

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: P252706

Luminaire Tested: **LE\_6B40D010 EC6B30509027 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252706  
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 EC6B30509027 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4005.0 lumens  
Efficiency: N/A  
Efficacy: 93.1 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

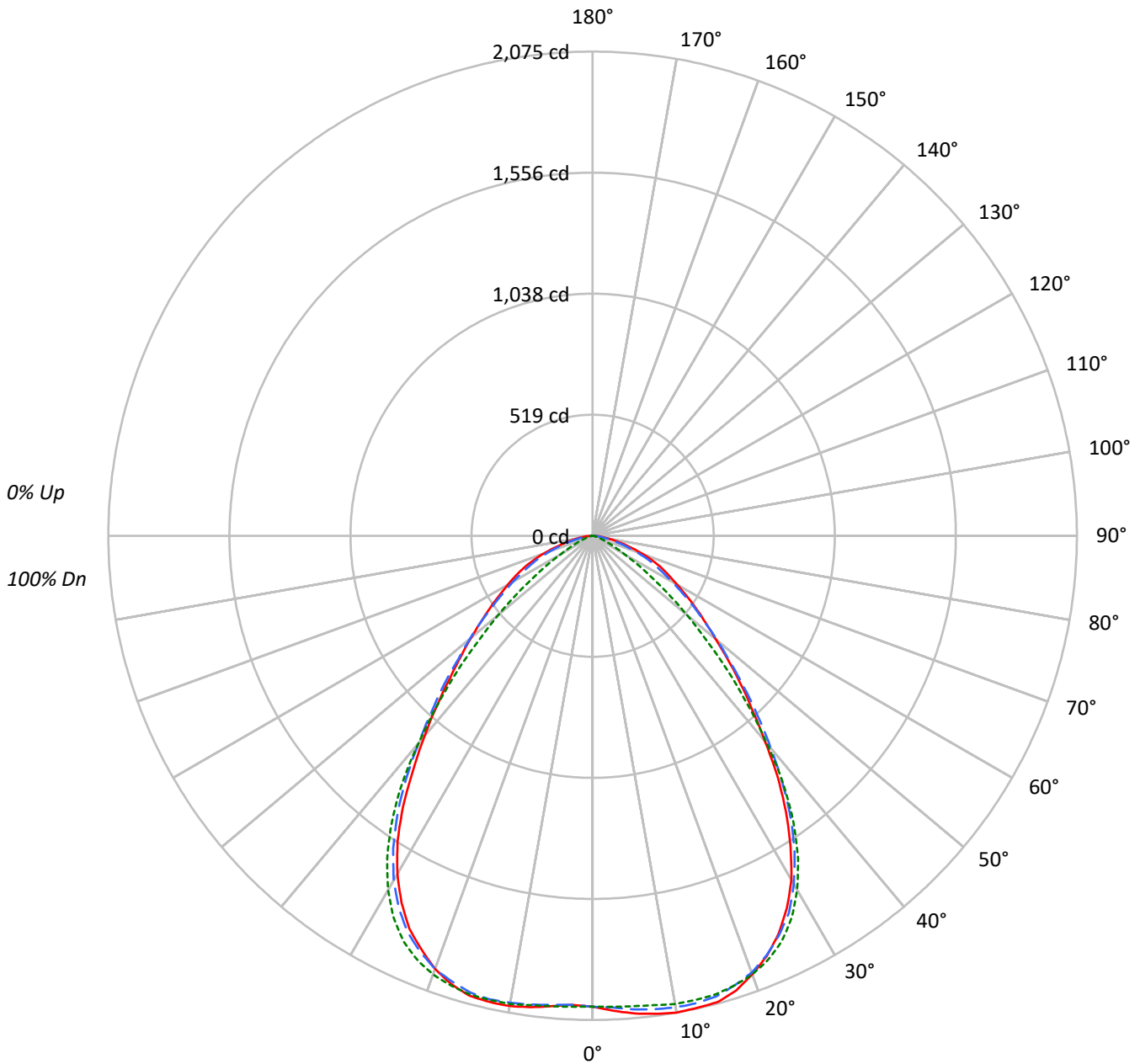
Input Watts (W): 43  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	131643	131643	131643
5°	134575	132519	132519
10°	137456	134998	135568
15°	139751	137441	137826
20°	138897	138897	137120
25°	135591	138060	133748
30°	128361	132014	125995
35°	115014	119562	112744
40°	97719	98928	95283
45°	82678	75574	79790
50°	69819	53296	68936
55°	61353	34407	60716
60°	54385	20486	54737
65°	50233	12334	50233
70°	43567	7077	42461
75°	34534	4310	32366
80°	25736	3193	24646
85°	23505	2171	21334



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	194.3	4.9
10°-20°	574.9	14.4
20°-30°	864.7	21.6
30°-40°	909.1	22.7
40°-50°	679.2	17.0
50°-60°	422.8	10.6
60°-70°	240.5	6.0
70°-80°	99.0	2.5
80°-90°	20.5	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°	1633.9	40.8
0°-40°	2543.1	63.5
0°-60°	3645.0	91.0
0°-90°	4005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4005.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2018	2018	2018	2018	2018	
5°	2055	2038	2024	2018	2024	197
15°	2069	2044	2035	2026	2041	582
25°	1884	1889	1918	1875	1858	862
35°	1444	1481	1501	1458	1416	896
45°	896	916	819	899	865	694
55°	539	528	302	519	534	485
65°	325	291	80	291	325	320
75°	137	108	17	106	128	149
85°	31	20	3	17	28	35
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°	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8
2.5°	2037.8	2034.9	2037.8	2032.1	2029.2	2029.2	2032.1	2026.4	2023.5	2026.4	2023.5
5°	2054.9	2049.2	2052.0	2049.2	2043.5	2043.5	2046.4	2037.8	2037.8	2040.6	2037.8
7.5°	2066.4	2066.4	2066.4	2060.6	2057.8	2054.9	2060.6	2052.0	2049.2	2049.2	2046.4
