

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: P252724

Luminaire Tested: **LE_6B50D010R EC6B30509727 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252724
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_6B50D010R EC6B30509727 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4455.0 lumens
Efficiency: N/A
Efficacy: 75.8 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

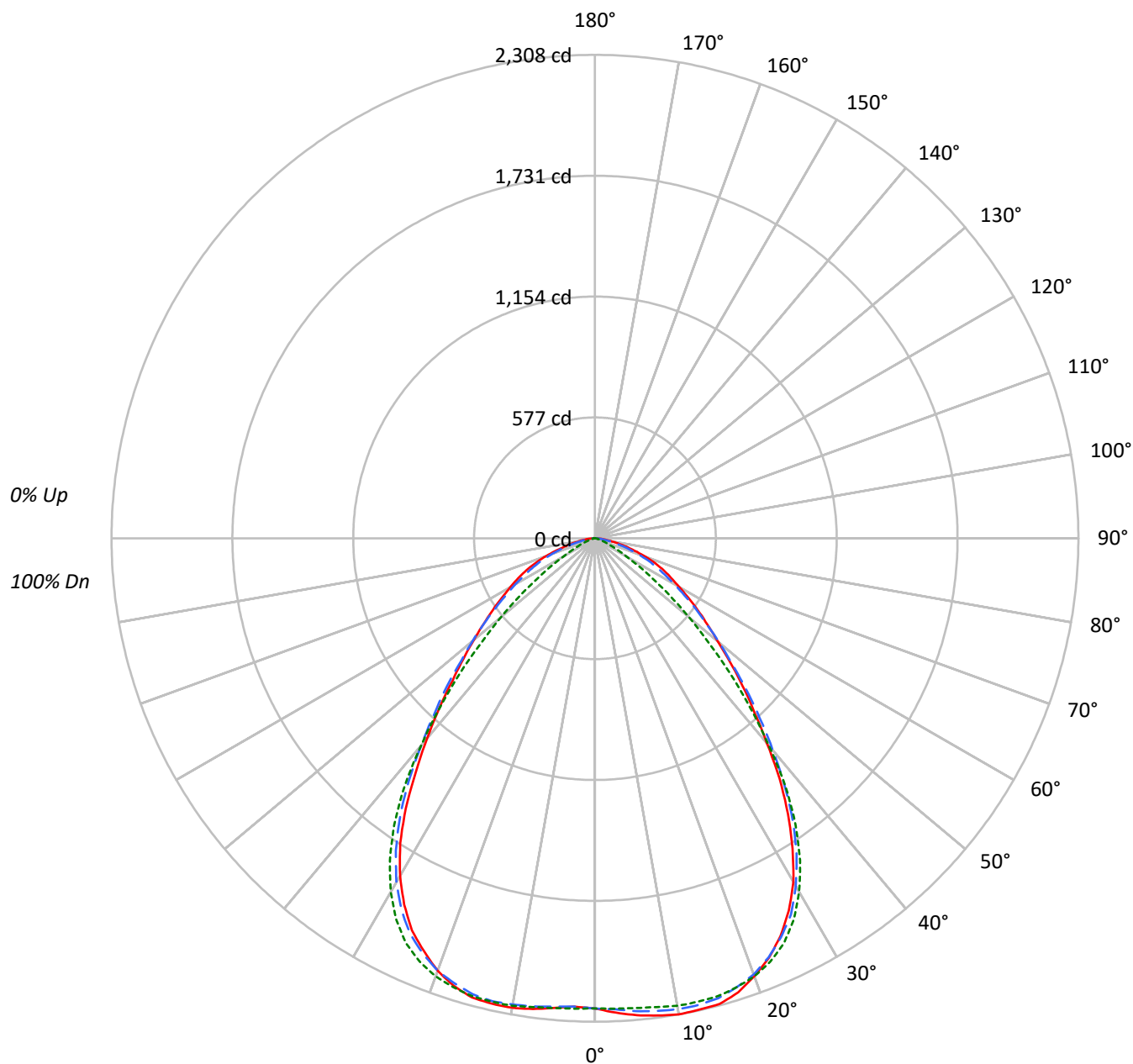
Input Watts (W): 58.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252724

