

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: HALO COMMERCIAL

Report Number: P585015

Luminaire Tested: **HC855D010-HM82555930-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P585015
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC855D010-HM82555930-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4741.3 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.04 / 1.13
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

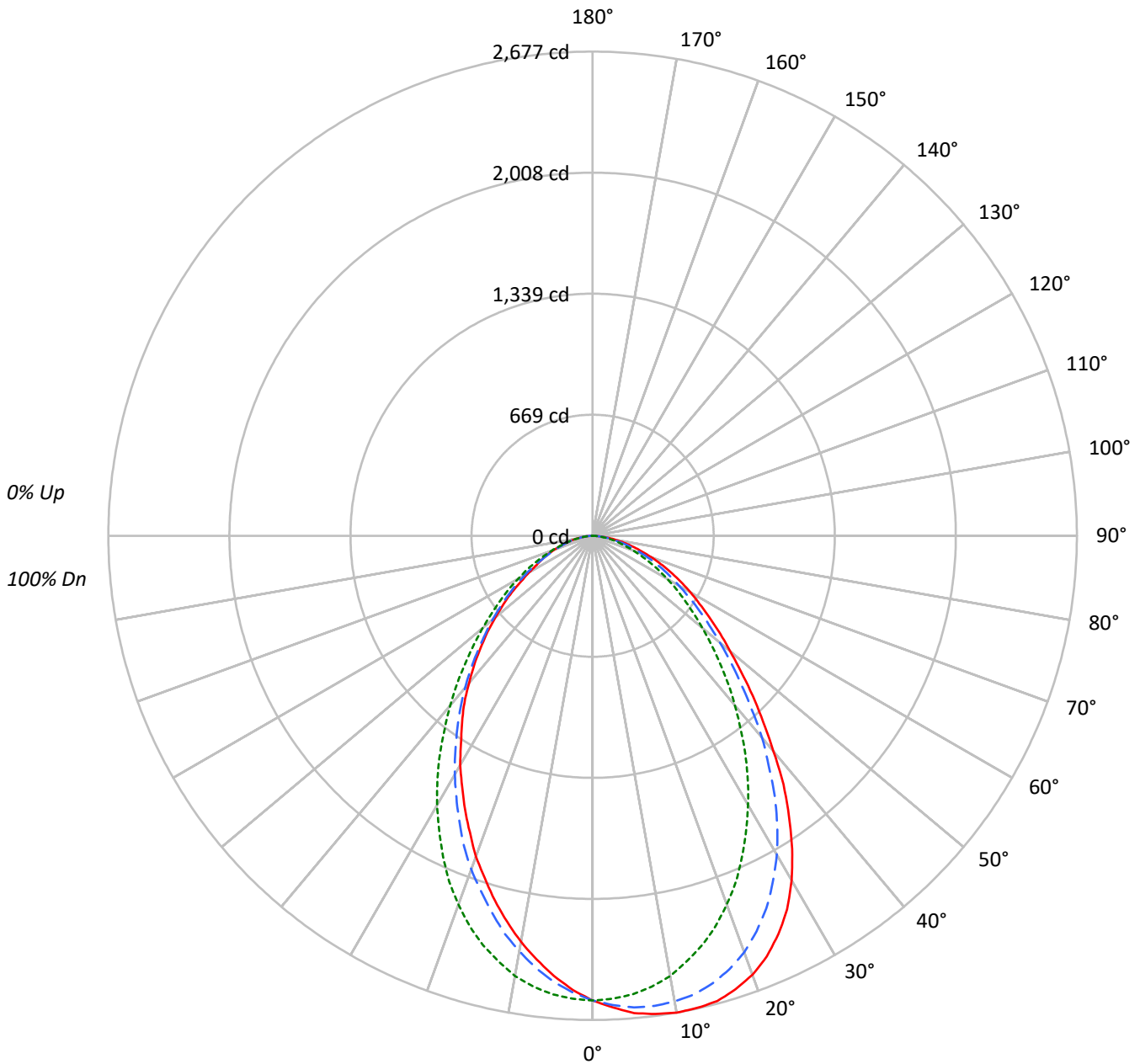
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P585015

