

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: P#

Luminaire Tested: **LD4C20D010 EX4C209027 4LBSQLWWLI**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C20D010 EX4C209027 4LBSQLWWLI
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

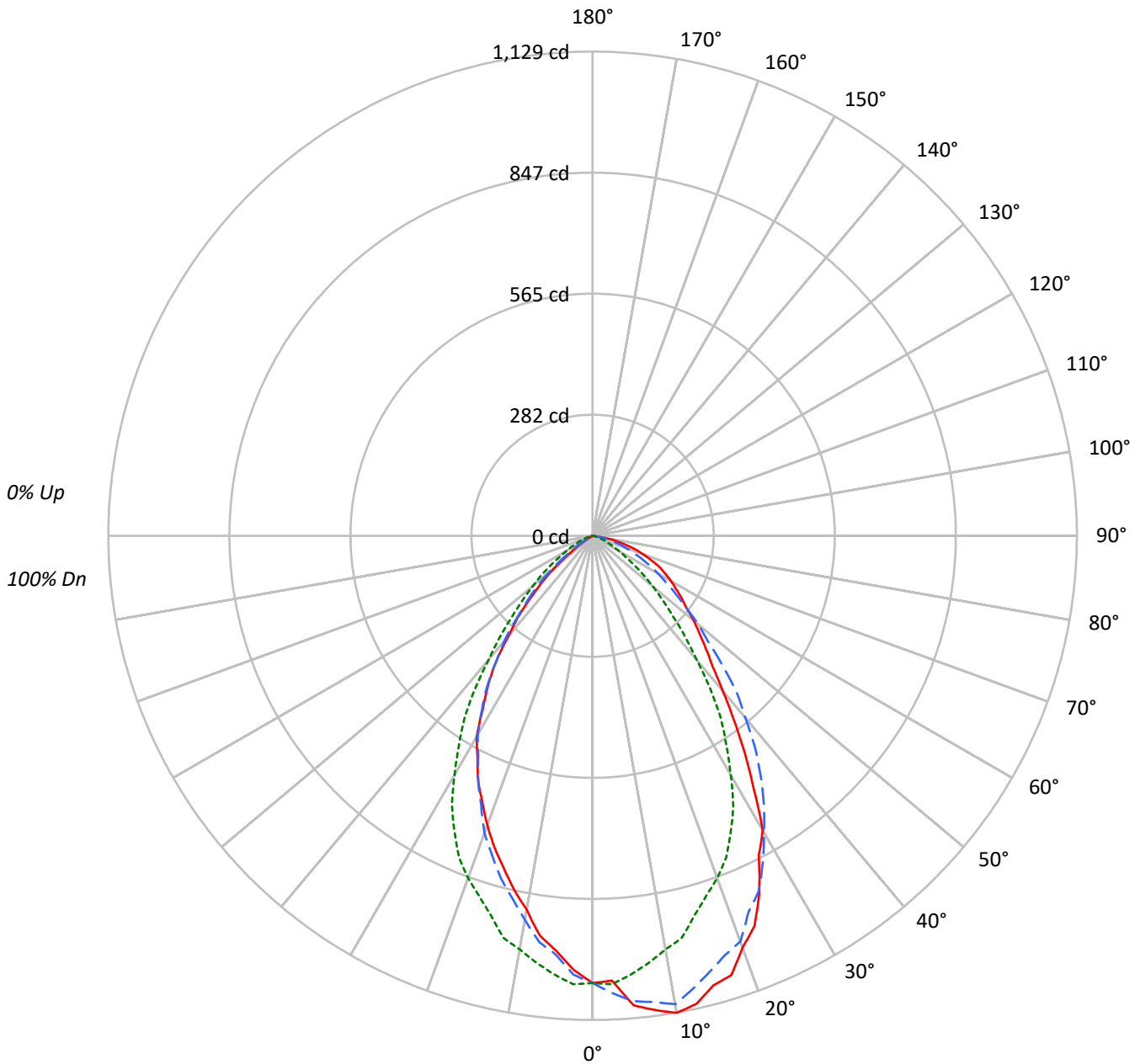
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1495.0 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
Input Voltage (V):
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





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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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41																			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	100628	100628	100628
5°	106466	99444	94116
10°	110646	95939	86749
15°	108433	91562	80074
20°	104910	87187	73705
25°	97861	81083	67232
30°	88342	71752	60198
35°	72771	61428	49932
40°	59389	47410	38430
45°	51021	36011	27646
50°	46174	27410	17458
55°	42493	19766	6308
60°	40796	13508	965
65°	39407	9132	297
70°	35264	6348	367
75°	28930	3281	0
80°	18059	1389	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.7	6.5
10°-20°	263.3	17.6
20°-30°	351.5	23.5
30°-40°	333.7	22.3
40°-50°	230.7	15.4
50°-60°	127.5	8.5
60°-70°	63.3	4.2
70°-80°	24.9	1.7
80°-90°	2.4	0.2
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°	712.5	47.7
0°-40°	1046.3	70.0
0°-60°	1404.4	93.9
0°-90°	1495.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1495.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1043	1043	1043	1043	1043	
5°	1099	1089	1027	980	972	105
15°	1086	1053	917	827	802	307
25°	919	915	762	632	632	419
35°	618	683	522	429	424	387
45°	374	429	264	216	203	292
55°	253	238	118	60	38	227
65°	173	125	40	1	1	168
75°	78	48	9	0	0	83
85°	0	1	0	0	0	7
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°	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9
2.5°	1037.9	1066.7	1069.2	1066.7	1070.5	1069.2	1075.5	1069.2	1076.8	1065.5	1068.0
5°	1099.2	1088.0	1111.7	1099.2	1099.2	1098.0	1094.2	1093.0	1098.0	1081.7	1089.2
7.5°	1115.5	1131.8	1153.0	1126.8	1128.0	1128.0	1120.5	1118.0	1118.0	1088.0	1096.7
