

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: P252712

Luminaire Tested: **LE\_6B40D010 EC6B30509730 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252712  
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\_6B40D010 EC6B30509730 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3638.8 lumens  
Efficiency: N/A  
Efficacy: 84.6 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

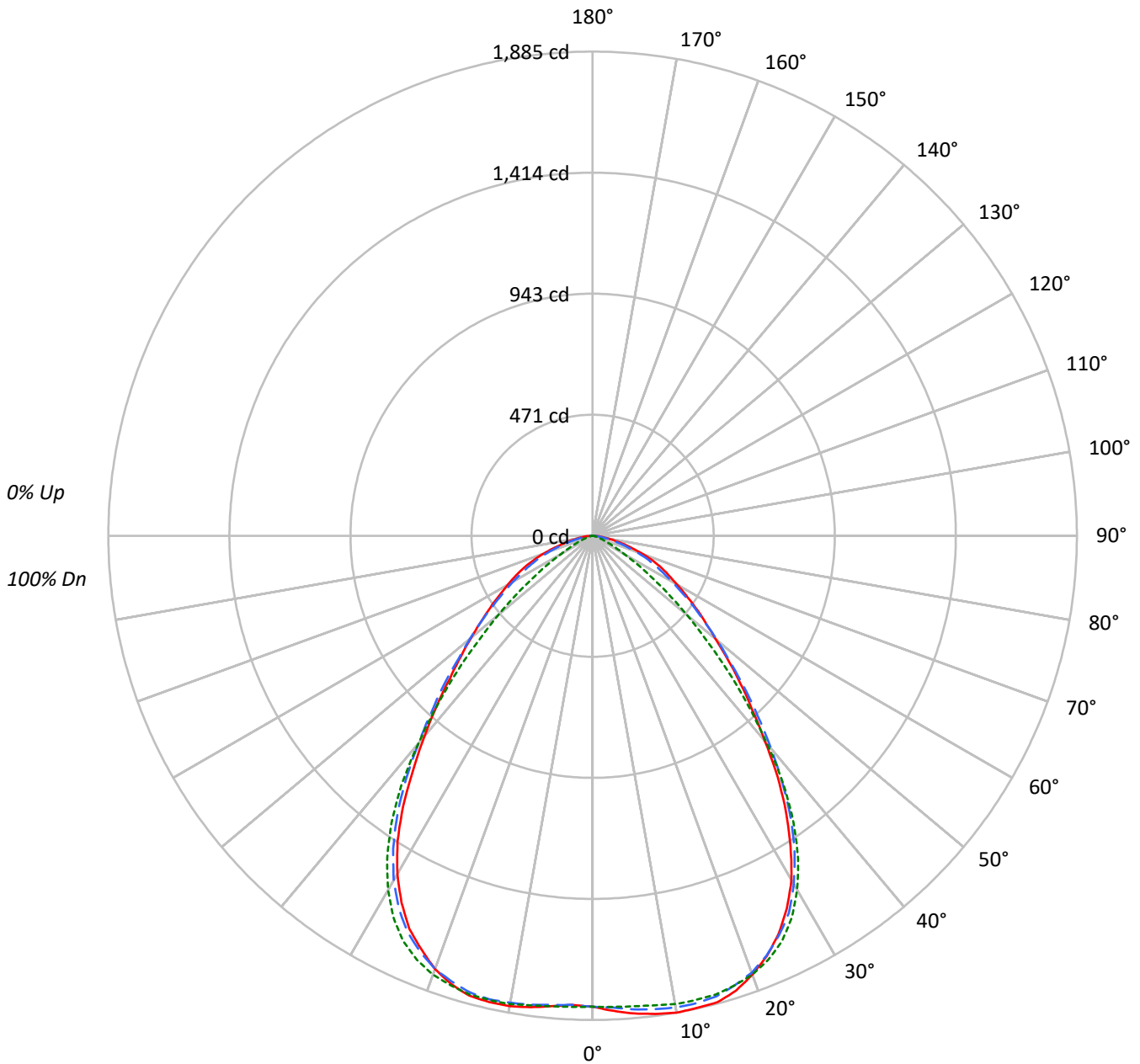
Input Watts (W): 43  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	119599	119599	119599
5°	122270	120403	120403
10°	124882	122650	123167
15°	126979	124879	125223
20°	126206	126206	124581
25°	123195	125434	121518
30°	116616	119938	114469
35°	104501	108635	102430
40°	88777	89884	86571
45°	75121	68663	72501
50°	63425	48424	62633
55°	55746	31268	55154
60°	49400	18607	49726
65°	45633	11207	45633
70°	39581	6447	38570
75°	31383	3907	29391
80°	23369	2931	22392
85°	21334	1946	19388



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.5	4.9
10°-20°	522.4	14.4
20°-30°	785.6	21.6
30°-40°	826.0	22.7
40°-50°	617.1	17.0
50°-60°	384.2	10.6
60°-70°	218.5	6.0
70°-80°	90.0	2.5
80°-90°	18.6	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°	1484.5	40.8
0°-40°	2310.5	63.5
0°-60°	3311.7	91.0
0°-90°	3638.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3638.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1833	1833	1833	1833	1833	
5°	1867	1851	1838	1833	1838	179
15°	1880	1857	1849	1841	1854	529
25°	1711	1717	1742	1704	1688	783
35°	1312	1346	1364	1325	1286	814
45°	814	832	744	817	786	631
55°	490	480	275	472	485	441
65°	296	264	73	264	296	291
75°	124	98	16	96	117	135
85°	28	18	3	16	26	32
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°	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2
2.5°	1851.4	1848.9	1851.4	1846.2	1843.6	1843.6	1846.2	1841.0	1838.5	1841.0	1838.5
5°	1867.0	1861.8	1864.4	1861.8	1856.6	1856.6	1859.2	1851.4	1851.4	1854.0	1851.4
7.5°	1877.4	1877.4	1877.4	1872.1	1869.6	1867.0	1872.1	1864.4	1861.8	1861.8	1859.2