10°	2074.9	2072.0	2074.9	2069.1	2063.5	2060.6	2066.4	2060.6	2054.9	2060.6	2052.0
12.5°	2072.0	2072.0	2072.0	2069.1	2063.5	2060.6	2066.4	2057.8	2054.9	2057.8	2052.0
15°	2069.1	2060.6	2063.5	2060.6	2052.0	2052.0	2054.9	2046.4	2040.6	2049.2	2043.5
17.5°	2043.5	2037.8	2040.6	2034.9	2029.2	2026.4	2029.2	2026.4	2020.6	2026.4	2020.6
20°	2000.6	2000.6	2003.5	1997.9	1992.1	1989.2	1995.0	1989.2	1983.5	1992.1	1992.1
22.5°	1949.2	1949.2	1949.2	1946.5	1943.6	1943.6	1943.6	1940.8	1937.9	1943.6	1946.5
25°	1883.6	1880.8	1883.6	1886.5	1883.6	1880.8	1883.6	1883.6	1878.0	1889.4	1889.4
27.5°	1800.9	1800.9	1806.6	1803.8	1803.8	1800.9	1806.6	1806.6	1803.8	1812.4	1820.9
30°	1703.9	1698.1	1703.9	1703.9	1706.8	1706.8	1709.6	1709.6	1709.6	1718.1	1723.9
32.5°	1578.2	1581.1	1589.8	1586.9	1584.0	1592.5	1592.5	1598.2	1601.1	1606.9	1609.6
35°	1444.1	1447.0	1447.0	1449.9	1455.5	1449.9	1464.1	1461.2	1464.1	1475.5	1481.2
37.5°	1301.5	1292.9	1307.1	1301.5	1304.2	1304.2	1310.0	1312.9	1321.4	1335.8	1335.8
40°	1147.4	1150.1	1155.9	1158.8	1161.6	1161.6	1161.6	1170.1	1173.0	1190.1	1187.2
42.5°	1013.1	1013.1	1018.9	1021.8	1021.8	1021.8	1021.8	1030.2	1036.0	1041.8	1047.4
45°	896.1	887.6	893.4	893.4	899.0	896.1	901.9	907.6	910.5	919.0	916.1
47.5°	784.9	782.0	784.9	787.8	784.9	787.8	790.6	793.4	796.2	796.2	796.2
50°	687.9	687.9	690.6	693.5	693.5	693.5	693.5	696.4	696.4	702.1	696.4
52.5°	607.9	610.8	610.8	607.9	610.8	610.8	613.6	613.6	610.8	610.8	602.2
55°	539.4	536.5	539.4	536.5	539.4	539.4	536.5	536.5	533.8	530.9	528.0
57.5°	473.8	473.8	473.8	473.8	470.9	473.8	470.9	468.0	468.0	462.4	453.8
60°	416.8	416.8	416.8	416.8	416.8	413.9	416.8	413.9	408.1	402.4	391.0
62.5°	368.1	365.4	368.1	365.4	365.4	362.5	362.5	359.6	353.9	348.2	336.8
65°	325.4	328.2	325.4	325.4	322.5	319.6	319.6	316.8	308.2	302.5	291.1
67.5°	279.8	276.9	276.9	276.9	274.0	274.0	274.0	268.2	262.6	254.0	242.6
70°	228.4	228.4	228.4	225.5	225.5	222.6	222.6	219.8	214.0	208.4	194.1
