

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: P585024

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P585024  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC855D010-HM82555935-81RWWC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4991.2 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.08 / 1.17  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

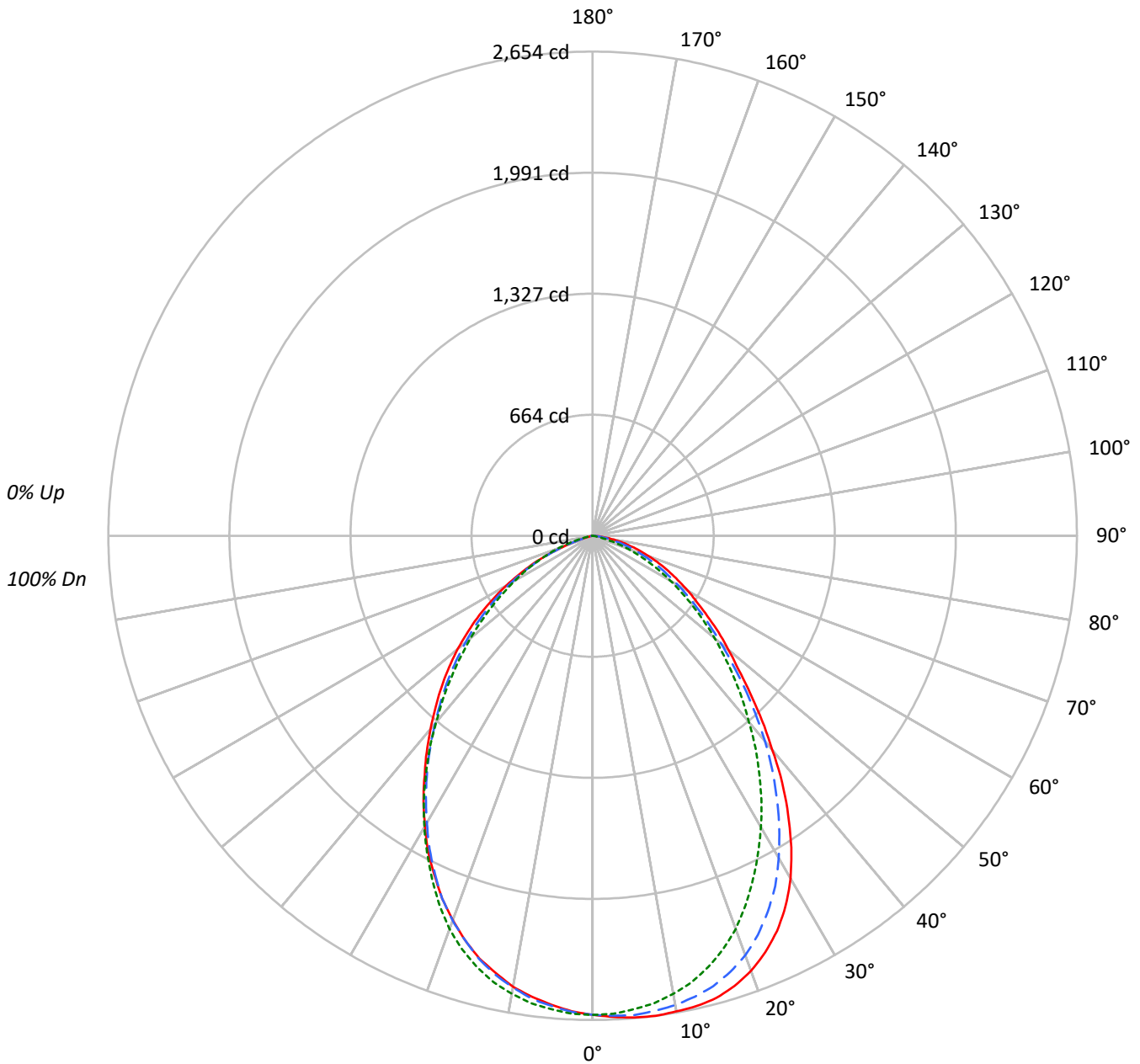
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77																			
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67																			
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59																			
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	80982	80982	80982
5°	82050	80639	79880
10°	82889	79814	78606
15°	83727	78131	76564
20°	83305	75246	73523
25°	81358	70743	69787
30°	77277	65669	65417
35°	70353	59922	60453
40°	61681	53630	55607
45°	53212	47704	51071
50°	46591	41880	46255
55°	41283	36004	40714
60°	37195	30269	33735
65°	33513	24305	25844
70°	29401	17698	14227
75°	25068	9186	3753
80°	19285	2504	622
85°	12383	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.8	5.0
10°-20°	696.5	14.0
20°-30°	988.6	19.8
30°-40°	1040.7	20.9
40°-50°	885.3	17.7
50°-60°	639.8	12.8
60°-70°	363.9	7.3
70°-80°	114.6	2.3
80°-90°	13.9	0.3
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°	1933.0	38.7
0°-40°	2973.7	59.6
0°-60°	4498.7	90.1
0°-90°	4991.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4991.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2626	2626	2626	2626	2626	
5°	2651	2637	2605	2588	2581	253
15°	2623	2556	2447	2402	2398	739
25°	2391	2272	2079	2044	2051	1095
35°	1869	1760	1592	1581	1606	1163
45°	1220	1175	1094	1122	1171	948
55°	768	712	670	708	757	692
65°	459	396	333	330	354	456
75°	210	161	77	35	32	226
85°	35	21	0	0	0	45
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°	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2
2.5°	2640.2	2643.7	2636.6	2636.6	2643.7	2636.6	2640.2	2640.2	2636.6	2636.6	2633.1
5°	2650.7	2647.2	2647.2	2647.2	2650.7	2643.7	2640.2	2643.7	2636.6	2636.6	2636.6
7.5°	2654.2	2654.2	2650.7	2647.2	2647.2	2647.2	2643.7	2640.2	2636.6	2629.6	2626.2
10°	2647.2	2647.2	2650.7	2643.7	2643.7	2636.6	2636.6	2629.6	2629.6	2622.7	2612.2
12.5°	2640.2	2636.6	2636.6	2629.6	2629.6	2622.7	2622.7	2612.2	2608.6	2598.1	2587.5
