

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: P837875

Luminaire Tested: **ORLG-24-2-INS-ASY2R-LD4-1LO-35-120-EDD**

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-08
Report Number: P837875
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2R-LD4-1LO-35-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

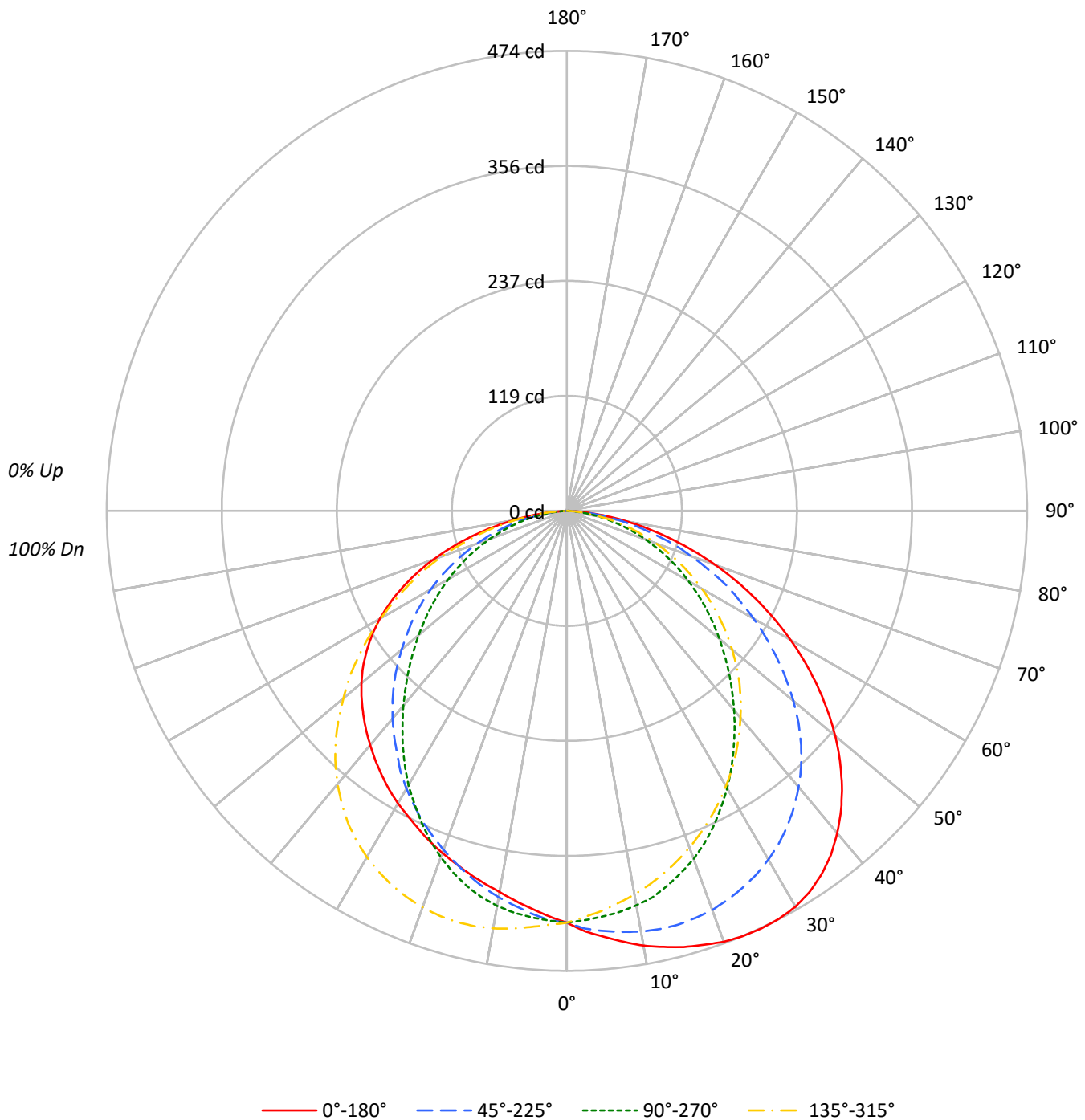
Lumens per Lamp: N/A
Luminaire Lumens: 1244.8 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	1142	1142	1142	1142
5°	1190	1133	1112	1135
10°	1243	1128	1090	1129
15°	1296	1114	1079	1114
20°	1353	1093	1074	1087
25°	1409	1063	1074	1052
30°	1463	1026	1081	1014
35°	1502	984	1092	968
40°	1522	941	1107	920
45°	1525	898	1129	876
50°	1511	857	1156	834
55°	1479	819	1182	796
60°	1433	779	1198	759
65°	1369	734	1192	716
70°	1279	680	1149	667
75°	1151	606	1054	603
80°	975	508	886	516
85°	679	337	562	346

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.3	3.2
10°-20°	116.7	9.4
20°-30°	178.8	14.4
30°-40°	217.4	17.5
40°-50°	226.0	18.2
50°-60°	204.1	16.4
60°-70°	155.2	12.5
70°-80°	86.5	7.0
80°-90°	19.9	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°-30°	335.7	27.0
0°-40°	553.1	44.4
0°-60°	983.2	79.0
0°-90°	1244.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1244.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	424	424	424	424	424	
5°	440	420	412	420	440	42
15°	465	400	387	400	465	132
25°	474	358	362	354	474	219
35°	457	299	332	295	457	286
45°	401	236	297	230	401	309
55°	315	175	252	170	315	281
65°	215	115	187	112	215	212
75°	111	58	101	58	111	118
85°	22	11	18	11	22	28
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3
2.5°	433.7	427.4	427.5	433.0	428.7	430.8	424.9	427.2	426.5	427.0	422.1
5°	440.5	433.7	433.6	438.3	433.6	434.5	427.0	428.5	426.3	424.9	419.6
7.5°	447.8	440.9	440.2	444.4	438.2	437.5	429.1	429.1	425.2	421.7	416.8
10°	454.9	447.9	447.0	450.1	442.4	440.1	430.0	428.5	423.2	418.1	412.7
12.5°	460.2	453.1	452.4	454.4	445.7	441.5	430.0	427.0	419.2	412.0	407.9
15°	465.3	457.9	456.1	457.1	447.1	441.5	428.6	423.9	414.0	404.5	399.7
17.5°	468.8	461.8	459.9	459.8	447.8	439.8	425.7	419.1	407.3	395.8	390.9
20°	472.4	465.4	463.0	461.2	447.6	437.6	421.3	412.5	398.7	385.8	381.7
