

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: P709105

Luminaire Tested: **4APN-X-30L950-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709105
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN-X-30L950-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

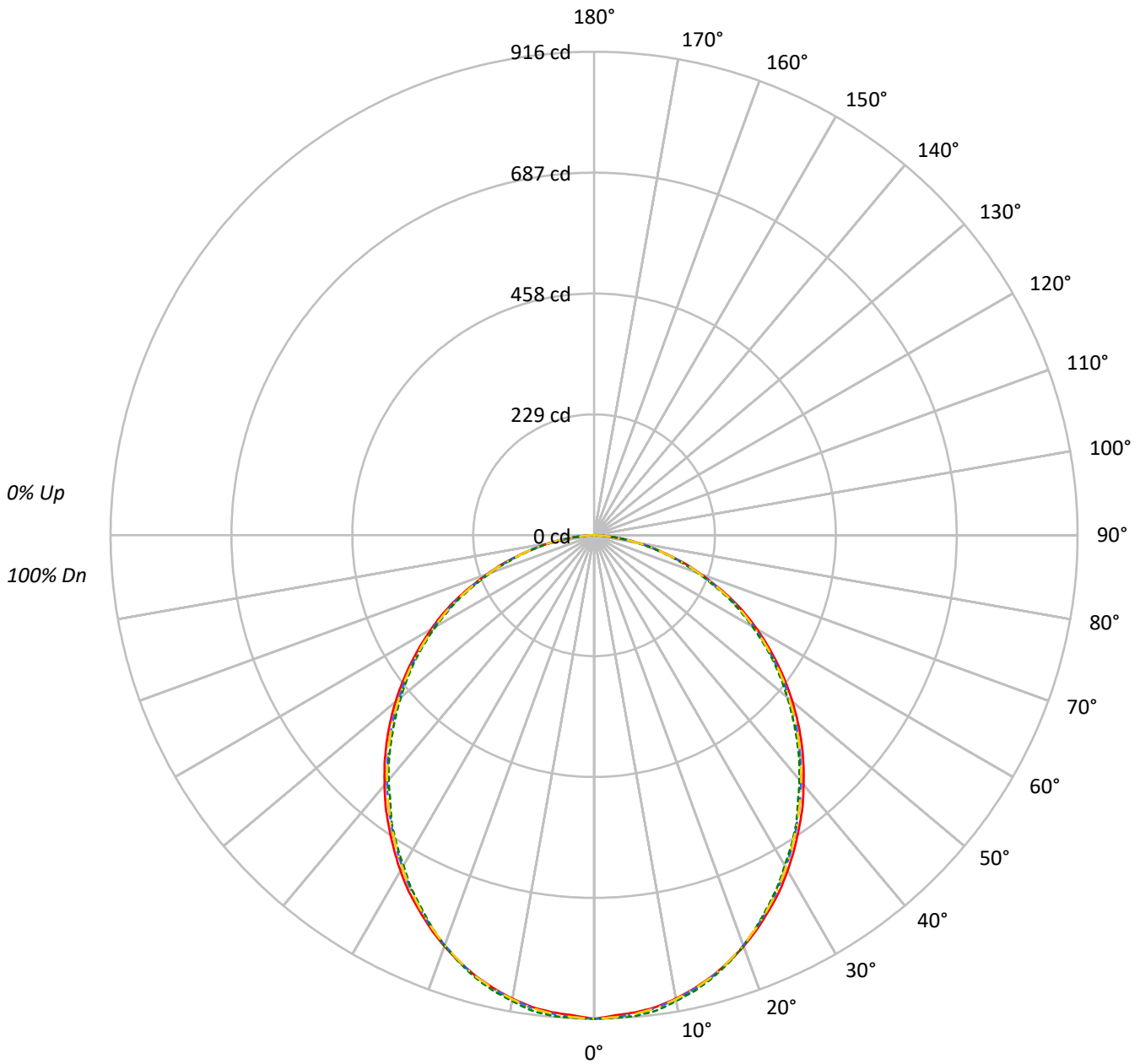
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2383.6 lumens
Efficiency: N/A
Efficacy: 73.3 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): 32.5
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

