

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: P252731

Luminaire Tested: **LE\_6B60D010R EC6B60709024 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252731  
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\_6B60D010R EC6B60709024 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE 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: 5036.3 lumens  
Efficiency: N/A  
Efficacy: 80.6 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

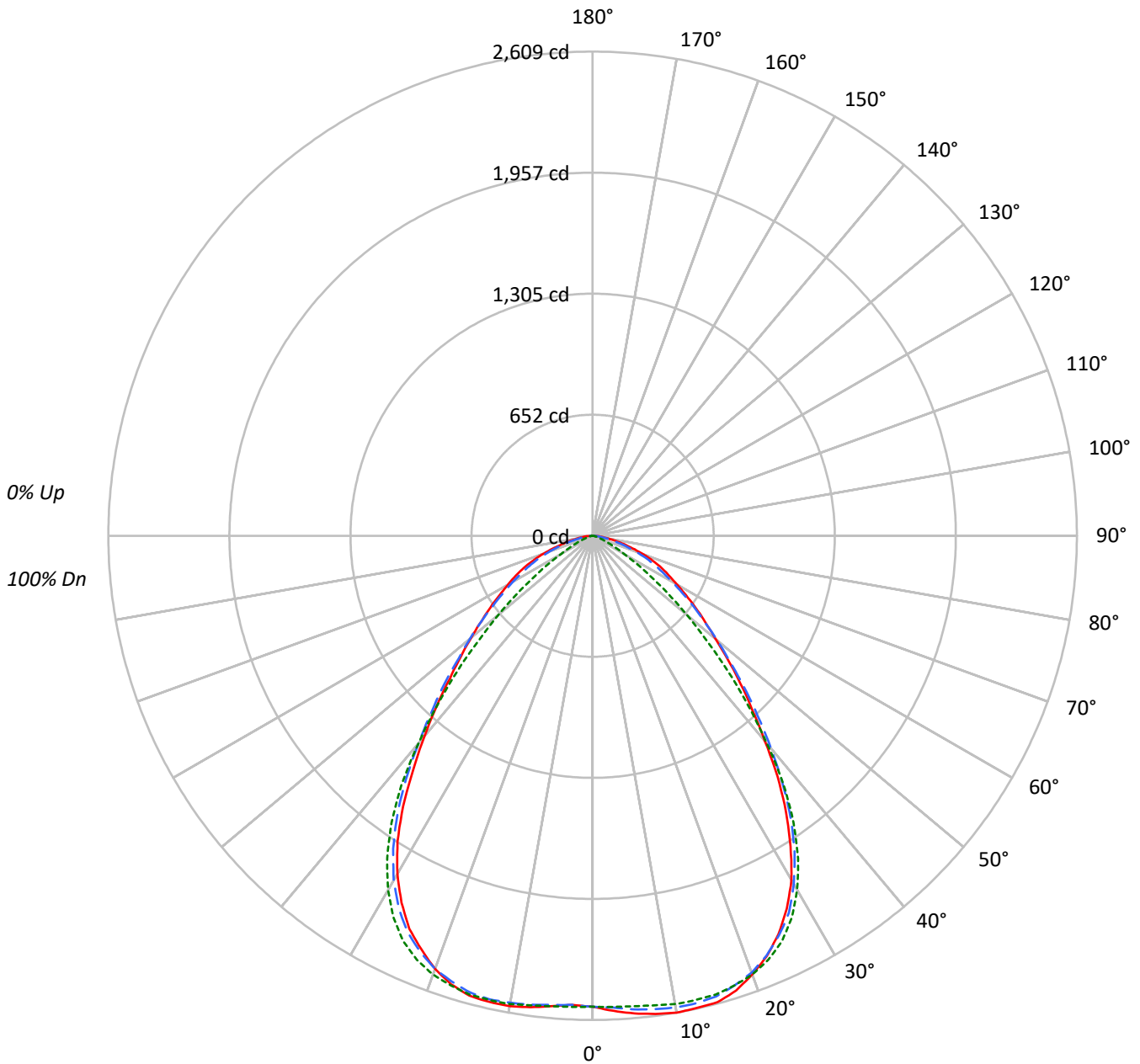
Input Watts (W): 62.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	165542	165542	165542
5°	169226	166639	166639
10°	172845	169758	170467
15°	175744	172833	173320
20°	174673	174673	172424
25°	170518	173614	168186
30°	161409	166005	158434
35°	144634	150352	141774
40°	122877	124410	119819
45°	103973	95032	100337
50°	87784	67028	86688
55°	77141	43268	76333
60°	68372	25757	68842
65°	63154	15514	63154
70°	54765	8889	53391
75°	43407	5420	40709
80°	32348	4058	30996
85°	29568	2695	26873



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.3	4.9
10°-20°	723.0	14.4
20°-30°	1087.4	21.6
30°-40°	1143.2	22.7
40°-50°	854.0	17.0
50°-60°	531.7	10.6
60°-70°	302.4	6.0
70°-80°	124.5	2.5
80°-90°	25.7	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°	2054.6	40.8
0°-40°	3197.9	63.5
0°-60°	4583.6	91.0
0°-90°	5036.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5036.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2537	2537	2537	2537	2537	
5°	2584	2562	2544	2537	2544	247
15°	2602	2570	2559	2548	2566	732
25°	2369	2376	2412	2358	2336	1084
35°	1816	1863	1888	1834	1780	1127
45°	1127	1152	1030	1130	1088	873
55°	678	664	380	653	671	610
65°	409	366	100	366	409	403
75°	172	136	22	133	162	187
85°	40	25	4	22	36	44
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°	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4
2.5°	2562.5	2558.9	2562.5	2555.4	2551.8	2551.8	2555.4	2548.1	2544.5	2548.1	2544.5
5°	2584.0	2576.9	2580.5	2576.9	2569.6	2569.6	2573.2	2562.5	2562.5	2566.1	2562.5
