

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: P196148

Luminaire Tested: **NVN-AF-02-LED-U-SL3-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196148
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: STREETWORKS
Catalog Number: NVN-AF-02-LED-U-SL3-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 1200mA 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: 13651.3 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

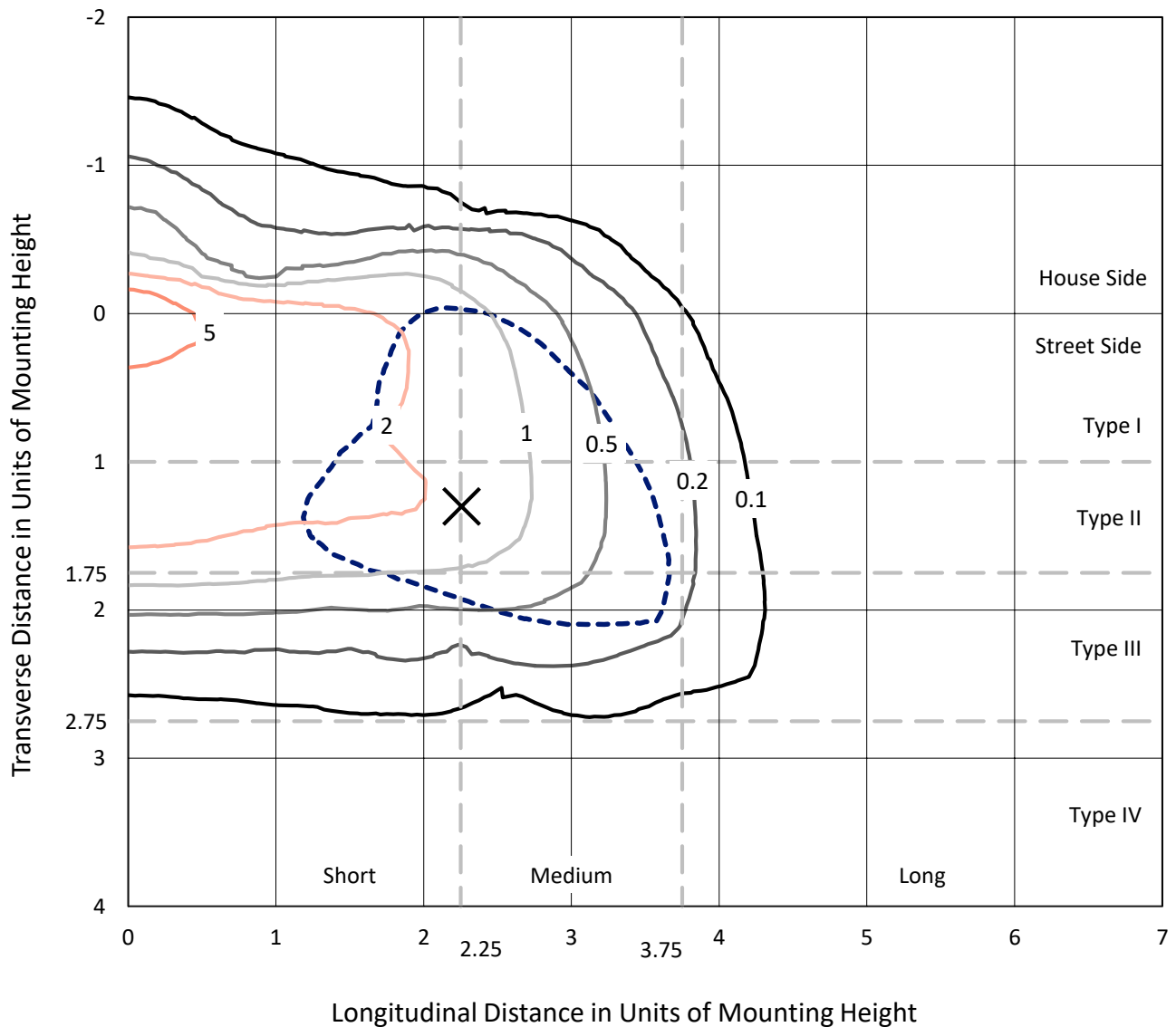
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

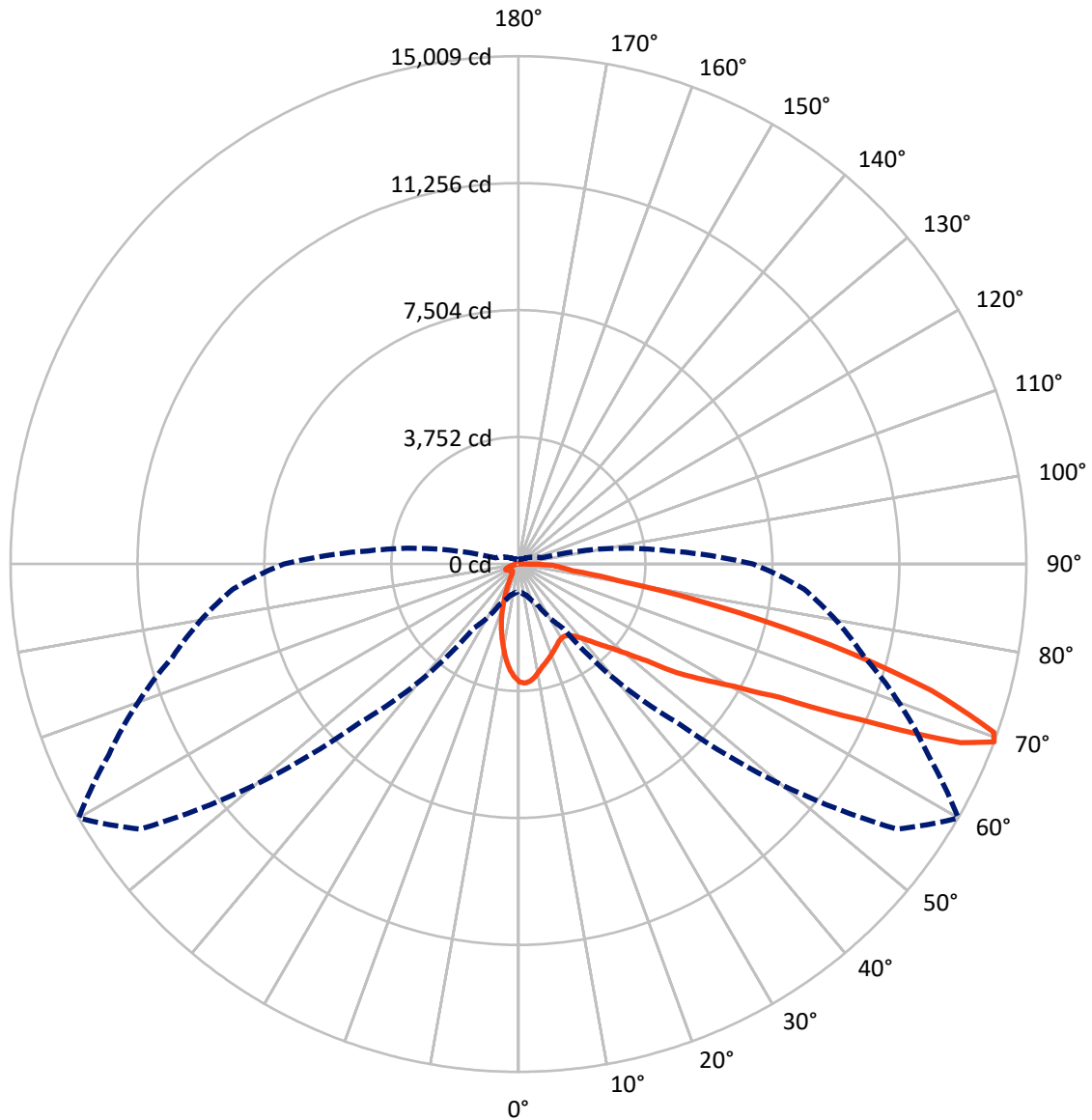
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1947.1	0.0	1947.1
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	11704.2	0.0	11704.2
	% Fixture	85.7	0.0	85.7
Total	Lumens	13651.3	0.0	13651.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.5	2.2
10°-20°	632.7	4.6
20°-30°	807.1	5.9
30°-40°	1110.7	8.1
40°-50°	1799.0	13.2
50°-60°	2823.5	20.7
60°-70°	3764.3	27.6
70°-80°	2093.8	15.3
80°-90°	324.7	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°	13651.3	100.0
0°-180°	13651.3	100.0

Coefficient of Utilization



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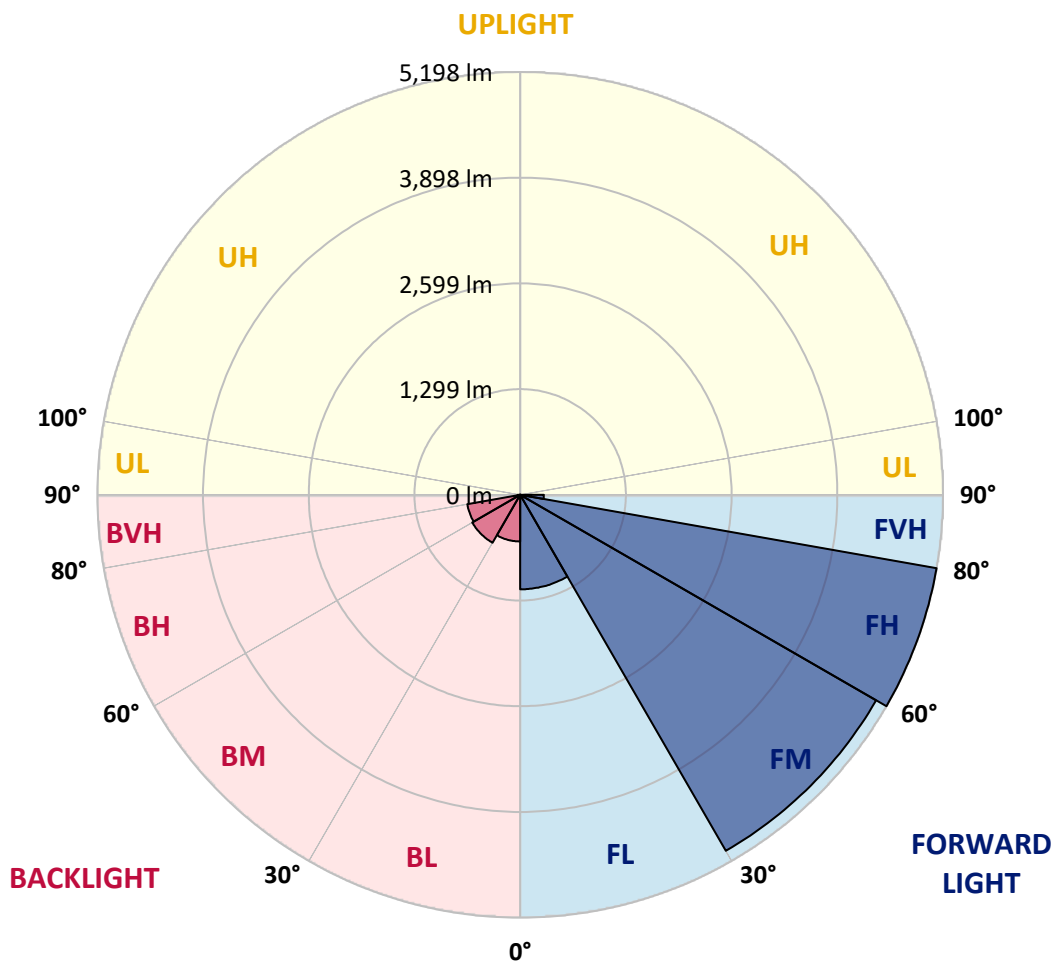
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1161.5	8.5			
FM	(30°-60°)	5053.0	37.0			
FH	(60°-80°)	5197.9	38.1			G3/7500
FVH	(80°-90°)	291.8	2.1			G3/500
BL	(0°-30°)	573.8	4.2	B2/1000		
BM	(30°-60°)	680.2	5.0	B1/1000		