10°	1885.1	1882.5	1885.1	1880.0	1874.8	1872.1	1877.4	1872.1	1867.0	1872.1	1864.4
12.5°	1882.5	1882.5	1882.5	1880.0	1874.8	1872.1	1877.4	1869.6	1867.0	1869.6	1864.4
15°	1880.0	1872.1	1874.8	1872.1	1864.4	1864.4	1867.0	1859.2	1854.0	1861.8	1856.6
17.5°	1856.6	1851.4	1854.0	1848.9	1843.6	1841.0	1843.6	1841.0	1835.9	1841.0	1835.9
20°	1817.8	1817.8	1820.4	1815.1	1810.0	1807.4	1812.5	1807.4	1802.1	1810.0	1810.0
22.5°	1771.0	1771.0	1771.0	1768.5	1765.9	1765.9	1765.9	1763.2	1760.6	1765.9	1768.5
25°	1711.4	1708.9	1711.4	1714.0	1711.4	1708.9	1711.4	1711.4	1706.2	1716.6	1716.6
27.5°	1636.2	1636.2	1641.4	1638.8	1638.8	1636.2	1641.4	1641.4	1638.8	1646.6	1654.4
30°	1548.0	1542.9	1548.0	1548.0	1550.6	1550.6	1553.2	1553.2	1553.2	1561.0	1566.2
32.5°	1434.0	1436.5	1444.4	1441.8	1439.1	1446.9	1446.9	1452.1	1454.8	1459.9	1462.5
35°	1312.1	1314.6	1314.6	1317.2	1322.5	1317.2	1330.2	1327.6	1330.2	1340.6	1345.8
37.5°	1182.4	1174.6	1187.6	1182.4	1185.0	1185.0	1190.2	1192.8	1200.6	1213.5	1213.5
40°	1042.4	1045.0	1050.1	1052.8	1055.4	1055.4	1055.4	1063.1	1065.8	1081.2	1078.8
42.5°	920.5	920.5	925.8	928.2	928.2	928.2	928.2	936.1	941.2	946.5	951.6
45°	814.2	806.4	811.6	811.6	816.8	814.2	819.4	824.6	827.1	835.0	832.4
47.5°	713.1	710.5	713.1	715.6	713.1	715.6	718.2	720.9	723.5	723.5	723.5
50°	624.9	624.9	627.5	630.1	630.1	630.1	630.1	632.8	632.8	637.9	632.8
52.5°	552.4	554.9	554.9	552.4	554.9	554.9	557.5	557.5	554.9	554.9	547.1
55°	490.1	487.5	490.1	487.5	490.1	490.1	487.5	487.5	484.9	482.2	479.8
57.5°	430.5	430.5	430.5	430.5	427.9	430.5	427.9	425.2	425.2	420.1	412.2
60°	378.6	378.6	378.6	378.6	378.6	376.0	378.6	376.0	370.8	365.6	355.2
62.5°	334.5	331.9	334.5	331.9	331.9	329.4	329.4	326.8	321.5	316.4	306.0
65°	295.6	298.2	295.6	295.6	293.0	290.4	290.4	287.9	280.0	274.9	264.5
67.5°	254.1	251.5	251.5	251.5	248.9	248.9	248.9	243.8	238.5	230.8	220.4
70°	207.5	207.5	207.5	204.9	204.9	202.2	202.2	199.6	194.5	189.2	176.4
