

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: P300919

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300919
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-SL4-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K 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: 17767.1 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

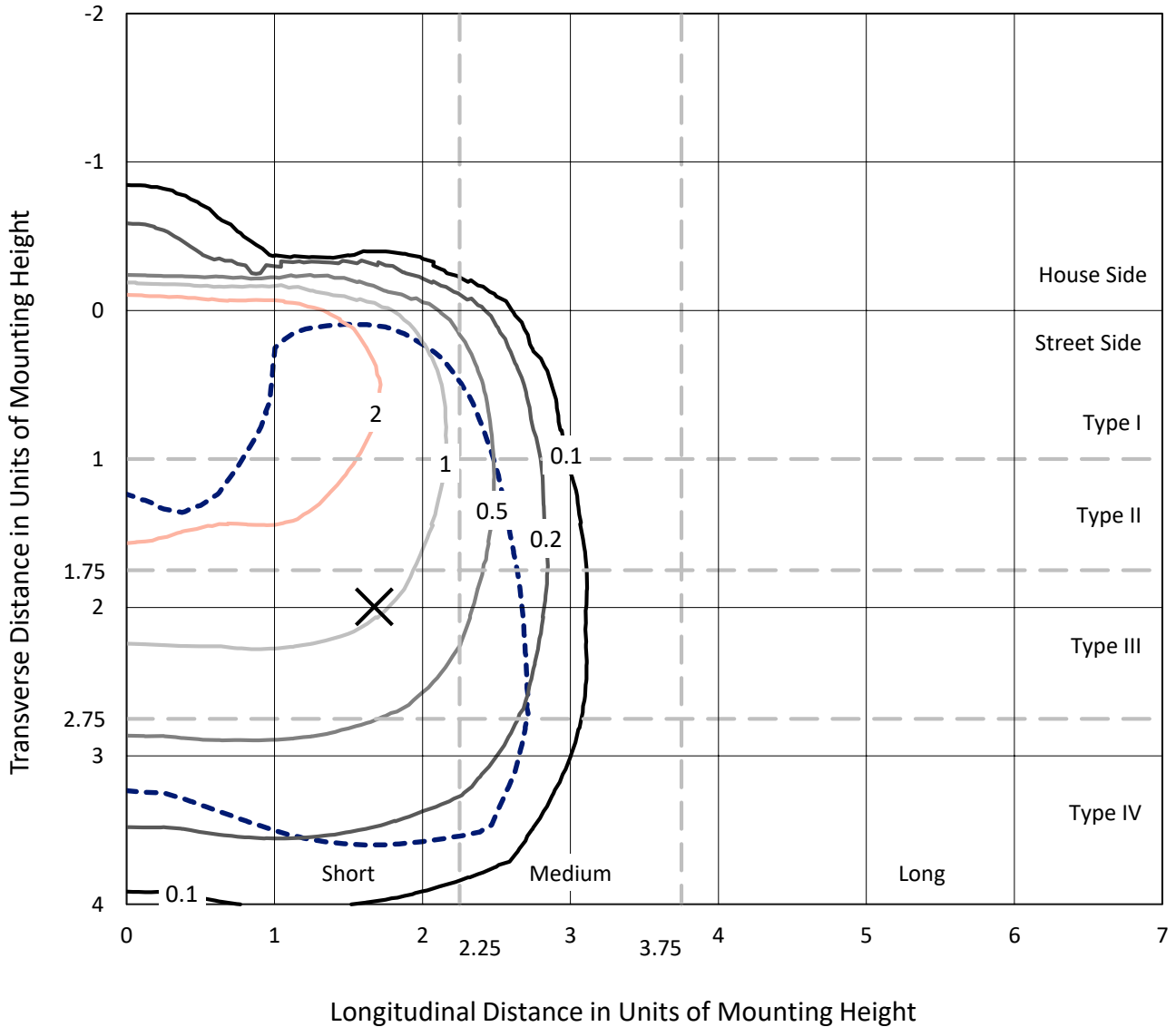
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

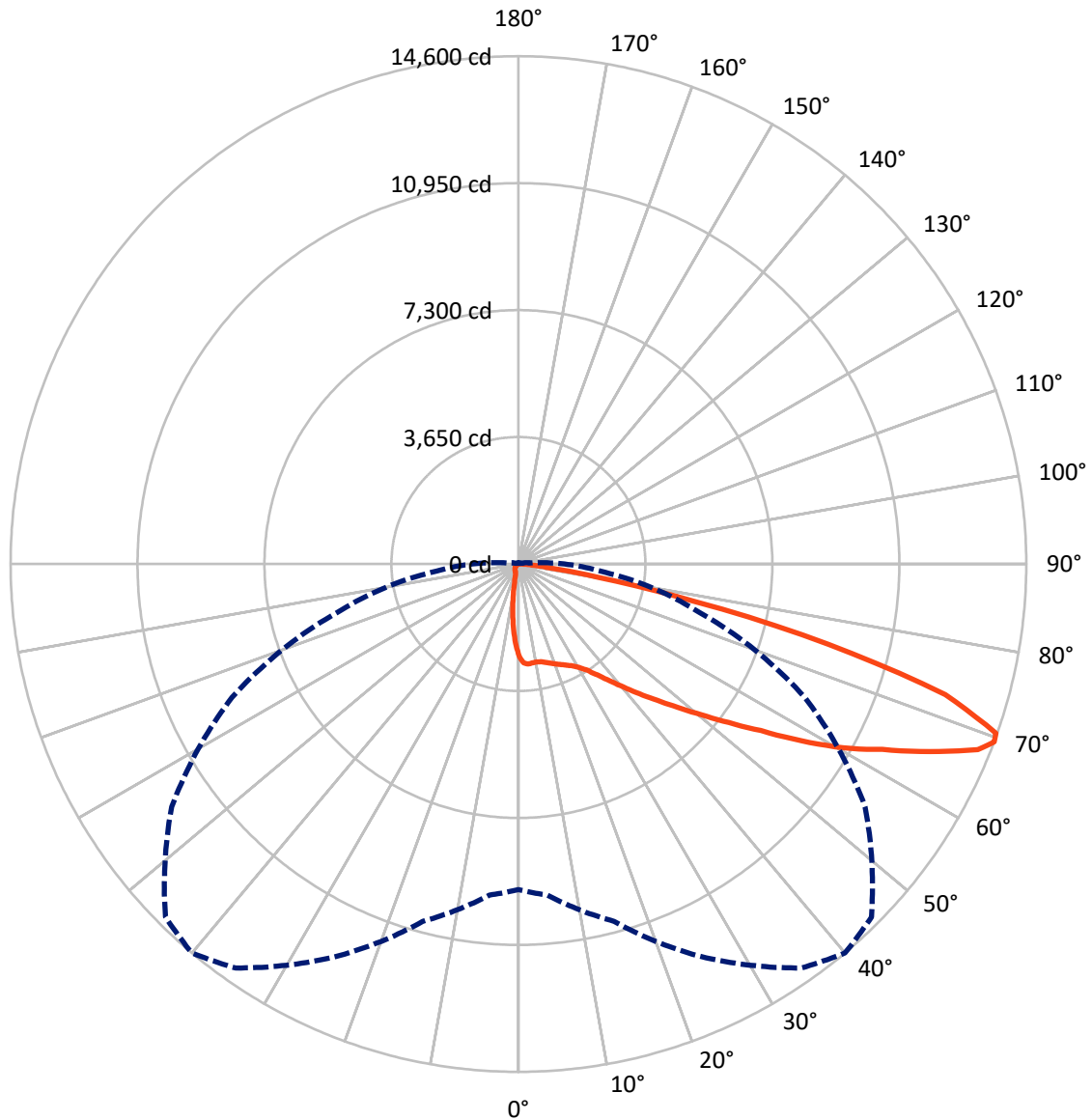
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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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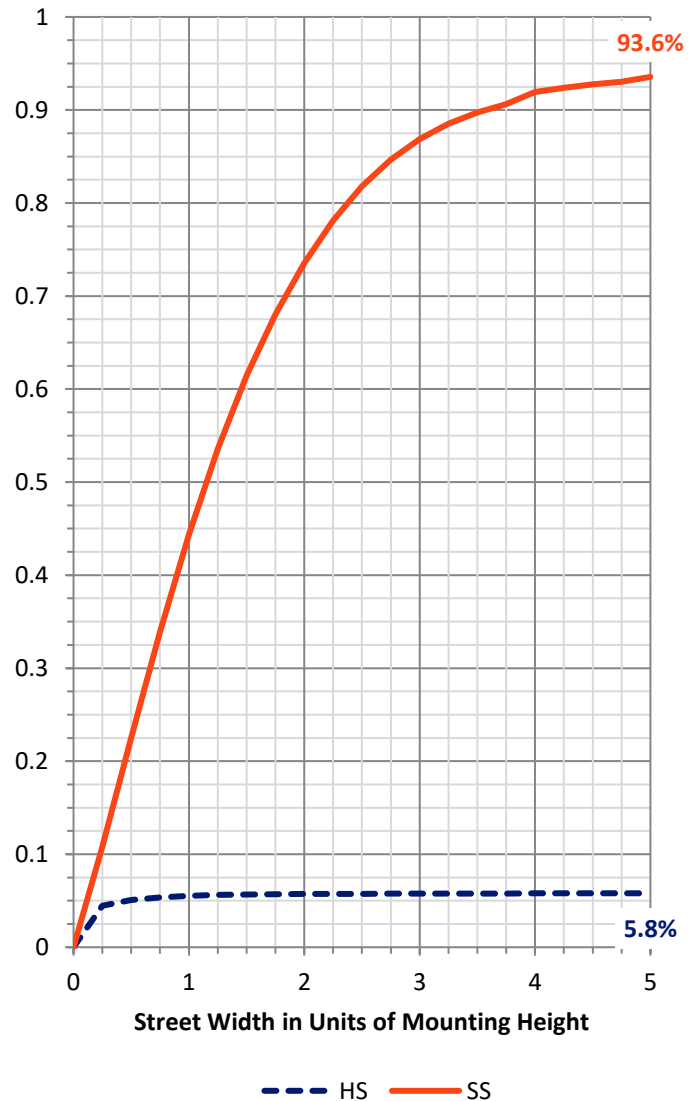
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1039.5	0.0	1039.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	16727.6	0.0	16727.6
	% Fixture	94.1	0.0	94.1
Total	Lumens	17767.1	0.0	17767.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.2	1.2
10°-20°	529.3	3.0
20°-30°	891.5	5.0
30°-40°	1459.4	8.2
40°-50°	2526.9	14.2
50°-60°	3980.1	22.4
60°-70°	5197.9	29.3
70°-80°	2677.1	15.1
80°-90°	289.6	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°	17767.1	100.0
0°-180°	17767.1	100.0



