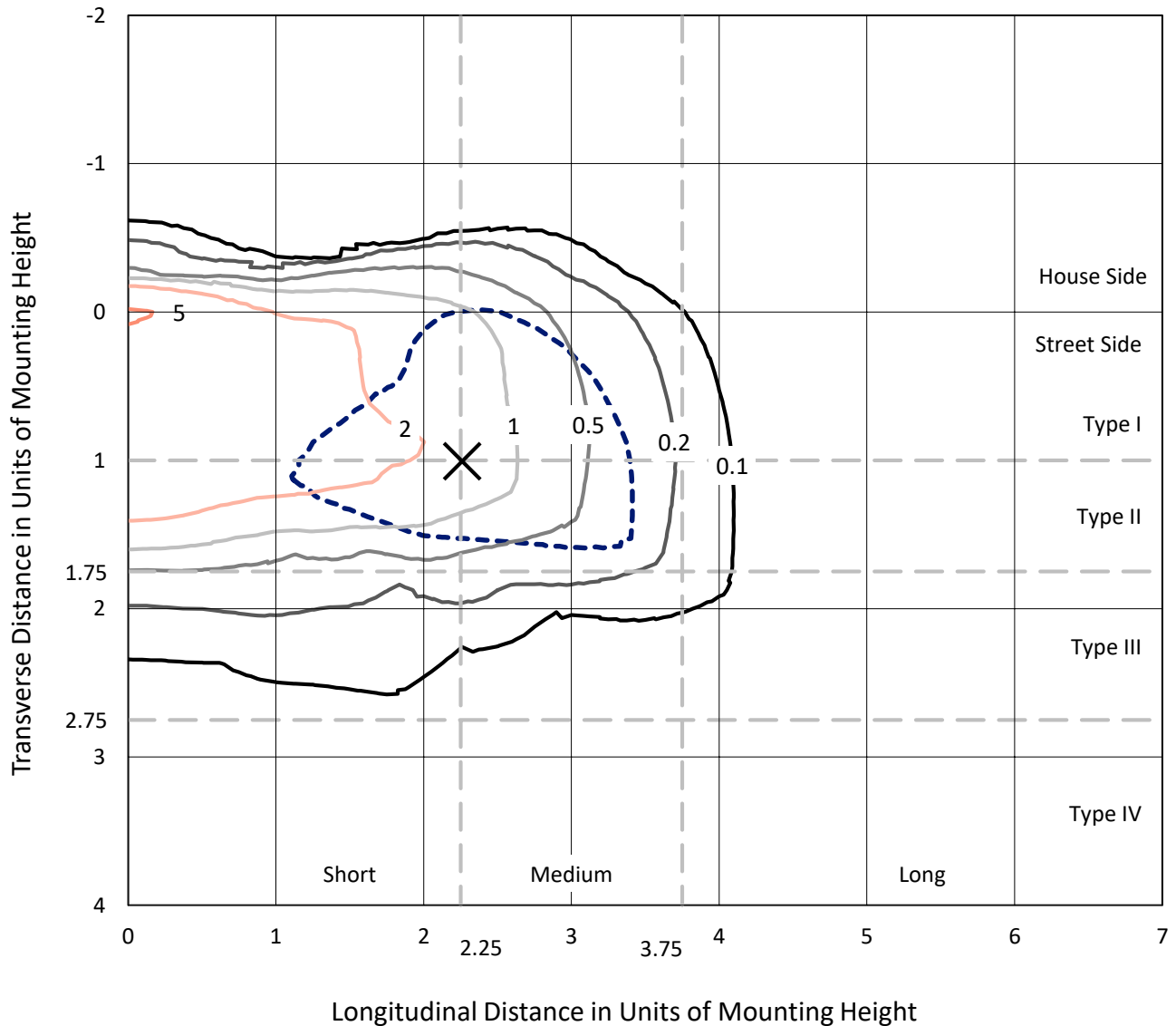
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

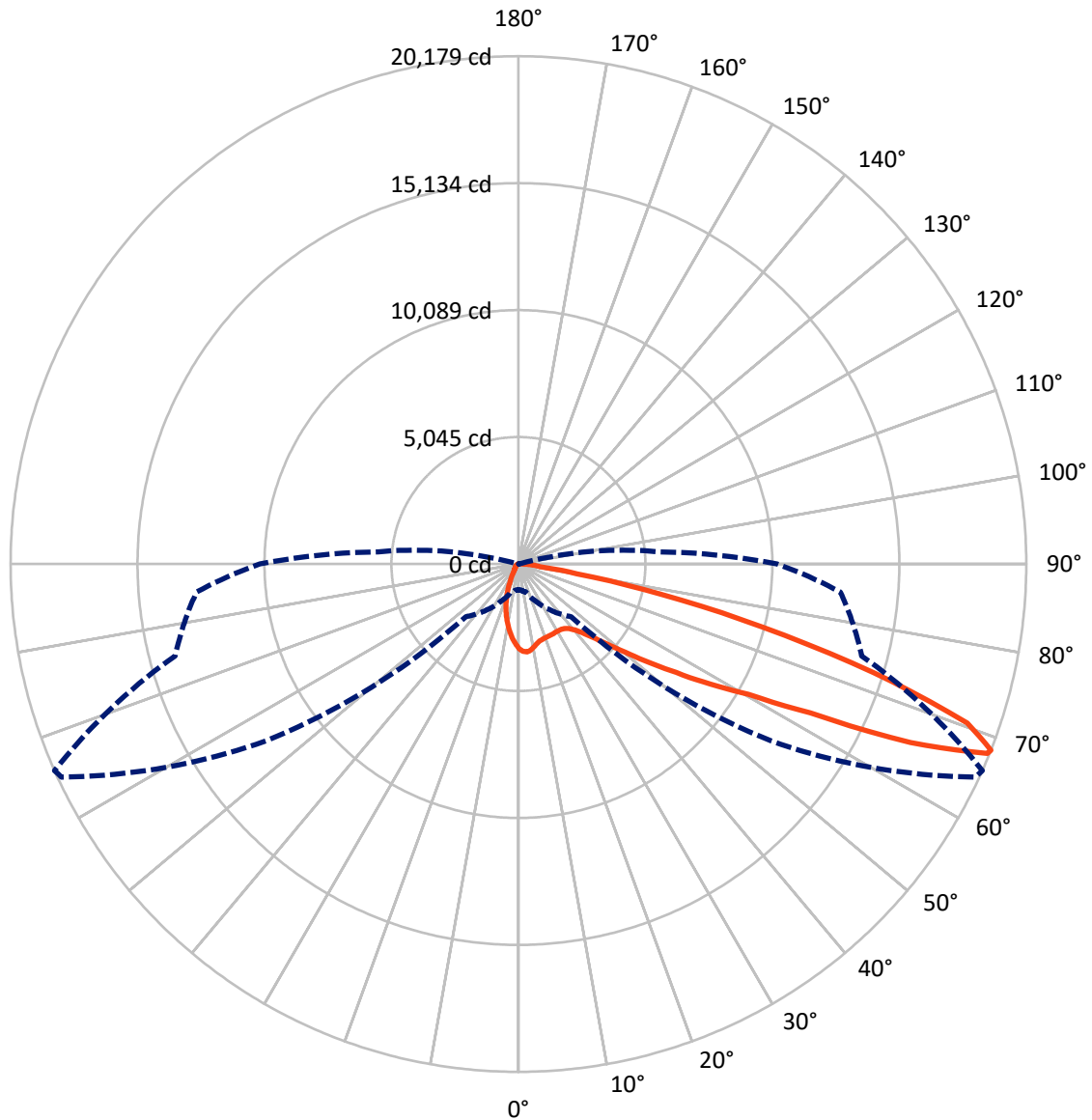
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1531.0	0.0	1531.0
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	13584.1	0.0	13584.1
	% Fixture	89.9	0.0	89.9
Total	Lumens	15115.1	0.0	15115.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.1	1.8
10°-20°	594.0	3.9
20°-30°	860.7	5.7
30°-40°	1317.6	8.7
40°-50°	2253.7	14.9
50°-60°	3525.4	23.3
60°-70°	4059.4	26.9
70°-80°	2031.4	13.4
80°-90°	196.7	1.3
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°	15115.1	100.0
0°-180°	15115.1	100.0

Coefficient of Utilization



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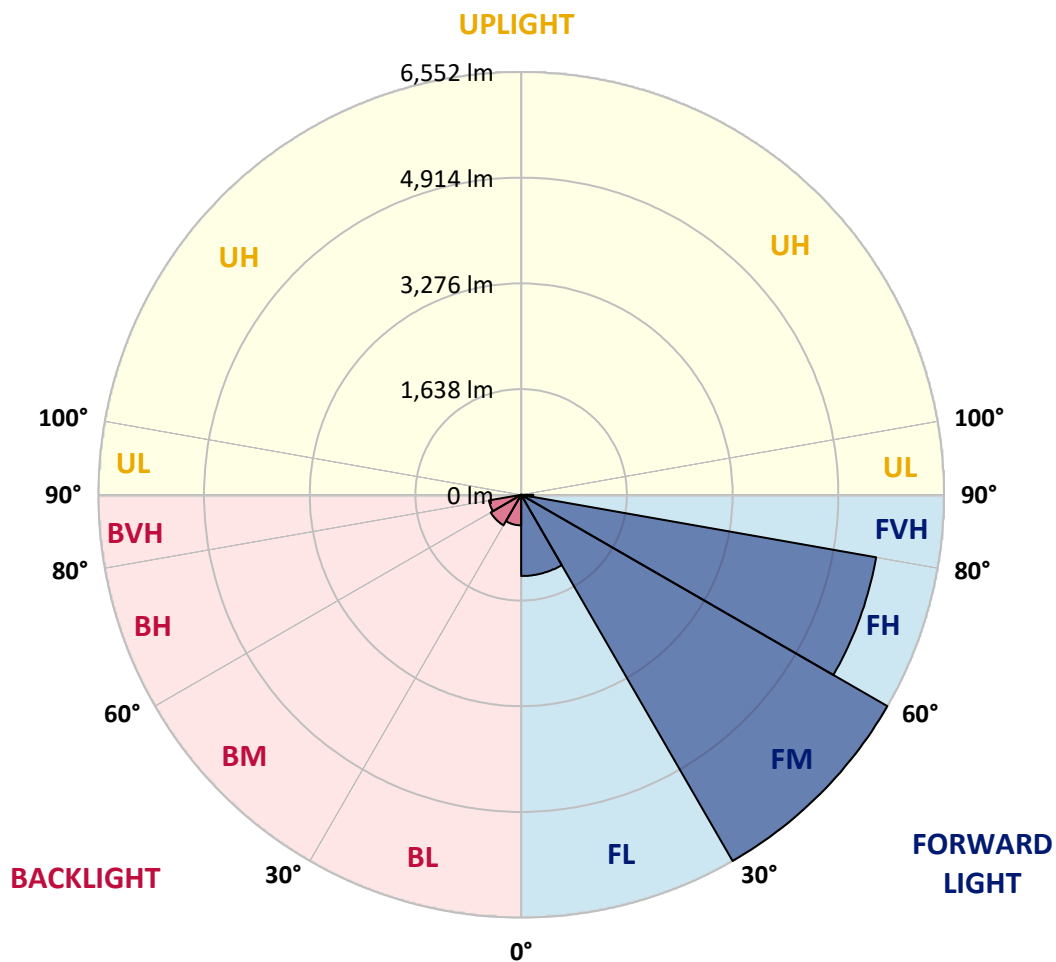
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1258.2	8.3			
FM (30°-60°)	6551.6	43.3			
FH (60°-80°)	5585.0	36.9			G3/7500
FVH (80°-90°)	189.3	1.3			G2/225
BL (0°-30°)	472.5	3.1	B1/500		
BM (30°-60°)	545.2	3.6	B1/1000		
BH (60°-80°)	505.8	3.3	B2/1000		G2/1000
BVH (80°-90°)	7.4	0.0			G0/10
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6
2.5°	3542.0	3544.3	3543.1	3546.7	3544.3	3526.5	3507.5	3467.2	3470.8	3418.5	3360.4
5°	3292.8	3312.9	3333.1	3353.2	3401.9	3444.7	3495.6	3507.5	3507.5	3462.4	3377.0
