

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: P593838

Luminaire Tested: **HC855D010-HM82555850-81WWWB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593838  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC855D010-HM82555850-81WWWB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5764.1 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.18  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

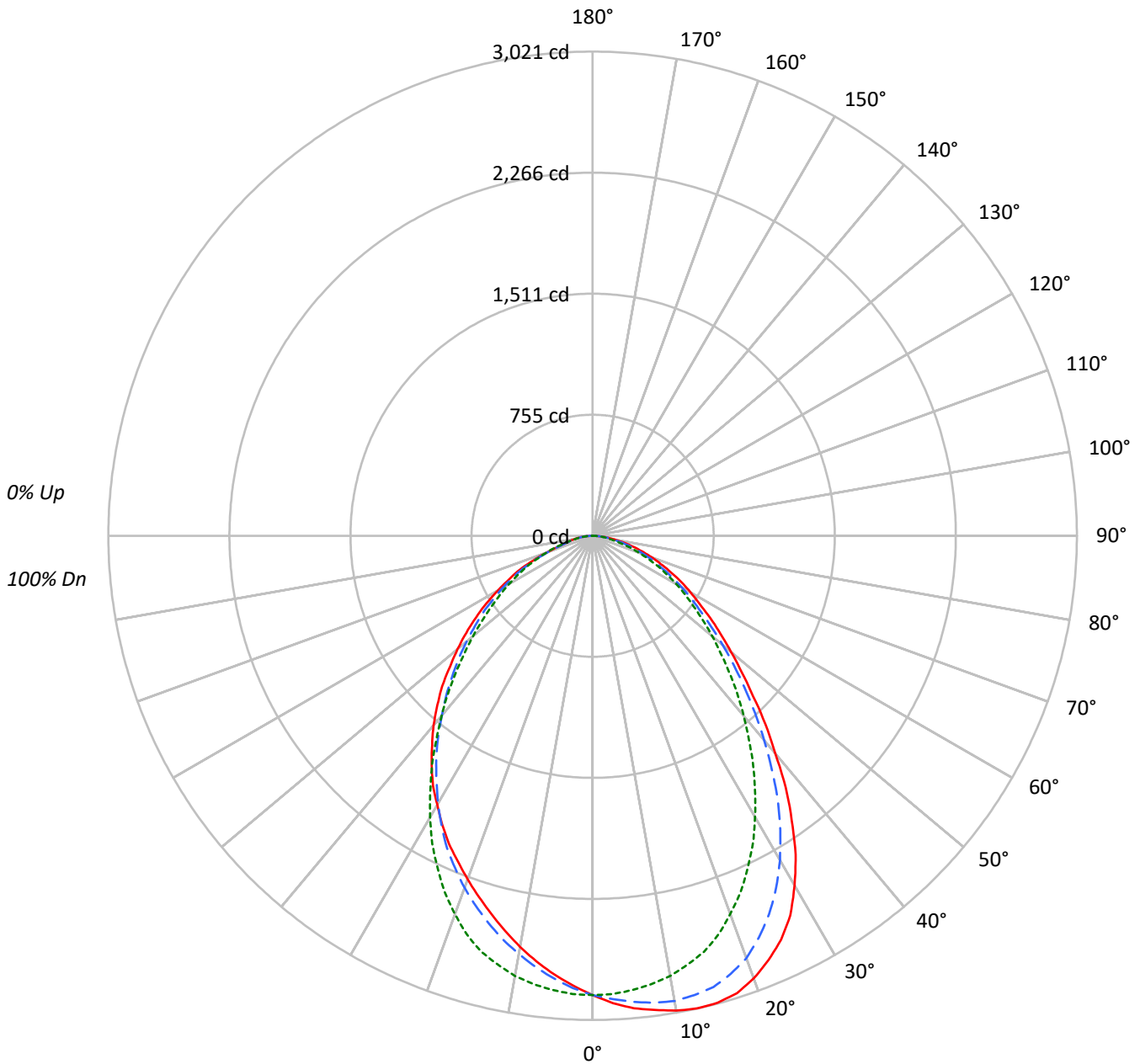
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57																			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50																			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	88374	88374	88374
5°	91609	88083	85059
10°	94199	87314	81580
15°	96302	85774	77978
20°	96454	82422	74812
25°	94604	77844	72165
30°	89725	72185	68999
35°	81526	65742	65896
40°	71286	58996	62108
45°	61781	52553	57878
50°	54099	46678	52727
55°	48149	41364	47708
60°	43436	37158	41931
65°	39211	32674	36534
70°	35243	27526	27156
75°	31037	21827	20373
80°	26015	18060	19516
85°	20167	15851	17301



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.4	4.7
10°-20°	761.5	13.2
20°-30°	1088.3	18.9
30°-40°	1156.4	20.1
40°-50°	995.6	17.3
50°-60°	744.4	12.9
60°-70°	474.8	8.2
70°-80°	216.1	3.7
80°-90°	56.7	1.0
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°	2120.2	36.8
0°-40°	3276.6	56.8
0°-60°	5016.6	87.0
0°-90°	5764.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5764.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2866	2866	2866	2866	2866	
5°	2960	2919	2846	2772	2748	284
15°	3017	2915	2687	2504	2443	850
25°	2780	2605	2288	2149	2121	1273
35°	2166	2015	1746	1702	1750	1349
45°	1417	1339	1205	1238	1327	1101
55°	896	822	769	835	887	805
65°	537	476	448	468	501	536
75°	260	224	183	167	171	277
85°	57	49	45	49	49	69
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°	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9
2.5°	2918.9	2910.8	2914.8	2910.8	2914.8	2914.8	2906.7	2906.7	2906.7	2906.7	2894.5
5°	2959.5	2955.5	2955.5	2951.4	2947.3	2951.4	2947.3	2943.2	2935.2	2931.1	2918.9
7.5°	2984.0	2984.0	2984.0	2984.0	2979.9	2975.8	2971.8	2963.6	2955.5	2947.3	2939.3
10°	3008.4	3012.5	3008.4	3004.3	3000.3	2992.1	2988.0	2979.9	2967.7	2955.5	2947.3
12.5°	3020.6	3020.6	3016.6	3016.6	3008.4	3004.3	2992.1	2979.9	2967.7	2955.5	2935.2
15°	3016.6	3016.6	3012.5	3008.4	2996.2	2992.1	2984.0	2971.8	2951.4	2935.2	2914.8
17.5°	2992.1	2988.0	2979.9	2979.9	2963.6	2959.5	2951.4	2935.2	2914.8	2890.4	2865.9
