

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: FAIL-SAFE

Report Number: P709088

Luminaire Tested: **4APN-X-26L930-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709088
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN-X-26L930-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

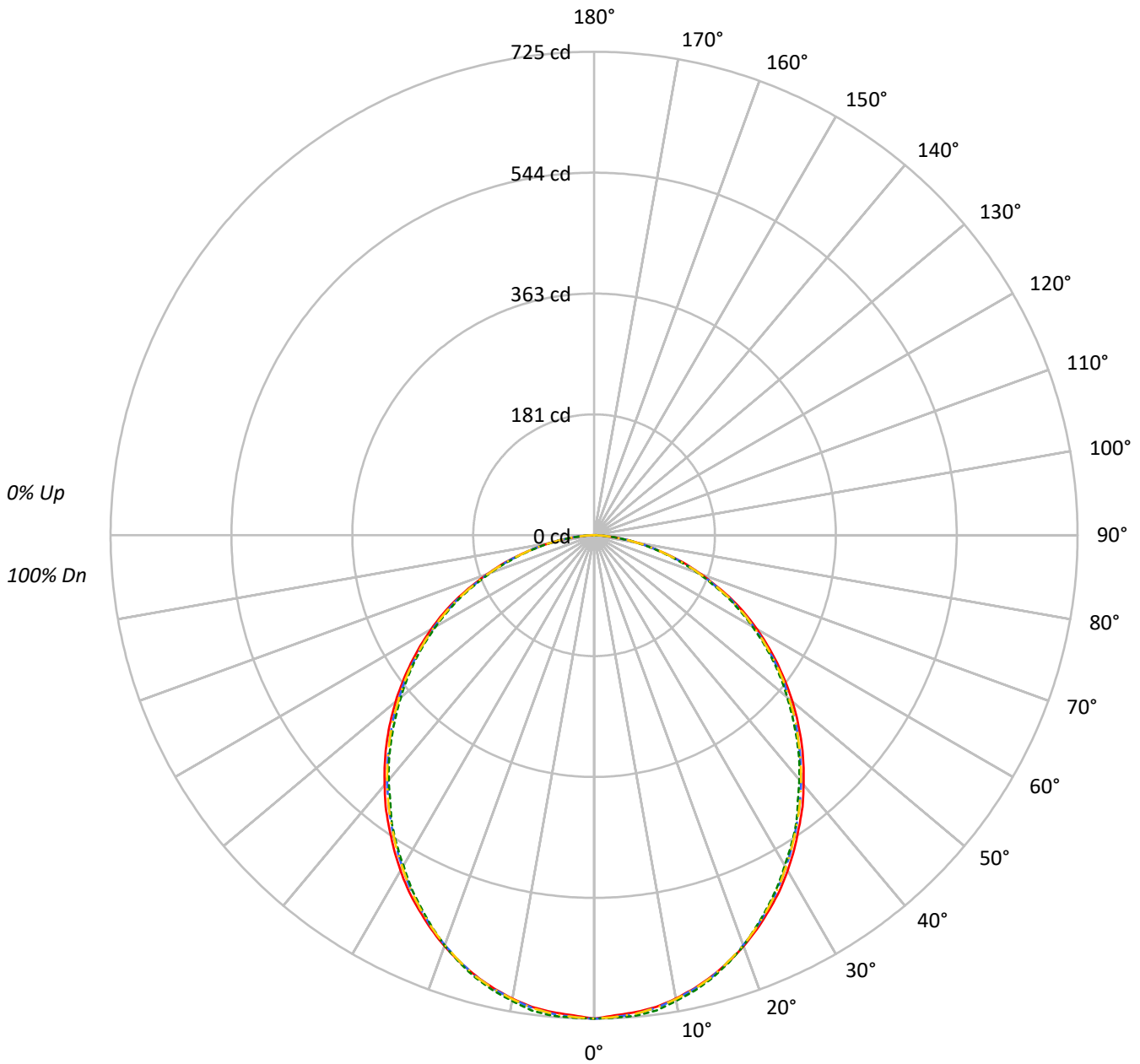
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1886.1 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
Input Voltage (V): 120
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