72.5°	163.4	163.4	163.4	158.1	160.8	158.1	158.1	153.0	150.4	142.6	134.9
75°	124.5	124.5	121.9	121.9	119.2	116.6	116.6	114.1	111.5	106.4	98.5
77.5°	90.8	90.8	90.8	88.1	85.6	83.0	83.0	80.4	77.8	75.2	70.0
80°	62.2	62.2	62.2	62.2	59.6	57.0	57.0	54.5	54.5	51.9	46.6
82.5°	41.5	41.5	41.5	41.5	38.9	38.9	38.9	36.2	33.8	33.8	28.5
85°	28.5	28.5	25.9	25.9	25.9	25.9	23.4	23.4	20.8	18.1	18.1
87.5°	15.5	15.5	15.5	15.5	13.0	13.0	13.0	13.0	10.4	10.4	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°	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2
2.5°	1846.2	1846.2	1843.6	1835.9	1838.5	1835.9	1838.5	1835.9	1828.1	1835.9	1828.1
5°	1856.6	1859.2	1854.0	1843.6	1846.2	1843.6	1843.6	1841.0	1833.2	1838.5	1833.2
7.5°	1867.0	1864.4	1861.8	1851.4	1854.0	1851.4	1851.4	1846.2	1838.5	1843.6	1835.9
10°	1872.1	1872.1	1867.0	1856.6	1856.6	1854.0	1856.6	1854.0	1843.6	1851.4	1846.2
12.5°	1872.1	1869.6	1869.6	1856.6	1859.2	1856.6	1859.2	1854.0	1846.2	1851.4	1848.9
15°	1864.4	1864.4	1861.8	1848.9	1851.4	1851.4	1854.0	1848.9	1841.0	1848.9	1843.6
17.5°	1848.9	1848.9	1846.2	1835.9	1841.0	1841.0	1843.6	1838.5	1830.6	1835.9	1835.9
20°	1817.8	1820.4	1820.4	1812.5	1817.8	1817.8	1820.4	1817.8	1815.1	1817.8	1812.5
22.5°	1781.4	1786.6	1786.6	1778.9	1784.0	1784.0	1791.8	1789.2	1784.0	1786.6	1784.0
25°	1727.0	1732.1	1737.4	1732.1	1737.4	1737.4	1745.1	1742.5	1737.4	1742.5	1734.8
27.5°	1664.8	1667.4	1672.5	1667.4	1675.1	1672.5	1680.2	1677.8	1669.9	1677.8	1675.1
30°	1576.6	1587.0	1594.8	1587.0	1594.8	1594.8	1599.9	1597.4	1594.8	1592.1	1592.1
32.5°	1478.0	1488.4	1488.4	1485.9	1491.0	1491.0	1493.6	1488.4	1485.9	1488.4	1491.0
35°	1356.1	1361.4	1366.5	1364.0	1366.5	1369.1	1366.5	1369.1	1361.4	1364.0	1364.0
37.5°	1223.9	1229.1	1229.1	1221.4	1226.5	1226.5	1221.4	1221.4	1216.1	1221.4	1211.0
40°	1083.9	1078.8	1081.2	1076.1	1070.9	1070.9	1068.4	1058.0	1052.8	1055.4	1058.0
42.5°	946.5	946.5	938.6	925.8	912.8	912.8	905.0	899.8	889.4	894.6	892.0
45°	829.8	816.8	806.4	785.8	777.9	772.8	759.8	746.8	741.6	744.2	741.6