15°	2622.7	2619.2	2612.2	2608.6	2605.1	2601.6	2594.6	2591.1	2580.6	2566.6	2556.0
17.5°	2587.5	2584.1	2580.6	2573.6	2566.6	2563.0	2559.5	2549.0	2535.0	2524.5	2506.9
20°	2538.6	2535.0	2535.0	2524.5	2521.0	2510.4	2506.9	2493.0	2482.4	2461.3	2447.4
22.5°	2471.9	2475.4	2468.3	2461.3	2454.4	2443.9	2436.8	2422.8	2405.3	2384.2	2366.7
25°	2391.2	2394.7	2387.7	2380.7	2370.3	2363.2	2356.2	2335.1	2317.6	2293.0	2272.0
27.5°	2289.6	2289.6	2289.6	2282.6	2265.0	2261.5	2254.5	2233.5	2208.9	2187.9	2166.8
30°	2170.3	2166.8	2166.8	2156.4	2149.3	2135.3	2124.7	2107.3	2089.7	2065.2	2040.6
32.5°	2026.6	2030.1	2019.6	2012.6	2002.0	2002.0	1988.1	1974.0	1953.0	1928.4	1903.9
35°	1868.9	1872.3	1865.4	1861.8	1844.3	1840.7	1837.2	1819.8	1805.7	1788.1	1760.1
37.5°	1707.5	1704.0	1700.6	1700.6	1690.0	1683.0	1676.0	1665.4	1644.4	1630.4	1616.4
40°	1532.3	1532.3	1532.3	1528.8	1525.2	1518.2	1514.7	1507.7	1493.6	1479.6	1469.1
42.5°	1374.4	1374.4	1370.9	1367.4	1360.5	1364.0	1356.9	1349.9	1335.8	1325.3	1318.4
45°	1220.2	1220.2	1220.2	1223.7	1216.7	1206.1	1206.1	1199.1	1192.2	1185.1	1174.6
47.5°	1083.4	1093.9	1086.9	1083.4	1086.9	1072.8	1072.8	1065.9	1058.9	1051.9	1037.8
50°	971.2	971.2	971.2	964.2	960.7	960.7	950.1	943.2	939.7	932.7	918.6
52.5°	869.5	862.5	862.5	859.1	855.6	848.5	848.5	841.5	827.4	820.4	810.0
55°	767.9	767.9	764.4	760.9	757.3	753.8	750.3	739.8	732.9	722.3	711.8
57.5°	676.7	683.7	680.2	673.2	666.2	666.2	659.1	652.1	641.7	631.1	620.6
60°	603.1	599.6	599.6	596.1	589.0	585.5	582.0	571.5	561.0	550.5	539.9
62.5°	525.9	525.9	525.9	519.0	511.9	508.4	504.9	497.9	483.8	473.4	466.3
65°	459.3	455.8	452.3	448.8	445.2	438.3	434.8	427.8	417.2	406.7	396.3
67.5°	392.7	389.2	389.2	385.7	375.2	371.6	371.6	361.1	350.7	340.1	329.6
70°	326.1	326.1	326.1	319.0	315.5	312.1	308.6	301.6	291.0	280.5	270.0
72.5°	270.0	266.5	266.5	263.0	252.4	248.9	245.4	238.4	228.0	220.9	213.9
75°	210.4	210.4	206.9	203.3	199.8	196.3	192.8	185.9	175.3	164.8	161.3
77.5°	161.3	157.8	157.8	154.2	147.2	143.8	143.8	136.8	126.2	119.2	112.2
80°	108.6	112.2	108.6	105.1	101.7	98.2	94.7	91.2	84.1	77.1	70.1
82.5°	66.6	70.1	66.6	66.6	63.1	59.7	59.7	52.6	49.1	45.6	42.1
85°	35.0	35.0	35.0	35.0	31.5	31.5	31.5	28.0	24.5	21.0	21.0
87.5°	10.5	14.1	10.5	10.5	10.5	10.5	10.5	10.5	7.0	7.0	7.0
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°	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2
