

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-X-30L950-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-X-30L950-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

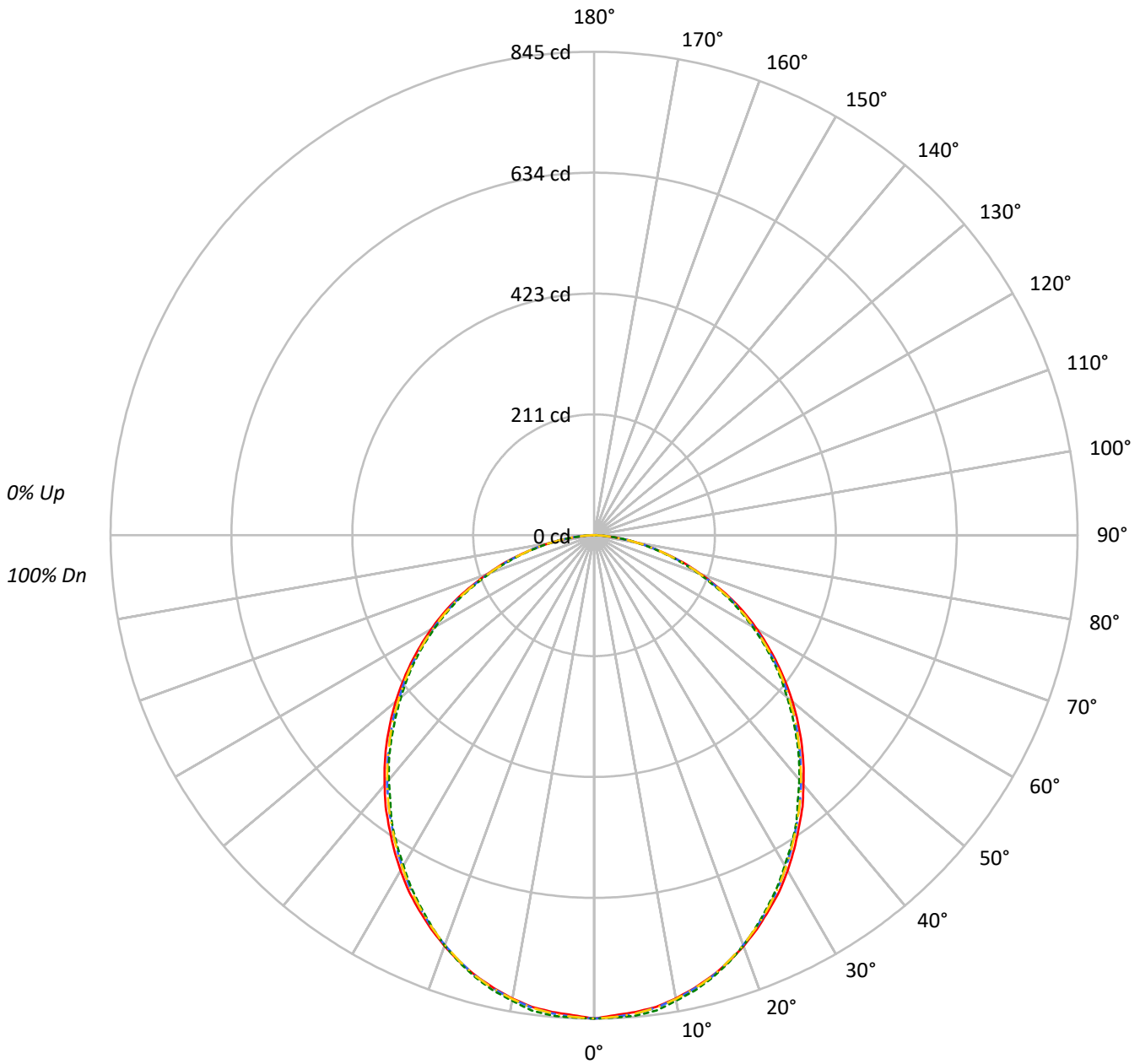
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2197.7 lumens
Efficiency: N/A
Efficacy: 67.6 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 (A_{in}): 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	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°	7793	7793	7793	7793
5°	7746	7804	7746	7804
10°	7701	7739	7701	7739
15°	7616	7645	7616	7645
20°	7503	7493	7503	7493
25°	7360	7297	7360	7297
30°	7208	7097	7208	7097
35°	7028	6935	7028	6935
40°	6857	6721	6857	6721
45°	6688	6527	6688	6527
50°	6499	6321	6499	6321
55°	6288	6138	6288	6138
60°	6071	5899	6071	5899
65°	5809	5630	5809	5630
70°	5371	5204	5371	5204
75°	4855	4705	4855	4705
80°	4166	4054	4166	4054
85°	3165	3165	3165	3165



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.7	3.6
10°-20°	225.1	10.2
20°-30°	331.8	15.1
30°-40°	387.4	17.6
40°-50°	390.6	17.8
50°-60°	345.2	15.7
60°-70°	258.1	11.7
70°-80°	143.1	6.5
80°-90°	36.7	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°	636.7	29.0
0°-40°	1024.1	46.6
0°-60°	1759.8	80.1
0°-90°	2197.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2197.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	845	845	845	845	845	
5°	836	843	836	843	836	79
15°	797	800	797	800	797	225
25°	723	717	723	717	723	333
35°	624	616	624	616	624	391
45°	513	500	513	500	513	395
55°	391	382	391	382	391	350
65°	266	258	266	258	266	262
75°	136	132	136	132	136	145
85°	30	30	30	30	30	36
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°	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7
2.5°	839.6	843.6	847.8	846.8	843.6	841.6	842.6	842.6	843.6	843.6	843.6
5°	836.4	840.6	843.6	842.6	839.6	838.5	838.5	838.5	840.6	842.6	840.6
7.5°	831.3	834.4	837.5	836.4	833.4	832.3	832.3	833.4	835.4	837.5	835.4
10°	822.0	826.1	829.2	827.1	824.1	822.0	822.0	822.0	824.1	826.1	824.1
12.5°	810.6	813.8	816.9	815.8	812.7	810.6	810.6	810.6	812.7	814.8	812.7