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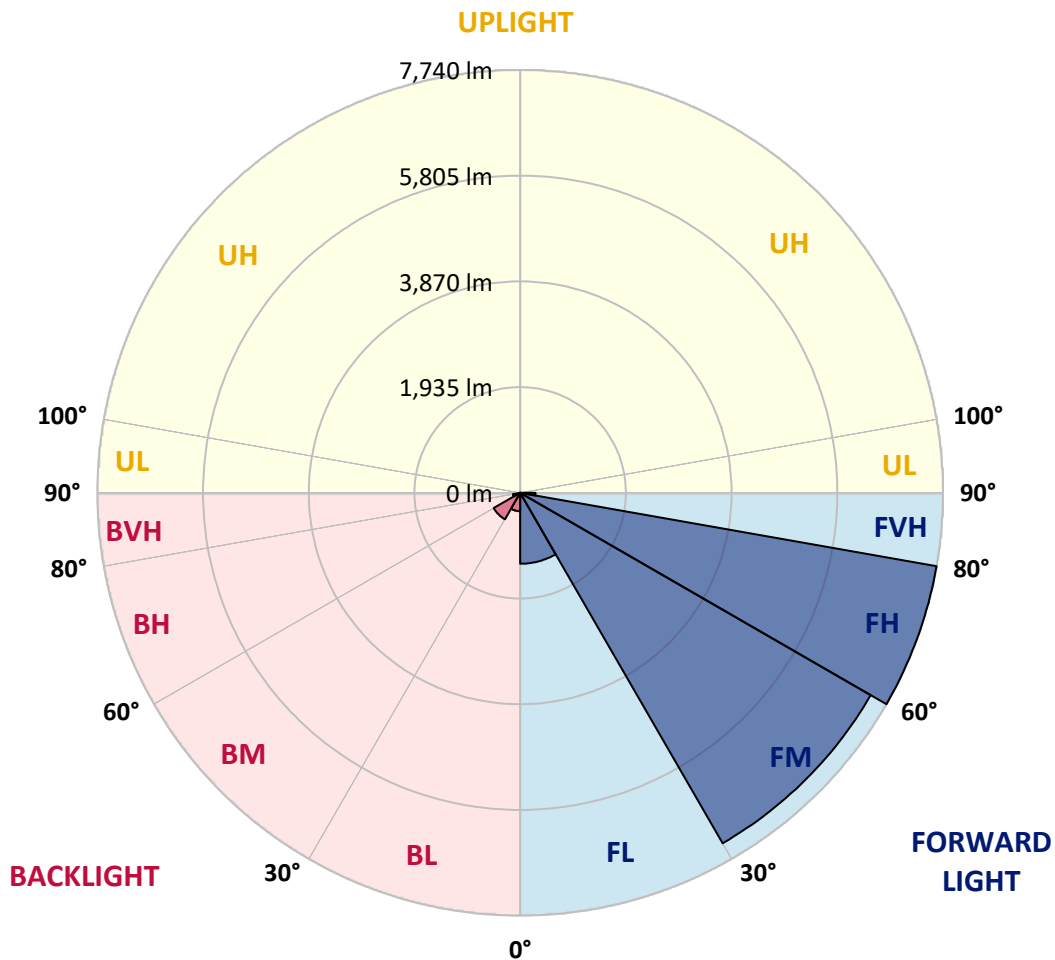
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1299.3	7.3			
FM	(30°-60°)	7407.7	41.7			
FH	(60°-80°)	7740.1	43.6			G4/12000
FVH	(80°-90°)	280.5	1.6			G3/500
BL	(0°-30°)	336.7	1.9	B1/500		
BM	(30°-60°)	558.7	3.1	B1/1000		
BH	(60°-80°)	135.0	0.8	B1/500		G1/500
BVH	(80°-90°)	9.1	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5
2.5°	2914.6	2898.8	2889.3	2876.6	2860.7	2847.0	2841.7	2802.5	2765.5	2714.8	2656.6
5°	2968.6	2963.3	2946.4	2929.5	2910.4	2889.3	2877.6	2831.1	2778.2	2704.2	2602.7
7.5°	2973.9	2967.5	2946.4	2923.1	2896.7	2871.3	2851.2	2804.7	2756.0	2680.9	2557.2
10°	2965.4	2958.0	2942.1	2916.8	2884.0	2859.7	2839.6	2795.1	2753.9	2686.2	2548.7
12.5°	2955.9	2948.5	2941.1	2928.4	2899.8	2882.9	2866.0	2823.7	2786.7	2729.6	2579.4
15°	2965.4	2961.2	2969.6	2964.4	2948.5	2933.7	2916.8	2878.7	2844.8	2797.3	2635.5
17.5°	3005.6	3005.6	3032.0	3035.2	3020.4	2999.3	2974.9	2936.9	2908.3	2868.1	2702.1
20°	3099.7	3096.5	3130.4	3136.7	3100.8	3068.0	3032.0	2985.5	2963.3	2937.9	2767.6
22.5°	3261.5	3246.7	3266.8	3260.5	3189.6	3138.9	3094.4	3037.3	3025.7	3014.1	2840.6
25°	3472.0	3463.5	3477.3	3414.9	3290.1	3221.3	3168.5	3104.0	3104.0	3115.6	2923.1
