

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: P585033

Luminaire Tested: **HC855D010-HM82555935-81WWWB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P585033  
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-HM82555935-81WWWB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4963.2 lumens  
Efficiency: N/A  
Efficacy: 95.4 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

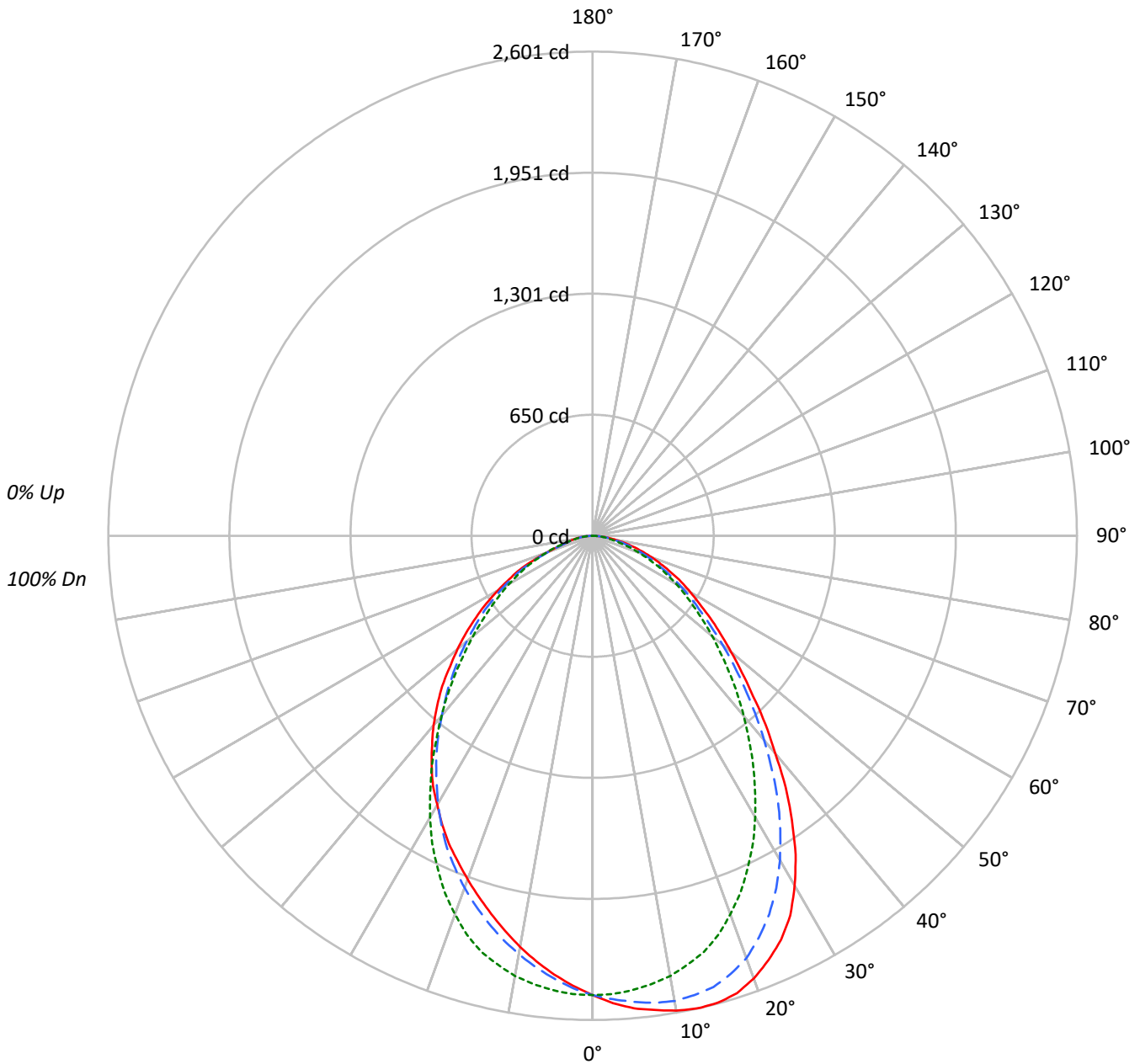
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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	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°	76092	76092	76092
5°	78880	75844	73237
10°	81111	75183	70242
15°	82920	73853	67143
20°	83049	70970	64416
25°	81454	67024	62135
30°	77256	62155	59410
35°	70199	56609	56741
40°	61379	50796	53477
45°	53194	45249	49832
50°	46582	40187	45401
55°	41461	35617	41079
60°	37398	31990	36103
65°	33761	28135	31462
70°	30339	23703	23387
75°	26724	18801	17538
80°	22411	15574	16817
85°	17372	13657	14895



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.8	4.7
10°-20°	655.7	13.2
20°-30°	937.1	18.9
30°-40°	995.7	20.1
40°-50°	857.3	17.3
50°-60°	640.9	12.9
60°-70°	408.8	8.2
70°-80°	186.1	3.7
80°-90°	48.9	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°	1825.6	36.8
0°-40°	2821.3	56.8
0°-60°	4319.5	87.0
0°-90°	4963.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4963.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2468	2468	2468	2468	2468	
5°	2548	2513	2450	2387	2366	244
15°	2597	2510	2313	2156	2103	732
25°	2394	2243	1970	1851	1826	1096
35°	1865	1735	1504	1465	1507	1161
45°	1220	1153	1038	1066	1143	948
55°	771	708	662	719	764	693
65°	463	410	386	403	431	461
75°	224	193	158	144	147	238
85°	49	42	39	42	42	59
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°	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6
2.5°	2513.2	2506.2	2509.7	2506.2	2509.7	2509.7	2502.8	2502.8	2502.8	2502.8	2492.3
5°	2548.3	2544.8	2544.8	2541.2	2537.8	2541.2	2537.8	2534.3	2527.3	2523.8	2513.2
7.5°	2569.4	2569.4	2569.4	2569.4	2565.9	2562.3	2558.8	2551.8	2544.8	2537.8	2530.8
10°	2590.4	2593.9	2590.4	2586.8	2583.3	2576.4	2572.9	2565.9	2555.3	2544.8	2537.8
12.5°	2600.9	2600.9	2597.4	2597.4	2590.4	2586.8	2576.4	2565.9	2555.3	2544.8	2527.3
15°	2597.4	2597.4	2593.9	2590.4	2579.8	2576.4	2569.4	2558.8	2541.2	2527.3	2509.7
17.5°	2576.4	2572.9	2565.9	2565.9	2551.8	2548.3	2541.2	2527.3	2509.7	2488.7	2467.6