CATALOG NUMBER: LE_6B50D010R EC6B30509727 6LBDW1H

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°	146433	146433	146433
5°	149697	147411	147411
10°	152898	150169	150792
15°	155455	152888	153314
20°	154511	154511	152526
25°	150838	153573	148779
30°	142772	146840	140150
35°	127940	132998	125408
40°	108688	110042	105989
45°	91978	84062	88758
50°	77655	59284	76691
55°	68246	38275	67518
60°	60478	22782	60883
65°	55867	13724	55867
70°	48451	7859	47230
75°	38416	4789	36021
80°	28629	3569	27427
85°	26124	2321	23804



TEST NUMBER: P252724

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.1	4.9
10°-20°	639.5	14.4
20°-30°	961.9	21.6
30°-40°	1011.3	22.7
40°-50°	755.5	17.0
50°-60°	470.3	10.6
60°-70°	267.5	6.0
70°-80°	110.2	2.5
80°-90°	22.8	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°	1817.5	40.8
0°-40°	2828.8	63.5
0°-60°	4054.6	91.0
0°-90°	4455.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4455.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2244	2244	2244	2244	2244	
5°	2286	2267	2251	2244	2251	219
15°	2302	2273	2264	2254	2270	647
25°	2095	2102	2133	2086	2067	959
35°	1606	1648	1670	1622	1575	997
45°	997	1019	911	1000	962	772
55°	600	587	336	578	594	540
65°	362	324	89	324	362	356
75°	152	121	19	118	143	166
85°	35	22	3	19	32	39
90°	0	0	0	0	0	



