

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: P

Luminaire Tested: **4APN-32L935-X-UNV-NP**

Issue Date: 06/06/2024



**Test Information**

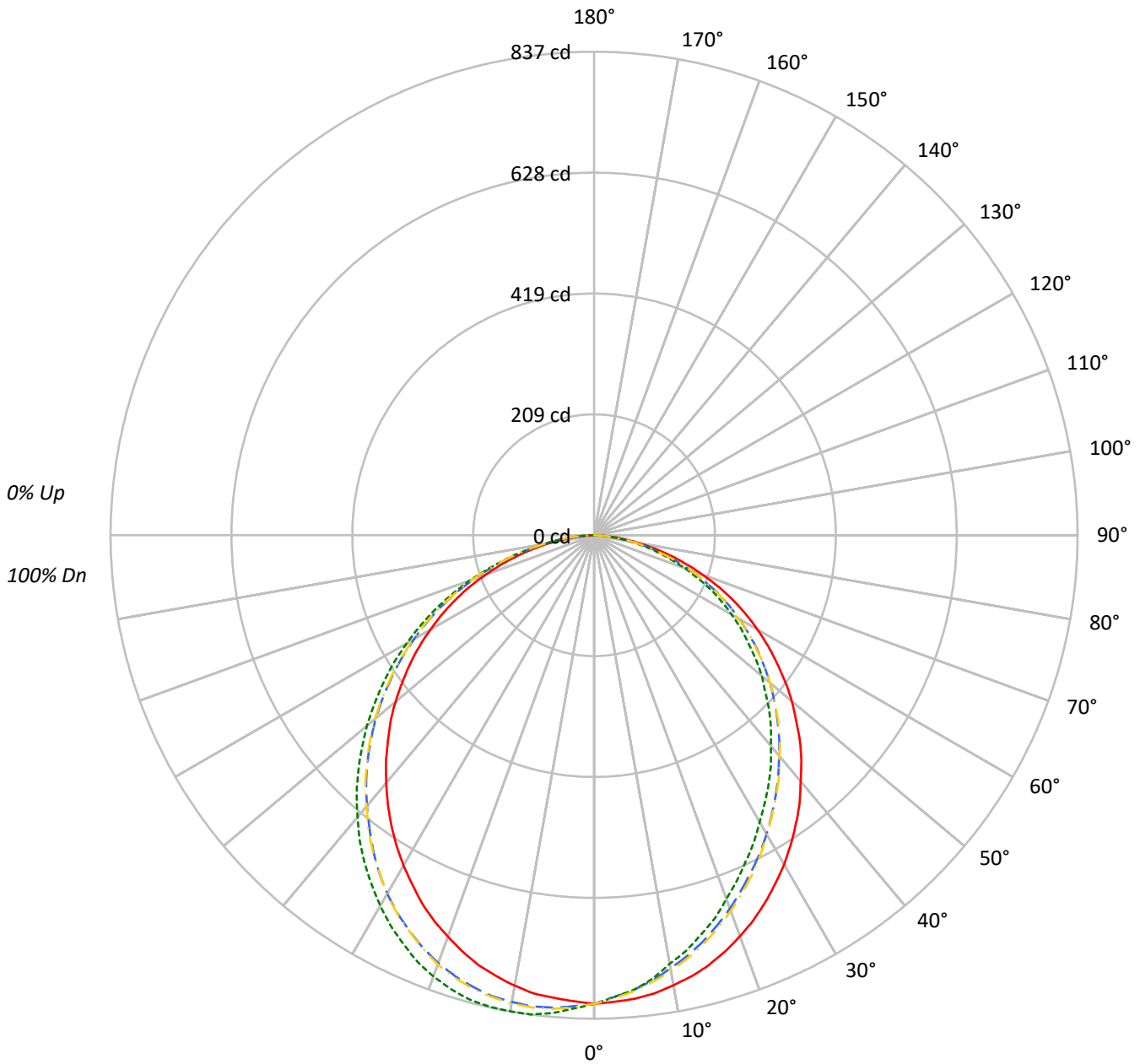
Test Method: LM-79-08  
Report Number: P  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 06/06/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN-32L935-X-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient Light w/ Nature Pattern Lens  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2175.4 lumens  
Efficiency: N/A  
Efficacy: 59.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	7484	7484	7484	7484
5°	7461	7317	7444	7691
10°	7411	7058	7419	7840
15°	7354	6836	7362	7949
20°	7252	6576	7261	7981
25°	7136	6333	7165	7949
30°	7009	6110	7029	7889
35°	6863	5931	6893	7803
40°	6698	5735	6741	7670
45°	6573	5591	6585	7531
50°	6415	5439	6440	7362
55°	6214	5239	6259	7158
60°	6028	5080	6045	6907
65°	5790	4866	5790	6610
70°	5398	4505	5374	6164
75°	4909	4089	4841	5529
80°	4240	3512	4096	4729
85°	3303	2625	3102	3885



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.6	3.5
10°-20°	217.5	10.0
20°-30°	323.4	14.9
30°-40°	381.1	17.5
40°-50°	388.1	17.8
50°-60°	345.7	15.9
60°-70°	260.5	12.0
70°-80°	144.8	6.7
80°-90°	37.6	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°	617.5	28.4
0°-40°	998.7	45.9
0°-60°	1732.5	79.6
0°-90°	2175.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2175.4	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	811	811	811	811	811	
5°	806	790	804	830	806	76
15°	770	716	771	832	770	217
25°	701	622	704	781	701	323
35°	609	527	612	693	609	381
45°	504	428	505	577	504	388
55°	386	326	389	445	386	346
65°	265	223	265	303	265	262
75°	138	115	136	155	138	146
85°	31	25	29	37	31	38
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°	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2
2.5°	808.4	808.4	809.3	805.6	801.0	799.2	798.3	797.3	799.2	800.1	799.2
5°	805.6	803.8	802.0	797.3	791.9	788.2	786.4	785.5	787.3	790.1	787.3
7.5°	800.1	796.4	792.8	786.4	779.9	774.5	771.7	769.9	771.7	774.5	772.6
10°	791.0	786.4	780.8	773.6	764.3	757.9	755.2	752.4	753.4	753.4	753.4
