

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: PORTFOLIO

Report Number: P880557

Luminaire Tested: **LD4C25D010 EU4259027 4LBDWNH**

Issue Date: 10/4/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P880557
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251940)
Test Lab: INNOVATION CENTER
Issue Date: 10/4/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25D010 EU4259027 4LBDWNH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

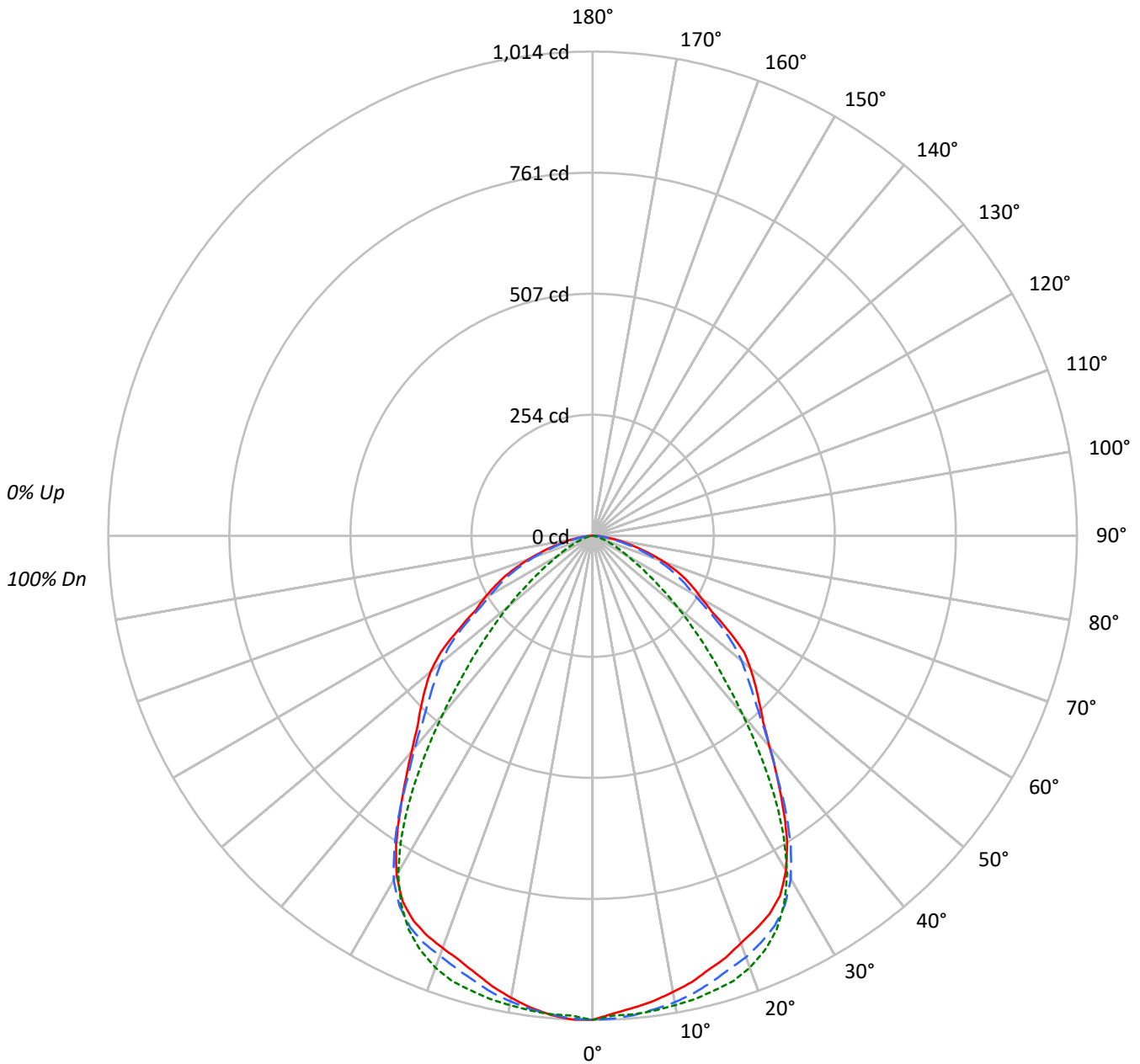
Lumens per Lamp: N/A
Luminaire Lumens: 2063.0 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): NR
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									
RC	80									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																			
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	70	78	73	69	76	72	68	66																			
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58																			
5	81	69	61	55	79	68	61	55	66	60	54	64	58	54	63	57	53	51																			
6	75	63	55	49	73	62	55	49	60	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	56	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37																			
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	124537	124537	124537
5°	122324	124050	124235
10°	121006	124512	122566
15°	119607	125356	120599
20°	118658	125809	120083
25°	118596	123462	120494
30°	114821	115487	116367
35°	104309	99404	105253
40°	92295	78278	94540
45°	85620	59611	88330
50°	82261	44131	84650
55°	74495	30393	73488
60°	64768	20689	64375
65°	62558	14971	59389
70°	56574	10094	50396
75°	46613	6645	39967
80°	37497	4386	29785
85°	30870	2114	19734



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.7	4.6
10°-20°	273.6	13.3
20°-30°	413.3	20.0
30°-40°	432.6	21.0
40°-50°	350.3	17.0
50°-60°	254.8	12.4
60°-70°	157.2	7.6
70°-80°	71.0	3.4
80°-90°	14.4	0.7
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°	782.6	37.9
0°-40°	1215.2	58.9
0°-60°	1820.4	88.2
0°-90°	2063.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2063.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1014	1014	1014	1014	1014	
5°	992	1007	1006	1006	1007	94
15°	940	967	986	964	948	266
25°	875	901	911	904	889	401
35°	696	705	663	705	702	434
45°	493	477	343	484	508	383
55°	348	326	142	329	343	310
65°	215	193	52	190	204	211
75°	98	84	14	73	84	107