10°	1129.3	1119.2	1130.5	1120.5	1129.3	1128.0	1133.0	1116.7	1128.0	1110.5	1109.2
12.5°	1118.0	1114.2	1129.3	1113.0	1108.0	1109.2	1103.0	1099.2	1103.0	1083.0	1081.7
15°	1085.5	1089.2	1111.7	1094.2	1091.7	1089.2	1081.7	1069.2	1079.3	1051.7	1053.0
17.5°	1074.3	1068.0	1071.8	1056.7	1060.5	1058.0	1056.7	1045.5	1042.9	1025.5	1025.5
20°	1021.7	1035.5	1035.5	1025.5	1025.5	1024.2	1008.0	1018.0	1006.7	1001.7	1006.7
22.5°	985.4	986.7	986.7	977.9	979.2	974.2	965.4	959.2	965.4	959.2	949.2
25°	919.2	921.7	936.7	920.4	917.9	922.9	915.4	911.6	910.4	895.4	915.4
27.5°	839.1	864.1	862.9	856.6	864.1	854.1	850.4	851.6	855.4	854.1	859.1
30°	792.9	796.6	800.4	795.4	796.6	792.9	792.9	794.1	804.1	800.4	799.1
32.5°	699.1	711.5	721.6	721.6	722.8	726.6	725.3	751.6	757.8	745.4	742.9
35°	617.8	626.5	635.3	636.5	652.8	654.0	655.3	662.8	680.3	684.1	682.8
37.5°	540.3	549.0	551.5	562.8	571.5	580.2	590.3	600.3	615.3	627.8	621.5
40°	471.5	475.2	481.5	486.5	504.0	504.0	509.0	529.0	545.3	555.3	554.0
42.5°	414.0	415.2	420.2	428.9	445.2	441.4	445.2	459.0	482.7	484.0	497.7
45°	373.9	372.7	376.4	377.6	387.7	392.7	395.2	405.2	425.2	427.7	428.9
47.5°	337.7	336.4	342.7	345.2	348.9	353.9	353.9	355.2	362.7	368.9	363.9
50°	307.6	307.6	307.6	310.1	316.4	315.1	316.4	321.4	325.1	322.6	321.4
52.5°	275.1	280.1	283.9	285.1	286.4	286.4	287.6	285.1	283.9	280.1	272.6
55°	252.6	257.6	257.6	257.6	257.6	262.6	256.4	257.6	257.6	247.6	237.6
57.5°	230.1	235.1	238.8	233.9	238.8	233.9	231.4	230.1	227.6	217.6	202.6
60°	211.4	213.9	212.6	211.4	213.9	210.1	207.6	202.6	200.1	186.3	176.3
62.5°	190.1	191.3	192.6	190.1	187.6	186.3	181.3	173.8	168.8	157.6	148.8
65°	172.6	168.8	167.6	166.3	163.8	160.1	156.3	147.6	143.8	133.8	125.0
67.5°	146.3	145.1	147.6	143.8	137.6	137.6	133.8	126.3	117.5	111.3	102.5
70°	125.0	123.8	121.3	117.5	116.3	111.3	111.3	102.5	100.0	88.8	81.3
72.5°	102.5	102.5	98.8	95.0	91.3	88.8	87.6	81.3	77.6	71.3	65.0
75°	77.6	77.6	76.3	72.5	70.0	67.5	66.3	61.3	57.5	51.3	47.5
77.5°	55.0	55.0	50.0	47.5	48.7	46.3	43.8	42.5	41.3	37.5	32.5