20°	2530.8	2530.8	2527.3	2523.8	2509.7	2499.3	2492.3	2474.7	2460.7	2436.1	2415.1
22.5°	2467.6	2474.7	2467.6	2460.7	2443.2	2439.6	2429.1	2408.1	2387.1	2359.0	2334.5
25°	2394.0	2390.5	2387.1	2380.1	2366.0	2359.0	2345.1	2324.0	2303.0	2271.5	2243.3
27.5°	2299.5	2285.4	2285.4	2271.5	2260.9	2250.4	2243.3	2222.3	2194.3	2169.7	2134.7
30°	2169.7	2173.2	2155.8	2152.3	2134.7	2127.6	2113.7	2092.6	2068.1	2040.1	2012.0
32.5°	2029.6	2019.0	2019.0	2005.1	1991.0	1980.4	1976.9	1952.4	1931.3	1903.3	1875.3
35°	1864.8	1864.8	1854.2	1850.8	1836.8	1829.7	1819.2	1805.2	1780.6	1756.1	1735.1
37.5°	1703.5	1696.6	1693.1	1686.0	1675.5	1664.9	1664.9	1640.4	1636.9	1608.9	1580.9
40°	1524.8	1531.8	1524.8	1514.2	1510.7	1503.8	1500.3	1486.2	1475.7	1451.2	1433.6
42.5°	1374.1	1367.0	1367.0	1363.5	1349.6	1349.6	1342.5	1335.5	1318.0	1311.0	1289.9
45°	1219.8	1226.8	1216.3	1219.8	1205.8	1205.8	1205.8	1191.8	1177.7	1167.2	1153.2
47.5°	1086.7	1090.1	1090.1	1079.6	1076.1	1076.1	1069.1	1062.1	1051.5	1037.6	1027.0
50°	971.0	974.5	967.5	964.0	956.9	953.4	953.4	939.4	932.4	918.4	911.3
52.5°	865.8	865.8	862.2	862.2	851.8	851.8	844.8	834.2	827.2	820.3	802.7
55°	771.2	771.2	767.7	764.1	764.1	753.6	750.1	739.6	732.6	718.6	708.0
57.5°	680.0	683.5	680.0	676.5	673.0	669.4	662.5	652.0	645.0	634.4	627.5
60°	606.4	606.4	602.9	599.4	592.3	588.9	585.4	578.4	567.8	560.8	550.4
62.5°	536.3	532.8	529.3	525.8	518.7	518.7	511.8	504.8	494.2	487.2	480.2
65°	462.7	462.7	459.2	459.2	455.7	448.6	445.1	441.6	427.7	424.1	410.1
67.5°	396.1	399.7	392.6	392.6	385.6	385.6	382.1	371.5	368.0	361.1	354.1
70°	336.5	336.5	336.5	333.0	325.9	322.5	319.0	312.0	308.5	301.4	294.4
72.5°	276.9	276.9	273.4	273.4	269.9	266.4	262.9	255.8	255.8	248.8	241.9
75°	224.3	224.3	220.8	217.3	213.8	213.8	210.3	206.9	199.8	196.3	192.8
77.5°	171.8	171.8	171.8	168.3	164.8	164.8	164.8	157.8	150.7	150.7	147.2
80°	126.2	126.2	122.7	122.7	119.2	119.2	119.2	115.7	112.2	108.6	105.1
82.5°	84.1	84.1	84.1	84.1	80.6	80.6	80.6	77.1	73.6	73.6	73.6
85°	49.1	49.1	49.1	49.1	45.6	45.6	45.6	45.6	45.6	42.1	42.1
87.5°	21.0	17.6	21.0	17.6	21.0	17.6	21.0	17.6	17.6	17.6	17.6
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6
2.5°	2495.8	2492.3	2488.7	2485.2	2485.2	2481.7	2474.7	2471.2	2467.6	2464.2	2464.2
5°	2509.7	2506.2	2499.3	2492.3	2488.7	2481.7	2474.7	2467.6	2460.7	2450.2	2446.7
7.5°	2520.3	2509.7	2502.8	2488.7	2485.2	2478.2	2467.6	2457.2	2443.2	2429.1	2418.7
10°	2520.3	2506.2	2495.8	2478.2	2471.2	2464.2	2450.2	2432.6	2415.1	2401.1	2383.6