12.5°	781.8	775.3	768.9	759.7	749.7	742.3	737.7	734.1	735.9	736.8	736.8
15°	769.9	761.6	752.4	742.3	732.3	724.0	718.4	714.8	715.7	715.7	716.7
17.5°	755.2	746.0	736.8	724.9	713.0	703.8	697.4	692.8	694.6	695.6	696.5
20°	738.6	728.6	718.4	705.6	692.8	682.6	676.3	670.8	669.8	669.8	670.8
22.5°	721.2	710.2	698.2	684.5	670.8	659.8	653.3	647.8	646.9	646.9	647.8
25°	701.0	689.1	677.2	663.4	648.7	637.7	629.4	623.9	623.0	622.1	623.9
27.5°	679.9	668.0	656.1	642.3	626.7	615.7	607.4	602.0	600.1	599.2	601.1
30°	657.9	644.1	631.3	616.6	602.8	591.8	583.5	577.2	575.3	573.5	575.3
32.5°	634.1	620.3	606.5	591.8	578.1	567.0	558.8	552.4	550.5	549.6	551.4
35°	609.3	595.5	582.7	568.0	554.2	543.2	534.9	529.4	527.6	526.6	527.6
37.5°	584.5	570.7	557.9	543.2	529.4	518.4	510.1	504.7	503.8	502.9	503.8
40°	556.1	544.2	531.3	517.5	503.8	492.7	486.4	479.9	478.1	476.2	479.0
42.5°	531.3	519.4	506.5	493.6	479.9	468.8	461.6	456.0	454.2	453.3	454.2
45°	503.8	490.9	478.1	466.2	453.3	443.2	435.8	430.3	429.5	428.5	429.5
47.5°	474.4	463.4	452.3	440.4	427.6	417.5	411.1	405.6	403.7	401.9	403.7
50°	446.9	435.8	424.9	413.8	401.9	392.7	386.3	380.8	379.9	378.9	379.9
52.5°	417.5	406.5	396.4	385.4	375.3	366.1	359.7	355.1	354.1	353.3	354.1
55°	386.3	377.1	368.0	358.8	348.7	340.4	334.9	329.4	327.6	325.7	327.6
57.5°	356.9	348.7	339.5	330.4	321.1	313.8	308.3	303.7	302.8	301.9	302.8
60°	326.7	319.3	311.1	302.8	293.7	286.3	281.7	278.0	276.2	275.3	276.2
62.5°	296.4	289.0	282.6	274.4	266.1	260.6	256.0	252.4	250.5	249.6	250.5
65°	265.2	258.7	252.4	245.0	238.6	233.1	228.5	224.8	223.9	222.9	222.9
67.5°	233.1	227.5	222.0	215.7	208.3	202.7	198.2	195.5	194.5	193.6	194.5
70°	200.1	195.5	189.9	184.4	179.0	174.4	171.6	168.8	167.9	167.0	167.0
72.5°	168.8	165.1	160.6	156.0	151.4	146.8	144.0	142.3	141.3	140.4	140.4
75°	137.7	134.0	131.2	127.5	123.0	120.2	117.5	115.6	114.7	114.7	114.7
77.5°	108.2	105.5	102.8	99.1	96.3	93.6	91.7	90.8	89.9	89.9	89.9
80°	79.8	78.0	76.2	74.3	71.5	68.8	67.9	66.9	66.1	66.1	66.1
82.5°	54.1	53.2	51.4	49.5	47.8	46.8	45.9	45.0	45.0	45.0	45.0
85°	31.2	30.2	29.3	28.5	27.6	27.6	26.6	25.7	24.8	24.8	24.8
