

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P252263

Luminaire Tested: **LE_6B20D010 EC6B10209024 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252263
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B20D010 EC6B10209024 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1701.2 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

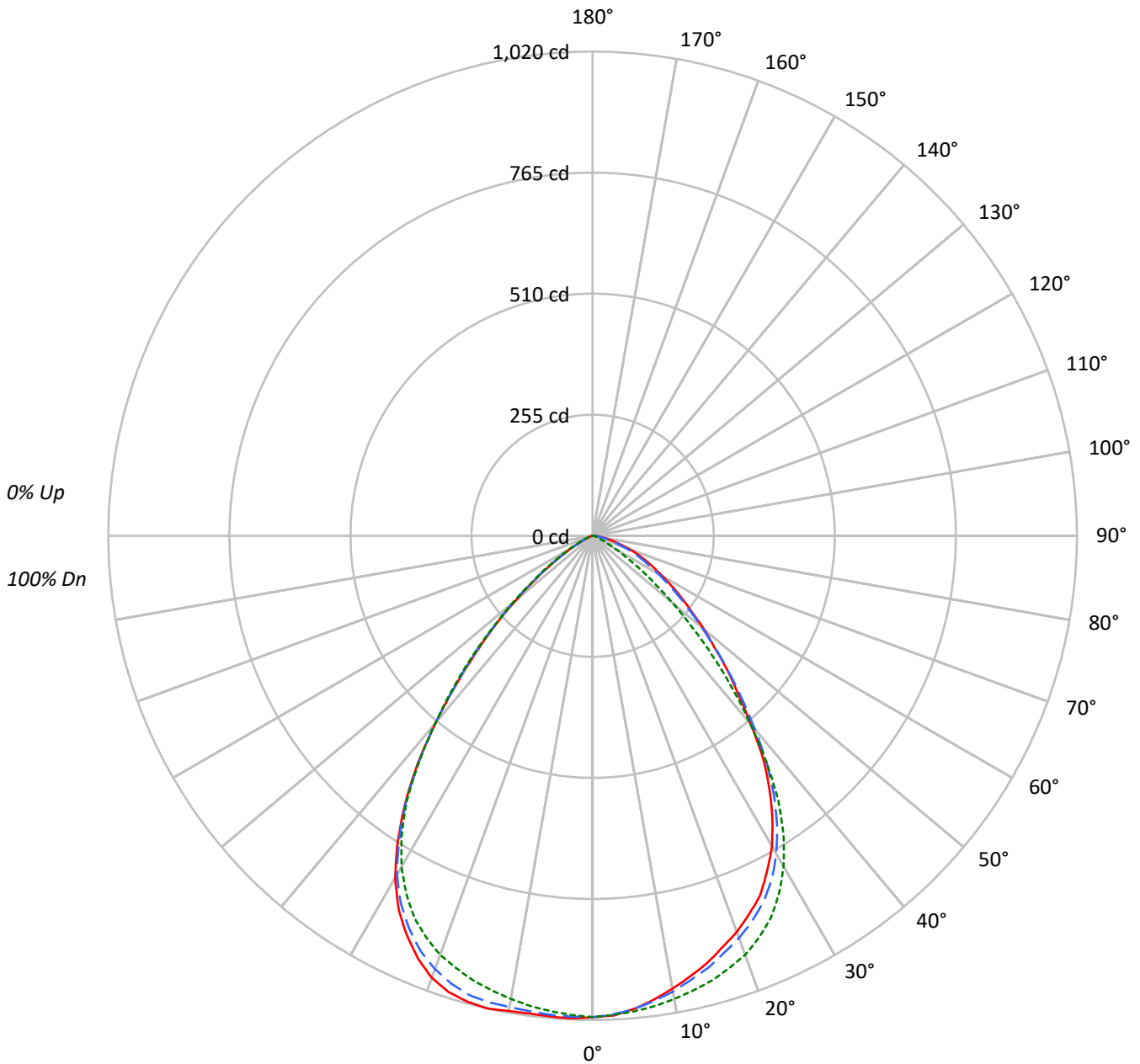
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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								
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	85	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	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52								
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47								
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43								
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40								
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	66154	66154	66154
5°	65529	65850	66570
10°	64180	65638	67340
15°	62949	65516	68657
20°	61645	65220	68789
25°	60122	63916	66737
30°	56922	60613	62647
35°	51697	54325	54811
40°	44116	43911	43698
45°	37072	32883	31868
50°	30956	22248	21132
55°	26047	13649	12398
60°	22051	7190	6237
65°	19111	3782	3026
70°	15870	2327	1640
75°	11721	1538	907
80°	9205	939	451
85°	7336	898	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.6	5.6
10°-20°	273.6	16.1
20°-30°	404.1	23.8
30°-40°	416.4	24.5
40°-50°	287.6	16.9
50°-60°	141.8	8.3
60°-70°	57.5	3.4
70°-80°	20.5	1.2
80°-90°	4.2	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°	773.3	45.5
0°-40°	1189.7	69.9
0°-60°	1619.1	95.2
0°-90°	1701.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1701.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1014	1014	1014	1014	1014	
5°	1001	1001	1006	1013	1016	94
15°	932	942	970	1002	1016	262
25°	835	851	888	914	927	382
35°	649	665	682	686	688	402
45°	402	404	356	352	345	311
55°	229	220	120	113	109	207
65°	124	112	24	20	20	123
75°	46	39	6	4	4	52
85°	10	7	1	0	0	12
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°	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0
2.5°	1011.6	1007.9	1010.4	1005.5	1011.6	1005.5	1006.8	1007.9	1006.8	1007.9	1009.1
5°	1000.6	996.9	1000.6	994.5	1000.6	996.9	996.9	998.1	998.1	999.4	1000.6