TEST NUMBER: P709088
CATALOG NUMBER: 4APN-X-26L930-UNV

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



TEST NUMBER: P709088
 CATALOG NUMBER: 4APN-X-26L930-UNV

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70	70	70	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60	60	60	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51	51	51	51
5	76	64	55	48	74	63	54	48	60	53	47	59	52	47	57	51	46	44	44	44	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39	39	39	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28	28	28	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6688	6688	6688	6688
5°	6649	6698	6649	6698
10°	6609	6642	6609	6642
15°	6535	6561	6535	6561
20°	6440	6431	6440	6431
25°	6317	6263	6317	6263
30°	6186	6092	6186	6092
35°	6031	5951	6031	5951
40°	5885	5768	5885	5768
45°	5740	5601	5740	5601
50°	5578	5426	5578	5426
55°	5397	5268	5397	5268
60°	5211	5063	5211	5063
65°	4986	4831	4986	4831
70°	4607	4464	4607	4464
75°	4164	4039	4164	4039
80°	3576	3480	3576	3480
85°	2721	2721	2721	2721



TEST NUMBER: P709088
 CATALOG NUMBER: 4APN-X-26L930-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	3.6
10°-20°	193.2	10.2
20°-30°	284.8	15.1
30°-40°	332.5	17.6
40°-50°	335.2	17.8
50°-60°	296.2	15.7
60°-70°	221.5	11.7
70°-80°	122.8	6.5
80°-90°	31.5	1.7
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°-30°	546.4	29.0
0°-40°	878.9	46.6
0°-60°	1510.3	80.1
0°-90°	1886.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1886.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	725	725	725	725	725	
5°	718	723	718	723	718	68
15°	684	687	684	687	684	193
25°	620	615	620	615	620	286
35°	536	528	536	528	536	335
45°	440	429	440	429	440	339
55°	336	328	336	328	336	300
65°	228	221	228	221	228	225
75°	117	113	117	113	117	124
85°	26	26	26	26	26	31
90°	0	0	0	0	0	