27.5°	3777.6	3745.9	3699.4	3589.4	3402.2	3314.4	3257.3	3188.6	3206.5	3249.9	3032.0
30°	4090.7	4055.8	3948.9	3779.7	3538.6	3446.6	3380.0	3308.1	3350.4	3429.7	3178.0
32.5°	4399.5	4360.3	4209.1	3995.5	3734.3	3642.3	3577.7	3498.4	3569.3	3702.5	3391.6
35°	4698.8	4663.9	4489.4	4237.7	3994.4	3918.3	3859.1	3790.3	3881.3	4067.4	3693.0
37.5°	5035.1	4997.0	4784.4	4511.6	4310.6	4255.6	4212.3	4143.5	4302.2	4575.0	4112.9
40°	5448.6	5384.1	5097.5	4825.7	4676.6	4650.1	4620.5	4611.0	4857.4	5234.9	4672.3
42.5°	5922.4	5816.6	5425.3	5156.7	5078.4	5097.5	5090.1	5132.4	5552.2	6055.6	5353.4
45°	6396.2	6259.7	5790.2	5509.9	5520.5	5587.1	5628.4	5797.6	6422.6	6996.8	6086.3
47.5°	6798.0	6663.7	6140.2	5891.7	6018.6	6149.7	6261.8	6582.3	7317.3	7923.3	6656.3
50°	7141.7	7014.8	6511.4	6311.5	6597.1	6808.6	6990.5	7465.4	8279.7	8628.7	7056.1
52.5°	7423.0	7338.4	6896.4	6792.7	7258.1	7567.9	7834.4	8403.4	9132.1	9201.9	7367.0
55°	7697.0	7636.7	7309.9	7364.9	8034.3	8456.3	8793.7	9398.6	9866.0	9679.9	7665.2
57.5°	8012.1	7957.1	7781.6	8090.4	9054.9	9585.8	9953.8	10280.6	10512.2	10168.5	7946.5
60°	8333.6	8301.9	8306.1	8896.2	10226.7	10736.4	10939.5	11024.1	11146.7	10628.5	7962.4