TEST NUMBER: P252724

CATALOG NUMBER: LE_6B50D010R EC6B30509727 6LBDW1H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5
2.5°	2266.8	2263.6	2266.8	2260.4	2257.2	2257.2	2260.4	2254.0	2250.9	2254.0	2250.9
5°	2285.8	2279.5	2282.6	2279.5	2273.1	2273.1	2276.2	2266.8	2266.8	2269.9	2266.8
7.5°	2298.5	2298.5	2298.5	2292.1	2289.0	2285.8	2292.1	2282.6	2279.5	2279.5	2276.2
10°	2308.0	2304.9	2308.0	2301.6	2295.4	2292.1	2298.5	2292.1	2285.8	2292.1	2282.6
12.5°	2304.9	2304.9	2304.9	2301.6	2295.4	2292.1	2298.5	2289.0	2285.8	2289.0	2282.6
15°	2301.6	2292.1	2295.4	2292.1	2282.6	2282.6	2285.8	2276.2	2269.9	2279.5	2273.1
17.5°	2273.1	2266.8	2269.9	2263.6	2257.2	2254.0	2257.2	2254.0	2247.8	2254.0	2247.8
20°	2225.5	2225.5	2228.6	2222.2	2216.0	2212.8	2219.1	2212.8	2206.4	2216.0	2216.0
22.5°	2168.4	2168.4	2168.4	2165.1	2162.0	2162.0	2162.0	2158.8	2155.6	2162.0	2165.1
25°	2095.4	2092.1	2095.4	2098.5	2095.4	2092.1	2095.4	2095.4	2089.0	2101.6	2101.6
27.5°	2003.2	2003.2	2009.6	2006.4	2006.4	2003.2	2009.6	2009.6	2006.4	2016.0	2025.5
30°	1895.2	1889.0	1895.2	1895.2	1898.5	1898.5	1901.6	1901.6	1901.6	1911.1	1917.5
32.5°	1755.6	1758.8	1768.4	1765.1	1762.0	1771.5	1771.5	1777.9	1781.0	1787.4	1790.5
35°	1606.4	1609.6	1609.6	1612.8	1619.1	1612.8	1628.6	1625.5	1628.6	1641.4	1647.6
37.5°	1447.6	1438.1	1454.0	1447.6	1450.9	1450.9	1457.2	1460.4	1469.9	1485.8	1485.8
40°	1276.2	1279.4	1285.8	1288.9	1292.1	1292.1	1292.1	1301.6	1304.8	1323.9	1320.6
42.5°	1127.0	1127.0	1133.4	1136.5	1136.5	1136.5	1136.5	1146.1	1152.4	1158.8	1165.1
45°	996.9	987.4	993.6	993.6	1000.0	996.9	1003.2	1009.5	1012.8	1022.2	1019.1
47.5°	873.0	869.9	873.0	876.2	873.0	876.2	879.4	882.6	885.8	885.8	885.8
50°	765.1	765.1	768.2	771.5	771.5	771.5	771.5	774.6	774.6	781.0	774.6
52.5°	676.2	679.4	679.4	676.2	679.4	679.4	682.6	682.6	679.4	679.4	669.9
55°	600.0	596.9	600.0	596.9	600.0	600.0	596.9	596.9	593.6	590.5	587.4
57.5°	527.0	527.0	527.0	527.0	523.9	527.0	523.9	520.6	520.6	514.2	504.8
60°	463.5	463.5	463.5	463.5	463.5	460.4	463.5	460.4	454.0	447.6	434.9
62.5°	409.5	406.4	409.5	406.4	406.4	403.2	403.2	400.0	393.6	387.4	374.6
65°	361.9	365.1	361.9	361.9	358.8	355.6	355.6	352.4	342.9	336.5	323.9
67.5°	311.1	308.0	308.0	308.0	304.8	304.8	304.8	298.4	292.1	282.5	269.9
70°	254.0	254.0	254.0	250.8	250.8	247.6	247.6	244.5	238.1	231.8	215.9
72.5°	200.0	200.0	200.0	193.6	196.9	193.6	193.6	187.2	184.1	174.6	165.1
75°	152.4	152.4	149.2	149.2	146.0	142.9	142.9	139.8	136.5	130.1	120.6
77.5°	111.1	111.1	111.1	108.0	104.8	101.6	101.6	98.4	95.2	92.1	85.8
80°	76.2	76.2	76.2	76.2	73.0	69.9	69.9	66.6	66.6	63.5	57.1
82.5°	50.8	50.8	50.8	50.8	47.6	47.6	47.6	44.5	41.2	41.2	34.9
85°	34.9	34.9	31.8	31.8	31.8	31.8	28.6	28.6	25.4	22.2	22.2
87.5°	19.0	19.0	19.0	19.0	15.9	15.9	15.9	15.9	12.8	12.8	9.5
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: P252724