BH	(60°-80°)	660.2	4.8	B2/1000		G2/1000
BVH	(80°-90°)	32.9	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1
2.5°	3575.9	3585.5	3585.5	3577.7	3573.4	3547.9	3533.1	3522.5	3504.2	3470.1	3439.4
5°	3448.2	3466.6	3474.5	3477.9	3500.6	3492.8	3493.7	3486.6	3470.9	3434.1	3384.2
7.5°	3213.5	3217.1	3231.1	3254.7	3309.9	3348.3	3379.8	3386.0	3382.5	3355.4	3285.3
10°	2982.4	2988.6	3005.2	3045.4	3098.0	3153.1	3221.5	3249.4	3270.5	3261.7	3173.3
12.5°	2790.7	2791.6	2809.9	2856.4	2915.0	2984.2	3077.0	3120.7	3170.6	3190.8	3091.9
15°	2606.1	2618.2	2635.8	2691.8	2764.5	2852.0	2958.8	3019.2	3084.9	3142.6	3028.9
17.5°	2465.9	2475.6	2486.1	2532.5	2616.5	2726.0	2858.1	2922.9	3009.6	3098.0	2964.1
20°	2388.9	2392.5	2384.6	2407.3	2478.2	2596.4	2749.6	2827.5	2930.8	3055.1	2897.5
22.5°	2373.1	2373.1	2344.3	2339.9	2371.4	2471.2	2637.6	2732.9	2859.0	3025.4	2838.0
25°	2446.7	2441.5	2387.2	2337.2	2325.9	2376.7	2530.8	2648.0	2797.8	3024.5	2793.4
27.5°	2585.9	2578.9	2511.4	2427.5	2354.8	2332.9	2448.4	2568.4	2749.6	3054.2	2770.6
30°	2759.2	2756.5	2688.3	2583.3	2463.4	2350.4	2416.1	2527.2	2717.2	3109.4	2769.7
32.5°	2949.2	2936.9	2895.0	2789.9	2634.0	2447.6	2435.3	2529.0	2708.5	3189.9	2789.9
35°	3151.4	3142.6	3132.2	3026.2	2851.2	2619.2	2520.2	2589.4	2751.3	3302.0	2846.8
37.5°	3408.8	3399.2	3416.7	3301.1	3109.4	2844.1	2663.8	2710.2	2838.9	3464.7	2952.6
40°	3866.5	3838.6	3789.5	3611.8	3410.5	3119.9	2871.3	2878.3	2988.6	3682.7	3122.6
42.5°	4618.5	4528.4	4285.9	3959.3	3728.2	3440.3	3141.8	3108.5	3195.2	3970.8	3369.4