62.5°	8640.3	8700.6	8905.8	9793.1	11348.7	11740.0	11842.6	11926.2	11782.3	10701.5	7356.4
65°	9159.6	9257.9	9747.6	10993.4	12582.9	13001.7	13107.5	12820.9	11882.8	9758.2	5983.7
67.5°	9413.4	9593.2	10466.7	12112.3	13780.1	14245.4	14206.3	12879.0	10663.4	7441.0	3840.0
69°	9360.5	9551.9	10632.8	12454.9	14177.7	14599.7	14351.2	12167.3	9084.5	5390.4	2357.3
70°	9151.1	9344.6	10547.1	12442.3	14228.5	14562.7	14082.5	11288.4	7681.1	3941.5	1474.2
72.5°	7642.0	7809.1	9363.7	11246.1	13107.5	12835.7	11781.3	7820.7	3742.7	1073.4	332.1
75°	4704.0	4797.1	6718.7	8472.2	9899.9	9201.9	7849.2	3890.8	1115.7	303.5	184.0
77.5°	2485.3	2527.6	3678.2	4993.8	6275.6	5192.6	4023.0	1517.6	514.0	190.4	133.3
80°	1469.0	1500.7	1980.8	2283.3	2715.8	2268.5	1608.6	931.7	368.0	119.5	118.4
82.5°	840.8	860.9	1436.2	1269.1	1070.3	913.7	800.6	883.1	221.0	80.4	122.7
85°	308.8	313.0	808.0	965.6	636.7	378.6	397.6	731.8	59.2	50.8	96.2
87.5°	143.8	140.7	415.6	591.2	372.3	240.1	309.9	160.7	23.3	32.8	26.4
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°	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5	2654.5
2.5°	2622.8	2583.6	2512.8	2439.8	2365.8	2308.7	2252.6	2208.2	2193.4	2165.9	2168.0
5°	2542.4	2470.5	2322.4	2172.2	2015.7	1886.7	1765.1	1666.7	1619.1	1570.5	1570.5
