

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: McGRAW-EDISON

Report Number: P300918

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300918
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL4-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15958.8 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

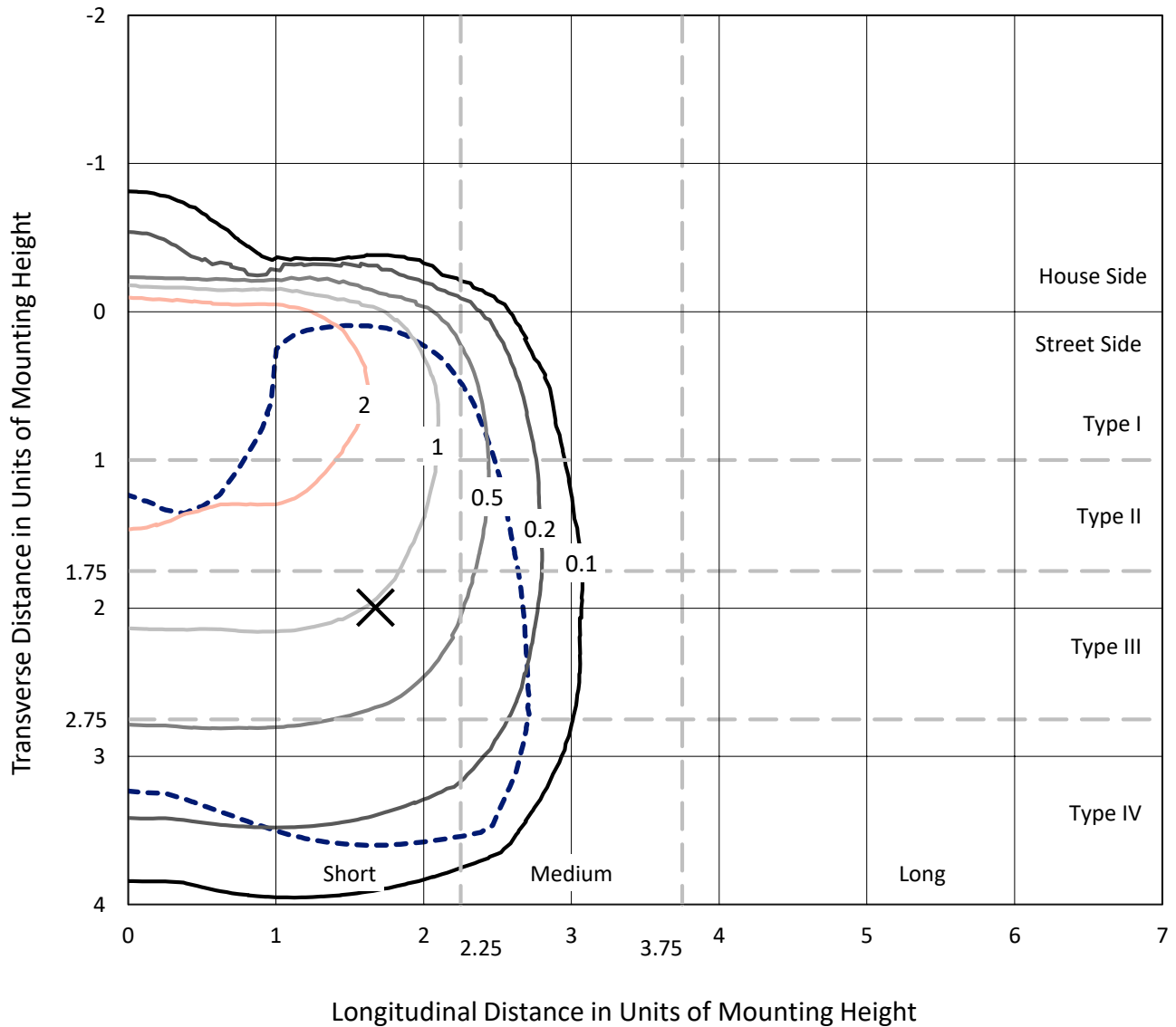
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

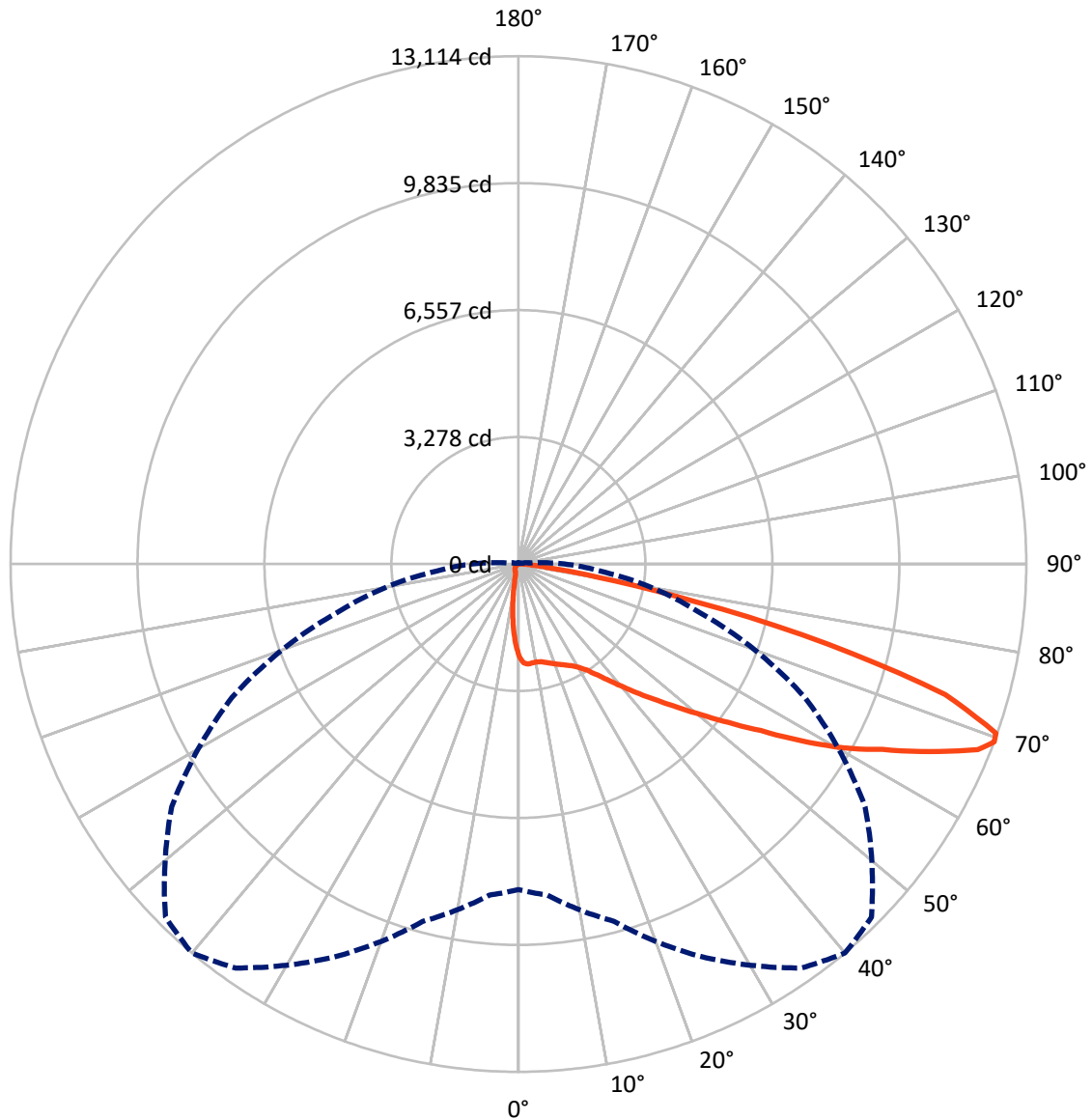
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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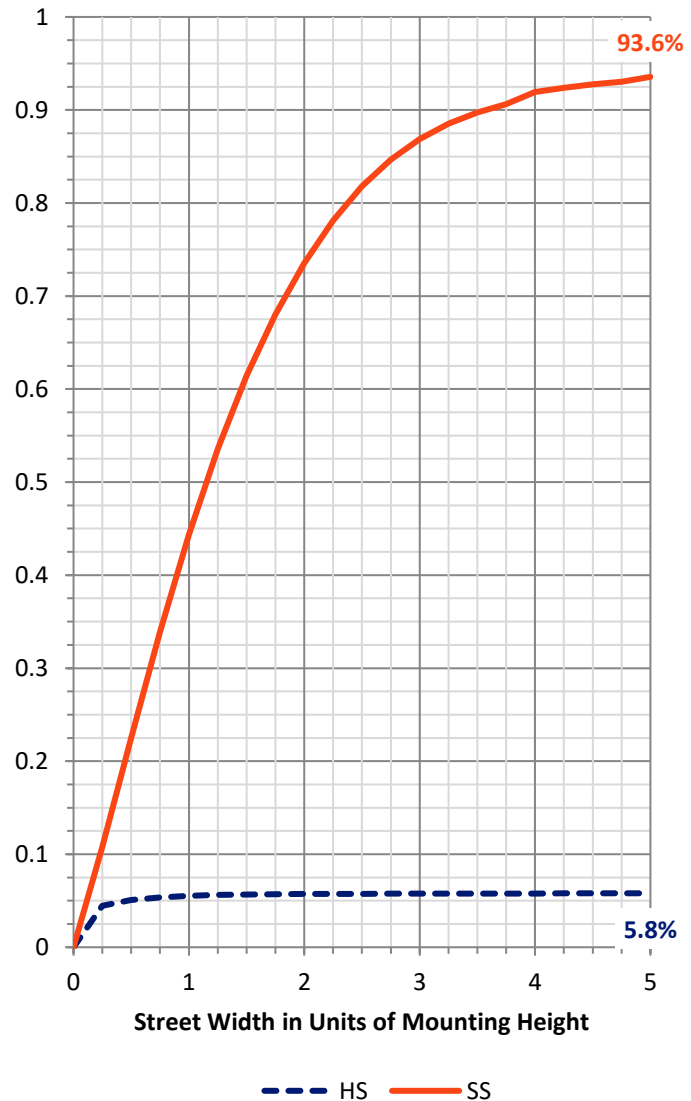
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	933.6	0.0	933.6
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	15025.2	0.0	15025.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	15958.8	0.0	15958.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.3	1.2
10°-20°	475.4	3.0
20°-30°	800.8	5.0
30°-40°	1310.9	8.2
40°-50°	2269.7	14.2
50°-60°	3575.1	22.4
60°-70°	4668.9	29.3
70°-80°	2404.7	15.1
80°-90°	260.1	1.6
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°	15958.8	100.0
0°-180°	15958.8	100.0

Coefficient of Utilization