15°	797.3	800.4	803.4	802.4	799.3	797.3	797.3	797.3	799.3	800.4	799.3
17.5°	781.8	784.9	787.9	785.9	781.8	779.7	779.7	779.7	781.8	782.8	781.8
20°	764.2	767.4	769.4	767.4	763.2	761.1	760.1	760.1	762.2	763.2	762.2
22.5°	744.6	746.7	748.8	746.7	742.6	740.6	739.5	738.4	739.5	740.6	739.5
25°	723.0	725.1	727.1	725.1	720.9	717.9	716.8	715.7	716.8	716.8	716.8
27.5°	701.4	702.4	704.4	701.4	697.2	694.1	693.1	692.1	693.1	693.1	693.1
30°	676.6	677.6	679.7	676.6	671.4	668.4	667.3	666.2	666.2	666.2	666.2
32.5°	650.8	652.9	654.9	650.8	645.7	642.5	641.5	640.5	641.5	641.5	641.5
35°	624.0	625.0	627.1	624.0	618.8	615.7	613.7	612.7	614.7	615.7	614.7
37.5°	598.2	599.2	600.2	597.2	592.0	588.9	586.9	585.8	584.8	584.8	584.8
40°	569.3	570.3	572.4	569.3	564.2	561.0	559.0	558.0	558.0	558.0	558.0
42.5°	541.5	542.5	543.5	540.5	535.3	532.2	530.1	529.1	530.1	530.1	530.1
45°	512.6	512.6	513.6	510.5	506.4	503.3	501.3	500.2	500.2	500.2	500.2
47.5°	482.7	483.7	484.8	481.7	477.5	474.5	472.3	470.3	470.3	470.3	470.3
50°	452.8	452.8	453.8	450.7	446.6	443.5	442.5	441.5	440.4	440.4	440.4
52.5°	421.8	422.8	423.9	420.8	417.7	414.6	412.6	411.5	411.5	411.5	411.5
55°	390.9	390.9	391.9	389.8	386.8	383.6	381.6	380.6	381.6	381.6	381.6
57.5°	359.9	361.0	362.0	358.9	355.8	352.8	351.7	350.6	350.6	350.6	350.6
60°	329.0	329.0	330.1	328.0	324.9	321.8	320.8	319.7	319.7	319.7	319.7
62.5°	298.1	298.1	299.1	297.1	293.9	290.9	289.8	288.8	288.8	288.8	288.8
65°	266.1	266.1	266.1	264.1	261.9	260.9	259.9	258.9	257.9	257.9	257.9
67.5°	231.1	231.1	232.1	230.0	227.9	226.9	225.9	224.9	223.8	223.8	223.8
70°	199.1	199.1	200.1	199.1	197.0	195.9	194.9	193.9	192.9	192.9	192.9
72.5°	168.1	168.1	168.1	167.1	166.1	165.0	164.0	162.9	161.9	161.9	161.9
75°	136.2	136.2	137.2	136.2	135.1	134.1	133.0	133.0	132.0	132.0	132.0
77.5°	106.2	107.2	108.3	107.2	106.2	105.2	104.2	104.2	103.2	103.2	103.2
80°	78.4	79.4	80.5	79.4	78.4	77.4	76.3	76.3	76.3	76.3	76.3
82.5°	52.6	53.7	54.7	53.7	52.6	52.6	51.5	51.5	51.5	51.5	51.5
85°	29.9	31.0	32.0	32.0	31.0	31.0	29.9	29.9	29.9	29.9	29.9
87.5°	11.3	12.4	13.4	13.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
