

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: P300984

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300984
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-05-LED-E1-SL4-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16123.6 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

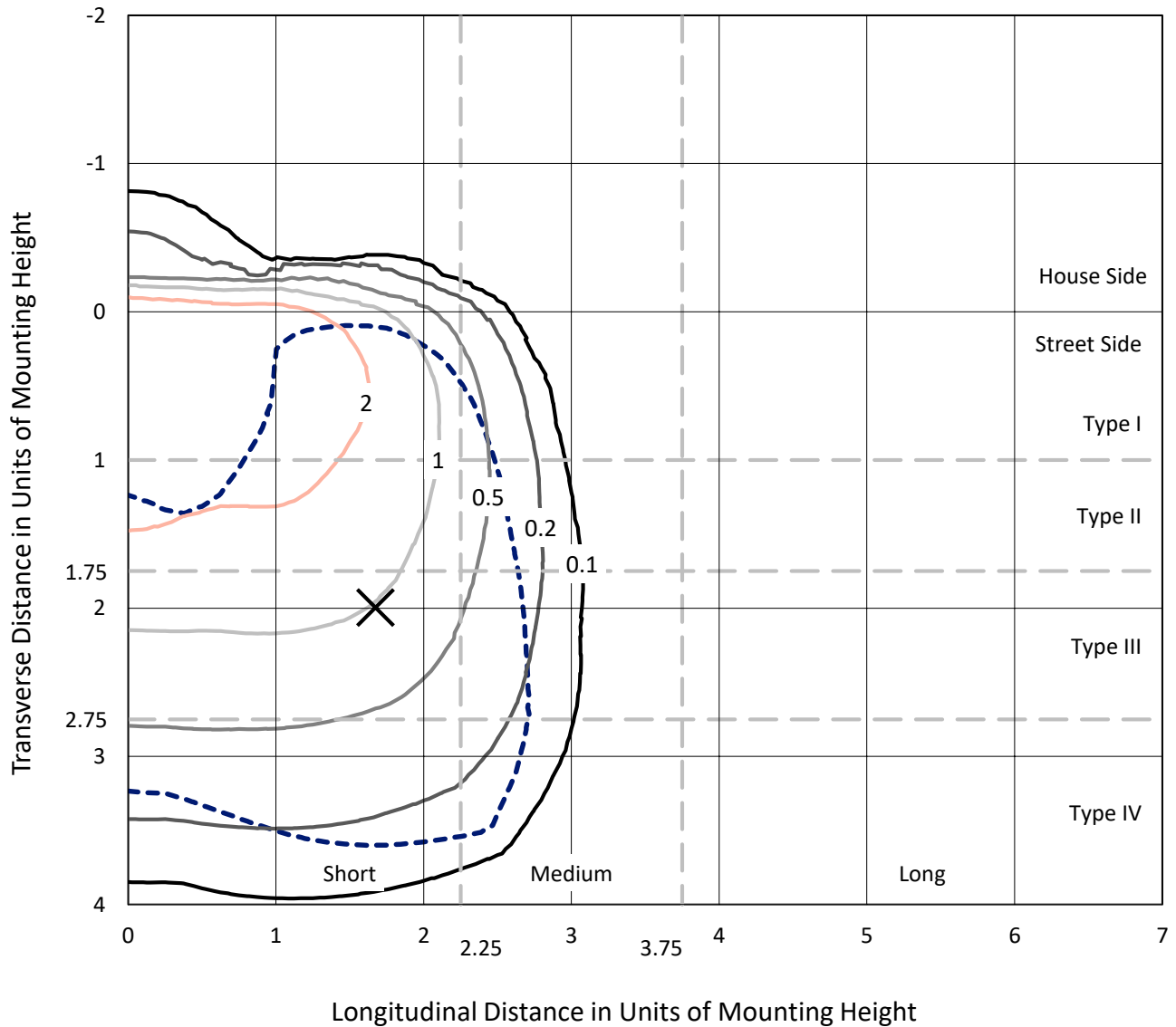
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

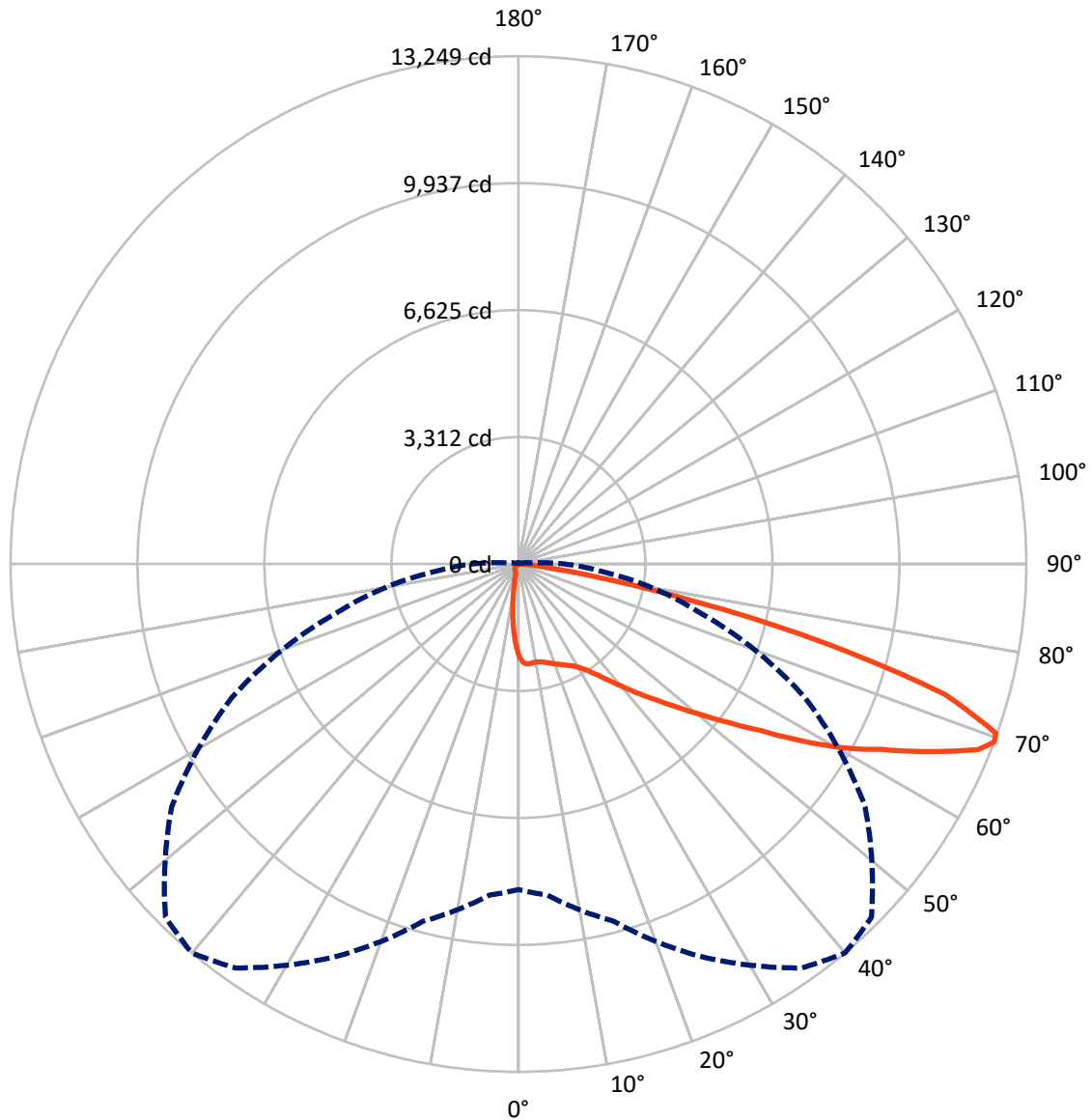
✕ Max cd
 - - - 1/2 Max cd



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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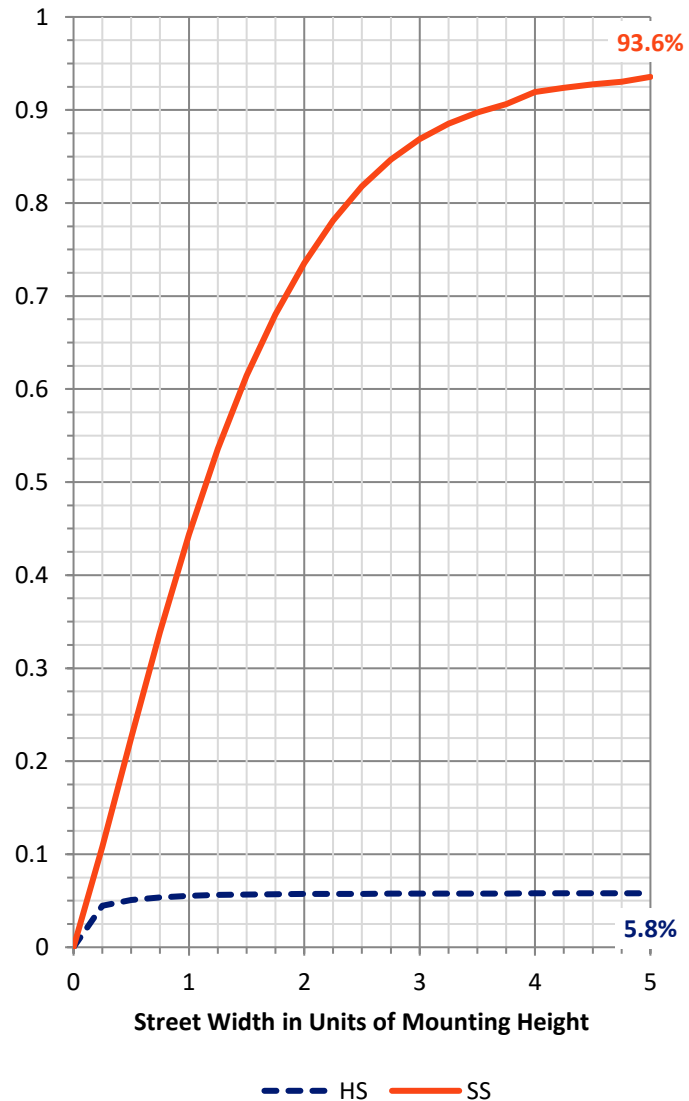
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	943.3	0.0	943.3
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	15180.3	0.0	15180.3
	% Fixture	94.1	0.0	94.1
Total	Lumens	16123.6	0.0	16123.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.3	1.2
10°-20°	480.3	3.0
20°-30°	809.0	5.0
30°-40°	1324.4	8.2
40°-50°	2293.2	14.2
50°-60°	3612.0	22.4
60°-70°	4717.1	29.3
70°-80°	2429.5	15.1
80°-90°	262.8	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°	16123.6	100.0
0°-180°	16123.6	100.0



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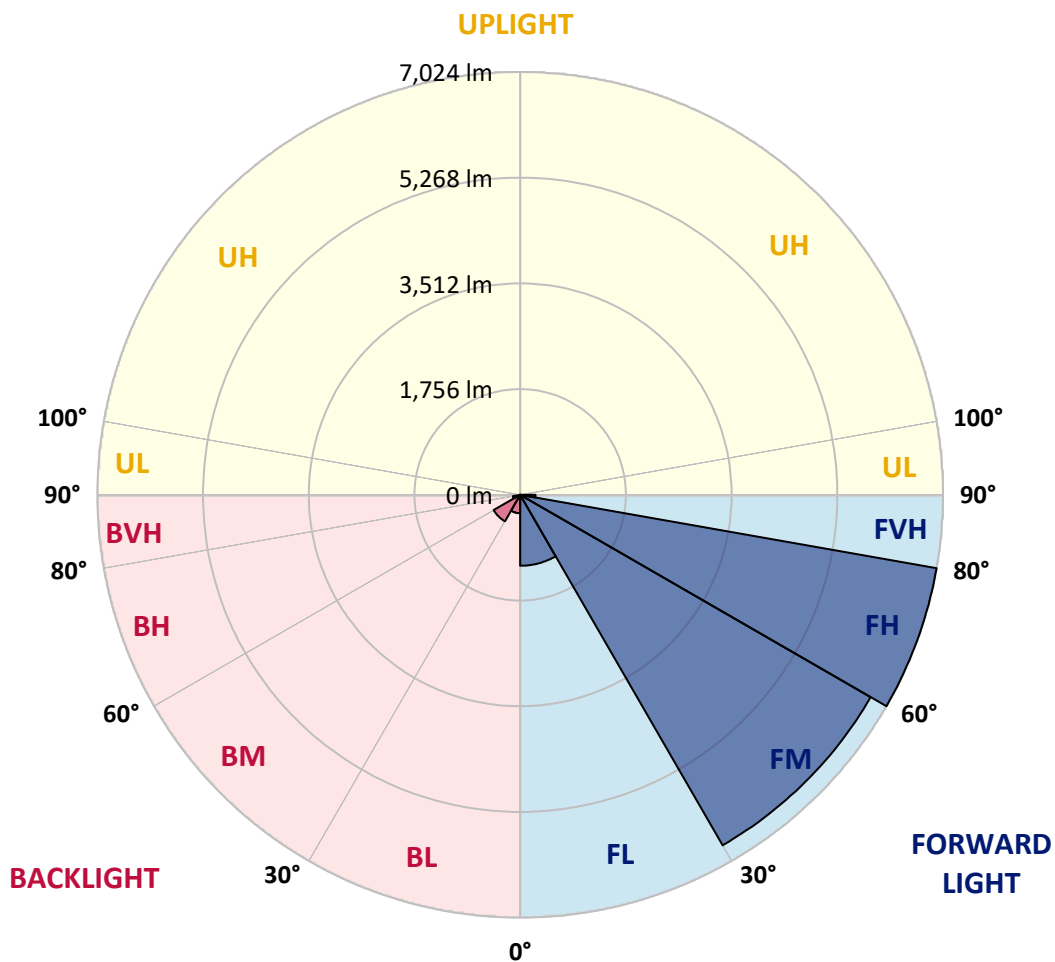