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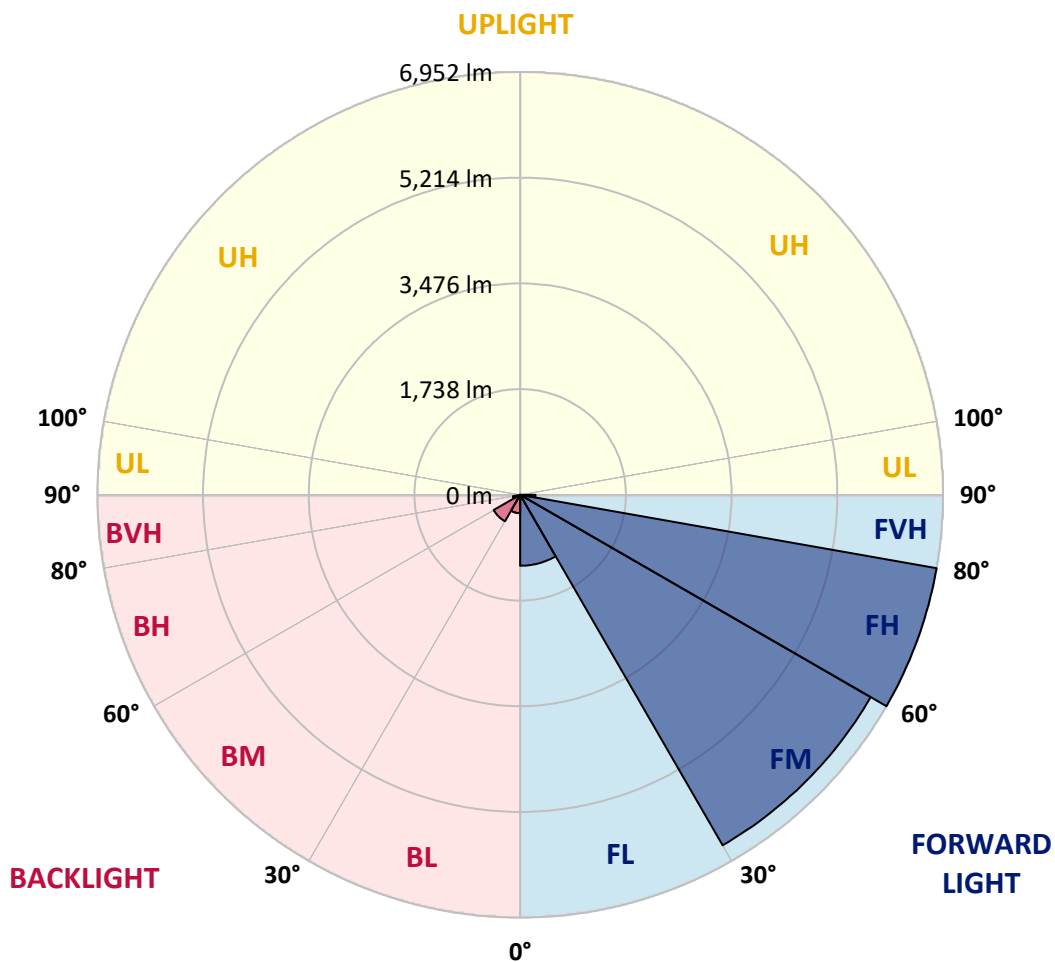
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1167.1	7.3			
FM	(30°-60°)	6653.9	41.7			
FH	(60°-80°)	6952.3	43.6			G3/7500
FVH	(80°-90°)	251.9	1.6			G3/500
BL	(0°-30°)	302.4	1.9	B1/500		
BM	(30°-60°)	501.8	3.1	B1/1000		
BH	(60°-80°)	121.2	0.8	B1/500		G1/500
BVH	(80°-90°)	8.2	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3
2.5°	2618.0	2603.8	2595.2	2583.8	2569.6	2557.2	2552.5	2517.3	2484.1	2438.5	2386.2
5°	2666.5	2661.7	2646.5	2631.3	2614.2	2595.2	2584.8	2543.0	2495.5	2429.0	2337.8
7.5°	2671.2	2665.5	2646.5	2625.6	2601.9	2579.1	2561.0	2519.2	2475.5	2408.1	2296.9
10°	2663.6	2657.0	2642.7	2619.9	2590.5	2568.6	2550.6	2510.7	2473.6	2412.8	2289.3
12.5°	2655.1	2648.4	2641.8	2630.4	2604.7	2589.5	2574.3	2536.3	2503.1	2451.8	2316.9
15°	2663.6	2659.8	2667.4	2662.7	2648.4	2635.1	2619.9	2585.7	2555.3	2512.6	2367.2
17.5°	2699.7	2699.7	2723.5	2726.3	2713.0	2694.0	2672.2	2638.0	2612.3	2576.2	2427.1
20°	2784.3	2781.4	2811.8	2817.5	2785.2	2755.8	2723.5	2681.7	2661.7	2638.9	2486.0
22.5°	2929.6	2916.3	2934.4	2928.7	2865.0	2819.4	2779.5	2728.2	2717.8	2707.3	2551.5
25°	3118.6	3111.0	3123.4	3067.3	2955.3	2893.5	2846.0	2788.1	2788.1	2798.5	2625.6