7.5°	985.9	982.2	985.9	979.8	987.1	983.4	983.4	985.9	984.6	985.9	988.4
10°	968.8	963.9	967.5	963.9	971.1	966.2	968.8	968.8	968.8	972.4	974.9
12.5°	950.4	945.5	950.4	944.2	951.6	947.9	949.1	952.9	954.0	956.5	957.8
15°	932.0	925.9	928.4	924.6	932.0	928.4	929.5	934.5	934.5	938.1	941.8
17.5°	908.8	903.9	908.8	903.9	910.0	907.5	910.0	913.6	913.6	917.2	921.0
20°	887.9	883.0	886.6	883.0	890.4	886.6	887.9	892.8	894.0	897.8	901.4
22.5°	862.1	858.5	861.0	857.2	864.6	862.1	863.4	868.2	869.5	872.0	878.1
25°	835.2	827.9	831.6	829.1	836.5	832.8	835.2	840.1	842.6	846.2	851.1
27.5°	796.0	792.4	794.9	794.9	801.0	797.2	798.5	803.4	807.1	810.8	816.9
30°	755.6	749.5	752.0	753.2	758.1	755.6	758.1	763.0	764.2	769.1	774.0
32.5°	704.2	701.8	706.6	704.2	706.6	706.6	707.9	711.5	714.0	716.5	722.6
35°	649.1	644.2	649.1	646.6	652.8	649.1	652.8	656.5	656.5	661.4	665.0
37.5°	589.1	583.0	585.4	585.4	587.9	586.6	586.6	592.8	594.0	597.6	601.4
40°	518.0	515.6	520.5	519.2	520.5	520.5	521.8	525.4	527.9	529.1	530.2
42.5°	454.4	455.6	456.8	456.8	456.8	456.8	456.8	461.8	460.5	464.1	465.4
45°	401.8	396.8	399.2	398.0	401.8	398.0	401.8	405.4	402.9	406.6	404.1
47.5°	347.9	347.9	347.9	346.6	349.0	347.9	350.2	351.5	351.5	351.5	350.2
50°	305.0	301.2	302.5	302.5	303.8	302.5	305.0	306.1	306.1	303.8	298.9
52.5°	263.2	262.1	262.1	264.5	264.5	263.2	263.2	263.2	263.2	259.6	257.1
55°	229.0	226.6	227.8	227.8	227.8	227.8	229.0	227.8	227.8	224.1	220.5
57.5°	198.4	196.0	196.0	196.0	197.1	196.0	196.0	196.0	194.8	191.0	186.1
60°	169.0	167.8	169.0	169.0	170.2	169.0	169.0	169.0	166.5	162.9	158.0
62.5°	144.5	144.5	144.5	145.8	145.8	144.5	144.5	143.2	142.1	137.1	132.2
65°	123.8	122.5	123.8	123.8	124.9	124.9	123.8	122.5	121.2	116.4	111.5
67.5°	102.9	101.6	102.9	102.9	104.1	102.9	102.9	102.9	99.2	96.8	91.9
70°	83.2	82.0	82.0	82.0	83.2	80.9	82.0	82.0	79.6	75.9	71.0
72.5°	63.6	63.6	63.6	63.6	63.6	63.6	62.5	62.5	60.0	56.4	53.9
75°	46.5	46.5	47.8	47.8	46.5	46.5	46.5	45.4	44.1	41.6	39.2
77.5°	34.2	34.2	34.2	34.2	33.1	33.1	33.1	31.9	30.6	29.4	27.0
80°	24.5	24.5	24.5	23.2	24.5	23.2	23.2	23.2	20.9	19.6	18.4
82.5°	17.1	15.9	15.9	15.9	15.9	15.9	15.9	14.8	14.8	13.5	12.2
85°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	8.6	7.4	7.4
87.5°	4.9	6.1	6.1	6.1	6.1	6.1	6.1	4.9	4.9	4.9	3.6