7.5°	2598.4	2598.4	2598.4	2591.2	2587.6	2584.0	2591.2	2580.5	2576.9	2576.9	2573.2
10°	2609.1	2605.5	2609.1	2602.0	2594.8	2591.2	2598.4	2591.2	2584.0	2591.2	2580.5
12.5°	2605.5	2605.5	2605.5	2602.0	2594.8	2591.2	2598.4	2587.6	2584.0	2587.6	2580.5
15°	2602.0	2591.2	2594.8	2591.2	2580.5	2580.5	2584.0	2573.2	2566.1	2576.9	2569.6
17.5°	2569.6	2562.5	2566.1	2558.9	2551.8	2548.1	2551.8	2548.1	2541.0	2548.1	2541.0
20°	2515.9	2515.9	2519.4	2512.2	2505.1	2501.5	2508.6	2501.5	2494.2	2505.1	2505.1
22.5°	2451.2	2451.2	2451.2	2447.6	2444.0	2444.0	2444.0	2440.5	2436.9	2444.0	2447.6
25°	2368.8	2365.1	2368.8	2372.2	2368.8	2365.1	2368.8	2368.8	2361.5	2375.9	2375.9
27.5°	2264.6	2264.6	2271.8	2268.2	2268.2	2264.6	2271.8	2271.8	2268.2	2279.0	2289.8
30°	2142.6	2135.4	2142.6	2142.6	2146.1	2146.1	2149.8	2149.8	2149.8	2160.5	2167.8
32.5°	1984.6	1988.2	1999.0	1995.5	1991.9	2002.6	2002.6	2009.8	2013.4	2020.6	2024.1
35°	1816.0	1819.6	1819.6	1823.1	1830.4	1823.1	1841.1	1837.5	1841.1	1855.5	1862.6
37.5°	1636.5	1625.8	1643.8	1636.5	1640.1	1640.1	1647.4	1650.9	1661.6	1679.6	1679.6
40°	1442.8	1446.4	1453.5	1457.1	1460.8	1460.8	1460.8	1471.5	1475.0	1496.6	1493.0
42.5°	1274.1	1274.1	1281.2	1284.9	1284.9	1284.9	1284.9	1295.6	1302.8	1310.0	1317.1
45°	1126.9	1116.1	1123.4	1123.4	1130.5	1126.9	1134.1	1141.2	1144.9	1155.6	1152.0
47.5°	987.0	983.4	987.0	990.5	987.0	990.5	994.1	997.8	1001.2	1001.2	1001.2
50°	864.9	864.9	868.5	872.1	872.1	872.1	872.1	875.8	875.8	882.9	875.8
52.5°	764.5	768.0	768.0	764.5	768.0	768.0	771.6	771.6	768.0	768.0	757.2
55°	678.2	674.8	678.2	674.8	678.2	678.2	674.8	674.8	671.1	667.5	664.0
57.5°	595.8	595.8	595.8	595.8	592.1	595.8	592.1	588.6	588.6	581.4	570.6
60°	524.0	524.0	524.0	524.0	524.0	520.4	524.0	520.4	513.2	506.0	491.6
62.5°	463.0	459.4	463.0	459.4	459.4	455.8	455.8	452.2	445.0	437.9	423.5
65°	409.1	412.8	409.1	409.1	405.5	402.0	402.0	398.4	387.6	380.4	366.1
67.5°	351.8	348.1	348.1	348.1	344.5	344.5	344.5	337.4	330.1	319.4	305.0
70°	287.1	287.1	287.1	283.5	283.5	279.9	279.9	276.4	269.1	262.0	244.0