2.5°	2636.6	2633.1	2629.6	2629.6	2629.6	2629.6	2629.6	2626.2	2622.7	2622.7	2622.7
5°	2629.6	2629.6	2629.6	2626.2	2622.7	2622.7	2615.7	2612.2	2608.6	2605.1	2601.6
7.5°	2622.7	2615.7	2612.2	2608.6	2605.1	2605.1	2598.1	2591.1	2591.1	2584.1	2577.1
10°	2601.6	2598.1	2591.1	2584.1	2580.6	2577.1	2570.1	2559.5	2556.0	2549.0	2542.1
12.5°	2577.1	2570.1	2563.0	2549.0	2545.5	2542.1	2528.0	2517.5	2510.4	2506.9	2489.4
15°	2545.5	2531.5	2521.0	2503.4	2500.0	2493.0	2482.4	2471.9	2457.9	2447.4	2440.3
17.5°	2489.4	2475.4	2457.9	2440.3	2433.3	2433.3	2415.8	2401.8	2384.2	2377.2	2363.2
20°	2422.8	2405.3	2391.2	2370.3	2359.7	2349.2	2338.6	2317.6	2303.6	2293.0	2275.6
22.5°	2345.6	2321.1	2303.6	2282.6	2265.0	2254.5	2237.0	2219.4	2202.0	2191.4	2177.3
25°	2247.5	2226.4	2198.4	2177.3	2166.8	2152.8	2131.8	2114.3	2096.7	2079.2	2072.2
27.5°	2138.8	2110.8	2086.2	2061.7	2051.1	2040.6	2016.1	1995.1	1981.0	1963.5	1956.4
30°	2019.6	1991.6	1963.5	1942.5	1931.9	1914.3	1900.4	1875.8	1858.3	1844.3	1826.8
32.5°	1882.8	1861.8	1837.2	1805.7	1798.7	1784.7	1763.6	1753.1	1732.1	1721.6	1707.5
35°	1735.6	1721.6	1697.1	1672.4	1661.9	1655.0	1637.4	1616.4	1602.4	1591.8	1584.8
37.5°	1595.3	1577.7	1553.3	1535.7	1528.8	1518.2	1497.1	1486.7	1472.6	1465.6	1451.5
40°	1444.6	1427.0	1409.4	1399.0	1388.5	1381.4	1367.4	1356.9	1342.9	1332.3	1328.8
42.5°	1297.3	1286.7	1272.8	1258.7	1255.2	1244.7	1237.7	1227.2	1216.7	1213.1	1202.6
45°	1164.0	1153.6	1139.5	1125.5	1122.0	1114.9	1111.5	1101.0	1093.9	1093.9	1093.9
47.5°	1030.8	1020.3	1006.3	999.2	1002.8	988.7	988.7	985.3	978.3	978.3	981.8
50°	911.6	897.6	894.1	887.1	880.1	873.0	876.5	866.0	866.0	873.0	869.5
52.5°	799.4	785.4	781.8	774.9	771.4	771.4	767.9	767.9	764.4	767.9	767.9
55°	697.7	687.3	680.2	673.2	669.7	669.7	669.7	666.2	662.6	669.7	673.2
57.5°	606.6	603.1	596.1	585.5	582.0	578.5	575.0	575.0	575.0	575.0	578.5
60°	525.9	519.0	511.9	501.4	501.4	497.9	494.3	490.8	490.8	490.8	490.8
62.5°	455.8	445.2	434.8	427.8	424.3	420.7	417.2	410.2	410.2	410.2	410.2
65°	385.7	375.2	368.1	361.1	354.2	354.2	347.1	343.6	336.6	333.1	326.1
67.5°	319.0	312.1	305.1	294.5	291.0	287.5	280.5	276.9	266.5	263.0	259.5
70°	259.5	248.9	241.9	234.9	231.4	224.4	217.4	210.4	203.3	196.3	189.3
72.5°	203.3	192.8	185.9	178.8	171.8	171.8	161.3	154.2	143.8	136.8	126.2
75°	150.7	140.3	133.3	122.7	119.2	115.7	105.1	98.2	87.7	77.1	70.1
77.5°	101.7	94.7	87.7	77.1	70.1	70.1	59.7	52.6	45.6	35.0	31.5