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°	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7
2.5°	842.6	842.6	841.6	843.6	846.8	847.8	843.6	839.6	843.6	847.8	846.8
5°	838.5	838.5	838.5	839.6	842.6	843.6	840.6	836.4	840.6	843.6	842.6
7.5°	833.4	832.3	832.3	833.4	836.4	837.5	834.4	831.3	834.4	837.5	836.4
10°	822.0	822.0	822.0	824.1	827.1	829.2	826.1	822.0	826.1	829.2	827.1
12.5°	810.6	810.6	810.6	812.7	815.8	816.9	813.8	810.6	813.8	816.9	815.8
15°	797.3	797.3	797.3	799.3	802.4	803.4	800.4	797.3	800.4	803.4	802.4
17.5°	779.7	779.7	779.7	781.8	785.9	787.9	784.9	781.8	784.9	787.9	785.9
20°	760.1	760.1	761.1	763.2	767.4	769.4	767.4	764.2	767.4	769.4	767.4
22.5°	738.4	739.5	740.6	742.6	746.7	748.8	746.7	744.6	746.7	748.8	746.7
25°	715.7	716.8	717.9	720.9	725.1	727.1	725.1	723.0	725.1	727.1	725.1
27.5°	692.1	693.1	694.1	697.2	701.4	704.4	702.4	701.4	702.4	704.4	701.4
30°	666.2	667.3	668.4	671.4	676.6	679.7	677.6	676.6	677.6	679.7	676.6
32.5°	640.5	641.5	642.5	645.7	650.8	654.9	652.9	650.8	652.9	654.9	650.8
35°	612.7	613.7	615.7	618.8	624.0	627.1	625.0	624.0	625.0	627.1	624.0
37.5°	585.8	586.9	588.9	592.0	597.2	600.2	599.2	598.2	599.2	600.2	597.2
40°	558.0	559.0	561.0	564.2	569.3	572.4	570.3	569.3	570.3	572.4	569.3
42.5°	529.1	530.1	532.2	535.3	540.5	543.5	542.5	541.5	542.5	543.5	540.5
45°	500.2	501.3	503.3	506.4	510.5	513.6	512.6	512.6	512.6	513.6	510.5
47.5°	470.3	472.3	474.5	477.5	481.7	484.8	483.7	482.7	483.7	484.8	481.7
50°	441.5	442.5	443.5	446.6	450.7	453.8	452.8	452.8	452.8	453.8	450.7
52.5°	411.5	412.6	414.6	417.7	420.8	423.9	422.8	421.8	422.8	423.9	420.8
55°	380.6	381.6	383.6	386.8	389.8	391.9	390.9	390.9	390.9	391.9	389.8
57.5°	350.6	351.7	352.8	355.8	358.9	362.0	361.0	359.9	361.0	362.0	358.9
60°	319.7	320.8	321.8	324.9	328.0	330.1	329.0	329.0	329.0	330.1	328.0
62.5°	288.8	289.8	290.9	293.9	297.1	299.1	298.1	298.1	298.1	299.1	297.1
65°	258.9	259.9	260.9	261.9	264.1	266.1	266.1	266.1	266.1	266.1	264.1
67.5°	224.9	225.9	226.9	227.9	230.0	232.1	231.1	231.1	231.1	232.1	230.0
70°	193.9	194.9	195.9	197.0	199.1	200.1	199.1	199.1	199.1	200.1	199.1
