

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: P232068

Luminaire Tested: **FVS4M-3-LD4-30-2STD-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232068
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-29)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-3-LD4-30-2STD-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

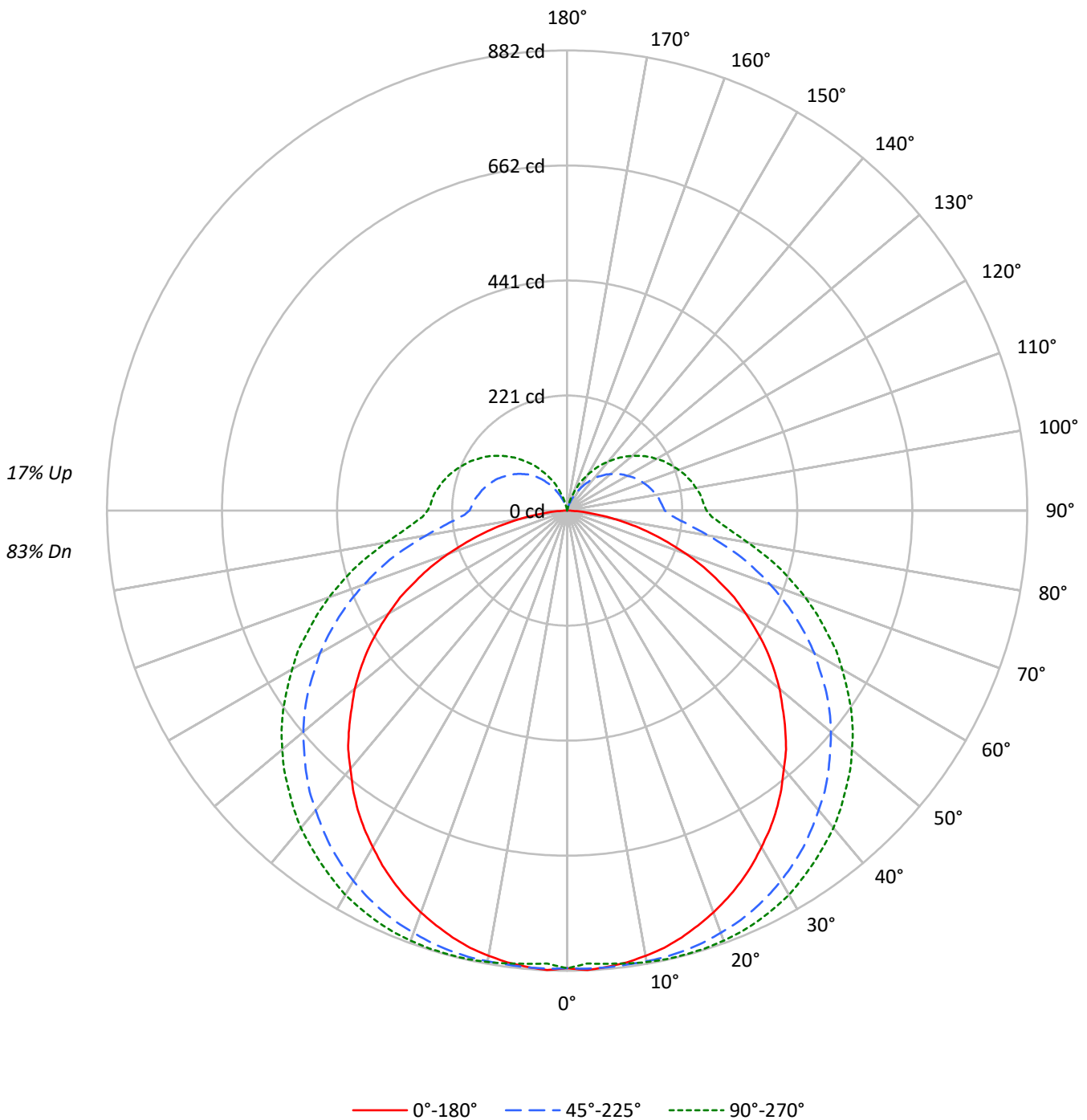
Lumens per Lamp: N/A
Luminaire Lumens: 3951.0 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 64
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





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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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	103	97	92	88	98	93	89	84	86	82	79	79	76	73	73	70	68	65
2	92	83	76	69	88	80	73	67	74	68	63	68	63	59	62	59	55	52
3	84	72	64	57	80	69	61	55	64	57	52	59	53	49	54	50	46	43
4	76	64	54	47	73	61	53	46	56	49	43	52	46	41	48	43	39	36
5	70	56	47	40	66	54	46	39	50	43	37	46	40	35	43	38	33	31
6	64	50	41	35	61	49	40	34	45	38	32	42	35	31	39	33	29	26
7	59	46	37	30	57	44	35	30	41	33	28	38	32	27	35	30	25	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	20
9	51	38	29	24	49	37	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	21	46	34	26	21	31	25	20	29	23	19	27	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10358	10358	10358
5°	10349	10007	9819
10°	10274	9713	9530
15°	10181	9477	9275
20°	10066	9243	9047
25°	9946	9026	8832
30°	9792	8793	8615
35°	9653	8557	8366
40°	9448	8293	8143
45°	9277	8042	7884
50°	9065	7774	7637
55°	8803	7470	7367
60°	8401	7125	7051
65°	7866	6720	6695
70°	7119	6238	6327
75°	6072	5733	5916
80°	4530	5093	5425
85°	2414	4636	5128



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	2.1
10°-20°	245.5	6.2
20°-30°	385.9	9.8
30°-40°	486.4	12.3
40°-50°	535.3	13.5
50°-60°	526.4	13.3
60°-70°	458.0	11.6
70°-80°	340.9	8.6
80°-90°	218.6	5.5
90°-100°	173.6	4.4
100°-110°	154.3	3.9
110°-120°	127.5	3.2
120°-130°	96.7	2.4
130°-140°	65.1	1.6
140°-150°	36.3	0.9
150°-160°	14.5	0.4
160°-170°	2.3	0.1
170°-180°	0.0	0.0
0°-30°	715.1	18.1
0°-40°	1201.5	30.4
0°-60°	2263.2	57.3
0°-90°	3280.7	83.0
90°-120°	455.4	11.5
90°-150°	653.5	16.5