27.5°	3393.2	3364.7	3322.9	3224.1	3055.9	2977.1	2925.8	2864.1	2880.2	2919.2	2723.5
30°	3674.4	3643.0	3547.1	3395.1	3178.5	3095.8	3036.0	2971.4	3009.4	3080.6	2854.6
32.5°	3951.7	3916.6	3780.7	3588.9	3354.2	3271.6	3213.6	3142.4	3206.0	3325.7	3046.4
35°	4220.6	4189.2	4032.5	3806.4	3587.9	3519.5	3466.3	3404.6	3486.3	3653.5	3317.2
37.5°	4522.6	4488.4	4297.5	4052.4	3871.9	3822.5	3783.6	3721.8	3864.3	4109.4	3694.3
40°	4894.1	4836.1	4578.7	4334.6	4200.6	4176.9	4150.3	4141.7	4363.1	4702.2	4196.8
42.5°	5319.6	5224.6	4873.2	4631.9	4561.6	4578.7	4572.0	4610.0	4987.2	5439.3	4808.6
45°	5745.2	5622.7	5200.9	4949.2	4958.7	5018.5	5055.6	5207.5	5769.0	6284.8	5466.9
47.5°	6106.2	5985.5	5515.3	5292.1	5406.1	5523.9	5624.6	5912.4	6572.6	7116.9	5978.9
50°	6414.9	6300.9	5848.8	5669.2	5925.7	6115.7	6279.1	6705.6	7437.0	7750.5	6338.0
52.5°	6667.6	6591.6	6194.5	6101.4	6519.4	6797.7	7037.1	7548.2	8202.7	8265.4	6617.3
55°	6913.6	6859.5	6566.0	6615.4	7216.7	7595.7	7898.7	8442.1	8862.0	8694.8	6885.1
57.5°	7196.7	7147.3	6989.6	7267.0	8133.4	8610.2	8940.8	9234.3	9442.4	9133.6	7137.8
60°	7485.5	7457.0	7460.8	7990.9	9185.9	9643.7	9826.1	9902.1	10012.3	9546.9	7152.1