80°	32.5	31.3	27.5	28.8	27.5	27.5	26.3	25.0	22.5	20.0	17.5
82.5°	8.8	10.0	10.0	10.0	11.3	8.8	8.8	8.8	10.0	10.0	6.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
87.5°	1.3	2.5	5.0	5.0	5.0	5.0	5.0	3.8	3.8	3.8	2.5
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°	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9
2.5°	1055.5	1054.2	1055.5	1046.7	1066.7	1051.7	1049.2	1046.7	1055.5	1046.7	1034.2
5°	1078.0	1065.5	1061.7	1058.0	1069.2	1051.7	1048.0	1049.2	1042.9	1026.7	1028.0
7.5°	1085.5	1074.3	1063.0	1039.2	1049.2	1045.5	1035.5	1028.0	1018.0	1004.2	1001.7
10°	1088.0	1075.5	1059.2	1051.7	1036.7	1031.7	1028.0	1015.5	1003.0	979.2	972.9
12.5°	1080.5	1065.5	1045.5	1039.2	1028.0	1011.7	1003.0	990.4	979.2	960.4	946.7
15°	1048.0	1035.5	1029.2	1008.0	1003.0	992.9	975.4	957.9	941.7	916.6	909.1
17.5°	1010.5	1005.5	999.2	982.9	981.7	971.7	955.4	940.4	919.2	880.4	867.9
20°	971.7	971.7	951.7	945.4	957.9	937.9	925.4	911.6	867.9	849.1	826.6
22.5°	942.9	929.2	917.9	907.9	909.1	896.6	879.2	851.6	835.4	812.9	786.6
25°	886.7	891.7	866.7	862.9	866.7	837.9	829.1	806.6	782.8	761.6	741.6
27.5°	851.6	837.9	821.6	807.9	807.9	796.6	771.6	766.6	730.3	710.3	685.3
30°	799.1	789.1	775.3	755.3	752.8	744.1	724.1	711.5	674.1	644.0	630.3
32.5°	732.8	729.1	717.8	695.3	687.8	677.8	652.8	631.5	614.0	580.2	564.0
35°	685.3	671.6	647.8	629.0	622.8	605.3	585.2	570.2	551.5	521.5	500.2
37.5°	614.0	600.3	577.7	555.3	555.3	537.8	510.2	495.2	469.0	451.4	433.9
40°	551.5	534.0	511.5	485.2	481.5	456.4	445.2	420.2	403.9	376.4	373.9
42.5°	481.5	465.2	445.2	425.2	410.2	397.7	368.9	350.2	332.7	318.9	315.1
45°	417.7	396.4	378.9	353.9	338.9	323.9	305.1	292.6	278.9	263.9	255.1
47.5°	362.7	345.2	320.1	297.6	282.6	275.1	253.8	240.1	228.9	218.9	212.6
50°	306.4	285.1	271.4	246.3	243.8	226.4	208.9	197.6	191.3	182.6	173.8
52.5°	263.9	243.8	225.1	206.4	196.3	190.1	173.8	162.6	153.8	147.6	142.6
55°	222.6	205.1	190.1	171.3	165.1	156.3	137.6	135.1	126.3	117.5	111.3
57.5°	191.3	175.1	157.6	145.1	133.8	127.6	112.5	102.5	97.5	90.1	83.8
60°	162.6	145.1	131.3	116.3	111.3	102.5	91.3	82.6	76.3	70.0	63.8
