

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: P252681

Luminaire Tested: **LE_6B20D010 EC6B10209030 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B20D010 EC6B10209030 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2031.3 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

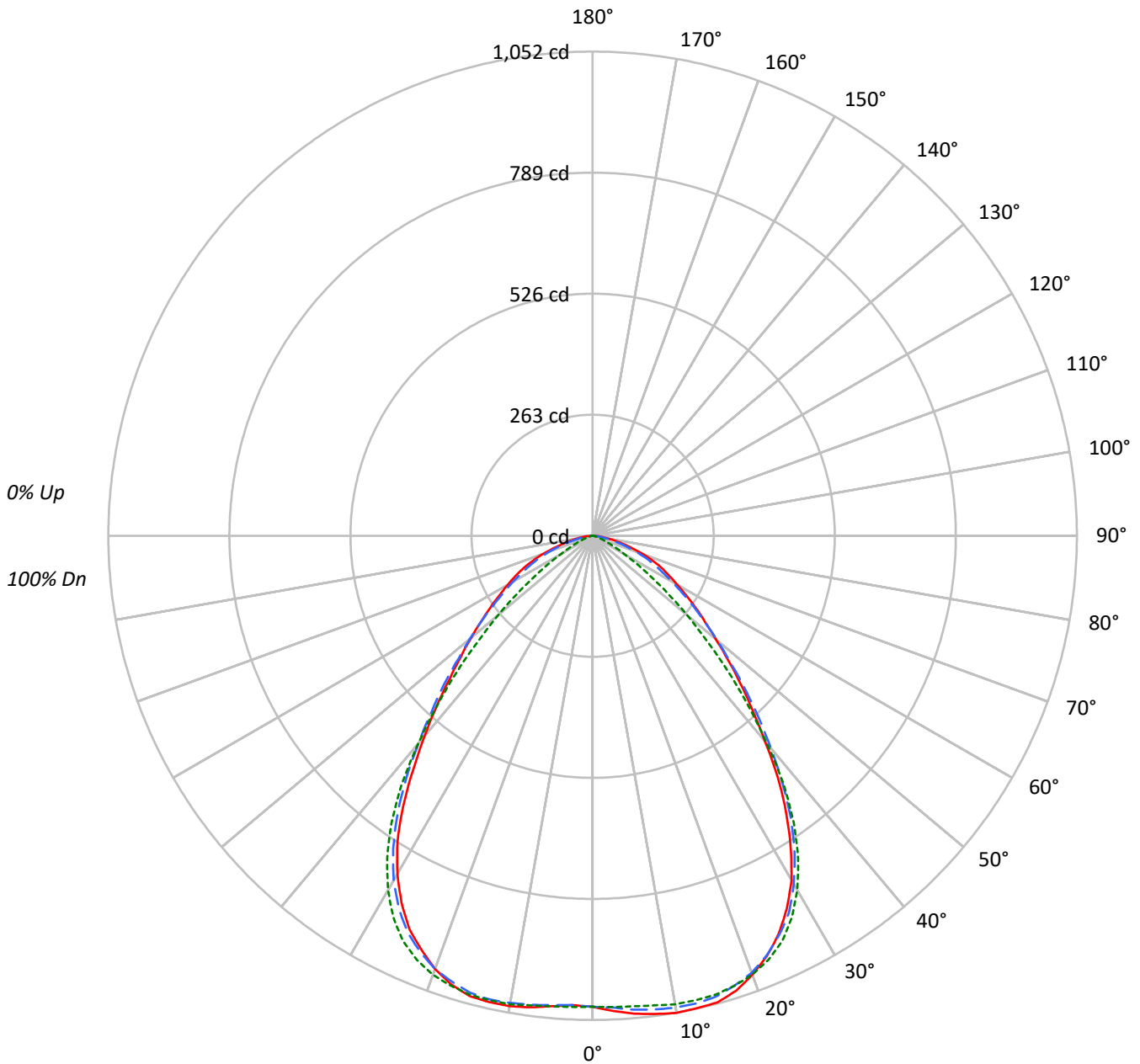
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89								
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78								
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68								
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61								
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54								
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48								
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44								
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40								
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36								
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	66767	66767	66767
5°	68254	67206	67206
10°	69718	68466	68758
15°	70885	69710	69906
20°	70455	70455	69539
25°	68775	70027	67839
30°	65096	66956	63898
35°	58339	60641	57184
40°	49558	50171	48323
45°	41934	38327	40467
50°	35412	27039	34966
55°	31120	17448	30779
60°	27584	10386	27766
65°	25471	6252	25471
70°	22089	3605	21536
75°	17519	2168	16410
80°	13075	1653	12473
85°	11902	1123	10854



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.5	4.9
10°-20°	291.6	14.4
20°-30°	438.6	21.6
30°-40°	461.1	22.7
40°-50°	344.5	17.0
50°-60°	214.4	10.6
60°-70°	122.0	6.0
70°-80°	50.2	2.5
80°-90°	10.4	0.5
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°	828.7	40.8
0°-40°	1289.8	63.5
0°-60°	1848.7	91.0
0°-90°	2031.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2031.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1023	1023	1023	1023	1023	
5°	1042	1034	1026	1023	1026	100
15°	1050	1036	1032	1028	1035	295
25°	955	958	973	951	942	437
35°	732	751	761	740	718	455
45°	454	465	415	456	439	352
55°	274	268	153	264	271	246
65°	165	148	40	148	165	163
75°	70	55	9	54	65	75
85°	16	10	2	9	14	18
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°	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4
2.5°	1033.5	1032.1	1033.5	1030.6	1029.1	1029.1	1030.6	1027.8	1026.2	1027.8	1026.2
5°	1042.2	1039.2	1040.8	1039.2	1036.4	1036.4	1037.9	1033.5	1033.5	1035.0	1033.5