90°-180°	670.0	17.0
0°-180°	3951.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	878	877	879	877	872	83
15°	847	855	873	882	881	239
25°	786	810	844	865	867	362
35°	700	739	789	819	824	437
45°	591	645	708	747	755	456
55°	467	532	606	652	664	416
65°	320	396	483	535	548	317
75°	165	251	346	401	420	174
85°	31	119	218	278	297	38
90°	1	89	187	249	267	2
95°	1	84	180	241	259	1
105°	1	75	165	223	240	1
115°	1	64	146	198	214	1
125°	1	51	122	168	182	1
135°	1	37	94	132	144	1
145°	1	21	64	94	102	1
155°	1	8	31	53	59	0
165°	1	1	7	12	15	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	877.1	877.1	877.1	877.1	877.1	877.1	877.1	877.1	877.1	877.1	877.1
2.5°	881.5	879.7	877.1	877.1	878.8	879.7	881.5	881.5	880.6	878.8	877.9
5°	877.9	877.1	874.4	874.4	876.2	877.9	879.7	879.7	879.7	878.8	877.9
7.5°	873.5	871.8	870.0	870.0	872.7	874.4	877.1	877.9	878.8	877.9	878.8
10°	866.5	865.6	863.8	864.7	867.4	870.0	872.7	875.3	877.1	877.1	878.8
12.5°	858.5	856.8	855.0	856.8	860.3	863.8	869.1	871.8	874.4	876.2	877.1
15°	847.1	846.2	845.3	847.9	852.4	857.7	862.9	867.4	870.0	872.7	875.3
17.5°	833.8	833.8	833.8	837.4	842.7	849.7	855.0	860.3	864.7	868.2	871.8
20°	819.7	818.8	819.7	825.0	832.9	839.1	846.2	852.4	857.7	861.2	865.6
22.5°	803.8	803.8	805.6	810.9	819.7	828.5	835.6	842.7	848.8	854.1	858.5
25°	786.2	787.1	789.7	795.9	805.6	814.4	823.2	831.2	839.1	844.4	850.6
27.5°	766.8	766.8	771.2	779.1	789.7	799.4	809.1	817.9	826.8	832.9	839.1
30°	744.7	746.5	750.9	761.5	772.1	783.5	793.2	803.8	811.8	819.7	826.8
32.5°	723.5	724.4	729.7	740.3	753.5	765.0	775.6	787.9	795.9	804.7	812.7
35°	699.7	701.5	707.7	719.1	732.4	745.6	757.9	769.4	779.1	788.8	796.8
37.5°	674.1	676.8	684.7	696.2	710.3	723.5	736.8	749.1	760.6	769.4	780.0
40°	645.9	650.3	658.2	673.2	687.4	700.6	714.7	727.1	739.4	750.0	760.6
42.5°	621.2	622.9	632.7	647.7	663.5	679.4	693.5	706.8	719.1	730.6	739.4
45°	591.2	595.6	605.3	619.4	636.2	653.8	671.5	681.2	695.3	707.7	718.2
47.5°	560.3	565.6	577.9	593.8	610.6	626.5	641.5	658.2	671.5	683.8	696.2
50°	531.2	536.5	547.9	565.6	581.5	599.1	616.8	631.8	645.9	660.0	671.5
52.5°	499.4	503.8	517.9	534.7	553.2	570.9	587.7	605.3	619.4	634.4	645.9