45°	5372.2	5270.8	4861.1	4338.4	4057.4	3784.3	3476.2	3396.5	3452.6	4306.0	3687.1
47.5°	5859.0	5809.0	5346.9	4717.4	4402.4	4159.0	3858.7	3727.4	3767.6	4685.9	4079.3
50°	6001.7	5958.8	5595.4	5014.2	4728.0	4611.6	4332.3	4158.1	4165.0	5129.8	4549.4
52.5°	5894.9	5877.4	5636.7	5198.0	5027.4	5088.7	4987.9	4745.5	4687.7	5616.5	5058.9
55°	5752.2	5758.3	5665.5	5382.8	5332.0	5533.3	5845.9	5650.6	5405.5	6123.4	5589.3
57.5°	5303.1	5307.5	5550.8	5734.7	5913.3	6156.6	6513.7	6431.5	6146.1	6670.5	6183.7
60°	4270.1	4304.3	4846.1	5662.0	6577.7	7384.8	7472.3	7330.5	6934.0	7300.7	6956.7
62.5°	3050.7	3081.3	3709.0	4915.3	6499.7	8774.9	9242.4	8678.6	8002.7	8243.6	8044.0
65°	1602.9	1597.5	2083.4	3396.5	5474.6	9097.0	12031.3	11071.9	9803.4	9539.9	9094.4
67.5°	895.5	924.4	1112.7	1713.1	3568.1	8006.3	13812.7	14095.4	12307.1	10568.5	9048.9
69°	828.1	837.8	963.8	1324.4	2325.9	6605.7	13659.6	15008.5	13362.8	10572.9	8465.8
70°	804.4	815.0	929.7	1220.3	1953.8	5412.5	13102.0	14901.7	13619.3	10338.4	7935.4
72.5°	721.3	735.3	846.5	1096.9	1646.6	2789.9	10553.7	12754.4	12336.8	9035.7	6153.0
75°	615.4	639.0	807.1	1088.9	1559.9	1773.5	7038.1	9502.3	9181.9	6462.1	3491.0
77.5°	254.7	257.4	352.8	797.5	1636.9	1697.4	3782.6	6019.1	5328.4	2833.7	1051.4
80°	177.7	174.2	175.9	232.8	1320.9	1708.7	1940.7	3061.2	2379.3	747.6	491.9
82.5°	149.7	147.9	155.0	146.2	447.3	1939.0	1623.0	1595.8	1120.5	402.6	234.6
85°	98.9	96.3	126.9	133.1	212.7	1539.8	1745.6	1254.4	835.1	215.3	99.8