47.5°	718.2	707.9	682.0	653.5	645.6	637.9	622.4	606.8	601.6	596.4	596.4
50°	624.9	606.8	578.2	547.1	534.1	521.2	500.5	484.9	474.5	477.1	477.1
52.5°	539.4	518.6	484.9	446.0	430.5	414.9	396.8	378.6	370.8	368.2	368.2
55°	464.1	440.9	407.1	363.0	350.0	331.9	308.6	287.9	277.5	274.9	280.0
57.5°	396.8	376.0	337.1	293.0	277.5	259.2	236.0	217.9	204.9	202.2	204.9
60°	342.2	313.8	280.0	238.5	217.9	202.2	176.4	160.8	147.8	142.6	145.2
62.5°	287.9	261.9	228.2	186.8	171.1	155.6	132.2	114.1	103.8	101.1	103.8
65°	246.4	220.4	189.2	153.0	137.4	121.9	101.1	83.0	75.2	72.6	75.2
67.5°	204.9	181.5	155.6	121.9	108.9	96.0	75.2	62.2	51.9	49.2	51.9
70°	166.0	145.2	119.2	96.0	83.0	72.6	57.0	44.1	36.2	33.8	36.2
72.5°	124.5	108.9	90.8	70.0	62.2	54.5	41.5	31.1	25.9	23.4	25.9
75°	90.8	77.8	64.9	49.2	44.1	38.9	28.5	20.8	18.1	15.5	18.1
77.5°	62.2	54.5	44.1	33.8	28.5	25.9	18.1	15.5	13.0	10.4	10.4
80°	41.5	36.2	28.5	23.4	20.8	18.1	13.0	10.4	7.8	7.8	7.8
82.5°	25.9	20.8	18.1	13.0	10.4	10.4	7.8	5.1	5.1	5.1	5.1
85°	15.5	13.0	10.4	7.8	5.1	5.1	2.6	2.6	2.6	2.6	2.6
87.5°	7.8	5.1	5.1	2.6	2.6	2.6	2.6	2.6	0.0	0.0	2.6
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°	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2
2.5°	1833.2	1828.1	1828.1	1830.6	1833.2	1835.9	1830.6	1828.1	1828.1	1835.9	1830.6
5°	1833.2	1830.6	1830.6	1830.6	1835.9	1838.5	1833.2	1830.6	1833.2	1841.0	1838.5
7.5°	1841.0	1835.9	1838.5	1838.5	1841.0	1846.2	1841.0	1838.5	1841.0	1848.9	1843.6
10°	1846.2	1841.0	1843.6	1841.0	1848.9	1851.4	1846.2	1843.6	1846.2	1856.6	1854.0
12.5°	1848.9	1846.2	1846.2	1843.6	1851.4	1854.0	1848.9	1846.2	1848.9	1856.6	1854.0
15°	1843.6	1841.0	1841.0	1841.0	1846.2	1851.4	1843.6	1841.0	1841.0	1848.9	1846.2
17.5°	1833.2	1828.1	1828.1	1828.1	1830.6	1833.2	1825.5	1822.9	1820.4	1828.1	1825.5
20°	1815.1	1810.0	1804.8	1804.8	1807.4	1807.4	1802.1	1794.4	1794.4	1797.0	1791.8
22.5°	1781.4	1778.9	1773.6	1771.0	1776.2	1773.6	1763.2	1755.5	1752.9	1755.5	1750.2