12.5°	2513.2	2495.8	2478.2	2460.7	2450.2	2439.6	2418.7	2401.1	2380.1	2359.0	2345.1
15°	2488.7	2467.6	2446.7	2425.7	2415.1	2401.1	2380.1	2355.5	2334.5	2313.4	2288.9
17.5°	2443.2	2422.2	2397.6	2373.1	2359.0	2348.6	2316.9	2299.5	2267.9	2246.8	2225.9
20°	2383.6	2359.0	2327.5	2303.0	2285.4	2274.9	2250.4	2218.8	2194.3	2162.7	2141.7
22.5°	2306.5	2274.9	2243.3	2218.8	2201.3	2187.3	2155.8	2124.1	2103.2	2075.1	2050.5
25°	2215.3	2183.8	2152.3	2117.2	2099.6	2085.6	2057.6	2029.6	2001.5	1969.9	1948.9
27.5°	2106.7	2071.6	2043.6	2012.0	1994.5	1973.4	1941.9	1913.9	1885.9	1864.8	1836.8
30°	1987.5	1948.9	1920.9	1889.4	1871.8	1854.2	1822.7	1794.7	1770.2	1745.6	1731.6
32.5°	1843.8	1815.7	1787.7	1756.1	1742.1	1731.6	1700.1	1672.0	1644.0	1623.0	1612.4
35°	1707.0	1675.5	1651.0	1623.0	1605.4	1594.9	1566.8	1542.4	1528.3	1503.8	1489.7
37.5°	1563.3	1538.8	1510.7	1482.7	1472.1	1461.7	1440.6	1416.1	1395.0	1377.6	1370.5
40°	1412.6	1391.6	1367.0	1349.6	1339.0	1328.5	1311.0	1293.4	1279.5	1261.9	1254.9
42.5°	1268.9	1254.9	1233.9	1212.8	1202.4	1198.8	1177.7	1163.8	1156.8	1149.7	1142.7
45°	1139.2	1118.2	1104.1	1090.1	1079.6	1072.6	1062.1	1051.5	1044.6	1037.6	1030.5
47.5°	1013.0	995.5	981.4	971.0	960.5	956.9	949.9	939.4	932.4	932.4	932.4
50°	897.4	883.3	869.3	862.2	858.8	851.8	844.8	841.3	837.7	837.7	837.7
52.5°	795.7	781.7	771.2	764.1	764.1	757.1	750.1	746.6	746.6	746.6	746.6
55°	701.1	690.5	683.5	676.5	669.4	666.0	666.0	666.0	662.5	662.5	666.0
57.5°	616.9	609.9	599.4	592.3	588.9	588.9	585.4	581.9	585.4	588.9	592.3
60°	539.8	532.8	529.3	518.7	518.7	518.7	515.3	515.3	515.3	518.7	522.2
62.5°	469.7	466.2	459.2	455.7	452.2	452.2	448.6	448.6	448.6	448.6	452.2
65°	406.6	399.7	392.6	392.6	392.6	389.1	389.1	382.1	385.6	385.6	382.1
67.5°	347.0	340.0	336.5	333.0	329.4	329.4	325.9	322.5	319.0	319.0	319.0
70°	290.9	284.0	284.0	276.9	276.9	273.4	269.9	269.9	266.4	262.9	259.4
72.5°	234.9	231.4	227.8	224.3	224.3	224.3	220.8	217.3	213.8	210.3	203.3
75°	185.8	185.8	178.7	175.2	175.2	171.8	168.3	164.8	161.3	157.8	154.2
77.5°	143.7	140.2	133.3	129.7	129.7	129.7	126.2	122.7	119.2	115.7	112.2
80°	105.1	101.6	98.1	94.7	94.7	94.7	91.2	91.2	87.7	87.7	87.7
82.5°	70.1	70.1	66.6	66.6	66.6	66.6	63.1	63.1	63.1	63.1	63.1
85°	42.1	42.1	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
87.5°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
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°	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6