87.5°	48.2	49.0	72.6	90.1	112.9	487.6	1672.0	991.9	645.2	93.7	40.3
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°	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1	3483.1
2.5°	3427.2	3400.9	3377.3	3347.5	3324.7	3305.5	3279.2	3278.4	3274.0	3280.1	3281.8
5°	3351.0	3307.2	3240.7	3166.2	3113.8	3044.6	2977.2	2954.4	2929.0	2926.5	2934.3
7.5°	3236.3	3168.0	3054.2	2940.5	2826.6	2710.2	2599.9	2543.9	2489.6	2473.0	2480.9
10°	3108.5	3021.8	2847.6	2662.0	2501.8	2328.5	2160.5	2051.9	1953.0	1911.0	1921.5
12.5°	3008.7	2898.4	2653.3	2412.5	2172.7	1924.1	1702.6	1488.2	1326.3	1253.5	1257.9
15°	2922.9	2782.0	2471.2	2150.9	1850.6	1510.1	1202.8	954.2	812.3	759.8	758.1
17.5°	2830.1	2659.5	2281.3	1907.5	1518.0	1096.9	805.4	658.3	602.3	584.7	584.7
20°	2731.2	2533.3	2082.5	1642.2	1167.8	766.0	605.8	548.9	527.8	522.6	521.7
22.5°	2639.3	2410.0	1882.9	1359.5	844.8	581.2	515.6	493.7	490.2	494.6	494.6
25°	2566.7	2301.4	1680.7	1061.8	614.5	486.7	458.7	456.0	469.2	485.0	487.6
27.5°	2512.4	2204.3	1481.1	775.6	483.2	423.7	414.1	425.4	456.0	487.6	493.7
30°	2474.7	2121.1	1242.2	557.6	402.6	371.1	375.5	395.7	442.1	490.2	503.4
32.5°	2458.0	2053.7	1001.5	428.1	344.0	326.5	337.9	364.2	412.4	460.4	476.2
35°	2473.8	2004.7	779.1	355.4	301.2	288.0	301.2	328.3	359.8	383.4	393.0
37.5°	2530.8	1987.1	586.6	315.2	273.1	260.0	270.5	288.9	302.9	311.6	316.0
40°	2650.7	2005.5	459.6	294.1	257.4	242.4	245.1	253.9	263.5	270.5	271.4