87.5°	12.8	12.8	12.8	11.9	11.0	11.0	11.0	11.0	11.0	11.0	11.0
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2
2.5°	797.3	799.2	801.0	803.8	806.6	809.3	808.4	807.5	811.2	815.7	816.6
5°	785.5	787.3	790.1	794.6	799.2	802.9	803.8	803.8	811.2	817.5	819.4
7.5°	770.8	773.6	777.2	781.8	788.2	793.7	796.4	800.1	807.5	815.7	819.4
10°	752.4	757.0	762.5	768.9	775.3	781.8	787.3	791.9	801.0	810.3	815.7
12.5°	735.9	740.5	746.0	753.4	761.6	769.9	775.3	781.8	792.8	803.8	810.3
15°	717.5	722.1	728.6	735.9	745.1	754.3	762.5	770.8	781.8	793.7	801.0
17.5°	697.4	701.9	708.4	717.5	727.6	737.7	746.9	756.0	768.9	781.8	790.1
20°	672.6	679.0	687.3	696.5	708.4	720.3	729.5	739.5	753.4	767.1	776.2
22.5°	648.7	655.2	664.3	675.4	688.2	701.0	712.1	723.0	737.7	751.5	761.6
25°	625.8	633.1	642.3	653.3	665.2	678.1	690.9	703.8	718.4	733.2	743.2
27.5°	602.8	609.3	618.5	629.4	643.2	656.1	668.9	681.7	697.4	713.0	724.0
30°	577.2	584.5	592.8	603.7	618.5	633.1	646.0	659.8	675.4	690.9	701.9
32.5°	553.3	559.7	568.0	579.0	593.7	608.3	622.1	636.8	651.5	667.1	678.1
35°	529.4	535.9	544.2	555.1	569.8	584.5	598.3	612.0	626.7	641.3	652.4
37.5°	505.6	512.0	520.3	531.3	545.1	559.7	572.6	586.3	601.1	615.7	625.8
40°	480.8	487.3	493.6	504.7	518.4	533.1	545.9	559.7	574.4	589.1	599.2
42.5°	456.0	462.5	470.7	481.7	494.6	507.4	520.3	533.1	546.8	560.7	570.7
45°	431.2	436.8	445.0	455.1	468.0	479.9	492.7	504.7	518.4	531.3	541.4
47.5°	405.6	411.1	417.5	427.6	440.4	453.3	466.2	478.1	490.0	502.9	512.0
50°	380.8	386.3	393.6	402.8	414.7	426.7	437.7	448.7	460.6	472.5	480.8
52.5°	355.1	360.6	367.0	376.2	386.3	397.3	407.4	418.4	429.5	440.4	448.7
55°	329.4	333.1	338.6	346.9	357.8	368.9	378.9	389.1	399.1	408.4	416.6
57.5°	303.7	308.3	314.8	322.1	331.3	340.4	349.6	358.8	368.0	377.1	384.5
60°	278.0	281.7	286.3	292.7	301.9	310.2	319.3	327.6	335.8	344.1	350.5
62.5°	251.4	255.1	259.6	266.1	273.5	280.7	289.0	296.4	303.7	311.1	317.4
65°	223.9	227.5	232.2	237.7	244.1	250.5	257.9	265.2	270.7	276.2	282.6
67.5°	195.5	199.2	203.7	208.3	213.8	220.2	226.6	233.1	238.6	244.1	248.7
70°	167.9	170.7	175.3	179.0	183.5	188.1	193.6	199.2	202.7	207.4	212.9