22.5°	474.2	467.0	464.4	461.7	446.3	433.4	416.0	404.8	389.0	373.6	370.3
25°	474.5	467.1	464.3	460.4	443.7	428.5	409.1	395.5	377.8	360.8	357.9
27.5°	473.7	465.6	462.8	458.1	439.8	422.4	400.8	384.9	365.9	347.1	344.0
30°	470.9	462.7	460.0	454.0	434.4	415.0	391.8	373.1	352.7	332.7	330.1
32.5°	465.4	457.4	455.2	449.1	428.5	406.4	381.3	360.5	338.2	319.1	315.1
35°	457.3	449.2	447.9	441.5	420.1	396.1	369.9	346.6	322.7	303.3	299.4
37.5°	446.7	439.9	437.9	431.6	410.3	384.4	356.7	331.6	307.0	286.0	283.7
40°	433.3	427.0	425.4	419.8	399.0	371.4	342.4	316.0	290.8	271.3	267.9
42.5°	418.1	412.1	411.2	405.5	384.9	357.1	327.0	299.9	273.9	255.1	251.7
45°	400.7	395.0	394.8	389.4	369.6	341.2	310.8	283.6	257.3	237.8	236.0
47.5°	381.6	376.5	376.5	371.4	352.4	323.6	294.0	266.5	240.7	223.5	220.3
50°	360.9	356.0	354.5	352.0	333.5	304.5	276.4	249.9	224.3	207.8	204.8
52.5°	338.7	334.5	335.5	331.0	313.0	284.6	258.6	231.2	207.7	192.8	189.7
55°	315.3	309.4	310.3	308.6	291.7	264.2	238.6	215.8	191.5	177.5	174.6
57.5°	291.1	283.4	286.5	285.5	268.9	243.2	220.3	198.2	175.4	162.4	159.6
60°	266.2	258.8	262.1	261.2	245.6	222.2	201.4	180.9	159.3	147.6	144.8
62.5°	240.7	233.9	236.8	236.1	221.8	200.7	182.6	163.8	143.2	132.6	130.0
65°	215.0	208.4	211.1	210.6	197.4	181.3	163.3	146.1	127.0	117.8	115.2
67.5°	188.6	182.6	185.1	185.1	172.9	157.6	143.9	128.2	111.0	103.1	100.8
70°	162.5	156.9	159.0	158.9	148.6	136.1	124.3	110.3	94.9	88.4	86.4
72.5°	136.2	131.2	133.2	133.0	124.4	116.4	104.7	92.5	79.2	73.9	72.2
75°	110.7	106.0	107.9	107.7	100.7	93.1	85.3	75.2	63.7	60.1	58.3
77.5°	86.3	81.6	83.1	83.1	78.0	72.5	66.3	58.5	50.4	46.4	45.1
80°	62.9	60.7	59.9	60.0	56.5	53.0	49.8	42.3	36.3	33.7	32.8
82.5°	41.4	39.5	38.7	38.9	36.9	34.7	32.8	27.5	23.6	22.0	21.5
85°	22.0	20.6	19.9	20.4	20.0	18.8	17.8	14.3	11.8	11.2	10.9
87.5°	6.9	6.0	5.5	7.3	6.2	5.5	5.3	4.3	3.3	3.3	3.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3
2.5°	423.7	423.7	419.8	419.0	418.6	419.0	415.2	414.5	420.0	418.2	413.9
5°	420.3	420.1	414.7	413.7	413.7	413.1	408.8	407.8	413.3	411.7	407.1
7.5°	416.2	415.6	409.2	408.5	407.5	407.1	402.2	401.5	406.3	405.3	400.9
10°	411.1	410.5	402.9	402.4	401.3	400.5	396.0	395.5	400.3	398.8	395.3