7.5°	3038.8	3040.0	3062.5	3089.8	3155.1	3233.4	3352.1	3458.9	3461.3	3473.1	3379.4
10°	2847.8	2853.7	2869.2	2898.8	2964.1	3041.2	3174.1	3341.4	3354.5	3442.2	3355.7
12.5°	2699.5	2706.6	2723.2	2757.6	2816.9	2896.5	3036.4	3227.5	3245.3	3412.6	3348.5
15°	2585.5	2595.0	2608.1	2642.5	2706.6	2790.8	2943.8	3151.5	3172.9	3400.7	3371.0
17.5°	2538.0	2538.0	2536.9	2560.7	2624.7	2710.1	2870.3	3111.2	3138.5	3410.2	3409.1
20°	2558.3	2554.7	2529.8	2523.8	2563.0	2648.4	2812.2	3085.1	3115.9	3428.0	3455.3
22.5°	2665.1	2657.9	2602.2	2555.8	2544.0	2601.0	2773.0	3067.3	3104.0	3464.8	3517.0
25°	2891.7	2870.3	2793.2	2688.8	2595.0	2589.1	2745.7	3057.8	3097.0	3507.5	3584.6
27.5°	3186.0	3180.0	3056.6	2916.6	2736.3	2628.3	2737.4	3050.6	3089.8	3538.4	3639.2
30°	3551.4	3553.8	3411.4	3228.6	2955.7	2738.6	2763.5	3047.2	3087.5	3540.7	3663.0
32.5°	3928.7	3931.1	3812.4	3616.6	3256.0	2928.5	2837.2	3063.7	3100.6	3531.2	3661.8
35°	4291.9	4295.4	4224.2	4066.4	3657.0	3191.9	2976.0	3120.7	3146.8	3537.2	3659.4
37.5°	4751.1	4765.3	4677.4	4530.3	4160.1	3578.7	3202.6	3235.8	3257.2	3585.9	3677.2
40°	5534.2	5515.2	5263.7	5014.5	4706.0	4049.8	3530.1	3433.9	3441.1	3711.6	3744.8
42.5°	6446.6	6422.9	5992.2	5562.7	5267.2	4618.1	3948.9	3737.8	3736.5	3922.8	3892.0
45°	7232.2	7217.9	6764.7	6191.5	5889.0	5245.9	4465.1	4175.6	4161.4	4288.3	4160.1
47.5°	7789.9	7778.0	7435.1	6860.8	6608.1	5936.5	5109.4	4772.4	4742.7	4766.4	4595.6