20°	2939.3	2939.3	2935.2	2931.1	2914.8	2902.6	2894.5	2874.1	2857.8	2829.3	2804.8
22.5°	2865.9	2874.1	2865.9	2857.8	2837.4	2833.4	2821.1	2796.7	2772.4	2739.8	2711.3
25°	2780.5	2776.4	2772.4	2764.2	2747.9	2739.8	2723.5	2699.0	2674.6	2637.9	2605.4
27.5°	2670.5	2654.2	2654.2	2637.9	2625.7	2613.6	2605.4	2581.0	2548.4	2519.9	2479.2
30°	2519.9	2524.0	2503.6	2499.5	2479.2	2471.0	2454.8	2430.4	2401.9	2369.3	2336.7
32.5°	2357.1	2344.8	2344.8	2328.5	2312.2	2300.0	2296.1	2267.5	2243.1	2210.5	2177.9
35°	2165.7	2165.7	2153.5	2149.4	2133.2	2125.1	2112.8	2096.6	2068.0	2039.5	2015.1
37.5°	1978.5	1970.4	1966.3	1958.2	1945.9	1933.7	1933.7	1905.2	1901.1	1868.5	1835.9
40°	1770.9	1779.0	1770.9	1758.7	1754.6	1746.4	1742.4	1726.1	1713.8	1685.3	1665.1
42.5°	1595.8	1587.7	1587.7	1583.6	1567.3	1567.3	1559.2	1551.0	1530.6	1522.5	1498.1
45°	1416.7	1424.8	1412.6	1416.7	1400.4	1400.4	1400.4	1384.1	1367.8	1355.7	1339.4
47.5°	1262.0	1266.1	1266.1	1253.8	1249.8	1249.8	1241.6	1233.5	1221.2	1205.1	1192.7
50°	1127.7	1131.7	1123.6	1119.5	1111.4	1107.3	1107.3	1091.0	1082.9	1066.6	1058.4
52.5°	1005.6	1005.6	1001.5	1001.5	989.3	989.3	981.1	968.9	960.7	952.6	932.2
55°	895.6	895.6	891.5	887.4	887.4	875.2	871.1	859.0	850.9	834.6	822.3
57.5°	789.8	793.8	789.8	785.7	781.6	777.5	769.4	757.2	749.0	736.8	728.7
60°	704.3	704.3	700.2	696.2	688.0	683.9	679.9	671.7	659.5	651.4	639.1
62.5°	622.8	618.8	614.7	610.6	602.5	602.5	594.3	586.2	574.0	565.8	557.8
65°	537.4	537.4	533.3	533.3	529.3	521.1	517.0	513.0	496.7	492.6	476.3
67.5°	460.0	464.1	455.9	455.9	447.8	447.8	443.7	431.5	427.4	419.3	411.1
70°	390.9	390.9	390.9	386.8	378.6	374.6	370.5	362.3	358.3	350.1	342.0
72.5°	321.6	321.6	317.5	317.5	313.5	309.4	305.3	297.2	297.2	289.0	280.9
75°	260.5	260.5	256.4	252.4	248.3	248.3	244.2	240.1	232.1	228.0	223.9
77.5°	199.5	199.5	199.5	195.4	191.4	191.4	191.4	183.2	175.1	175.1	171.0
80°	146.5	146.5	142.5	142.5	138.4	138.4	138.4	134.3	130.3	126.2	122.1
82.5°	97.7	97.7	97.7	97.7	93.6	93.6	93.6	89.5	85.4	85.4	85.4
85°	57.0	57.0	57.0	57.0	53.0	53.0	53.0	53.0	53.0	48.9	48.9
87.5°	24.4	20.4	24.4	20.4	24.4	20.4	24.4	20.4	20.4	20.4	20.4
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°	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9
2.5°	2898.5	2894.5	2890.4	2886.3	2886.3	2882.2	2874.1	2870.0	2865.9	2861.9	2861.9
5°	2914.8	2910.8	2902.6	2894.5	2890.4	2882.2	2874.1	2865.9	2857.8	2845.6	2841.5
7.5°	2927.0	2914.8	2906.7	2890.4	2886.3	2878.2	2865.9	2853.7	2837.4	2821.1	2808.9