85°	22	17	2	12	14	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1001.2	1001.2	1010.6	1021.4	1012.1	1002.7	1009.0	1005.9	1016.8	1016.8	1012.1
5°	991.9	995.0	1002.7	1012.1	1004.4	995.0	1002.7	999.7	1010.6	1010.6	1007.4
7.5°	982.5	984.0	993.4	1004.4	996.5	987.2	993.4	991.9	1001.2	1002.7	999.7
10°	970.0	971.6	981.0	991.9	984.0	976.3	982.5	981.0	993.4	993.4	991.9
12.5°	957.6	959.1	968.5	977.8	970.0	962.3	968.5	968.5	981.0	982.5	981.0
15°	940.4	943.5	951.3	960.6	956.0	946.6	952.9	952.9	963.8	966.9	966.9
17.5°	926.4	927.9	935.7	945.1	938.9	931.0	937.2	937.2	948.2	951.3	951.3
20°	907.6	910.8	918.5	927.9	923.2	917.0	921.7	921.7	934.2	937.2	938.9
22.5°	892.0	895.1	901.4	913.9	906.1	901.4	907.6	906.1	920.1	921.7	921.7
25°	874.9	878.0	885.8	893.6	888.9	884.3	888.9	888.9	899.8	901.4	901.4
27.5°	849.9	851.5	859.2	867.1	862.4	856.2	862.4	860.9	871.7	873.3	871.7
30°	809.4	812.5	815.6	826.5	821.8	817.1	823.4	820.3	831.2	831.2	829.6
32.5°	757.9	757.9	764.2	772.0	765.7	762.6	767.3	768.8	776.7	776.7	772.0
35°	695.5	698.7	703.3	708.0	703.3	700.2	704.9	703.3	712.7	709.5	704.9
37.5°	633.2	634.7	639.4	645.7	639.4	634.7	636.3	634.7	642.5	642.5	634.7
40°	575.5	578.6	581.7	587.9	581.7	578.6	580.2	575.5	584.9	581.7	577.0
42.5°	528.6	530.2	534.9	538.0	531.8	530.2	531.8	528.6	533.3	530.2	520.9
45°	492.8	492.8	494.4	499.0	492.8	491.2	491.2	488.1	492.8	486.5	477.2
47.5°	461.6	463.1	464.8	467.8	463.1	458.5	460.1	453.8	456.9	452.2	439.7
50°	430.4	433.5	435.1	438.2	433.5	430.4	432.0	425.7	425.7	418.0	407.0
52.5°	399.3	400.8	399.3	402.3	399.3	394.6	396.1	389.9	389.9	380.6	369.6
55°	347.8	349.3	350.9	354.0	350.9	346.2	349.3	344.7	344.7	338.4	325.9
57.5°	296.3	297.9	299.4	301.0	301.0	297.9	299.4	296.3	294.7	290.0	280.7
60°	263.6	263.6	263.6	265.1	263.6	262.0	262.0	258.9	258.9	252.6	243.3
62.5°	238.6	240.2	240.2	241.7	240.2	238.6	237.1	233.9	232.4	226.2	218.3
65°	215.2	215.2	213.7	216.8	215.2	213.7	213.7	210.5	207.5	201.2	193.4
67.5°	187.1	188.7	187.1	188.7	188.7	187.1	185.6	182.4	180.9	176.2	166.9
70°	157.5	157.5	157.5	159.1	157.5	157.5	159.1	154.4	152.9	146.5	138.8
72.5°	127.8	129.5	129.5	127.8	129.5	126.3	126.3	126.3	124.8	118.5	110.7
75°	98.2	99.8	99.8	101.4	99.8	98.2	98.2	96.7	95.1	90.4	84.2
77.5°	73.3	73.3	74.8	74.8	74.8	73.3	73.3	70.2	70.2	67.0	60.8
80°	53.0	53.0	51.5	53.0	53.0	51.5	51.5	49.9	49.9	46.8	42.1