72.5°	179.8	179.8	179.8	174.1	177.0	174.1	174.1	168.4	165.5	157.0	148.4
75°	137.0	137.0	134.1	134.1	131.2	128.4	128.4	125.6	122.8	117.0	108.5
77.5°	99.9	99.9	99.9	97.0	94.1	91.4	91.4	88.5	85.6	82.8	77.0
80°	68.5	68.5	68.5	68.5	65.6	62.8	62.8	59.9	59.9	57.1	51.4
82.5°	45.6	45.6	45.6	45.6	42.8	42.8	42.8	40.0	37.1	37.1	31.4
85°	31.4	31.4	28.5	28.5	28.5	28.5	25.6	25.6	22.9	20.0	20.0
87.5°	17.1	17.1	17.1	17.1	14.2	14.2	14.2	14.2	11.4	11.4	8.5
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°	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8
2.5°	2032.1	2032.1	2029.2	2020.6	2023.5	2020.6	2023.5	2020.6	2012.1	2020.6	2012.1
5°	2043.5	2046.4	2040.6	2029.2	2032.1	2029.2	2029.2	2026.4	2017.8	2023.5	2017.8
7.5°	2054.9	2052.0	2049.2	2037.8	2040.6	2037.8	2037.8	2032.1	2023.5	2029.2	2020.6
10°	2060.6	2060.6	2054.9	2043.5	2043.5	2040.6	2043.5	2040.6	2029.2	2037.8	2032.1
12.5°	2060.6	2057.8	2057.8	2043.5	2046.4	2043.5	2046.4	2040.6	2032.1	2037.8	2034.9
15°	2052.0	2052.0	2049.2	2034.9	2037.8	2037.8	2040.6	2034.9	2026.4	2034.9	2029.2
17.5°	2034.9	2034.9	2032.1	2020.6	2026.4	2026.4	2029.2	2023.5	2015.0	2020.6	2020.6
20°	2000.6	2003.5	2003.5	1995.0	2000.6	2000.6	2003.5	2000.6	1997.9	2000.6	1995.0
22.5°	1960.8	1966.4	1966.4	1957.9	1963.6	1963.6	1972.1	1969.2	1963.6	1966.4	1963.6
25°	1900.8	1906.5	1912.2	1906.5	1912.2	1912.2	1920.8	1917.9	1912.2	1917.9	1909.4
27.5°	1832.2	1835.1	1840.9	1835.1	1843.8	1840.9	1849.4	1846.5	1838.0	1846.5	1843.8
30°	1735.2	1746.6	1755.2	1746.6	1755.2	1755.2	1761.0	1758.1	1755.2	1752.4	1752.4
32.5°	1626.8	1638.2	1638.2	1635.4	1641.1	1641.1	1643.9	1638.2	1635.4	1638.2	1641.1
35°	1492.6	1498.4	1504.1	1501.2	1504.1	1506.9	1504.1	1506.9	1498.4	1501.2	1501.2
37.5°	1347.1	1352.9	1352.9	1344.2	1350.0	1350.0	1344.2	1344.2	1338.5	1344.2	1332.9
40°	1193.0	1187.2	1190.1	1184.4	1178.8	1178.8	1175.9	1164.5	1158.8	1161.6	1164.5
42.5°	1041.8	1041.8	1033.1	1018.9	1004.6	1004.6	996.0	990.4	978.9	984.6	981.8
45°	913.2	899.0	887.6	864.8	856.2	850.5	836.2	822.0	816.2	819.1	816.2