62.5°	136.3	121.3	106.3	93.8	86.3	81.3	72.5	65.0	58.8	53.8	48.7
65°	112.5	98.8	86.3	73.8	70.0	63.8	57.5	51.3	46.3	40.0	35.0
67.5°	92.6	80.1	67.5	58.8	55.0	52.5	45.0	38.8	35.0	31.3	26.3
70°	72.5	63.8	53.8	46.3	42.5	38.8	33.8	30.0	25.0	22.5	18.8
72.5°	56.3	48.7	40.0	33.8	31.3	28.8	23.8	20.0	17.5	15.0	12.5
75°	40.0	33.8	28.8	22.5	21.3	20.0	16.3	13.8	11.3	8.8	7.5
77.5°	27.5	22.5	17.5	15.0	13.8	11.3	10.0	7.5	6.3	5.0	3.8
80°	15.0	11.3	8.8	7.5	6.3	5.0	5.0	3.8	2.5	2.5	1.3
82.5°	5.0	3.8	2.5	1.3	1.3	1.3	1.3	1.3	1.3	0.0	1.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	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°	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9
2.5°	1041.7	1028.0	1031.7	1031.7	1029.2	1029.2	1026.7	1023.0	1024.2	1016.7	1000.5
5°	1030.5	1013.0	1010.5	1013.0	1003.0	1000.5	995.5	1003.0	980.4	989.2	979.2
7.5°	998.0	981.7	977.9	986.7	974.2	966.7	965.4	975.4	955.4	945.4	934.2
10°	961.7	955.4	944.2	937.9	934.2	935.4	925.4	912.9	909.1	906.6	896.6
12.5°	929.2	915.4	905.4	897.9	895.4	895.4	879.2	876.7	865.4	862.9	847.9
15°	890.4	874.2	867.9	857.9	849.1	854.1	835.4	830.4	826.6	810.4	812.9
17.5°	856.6	839.1	824.1	817.9	810.4	802.9	785.3	789.1	780.3	780.3	757.8
20°	812.9	794.1	782.8	770.3	770.3	760.3	747.9	749.1	737.8	726.6	706.5
22.5°	766.6	746.6	732.8	727.8	715.3	712.8	697.8	694.1	679.1	680.3	662.8
25°	717.8	697.8	679.1	680.3	669.1	664.1	655.3	637.8	631.5	624.0	619.0
27.5°	660.3	646.5	630.3	629.0	607.8	609.0	597.8	592.8	577.7	581.5	570.2
30°	607.8	587.8	572.7	569.0	560.3	557.8	540.3	532.7	535.3	525.2	519.0
32.5°	554.0	524.0	517.7	510.2	505.2	499.0	486.5	491.5	480.2	482.7	472.7
35°	482.7	470.2	453.9	453.9	448.9	443.9	435.2	440.2	428.9	423.9	414.0
37.5°	422.7	411.5	395.2	400.2	391.4	383.9	376.4	377.6	367.7	366.4	356.4
40°	357.7	351.4	340.2	340.2	333.9	333.9	330.1	326.4	320.1	312.6	301.4
42.5°	296.4	291.4	286.4	287.6	278.9	286.4	276.4	282.6	262.6	261.4	253.8
45°	251.3	240.1	241.3	236.3	231.4	233.9	225.1	227.6	216.4	213.9	206.4
47.5°	203.9	200.1	192.6	190.1	190.1	186.3	182.6	181.3	176.3	170.1	160.1
50°	167.6	153.8	151.3	147.6	145.1	145.1	140.1	132.6	133.8	127.6	117.5