CATALOG NUMBER: HC855D010-HM82555930-81WWW

Luminous Intensity Polar Plot





TEST NUMBER: P585015

CATALOG NUMBER: HC855D010-HM82555930-81WWW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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				100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76				76
3	94	85	78	72	92	83	77	71	81	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	60	54	64	59	54	63	57	53	51				51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	79218	79218	79218
5°	82004	78766	75639
10°	83825	77388	71385
15°	85017	74782	66658
20°	84762	71150	61886
25°	82668	66538	56810
30°	78321	61190	52132
35°	71253	55375	47371
40°	62583	49255	42798
45°	54577	43326	38154
50°	47493	37961	33610
55°	42353	33359	29235
60°	38484	29239	24934
65°	34593	25436	22634
70°	30798	21683	20421
75°	26986	18276	17442
80°	22890	14863	15485
85°	17266	11110	12312



TEST NUMBER: P585015

CATALOG NUMBER: HC855D010-HM82555930-81WWW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.6	5.1
10°-20°	663.0	14.0
20°-30°	920.3	19.4
30°-40°	951.5	20.1
40°-50°	796.7	16.8
50°-60°	578.4	12.2
60°-70°	365.0	7.7
70°-80°	180.8	3.8
80°-90°	44.9	0.9
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°	1824.0	38.5
0°-40°	2775.5	58.5
0°-60°	4150.6	87.5
0°-90°	4741.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4741.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2569	2569	2569	2569	2569	
5°	2649	2618	2545	2475	2444	253
15°	2663	2562	2342	2154	2088	750
25°	2430	2273	1956	1743	1670	1113
35°	1893	1753	1471	1304	1258	1179
45°	1252	1161	994	896	875	968
55°	788	718	620	568	544	711
65°	474	415	349	307	310	473
75°	226	188	153	146	146	243
85°	49	38	31	35	35	59
90°	0	0	0	0	0	