72.5°	162.9	164.0	165.0	166.1	167.1	168.1	168.1	168.1	168.1	168.1	167.1
75°	133.0	133.0	134.1	135.1	136.2	137.2	136.2	136.2	136.2	137.2	136.2
77.5°	104.2	104.2	105.2	106.2	107.2	108.3	107.2	106.2	107.2	108.3	107.2
80°	76.3	76.3	77.4	78.4	79.4	80.5	79.4	78.4	79.4	80.5	79.4
82.5°	51.5	51.5	52.6	52.6	53.7	54.7	53.7	52.6	53.7	54.7	53.7
85°	29.9	29.9	31.0	31.0	32.0	32.0	31.0	29.9	31.0	32.0	32.0
87.5°	12.4	12.4	12.4	12.4	13.4	13.4	12.4	11.3	12.4	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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7	844.7
2.5°	843.6	841.6	842.6	842.6	843.6	843.6	843.6	842.6	842.6	841.6	843.6
5°	839.6	838.5	838.5	838.5	840.6	842.6	840.6	838.5	838.5	838.5	839.6
7.5°	833.4	832.3	832.3	833.4	835.4	837.5	835.4	833.4	832.3	832.3	833.4
10°	824.1	822.0	822.0	822.0	824.1	826.1	824.1	822.0	822.0	822.0	824.1
12.5°	812.7	810.6	810.6	810.6	812.7	814.8	812.7	810.6	810.6	810.6	812.7
15°	799.3	797.3	797.3	797.3	799.3	800.4	799.3	797.3	797.3	797.3	799.3
17.5°	781.8	779.7	779.7	779.7	781.8	782.8	781.8	779.7	779.7	779.7	781.8
20°	763.2	761.1	760.1	760.1	762.2	763.2	762.2	760.1	760.1	761.1	763.2
22.5°	742.6	740.6	739.5	738.4	739.5	740.6	739.5	738.4	739.5	740.6	742.6
25°	720.9	717.9	716.8	715.7	716.8	716.8	716.8	715.7	716.8	717.9	720.9
27.5°	697.2	694.1	693.1	692.1	693.1	693.1	693.1	692.1	693.1	694.1	697.2
30°	671.4	668.4	667.3	666.2	666.2	666.2	666.2	666.2	667.3	668.4	671.4
32.5°	645.7	642.5	641.5	640.5	641.5	641.5	641.5	640.5	641.5	642.5	645.7
35°	618.8	615.7	613.7	612.7	614.7	615.7	614.7	612.7	613.7	615.7	618.8
37.5°	592.0	588.9	586.9	585.8	584.8	584.8	584.8	585.8	586.9	588.9	592.0
40°	564.2	561.0	559.0	558.0	558.0	558.0	558.0	558.0	559.0	561.0	564.2
42.5°	535.3	532.2	530.1	529.1	530.1	530.1	530.1	529.1	530.1	532.2	535.3
45°	506.4	503.3	501.3	500.2	500.2	500.2	500.2	500.2	501.3	503.3	506.4
47.5°	477.5	474.5	472.3	470.3	470.3	470.3	470.3	470.3	472.3	474.5	477.5
50°	446.6	443.5	442.5	441.5	440.4	440.4	440.4	441.5	442.5	443.5	446.6
52.5°	417.7	414.6	412.6	411.5	411.5	411.5	411.5	411.5	412.6	414.6	417.7
55°	386.8	383.6	381.6	380.6	381.6	381.6	381.6	380.6	381.6	383.6	386.8