12.5°	404.5	403.4	395.6	395.1	394.2	393.9	389.5	389.3	394.6	393.0	389.4
15°	395.8	394.9	386.2	386.4	386.5	386.5	382.9	382.7	388.0	387.3	383.3
17.5°	386.2	385.0	376.7	377.3	378.0	378.8	376.0	376.5	382.0	381.1	377.6
20°	375.3	374.1	366.0	367.7	369.2	370.8	369.0	370.4	375.5	375.1	372.4
22.5°	363.1	361.9	354.4	357.0	359.5	362.4	361.6	363.2	368.7	368.6	366.2
25°	348.3	348.6	341.9	345.1	349.3	353.4	353.7	356.3	362.3	361.7	359.6
27.5°	334.4	334.8	327.8	333.1	338.7	344.0	345.3	348.9	355.0	354.5	352.6
30°	319.9	320.4	313.5	320.9	327.6	334.1	336.9	341.8	348.0	348.0	346.0
32.5°	304.7	305.6	298.5	308.3	316.1	323.7	328.6	333.6	340.8	340.6	338.9
35°	289.2	290.2	283.7	296.1	303.9	313.2	319.3	326.0	332.3	332.4	331.2
37.5°	273.4	274.5	268.6	282.3	291.2	302.2	309.9	316.6	323.6	324.0	322.8
40°	257.6	258.9	253.8	266.9	278.2	290.5	299.4	307.3	315.0	315.2	314.4
42.5°	241.9	243.3	239.4	252.3	265.0	278.2	288.7	297.7	305.6	306.1	305.2
45°	226.5	227.7	225.0	239.0	251.3	265.6	277.7	287.9	295.9	296.6	296.3
47.5°	211.3	212.4	209.9	222.8	236.9	252.2	266.1	277.4	285.9	286.7	286.5
50°	196.4	197.3	194.6	208.0	222.1	238.3	252.9	265.9	275.4	276.2	276.1
52.5°	181.5	182.4	180.1	194.3	207.1	224.2	240.0	254.2	263.6	264.8	264.9
55°	167.2	167.6	165.8	179.3	191.7	209.6	227.8	241.6	251.0	252.0	252.6
57.5°	152.8	152.9	151.4	164.4	176.3	194.6	213.7	228.1	237.0	238.0	238.9
60°	138.6	138.5	136.8	149.3	160.7	178.8	198.7	213.1	221.7	222.6	223.8
62.5°	124.4	124.1	122.6	134.2	144.9	162.8	182.8	196.7	204.9	205.5	207.1
65°	110.4	110.1	108.7	119.4	129.1	146.2	165.8	178.9	186.4	187.2	186.9
67.5°	96.5	95.9	94.8	104.4	113.2	129.1	147.9	160.4	166.6	167.3	169.1
70°	82.6	81.9	79.5	89.7	97.4	111.5	129.1	140.2	145.4	146.1	145.8
72.5°	69.0	68.3	65.6	75.0	81.6	93.9	109.6	118.9	123.3	123.9	123.9
75°	55.7	55.3	53.6	60.8	66.2	76.3	89.6	97.3	100.8	101.4	101.2
77.5°	43.0	42.7	41.0	47.1	51.4	58.9	69.6	75.6	78.2	79.0	80.7
80°	30.8	30.7	28.0	34.0	35.9	42.3	50.1	54.7	56.1	57.2	58.4
82.5°	19.7	19.8	17.1	22.3	23.1	27.1	32.0	34.8	35.8	36.7	37.6
85°	9.6	10.0	8.5	11.8	11.9	14.0	16.0	17.1	17.5	18.2	19.0
87.5°	2.5	2.9	1.6	3.4	3.0	3.9	4.5	4.8	4.7	5.1	5.4
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3