TEST NUMBER: P709088

CATALOG NUMBER: 4APN-X-26L930-UNV

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9
2.5°	720.5	724.0	727.6	726.7	724.0	722.3	723.2	723.2	724.0	724.0	724.0
5°	717.9	721.4	724.0	723.2	720.5	719.6	719.6	719.6	721.4	723.2	721.4
7.5°	713.4	716.1	718.7	717.9	715.2	714.3	714.3	715.2	717.0	718.7	717.0
10°	705.5	709.0	711.7	709.9	707.2	705.5	705.5	705.5	707.2	709.0	707.2
12.5°	695.7	698.4	701.0	700.1	697.5	695.7	695.7	695.7	697.5	699.3	697.5
15°	684.2	686.9	689.5	688.6	686.0	684.2	684.2	684.2	686.0	686.9	686.0
17.5°	670.9	673.6	676.2	674.5	670.9	669.2	669.2	669.2	670.9	671.8	670.9
20°	655.9	658.5	660.3	658.5	655.0	653.2	652.3	652.3	654.1	655.0	654.1
22.5°	639.1	640.8	642.6	640.8	637.3	635.5	634.6	633.8	634.6	635.5	634.6
25°	620.5	622.3	624.0	622.3	618.7	616.1	615.2	614.3	615.2	615.2	615.2
27.5°	601.9	602.8	604.6	601.9	598.4	595.7	594.8	593.9	594.8	594.8	594.8
30°	580.7	581.5	583.3	580.7	576.2	573.6	572.7	571.8	571.8	571.8	571.8
32.5°	558.5	560.3	562.1	558.5	554.1	551.4	550.6	549.7	550.6	550.6	550.6
35°	535.5	536.4	538.2	535.5	531.1	528.4	526.7	525.8	527.5	528.4	527.5
37.5°	513.4	514.3	515.2	512.5	508.1	505.4	503.6	502.8	501.9	501.9	501.9
40°	488.6	489.5	491.3	488.6	484.2	481.5	479.7	478.9	478.9	478.9	478.9
42.5°	464.7	465.6	466.5	463.8	459.4	456.7	455.0	454.1	455.0	455.0	455.0
45°	439.9	439.9	440.8	438.1	434.6	431.9	430.2	429.3	429.3	429.3	429.3
47.5°	414.2	415.1	416.0	413.4	409.8	407.2	405.4	403.6	403.6	403.6	403.6
50°	388.6	388.6	389.5	386.8	383.3	380.6	379.7	378.8	378.0	378.0	378.0
52.5°	362.0	362.9	363.8	361.1	358.5	355.8	354.1	353.2	353.2	353.2	353.2
55°	335.5	335.5	336.4	334.6	331.9	329.3	327.5	326.6	327.5	327.5	327.5
57.5°	308.9	309.8	310.7	308.0	305.4	302.7	301.8	300.9	300.9	300.9	300.9
60°	282.4	282.4	283.2	281.5	278.8	276.2	275.3	274.4	274.4	274.4	274.4
62.5°	255.8	255.8	256.7	254.9	252.3	249.6	248.7	247.8	247.8	247.8	247.8
65°	228.4	228.4	228.4	226.6	224.8	223.9	223.1	222.2	221.3	221.3	221.3
67.5°	198.3	198.3	199.2	197.4	195.6	194.7	193.8	193.0	192.1	192.1	192.1
70°	170.8	170.8	171.7	170.8	169.1	168.2	167.3	166.4	165.5	165.5	165.5
72.5°	144.3	144.3	144.3	143.4	142.5	141.6	140.7	139.9	139.0	139.0	139.0
75°	116.8	116.8	117.7	116.8	116.0	115.1	114.2	114.2	113.3	113.3	113.3
77.5°	91.2	92.1	92.9	92.1	91.2	90.3	89.4	89.4	88.5	88.5	88.5
80°	67.3	68.2	69.0	68.2	67.3	66.4	65.5	65.5	65.5	65.5	65.5
82.5°	45.1	46.0	46.9	46.0	45.1	45.1	44.3	44.3	44.3	44.3	44.3
85°	25.7	26.6	27.4	27.4	26.6	26.6	25.7	25.7	25.7	25.7	25.7
87.5°	9.7	10.6	11.5	11.5	10.6	10.6	10.6	10.6	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P709088
 CATALOG NUMBER: 4APN-X-26L930-UNV