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1179.1	7.3			
FM	(30°-60°)	6722.5	41.7			
FH	(60°-80°)	7024.1	43.6			G3/7500
FVH	(80°-90°)	254.5	1.6			G3/500
BL	(0°-30°)	305.6	1.9	B1/500		
BM	(30°-60°)	507.0	3.1	B1/1000		
BH	(60°-80°)	122.5	0.8	B1/500		G1/500
BVH	(80°-90°)	8.3	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°	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0
2.5°	2645.0	2630.7	2622.0	2610.5	2596.1	2583.6	2578.8	2543.3	2509.7	2463.7	2410.9
5°	2694.0	2689.2	2673.8	2658.5	2641.2	2622.0	2611.5	2569.2	2521.2	2454.1	2361.9
7.5°	2698.8	2693.0	2673.8	2652.7	2628.7	2605.7	2587.5	2545.2	2501.1	2432.9	2320.7
10°	2691.1	2684.4	2670.0	2647.0	2617.2	2595.1	2576.9	2536.6	2499.2	2437.7	2313.0
12.5°	2682.5	2675.8	2669.0	2657.5	2631.6	2616.3	2600.9	2562.5	2528.9	2477.1	2340.8
15°	2691.1	2687.3	2695.0	2690.2	2675.8	2662.3	2647.0	2612.4	2581.7	2538.5	2391.7
17.5°	2727.6	2727.6	2751.6	2754.5	2741.0	2721.8	2699.8	2665.2	2639.3	2602.8	2452.1
20°	2813.0	2810.1	2840.8	2846.6	2814.0	2784.2	2751.6	2709.4	2689.2	2666.2	2511.6
22.5°	2959.8	2946.4	2964.6	2958.9	2894.6	2848.5	2808.2	2756.4	2745.8	2735.3	2577.9
25°	3150.8	3143.2	3155.6	3099.0	2985.8	2923.4	2875.4	2816.8	2816.8	2827.4	2652.7