2.5°	415.3	418.5	416.9	422.0	424.0	420.8	426.4	426.5	422.5	427.2	429.7
5°	408.9	412.1	411.1	416.5	419.0	416.2	422.9	424.2	420.3	425.6	429.7
7.5°	402.3	406.2	404.9	410.3	413.3	411.1	418.4	420.4	417.5	423.2	428.7
10°	396.7	399.9	398.6	404.3	406.9	405.1	412.2	416.1	413.3	420.3	427.0
12.5°	391.1	393.8	392.2	397.0	399.5	397.2	405.9	409.4	407.5	414.8	423.3
15°	384.0	387.0	384.8	389.1	390.9	389.0	396.1	402.2	399.7	407.8	417.2
17.5°	378.6	380.3	377.3	380.6	381.7	379.1	386.3	392.3	390.5	399.3	410.1
20°	372.5	373.9	369.8	371.6	371.5	368.2	374.8	380.7	379.6	389.2	401.5
22.5°	365.8	366.5	361.6	362.0	361.8	356.3	362.2	368.3	367.8	377.5	391.3
25°	358.7	358.8	352.5	352.3	350.2	343.6	348.9	355.7	354.2	364.7	379.3
27.5°	351.6	350.7	343.1	341.4	337.9	330.1	334.7	340.9	340.0	350.3	366.4
30°	344.1	342.8	333.6	330.4	325.3	316.3	320.2	325.9	326.4	335.4	352.3
32.5°	337.0	333.7	323.5	318.8	312.5	302.0	304.0	309.9	310.7	319.8	337.2
35°	327.8	325.6	313.0	304.9	298.7	287.2	289.4	293.5	294.6	303.5	321.3
37.5°	319.1	315.6	302.3	292.4	284.3	272.3	272.9	277.0	278.2	287.2	304.7
40°	310.1	305.1	290.8	279.2	270.0	257.3	256.6	261.0	261.9	270.7	286.5
42.5°	300.5	294.5	278.4	265.7	255.2	242.3	240.9	244.7	245.6	254.3	269.8
45°	290.8	283.7	265.7	251.9	240.3	227.1	225.8	228.6	230.1	238.2	253.2
47.5°	280.5	272.2	252.7	237.2	225.3	212.1	210.4	213.3	214.5	222.5	236.6
50°	269.7	259.6	239.2	222.2	210.3	197.4	194.9	198.2	199.3	206.9	220.7
52.5°	257.8	246.6	224.9	207.1	195.2	182.8	179.8	183.1	184.4	191.7	204.5
55°	245.3	233.2	210.4	193.1	180.2	168.2	165.7	167.0	169.7	176.7	188.5
57.5°	231.1	219.1	195.2	177.6	165.2	153.6	151.5	152.7	155.3	162.0	172.7
60°	216.1	203.4	179.6	162.0	150.0	139.1	137.2	138.3	141.0	147.2	157.1
62.5°	201.2	187.0	163.6	146.1	135.2	125.0	124.5	124.1	126.7	132.6	141.3
65°	183.2	169.5	146.9	130.2	120.4	111.1	109.2	110.1	112.5	118.0	127.1
67.5°	163.9	151.5	129.8	114.4	105.6	97.4	95.7	96.1	98.7	103.4	111.3
70°	143.4	132.5	112.2	98.5	91.1	83.3	82.2	82.3	84.8	89.0	95.9
72.5°	121.9	112.1	94.5	82.7	76.6	71.1	70.1	68.9	71.2	74.7	80.7
75°	100.1	91.5	76.9	67.3	62.5	57.8	56.9	55.7	58.0	61.1	65.7
77.5°	78.0	71.1	59.8	52.4	48.6	45.1	44.3	43.1	45.3	47.6	51.3
80°	56.4	51.4	44.6	36.8	35.5	33.3	32.5	31.1	33.3	34.7	37.5