10°	2927.0	2910.8	2898.5	2878.2	2870.0	2861.9	2845.6	2825.2	2804.8	2788.5	2768.3
12.5°	2918.9	2898.5	2878.2	2857.8	2845.6	2833.4	2808.9	2788.5	2764.2	2739.8	2723.5
15°	2890.4	2865.9	2841.5	2817.1	2804.8	2788.5	2764.2	2735.7	2711.3	2686.8	2658.3
17.5°	2837.4	2813.0	2784.6	2756.1	2739.8	2727.5	2690.9	2670.5	2634.0	2609.5	2585.1
20°	2768.3	2739.8	2703.1	2674.6	2654.2	2642.0	2613.6	2576.9	2548.4	2511.7	2487.3
22.5°	2678.7	2642.0	2605.4	2576.9	2556.6	2540.3	2503.6	2466.9	2442.6	2410.0	2381.5
25°	2572.9	2536.2	2499.5	2458.9	2438.5	2422.2	2389.6	2357.1	2324.5	2287.9	2263.5
27.5°	2446.7	2405.9	2373.3	2336.7	2316.3	2292.0	2255.3	2222.7	2190.1	2165.7	2133.2
30°	2308.3	2263.5	2230.9	2194.2	2173.8	2153.5	2116.9	2084.3	2055.8	2027.3	2011.0
32.5°	2141.4	2108.8	2076.2	2039.5	2023.2	2011.0	1974.4	1941.9	1909.3	1884.8	1872.6
35°	1982.6	1945.9	1917.4	1884.8	1864.5	1852.2	1819.8	1791.2	1774.9	1746.4	1730.1
37.5°	1815.7	1787.2	1754.6	1722.0	1709.8	1697.5	1673.1	1644.7	1620.3	1599.9	1591.7
40°	1640.6	1616.2	1587.7	1567.3	1555.1	1542.9	1522.5	1502.2	1485.9	1465.6	1457.4
42.5°	1473.7	1457.4	1433.0	1408.5	1396.3	1392.2	1367.8	1351.6	1343.5	1335.3	1327.2
45°	1323.1	1298.6	1282.4	1266.1	1253.8	1245.7	1233.5	1221.2	1213.1	1205.1	1196.8
47.5°	1176.5	1156.2	1139.9	1127.7	1115.4	1111.4	1103.2	1091.0	1082.9	1082.9	1082.9
50°	1042.1	1025.9	1009.6	1001.5	997.4	989.3	981.1	977.0	973.0	973.0	973.0
52.5°	924.1	907.8	895.6	887.4	887.4	879.4	871.1	867.2	867.2	867.2	867.2
55°	814.2	802.0	793.8	785.7	777.5	773.5	773.5	773.5	769.4	769.4	773.5
57.5°	716.4	708.4	696.2	688.0	683.9	683.9	679.9	675.8	679.9	683.9	688.0
60°	626.9	618.8	614.7	602.5	602.5	602.5	598.4	598.4	598.4	602.5	606.6
62.5°	545.4	541.5	533.3	529.3	525.2	525.2	521.1	521.1	521.1	521.1	525.2
65°	472.2	464.1	455.9	455.9	455.9	451.9	451.9	443.7	447.8	447.8	443.7
67.5°	403.1	394.8	390.9	386.8	382.7	382.7	378.6	374.6	370.5	370.5	370.5
70°	337.9	329.8	329.8	321.6	321.6	317.5	313.5	313.5	309.4	305.3	301.2
72.5°	272.7	268.7	264.6	260.5	260.5	260.5	256.4	252.4	248.3	244.2	236.2
75°	215.8	215.8	207.6	203.6	203.6	199.5	195.4	191.4	187.3	183.2	179.1
77.5°	166.9	162.8	154.7	150.6	150.6	150.6	146.5	142.5	138.4	134.3	130.3
80°	122.1	118.0	114.0	109.9	109.9	109.9	105.8	105.8	101.7	101.7	101.7
82.5°	81.5	81.5	77.4	77.4	77.4	77.4	73.2	73.2	73.2	73.2	73.2
85°	48.9	48.9	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8
87.5°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
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°	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9