50°	7844.5	7831.4	7711.5	7342.5	7448.1	6949.8	5905.6	5554.4	5516.4	5479.6	5254.2
52.5°	7334.3	7333.0	7395.9	7372.2	8036.7	8253.8	6882.1	6521.4	6476.3	6382.6	6158.4
55°	6291.2	6285.3	6523.8	6870.2	8023.6	9599.4	8371.3	7672.4	7613.1	7425.6	7131.3
57.5°	4596.8	4565.9	5064.3	5798.8	7460.0	10188.0	10736.2	9102.2	9003.7	8409.3	7956.0
60°	2538.0	2549.9	3190.7	4060.5	6125.1	10071.7	12912.3	10769.4	10510.7	9257.7	8800.9
62.5°	1422.7	1452.4	1929.4	2638.9	3905.0	9128.3	14079.9	13638.5	13015.5	10247.3	9868.7
65°	1076.2	1094.0	1333.7	2036.2	2462.1	6379.0	14266.2	17650.3	17112.8	11747.2	11569.2
67.5°	1013.3	1027.6	1145.1	1688.5	2242.6	3308.2	12863.7	20023.4	20091.2	13792.8	12886.2
68°	1020.5	1038.3	1155.7	1624.4	2239.0	2959.3	12265.7	20035.3	20178.9	14122.7	12841.1
70°	937.4	942.1	1222.2	1593.6	2170.3	2331.6	8873.2	18662.5	18920.0	14515.4	11656.9
72.5°	358.3	359.6	548.2	1380.0	2273.5	2344.7	4469.9	14750.3	14763.4	12632.3	9088.0
75°	186.3	156.6	172.1	431.9	2171.4	2285.4	2242.6	10071.7	10008.8	8543.4	5568.6
77.5°	128.2	109.1	115.1	149.6	903.0	2284.1	1619.6	5791.6	5778.6	3634.4	1588.8
80°	72.4	62.9	68.8	125.8	316.8	2144.1	1509.4	2489.5	2345.8	638.4	257.5
82.5°	36.8	30.9	36.8	105.6	197.0	1349.2	1467.8	976.5	869.7	151.9	167.4
85°	9.5	9.5	17.8	73.6	122.2	442.6	1315.9	704.8	633.6	66.5	118.7