47.5°	790.6	779.1	750.6	719.2	710.6	702.1	685.0	667.9	662.1	656.4	656.4
50°	687.9	667.9	636.5	602.2	587.9	573.6	550.9	533.8	522.2	525.1	525.1
52.5°	593.6	570.8	533.8	490.9	473.8	456.6	436.6	416.8	408.1	405.2	405.2
55°	510.9	485.1	448.1	399.6	385.2	365.4	339.6	316.8	305.4	302.5	308.2
57.5°	436.6	413.9	371.0	322.5	305.4	285.4	259.8	239.8	225.5	222.6	225.5
60°	376.8	345.4	308.2	262.6	239.8	222.6	194.1	177.0	162.6	157.0	159.9
62.5°	316.8	288.2	251.1	205.5	188.4	171.2	145.5	125.6	114.1	111.2	114.1
65°	271.1	242.6	208.4	168.4	151.2	134.1	111.2	91.4	82.8	79.9	82.8
67.5°	225.5	199.8	171.2	134.1	119.9	105.6	82.8	68.5	57.1	54.2	57.1
70°	182.6	159.9	131.2	105.6	91.4	79.9	62.8	48.5	40.0	37.1	40.0
72.5°	137.0	119.9	99.9	77.0	68.5	59.9	45.6	34.2	28.5	25.6	28.5
75°	99.9	85.6	71.4	54.2	48.5	42.8	31.4	22.9	20.0	17.1	20.0
77.5°	68.5	59.9	48.5	37.1	31.4	28.5	20.0	17.1	14.2	11.4	11.4
80°	45.6	40.0	31.4	25.6	22.9	20.0	14.2	11.4	8.5	8.5	8.5
82.5°	28.5	22.9	20.0	14.2	11.4	11.4	8.5	5.8	5.8	5.8	5.8
85°	17.1	14.2	11.4	8.5	5.8	5.8	2.9	2.9	2.9	2.9	2.9
87.5°	8.5	5.8	5.8	2.9	2.9	2.9	2.9	2.9	0.0	0.0	2.9
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°	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8
2.5°	2017.8	2012.1	2012.1	2015.0	2017.8	2020.6	2015.0	2012.1	2012.1	2020.6	2015.0
5°	2017.8	2015.0	2015.0	2015.0	2020.6	2023.5	2017.8	2015.0	2017.8	2026.4	2023.5
7.5°	2026.4	2020.6	2023.5	2023.5	2026.4	2032.1	2026.4	2023.5	2026.4	2034.9	2029.2
10°	2032.1	2026.4	2029.2	2026.4	2034.9	2037.8	2032.1	2029.2	2032.1	2043.5	2040.6
12.5°	2034.9	2032.1	2032.1	2029.2	2037.8	2040.6	2034.9	2032.1	2034.9	2043.5	2040.6
15°	2029.2	2026.4	2026.4	2026.4	2032.1	2037.8	2029.2	2026.4	2026.4	2034.9	2032.1
17.5°	2017.8	2012.1	2012.1	2012.1	2015.0	2017.8	2009.2	2006.4	2003.5	2012.1	2009.2
20°	1997.9	1992.1	1986.4	1986.4	1989.2	1989.2	1983.5	1975.0	1975.0	1977.9	1972.1
22.5°	1960.8	1957.9	1952.1	1949.2	1955.0	1952.1	1940.8	1932.1	1929.4	1932.1	1926.5
25°	1909.4	1903.6	1900.8	1897.9	1900.8	1897.9	1886.5	1875.1	1875.1	1875.1	1866.5