80°	63.1	56.1	49.1	42.1	42.1	35.0	31.5	24.5	17.6	14.1	10.5
82.5°	35.0	31.5	28.0	21.0	21.0	17.6	14.1	10.5	7.0	3.5	3.5
85°	17.6	14.1	10.5	10.5	7.0	7.0	7.0	3.5	3.5	0.0	0.0
87.5°	7.0	3.5	3.5	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0
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°	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2
2.5°	2619.2	2619.2	2615.7	2615.7	2615.7	2612.2	2615.7	2612.2	2612.2	2612.2	2615.7
5°	2605.1	2598.1	2598.1	2594.6	2594.6	2591.1	2594.6	2591.1	2587.5	2584.1	2587.5
7.5°	2577.1	2570.1	2566.6	2563.0	2563.0	2563.0	2559.5	2556.0	2559.5	2549.0	2556.0
10°	2538.6	2535.0	2528.0	2524.5	2521.0	2524.5	2521.0	2513.9	2513.9	2513.9	2510.4
12.5°	2489.4	2482.4	2478.9	2475.4	2468.3	2468.3	2471.9	2464.8	2464.8	2457.9	2457.9
15°	2429.8	2422.8	2415.8	2415.8	2408.8	2408.8	2405.3	2405.3	2401.8	2398.3	2398.3
17.5°	2356.2	2345.6	2338.6	2342.1	2338.6	2335.1	2335.1	2328.2	2324.7	2328.2	2328.2
20°	2268.5	2261.5	2254.5	2258.0	2250.9	2247.5	2250.9	2240.5	2244.0	2244.0	2244.0
22.5°	2170.3	2166.8	2156.4	2156.4	2149.3	2145.8	2149.3	2149.3	2152.8	2149.3	2149.3
25°	2061.7	2054.6	2047.6	2047.6	2044.1	2040.6	2044.1	2047.6	2044.1	2047.6	2047.6
27.5°	1946.0	1935.4	1935.4	1928.4	1928.4	1931.9	1928.4	1931.9	1935.4	1935.4	1942.5
30°	1819.8	1816.2	1812.7	1809.2	1809.2	1812.7	1812.7	1812.7	1816.2	1823.3	1823.3
32.5°	1700.6	1693.5	1686.5	1686.5	1693.5	1690.0	1693.5	1693.5	1700.6	1700.6	1707.5
35°	1570.8	1570.8	1563.8	1567.3	1567.3	1567.3	1567.3	1574.3	1581.3	1584.8	1591.8
37.5°	1451.5	1441.1	1444.6	1444.6	1448.1	1444.6	1455.0	1455.0	1462.1	1462.1	1469.1
40°	1321.9	1321.9	1325.3	1321.9	1325.3	1325.3	1332.3	1339.4	1342.9	1349.9	1353.4
42.5°	1199.1	1206.1	1199.1	1202.6	1206.1	1209.6	1213.1	1216.7	1230.7	1237.7	1248.2
45°	1086.9	1090.4	1093.9	1097.5	1093.9	1101.0	1104.5	1111.5	1122.0	1125.5	1129.0
47.5°	978.3	981.8	985.3	988.7	988.7	995.7	999.2	1006.3	1013.3	1016.8	1020.3
50°	873.0	880.1	883.6	883.6	887.1	894.1	901.2	901.2	908.1	918.6	922.1
52.5°	778.3	778.3	785.4	788.9	792.4	792.4	802.9	806.5	810.0	817.0	823.9
55°	673.2	683.7	687.3	687.3	694.2	701.2	704.7	708.2	708.2	722.3	722.3
57.5°	582.0	585.5	592.6	592.6	592.6	603.1	603.1	610.0	613.5	617.1	624.1
60°	490.8	497.9	497.9	501.4	497.9	504.9	508.4	515.4	519.0	522.5	525.9
62.5°	406.7	406.7	410.2	410.2	410.2	410.2	417.2	417.2	424.3	427.8	431.3