2.5°	2853.7	2853.7	2845.6	2841.5	2837.4	2841.5	2833.4	2829.3	2825.2	2825.2	2821.1
5°	2829.3	2825.2	2808.9	2804.8	2800.8	2796.7	2788.5	2780.5	2772.4	2768.3	2764.2
7.5°	2796.7	2784.6	2768.3	2764.2	2760.1	2747.9	2735.7	2727.5	2715.3	2711.3	2703.1
10°	2752.0	2735.7	2723.5	2711.3	2703.1	2690.9	2678.7	2666.4	2650.1	2646.1	2634.0
12.5°	2699.0	2678.7	2654.2	2650.1	2637.9	2621.6	2605.4	2593.2	2581.0	2572.9	2560.6
15°	2634.0	2613.6	2589.1	2576.9	2564.7	2552.5	2532.1	2515.8	2503.6	2491.4	2479.2
17.5°	2556.6	2532.1	2511.7	2499.5	2491.4	2471.0	2454.8	2434.5	2422.2	2410.0	2397.8
20°	2463.0	2442.6	2414.1	2401.9	2397.8	2381.5	2361.1	2353.0	2336.7	2324.5	2316.3
22.5°	2357.1	2336.7	2312.2	2304.2	2287.9	2279.8	2259.4	2251.2	2243.1	2230.9	2226.8
25°	2239.0	2218.7	2198.3	2194.2	2182.0	2173.8	2161.6	2149.4	2149.4	2137.3	2137.3
27.5°	2116.9	2096.6	2080.3	2072.1	2068.0	2059.9	2047.7	2043.6	2039.5	2035.4	2035.4
30°	1986.7	1962.2	1954.1	1950.0	1945.9	1937.8	1933.7	1925.6	1929.6	1933.7	1929.6
32.5°	1848.2	1840.0	1823.7	1815.7	1819.8	1815.7	1807.5	1815.7	1811.6	1819.8	1823.7
35°	1713.8	1705.7	1697.5	1697.5	1689.4	1689.4	1689.4	1693.5	1701.6	1705.7	1713.8
37.5°	1583.6	1571.4	1567.3	1563.2	1567.3	1567.3	1567.3	1575.4	1583.6	1591.7	1604.0
40°	1445.2	1437.0	1437.0	1437.0	1437.0	1449.3	1445.2	1453.3	1461.5	1473.7	1485.9
42.5°	1314.9	1314.9	1319.0	1319.0	1319.0	1319.0	1327.2	1339.4	1351.6	1363.7	1375.9
45°	1192.7	1192.7	1192.7	1200.9	1200.9	1205.1	1221.2	1229.4	1237.5	1249.8	1262.0
47.5°	1078.8	1078.8	1082.9	1086.9	1091.0	1099.1	1107.3	1119.5	1131.7	1139.9	1152.1
50°	973.0	977.0	985.2	993.3	993.3	997.4	1009.6	1017.8	1025.9	1038.0	1042.1
52.5°	871.1	879.4	887.4	891.5	895.6	903.7	907.8	920.0	924.1	936.3	940.4
55°	777.5	781.6	793.8	797.9	797.9	806.1	814.2	822.3	834.6	834.6	842.7
57.5°	692.1	696.2	704.3	708.4	704.3	716.4	720.5	728.7	732.7	740.9	745.0
60°	606.6	614.7	618.8	618.8	622.8	626.9	635.1	635.1	643.2	651.4	651.4
62.5°	525.2	529.3	533.3	537.4	541.5	537.4	549.6	549.6	557.8	561.7	569.9
65°	447.8	451.9	451.9	455.9	455.9	460.0	460.0	464.1	468.2	476.3	480.4
67.5°	370.5	370.5	370.5	374.6	370.5	374.6	374.6	378.6	378.6	386.8	390.9
70°	301.2	297.2	293.1	293.1	293.1	293.1	289.0	293.1	293.1	297.2	297.2
72.5°	232.1	228.0	223.9	219.9	219.9	215.8	211.7	215.8	215.8	219.9	219.9
75°	175.1	166.9	166.9	166.9	162.8	162.8	162.8	166.9	166.9	166.9	171.0
77.5°	130.3	130.3	126.2	126.2	126.2	130.3	130.3	134.3	134.3	134.3	134.3