27.5°	1838.0	1832.2	1829.5	1829.5	1832.2	1826.6	1815.1	1803.8	1798.0	1798.0	1789.5
30°	1746.6	1746.6	1743.9	1741.0	1738.1	1738.1	1721.0	1709.6	1703.9	1706.8	1701.0
32.5°	1635.4	1632.5	1629.6	1621.1	1624.0	1621.1	1606.9	1598.2	1589.8	1584.0	1581.1
35°	1492.6	1492.6	1489.8	1489.8	1489.8	1487.0	1472.6	1464.1	1458.4	1455.5	1447.0
37.5°	1335.8	1332.9	1330.0	1330.0	1330.0	1330.0	1321.4	1312.9	1312.9	1310.0	1304.2
40°	1158.8	1161.6	1164.5	1161.6	1170.1	1178.8	1167.2	1161.6	1158.8	1167.2	1155.9
42.5°	987.5	984.6	998.9	1001.8	1001.8	1016.0	1018.9	1021.8	1018.9	1024.6	1024.6
45°	822.0	819.1	833.4	839.1	853.4	870.5	879.0	893.4	899.0	904.8	899.0
47.5°	665.0	676.4	687.9	702.1	713.5	742.0	759.1	773.5	779.1	787.8	787.8
50°	533.8	545.1	565.1	576.5	590.8	625.0	653.6	673.5	685.0	693.5	690.6
52.5°	411.0	431.0	456.6	468.0	488.0	528.0	559.4	582.2	596.5	605.0	607.9
55°	316.8	333.9	359.6	376.8	396.8	439.5	479.5	505.1	519.4	530.9	536.5
57.5°	234.0	254.0	282.5	296.9	319.6	368.1	402.4	433.9	451.0	465.2	468.0
60°	171.2	191.2	216.9	234.0	256.9	305.4	345.4	373.9	393.9	405.2	411.0
62.5°	122.8	142.8	168.4	185.5	205.5	248.2	288.2	316.8	336.8	351.0	359.6
65°	88.5	108.5	134.1	148.4	165.5	205.5	242.6	271.1	291.1	308.2	314.0
67.5°	65.6	79.9	102.8	117.0	134.1	165.5	196.9	222.6	242.6	256.9	262.6
70°	48.5	59.9	79.9	88.5	99.9	128.4	154.1	177.0	194.1	205.5	211.2
72.5°	34.2	42.8	57.1	65.6	74.2	97.0	117.0	134.1	145.5	157.0	162.6
75°	22.9	28.5	40.0	45.6	51.4	68.5	82.8	97.0	105.6	114.1	117.0
77.5°	14.2	20.0	28.5	31.4	37.1	45.6	57.1	65.6	71.4	77.0	82.8
80°	8.5	11.4	17.1	20.0	22.9	31.4	37.1	42.8	48.5	54.2	57.1
82.5°	5.8	8.5	11.4	11.4	14.2	17.1	22.9	28.5	31.4	34.2	37.1
85°	2.9	2.9	5.8	5.8	8.5	8.5	11.4	14.2	17.1	20.0	22.9
87.5°	2.9	2.9	2.9	2.9	5.8	5.8	8.5	8.5	8.5	11.4	11.4
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: P252706

CATALOG NUMBER: LE\_6B40D010 EC6B30509027 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8	2017.8