CATALOG NUMBER: LE_6B50D010R EC6B30509727 6LBDW1H

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5
2.5°	2260.4	2260.4	2257.2	2247.8	2250.9	2247.8	2250.9	2247.8	2238.1	2247.8	2238.1
5°	2273.1	2276.2	2269.9	2257.2	2260.4	2257.2	2257.2	2254.0	2244.5	2250.9	2244.5
7.5°	2285.8	2282.6	2279.5	2266.8	2269.9	2266.8	2266.8	2260.4	2250.9	2257.2	2247.8
10°	2292.1	2292.1	2285.8	2273.1	2273.1	2269.9	2273.1	2269.9	2257.2	2266.8	2260.4
12.5°	2292.1	2289.0	2289.0	2273.1	2276.2	2273.1	2276.2	2269.9	2260.4	2266.8	2263.6
15°	2282.6	2282.6	2279.5	2263.6	2266.8	2266.8	2269.9	2263.6	2254.0	2263.6	2257.2
17.5°	2263.6	2263.6	2260.4	2247.8	2254.0	2254.0	2257.2	2250.9	2241.4	2247.8	2247.8
20°	2225.5	2228.6	2228.6	2219.1	2225.5	2225.5	2228.6	2225.5	2222.2	2225.5	2219.1
22.5°	2181.0	2187.4	2187.4	2177.9	2184.2	2184.2	2193.8	2190.5	2184.2	2187.4	2184.2
25°	2114.4	2120.8	2127.0	2120.8	2127.0	2127.0	2136.6	2133.4	2127.0	2133.4	2123.9
27.5°	2038.1	2041.4	2047.8	2041.4	2050.9	2047.8	2057.2	2054.0	2044.5	2054.0	2050.9
30°	1930.2	1942.9	1952.5	1942.9	1952.5	1952.5	1958.8	1955.6	1952.5	1949.2	1949.2
32.5°	1809.6	1822.2	1822.2	1819.1	1825.5	1825.5	1828.6	1822.2	1819.1	1822.2	1825.5
35°	1660.4	1666.8	1673.1	1669.9	1673.1	1676.2	1673.1	1676.2	1666.8	1669.9	1669.9
37.5°	1498.5	1504.9	1504.9	1495.2	1501.6	1501.6	1495.2	1495.2	1489.0	1495.2	1482.6
40°	1327.0	1320.6	1323.9	1317.5	1311.1	1311.1	1308.0	1295.2	1288.9	1292.1	1295.2
42.5°	1158.8	1158.8	1149.2	1133.4	1117.5	1117.5	1108.0	1101.6	1088.9	1095.2	1092.1
45°	1015.9	1000.0	987.4	962.0	952.4	946.1	930.2	914.4	908.0	911.1	908.0
47.5°	879.4	866.8	835.0	800.0	790.5	781.0	761.9	742.9	736.5	730.1	730.1
50°	765.1	742.9	708.0	669.9	654.0	638.1	612.8	593.6	581.0	584.1	584.1
52.5°	660.4	635.0	593.6	546.0	527.0	508.0	485.8	463.5	454.0	450.8	450.8
55°	568.2	539.8	498.4	444.5	428.6	406.4	377.8	352.4	339.8	336.5	342.9
57.5°	485.8	460.4	412.8	358.8	339.8	317.5	288.9	266.6	250.8	247.6	250.8
60°	419.1	384.1	342.9	292.1	266.6	247.6	215.9	196.9	181.0	174.6	177.8
62.5°	352.4	320.6	279.4	228.6	209.5	190.5	161.9	139.8	127.0	123.9	127.0
65°	301.6	269.9	231.8	187.2	168.2	149.2	123.9	101.6	92.1	88.9	92.1
67.5°	250.8	222.2	190.5	149.2	133.4	117.5	92.1	76.2	63.5	60.4	63.5
70°	203.1	177.8	146.0	117.5	101.6	88.9	69.9	54.0	44.5	41.2	44.5
72.5°	152.4	133.4	111.1	85.8	76.2	66.6	50.8	38.1	31.8	28.6	31.8
75°	111.1	95.2	79.4	60.4	54.0	47.6	34.9	25.4	22.2	19.0	22.2
77.5°	76.2	66.6	54.0	41.2	34.9	31.8	22.2	19.0	15.9	12.8	12.8
80°	50.8	44.5	34.9	28.6	25.4	22.2	15.9	12.8	9.5	9.5	9.5
82.5°	31.8	25.4	22.2	15.9	12.8	12.8	9.5	6.4	6.4	6.4	6.4
85°	19.0	15.9	12.8	9.5	6.4	6.4	3.1	3.1	3.1	3.1	3.1
87.5°	9.5	6.4	6.4	3.1	3.1	3.1	3.1	3.1	0.0	0.0	3.1
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: P252724