TEST NUMBER: P585015

CATALOG NUMBER: HC855D010-HM82555930-81WWW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0
2.5°	2610.9	2610.9	2614.4	2610.9	2610.9	2610.9	2607.5	2607.5	2603.9	2603.9	2596.9
5°	2649.2	2642.3	2649.2	2642.3	2642.3	2642.3	2638.8	2631.8	2628.3	2621.4	2617.9
7.5°	2666.7	2663.1	2663.1	2659.7	2659.7	2656.2	2652.7	2649.2	2635.4	2631.8	2621.4
10°	2677.1	2673.7	2673.7	2670.2	2663.1	2663.1	2656.2	2652.7	2635.4	2628.3	2614.4
12.5°	2673.7	2673.7	2673.7	2670.2	2659.7	2656.2	2649.2	2638.8	2624.8	2610.9	2596.9
15°	2663.1	2663.1	2656.2	2652.7	2642.3	2635.4	2631.8	2614.4	2600.4	2583.0	2562.1
17.5°	2628.3	2628.3	2624.8	2617.9	2607.5	2600.4	2593.5	2576.1	2562.1	2534.2	2513.4
20°	2583.0	2579.6	2576.1	2565.6	2555.1	2551.7	2541.1	2516.8	2499.4	2478.4	2450.5
22.5°	2516.8	2513.4	2509.8	2502.8	2485.5	2478.4	2471.5	2454.1	2422.6	2401.8	2366.9
25°	2429.7	2429.7	2422.6	2412.2	2394.7	2387.8	2377.4	2359.9	2332.0	2300.6	2272.7
27.5°	2328.5	2325.0	2314.6	2307.7	2293.7	2283.3	2265.8	2244.8	2217.0	2192.6	2157.8
30°	2199.6	2199.6	2192.6	2182.1	2164.7	2157.8	2143.8	2119.4	2091.6	2060.1	2035.8
32.5°	2053.1	2053.1	2042.7	2035.8	2025.3	2007.9	2004.4	1976.5	1952.1	1927.7	1899.8
35°	1892.8	1896.3	1889.4	1875.4	1858.0	1858.0	1850.9	1826.6	1798.7	1774.3	1753.4
37.5°	1732.5	1722.0	1718.5	1711.6	1701.0	1687.1	1680.2	1669.7	1645.4	1627.9	1596.5
40°	1554.7	1558.2	1551.3	1544.2	1540.7	1530.3	1526.8	1509.4	1492.0	1471.0	1457.0
42.5°	1394.3	1394.3	1394.3	1387.4	1380.4	1370.0	1366.4	1356.0	1335.0	1321.2	1300.2
45°	1251.5	1240.9	1240.9	1237.5	1234.0	1227.0	1216.5	1209.6	1195.7	1185.2	1160.7
47.5°	1112.0	1115.5	1112.0	1108.5	1098.0	1094.5	1091.0	1077.2	1063.2	1052.7	1035.3
50°	990.0	996.9	990.0	990.0	983.0	979.6	972.5	962.1	951.7	934.2	916.7
52.5°	888.8	888.8	885.4	881.9	871.5	864.5	861.0	857.6	840.1	826.1	812.2
55°	787.8	791.3	791.3	780.8	777.4	770.4	766.8	756.4	749.5	728.5	718.1
57.5°	700.6	697.2	700.6	693.7	686.7	679.8	676.2	669.3	658.8	644.8	630.9
60°	624.0	616.9	616.9	613.5	606.5	603.0	596.1	585.6	575.2	561.3	550.7
62.5°	547.3	543.8	540.3	536.8	529.9	526.3	522.8	512.4	502.0	491.5	481.1
65°	474.1	474.1	470.6	463.6	460.1	456.6	453.2	446.2	432.2	425.3	414.8
67.5°	407.9	404.3	404.3	397.4	390.4	386.9	386.9	380.0	369.5	359.1	352.1
70°	341.6	345.2	341.6	338.1	331.2	331.2	324.2	320.7	306.7	303.3	292.8
72.5°	282.3	282.3	278.8	278.8	271.9	268.4	268.4	261.5	254.4	247.5	240.5
75°	226.5	226.5	226.5	223.1	219.6	212.6	212.6	209.2	202.2	195.3	188.2
77.5°	177.8	174.3	174.3	170.8	167.4	163.8	163.8	160.3	153.4	149.9	142.9
80°	128.9	125.5	125.5	125.5	118.5	122.0	118.5	115.1	111.6	108.1	104.5
82.5°	83.7	87.2	87.2	83.7	80.2	80.2	80.2	76.6	76.6	73.2	69.7
85°	48.8	48.8	48.8	48.8	45.4	45.4	45.4	41.8	41.8	41.8	38.3
87.5°	20.9	20.9	20.9	20.9	20.9	20.9	17.5	17.5	17.5	17.5	17.5
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: P585015