27.5°	3428.2	3399.4	3357.2	3257.4	3087.5	3007.8	2956.0	2893.6	2909.9	2949.3	2751.6
30°	3712.3	3680.6	3583.7	3430.1	3211.3	3127.8	3067.3	3002.1	3040.5	3112.4	2884.0
32.5°	3992.5	3957.0	3819.8	3625.9	3388.8	3305.4	3246.8	3174.8	3239.1	3360.1	3077.9
35°	4264.1	4232.5	4074.1	3845.7	3624.9	3555.8	3502.1	3439.7	3522.3	3691.2	3351.4
37.5°	4569.3	4534.8	4341.9	4094.3	3911.9	3862.0	3822.7	3760.3	3904.2	4151.8	3732.4
40°	4944.6	4886.0	4626.0	4379.3	4244.0	4220.0	4193.1	4184.5	4408.1	4750.7	4240.1
42.5°	5374.6	5278.6	4923.5	4679.7	4608.7	4626.0	4619.2	4657.6	5038.6	5495.5	4858.2
45°	5804.5	5680.7	5254.6	5000.3	5009.9	5070.3	5107.7	5261.3	5828.5	6349.7	5523.3
47.5°	6169.2	6047.3	5572.3	5346.7	5461.9	5580.9	5682.6	5973.4	6640.5	7190.4	6040.6
50°	6481.1	6366.0	5909.1	5727.7	5986.9	6178.8	6343.9	6774.8	7513.8	7830.5	6403.4
52.5°	6736.4	6659.7	6258.5	6164.4	6586.7	6867.9	7109.8	7626.1	8287.4	8350.7	6685.6
55°	6985.0	6930.3	6633.7	6683.6	7291.2	7674.1	7980.3	8529.2	8953.4	8784.5	6956.2
57.5°	7271.0	7221.1	7061.8	7342.0	8217.3	8699.1	9033.1	9329.7	9539.8	9227.9	7211.5
60°	7562.8	7534.0	7537.8	8073.4	9280.7	9743.3	9927.6	10004.4	10115.7	9645.4	7225.9