72.5°	141.3	144.0	147.7	151.4	154.2	157.8	163.3	167.9	172.5	178.0	180.8
75°	115.6	117.5	120.2	123.0	125.7	128.4	132.1	135.8	139.5	142.3	145.9
77.5°	89.9	91.7	94.5	96.3	98.2	100.0	102.8	105.5	108.2	110.1	113.8
80°	66.1	67.9	69.7	71.5	73.4	75.2	76.2	77.1	80.8	83.5	85.4
82.5°	45.0	45.9	46.8	48.6	49.5	50.4	51.4	51.4	53.2	55.0	57.8
85°	25.7	26.6	27.6	27.6	27.6	27.6	28.5	29.3	30.2	32.1	33.9
87.5°	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.9	13.7	14.7
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):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2
2.5°	815.7	816.6	818.5	819.4	820.3	820.3	821.2	822.1	820.3	818.5	817.5
5°	820.3	821.2	824.0	826.8	828.6	830.4	829.5	828.6	826.8	824.0	822.1
7.5°	821.2	824.0	826.8	830.4	833.1	836.8	835.0	833.1	829.5	825.8	823.1
10°	818.5	822.1	826.8	831.4	834.0	836.8	835.0	833.1	829.5	824.9	821.2
12.5°	814.8	819.4	824.9	829.5	832.2	835.9	833.1	830.4	825.8	821.2	816.6
15°	806.6	812.1	818.5	824.0	828.6	832.2	829.5	827.7	822.1	815.7	809.3
17.5°	796.4	803.8	810.3	816.6	820.3	824.0	822.1	820.3	813.8	806.6	799.2
20°	784.5	791.9	798.3	804.7	809.3	812.9	810.3	807.5	801.0	794.6	787.3
22.5°	769.9	777.2	784.5	791.0	795.5	799.2	795.5	791.0	784.5	778.1	770.8
25°	751.5	759.7	768.0	774.5	777.2	780.8	777.2	773.6	767.1	760.6	752.4
27.5°	733.2	741.4	749.7	756.0	758.8	762.5	758.8	755.2	748.8	742.3	734.1
30°	712.1	720.3	728.6	735.0	737.7	740.5	736.8	733.2	727.6	721.2	713.0
32.5°	688.2	696.5	702.8	709.3	713.0	716.7	713.0	710.2	703.8	695.6	687.3
35°	662.5	670.8	679.0	685.4	689.1	692.8	688.2	683.6	678.1	671.7	664.3
37.5°	634.1	643.2	652.4	659.8	662.5	666.1	662.5	657.9	652.4	646.0	637.7
40°	607.4	615.7	623.9	631.3	634.1	636.8	633.1	629.4	623.0	616.6	608.3
42.5°	579.9	588.1	595.5	602.0	604.6	608.3	604.6	600.1	595.5	590.0	582.7
45°	550.5	558.8	565.2	571.6	574.4	577.2	573.5	568.9	564.3	559.7	552.4
47.5°	520.3	527.6	534.0	540.5	542.3	545.1	541.4	538.6	534.0	529.4	523.1
50°	489.0	496.4	502.9	508.3	510.1	512.9	509.2	505.6	501.9	498.2	492.7
52.5°	456.9	463.4	469.8	475.3	477.1	479.0	475.3	471.6	468.0	464.3	458.8
55°	423.9	430.3	436.8	441.4	443.2	445.0	441.4	438.6	434.9	432.1	426.7