CATALOG NUMBER: LE_6B50D010R EC6B30509727 6LBDW1H

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5
2.5°	2244.5	2238.1	2238.1	2241.4	2244.5	2247.8	2241.4	2238.1	2238.1	2247.8	2241.4
5°	2244.5	2241.4	2241.4	2241.4	2247.8	2250.9	2244.5	2241.4	2244.5	2254.0	2250.9
7.5°	2254.0	2247.8	2250.9	2250.9	2254.0	2260.4	2254.0	2250.9	2254.0	2263.6	2257.2
10°	2260.4	2254.0	2257.2	2254.0	2263.6	2266.8	2260.4	2257.2	2260.4	2273.1	2269.9
12.5°	2263.6	2260.4	2260.4	2257.2	2266.8	2269.9	2263.6	2260.4	2263.6	2273.1	2269.9
15°	2257.2	2254.0	2254.0	2254.0	2260.4	2266.8	2257.2	2254.0	2254.0	2263.6	2260.4
17.5°	2244.5	2238.1	2238.1	2238.1	2241.4	2244.5	2235.0	2231.9	2228.6	2238.1	2235.0
20°	2222.2	2216.0	2209.6	2209.6	2212.8	2212.8	2206.4	2196.9	2196.9	2200.1	2193.8
22.5°	2181.0	2177.9	2171.5	2168.4	2174.6	2171.5	2158.8	2149.2	2146.1	2149.2	2142.9
25°	2123.9	2117.5	2114.4	2111.1	2114.4	2111.1	2098.5	2085.8	2085.8	2085.8	2076.2
27.5°	2044.5	2038.1	2035.0	2035.0	2038.1	2031.9	2019.1	2006.4	2000.1	2000.1	1990.5
30°	1942.9	1942.9	1939.8	1936.6	1933.4	1933.4	1914.4	1901.6	1895.2	1898.5	1892.1
32.5°	1819.1	1816.0	1812.8	1803.2	1806.4	1803.2	1787.4	1777.9	1768.4	1762.0	1758.8
35°	1660.4	1660.4	1657.2	1657.2	1657.2	1654.0	1638.1	1628.6	1622.2	1619.1	1609.6
37.5°	1485.8	1482.6	1479.4	1479.4	1479.4	1479.4	1469.9	1460.4	1460.4	1457.2	1450.9
40°	1288.9	1292.1	1295.2	1292.1	1301.6	1311.1	1298.5	1292.1	1288.9	1298.5	1285.8
42.5°	1098.5	1095.2	1111.1	1114.4	1114.4	1130.2	1133.4	1136.5	1133.4	1139.8	1139.8
45°	914.4	911.1	927.0	933.4	949.2	968.2	977.9	993.6	1000.0	1006.4	1000.0
47.5°	739.8	752.4	765.1	781.0	793.6	825.4	844.5	860.4	866.8	876.2	876.2
50°	593.6	606.4	628.6	641.2	657.1	695.2	727.0	749.2	761.9	771.5	768.2
52.5°	457.1	479.4	508.0	520.6	542.9	587.4	622.2	647.6	663.5	673.0	676.2
55°	352.4	371.5	400.0	419.1	441.2	488.9	533.4	561.9	577.8	590.5	596.9
57.5°	260.4	282.5	314.2	330.1	355.6	409.5	447.6	482.5	501.6	517.5	520.6
60°	190.5	212.8	241.2	260.4	285.8	339.8	384.1	415.9	438.1	450.8	457.1
62.5°	136.5	158.8	187.2	206.4	228.6	276.2	320.6	352.4	374.6	390.5	400.0
65°	98.4	120.6	149.2	165.1	184.1	228.6	269.9	301.6	323.9	342.9	349.2
67.5°	73.0	88.9	114.2	130.1	149.2	184.1	219.0	247.6	269.9	285.8	292.1
70°	54.0	66.6	88.9	98.4	111.1	142.9	171.4	196.9	215.9	228.6	234.9
72.5°	38.1	47.6	63.5	73.0	82.5	108.0	130.1	149.2	161.9	174.6	181.0
75°	25.4	31.8	44.5	50.8	57.1	76.2	92.1	108.0	117.5	127.0	130.1
77.5°	15.9	22.2	31.8	34.9	41.2	50.8	63.5	73.0	79.4	85.8	92.1
80°	9.5	12.8	19.0	22.2	25.4	34.9	41.2	47.6	54.0	60.4	63.5
82.5°	6.4	9.5	12.8	12.8	15.9	19.0	25.4	31.8	34.9	38.1	41.2
85°	3.1	3.1	6.4	6.4	9.5	9.5	12.8	15.9	19.0	22.2	25.4
87.5°	3.1	3.1	3.1	3.1	6.4	6.4	9.5	9.5	9.5	12.8	12.8
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: P252724