25°	1734.8	1729.5	1727.0	1724.4	1727.0	1724.4	1714.0	1703.6	1703.6	1703.6	1695.9
27.5°	1669.9	1664.8	1662.1	1662.1	1664.8	1659.5	1649.1	1638.8	1633.6	1633.6	1625.9
30°	1587.0	1587.0	1584.4	1581.8	1579.1	1579.1	1563.6	1553.2	1548.0	1550.6	1545.5
32.5°	1485.9	1483.2	1480.6	1472.9	1475.5	1472.9	1459.9	1452.1	1444.4	1439.1	1436.5
35°	1356.1	1356.1	1353.6	1353.6	1353.6	1351.0	1338.0	1330.2	1325.0	1322.5	1314.6
37.5°	1213.5	1211.0	1208.4	1208.4	1208.4	1208.4	1200.6	1192.8	1192.8	1190.2	1185.0
40°	1052.8	1055.4	1058.0	1055.4	1063.1	1070.9	1060.5	1055.4	1052.8	1060.5	1050.1
42.5°	897.2	894.6	907.6	910.1	910.1	923.1	925.8	928.2	925.8	930.9	930.9
45°	746.8	744.2	757.1	762.4	775.4	790.9	798.6	811.6	816.8	822.0	816.8
47.5°	604.1	614.5	624.9	637.9	648.2	674.2	689.8	702.8	707.9	715.6	715.6
50°	484.9	495.2	513.4	523.8	536.8	567.9	593.8	612.0	622.4	630.1	627.5
52.5°	373.4	391.5	414.9	425.2	443.4	479.8	508.2	529.0	542.0	549.8	552.4
55°	287.9	303.4	326.8	342.2	360.4	399.4	435.6	459.0	471.9	482.2	487.5
57.5°	212.6	230.8	256.8	269.6	290.4	334.5	365.6	394.1	409.8	422.6	425.2
60°	155.6	173.8	197.1	212.6	233.4	277.5	313.8	339.8	357.9	368.2	373.4
62.5°	111.5	129.6	153.0	168.5	186.8	225.6	261.9	287.9	306.0	319.0	326.8
65°	80.4	98.5	121.9	134.9	150.4	186.8	220.4	246.4	264.5	280.0	285.2
67.5°	59.6	72.6	93.4	106.4	121.9	150.4	178.9	202.2	220.4	233.4	238.5
70°	44.1	54.5	72.6	80.4	90.8	116.6	140.0	160.8	176.4	186.8	191.9
72.5°	31.1	38.9	51.9	59.6	67.4	88.1	106.4	121.9	132.2	142.6	147.8
75°	20.8	25.9	36.2	41.5	46.6	62.2	75.2	88.1	96.0	103.8	106.4
77.5°	13.0	18.1	25.9	28.5	33.8	41.5	51.9	59.6	64.9	70.0	75.2
80°	7.8	10.4	15.5	18.1	20.8	28.5	33.8	38.9	44.1	49.2	51.9
82.5°	5.1	7.8	10.4	10.4	13.0	15.5	20.8	25.9	28.5	31.1	33.8
85°	2.6	2.6	5.1	5.1	7.8	7.8	10.4	13.0	15.5	18.1	20.8
87.5°	2.6	2.6	2.6	2.6	5.1	5.1	7.8	7.8	7.8	10.4	10.4
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: P252712

CATALOG NUMBER: LE\_6B40D010 EC6B30509730 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2	1833.2