55°	466.8	471.2	485.3	502.9	522.4	541.8	558.5	577.1	590.3	606.2	619.4
57.5°	431.5	439.4	450.9	469.4	488.8	508.2	527.7	545.3	561.2	575.3	590.3
60°	395.3	403.2	418.2	436.8	455.3	476.5	495.9	513.5	530.3	547.1	559.4
62.5°	360.9	367.1	382.1	401.5	421.8	442.1	464.1	480.9	500.3	515.3	530.3
65°	320.3	329.1	345.9	365.3	385.6	406.8	427.1	447.4	465.9	482.7	497.7
67.5°	283.2	290.3	309.7	327.4	349.4	370.6	395.3	413.8	432.4	449.1	463.2
70°	242.6	254.1	267.4	292.1	313.2	337.1	357.4	378.5	397.1	413.8	429.7
72.5°	202.1	213.5	232.1	252.4	275.3	300.0	321.2	341.5	360.9	379.4	394.4
75°	165.0	173.8	193.2	215.3	240.0	261.2	283.2	306.2	326.5	345.9	360.0
77.5°	127.1	137.6	154.4	176.5	201.2	227.6	249.7	270.0	291.2	307.9	326.5
80°	90.9	99.7	119.1	140.3	165.9	190.6	214.4	236.5	255.9	274.4	291.2
82.5°	56.5	67.1	85.6	111.2	135.0	160.6	182.6	204.7	225.9	243.5	260.3
85°	30.9	38.8	59.1	81.2	106.8	130.6	156.2	177.4	199.4	217.9	236.5
87.5°	10.6	19.4	37.9	61.8	87.4	110.3	135.9	157.9	178.2	197.6	215.3
90°	0.9	9.7	29.1	52.1	76.8	101.5	125.3	147.4	168.5	187.1	204.7
92.5°	0.9	8.8	26.5	49.4	74.1	97.9	121.8	143.8	164.1	183.5	200.3
95°	0.9	7.9	25.6	47.6	72.4	96.2	119.1	141.2	161.5	180.0	196.8
97.5°	0.9	7.9	24.7	46.8	69.7	93.5	116.5	138.5	158.8	177.4	194.1
100°	0.9	7.1	22.9	44.1	67.9	90.9	113.8	135.0	155.3	172.9	190.6
102.5°	0.9	6.2	22.1	43.2	65.3	88.2	110.3	131.5	150.9	169.4	186.2
105°	0.9	6.2	21.2	41.5	63.5	85.6	106.8	127.9	147.4	165.0	180.9
107.5°	0.9	5.3	20.3	39.7	60.9	82.9	104.1	124.4	142.9	160.6	176.5
110°	0.9	5.3	19.4	37.9	58.2	79.4	100.6	120.0	138.5	155.3	171.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	4.4	17.6	36.2	55.6	76.8	96.2	116.5	134.1	150.9	165.9
115°	0.9	4.4	16.8	34.4	53.8	73.2	92.6	111.2	128.8	145.6	159.7
117.5°	0.9	3.5	15.9	32.6	51.2	69.7	89.1	106.8	124.4	139.4	153.5
120°	0.9	3.5	14.1	30.0	47.6	66.2	84.7	102.4	118.2	133.2	147.4
122.5°	0.9	2.6	13.2	28.2	45.9	62.6	80.3	97.1	113.8	127.9	141.2
125°	0.9	2.6	12.4	26.5	42.4	59.1	75.9	92.6	107.6	121.8	134.1
127.5°	0.9	1.8	10.6	23.8	39.7	55.6	71.5	87.4	101.5	115.6	127.9
130°	0.9	1.8	9.7	22.1	37.1	52.1	67.1	82.1	96.2	108.5	120.0
132.5°	0.9	1.8	7.9	19.4	33.5	48.5	62.6	76.8	90.0	102.4	112.9
135°	0.9	1.8	7.1	17.6	30.0	44.1	57.4	70.6	83.8	94.4	105.0