72.5°	226.1	226.1	226.1	218.9	222.5	218.9	218.9	211.8	208.1	197.4	186.6
75°	172.2	172.2	168.6	168.6	165.1	161.5	161.5	157.9	154.4	147.1	136.4
77.5°	125.6	125.6	125.6	122.0	118.4	114.9	114.9	111.2	107.6	104.1	96.9
80°	86.1	86.1	86.1	86.1	82.5	79.0	79.0	75.4	75.4	71.8	64.6
82.5°	57.4	57.4	57.4	57.4	53.9	53.9	53.9	50.2	46.6	46.6	39.5
85°	39.5	39.5	35.9	35.9	35.9	35.9	32.2	32.2	28.8	25.1	25.1
87.5°	21.5	21.5	21.5	21.5	18.0	18.0	18.0	18.0	14.4	14.4	10.8
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°	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4
2.5°	2555.4	2555.4	2551.8	2541.0	2544.5	2541.0	2544.5	2541.0	2530.2	2541.0	2530.2
5°	2569.6	2573.2	2566.1	2551.8	2555.4	2551.8	2551.8	2548.1	2537.4	2544.5	2537.4
7.5°	2584.0	2580.5	2576.9	2562.5	2566.1	2562.5	2562.5	2555.4	2544.5	2551.8	2541.0
10°	2591.2	2591.2	2584.0	2569.6	2569.6	2566.1	2569.6	2566.1	2551.8	2562.5	2555.4
12.5°	2591.2	2587.6	2587.6	2569.6	2573.2	2569.6	2573.2	2566.1	2555.4	2562.5	2558.9
15°	2580.5	2580.5	2576.9	2558.9	2562.5	2562.5	2566.1	2558.9	2548.1	2558.9	2551.8
17.5°	2558.9	2558.9	2555.4	2541.0	2548.1	2548.1	2551.8	2544.5	2533.8	2541.0	2541.0
20°	2515.9	2519.4	2519.4	2508.6	2515.9	2515.9	2519.4	2515.9	2512.2	2515.9	2508.6
22.5°	2465.6	2472.8	2472.8	2462.0	2469.1	2469.1	2480.0	2476.4	2469.1	2472.8	2469.1
25°	2390.2	2397.4	2404.6	2397.4	2404.6	2404.6	2415.4	2411.8	2404.6	2411.8	2401.0
27.5°	2304.1	2307.6	2314.9	2307.6	2318.5	2314.9	2325.6	2322.0	2311.2	2322.0	2318.5
30°	2182.1	2196.4	2207.2	2196.4	2207.2	2207.2	2214.4	2210.8	2207.2	2203.6	2203.6
32.5°	2045.8	2060.0	2060.0	2056.5	2063.6	2063.6	2067.2	2060.0	2056.5	2060.0	2063.6
35°	1877.0	1884.1	1891.4	1887.8	1891.4	1895.0	1891.4	1895.0	1884.1	1887.8	1887.8
37.5°	1694.0	1701.1	1701.1	1690.4	1697.5	1697.5	1690.4	1690.4	1683.2	1690.4	1676.0
40°	1500.1	1493.0	1496.6	1489.4	1482.2	1482.2	1478.6	1464.2	1457.1	1460.8	1464.2
42.5°	1310.0	1310.0	1299.2	1281.2	1263.2	1263.2	1252.5	1245.4	1231.0	1238.1	1234.6