CATALOG NUMBER: LE_6B50D010R EC6B30509727 6LBDW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5	2244.5
2.5°	2235.0	2244.5	2235.0	2241.4	2238.1	2238.1	2235.0	2238.1
5°	2244.5	2257.2	2244.5	2254.0	2247.8	2247.8	2247.8	2250.9
7.5°	2254.0	2266.8	2257.2	2266.8	2263.6	2260.4	2260.4	2266.8
10°	2263.6	2273.1	2266.8	2276.2	2273.1	2269.9	2269.9	2276.2
12.5°	2263.6	2276.2	2269.9	2279.5	2276.2	2273.1	2273.1	2276.2
15°	2254.0	2269.9	2260.4	2269.9	2266.8	2263.6	2263.6	2269.9
17.5°	2225.5	2238.1	2231.9	2238.1	2238.1	2235.0	2238.1	2241.4
20°	2187.4	2196.9	2190.5	2196.9	2196.9	2190.5	2193.8	2196.9
22.5°	2133.4	2142.9	2136.6	2142.9	2139.8	2136.6	2136.6	2133.4
25°	2066.8	2079.5	2069.9	2076.2	2069.9	2063.6	2063.6	2066.8
27.5°	1984.2	1993.8	1981.0	1987.4	1981.0	1974.6	1974.6	1971.5
30°	1876.2	1879.4	1869.9	1876.2	1869.9	1866.8	1860.4	1860.4
32.5°	1746.1	1749.2	1739.8	1739.8	1733.4	1733.4	1720.8	1730.2
35°	1593.8	1596.9	1593.8	1590.5	1581.0	1577.9	1574.6	1574.6
37.5°	1435.0	1435.0	1425.5	1422.2	1415.9	1409.6	1412.8	1403.2
40°	1273.0	1269.9	1260.4	1263.5	1260.4	1250.9	1247.6	1244.5
42.5°	1120.6	1120.6	1111.1	1114.4	1108.0	1104.8	1095.2	1098.5
45°	987.4	987.4	977.9	977.9	974.6	965.1	968.2	962.0
47.5°	866.8	866.8	863.5	863.5	854.0	850.9	850.9	850.9
50°	761.9	761.9	761.9	761.9	758.8	755.6	752.4	755.6
52.5°	673.0	679.4	676.2	676.2	673.0	669.9	666.8	666.8
55°	593.6	596.9	596.9	600.0	596.9	593.6	596.9	593.6
57.5°	523.9	530.1	530.1	530.1	530.1	530.1	527.0	523.9
60°	463.5	466.6	466.6	469.9	469.9	469.9	466.6	466.6
62.5°	403.2	409.5	412.8	412.8	415.9	412.8	412.8	412.8
65°	355.6	361.9	365.1	361.9	365.1	365.1	361.9	361.9
67.5°	298.4	304.8	304.8	304.8	304.8	308.0	304.8	304.8
70°	241.2	247.6	244.5	247.6	247.6	247.6	247.6	247.6
72.5°	184.1	187.2	190.5	190.5	193.6	190.5	190.5	190.5
75°	133.4	139.8	139.8	139.8	139.8	142.9	142.9	142.9
77.5°	95.2	98.4	98.4	101.6	101.6	101.6	101.6	104.8
80°	66.6	66.6	69.9	69.9	73.0	73.0	73.0	73.0
82.5°	44.5	47.6	47.6	47.6	47.6	47.6	47.6	47.6
85°	25.4	28.6	28.6	28.6	28.6	31.8	31.8	31.8
87.5°	15.9	15.9	15.9	15.9	15.9	15.9	12.8	12.8
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)