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Luminous Intensity Polar Plot



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



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8453	8453	8453	8453
5°	8402	8464	8402	8464
10°	8352	8394	8352	8394
15°	8259	8292	8259	8292
20°	8138	8128	8138	8128
25°	7983	7914	7983	7914
30°	7818	7698	7818	7698
35°	7623	7522	7623	7522
40°	7437	7289	7437	7289
45°	7255	7078	7255	7078
50°	7049	6857	7049	6857
55°	6820	6658	6820	6658
60°	6584	6399	6584	6399
65°	6300	6106	6300	6106
70°	5824	5643	5824	5643
75°	5265	5105	5265	5105
80°	4516	4399	4516	4399
85°	3430	3430	3430	3430



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	3.6
10°-20°	244.2	10.2
20°-30°	359.9	15.1
30°-40°	420.1	17.6
40°-50°	423.6	17.8
50°-60°	374.4	15.7
60°-70°	280.0	11.7
70°-80°	155.2	6.5
80°-90°	39.8	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°	690.6	29.0
0°-40°	1110.7	46.6
0°-60°	1908.7	80.1
0°-90°	2383.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2383.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	916	916	916	916	916	
5°	907	914	907	914	907	86
15°	865	868	865	868	865	244
25°	784	777	784	777	784	361
35°	677	668	677	668	677	424
45°	556	542	556	542	556	429
55°	424	414	424	414	424	379
65°	289	280	289	280	289	284
75°	148	143	148	143	148	157
85°	32	32	32	32	32	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2
2.5°	910.6	915.0	919.5	918.4	915.0	912.8	913.9	913.9	915.0	915.0	915.0
5°	907.2	911.7	915.0	913.9	910.6	909.4	909.4	909.4	911.7	913.9	911.7
7.5°	901.6	905.0	908.3	907.2	903.9	902.7	902.7	903.9	906.1	908.3	906.1
10°	891.5	896.0	899.4	897.1	893.8	891.5	891.5	891.5	893.8	896.0	893.8
12.5°	879.2	882.6	886.0	884.8	881.5	879.2	879.2	879.2	881.5	883.7	881.5
15°	864.7	868.1	871.4	870.3	866.9	864.7	864.7	864.7	866.9	868.1	866.9
17.5°	847.9	851.3	854.6	852.4	847.9	845.7	845.7	845.7	847.9	849.0	847.9
20°	828.9	832.3	834.5	832.3	827.8	825.5	824.4	824.4	826.7	827.8	826.7
22.5°	807.6	809.9	812.1	809.9	805.4	803.2	802.1	800.9	802.1	803.2	802.1
25°	784.2	786.4	788.6	786.4	781.9	778.6	777.4	776.3	777.4	777.4	777.4
27.5°	760.7	761.8	764.0	760.7	756.2	752.8	751.7	750.6	751.7	751.7	751.7
30°	733.8	734.9	737.2	733.8	728.2	724.9	723.8	722.6	722.6	722.6	722.6
32.5°	705.9	708.1	710.3	705.9	700.3	696.9	695.8	694.7	695.8	695.8	695.8
35°	676.8	677.9	680.1	676.8	671.2	667.8	665.6	664.5	666.7	667.8	666.7
37.5°	648.8	649.9	651.0	647.7	642.1	638.7	636.5	635.4	634.3	634.3	634.3
40°	617.5	618.6	620.8	617.5	611.9	608.5	606.3	605.2	605.2	605.2	605.2
42.5°	587.3	588.4	589.5	586.2	580.6	577.2	575.0	573.9	575.0	575.0	575.0
45°	556.0	556.0	557.1	553.7	549.2	545.9	543.7	542.5	542.5	542.5	542.5
47.5°	523.5	524.6	525.8	522.4	517.9	514.6	512.3	510.1	510.1	510.1	510.1
50°	491.1	491.1	492.2	488.8	484.4	481.0	479.9	478.8	477.7	477.7	477.7
52.5°	457.5	458.6	459.8	456.4	453.0	449.7	447.5	446.3	446.3	446.3	446.3
55°	424.0	424.0	425.1	422.8	419.5	416.1	413.9	412.8	413.9	413.9	413.9