CATALOG NUMBER: HC855D010-HM82555930-81WWW

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0
2.5°	2596.9	2590.0	2586.5	2583.0	2583.0	2579.6	2576.1	2569.0	2569.0	2562.1	2558.6
5°	2610.9	2600.4	2593.5	2586.5	2583.0	2576.1	2569.0	2558.6	2555.1	2544.6	2534.2
7.5°	2614.4	2596.9	2590.0	2576.1	2569.0	2562.1	2548.2	2537.7	2523.8	2513.4	2499.4
10°	2600.4	2586.5	2569.0	2551.7	2548.2	2537.7	2516.8	2502.8	2485.5	2471.5	2450.5
12.5°	2579.6	2558.6	2541.1	2520.3	2509.8	2499.4	2478.4	2457.6	2433.1	2408.7	2387.8
15°	2544.6	2520.3	2495.9	2471.5	2457.6	2447.0	2422.6	2398.3	2373.9	2342.5	2321.6
17.5°	2492.4	2464.5	2440.1	2408.7	2394.7	2384.3	2352.9	2325.0	2293.7	2262.3	2241.4
20°	2426.2	2391.3	2363.5	2328.5	2318.1	2300.6	2269.3	2237.9	2203.0	2168.2	2143.8
22.5°	2339.0	2304.2	2272.7	2237.9	2220.5	2203.0	2171.7	2133.4	2098.5	2070.6	2046.2
25°	2237.9	2206.5	2168.2	2136.8	2115.9	2095.0	2060.1	2028.7	1997.4	1955.6	1931.1
27.5°	2126.4	2088.0	2060.1	2018.3	1997.4	1983.5	1945.1	1903.3	1875.4	1837.0	1809.1
30°	2000.8	1966.0	1934.6	1892.8	1871.9	1858.0	1823.0	1784.7	1756.8	1718.5	1690.6
32.5°	1868.4	1830.1	1791.8	1763.9	1739.5	1725.5	1687.1	1662.7	1627.9	1596.5	1565.2
35°	1725.5	1687.1	1659.3	1620.9	1606.9	1593.0	1561.7	1530.3	1498.9	1471.0	1446.6
37.5°	1572.1	1544.2	1512.8	1484.9	1474.5	1460.5	1422.2	1394.3	1370.0	1342.1	1321.2
40°	1422.2	1397.8	1376.9	1349.0	1331.6	1321.2	1293.3	1268.8	1240.9	1223.6	1202.6
42.5°	1286.3	1258.4	1237.5	1216.5	1199.2	1188.6	1164.3	1146.8	1125.9	1108.5	1084.1
45°	1143.4	1129.5	1105.0	1087.6	1077.2	1063.2	1045.8	1024.8	1007.5	993.5	976.0
47.5°	1017.9	1003.9	986.5	965.6	958.6	948.1	930.7	916.7	902.8	888.8	871.5
50°	902.8	885.4	871.5	857.6	850.5	840.1	822.6	815.7	805.3	791.3	780.8
52.5°	798.2	784.3	770.4	752.9	749.5	742.5	732.0	718.1	707.7	700.6	693.7
55°	704.1	690.2	679.8	665.8	662.3	655.4	641.4	634.4	627.5	620.5	613.5
57.5°	620.5	606.5	592.6	585.6	578.6	571.7	568.2	557.8	550.7	547.3	540.3
60°	543.8	529.9	519.4	508.9	505.5	502.0	494.9	488.0	481.1	474.1	470.6
62.5°	470.6	456.6	449.7	442.7	435.7	435.7	428.7	421.8	414.8	411.4	404.3
65°	404.3	397.4	386.9	376.4	372.9	372.9	362.5	359.1	355.6	348.6	341.6
67.5°	341.6	334.6	324.2	320.7	317.3	313.7	310.2	303.3	296.3	292.8	285.9
70°	285.9	278.8	271.9	268.4	264.9	261.5	254.4	250.9	244.0	240.5	237.1
72.5°	230.1	226.5	219.6	216.1	212.6	209.2	205.7	202.2	195.3	191.7	188.2
75°	184.7	181.3	174.3	170.8	167.4	167.4	163.8	156.8	153.4	153.4	149.9
77.5°	139.5	136.0	132.4	128.9	125.5	125.5	122.0	118.5	115.1	115.1	111.6
80°	101.1	97.6	94.1	94.1	94.1	90.6	87.2	87.2	83.7	83.7	80.2
82.5°	66.2	66.2	62.7	62.7	62.7	59.3	59.3	55.8	55.8	55.8	55.8
85°	38.3	38.3	38.3	34.8	34.8	34.8	34.8	34.8	34.8	31.4	34.8
87.5°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	13.9	13.9	13.9
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: P585015