62.5°	7841.1	7895.8	8082.0	8887.2	10299.0	10654.1	10747.2	10823.0	10692.5	9711.6	6676.0
65°	8312.3	8401.6	8845.9	9976.5	11419.0	11799.1	11895.0	11635.0	10783.7	8855.5	5430.2
67.5°	8542.7	8705.8	9498.6	10991.9	12505.4	12927.7	12892.2	11687.7	9677.1	6752.7	3484.8
69°	8494.7	8668.4	9649.2	11302.9	12866.3	13249.2	13023.7	11041.8	8244.2	4891.8	2139.3
70°	8304.6	8480.3	9571.5	11291.4	12912.4	13215.7	12779.9	10244.3	6970.6	3577.0	1337.9
72.5°	6935.1	7086.7	8497.6	10205.9	11895.0	11648.4	10691.5	7097.3	3396.5	974.1	301.4
75°	4268.9	4353.4	6097.2	7688.5	8984.1	8350.7	7123.2	3530.9	1012.5	275.4	167.0
77.5°	2255.4	2293.8	3338.0	4531.9	5695.1	4712.3	3650.9	1377.2	466.4	172.8	120.9
80°	1333.1	1361.9	1797.6	2072.1	2464.6	2058.6	1459.8	845.5	334.0	108.5	107.5
82.5°	763.0	781.2	1303.3	1151.7	971.3	829.2	726.5	801.4	200.6	72.9	111.3
85°	280.2	284.1	733.2	876.2	577.8	343.6	360.9	664.1	53.7	46.1	87.3
87.5°	130.5	127.6	377.2	536.5	337.8	217.9	281.2	145.9	21.1	29.8	24.0
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°	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0	2409.0
2.5°	2380.2	2344.7	2280.3	2214.1	2146.9	2095.1	2044.3	2003.9	1990.5	1965.6	1967.5
5°	2307.2	2242.0	2107.6	1971.3	1829.3	1712.2	1601.8	1512.6	1469.4	1425.2	1425.2