57.5°	355.8	352.8	351.7	350.6	350.6	350.6	350.6	350.6	351.7	352.8	355.8
60°	324.9	321.8	320.8	319.7	319.7	319.7	319.7	319.7	320.8	321.8	324.9
62.5°	293.9	290.9	289.8	288.8	288.8	288.8	288.8	288.8	289.8	290.9	293.9
65°	261.9	260.9	259.9	258.9	257.9	257.9	257.9	258.9	259.9	260.9	261.9
67.5°	227.9	226.9	225.9	224.9	223.8	223.8	223.8	224.9	225.9	226.9	227.9
70°	197.0	195.9	194.9	193.9	192.9	192.9	192.9	193.9	194.9	195.9	197.0
72.5°	166.1	165.0	164.0	162.9	161.9	161.9	161.9	162.9	164.0	165.0	166.1
75°	135.1	134.1	133.0	133.0	132.0	132.0	132.0	133.0	133.0	134.1	135.1
77.5°	106.2	105.2	104.2	104.2	103.2	103.2	103.2	104.2	104.2	105.2	106.2
80°	78.4	77.4	76.3	76.3	76.3	76.3	76.3	76.3	76.3	77.4	78.4
82.5°	52.6	52.6	51.5	51.5	51.5	51.5	51.5	51.5	51.5	52.6	52.6
85°	31.0	31.0	29.9	29.9	29.9	29.9	29.9	29.9	29.9	31.0	31.0
87.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
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-X-30L950-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	844.7	844.7	844.7	844.7
2.5°	846.8	847.8	843.6	839.6
5°	842.6	843.6	840.6	836.4
7.5°	836.4	837.5	834.4	831.3
10°	827.1	829.2	826.1	822.0
12.5°	815.8	816.9	813.8	810.6
15°	802.4	803.4	800.4	797.3
17.5°	785.9	787.9	784.9	781.8
20°	767.4	769.4	767.4	764.2
22.5°	746.7	748.8	746.7	744.6
25°	725.1	727.1	725.1	723.0
27.5°	701.4	704.4	702.4	701.4
30°	676.6	679.7	677.6	676.6
32.5°	650.8	654.9	652.9	650.8
35°	624.0	627.1	625.0	624.0
37.5°	597.2	600.2	599.2	598.2
40°	569.3	572.4	570.3	569.3
42.5°	540.5	543.5	542.5	541.5
45°	510.5	513.6	512.6	512.6
47.5°	481.7	484.8	483.7	482.7
50°	450.7	453.8	452.8	452.8
52.5°	420.8	423.9	422.8	421.8
55°	389.8	391.9	390.9	390.9
57.5°	358.9	362.0	361.0	359.9
60°	328.0	330.1	329.0	329.0
62.5°	297.1	299.1	298.1	298.1
65°	264.1	266.1	266.1	266.1
67.5°	230.0	232.1	231.1	231.1
70°	199.1	200.1	199.1	199.1
72.5°	167.1	168.1	168.1	168.1
75°	136.2	137.2	136.2	136.2
77.5°	107.2	108.3	107.2	106.2
80°	79.4	80.5	79.4	78.4
82.5°	53.7	54.7	53.7	52.6
85°	32.0	32.0	31.0	29.9
87.5°	13.4	13.4	12.4	11.3
90°	0.0	0.0	0.0	0.0

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