57.5°	390.4	391.5	392.6	389.3	385.9	382.6	381.5	380.3	380.3	380.3	380.3
60°	356.8	356.8	358.0	355.7	352.4	349.0	347.9	346.8	346.8	346.8	346.8
62.5°	323.3	323.3	324.4	322.2	318.8	315.5	314.3	313.2	313.2	313.2	313.2
65°	288.6	288.6	288.6	286.4	284.1	283.0	281.9	280.8	279.7	279.7	279.7
67.5°	250.6	250.6	251.7	249.5	247.2	246.1	245.0	243.9	242.7	242.7	242.7
70°	215.9	215.9	217.0	215.9	213.7	212.5	211.4	210.3	209.2	209.2	209.2
72.5°	182.3	182.3	182.3	181.2	180.1	179.0	177.9	176.7	175.6	175.6	175.6
75°	147.7	147.7	148.8	147.7	146.5	145.4	144.3	144.3	143.2	143.2	143.2
77.5°	115.2	116.3	117.5	116.3	115.2	114.1	113.0	113.0	111.9	111.9	111.9
80°	85.0	86.1	87.3	86.1	85.0	83.9	82.8	82.8	82.8	82.8	82.8
82.5°	57.1	58.2	59.3	58.2	57.1	57.1	55.9	55.9	55.9	55.9	55.9
85°	32.4	33.6	34.7	34.7	33.6	33.6	32.4	32.4	32.4	32.4	32.4
87.5°	12.3	13.4	14.5	14.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2
2.5°	913.9	913.9	912.8	915.0	918.4	919.5	915.0	910.6	915.0	919.5	918.4
5°	909.4	909.4	909.4	910.6	913.9	915.0	911.7	907.2	911.7	915.0	913.9
7.5°	903.9	902.7	902.7	903.9	907.2	908.3	905.0	901.6	905.0	908.3	907.2
10°	891.5	891.5	891.5	893.8	897.1	899.4	896.0	891.5	896.0	899.4	897.1
12.5°	879.2	879.2	879.2	881.5	884.8	886.0	882.6	879.2	882.6	886.0	884.8
15°	864.7	864.7	864.7	866.9	870.3	871.4	868.1	864.7	868.1	871.4	870.3
17.5°	845.7	845.7	845.7	847.9	852.4	854.6	851.3	847.9	851.3	854.6	852.4
20°	824.4	824.4	825.5	827.8	832.3	834.5	832.3	828.9	832.3	834.5	832.3
22.5°	800.9	802.1	803.2	805.4	809.9	812.1	809.9	807.6	809.9	812.1	809.9
25°	776.3	777.4	778.6	781.9	786.4	788.6	786.4	784.2	786.4	788.6	786.4
27.5°	750.6	751.7	752.8	756.2	760.7	764.0	761.8	760.7	761.8	764.0	760.7
30°	722.6	723.8	724.9	728.2	733.8	737.2	734.9	733.8	734.9	737.2	733.8
32.5°	694.7	695.8	696.9	700.3	705.9	710.3	708.1	705.9	708.1	710.3	705.9
35°	664.5	665.6	667.8	671.2	676.8	680.1	677.9	676.8	677.9	680.1	676.8
37.5°	635.4	636.5	638.7	642.1	647.7	651.0	649.9	648.8	649.9	651.0	647.7
40°	605.2	606.3	608.5	611.9	617.5	620.8	618.6	617.5	618.6	620.8	617.5
42.5°	573.9	575.0	577.2	580.6	586.2	589.5	588.4	587.3	588.4	589.5	586.2
45°	542.5	543.7	545.9	549.2	553.7	557.1	556.0	556.0	556.0	557.1	553.7
47.5°	510.1	512.3	514.6	517.9	522.4	525.8	524.6	523.5	524.6	525.8	522.4
50°	478.8	479.9	481.0	484.4	488.8	492.2	491.1	491.1	491.1	492.2	488.8
52.5°	446.3	447.5	449.7	453.0	456.4	459.8	458.6	457.5	458.6	459.8	456.4
55°	412.8	413.9	416.1	419.5	422.8	425.1	424.0	424.0	424.0	425.1	422.8
57.5°	380.3	381.5	382.6	385.9	389.3	392.6	391.5	390.4	391.5	392.6	389.3
60°	346.8	347.9	349.0	352.4	355.7	358.0	356.8	356.8	356.8	358.0	355.7
62.5°	313.2	314.3	315.5	318.8	322.2	324.4	323.3	323.3	323.3	324.4	322.2
65°	280.8	281.9	283.0	284.1	286.4	288.6	288.6	288.6	288.6	288.6	286.4
67.5°	243.9	245.0	246.1	247.2	249.5	251.7	250.6	250.6	250.6	251.7	249.5
70°	210.3	211.4	212.5	213.7	215.9	217.0	215.9	215.9	215.9	217.0	215.9
72.5°	176.7	177.9	179.0	180.1	181.2	182.3	182.3	182.3	182.3	182.3	181.2