82.5°	34.3	35.9	35.9	35.9	35.9	34.3	34.3	34.3	32.7	31.2	28.1
85°	21.9	21.9	21.9	21.9	23.4	21.9	23.4	21.9	21.9	18.7	17.2
87.5°	9.4	9.4	9.4	10.9	10.9	9.4	9.4	9.4	9.4	9.4	7.8
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1012.1	1013.7	1009.0	1015.2	1010.6	1012.1	1013.7	1012.1	1005.9	1005.9	1023.1
5°	1005.9	1009.0	1004.4	1012.1	1009.0	1009.0	1012.1	1010.6	1004.4	1005.9	1021.4
7.5°	999.7	1004.4	1001.2	1009.0	1004.4	1004.4	1007.4	1007.4	1001.2	1002.7	1016.8
10°	990.3	996.5	995.0	1002.7	998.1	998.1	1002.7	1002.7	996.5	998.1	1012.1
12.5°	982.5	988.7	987.2	995.0	991.9	993.4	995.0	998.1	990.3	993.4	1005.9
15°	970.0	976.3	976.3	984.0	981.0	984.0	987.2	991.9	985.6	985.6	998.1
17.5°	956.0	963.8	963.8	970.0	970.0	971.6	977.8	982.5	976.3	977.8	988.7
20°	940.4	949.8	949.8	957.6	956.0	959.1	963.8	968.5	962.3	962.3	974.7
22.5°	924.8	932.6	934.2	938.9	938.9	940.4	945.1	948.2	940.4	940.4	952.9
25°	903.0	910.8	912.3	915.4	912.3	912.3	915.4	918.5	910.8	910.8	921.7
27.5°	873.3	881.1	881.1	879.6	876.4	878.0	876.4	878.0	870.2	868.6	879.6
30°	829.6	834.3	834.3	832.8	828.1	828.1	823.4	825.0	814.1	814.1	823.4
32.5°	770.4	775.0	772.0	768.8	762.6	759.5	756.3	754.8	743.9	743.9	754.8
35°	700.2	703.3	698.7	692.5	684.6	679.9	675.3	669.1	661.2	662.8	669.1
37.5°	628.5	628.5	622.3	609.8	603.6	595.7	587.9	587.9	575.5	573.9	578.6
40°	567.7	561.5	550.5	533.3	522.4	514.6	503.7	497.5	488.1	488.1	495.9
42.5°	513.1	500.6	486.5	463.1	452.2	442.9	428.9	422.7	411.7	410.1	414.8
45°	464.8	452.2	432.0	407.0	393.0	382.1	361.8	354.0	344.7	343.1	346.2
47.5°	425.7	411.7	386.8	354.0	340.0	325.9	305.7	294.7	287.0	282.3	287.0
50°	391.4	372.7	346.2	311.9	293.2	280.7	255.8	244.9	233.9	230.9	232.4
52.5°	354.0	335.3	307.2	271.3	254.2	235.5	212.1	196.5	187.1	182.4	187.1
55°	313.4	294.7	266.7	230.9	212.1	195.0	170.0	157.5	146.5	141.9	146.5
57.5°	269.8	252.6	227.7	191.8	174.7	159.1	135.7	123.2	112.3	109.1	112.3
60°	232.4	218.3	193.4	159.1	145.0	127.8	107.6	95.1	85.7	84.2	85.7
62.5°	207.5	191.8	168.4	135.7	121.6	107.6	88.9	76.4	68.6	67.0	68.6
65°	182.4	165.3	143.5	115.4	101.4	90.4	71.7	60.8	53.0	51.5	53.0
67.5°	154.4	138.8	120.1	95.1	84.2	73.3	57.7	46.8	40.6	39.0	40.6
70°	127.8	113.8	95.1	76.4	65.5	57.7	43.6	35.9	29.6	28.1	29.6
72.5°	101.4	88.9	73.3	57.7	51.5	43.6	34.3	26.5	21.9	20.2	21.9
75°	78.0	68.6	56.1	42.1	37.4	32.7	23.4	18.7	15.6	14.0	15.6