2.5°	2457.2	2457.2	2450.2	2446.7	2443.2	2446.7	2439.6	2436.1	2432.6	2432.6	2429.1
5°	2436.1	2432.6	2418.7	2415.1	2411.6	2408.1	2401.1	2394.0	2387.1	2383.6	2380.1
7.5°	2408.1	2397.6	2383.6	2380.1	2376.6	2366.0	2355.5	2348.6	2338.0	2334.5	2327.5
10°	2369.5	2355.5	2345.1	2334.5	2327.5	2316.9	2306.5	2295.9	2281.9	2278.4	2267.9
12.5°	2324.0	2306.5	2285.4	2281.9	2271.5	2257.4	2243.3	2232.9	2222.3	2215.3	2204.8
15°	2267.9	2250.4	2229.4	2218.8	2208.3	2197.7	2180.3	2166.2	2155.8	2145.2	2134.7
17.5°	2201.3	2180.3	2162.7	2152.3	2145.2	2127.6	2113.7	2096.1	2085.6	2075.1	2064.6
20°	2120.7	2103.2	2078.7	2068.1	2064.6	2050.5	2033.1	2026.0	2012.0	2001.5	1994.5
22.5°	2029.6	2012.0	1991.0	1984.0	1969.9	1963.0	1945.4	1938.4	1931.3	1920.9	1917.4
25°	1927.9	1910.4	1892.8	1889.4	1878.8	1871.8	1861.3	1850.8	1850.8	1840.3	1840.3
27.5°	1822.7	1805.2	1791.2	1784.1	1780.6	1773.7	1763.2	1759.6	1756.1	1752.6	1752.6
30°	1710.5	1689.6	1682.5	1679.0	1675.5	1668.5	1664.9	1658.0	1661.5	1664.9	1661.5
32.5°	1591.3	1584.4	1570.4	1563.3	1566.8	1563.3	1556.3	1563.3	1559.8	1566.8	1570.4
35°	1475.7	1468.8	1461.7	1461.7	1454.7	1454.7	1454.7	1458.2	1465.2	1468.8	1475.7
37.5°	1363.5	1353.1	1349.6	1346.0	1349.6	1349.6	1349.6	1356.6	1363.5	1370.5	1381.1
40°	1244.3	1237.4	1237.4	1237.4	1237.4	1247.8	1244.3	1251.3	1258.4	1268.9	1279.5
42.5°	1132.2	1132.2	1135.7	1135.7	1135.7	1135.7	1142.7	1153.2	1163.8	1174.2	1184.8
45°	1027.0	1027.0	1027.0	1034.1	1034.1	1037.6	1051.5	1058.6	1065.6	1076.1	1086.7
47.5°	928.9	928.9	932.4	936.0	939.4	946.4	953.4	964.0	974.5	981.4	992.0
50°	837.7	841.3	848.3	855.3	855.3	858.8	869.3	876.3	883.3	893.9	897.4
52.5°	750.1	757.1	764.1	767.7	771.2	778.2	781.7	792.2	795.7	806.2	809.7
55°	669.4	673.0	683.5	687.0	687.0	694.1	701.1	708.0	718.6	718.6	725.6
57.5°	595.8	599.4	606.4	609.9	606.4	616.9	620.5	627.5	630.9	637.9	641.4
60°	522.2	529.3	532.8	532.8	536.3	539.8	546.9	546.9	553.9	560.8	560.8
62.5°	452.2	455.7	459.2	462.7	466.2	462.7	473.3	473.3	480.2	483.7	490.7
65°	385.6	389.1	389.1	392.6	392.6	396.1	396.1	399.7	403.1	410.1	413.6
67.5°	319.0	319.0	319.0	322.5	319.0	322.5	322.5	325.9	325.9	333.0	336.5
70°	259.4	255.8	252.3	252.3	252.3	252.3	248.8	252.3	252.3	255.8	255.8
72.5°	199.8	196.3	192.8	189.3	189.3	185.8	182.2	185.8	185.8	189.3	189.3
75°	150.7	143.7	143.7	143.7	140.2	140.2	140.2	143.7	143.7	143.7	147.2
77.5°	112.2	112.2	108.6	108.6	108.6	112.2	112.2	115.7	115.7	115.7	115.7