75°	144.3	144.3	145.4	146.5	147.7	148.8	147.7	147.7	147.7	148.8	147.7
77.5°	113.0	113.0	114.1	115.2	116.3	117.5	116.3	115.2	116.3	117.5	116.3
80°	82.8	82.8	83.9	85.0	86.1	87.3	86.1	85.0	86.1	87.3	86.1
82.5°	55.9	55.9	57.1	57.1	58.2	59.3	58.2	57.1	58.2	59.3	58.2
85°	32.4	32.4	33.6	33.6	34.7	34.7	33.6	32.4	33.6	34.7	34.7
87.5°	13.4	13.4	13.4	13.4	14.5	14.5	13.4	12.3	13.4	14.5	14.5
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2	916.2
2.5°	915.0	912.8	913.9	913.9	915.0	915.0	915.0	913.9	913.9	912.8	915.0
5°	910.6	909.4	909.4	909.4	911.7	913.9	911.7	909.4	909.4	909.4	910.6
7.5°	903.9	902.7	902.7	903.9	906.1	908.3	906.1	903.9	902.7	902.7	903.9
10°	893.8	891.5	891.5	891.5	893.8	896.0	893.8	891.5	891.5	891.5	893.8
12.5°	881.5	879.2	879.2	879.2	881.5	883.7	881.5	879.2	879.2	879.2	881.5
15°	866.9	864.7	864.7	864.7	866.9	868.1	866.9	864.7	864.7	864.7	866.9
17.5°	847.9	845.7	845.7	845.7	847.9	849.0	847.9	845.7	845.7	845.7	847.9
20°	827.8	825.5	824.4	824.4	826.7	827.8	826.7	824.4	824.4	825.5	827.8
22.5°	805.4	803.2	802.1	800.9	802.1	803.2	802.1	800.9	802.1	803.2	805.4
25°	781.9	778.6	777.4	776.3	777.4	777.4	777.4	776.3	777.4	778.6	781.9
27.5°	756.2	752.8	751.7	750.6	751.7	751.7	751.7	750.6	751.7	752.8	756.2
30°	728.2	724.9	723.8	722.6	722.6	722.6	722.6	722.6	723.8	724.9	728.2
32.5°	700.3	696.9	695.8	694.7	695.8	695.8	695.8	694.7	695.8	696.9	700.3
35°	671.2	667.8	665.6	664.5	666.7	667.8	666.7	664.5	665.6	667.8	671.2
37.5°	642.1	638.7	636.5	635.4	634.3	634.3	634.3	635.4	636.5	638.7	642.1
40°	611.9	608.5	606.3	605.2	605.2	605.2	605.2	605.2	606.3	608.5	611.9
42.5°	580.6	577.2	575.0	573.9	575.0	575.0	575.0	573.9	575.0	577.2	580.6
45°	549.2	545.9	543.7	542.5	542.5	542.5	542.5	542.5	543.7	545.9	549.2
47.5°	517.9	514.6	512.3	510.1	510.1	510.1	510.1	510.1	512.3	514.6	517.9
50°	484.4	481.0	479.9	478.8	477.7	477.7	477.7	478.8	479.9	481.0	484.4
52.5°	453.0	449.7	447.5	446.3	446.3	446.3	446.3	446.3	447.5	449.7	453.0
55°	419.5	416.1	413.9	412.8	413.9	413.9	413.9	412.8	413.9	416.1	419.5
57.5°	385.9	382.6	381.5	380.3	380.3	380.3	380.3	380.3	381.5	382.6	385.9
60°	352.4	349.0	347.9	346.8	346.8	346.8	346.8	346.8	347.9	349.0	352.4
62.5°	318.8	315.5	314.3	313.2	313.2	313.2	313.2	313.2	314.3	315.5	318.8
65°	284.1	283.0	281.9	280.8	279.7	279.7	279.7	280.8	281.9	283.0	284.1
67.5°	247.2	246.1	245.0	243.9	242.7	242.7	242.7	243.9	245.0	246.1	247.2
70°	213.7	212.5	211.4	210.3	209.2	209.2	209.2	210.3	211.4	212.5	213.7
72.5°	180.1	179.0	177.9	176.7	175.6	175.6	175.6	176.7	177.9	179.0	180.1
75°	146.5	145.4	144.3	144.3	143.2	143.2	143.2	144.3	144.3	145.4	146.5
77.5°	115.2	114.1	113.0	113.0	111.9	111.9	111.9	113.0	113.0	114.1	115.2
80°	85.0	83.9	82.8	82.8	82.8	82.8	82.8	82.8	82.8	83.9	85.0
82.5°	57.1	57.1	55.9	55.9	55.9	55.9	55.9	55.9	55.9	57.1	57.1
85°	33.6	33.6	32.4	32.4	32.4	32.4	32.4	32.4	32.4	33.6	33.6
87.5°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
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):