77.5°	54.6	48.3	39.0	31.2	26.5	23.4	17.2	12.5	10.9	9.4	10.9
80°	37.4	32.7	26.5	20.2	17.2	14.0	10.9	7.8	6.2	6.2	6.2
82.5°	24.9	20.2	15.6	12.5	10.9	9.4	6.2	4.7	4.7	3.2	3.2
85°	14.0	12.5	9.4	7.8	6.2	4.7	3.2	3.2	1.5	1.5	1.5
87.5°	6.2	4.7	3.2	3.2	1.5	1.5	1.5	1.5	0.0	0.0	0.0
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1018.4	1013.7	1019.9	1013.7	1010.6	1013.7	1010.6	1019.9	1012.1	1005.9	1012.1
5°	1016.8	1010.6	1016.8	1012.1	1007.4	1009.0	1005.9	1015.2	1005.9	1001.2	1004.4
7.5°	1013.7	1009.0	1012.1	1007.4	1002.7	1004.4	1001.2	1009.0	999.7	995.0	998.1
10°	1009.0	1004.4	1005.9	1002.7	998.1	998.1	995.0	1001.2	990.3	984.0	987.2
12.5°	1002.7	996.5	999.7	995.0	988.7	988.7	985.6	990.3	979.3	973.1	974.7
15°	995.0	988.7	988.7	984.0	977.8	977.8	971.6	976.3	963.8	957.6	957.6
17.5°	985.6	977.8	977.8	973.1	965.3	963.8	959.1	963.8	949.8	943.5	943.5
20°	971.6	965.3	963.8	960.6	952.9	951.3	945.1	946.6	935.7	931.0	929.5
22.5°	952.9	946.6	948.2	943.5	937.2	935.7	929.5	934.2	923.2	918.5	920.1
25°	920.1	917.0	920.1	918.5	913.9	913.9	910.8	913.9	904.5	901.4	903.0
27.5°	882.6	881.1	882.6	882.6	879.6	879.6	879.6	884.3	874.9	873.3	873.3
30°	828.1	828.1	829.6	831.2	831.2	834.3	832.8	839.0	832.8	829.6	832.8
32.5°	756.3	762.6	767.3	767.3	767.3	770.4	773.5	778.2	772.0	773.5	773.5
35°	675.3	679.9	683.1	690.8	686.2	697.1	700.2	706.5	704.9	708.0	706.5
37.5°	584.9	591.1	597.3	608.3	606.6	619.1	625.3	637.8	634.7	641.0	644.0
40°	500.6	509.9	519.3	527.1	533.3	545.8	558.3	573.9	578.6	583.2	584.9
42.5°	419.5	428.9	444.4	455.4	464.8	485.0	502.2	520.9	525.6	534.9	538.0
45°	354.0	361.8	380.6	394.6	402.3	432.0	452.2	475.6	483.5	494.4	499.0
47.5°	293.2	307.2	325.9	343.1	354.0	385.2	411.7	436.7	447.6	460.1	466.3
50°	240.2	255.8	280.7	296.3	311.9	346.2	375.9	402.3	413.3	427.3	433.5
52.5°	196.5	213.7	237.1	254.2	271.3	307.2	338.4	363.4	377.4	386.8	396.1
55°	154.4	173.1	196.5	215.2	229.2	268.3	294.7	319.7	329.1	336.8	341.5
57.5°	120.1	134.1	157.5	173.1	190.3	224.5	251.1	269.8	277.6	287.0	290.0
60°	93.6	107.6	129.5	145.0	160.6	193.4	219.9	238.6	246.4	254.2	258.9
62.5°	74.8	88.9	109.1	123.2	137.2	166.9	190.3	209.0	218.3	226.2	230.9
65°	59.3	71.7	88.9	102.9	113.8	140.3	163.7	180.9	190.3	198.1	202.8
67.5°	46.8	57.7	73.3	82.7	93.6	115.4	135.7	151.2	159.1	168.4	173.1
70°	35.9	43.6	57.7	65.5	73.3	92.0	107.6	123.2	131.0	137.2	140.3