2.5°	2009.2	2017.8	2009.2	2015.0	2012.1	2012.1	2009.2	2012.1
5°	2017.8	2029.2	2017.8	2026.4	2020.6	2020.6	2020.6	2023.5
7.5°	2026.4	2037.8	2029.2	2037.8	2034.9	2032.1	2032.1	2037.8
10°	2034.9	2043.5	2037.8	2046.4	2043.5	2040.6	2040.6	2046.4
12.5°	2034.9	2046.4	2040.6	2049.2	2046.4	2043.5	2043.5	2046.4
15°	2026.4	2040.6	2032.1	2040.6	2037.8	2034.9	2034.9	2040.6
17.5°	2000.6	2012.1	2006.4	2012.1	2012.1	2009.2	2012.1	2015.0
20°	1966.4	1975.0	1969.2	1975.0	1975.0	1969.2	1972.1	1975.0
22.5°	1917.9	1926.5	1920.8	1926.5	1923.6	1920.8	1920.8	1917.9
25°	1858.0	1869.4	1860.9	1866.5	1860.9	1855.1	1855.1	1858.0
27.5°	1783.8	1792.4	1780.9	1786.6	1780.9	1775.2	1775.2	1772.4
30°	1686.8	1689.6	1681.0	1686.8	1681.0	1678.1	1672.5	1672.5
32.5°	1569.8	1572.6	1564.0	1564.0	1558.2	1558.2	1546.9	1555.5
35°	1432.8	1435.6	1432.8	1429.9	1421.2	1418.5	1415.6	1415.6
37.5°	1290.0	1290.0	1281.5	1278.6	1272.9	1267.2	1270.0	1261.5
40°	1144.5	1141.6	1133.0	1135.9	1133.0	1124.5	1121.6	1118.8
42.5°	1007.5	1007.5	998.9	1001.8	996.0	993.2	984.6	987.5
45°	887.6	887.6	879.0	879.0	876.2	867.6	870.5	864.8
47.5°	779.1	779.1	776.2	776.2	767.8	764.9	764.9	764.9
50°	685.0	685.0	685.0	685.0	682.1	679.2	676.4	679.2
52.5°	605.0	610.8	607.9	607.9	605.0	602.2	599.4	599.4
55°	533.8	536.5	536.5	539.4	536.5	533.8	536.5	533.8
57.5°	470.9	476.6	476.6	476.6	476.6	476.6	473.8	470.9
60°	416.8	419.5	419.5	422.4	422.4	422.4	419.5	419.5
62.5°	362.5	368.1	371.0	371.0	373.9	371.0	371.0	371.0
65°	319.6	325.4	328.2	325.4	328.2	328.2	325.4	325.4
67.5°	268.2	274.0	274.0	274.0	274.0	276.9	274.0	274.0
70°	216.9	222.6	219.8	222.6	222.6	222.6	222.6	222.6
72.5°	165.5	168.4	171.2	171.2	174.1	171.2	171.2	171.2
75°	119.9	125.6	125.6	125.6	125.6	128.4	128.4	128.4
77.5°	85.6	88.5	88.5	91.4	91.4	91.4	91.4	94.1
80°	59.9	59.9	62.8	62.8	65.6	65.6	65.6	65.6
82.5°	40.0	42.8	42.8	42.8	42.8	42.8	42.8	42.8
85°	22.9	25.6	25.6	25.6	25.6	28.5	28.5	28.5
87.5°	14.2	14.2	14.2	14.2	14.2	14.2	11.4	11.4
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)