7.5°	2472.6	2367.9	2136.3	1892.0	1639.2	1426.7	1235.2	1091.4	1012.1	948.6	947.6
10°	2446.1	2304.4	1980.8	1630.8	1278.6	988.8	761.4	615.5	540.4	491.8	489.7
12.5°	2457.8	2282.2	1861.3	1389.6	947.6	635.6	441.0	346.9	315.2	300.3	300.3
15°	2491.6	2275.9	1741.8	1153.8	669.4	397.6	292.9	267.6	265.4	265.4	265.4
17.5°	2532.9	2278.0	1619.1	924.3	455.8	284.5	252.8	249.6	251.7	251.7	251.7
20°	2575.2	2279.1	1486.9	711.7	321.5	247.5	238.0	236.9	239.0	239.0	240.1
22.5°	2627.0	2284.3	1354.7	532.0	265.4	233.7	226.3	226.3	227.4	227.4	226.3
25°	2686.2	2294.9	1217.3	394.5	242.2	224.2	217.9	216.8	217.9	216.8	215.7
27.5°	2760.2	2309.7	1063.9	308.8	231.6	214.7	209.4	209.4	208.3	207.3	206.2
30°	2853.3	2326.6	891.5	262.3	221.0	206.2	200.9	199.9	198.8	196.7	196.7
32.5°	2995.0	2363.7	721.3	238.0	209.4	194.6	190.4	190.4	188.2	186.1	185.1
35°	3212.9	2436.6	569.0	223.1	196.7	181.9	176.6	176.6	174.5	173.4	172.4
37.5°	3514.3	2547.7	442.1	209.4	184.0	168.2	162.9	161.8	159.7	157.6	156.5
40°	3915.1	2685.2	347.9	196.7	171.3	154.4	150.2	148.1	143.8	140.7	140.7
42.5°	4418.5	2841.7	282.4	183.0	156.5	141.7	138.5	135.4	128.0	124.8	123.7
45°	4945.2	2982.3	239.0	167.1	141.7	129.0	126.9	121.6	112.1	108.9	108.9