2.5°	1825.5	1833.2	1825.5	1830.6	1828.1	1828.1	1825.5	1828.1
5°	1833.2	1843.6	1833.2	1841.0	1835.9	1835.9	1835.9	1838.5
7.5°	1841.0	1851.4	1843.6	1851.4	1848.9	1846.2	1846.2	1851.4
10°	1848.9	1856.6	1851.4	1859.2	1856.6	1854.0	1854.0	1859.2
12.5°	1848.9	1859.2	1854.0	1861.8	1859.2	1856.6	1856.6	1859.2
15°	1841.0	1854.0	1846.2	1854.0	1851.4	1848.9	1848.9	1854.0
17.5°	1817.8	1828.1	1822.9	1828.1	1828.1	1825.5	1828.1	1830.6
20°	1786.6	1794.4	1789.2	1794.4	1794.4	1789.2	1791.8	1794.4
22.5°	1742.5	1750.2	1745.1	1750.2	1747.8	1745.1	1745.1	1742.5
25°	1688.1	1698.5	1690.6	1695.9	1690.6	1685.5	1685.5	1688.1
27.5°	1620.6	1628.4	1618.0	1623.2	1618.0	1612.9	1612.9	1610.2
30°	1532.5	1535.1	1527.2	1532.5	1527.2	1524.8	1519.5	1519.5
32.5°	1426.1	1428.8	1421.0	1421.0	1415.8	1415.8	1405.4	1413.2
35°	1301.8	1304.2	1301.8	1299.1	1291.4	1288.8	1286.1	1286.1
37.5°	1172.0	1172.0	1164.2	1161.6	1156.5	1151.2	1153.9	1146.1
40°	1039.8	1037.2	1029.4	1032.0	1029.4	1021.6	1019.1	1016.5
42.5°	915.4	915.4	907.6	910.1	905.0	902.4	894.6	897.2
45°	806.4	806.4	798.6	798.6	796.1	788.2	790.9	785.8
47.5°	707.9	707.9	705.2	705.2	697.5	694.9	694.9	694.9
50°	622.4	622.4	622.4	622.4	619.8	617.1	614.5	617.1
52.5°	549.8	554.9	552.4	552.4	549.8	547.1	544.5	544.5
55°	484.9	487.5	487.5	490.1	487.5	484.9	487.5	484.9
57.5°	427.9	433.0	433.0	433.0	433.0	433.0	430.5	427.9
60°	378.6	381.1	381.1	383.8	383.8	383.8	381.1	381.1
62.5°	329.4	334.5	337.1	337.1	339.8	337.1	337.1	337.1
65°	290.4	295.6	298.2	295.6	298.2	298.2	295.6	295.6
67.5°	243.8	248.9	248.9	248.9	248.9	251.5	248.9	248.9
70°	197.1	202.2	199.6	202.2	202.2	202.2	202.2	202.2
72.5°	150.4	153.0	155.6	155.6	158.1	155.6	155.6	155.6
75°	108.9	114.1	114.1	114.1	114.1	116.6	116.6	116.6
77.5°	77.8	80.4	80.4	83.0	83.0	83.0	83.0	85.6
80°	54.5	54.5	57.0	57.0	59.6	59.6	59.6	59.6
82.5°	36.2	38.9	38.9	38.9	38.9	38.9	38.9	38.9
85°	20.8	23.4	23.4	23.4	23.4	25.9	25.9	25.9
87.5°	13.0	13.0	13.0	13.0	13.0	13.0	10.4	10.4
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)