45°	1148.5	1130.5	1116.1	1087.5	1076.6	1069.5	1051.5	1033.6	1026.4	1030.0	1026.4
47.5°	994.1	979.8	943.9	904.4	893.6	882.9	861.4	839.8	832.6	825.5	825.5
50°	864.9	839.8	800.4	757.2	739.4	721.4	692.6	671.1	656.8	660.4	660.4
52.5°	746.5	717.8	671.1	617.2	595.8	574.2	549.1	524.0	513.2	509.6	509.6
55°	642.4	610.1	563.5	502.5	484.5	459.4	427.1	398.4	384.0	380.4	387.6
57.5°	549.1	520.4	466.5	405.5	384.0	358.9	326.6	301.5	283.5	279.9	283.5
60°	473.8	434.2	387.6	330.1	301.5	279.9	244.0	222.5	204.6	197.4	201.0
62.5°	398.4	362.5	315.9	258.4	236.9	215.4	183.0	157.9	143.5	140.0	143.5
65°	341.0	305.0	262.0	211.8	190.2	168.6	140.0	114.9	104.1	100.5	104.1
67.5°	283.5	251.2	215.4	168.6	150.8	132.8	104.1	86.1	71.8	68.2	71.8
70°	229.8	201.0	165.1	132.8	114.9	100.5	79.0	61.0	50.2	46.6	50.2
72.5°	172.2	150.8	125.6	96.9	86.1	75.4	57.4	43.1	35.9	32.2	35.9
75°	125.6	107.6	89.8	68.2	61.0	53.9	39.5	28.8	25.1	21.5	25.1
77.5°	86.1	75.4	61.0	46.6	39.5	35.9	25.1	21.5	18.0	14.4	14.4
80°	57.4	50.2	39.5	32.2	28.8	25.1	18.0	14.4	10.8	10.8	10.8
82.5°	35.9	28.8	25.1	18.0	14.4	14.4	10.8	7.1	7.1	7.1	7.1
85°	21.5	18.0	14.4	10.8	7.1	7.1	3.6	3.6	3.6	3.6	3.6
87.5°	10.8	7.1	7.1	3.6	3.6	3.6	3.6	3.6	0.0	0.0	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4
2.5°	2537.4	2530.2	2530.2	2533.8	2537.4	2541.0	2533.8	2530.2	2530.2	2541.0	2533.8
5°	2537.4	2533.8	2533.8	2533.8	2541.0	2544.5	2537.4	2533.8	2537.4	2548.1	2544.5
7.5°	2548.1	2541.0	2544.5	2544.5	2548.1	2555.4	2548.1	2544.5	2548.1	2558.9	2551.8
10°	2555.4	2548.1	2551.8	2548.1	2558.9	2562.5	2555.4	2551.8	2555.4	2569.6	2566.1
12.5°	2558.9	2555.4	2555.4	2551.8	2562.5	2566.1	2558.9	2555.4	2558.9	2569.6	2566.1
15°	2551.8	2548.1	2548.1	2548.1	2555.4	2562.5	2551.8	2548.1	2548.1	2558.9	2555.4
17.5°	2537.4	2530.2	2530.2	2530.2	2533.8	2537.4	2526.6	2523.0	2519.4	2530.2	2526.6
20°	2512.2	2505.1	2497.9	2497.9	2501.5	2501.5	2494.2	2483.5	2483.5	2487.1	2480.0
22.5°	2465.6	2462.0	2454.9	2451.2	2458.4	2454.9	2440.5	2429.8	2426.1	2429.8	2422.5
25°	2401.0	2393.9	2390.2	2386.6	2390.2	2386.6	2372.2	2357.9	2357.9	2357.9	2347.1