7.5°	1048.0	1048.0	1048.0	1045.1	1043.6	1042.2	1045.1	1040.8	1039.2	1039.2	1037.9
10°	1052.4	1050.9	1052.4	1049.5	1046.5	1045.1	1048.0	1045.1	1042.2	1045.1	1040.8
12.5°	1050.9	1050.9	1050.9	1049.5	1046.5	1045.1	1048.0	1043.6	1042.2	1043.6	1040.8
15°	1049.5	1045.1	1046.5	1045.1	1040.8	1040.8	1042.2	1037.9	1035.0	1039.2	1036.4
17.5°	1036.4	1033.5	1035.0	1032.1	1029.1	1027.8	1029.1	1027.8	1024.9	1027.8	1024.9
20°	1014.8	1014.8	1016.1	1013.2	1010.4	1008.9	1011.8	1008.9	1006.0	1010.4	1010.4
22.5°	988.6	988.6	988.6	987.2	985.8	985.8	985.8	984.2	982.9	985.8	987.2
25°	955.4	953.9	955.4	956.8	955.4	953.9	955.4	955.4	952.5	958.2	958.2
27.5°	913.4	913.4	916.2	914.9	914.9	913.4	916.2	916.2	914.9	919.1	923.5
30°	864.1	861.2	864.1	864.1	865.6	865.6	867.0	867.0	867.0	871.4	874.2
32.5°	800.5	801.9	806.2	804.9	803.4	807.8	807.8	810.6	812.0	815.0	816.4
35°	732.5	733.9	733.9	735.4	738.2	735.4	742.6	741.1	742.6	748.4	751.2
37.5°	660.1	655.8	663.0	660.1	661.5	661.5	664.4	665.9	670.2	677.4	677.4
40°	581.9	583.4	586.2	587.8	589.1	589.1	589.1	593.5	594.9	603.6	602.1
42.5°	513.9	513.9	516.8	518.2	518.2	518.2	518.2	522.5	525.5	528.4	531.2
45°	454.5	450.1	453.1	453.1	456.0	454.5	457.4	460.2	461.8	466.1	464.6
47.5°	398.1	396.6	398.1	399.5	398.1	399.5	401.0	402.4	403.9	403.9	403.9
50°	348.9	348.9	350.2	351.8	351.8	351.8	351.8	353.2	353.2	356.1	353.2
52.5°	308.4	309.8	309.8	308.4	309.8	309.8	311.2	311.2	309.8	309.8	305.4
55°	273.6	272.1	273.6	272.1	273.6	273.6	272.1	272.1	270.6	269.2	267.8
57.5°	240.2	240.2	240.2	240.2	238.9	240.2	238.9	237.4	237.4	234.5	230.1
60°	211.4	211.4	211.4	211.4	211.4	209.9	211.4	209.9	207.0	204.1	198.2
62.5°	186.8	185.2	186.8	185.2	185.2	183.9	183.9	182.4	179.5	176.6	170.8
65°	165.0	166.5	165.0	165.0	163.6	162.1	162.1	160.6	156.4	153.4	147.6
67.5°	141.9	140.4	140.4	140.4	139.0	139.0	139.0	136.1	133.1	128.9	123.0
70°	115.8	115.8	115.8	114.4	114.4	112.9	112.9	111.5	108.6	105.6	98.4
72.5°	91.2	91.2	91.2	88.2	89.8	88.2	88.2	85.4	84.0	79.6	75.2
75°	69.5	69.5	68.0	68.0	66.6	65.1	65.1	63.8	62.2	59.4	55.0
77.5°	50.6	50.6	50.6	49.2	47.8	46.4	46.4	44.9	43.4	42.0	39.1
80°	34.8	34.8	34.8	34.8	33.2	31.9	31.9	30.4	30.4	29.0	26.0
82.5°	23.1	23.1	23.1	23.1	21.8	21.8	21.8	20.2	18.9	18.9	15.9
85°	15.9	15.9	14.5	14.5	14.5	14.5	13.0	13.0	11.6	10.1	10.1
87.5°	8.6	8.6	8.6	8.6	7.2	7.2	7.2	7.2	5.8	5.8	4.4