137.5°	0.9	0.9	6.2	15.0	26.5	39.7	52.1	65.3	76.8	88.2	97.9
140°	0.9	0.9	4.4	12.4	22.9	34.4	45.9	58.2	69.7	80.3	90.0
142.5°	0.9	0.9	3.5	10.6	19.4	30.0	40.6	52.1	61.8	72.4	82.1
145°	0.9	0.9	2.6	8.8	16.8	25.6	34.4	45.0	53.8	63.5	72.4
147.5°	0.9	0.9	2.6	7.1	14.1	21.2	30.0	37.9	46.8	55.6	62.6
150°	0.9	0.9	1.8	5.3	10.6	17.6	24.7	31.8	39.7	45.9	54.7
152.5°	0.9	0.9	1.8	3.5	7.9	14.1	20.3	26.5	32.6	38.8	45.0
155°	0.9	0.9	0.9	2.6	6.2	10.6	15.9	21.2	25.6	30.9	36.2
157.5°	0.9	0.9	0.9	1.8	4.4	7.1	11.5	15.9	20.3	23.8	28.2
160°	0.9	0.9	0.9	1.8	2.6	5.3	7.9	11.5	15.0	17.6	20.3
162.5°	0.9	0.9	0.9	0.9	1.8	2.6	5.3	7.9	9.7	11.5	14.1
165°	0.9	0.9	0.9	0.9	0.9	1.8	2.6	3.5	5.3	7.1	7.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	877.1	877.1	877.1	877.1	877.1	877.1	877.1	877.1
2.5°	877.1	876.2	875.3	874.4	873.5	871.8	870.0	869.1
5°	877.9	877.9	877.1	876.2	875.3	873.5	871.8	871.8
7.5°	878.8	879.7	879.7	879.7	878.8	877.9	876.2	875.3
10°	880.6	880.6	881.5	881.5	881.5	880.6	879.7	878.8
12.5°	879.7	880.6	882.4	883.2	883.2	882.4	880.6	880.6
15°	877.9	879.7	881.5	882.4	883.2	882.4	880.6	880.6
17.5°	874.4	877.1	879.7	881.5	881.5	881.5	880.6	879.7
20°	870.0	872.7	875.3	877.9	878.8	878.8	877.9	877.1
22.5°	862.9	867.4	870.9	873.5	874.4	874.4	873.5	873.5
25°	855.0	859.4	863.8	866.5	868.2	869.1	868.2	867.4
27.5°	845.3	849.7	854.1	857.7	859.4	860.3	860.3	859.4
30°	834.7	839.1	843.5	847.9	849.7	850.6	850.6	850.6
32.5°	819.7	825.9	831.2	834.7	838.2	838.2	838.2	837.4
35°	803.8	810.9	816.2	821.5	823.2	825.0	825.0	824.1
37.5°	786.2	795.0	800.3	804.7	808.2	809.1	808.2	809.1
40°	768.5	775.6	784.4	787.1	790.6	793.2	792.4	794.1
42.5°	749.1	757.1	764.1	770.3	772.9	773.8	774.7	775.6
45°	728.8	735.9	744.7	749.1	752.7	755.3	755.3	755.3
47.5°	705.9	715.6	723.5	728.8	732.4	735.0	734.1	735.9
50°	682.1	691.8	700.6	705.0	710.3	711.2	712.1	712.9
52.5°	657.4	667.1	675.9	682.1	684.7	687.4	689.1	690.0
55°	630.9	640.6	648.5	655.6	660.0	662.7	662.7	664.4
57.5°	602.7	613.2	622.9	627.4	631.8	635.3	637.1	636.2
60°	574.4	584.1	591.2	600.0	605.3	607.9	608.8	608.8
62.5°	540.0	553.2	561.2	571.8	574.4	577.9	578.8	581.5
65°	511.8	521.5	532.1	537.4	544.4	546.2	548.8	547.9