65°	326.1	326.1	326.1	326.1	326.1	326.1	326.1	326.1	329.6	329.6	336.6
67.5°	252.4	248.9	241.9	245.4	241.9	241.9	238.4	238.4	241.9	241.9	248.9
70°	182.4	178.8	171.8	171.8	168.3	164.8	161.3	157.8	154.2	154.2	154.2
72.5°	119.2	112.2	101.7	98.2	98.2	91.2	84.1	80.6	80.6	80.6	80.6
75°	59.7	52.6	45.6	42.1	42.1	35.0	38.6	35.0	35.0	35.0	35.0
77.5°	24.5	17.6	14.1	14.1	14.1	10.5	10.5	10.5	10.5	10.5	10.5
80°	7.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P585024

CATALOG NUMBER: HC855D010-HM82555935-81RWWC

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2	2626.2
2.5°	2612.2	2612.2	2605.1	2608.6	2608.6	2608.6	2608.6	2608.6
5°	2580.6	2584.1	2580.6	2584.1	2584.1	2580.6	2580.6	2580.6
7.5°	2549.0	2552.5	2549.0	2552.5	2552.5	2552.5	2549.0	2549.0
10°	2510.4	2510.4	2510.4	2510.4	2510.4	2506.9	2510.4	2510.4
12.5°	2457.9	2457.9	2457.9	2461.3	2461.3	2457.9	2457.9	2454.4
15°	2401.8	2394.7	2398.3	2401.8	2398.3	2398.3	2398.3	2398.3
17.5°	2324.7	2328.2	2324.7	2324.7	2324.7	2324.7	2328.2	2324.7
20°	2244.0	2244.0	2247.5	2244.0	2244.0	2244.0	2244.0	2240.5
22.5°	2152.8	2149.3	2149.3	2152.8	2152.8	2149.3	2152.8	2152.8
25°	2051.1	2054.6	2051.1	2051.1	2054.6	2054.6	2054.6	2051.1
27.5°	1942.5	1946.0	1949.5	1946.0	1946.0	1946.0	1949.5	1953.0
30°	1830.2	1837.2	1830.2	1830.2	1837.2	1833.7	1837.2	1837.2
32.5°	1711.0	1721.6	1714.5	1721.6	1721.6	1725.1	1721.6	1725.1
35°	1591.8	1602.4	1602.4	1602.4	1605.9	1609.4	1609.4	1605.9
37.5°	1479.6	1483.2	1483.2	1490.2	1493.6	1497.1	1497.1	1493.6
40°	1364.0	1370.9	1374.4	1374.4	1374.4	1381.4	1388.5	1381.4
42.5°	1251.7	1255.2	1258.7	1258.7	1265.8	1269.3	1272.8	1272.8
45°	1143.1	1150.1	1153.6	1157.0	1160.5	1167.5	1164.0	1171.1
47.5°	1030.8	1041.3	1044.8	1048.4	1055.4	1058.9	1062.4	1065.9
50°	929.2	936.2	936.2	943.2	953.7	953.7	960.7	964.2
52.5°	827.4	830.9	834.5	838.0	845.0	852.0	852.0	859.1
55°	729.3	732.9	732.9	736.3	739.8	753.8	757.3	757.3
57.5°	627.6	627.6	634.6	638.2	641.7	648.7	648.7	648.7
60°	529.4	532.9	532.9	536.4	539.9	547.0	550.5	547.0
62.5°	431.3	434.8	434.8	438.3	445.2	448.8	445.2	445.2
65°	340.1	343.6	343.6	347.1	354.2	354.2	350.7	354.2
67.5°	248.9	248.9	248.9	248.9	248.9	248.9	248.9	248.9
70°	157.8	154.2	150.7	154.2	154.2	154.2	150.7	157.8
72.5°	77.1	80.6	80.6	80.6	80.6	80.6	80.6	77.1
75°	35.0	35.0	31.5	31.5	31.5	35.0	35.0	31.5
77.5°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)