87.5°	2.4	1.2	7.2	27.3	43.9	96.2	729.8	392.7	338.2	34.4	68.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6	3367.6
2.5°	3336.7	3303.4	3238.2	3164.6	3112.4	3055.5	3022.2	2981.9	2951.0	2923.7	2943.8
5°	3324.8	3260.8	3115.9	2953.4	2816.9	2686.4	2589.1	2496.5	2426.5	2382.7	2400.5
7.5°	3293.9	3199.0	2964.1	2710.1	2487.1	2277.1	2106.2	1953.1	1834.5	1770.4	1790.6
10°	3241.7	3107.6	2792.0	2439.6	2127.5	1830.9	1577.0	1349.2	1177.1	1096.4	1115.4
12.5°	3203.8	3026.9	2614.0	2178.6	1768.0	1346.7	1009.8	748.7	614.7	534.0	541.0
15°	3187.1	2964.1	2447.9	1903.3	1375.3	865.0	545.8	395.2	348.8	332.3	333.4
17.5°	3189.6	2914.3	2290.1	1617.3	979.0	497.2	334.6	301.4	294.3	290.7	290.7
20°	3195.5	2864.4	2126.3	1319.5	626.6	320.4	278.9	268.1	264.6	259.8	261.1
22.5°	3213.3	2826.4	1961.4	1020.5	385.7	261.1	246.8	237.3	231.4	224.2	225.5
25°	3240.5	2798.0	1798.9	734.5	271.7	227.8	214.8	201.7	191.1	182.7	183.9
27.5°	3257.2	2757.6	1625.6	500.7	225.5	199.4	181.6	163.8	151.9	144.7	143.6
30°	3245.3	2692.3	1428.7	328.7	199.4	172.1	150.7	130.5	118.7	112.7	112.7
32.5°	3213.3	2608.1	1211.5	239.7	176.8	148.3	122.2	104.4	96.2	92.6	93.7
35°	3176.5	2520.2	980.1	203.0	159.0	125.8	99.6	85.4	81.8	80.7	80.7
37.5°	3156.3	2444.3	758.2	183.9	142.4	104.4	81.8	73.6	70.0	70.0	70.0
40°	3178.8	2386.2	561.3	169.7	125.8	86.6	68.8	62.9	61.7	61.7	61.7