CATALOG NUMBER: HC855D010-HM82555930-81WWW

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0
2.5°	2555.1	2551.7	2544.6	2544.6	2537.7	2537.7	2534.2	2530.7	2527.3	2523.8	2520.3
5°	2530.7	2516.8	2509.8	2506.3	2499.4	2495.9	2485.5	2478.4	2474.9	2468.0	2461.0
7.5°	2485.5	2471.5	2457.6	2454.1	2450.5	2436.6	2426.2	2415.7	2408.7	2401.8	2394.7
10°	2433.1	2419.1	2401.8	2394.7	2387.8	2370.4	2356.4	2346.0	2332.0	2318.1	2314.6
12.5°	2370.4	2349.5	2328.5	2321.6	2311.1	2293.7	2279.8	2262.3	2251.9	2234.4	2230.9
15°	2297.1	2272.7	2255.4	2237.9	2230.9	2213.6	2189.1	2175.1	2154.3	2147.3	2129.9
17.5°	2210.0	2185.7	2161.3	2154.3	2143.8	2119.4	2095.0	2077.6	2056.6	2046.2	2035.8
20°	2119.4	2088.0	2063.7	2056.6	2042.7	2021.8	1997.4	1980.0	1962.5	1941.7	1931.1
22.5°	2014.8	1980.0	1959.0	1941.7	1938.1	1913.8	1885.9	1871.9	1858.0	1840.5	1826.6
25°	1899.8	1868.4	1844.0	1830.1	1823.0	1802.2	1781.3	1763.9	1742.9	1732.5	1715.0
27.5°	1781.3	1760.3	1728.9	1715.0	1704.6	1687.1	1662.7	1652.3	1631.4	1617.5	1606.9
30°	1666.2	1634.8	1617.5	1600.0	1589.6	1572.1	1551.3	1540.7	1523.4	1509.4	1498.9
32.5°	1540.7	1519.8	1495.5	1488.4	1474.5	1457.0	1443.2	1425.7	1411.8	1397.8	1394.3
35°	1425.7	1397.8	1373.5	1366.4	1356.0	1338.5	1331.6	1321.2	1303.7	1300.2	1286.3
37.5°	1300.2	1286.3	1258.4	1247.9	1244.4	1230.5	1216.5	1209.6	1199.2	1188.6	1185.2
40°	1181.7	1164.3	1150.3	1139.9	1132.9	1122.4	1108.5	1105.0	1098.0	1084.1	1080.6
42.5°	1070.2	1052.7	1038.7	1035.3	1024.8	1014.4	1007.5	996.9	993.5	990.0	983.0
45°	962.1	951.7	937.7	934.2	930.7	916.7	909.8	902.8	895.9	892.4	885.4
47.5°	864.5	854.0	843.6	840.1	833.2	829.7	819.2	815.7	805.3	801.8	798.2
50°	770.4	763.4	756.4	752.9	746.0	742.5	735.5	728.5	721.6	718.1	714.6
52.5°	686.7	679.8	672.7	669.3	665.8	658.8	651.9	644.8	641.4	637.9	634.4
55°	606.5	599.6	596.1	592.6	589.2	585.6	575.2	571.7	568.2	564.7	557.8
57.5°	533.4	526.3	519.4	519.4	515.9	512.4	505.5	498.5	498.5	491.5	484.5
60°	467.2	460.1	453.2	449.7	446.2	439.3	435.7	432.2	428.7	425.3	418.3
62.5°	397.4	393.9	386.9	386.9	380.0	376.4	372.9	369.5	366.0	359.1	355.6
65°	338.1	334.6	327.7	324.2	324.2	320.7	313.7	310.2	306.7	306.7	303.3
67.5°	282.3	278.8	271.9	268.4	268.4	264.9	261.5	261.5	258.0	254.4	258.0
70°	233.6	226.5	226.5	223.1	223.1	219.6	216.1	216.1	216.1	219.6	219.6
72.5°	184.7	181.3	177.8	177.8	177.8	177.8	174.3	174.3	177.8	181.3	181.3
75°	146.4	142.9	142.9	142.9	139.5	139.5	142.9	142.9	146.4	146.4	146.4
77.5°	108.1	108.1	108.1	108.1	108.1	108.1	111.6	111.6	115.1	115.1	115.1
80°	80.2	80.2	80.2	80.2	80.2	83.7	83.7	83.7	83.7	83.7	87.2
82.5°	55.8	55.8	55.8	55.8	55.8	55.8	55.8	59.3	59.3	59.3	59.3
85°	31.4	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
87.5°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
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: P585015