72.5°	26.5	32.7	43.6	49.9	54.6	70.2	82.7	93.6	99.8	106.1	109.1
75°	18.7	23.4	31.2	35.9	39.0	49.9	60.8	68.6	73.3	78.0	82.7
77.5°	12.5	15.6	20.2	23.4	26.5	34.3	40.6	46.8	51.5	56.1	57.7
80°	7.8	10.9	14.0	15.6	17.2	21.9	28.1	31.2	34.3	37.4	39.0
82.5°	4.7	6.2	7.8	9.4	10.9	14.0	17.2	20.2	21.9	24.9	26.5
85°	1.5	3.2	3.2	4.7	4.7	7.8	9.4	10.9	12.5	14.0	15.6
87.5°	0.0	0.0	1.5	1.5	1.5	1.5	3.2	3.2	3.2	3.2	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1018.4	1013.7	1010.6	1009.0	1019.9	1005.9	1012.1	1013.7
5°	1012.1	1007.4	1004.4	1002.7	1012.1	999.7	1004.4	1007.4
7.5°	1002.7	999.7	995.0	993.4	1002.7	988.7	995.0	996.5
10°	991.9	987.2	984.0	982.5	990.3	976.3	982.5	982.5
12.5°	977.8	974.7	968.5	968.5	974.7	962.3	966.9	966.9
15°	959.1	956.0	949.8	949.8	956.0	943.5	948.2	948.2
17.5°	943.5	940.4	935.7	934.2	940.4	927.9	932.6	931.0
20°	931.0	927.9	921.7	921.7	926.4	913.9	918.5	918.5
22.5°	920.1	918.5	912.3	912.3	918.5	906.1	909.2	906.1
25°	903.0	901.4	895.1	896.7	899.8	887.3	892.0	888.9
27.5°	874.9	874.9	868.6	867.1	871.7	860.9	863.9	862.4
30°	831.2	832.8	825.0	825.0	826.5	817.1	821.8	820.3
32.5°	772.0	773.5	767.3	765.7	770.4	762.6	765.7	765.7
35°	706.5	708.0	703.3	703.3	708.0	703.3	703.3	701.8
37.5°	641.0	644.0	641.0	642.5	645.7	641.0	644.0	642.5
40°	587.9	591.1	586.4	589.5	592.6	587.9	592.6	589.5
42.5°	539.6	544.3	541.1	544.3	547.4	544.3	547.4	542.7
45°	503.7	506.9	505.2	506.9	509.9	508.4	509.9	508.4
47.5°	469.4	475.6	472.5	475.6	480.3	477.2	480.3	475.6
50°	438.2	442.9	441.4	444.4	446.0	444.4	447.6	442.9
52.5°	397.6	402.3	400.8	400.8	403.9	400.8	403.9	400.8
55°	344.7	346.2	346.2	347.8	346.2	344.7	346.2	343.1
57.5°	293.2	296.3	291.7	296.3	294.7	293.2	293.2	290.0
60°	260.4	265.1	262.0	265.1	263.6	263.6	263.6	262.0
62.5°	233.9	237.1	233.9	235.5	235.5	235.5	233.9	232.4
65°	204.3	209.0	205.8	207.5	205.8	204.3	205.8	204.3
67.5°	174.7	176.2	176.2	174.7	174.7	174.7	174.7	171.6
70°	141.9	143.5	141.9	145.0	143.5	141.9	143.5	140.3
72.5°	110.7	112.3	110.7	112.3	110.7	110.7	110.7	110.7
75°	82.7	84.2	84.2	84.2	84.2	84.2	81.1	84.2
77.5°	59.3	59.3	59.3	60.8	59.3	59.3	59.3	59.3
80°	40.6	40.6	40.6	42.1	40.6	42.1	40.6	42.1
82.5°	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
85°	14.0	15.6	15.6	14.0	14.0	14.0	14.0	14.0
87.5°	3.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)