42.5°	2841.6	2066.0	408.8	286.2	247.8	228.5	224.1	230.3	240.7	250.3	252.2
45°	3095.3	2166.6	403.6	288.9	243.4	217.1	208.4	214.5	228.5	244.3	246.8
47.5°	3423.6	2325.9	428.1	302.9	246.0	210.9	197.8	204.0	222.4	243.4	246.8
50°	3812.3	2546.5	473.6	323.9	258.2	210.9	193.4	198.8	218.0	241.6	245.1
52.5°	4270.1	2853.7	520.9	344.9	275.8	218.8	195.2	194.4	211.9	233.7	238.1
55°	4775.2	3235.4	566.4	363.2	285.4	229.3	199.6	189.0	203.1	220.5	224.1
57.5°	5369.7	3758.0	646.0	380.8	290.6	237.2	204.8	183.8	191.7	204.0	206.6
60°	6175.9	4525.7	801.0	410.5	300.2	240.7	205.7	178.6	177.7	186.5	187.3
62.5°	7227.2	5424.8	948.9	445.6	319.5	241.6	202.2	175.0	166.3	169.0	169.0
65°	7974.8	5755.6	906.0	475.4	337.1	240.7	198.8	172.5	157.5	153.2	153.2
67.5°	7549.4	5084.3	769.5	483.2	338.8	231.1	190.9	166.3	149.7	139.2	139.2
69°	6924.4	4456.6	706.4	469.2	324.8	219.7	182.1	160.2	144.4	132.2	132.2
70°	6414.8	3981.2	667.9	452.6	308.1	210.1	174.2	154.1	139.2	128.7	127.8
72.5°	4789.3	2656.8	570.7	390.5	253.0	177.7	152.3	137.5	125.2	118.2	118.2
75°	2527.2	1331.5	467.5	318.6	195.2	141.8	125.2	115.6	108.5	107.7	106.8
77.5°	828.1	602.3	336.1	239.9	143.5	110.3	99.8	93.7	92.8	96.3	96.3
80°	447.3	359.8	216.3	161.9	99.8	82.2	77.0	76.2	78.8	84.1	84.1
82.5°	217.1	177.7	128.7	99.8	68.2	60.4	60.4	61.3	64.8	70.9	70.9
85°	93.7	84.1	74.4	56.1	42.0	37.6	42.9	47.3	49.9	54.3	56.1
87.5°	44.6	39.4	34.2	21.9	18.4	19.2	22.7	28.0	33.2	36.7	37.6
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)