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°	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0
2.5°	1009.1	1009.1	1011.6	1007.9	1014.0	1010.4	1009.1	1015.2	1011.6	1010.4	1012.9
5°	1000.6	1001.8	1003.0	1000.6	1006.8	1003.0	1003.0	1009.1	1006.8	1005.5	1009.1
7.5°	989.5	990.8	993.2	992.0	996.9	994.5	995.6	1001.8	999.4	999.4	1003.0
10°	976.1	978.5	981.0	981.0	987.1	984.6	984.6	992.0	989.5	990.8	995.6
12.5°	960.1	963.9	967.5	968.8	974.9	971.1	972.4	981.0	979.8	981.0	985.9
15°	943.0	947.9	951.6	951.6	959.0	955.2	959.0	967.5	965.0	970.0	976.1
17.5°	923.4	928.4	933.2	934.5	941.8	939.4	944.2	952.9	952.9	955.2	962.6
20°	905.0	911.1	913.6	917.2	924.6	923.4	925.9	935.6	935.6	939.4	946.8
22.5°	880.5	886.6	891.6	895.2	901.4	901.4	905.0	913.6	913.6	916.1	923.4
25°	853.6	861.0	864.6	868.2	874.4	873.2	876.9	884.2	885.5	887.9	895.2
27.5°	819.4	825.5	830.4	832.8	841.4	836.5	840.1	848.8	847.5	850.0	856.1
30°	776.5	782.6	787.5	787.5	794.9	794.9	798.5	802.1	802.1	804.6	809.5
32.5°	726.2	733.6	733.6	737.2	742.1	737.2	742.1	747.1	744.6	748.2	752.0
35°	668.6	672.4	673.6	673.6	677.2	676.0	674.8	678.5	676.0	682.1	685.9
37.5°	598.9	603.8	601.4	603.8	602.5	598.9	598.9	605.0	600.1	601.4	605.0
40°	531.5	531.5	530.2	524.1	525.4	521.8	520.5	521.8	516.9	515.6	520.5
42.5°	461.8	460.5	456.8	448.2	449.5	443.4	438.5	438.5	436.0	434.8	436.0
45°	399.2	395.6	389.5	379.6	377.2	372.2	362.5	360.0	356.4	356.4	357.6
47.5°	341.8	336.8	327.0	316.0	309.9	303.8	293.9	290.2	284.1	281.6	284.1
50°	293.9	285.4	273.1	257.1	251.1	243.8	233.9	227.8	221.6	219.2	218.0
52.5°	249.9	237.6	225.4	205.8	200.9	193.5	180.0	173.9	167.8	162.9	162.9
55°	211.9	200.9	183.8	165.4	158.0	150.6	137.1	128.6	122.5	120.0	117.6
57.5°	177.6	165.4	149.4	129.9	122.5	115.1	101.6	93.1	87.0	83.2	80.9
60°	149.4	136.0	120.0	102.9	94.2	87.0	73.5	64.9	58.8	55.1	52.6
62.5°	122.5	111.5	95.5	79.6	72.2	64.9	53.9	45.4	39.2	36.8	33.1
65°	102.9	91.9	77.1	63.6	57.5	50.2	40.4	33.1	28.1	24.5	22.0
67.5°	83.2	74.8	62.5	50.2	44.1	39.2	30.6	24.5	19.6	17.1	15.9
70°	66.1	57.5	47.8	38.0	34.2	29.4	23.2	17.1	14.8	12.2	11.0
72.5°	49.0	42.9	35.5	28.1	24.5	22.0	15.9	13.5	9.8	8.6	7.4
75°	35.5	30.6	25.8	19.6	17.1	15.9	12.2	8.6	7.4	6.1	4.9
77.5°	24.5	22.0	17.1	13.5	12.2	11.0	8.6	6.1	4.9	3.6	3.6