57.5°	390.9	397.3	402.8	407.4	409.3	411.1	407.4	403.7	401.0	398.2	393.6
60°	356.9	363.4	368.0	371.7	373.4	374.3	370.7	368.0	366.1	364.3	359.7
62.5°	323.9	328.5	333.1	335.8	337.6	338.6	335.8	334.0	332.2	330.4	326.7
65°	289.0	294.6	298.2	300.9	301.9	302.8	300.0	298.2	296.4	294.6	291.8
67.5°	254.2	258.7	261.5	264.2	265.2	265.2	265.2	264.2	262.4	259.6	257.0
70°	219.3	222.9	225.7	227.5	228.5	228.5	226.6	224.8	224.8	223.9	222.0
72.5°	183.5	186.2	188.1	189.9	189.9	189.9	189.9	190.9	189.9	188.1	185.3
75°	149.5	152.3	154.2	155.1	155.1	155.1	155.1	156.0	155.1	154.2	152.3
77.5°	117.5	119.3	120.2	121.2	121.2	121.2	122.1	123.0	122.1	121.2	120.2
80°	87.1	88.1	89.0	89.9	89.0	89.0	89.9	91.7	90.8	89.9	89.0
82.5°	59.7	60.6	61.5	61.5	62.4	63.3	63.3	63.3	63.3	62.4	61.5
85°	35.8	36.7	36.7	36.7	36.7	36.7	37.6	38.5	38.5	37.6	37.6
87.5°	16.5	17.4	16.5	15.6	14.7	14.7	16.5	18.3	18.3	17.4	17.4
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: P  
 CATALOG NUMBER: 4APN-32L935-X-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	811.2	811.2	811.2	811.2
2.5°	818.5	817.5	812.9	808.4
5°	821.2	818.5	812.1	805.6
7.5°	821.2	817.5	808.4	800.1
10°	816.6	811.2	801.0	791.0
12.5°	811.2	804.7	792.8	781.8
15°	802.9	795.5	782.7	769.9
17.5°	791.0	781.8	768.9	755.2
20°	779.0	768.9	753.4	738.6
22.5°	762.5	753.4	736.8	721.2
25°	744.1	734.1	717.5	701.0
27.5°	724.9	713.0	696.5	679.9
30°	702.8	690.9	674.4	657.9
32.5°	679.0	668.0	651.5	634.1
35°	655.2	643.2	626.7	609.3
37.5°	628.5	617.6	601.1	584.5
40°	600.1	589.1	572.6	556.1
42.5°	573.5	563.4	546.8	531.3
45°	544.2	534.0	518.4	503.8
47.5°	513.8	503.8	489.0	474.4
50°	484.5	474.4	460.6	446.9
52.5°	451.4	443.2	430.3	417.5
55°	419.3	411.1	398.2	386.3
57.5°	387.2	379.9	368.0	356.9
60°	353.3	345.9	336.7	326.7
62.5°	321.1	314.8	305.6	296.4
65°	287.2	281.7	273.5	265.2
67.5°	252.4	247.7	240.4	233.1
70°	217.5	212.0	206.4	200.1
72.5°	182.6	179.9	174.4	168.8
75°	149.5	146.8	142.3	137.7
77.5°	118.4	115.6	111.9	108.2
80°	87.1	85.4	82.6	79.8
82.5°	60.6	58.7	56.9	54.1
85°	36.7	34.9	33.0	31.2
87.5°	16.5	15.6	13.7	12.8
90°	0.0	0.0	0.0	0.0

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