47.5°	5324.8	3015.1	210.5	152.3	128.0	115.3	114.2	104.7	96.2	94.1	93.1
50°	5561.7	2950.6	187.2	137.5	115.3	102.6	99.4	87.8	82.5	80.4	79.3
52.5°	5721.4	2835.3	168.2	124.8	103.6	91.0	83.5	75.1	70.9	68.7	68.7
55°	5849.4	2672.5	149.1	113.2	94.1	81.4	70.9	64.5	60.3	58.2	58.2
57.5°	5885.3	2451.4	130.1	103.6	84.6	71.9	60.3	56.1	50.8	49.7	49.7
60°	5624.1	2052.7	115.3	92.0	76.1	62.4	52.9	47.6	42.3	41.2	40.2
62.5°	4935.7	1588.5	101.5	81.4	66.6	53.9	45.5	39.1	34.9	34.9	34.9
65°	3764.9	1065.0	88.8	70.9	58.2	45.5	39.1	31.7	29.6	29.6	30.7
67.5°	2253.7	579.5	76.1	60.3	49.7	38.1	32.8	27.5	26.4	27.5	27.5
69°	1320.9	340.5	68.7	53.9	43.4	33.8	28.6	24.3	26.4	27.5	27.5
70°	815.4	229.5	63.5	48.6	39.1	30.7	26.4	23.3	25.4	26.4	26.4
72.5°	227.4	118.4	50.8	38.1	31.7	25.4	21.2	21.2	24.3	25.4	25.4
75°	148.1	87.8	39.1	28.6	24.3	20.1	18.0	20.1	23.3	24.3	24.3
77.5°	122.7	71.9	31.7	23.3	20.1	19.0	16.9	18.0	21.2	22.2	22.2
80°	112.1	50.8	25.4	21.2	18.0	16.9	15.9	14.8	19.0	20.1	20.1
82.5°	106.8	40.2	22.2	19.0	16.9	14.8	13.7	14.8	16.9	18.0	19.0
85°	66.6	26.4	20.1	18.0	14.8	13.7	13.7	13.7	15.9	16.9	16.9
87.5°	24.3	21.2	18.0	14.8	12.7	12.7	12.7	12.7	13.7	15.9	15.9
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)