62.5°	7761.0	7815.1	7999.4	8796.4	10193.8	10545.2	10637.4	10712.4	10583.2	9612.4	6607.8
65°	8227.4	8315.7	8755.6	9874.6	11302.3	11678.5	11773.5	11516.1	10673.5	8765.1	5374.7
67.5°	8455.4	8616.9	9401.5	10879.6	12377.7	12795.6	12760.5	11568.3	9578.2	6683.7	3449.2
69°	8407.9	8579.8	9550.7	11187.4	12734.8	13113.9	12890.6	10929.0	8159.9	4841.8	2117.4
70°	8219.8	8393.6	9473.7	11176.0	12780.4	13080.6	12649.3	10139.6	6899.4	3540.4	1324.2
72.5°	6864.2	7014.3	8410.7	10101.6	11773.5	11529.4	10582.3	7024.8	3361.8	964.2	298.3
75°	4225.3	4308.9	6034.9	7609.9	8892.3	8265.4	7050.4	3494.8	1002.2	272.6	165.3
77.5°	2232.3	2270.3	3303.9	4485.6	5636.9	4664.2	3613.6	1363.2	461.7	171.0	119.7
80°	1319.5	1348.0	1779.2	2050.9	2439.4	2037.6	1444.9	836.9	330.6	107.3	106.4
82.5°	755.2	773.2	1290.0	1139.9	961.3	820.7	719.1	793.2	198.5	72.2	110.2
85°	277.4	281.2	725.8	867.3	571.9	340.1	357.2	657.4	53.2	45.6	86.4
87.5°	129.2	126.3	373.3	531.0	334.4	215.6	278.3	144.4	20.9	29.4	23.7
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°	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3	2384.3
2.5°	2355.8	2320.7	2257.0	2191.5	2125.0	2073.7	2023.4	1983.5	1970.2	1945.5	1947.4
5°	2283.6	2219.1	2086.1	1951.2	1810.6	1694.7	1585.4	1497.1	1454.4	1410.7	1410.7