7.5°	2243.9	2148.9	1938.7	1717.0	1487.6	1294.7	1121.0	990.5	918.5	860.9	859.9
10°	2219.9	2091.3	1797.6	1479.9	1160.3	897.4	691.0	558.6	490.4	446.3	444.4
12.5°	2230.4	2071.1	1689.1	1261.1	859.9	576.8	400.2	314.8	286.0	272.6	272.6
15°	2261.2	2065.4	1580.7	1047.1	607.5	360.9	265.8	242.8	240.9	240.9	240.9
17.5°	2298.6	2067.3	1469.4	838.8	413.6	258.2	229.4	226.5	228.4	228.4	228.4
20°	2337.0	2068.2	1349.4	645.9	291.8	224.6	215.9	215.0	216.9	216.9	217.9
22.5°	2384.0	2073.0	1229.4	482.8	240.9	212.1	205.4	205.4	206.3	206.3	205.4
25°	2437.7	2082.6	1104.7	358.0	219.8	203.5	197.7	196.7	197.7	196.7	195.8
27.5°	2504.9	2096.1	965.5	280.2	210.2	194.8	190.0	190.0	189.1	188.1	187.1
30°	2589.4	2111.4	809.1	238.0	200.6	187.1	182.4	181.4	180.4	178.5	178.5
32.5°	2718.0	2145.0	654.5	215.9	190.0	176.6	172.8	172.8	170.8	168.9	168.0
35°	2915.7	2211.2	516.3	202.5	178.5	165.1	160.3	160.3	158.4	157.4	156.4
37.5°	3189.2	2312.0	401.2	190.0	167.0	152.6	147.8	146.8	144.9	143.0	142.0
40°	3553.0	2436.8	315.8	178.5	155.5	140.1	136.3	134.4	130.5	127.6	127.6
42.5°	4009.8	2578.8	256.3	166.0	142.0	128.6	125.7	122.8	116.1	113.2	112.3
45°	4487.8	2706.5	216.9	151.6	128.6	117.1	115.2	110.4	101.7	98.9	98.9