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4
2.5°	1030.6	1030.6	1029.1	1024.9	1026.2	1024.9	1026.2	1024.9	1020.5	1024.9	1020.5
5°	1036.4	1037.9	1035.0	1029.1	1030.6	1029.1	1029.1	1027.8	1023.4	1026.2	1023.4
7.5°	1042.2	1040.8	1039.2	1033.5	1035.0	1033.5	1033.5	1030.6	1026.2	1029.1	1024.9
10°	1045.1	1045.1	1042.2	1036.4	1036.4	1035.0	1036.4	1035.0	1029.1	1033.5	1030.6
12.5°	1045.1	1043.6	1043.6	1036.4	1037.9	1036.4	1037.9	1035.0	1030.6	1033.5	1032.1
15°	1040.8	1040.8	1039.2	1032.1	1033.5	1033.5	1035.0	1032.1	1027.8	1032.1	1029.1
17.5°	1032.1	1032.1	1030.6	1024.9	1027.8	1027.8	1029.1	1026.2	1022.0	1024.9	1024.9
20°	1014.8	1016.1	1016.1	1011.8	1014.8	1014.8	1016.1	1014.8	1013.2	1014.8	1011.8
22.5°	994.4	997.4	997.4	993.0	995.9	995.9	1000.2	998.8	995.9	997.4	995.9
25°	964.0	966.9	969.9	966.9	969.9	969.9	974.1	972.8	969.9	972.8	968.4
27.5°	929.2	930.8	933.6	930.8	935.1	933.6	938.0	936.5	932.2	936.5	935.1
30°	880.1	885.9	890.2	885.9	890.2	890.2	893.1	891.6	890.2	888.8	888.8
32.5°	825.1	830.9	830.9	829.4	832.4	832.4	833.8	830.9	829.4	830.9	832.4
35°	757.0	760.0	762.9	761.4	762.9	764.2	762.9	764.2	760.0	761.4	761.4
37.5°	683.2	686.1	686.1	681.8	684.6	684.6	681.8	681.8	678.9	681.8	676.0
40°	605.0	602.1	603.6	600.8	597.9	597.9	596.4	590.6	587.8	589.1	590.6
42.5°	528.4	528.4	524.0	516.8	509.5	509.5	505.1	502.2	496.5	499.4	498.0
45°	463.2	456.0	450.1	438.6	434.2	431.4	424.1	416.9	414.0	415.4	414.0
47.5°	401.0	395.1	380.8	364.8	360.4	356.1	347.4	338.8	335.9	332.9	332.9
50°	348.9	338.8	322.8	305.4	298.1	291.0	279.4	270.6	264.9	266.4	266.4
52.5°	301.1	289.5	270.6	249.0	240.2	231.6	221.5	211.4	207.0	205.5	205.5
55°	259.1	246.1	227.2	202.6	195.4	185.2	172.2	160.6	154.9	153.4	156.4
57.5°	221.5	209.9	188.1	163.6	154.9	144.8	131.8	121.6	114.4	112.9	114.4
60°	191.1	175.1	156.4	133.1	121.6	112.9	98.4	89.8	82.5	79.6	81.0
62.5°	160.6	146.2	127.4	104.2	95.5	86.9	73.9	63.8	57.9	56.5	57.9
65°	137.5	123.0	105.6	85.4	76.8	68.0	56.5	46.4	42.0	40.5	42.0
67.5°	114.4	101.4	86.9	68.0	60.8	53.5	42.0	34.8	29.0	27.5	29.0
70°	92.6	81.0	66.6	53.5	46.4	40.5	31.9	24.6	20.2	18.9	20.2
72.5°	69.5	60.8	50.6	39.1	34.8	30.4	23.1	17.4	14.5	13.0	14.5
75°	50.6	43.4	36.2	27.5	24.6	21.8	15.9	11.6	10.1	8.6	10.1
77.5°	34.8	30.4	24.6	18.9	15.9	14.5	10.1	8.6	7.2	5.8	5.8
80°	23.1	20.2	15.9	13.0	11.6	10.1	7.2	5.8	4.4	4.4	4.4
82.5°	14.5	11.6	10.1	7.2	5.8	5.8	4.4	2.9	2.9	2.9	2.9