7.5°	2221.0	2126.9	1918.9	1699.4	1472.4	1281.5	1109.5	980.3	909.1	852.1	851.1
10°	2197.2	2069.9	1779.2	1464.8	1148.5	888.2	684.0	552.9	485.4	441.7	439.8
12.5°	2207.7	2050.0	1671.9	1248.2	851.1	570.9	396.1	311.6	283.1	269.8	269.8
15°	2238.0	2044.3	1564.5	1036.4	601.3	357.2	263.1	240.3	238.4	238.4	238.4
17.5°	2275.1	2046.2	1454.4	830.2	409.4	255.5	227.0	224.2	226.1	226.1	226.1
20°	2313.1	2047.1	1335.6	639.3	288.8	222.3	213.7	212.8	214.7	214.7	215.6
22.5°	2359.6	2051.9	1216.9	477.8	238.4	209.9	203.3	203.3	204.2	204.2	203.3
25°	2412.8	2061.4	1093.4	354.3	217.5	201.4	195.7	194.7	195.7	194.7	193.8
27.5°	2479.3	2074.7	955.6	277.4	208.0	192.8	188.1	188.1	187.1	186.2	185.2
30°	2562.9	2089.9	800.8	235.6	198.5	185.2	180.5	179.5	178.6	176.7	176.7
32.5°	2690.2	2123.1	647.9	213.7	188.1	174.8	171.0	171.0	169.1	167.2	166.2
35°	2885.9	2188.7	511.1	200.4	176.7	163.4	158.6	158.6	156.7	155.8	154.8
37.5°	3156.6	2288.4	397.1	188.1	165.3	151.0	146.3	145.3	143.4	141.5	140.6
40°	3516.7	2411.9	312.5	176.7	153.9	138.7	134.9	133.0	129.2	126.3	126.3
42.5°	3968.8	2552.5	253.6	164.3	140.6	127.3	124.4	121.6	114.9	112.1	111.1
45°	4441.9	2678.8	214.7	150.1	127.3	115.9	114.0	109.2	100.7	97.8	97.8