47.5°	4832.3	2736.2	191.0	138.2	116.1	104.6	103.7	95.0	87.3	85.4	84.5
50°	5047.3	2677.7	169.9	124.8	104.6	93.1	90.2	79.7	74.9	72.9	72.0
52.5°	5192.2	2573.1	152.6	113.2	94.1	82.5	75.8	68.1	64.3	62.4	62.4
55°	5308.3	2425.3	135.3	102.7	85.4	73.9	64.3	58.5	54.7	52.8	52.8
57.5°	5341.0	2224.7	118.0	94.1	76.8	65.3	54.7	50.9	46.1	45.1	45.1
60°	5103.9	1862.9	104.6	83.5	69.1	56.6	48.0	43.2	38.4	37.4	36.5
62.5°	4479.1	1441.5	92.1	73.9	60.5	48.9	41.3	35.5	31.7	31.7	31.7
65°	3416.7	966.5	80.6	64.3	52.8	41.3	35.5	28.8	26.9	26.9	27.8
67.5°	2045.2	525.9	69.1	54.7	45.1	34.6	29.8	25.0	24.0	25.0	25.0
69°	1198.7	309.0	62.4	48.9	39.3	30.7	25.9	22.1	24.0	25.0	25.0
70°	740.0	208.3	57.6	44.1	35.5	27.8	24.0	21.1	23.0	24.0	24.0
72.5°	206.3	107.5	46.1	34.6	28.8	23.0	19.2	19.2	22.1	23.0	23.0
75°	134.4	79.7	35.5	25.9	22.1	18.2	16.3	18.2	21.1	22.1	22.1
77.5°	111.3	65.3	28.8	21.1	18.2	17.3	15.4	16.3	19.2	20.2	20.2
80°	101.7	46.1	23.0	19.2	16.3	15.4	14.4	13.4	17.3	18.2	18.2
82.5°	96.9	36.5	20.2	17.3	15.4	13.4	12.5	13.4	15.4	16.3	17.3
85°	60.5	24.0	18.2	16.3	13.4	12.5	12.5	12.5	14.4	15.4	15.4
87.5°	22.1	19.2	16.3	13.4	11.5	11.5	11.5	11.5	12.5	14.4	14.4
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)