85°	8.6	7.2	5.8	4.4	2.9	2.9	1.5	1.5	1.5	1.5	1.5
87.5°	4.4	2.9	2.9	1.5	1.5	1.5	1.5	1.5	0.0	0.0	1.5
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4
2.5°	1023.4	1020.5	1020.5	1022.0	1023.4	1024.9	1022.0	1020.5	1020.5	1024.9	1022.0
5°	1023.4	1022.0	1022.0	1022.0	1024.9	1026.2	1023.4	1022.0	1023.4	1027.8	1026.2
7.5°	1027.8	1024.9	1026.2	1026.2	1027.8	1030.6	1027.8	1026.2	1027.8	1032.1	1029.1
10°	1030.6	1027.8	1029.1	1027.8	1032.1	1033.5	1030.6	1029.1	1030.6	1036.4	1035.0
12.5°	1032.1	1030.6	1030.6	1029.1	1033.5	1035.0	1032.1	1030.6	1032.1	1036.4	1035.0
15°	1029.1	1027.8	1027.8	1027.8	1030.6	1033.5	1029.1	1027.8	1027.8	1032.1	1030.6
17.5°	1023.4	1020.5	1020.5	1020.5	1022.0	1023.4	1019.0	1017.6	1016.1	1020.5	1019.0
20°	1013.2	1010.4	1007.5	1007.5	1008.9	1008.9	1006.0	1001.6	1001.6	1003.1	1000.2
22.5°	994.4	993.0	990.1	988.6	991.5	990.1	984.2	980.0	978.5	980.0	977.1
25°	968.4	965.5	964.0	962.6	964.0	962.6	956.8	951.0	951.0	951.0	946.6
27.5°	932.2	929.2	927.9	927.9	929.2	926.4	920.6	914.9	911.9	911.9	907.6
30°	885.9	885.9	884.4	883.0	881.5	881.5	872.9	867.0	864.1	865.6	862.8
32.5°	829.4	828.0	826.5	822.1	823.6	822.1	815.0	810.6	806.2	803.4	801.9
35°	757.0	757.0	755.6	755.6	755.6	754.1	746.9	742.6	739.6	738.2	733.9
37.5°	677.4	676.0	674.5	674.5	674.5	674.5	670.2	665.9	665.9	664.4	661.5
40°	587.8	589.1	590.6	589.1	593.5	597.9	592.0	589.1	587.8	592.0	586.2
42.5°	500.9	499.4	506.6	508.1	508.1	515.2	516.8	518.2	516.8	519.6	519.6
45°	416.9	415.4	422.6	425.6	432.8	441.5	445.9	453.1	456.0	458.9	456.0
47.5°	337.2	343.0	348.9	356.1	361.9	376.4	385.0	392.2	395.1	399.5	399.5
50°	270.6	276.5	286.6	292.4	299.6	317.0	331.5	341.6	347.4	351.8	350.2
52.5°	208.5	218.6	231.6	237.4	247.5	267.8	283.8	295.2	302.5	306.9	308.4
55°	160.6	169.4	182.4	191.1	201.2	222.9	243.1	256.2	263.5	269.2	272.1
57.5°	118.8	128.9	143.2	150.5	162.1	186.8	204.1	220.0	228.8	236.0	237.4
60°	86.9	97.0	110.0	118.8	130.2	154.9	175.1	189.6	199.8	205.5	208.5
62.5°	62.2	72.4	85.4	94.1	104.2	125.9	146.2	160.6	170.8	178.0	182.4
65°	44.9	55.0	68.0	75.2	84.0	104.2	123.0	137.5	147.6	156.4	159.2
67.5°	33.2	40.5	52.1	59.4	68.0	84.0	99.9	112.9	123.0	130.2	133.1
70°	24.6	30.4	40.5	44.9	50.6	65.1	78.1	89.8	98.4	104.2	107.1
72.5°	17.4	21.8	29.0	33.2	37.6	49.2	59.4	68.0	73.9	79.6	82.5
75°	11.6	14.5	20.2	23.1	26.0	34.8	42.0	49.2	53.5	57.9	59.4