67.5°	477.4	490.6	498.5	506.5	513.5	516.2	516.2	517.9
70°	442.1	456.2	464.1	473.8	478.2	483.5	486.2	485.3
72.5°	409.4	420.9	431.5	439.4	445.6	449.1	450.0	451.8
75°	375.9	387.4	397.1	405.0	412.9	415.6	418.2	420.0
77.5°	339.7	350.3	363.5	372.4	377.6	382.9	384.7	384.7
80°	306.2	318.5	329.1	338.8	344.1	349.4	352.9	351.2
82.5°	274.4	287.6	300.9	308.8	315.0	320.3	322.1	321.2
85°	249.7	262.9	273.5	282.4	289.4	294.7	296.5	297.4
87.5°	230.3	243.5	255.0	263.8	270.0	274.4	276.2	277.9
90°	219.7	232.9	244.4	253.2	259.4	263.8	266.5	267.4
92.5°	215.3	228.5	239.1	247.9	255.0	259.4	261.2	262.1
95°	212.6	225.0	236.5	245.3	251.5	255.9	258.5	259.4
97.5°	209.1	222.4	232.9	241.8	247.9	253.2	255.0	255.9
100°	204.7	217.9	228.5	237.4	243.5	247.9	250.6	250.6
102.5°	200.3	213.5	224.1	232.9	239.1	243.5	245.3	246.2
105°	195.9	208.2	218.8	226.8	232.9	237.4	240.0	240.0
107.5°	190.6	202.9	212.6	221.5	227.6	231.2	233.8	234.7
110°	185.3	196.8	207.4	215.3	221.5	225.0	227.6	227.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	179.1	190.6	201.2	208.2	214.4	218.8	220.6	220.6
115°	172.9	184.4	194.1	201.2	207.4	210.9	213.5	213.5
117.5°	166.8	178.2	187.1	194.1	199.4	203.8	205.6	206.5
120°	159.7	170.3	180.0	187.1	192.4	195.9	197.6	197.6
122.5°	152.6	163.2	172.9	179.1	184.4	187.1	189.7	190.6
125°	145.6	156.2	165.0	170.3	175.6	179.1	180.9	181.8
127.5°	138.5	147.4	156.2	162.4	166.8	170.3	172.1	172.1
130°	130.6	139.4	147.4	153.5	157.9	160.6	162.4	163.2
132.5°	122.6	131.5	138.5	144.7	149.1	151.8	152.6	153.5
135°	114.7	122.6	128.8	135.0	139.4	141.2	142.9	143.8
137.5°	105.9	113.8	120.9	126.2	128.8	131.5	132.4	133.2
140°	97.9	105.0	111.2	115.6	119.1	120.9	122.6	122.6
142.5°	89.1	96.2	101.5	105.9	108.5	111.2	112.9	112.1
145°	80.3	87.4	91.8	96.2	98.8	100.6	101.5	102.4
147.5°	71.5	77.6	82.1	86.5	88.2	90.0	90.9	90.0
150°	60.0	67.1	72.4	75.9	77.6	79.4	80.3	79.4
152.5°	50.3	57.4	62.6	65.3	67.1	67.9	68.8	68.8
155°	40.6	45.9	51.2	54.7	56.5	57.4	58.2	59.1
157.5°	31.8	36.2	38.8	44.1	46.8	46.8	46.8	46.8
160°	23.8	26.5	29.1	32.6	35.3	36.2	36.2	36.2
162.5°	15.9	17.6	19.4	22.1	23.8	25.6	25.6	25.6
165°	8.8	9.7	11.5	12.4	12.4	15.0	15.9	15.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)