80°	97.7	101.7	101.7	101.7	101.7	105.8	105.8	105.8	105.8	109.9	109.9
82.5°	73.2	73.2	73.2	73.2	77.4	77.4	77.4	77.4	77.4	77.4	77.4
85°	44.8	48.9	48.9	44.8	48.9	48.9	48.9	48.9	48.9	48.9	48.9
87.5°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
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: P593838

CATALOG NUMBER: HC855D010-HM82555850-81WWWB

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9	2865.9
2.5°	2817.1	2817.1	2817.1	2817.1	2813.0	2813.0	2813.0	2808.9
5°	2756.1	2756.1	2756.1	2747.9	2752.0	2752.0	2743.8	2747.9
7.5°	2695.0	2690.9	2686.8	2686.8	2682.7	2678.7	2674.6	2678.7
10°	2625.7	2613.6	2613.6	2609.5	2609.5	2601.4	2601.4	2605.4
12.5°	2548.4	2540.3	2540.3	2536.2	2532.1	2528.0	2524.0	2524.0
15°	2471.0	2463.0	2458.9	2454.8	2450.7	2442.6	2446.7	2442.6
17.5°	2393.7	2381.5	2381.5	2377.4	2373.3	2365.2	2365.2	2361.1
20°	2304.2	2300.0	2292.0	2296.1	2292.0	2283.8	2279.8	2279.8
22.5°	2214.6	2214.6	2210.5	2210.5	2206.4	2202.4	2198.3	2198.3
25°	2129.1	2125.1	2129.1	2129.1	2116.9	2116.9	2116.9	2121.0
27.5°	2031.4	2035.4	2031.4	2031.4	2031.4	2031.4	2035.4	2031.4
30°	1933.7	1933.7	1933.7	1937.8	1945.9	1941.9	1941.9	1937.8
32.5°	1827.9	1832.0	1832.0	1835.9	1840.0	1848.2	1848.2	1852.2
35°	1722.0	1730.1	1734.2	1730.1	1742.4	1742.4	1750.5	1750.5
37.5°	1612.1	1616.2	1624.3	1628.4	1636.5	1640.6	1644.7	1644.7
40°	1494.1	1510.4	1514.3	1518.4	1530.6	1530.6	1534.7	1542.9
42.5°	1384.1	1400.4	1404.5	1408.5	1416.7	1428.9	1424.8	1433.0
45°	1278.3	1290.5	1294.6	1298.6	1310.9	1314.9	1314.9	1327.2
47.5°	1164.3	1172.5	1176.5	1184.7	1192.7	1200.9	1209.0	1205.1
50°	1050.3	1062.5	1070.6	1074.7	1086.9	1091.0	1095.1	1099.1
52.5°	948.5	956.7	960.7	964.8	977.0	981.1	985.2	993.3
55°	850.9	854.9	863.1	859.0	871.1	875.2	879.4	887.4
57.5°	753.1	757.2	761.2	761.2	769.4	777.5	781.6	785.7
60°	659.5	667.7	671.7	671.7	671.7	679.9	679.9	679.9
62.5°	574.0	574.0	578.0	578.0	586.2	586.2	586.2	586.2
65°	484.4	488.5	492.6	492.6	500.7	496.7	504.8	500.7
67.5°	390.9	390.9	398.9	398.9	394.8	398.9	398.9	398.9
70°	297.2	297.2	301.2	301.2	301.2	301.2	301.2	301.2
72.5°	219.9	219.9	219.9	223.9	219.9	219.9	223.9	219.9
75°	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0
77.5°	134.3	134.3	138.4	138.4	138.4	138.4	138.4	138.4
80°	109.9	109.9	109.9	109.9	114.0	109.9	109.9	109.9
82.5°	81.5	77.4	81.5	77.4	81.5	81.5	81.5	81.5
85°	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9
87.5°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
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)