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9
2.5°	723.2	723.2	722.3	724.0	726.7	727.6	724.0	720.5	724.0	727.6	726.7
5°	719.6	719.6	719.6	720.5	723.2	724.0	721.4	717.9	721.4	724.0	723.2
7.5°	715.2	714.3	714.3	715.2	717.9	718.7	716.1	713.4	716.1	718.7	717.9
10°	705.5	705.5	705.5	707.2	709.9	711.7	709.0	705.5	709.0	711.7	709.9
12.5°	695.7	695.7	695.7	697.5	700.1	701.0	698.4	695.7	698.4	701.0	700.1
15°	684.2	684.2	684.2	686.0	688.6	689.5	686.9	684.2	686.9	689.5	688.6
17.5°	669.2	669.2	669.2	670.9	674.5	676.2	673.6	670.9	673.6	676.2	674.5
20°	652.3	652.3	653.2	655.0	658.5	660.3	658.5	655.9	658.5	660.3	658.5
22.5°	633.8	634.6	635.5	637.3	640.8	642.6	640.8	639.1	640.8	642.6	640.8
25°	614.3	615.2	616.1	618.7	622.3	624.0	622.3	620.5	622.3	624.0	622.3
27.5°	593.9	594.8	595.7	598.4	601.9	604.6	602.8	601.9	602.8	604.6	601.9
30°	571.8	572.7	573.6	576.2	580.7	583.3	581.5	580.7	581.5	583.3	580.7
32.5°	549.7	550.6	551.4	554.1	558.5	562.1	560.3	558.5	560.3	562.1	558.5
35°	525.8	526.7	528.4	531.1	535.5	538.2	536.4	535.5	536.4	538.2	535.5
37.5°	502.8	503.6	505.4	508.1	512.5	515.2	514.3	513.4	514.3	515.2	512.5
40°	478.9	479.7	481.5	484.2	488.6	491.3	489.5	488.6	489.5	491.3	488.6
42.5°	454.1	455.0	456.7	459.4	463.8	466.5	465.6	464.7	465.6	466.5	463.8
45°	429.3	430.2	431.9	434.6	438.1	440.8	439.9	439.9	439.9	440.8	438.1
47.5°	403.6	405.4	407.2	409.8	413.4	416.0	415.1	414.2	415.1	416.0	413.4
50°	378.8	379.7	380.6	383.3	386.8	389.5	388.6	388.6	388.6	389.5	386.8
52.5°	353.2	354.1	355.8	358.5	361.1	363.8	362.9	362.0	362.9	363.8	361.1
55°	326.6	327.5	329.3	331.9	334.6	336.4	335.5	335.5	335.5	336.4	334.6
57.5°	300.9	301.8	302.7	305.4	308.0	310.7	309.8	308.9	309.8	310.7	308.0
60°	274.4	275.3	276.2	278.8	281.5	283.2	282.4	282.4	282.4	283.2	281.5
62.5°	247.8	248.7	249.6	252.3	254.9	256.7	255.8	255.8	255.8	256.7	254.9
65°	222.2	223.1	223.9	224.8	226.6	228.4	228.4	228.4	228.4	228.4	226.6
67.5°	193.0	193.8	194.7	195.6	197.4	199.2	198.3	198.3	198.3	199.2	197.4
70°	166.4	167.3	168.2	169.1	170.8	171.7	170.8	170.8	170.8	171.7	170.8
72.5°	139.9	140.7	141.6	142.5	143.4	144.3	144.3	144.3	144.3	144.3	143.4
75°	114.2	114.2	115.1	116.0	116.8	117.7	116.8	116.8	116.8	117.7	116.8
77.5°	89.4	89.4	90.3	91.2	92.1	92.9	92.1	91.2	92.1	92.9	92.1
80°	65.5	65.5	66.4	67.3	68.2	69.0	68.2	67.3	68.2	69.0	68.2
82.5°	44.3	44.3	45.1	45.1	46.0	46.9	46.0	45.1	46.0	46.9	46.0
85°	25.7	25.7	26.6	26.6	27.4	27.4	26.6	25.7	26.6	27.4	27.4
87.5°	10.6	10.6	10.6	10.6	11.5	11.5	10.6	9.7	10.6	11.5	11.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P709088
 CATALOG NUMBER: 4APN-X-26L930-UNV