80°	84.1	87.7	87.7	87.7	87.7	91.2	91.2	91.2	91.2	94.7	94.7
82.5°	63.1	63.1	63.1	63.1	66.6	66.6	66.6	66.6	66.6	66.6	66.6
85°	38.6	42.1	42.1	38.6	42.1	42.1	42.1	42.1	42.1	42.1	42.1
87.5°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
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: P585033

CATALOG NUMBER: HC855D010-HM82555935-81WWWB

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6	2467.6
2.5°	2425.7	2425.7	2425.7	2425.7	2422.2	2422.2	2422.2	2418.7
5°	2373.1	2373.1	2373.1	2366.0	2369.5	2369.5	2362.5	2366.0
7.5°	2320.4	2316.9	2313.4	2313.4	2310.0	2306.5	2303.0	2306.5
10°	2260.9	2250.4	2250.4	2246.8	2246.8	2239.8	2239.8	2243.3
12.5°	2194.3	2187.3	2187.3	2183.8	2180.3	2176.8	2173.2	2173.2
15°	2127.6	2120.7	2117.2	2113.7	2110.2	2103.2	2106.7	2103.2
17.5°	2061.1	2050.5	2050.5	2047.0	2043.6	2036.6	2036.6	2033.1
20°	1984.0	1980.4	1973.4	1976.9	1973.4	1966.5	1963.0	1963.0
22.5°	1906.8	1906.8	1903.3	1903.3	1899.8	1896.3	1892.8	1892.8
25°	1833.2	1829.7	1833.2	1833.2	1822.7	1822.7	1822.7	1826.2
27.5°	1749.1	1752.6	1749.1	1749.1	1749.1	1749.1	1752.6	1749.1
30°	1664.9	1664.9	1664.9	1668.5	1675.5	1672.0	1672.0	1668.5
32.5°	1573.9	1577.4	1577.4	1580.9	1584.4	1591.3	1591.3	1594.9
35°	1482.7	1489.7	1493.2	1489.7	1500.3	1500.3	1507.3	1507.3
37.5°	1388.1	1391.6	1398.5	1402.1	1409.1	1412.6	1416.1	1416.1
40°	1286.4	1300.5	1304.0	1307.5	1318.0	1318.0	1321.4	1328.5
42.5°	1191.8	1205.8	1209.3	1212.8	1219.8	1230.4	1226.8	1233.9
45°	1100.6	1111.2	1114.7	1118.2	1128.6	1132.2	1132.2	1142.7
47.5°	1002.5	1009.6	1013.0	1020.0	1027.0	1034.1	1041.1	1037.6
50°	904.3	914.9	921.9	925.4	936.0	939.4	942.9	946.4
52.5°	816.8	823.7	827.2	830.7	841.3	844.8	848.3	855.3
55°	732.6	736.1	743.2	739.6	750.1	753.6	757.1	764.1
57.5°	648.5	652.0	655.5	655.5	662.5	669.4	673.0	676.5
60°	567.8	574.9	578.4	578.4	578.4	585.4	585.4	585.4
62.5°	494.2	494.2	497.7	497.7	504.8	504.8	504.8	504.8
65°	417.1	420.6	424.1	424.1	431.2	427.7	434.7	431.2
67.5°	336.5	336.5	343.5	343.5	340.0	343.5	343.5	343.5
70°	255.8	255.8	259.4	259.4	259.4	259.4	259.4	259.4
72.5°	189.3	189.3	189.3	192.8	189.3	189.3	192.8	189.3
75°	147.2	147.2	147.2	147.2	147.2	147.2	147.2	147.2
77.5°	115.7	115.7	119.2	119.2	119.2	119.2	119.2	119.2
80°	94.7	94.7	94.7	94.7	98.1	94.7	94.7	94.7
82.5°	70.1	66.6	70.1	66.6	70.1	70.1	70.1	70.1
85°	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
87.5°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
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)