	330°	340°	350°	360°
0°	916.2	916.2	916.2	916.2
2.5°	918.4	919.5	915.0	910.6
5°	913.9	915.0	911.7	907.2
7.5°	907.2	908.3	905.0	901.6
10°	897.1	899.4	896.0	891.5
12.5°	884.8	886.0	882.6	879.2
15°	870.3	871.4	868.1	864.7
17.5°	852.4	854.6	851.3	847.9
20°	832.3	834.5	832.3	828.9
22.5°	809.9	812.1	809.9	807.6
25°	786.4	788.6	786.4	784.2
27.5°	760.7	764.0	761.8	760.7
30°	733.8	737.2	734.9	733.8
32.5°	705.9	710.3	708.1	705.9
35°	676.8	680.1	677.9	676.8
37.5°	647.7	651.0	649.9	648.8
40°	617.5	620.8	618.6	617.5
42.5°	586.2	589.5	588.4	587.3
45°	553.7	557.1	556.0	556.0
47.5°	522.4	525.8	524.6	523.5
50°	488.8	492.2	491.1	491.1
52.5°	456.4	459.8	458.6	457.5
55°	422.8	425.1	424.0	424.0
57.5°	389.3	392.6	391.5	390.4
60°	355.7	358.0	356.8	356.8
62.5°	322.2	324.4	323.3	323.3
65°	286.4	288.6	288.6	288.6
67.5°	249.5	251.7	250.6	250.6
70°	215.9	217.0	215.9	215.9
72.5°	181.2	182.3	182.3	182.3
75°	147.7	148.8	147.7	147.7
77.5°	116.3	117.5	116.3	115.2
80°	86.1	87.3	86.1	85.0
82.5°	58.2	59.3	58.2	57.1
85°	34.7	34.7	33.6	32.4
87.5°	14.5	14.5	13.4	12.3
90°	0.0	0.0	0.0	0.0

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