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9	724.9
2.5°	724.0	722.3	723.2	723.2	724.0	724.0	724.0	723.2	723.2	722.3	724.0
5°	720.5	719.6	719.6	719.6	721.4	723.2	721.4	719.6	719.6	719.6	720.5
7.5°	715.2	714.3	714.3	715.2	717.0	718.7	717.0	715.2	714.3	714.3	715.2
10°	707.2	705.5	705.5	705.5	707.2	709.0	707.2	705.5	705.5	705.5	707.2
12.5°	697.5	695.7	695.7	695.7	697.5	699.3	697.5	695.7	695.7	695.7	697.5
15°	686.0	684.2	684.2	684.2	686.0	686.9	686.0	684.2	684.2	684.2	686.0
17.5°	670.9	669.2	669.2	669.2	670.9	671.8	670.9	669.2	669.2	669.2	670.9
20°	655.0	653.2	652.3	652.3	654.1	655.0	654.1	652.3	652.3	653.2	655.0
22.5°	637.3	635.5	634.6	633.8	634.6	635.5	634.6	633.8	634.6	635.5	637.3
25°	618.7	616.1	615.2	614.3	615.2	615.2	615.2	614.3	615.2	616.1	618.7
27.5°	598.4	595.7	594.8	593.9	594.8	594.8	594.8	593.9	594.8	595.7	598.4
30°	576.2	573.6	572.7	571.8	571.8	571.8	571.8	571.8	572.7	573.6	576.2
32.5°	554.1	551.4	550.6	549.7	550.6	550.6	550.6	549.7	550.6	551.4	554.1
35°	531.1	528.4	526.7	525.8	527.5	528.4	527.5	525.8	526.7	528.4	531.1
37.5°	508.1	505.4	503.6	502.8	501.9	501.9	501.9	502.8	503.6	505.4	508.1
40°	484.2	481.5	479.7	478.9	478.9	478.9	478.9	478.9	479.7	481.5	484.2
42.5°	459.4	456.7	455.0	454.1	455.0	455.0	455.0	454.1	455.0	456.7	459.4
45°	434.6	431.9	430.2	429.3	429.3	429.3	429.3	429.3	430.2	431.9	434.6
47.5°	409.8	407.2	405.4	403.6	403.6	403.6	403.6	403.6	405.4	407.2	409.8
50°	383.3	380.6	379.7	378.8	378.0	378.0	378.0	378.8	379.7	380.6	383.3
52.5°	358.5	355.8	354.1	353.2	353.2	353.2	353.2	353.2	354.1	355.8	358.5
55°	331.9	329.3	327.5	326.6	327.5	327.5	327.5	326.6	327.5	329.3	331.9
57.5°	305.4	302.7	301.8	300.9	300.9	300.9	300.9	300.9	301.8	302.7	305.4
60°	278.8	276.2	275.3	274.4	274.4	274.4	274.4	274.4	275.3	276.2	278.8
62.5°	252.3	249.6	248.7	247.8	247.8	247.8	247.8	247.8	248.7	249.6	252.3
65°	224.8	223.9	223.1	222.2	221.3	221.3	221.3	222.2	223.1	223.9	224.8
67.5°	195.6	194.7	193.8	193.0	192.1	192.1	192.1	193.0	193.8	194.7	195.6
70°	169.1	168.2	167.3	166.4	165.5	165.5	165.5	166.4	167.3	168.2	169.1
72.5°	142.5	141.6	140.7	139.9	139.0	139.0	139.0	139.9	140.7	141.6	142.5
75°	116.0	115.1	114.2	114.2	113.3	113.3	113.3	114.2	114.2	115.1	116.0
77.5°	91.2	90.3	89.4	89.4	88.5	88.5	88.5	89.4	89.4	90.3	91.2
80°	67.3	66.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	66.4	67.3
82.5°	45.1	45.1	44.3	44.3	44.3	44.3	44.3	44.3	44.3	45.1	45.1
85°	26.6	26.6	25.7	25.7	25.7	25.7	25.7	25.7	25.7	26.6	26.6
87.5°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P709088
 CATALOG NUMBER: 4APN-X-26L930-UNV

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	724.9	724.9	724.9	724.9
2.5°	726.7	727.6	724.0	720.5
5°	723.2	724.0	721.4	717.9
7.5°	717.9	718.7	716.1	713.4
10°	709.9	711.7	709.0	705.5
12.5°	700.1	701.0	698.4	695.7
15°	688.6	689.5	686.9	684.2
17.5°	674.5	676.2	673.6	670.9
20°	658.5	660.3	658.5	655.9
22.5°	640.8	642.6	640.8	639.1
25°	622.3	624.0	622.3	620.5
27.5°	601.9	604.6	602.8	601.9
30°	580.7	583.3	581.5	580.7
32.5°	558.5	562.1	560.3	558.5
35°	535.5	538.2	536.4	535.5
37.5°	512.5	515.2	514.3	513.4
40°	488.6	491.3	489.5	488.6
42.5°	463.8	466.5	465.6	464.7
45°	438.1	440.8	439.9	439.9
47.5°	413.4	416.0	415.1	414.2
50°	386.8	389.5	388.6	388.6
52.5°	361.1	363.8	362.9	362.0
55°	334.6	336.4	335.5	335.5
57.5°	308.0	310.7	309.8	308.9
60°	281.5	283.2	282.4	282.4
62.5°	254.9	256.7	255.8	255.8
65°	226.6	228.4	228.4	228.4
67.5°	197.4	199.2	198.3	198.3
70°	170.8	171.7	170.8	170.8
72.5°	143.4	144.3	144.3	144.3
75°	116.8	117.7	116.8	116.8
77.5°	92.1	92.9	92.1	91.2
80°	68.2	69.0	68.2	67.3
82.5°	46.0	46.9	46.0	45.1
85°	27.4	27.4	26.6	25.7
87.5°	11.5	11.5	10.6	9.7
90°	0.0	0.0	0.0	0.0

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