27.5°	2311.2	2304.1	2300.5	2300.5	2304.1	2296.9	2282.5	2268.2	2261.0	2261.0	2250.2
30°	2196.4	2196.4	2192.9	2189.2	2185.6	2185.6	2164.1	2149.8	2142.6	2146.1	2139.0
32.5°	2056.5	2052.9	2049.2	2038.5	2042.1	2038.5	2020.6	2009.8	1999.0	1991.9	1988.2
35°	1877.0	1877.0	1873.4	1873.4	1873.4	1869.9	1851.9	1841.1	1834.0	1830.4	1819.6
37.5°	1679.6	1676.0	1672.5	1672.5	1672.5	1672.5	1661.6	1650.9	1650.9	1647.4	1640.1
40°	1457.1	1460.8	1464.2	1460.8	1471.5	1482.2	1467.9	1460.8	1457.1	1467.9	1453.5
42.5°	1241.8	1238.1	1256.1	1259.8	1259.8	1277.6	1281.2	1284.9	1281.2	1288.4	1288.4
45°	1033.6	1030.0	1048.0	1055.1	1073.1	1094.6	1105.4	1123.4	1130.5	1137.8	1130.5
47.5°	836.2	850.6	864.9	882.9	897.2	933.1	954.6	972.6	979.8	990.5	990.5
50°	671.1	685.5	710.6	725.0	742.9	786.0	821.9	847.0	861.4	872.1	868.5
52.5°	516.8	541.9	574.2	588.6	613.8	664.0	703.4	732.1	750.1	760.9	764.5
55°	398.4	419.9	452.2	473.8	498.9	552.8	603.0	635.2	653.1	667.5	674.8
57.5°	294.2	319.4	355.2	373.2	402.0	463.0	506.0	545.5	567.0	585.0	588.6
60°	215.4	240.5	272.8	294.2	323.0	384.0	434.2	470.1	495.2	509.6	516.8
62.5°	154.4	179.5	211.8	233.2	258.4	312.2	362.5	398.4	423.5	441.5	452.2
65°	111.2	136.4	168.6	186.6	208.1	258.4	305.0	341.0	366.1	387.6	394.8
67.5°	82.5	100.5	129.2	147.1	168.6	208.1	247.6	279.9	305.0	323.0	330.1
70°	61.0	75.4	100.5	111.2	125.6	161.5	193.8	222.5	244.0	258.4	265.6
72.5°	43.1	53.9	71.8	82.5	93.2	122.0	147.1	168.6	183.0	197.4	204.6
75°	28.8	35.9	50.2	57.4	64.6	86.1	104.1	122.0	132.8	143.5	147.1
77.5°	18.0	25.1	35.9	39.5	46.6	57.4	71.8	82.5	89.8	96.9	104.1
80°	10.8	14.4	21.5	25.1	28.8	39.5	46.6	53.9	61.0	68.2	71.8
82.5°	7.1	10.8	14.4	14.4	18.0	21.5	28.8	35.9	39.5	43.1	46.6
85°	3.6	3.6	7.1	7.1	10.8	10.8	14.4	18.0	21.5	25.1	28.8
87.5°	3.6	3.6	3.6	3.6	7.1	7.1	10.8	10.8	10.8	14.4	14.4
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: P252731

CATALOG NUMBER: LE\_6B60D010R EC6B60709024 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4	2537.4