82.5°	36.4	33.1	29.2	23.8	23.6	21.9	21.5	19.9	21.9	22.8	24.8
85°	18.4	16.8	15.8	12.1	12.5	11.4	11.3	9.6	11.2	11.6	12.8
87.5°	5.2	5.5	4.9	3.0	3.8	3.6	3.6	2.6	3.6	3.6	4.1
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	424.3	424.3	424.3	424.3	424.3	424.3	424.3	424.3
2.5°	424.7	426.4	426.8	426.7	427.8	433.7	431.7	433.7
5°	425.7	429.4	430.4	431.8	433.6	440.3	438.2	440.5
7.5°	426.3	431.9	434.1	436.8	439.6	447.2	445.4	447.8
10°	426.3	433.6	436.8	441.2	445.1	453.8	452.1	454.9
12.5°	424.5	433.9	438.3	444.6	449.5	458.9	458.2	460.2
15°	420.8	432.4	438.5	446.6	452.7	463.2	462.9	465.3
17.5°	415.9	429.8	437.3	447.4	455.1	466.9	467.5	468.8
20°	409.6	425.0	434.7	447.1	456.8	469.7	470.6	472.4
22.5°	401.4	419.1	430.8	445.8	457.0	470.9	472.5	474.2
25°	391.7	412.1	425.8	443.3	456.0	470.8	473.0	474.5
27.5°	380.6	403.0	419.3	439.3	453.2	469.2	471.9	473.7
30°	367.8	393.3	412.0	434.2	449.4	466.3	469.1	470.9
32.5°	354.5	382.6	403.3	427.6	444.0	461.5	464.0	465.4
35°	340.1	369.7	392.8	419.0	437.0	453.9	455.8	457.3
37.5°	324.3	355.6	380.8	409.4	427.1	443.3	445.0	446.7
40°	308.1	340.9	367.4	397.7	415.3	430.3	432.1	433.3
42.5°	291.8	324.5	353.0	383.8	401.3	415.8	416.9	418.1
45°	275.2	307.6	336.9	368.5	385.8	399.4	399.7	400.7
47.5°	258.4	290.1	319.2	351.0	368.1	380.4	380.8	381.6
50°	241.5	272.6	300.3	332.1	348.8	361.8	360.1	360.9
52.5°	224.9	254.2	282.5	311.7	328.2	339.8	340.3	338.7
55°	208.5	236.1	262.2	290.3	306.0	315.0	314.7	315.3
57.5°	192.0	217.9	241.8	267.5	282.9	291.4	293.2	291.1
60°	175.2	199.5	220.9	244.2	259.0	266.1	268.2	266.2
62.5°	158.5	180.8	200.2	220.5	234.3	243.1	242.9	240.7
65°	141.7	162.0	179.3	196.6	208.5	217.3	216.9	215.0
67.5°	126.3	143.0	158.6	172.5	182.9	188.9	191.0	188.6
70°	109.3	123.7	137.4	148.6	157.2	162.6	164.6	162.5
72.5°	92.2	104.5	114.1	124.9	131.5	136.1	138.2	136.2
75°	75.4	85.5	93.3	101.7	106.4	110.3	112.6	110.7
77.5°	59.1	66.9	73.1	79.3	84.6	85.5	87.6	86.3
80°	43.5	49.2	53.7	57.8	61.7	62.1	63.7	62.9
82.5°	29.0	32.8	33.9	38.2	40.7	40.3	42.0	41.4
85°	15.3	17.6	19.7	21.0	22.4	21.1	22.6	22.0
87.5°	5.1	5.4	4.8	6.7	7.4	6.3	7.2	6.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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