CATALOG NUMBER: HC855D010-HM82555930-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0	2569.0
2.5°	2516.8	2516.8	2516.8	2520.3	2513.4	2513.4	2513.4	2513.4
5°	2457.6	2454.1	2450.5	2454.1	2447.0	2447.0	2443.6	2443.6
7.5°	2384.3	2380.8	2377.4	2377.4	2370.4	2370.4	2366.9	2363.5
10°	2304.2	2297.1	2300.6	2293.7	2290.2	2286.7	2283.3	2279.8
12.5°	2217.0	2210.0	2206.5	2199.6	2192.6	2189.1	2192.6	2185.7
15°	2122.8	2112.4	2108.9	2102.0	2095.0	2091.6	2091.6	2088.0
17.5°	2018.3	2011.4	2007.9	2000.8	1997.4	1990.4	1986.9	1983.5
20°	1920.7	1903.3	1906.7	1899.8	1896.3	1882.3	1882.3	1885.9
22.5°	1812.6	1802.2	1795.3	1788.2	1784.7	1777.8	1777.8	1774.3
25°	1704.6	1694.1	1690.6	1683.7	1680.2	1673.3	1669.7	1669.7
27.5°	1600.0	1586.1	1586.1	1579.0	1572.1	1568.6	1565.2	1561.7
30°	1488.4	1478.0	1474.5	1474.5	1471.0	1471.0	1460.5	1464.1
32.5°	1383.9	1376.9	1373.5	1366.4	1366.4	1362.9	1362.9	1352.5
35°	1279.4	1268.8	1272.3	1265.4	1261.9	1258.4	1261.9	1258.4
37.5°	1178.2	1171.3	1171.3	1164.3	1164.3	1160.7	1157.4	1164.3
40°	1077.2	1073.7	1070.2	1066.6	1070.2	1066.6	1059.7	1063.2
42.5°	976.0	976.0	972.5	972.5	969.0	969.0	969.0	969.0
45°	885.4	881.9	881.9	878.4	878.4	878.4	878.4	874.9
47.5°	794.7	791.3	791.3	791.3	787.8	787.8	784.3	787.8
50°	707.7	707.7	704.1	704.1	707.7	704.1	700.6	700.6
52.5°	627.5	627.5	624.0	624.0	620.5	616.9	620.5	620.5
55°	554.2	550.7	547.3	547.3	543.8	540.3	540.3	543.8
57.5°	484.5	481.1	477.6	477.6	470.6	467.2	467.2	467.2
60°	418.3	411.4	411.4	407.9	407.9	404.3	404.3	404.3
62.5°	355.6	352.1	352.1	352.1	352.1	348.6	348.6	348.6
65°	303.3	303.3	303.3	306.7	306.7	310.2	310.2	310.2
67.5°	261.5	264.9	264.9	264.9	268.4	268.4	268.4	264.9
70°	223.1	223.1	223.1	226.5	226.5	226.5	226.5	226.5
72.5°	184.7	184.7	184.7	184.7	184.7	184.7	184.7	184.7
75°	146.4	149.9	149.9	149.9	146.4	149.9	149.9	146.4
77.5°	115.1	115.1	115.1	115.1	115.1	115.1	115.1	115.1
80°	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
82.5°	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
85°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
87.5°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)