42.5°	3275.0	2366.1	410.5	157.8	109.1	72.4	59.3	54.6	53.4	54.6	54.6
45°	3462.4	2410.0	310.9	146.0	93.7	59.3	51.0	47.5	47.5	48.7	48.7
47.5°	3780.4	2522.7	255.1	134.1	78.4	49.8	43.9	41.5	41.5	42.8	42.8
50°	4274.1	2731.5	229.0	121.0	65.3	42.8	36.8	35.6	35.6	36.8	38.0
52.5°	5024.0	3129.0	215.9	108.0	53.4	35.6	30.9	29.7	30.9	32.0	32.0
55°	5858.1	3638.0	200.5	94.9	45.1	29.7	25.0	25.0	26.1	28.4	28.4
57.5°	6635.4	4129.2	186.3	78.4	39.2	23.7	20.2	20.2	22.5	25.0	25.0
60°	7456.5	4611.1	167.4	62.9	33.2	19.0	16.6	16.6	20.2	22.5	23.7
62.5°	8471.0	5171.1	142.4	49.8	26.1	14.2	11.9	15.4	19.0	22.5	22.5
65°	9937.6	5867.6	111.5	39.2	20.2	10.6	9.5	14.2	17.8	21.4	22.5
67.5°	10470.3	5778.6	84.3	32.0	15.4	8.3	8.3	13.1	17.8	21.4	21.4
68°	10275.7	5584.0	80.7	30.9	14.2	8.3	8.3	13.1	17.8	21.4	21.4
70°	8953.9	4564.7	66.5	23.7	11.9	7.2	7.2	11.9	17.8	20.2	21.4
72.5°	6704.1	3032.8	57.0	15.4	10.6	7.2	5.9	11.9	16.6	20.2	20.2
75°	3845.7	1258.9	48.7	11.9	9.5	5.9	5.9	10.6	16.6	20.2	20.2
77.5°	1086.9	294.3	39.2	9.5	8.3	5.9	4.7	10.6	15.4	19.0	19.0
80°	199.4	87.8	30.9	8.3	7.2	5.9	4.7	10.6	15.4	19.0	19.0
82.5°	131.8	41.5	22.5	8.3	7.2	5.9	4.7	9.5	14.2	17.8	17.8
85°	98.5	29.7	14.2	8.3	7.2	5.9	4.7	9.5	14.2	17.8	17.8
87.5°	54.6	13.1	10.6	9.5	8.3	5.9	4.7	8.3	13.1	16.6	16.6
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)