2.5°	2526.6	2537.4	2526.6	2533.8	2530.2	2530.2	2526.6	2530.2
5°	2537.4	2551.8	2537.4	2548.1	2541.0	2541.0	2541.0	2544.5
7.5°	2548.1	2562.5	2551.8	2562.5	2558.9	2555.4	2555.4	2562.5
10°	2558.9	2569.6	2562.5	2573.2	2569.6	2566.1	2566.1	2573.2
12.5°	2558.9	2573.2	2566.1	2576.9	2573.2	2569.6	2569.6	2573.2
15°	2548.1	2566.1	2555.4	2566.1	2562.5	2558.9	2558.9	2566.1
17.5°	2515.9	2530.2	2523.0	2530.2	2530.2	2526.6	2530.2	2533.8
20°	2472.8	2483.5	2476.4	2483.5	2483.5	2476.4	2480.0	2483.5
22.5°	2411.8	2422.5	2415.4	2422.5	2418.9	2415.4	2415.4	2411.8
25°	2336.4	2350.8	2340.0	2347.1	2340.0	2332.8	2332.8	2336.4
27.5°	2243.1	2253.9	2239.5	2246.6	2239.5	2232.2	2232.2	2228.8
30°	2121.0	2124.6	2113.9	2121.0	2113.9	2110.2	2103.1	2103.1
32.5°	1973.9	1977.5	1966.8	1966.8	1959.5	1959.5	1945.2	1956.0
35°	1801.6	1805.2	1801.6	1798.0	1787.2	1783.8	1780.1	1780.1
37.5°	1622.2	1622.2	1611.4	1607.9	1600.6	1593.5	1597.1	1586.2
40°	1439.1	1435.6	1424.8	1428.4	1424.8	1414.0	1410.5	1406.9
42.5°	1266.9	1266.9	1256.1	1259.8	1252.5	1249.0	1238.1	1241.8
45°	1116.1	1116.1	1105.4	1105.4	1101.8	1091.0	1094.6	1087.5
47.5°	979.8	979.8	976.2	976.2	965.4	961.9	961.9	961.9
50°	861.4	861.4	861.4	861.4	857.8	854.1	850.6	854.1
52.5°	760.9	768.0	764.5	764.5	760.9	757.2	753.6	753.6
55°	671.1	674.8	674.8	678.2	674.8	671.1	674.8	671.1
57.5°	592.1	599.4	599.4	599.4	599.4	599.4	595.8	592.1
60°	524.0	527.6	527.6	531.1	531.1	531.1	527.6	527.6
62.5°	455.8	463.0	466.5	466.5	470.1	466.5	466.5	466.5
65°	402.0	409.1	412.8	409.1	412.8	412.8	409.1	409.1
67.5°	337.4	344.5	344.5	344.5	344.5	348.1	344.5	344.5
70°	272.8	279.9	276.4	279.9	279.9	279.9	279.9	279.9
72.5°	208.1	211.8	215.4	215.4	218.9	215.4	215.4	215.4
75°	150.8	157.9	157.9	157.9	157.9	161.5	161.5	161.5
77.5°	107.6	111.2	111.2	114.9	114.9	114.9	114.9	118.4
80°	75.4	75.4	79.0	79.0	82.5	82.5	82.5	82.5
82.5°	50.2	53.9	53.9	53.9	53.9	53.9	53.9	53.9
85°	28.8	32.2	32.2	32.2	32.2	35.9	35.9	35.9
87.5°	18.0	18.0	18.0	18.0	18.0	18.0	14.4	14.4
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)