80°	15.9	13.5	11.0	8.6	8.6	7.4	4.9	3.6	3.6	2.5	2.5
82.5°	9.8	8.6	7.4	6.1	4.9	4.9	3.6	2.5	2.5	1.2	1.2
85°	6.1	4.9	3.6	3.6	2.5	2.5	2.5	1.2	1.2	1.2	1.2
87.5°	2.5	2.5	2.5	1.2	1.2	1.2	1.2	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	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°	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0
2.5°	1012.9	1012.9	1015.2	1011.6	1014.0	1014.0	1016.5	1011.6	1014.0	1015.2	1017.8
5°	1007.9	1009.1	1011.6	1010.4	1011.6	1011.6	1014.0	1007.9	1012.9	1012.9	1016.5
7.5°	1003.0	1003.0	1005.5	1004.2	1006.8	1007.9	1010.4	1005.5	1010.4	1010.4	1014.0
10°	996.9	996.9	1000.6	999.4	1003.0	1004.2	1007.9	1003.0	1007.9	1009.1	1012.9
12.5°	988.4	989.5	993.2	993.2	996.9	999.4	1003.0	1000.6	1006.8	1007.9	1012.9
15°	978.5	981.0	985.9	984.6	988.4	992.0	996.9	993.2	1001.8	1004.2	1009.1
17.5°	966.2	968.8	972.4	972.4	976.1	978.5	984.6	982.2	989.5	990.8	996.9
20°	947.9	951.6	956.5	955.2	959.0	961.4	966.2	963.9	971.1	973.6	979.8
22.5°	925.9	928.4	932.0	932.0	935.6	938.1	943.0	939.4	946.8	947.9	952.9
25°	896.5	898.9	901.4	902.6	906.2	907.5	910.0	907.5	913.6	914.9	921.0
27.5°	858.5	859.8	863.4	863.4	865.9	867.1	870.8	865.9	874.4	874.4	878.1
30°	813.2	812.0	816.9	814.4	816.9	816.9	820.5	818.1	824.2	821.8	825.5
32.5°	753.2	755.6	755.6	753.2	758.1	756.9	756.9	754.4	758.1	759.4	761.8
35°	683.4	687.0	687.0	688.2	689.5	685.9	687.0	679.8	685.9	687.0	688.2
37.5°	607.5	603.8	606.2	602.5	608.6	601.4	601.4	596.4	601.4	601.4	602.5
40°	520.5	519.2	521.8	519.2	518.0	516.9	514.4	510.8	515.6	513.1	516.9
42.5°	438.5	437.2	437.2	434.8	433.5	433.5	431.1	428.6	427.4	427.4	433.5
45°	354.0	356.4	354.0	352.8	355.1	352.8	354.0	349.0	351.5	349.0	351.5
47.5°	282.9	284.1	281.6	279.2	282.9	279.2	279.2	275.5	280.5	280.5	278.0
50°	219.2	218.0	215.5	218.0	216.8	216.8	216.8	213.1	215.5	211.9	214.4
52.5°	161.6	160.4	160.4	159.2	160.4	159.2	159.2	158.0	158.0	156.8	158.0
55°	117.6	116.4	113.9	113.9	113.9	115.1	113.9	112.6	112.6	111.5	112.6
57.5°	79.6	77.1	77.1	77.1	77.1	75.9	75.9	74.8	75.9	74.8	75.9
60°	51.4	51.4	49.0	49.0	49.0	49.0	49.0	47.8	49.0	49.0	49.0
62.5°	31.9	31.9	30.6	29.4	30.6	29.4	29.4	29.4	30.6	29.4	30.6
65°	20.9	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
67.5°	14.8	13.5	13.5	13.5	13.5	13.5	13.5	12.2	13.5	13.5	13.5