47.5°	4782.9	2708.3	189.0	136.8	114.9	103.5	102.6	94.0	86.4	84.5	83.6
50°	4995.7	2650.3	168.1	123.5	103.5	92.1	89.3	78.8	74.1	72.2	71.2
52.5°	5139.2	2546.8	151.0	112.1	93.1	81.7	75.0	67.4	63.6	61.7	61.7
55°	5254.1	2400.5	133.9	101.6	84.5	73.1	63.6	57.9	54.1	52.2	52.2
57.5°	5286.4	2202.0	116.8	93.1	76.0	64.6	54.1	50.3	45.6	44.6	44.6
60°	5051.8	1843.8	103.5	82.6	68.4	56.0	47.5	42.7	38.0	37.0	36.1
62.5°	4433.4	1426.8	91.2	73.1	59.8	48.4	40.8	35.1	31.3	31.3	31.3
65°	3381.8	956.6	79.8	63.6	52.2	40.8	35.1	28.5	26.6	26.6	27.5
67.5°	2024.3	520.6	68.4	54.1	44.6	34.2	29.4	24.7	23.7	24.7	24.7
69°	1186.5	305.9	61.7	48.4	38.9	30.4	25.6	21.8	23.7	24.7	24.7
70°	732.4	206.1	57.0	43.7	35.1	27.5	23.7	20.9	22.8	23.7	23.7
72.5°	204.2	106.4	45.6	34.2	28.5	22.8	19.0	19.0	21.8	22.8	22.8
75°	133.0	78.8	35.1	25.6	21.8	18.0	16.1	18.0	20.9	21.8	21.8
77.5°	110.2	64.6	28.5	20.9	18.0	17.1	15.2	16.1	19.0	19.9	19.9
80°	100.7	45.6	22.8	19.0	16.1	15.2	14.2	13.3	17.1	18.0	18.0
82.5°	95.9	36.1	19.9	17.1	15.2	13.3	12.3	13.3	15.2	16.1	17.1
85°	59.8	23.7	18.0	16.1	13.3	12.3	12.3	12.3	14.2	15.2	15.2
87.5°	21.8	19.0	16.1	13.3	11.4	11.4	11.4	11.4	12.3	14.2	14.2
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)