52.5°	131.3	120.0	115.0	113.8	108.8	106.3	100.0	95.0	91.3	88.8	82.6
55°	101.3	91.3	85.1	85.1	77.6	77.6	68.8	65.0	60.0	55.0	51.3
57.5°	76.3	71.3	65.0	60.0	57.5	51.3	46.3	40.0	36.3	28.8	23.8
60°	57.5	52.5	46.3	42.5	40.0	33.8	27.5	22.5	13.8	11.3	10.0
62.5°	42.5	37.5	31.3	28.8	26.3	21.3	15.0	7.5	3.8	3.8	3.8
65°	31.3	25.0	20.0	17.5	15.0	11.3	5.0	2.5	1.3	1.3	1.3
67.5°	21.3	16.3	11.3	10.0	7.5	3.8	1.3	1.3	1.3	1.3	1.3
70°	13.8	10.0	5.0	3.8	2.5	1.3	1.3	1.3	1.3	1.3	1.3
72.5°	8.8	5.0	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
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°	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9	1042.9
2.5°	1018.0	1009.2	1014.2	1003.0	1008.0	1016.7	1010.5	1013.0
5°	982.9	977.9	971.7	955.4	967.9	977.9	972.9	971.7
7.5°	945.4	927.9	936.7	931.7	929.2	939.2	927.9	940.4
10°	906.6	894.1	892.9	884.2	884.2	891.7	892.9	885.4
12.5°	849.1	842.9	842.9	841.6	840.4	847.9	849.1	845.4
15°	807.9	805.4	799.1	797.9	790.4	801.6	802.9	801.6
17.5°	757.8	759.1	752.8	752.8	757.8	761.6	751.6	761.6
20°	724.1	717.8	715.3	704.1	710.3	716.6	716.6	717.8
22.5°	675.3	665.3	669.1	662.8	659.0	667.8	667.8	671.6
25°	620.3	620.3	622.8	619.0	621.5	626.5	622.8	631.5
27.5°	567.7	572.7	572.7	567.7	570.2	585.2	591.5	581.5
30°	519.0	520.2	524.0	521.5	529.0	534.0	532.7	540.3
32.5°	464.0	470.2	472.7	469.0	471.5	482.7	476.5	475.2
35°	421.5	410.2	409.0	410.2	415.2	417.7	415.2	423.9
37.5°	360.2	356.4	351.4	352.7	356.4	361.4	363.9	370.2
40°	301.4	296.4	296.4	295.1	291.4	305.1	305.1	305.1
42.5°	250.1	248.8	242.6	242.6	247.6	251.3	248.8	257.6
45°	205.1	200.1	196.3	196.3	200.1	200.1	203.9	202.6
47.5°	161.3	156.3	157.6	153.8	157.6	162.6	156.3	157.6
50°	121.3	121.3	118.8	121.3	120.0	121.3	118.8	116.3
52.5°	82.6	93.8	95.0	90.1	78.8	68.8	62.5	67.5
55°	47.5	42.5	42.5	41.3	38.8	37.5	33.8	37.5
57.5°	23.8	21.3	21.3	21.3	20.0	18.8	16.3	16.3
60°	10.0	8.8	8.8	7.5	6.3	5.0	3.8	5.0
62.5°	3.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5
65°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
70°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)