70°	9.8	9.8	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
72.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
75°	4.9	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
77.5°	3.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
80°	2.5	2.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
85°	1.2	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	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0	1014.0
2.5°	1014.0	1015.2	1012.9	1014.0	1011.6	1014.0	1015.2	1017.8
5°	1011.6	1012.9	1010.4	1012.9	1010.4	1012.9	1014.0	1016.5
7.5°	1009.1	1011.6	1009.1	1011.6	1009.1	1011.6	1012.9	1015.2
10°	1009.1	1012.9	1010.4	1014.0	1010.4	1012.9	1015.2	1016.5
12.5°	1009.1	1012.9	1011.6	1014.0	1012.9	1015.2	1017.8	1020.1
15°	1006.8	1010.4	1007.9	1011.6	1010.4	1011.6	1016.5	1016.5
17.5°	993.2	996.9	996.9	999.4	999.4	1003.0	1005.5	1007.9
20°	976.1	979.8	978.5	982.2	982.2	985.9	988.4	990.8
22.5°	950.4	955.2	954.0	957.8	956.5	959.0	963.9	962.6
25°	917.2	923.4	922.2	924.6	923.4	923.4	925.9	927.1
27.5°	876.9	880.5	879.4	881.8	879.4	881.8	884.2	885.5
30°	824.2	826.6	825.5	826.6	825.5	827.9	829.1	831.6
32.5°	760.5	764.2	760.5	763.0	761.8	761.8	766.6	764.2
35°	684.6	685.9	687.0	687.0	684.6	685.9	688.2	688.2
37.5°	600.1	606.2	598.9	602.5	601.4	601.4	601.4	605.0
40°	511.9	513.1	510.8	510.8	510.8	509.5	514.4	513.1
42.5°	428.6	429.9	428.6	425.0	426.2	426.2	429.9	425.0
45°	347.9	350.2	349.0	349.0	346.6	346.6	347.9	345.4
47.5°	275.5	278.0	274.4	275.5	273.1	275.5	274.4	276.8
50°	209.4	211.9	210.6	211.9	211.9	209.4	213.1	208.2
52.5°	156.8	158.0	156.8	155.5	154.2	154.2	156.8	155.5
55°	111.5	110.2	110.2	110.2	111.5	111.5	110.2	109.0
57.5°	74.8	74.8	73.5	73.5	74.8	72.2	73.5	72.2
60°	47.8	47.8	47.8	47.8	46.5	47.8	47.8	47.8
62.5°	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
65°	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
67.5°	12.2	13.5	13.5	13.5	12.2	12.2	12.2	12.2
70°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
72.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
75°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
77.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
80°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	1.2	1.2	1.2	1.2	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)