77.5°	7.2	10.1	14.5	15.9	18.9	23.1	29.0	33.2	36.2	39.1	42.0
80°	4.4	5.8	8.6	10.1	11.6	15.9	18.9	21.8	24.6	27.5	29.0
82.5°	2.9	4.4	5.8	5.8	7.2	8.6	11.6	14.5	15.9	17.4	18.9
85°	1.5	1.5	2.9	2.9	4.4	4.4	5.8	7.2	8.6	10.1	11.6
87.5°	1.5	1.5	1.5	1.5	2.9	2.9	4.4	4.4	4.4	5.8	5.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P252681

CATALOG NUMBER: LE_6B20D010 EC6B10209030 6LBDW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4	1023.4
2.5°	1019.0	1023.4	1019.0	1022.0	1020.5	1020.5	1019.0	1020.5
5°	1023.4	1029.1	1023.4	1027.8	1024.9	1024.9	1024.9	1026.2
7.5°	1027.8	1033.5	1029.1	1033.5	1032.1	1030.6	1030.6	1033.5
10°	1032.1	1036.4	1033.5	1037.9	1036.4	1035.0	1035.0	1037.9
12.5°	1032.1	1037.9	1035.0	1039.2	1037.9	1036.4	1036.4	1037.9
15°	1027.8	1035.0	1030.6	1035.0	1033.5	1032.1	1032.1	1035.0
17.5°	1014.8	1020.5	1017.6	1020.5	1020.5	1019.0	1020.5	1022.0
20°	997.4	1001.6	998.8	1001.6	1001.6	998.8	1000.2	1001.6
22.5°	972.8	977.1	974.1	977.1	975.6	974.1	974.1	972.8
25°	942.4	948.1	943.8	946.6	943.8	940.9	940.9	942.4
27.5°	904.8	909.0	903.2	906.1	903.2	900.4	900.4	898.9
30°	855.5	856.9	852.6	855.5	852.6	851.1	848.2	848.2
32.5°	796.1	797.6	793.2	793.2	790.4	790.4	784.5	788.9
35°	726.6	728.1	726.6	725.2	720.9	719.4	718.0	718.0
37.5°	654.2	654.2	649.9	648.5	645.6	642.8	644.1	639.8
40°	580.5	579.0	574.6	576.1	574.6	570.4	568.9	567.4
42.5°	511.0	511.0	506.6	508.1	505.1	503.8	499.4	500.9
45°	450.1	450.1	445.9	445.9	444.4	440.0	441.5	438.6
47.5°	395.1	395.1	393.8	393.8	389.4	387.9	387.9	387.9
50°	347.4	347.4	347.4	347.4	346.0	344.5	343.0	344.5
52.5°	306.9	309.8	308.4	308.4	306.9	305.4	304.0	304.0
55°	270.6	272.1	272.1	273.6	272.1	270.6	272.1	270.6
57.5°	238.9	241.8	241.8	241.8	241.8	241.8	240.2	238.9
60°	211.4	212.8	212.8	214.2	214.2	214.2	212.8	212.8
62.5°	183.9	186.8	188.1	188.1	189.6	188.1	188.1	188.1
65°	162.1	165.0	166.5	165.0	166.5	166.5	165.0	165.0
67.5°	136.1	139.0	139.0	139.0	139.0	140.4	139.0	139.0
70°	110.0	112.9	111.5	112.9	112.9	112.9	112.9	112.9
72.5°	84.0	85.4	86.9	86.9	88.2	86.9	86.9	86.9
75°	60.8	63.8	63.8	63.8	63.8	65.1	65.1	65.1
77.5°	43.4	44.9	44.9	46.4	46.4	46.4	46.4	47.8
80°	30.4	30.4	31.9	31.9	33.2	33.2	33.2	33.2
82.5°	20.2	21.8	21.8	21.8	21.8	21.8	21.8	21.8
85°	11.6	13.0	13.0	13.0	13.0	14.5	14.5	14.5
87.5°	7.2	7.2	7.2	7.2	7.2	7.2	5.8	5.8
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)