

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: P585007

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P585007
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-HM82555930-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4964.4 lumens
Efficiency: N/A
Efficacy: 95.5 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

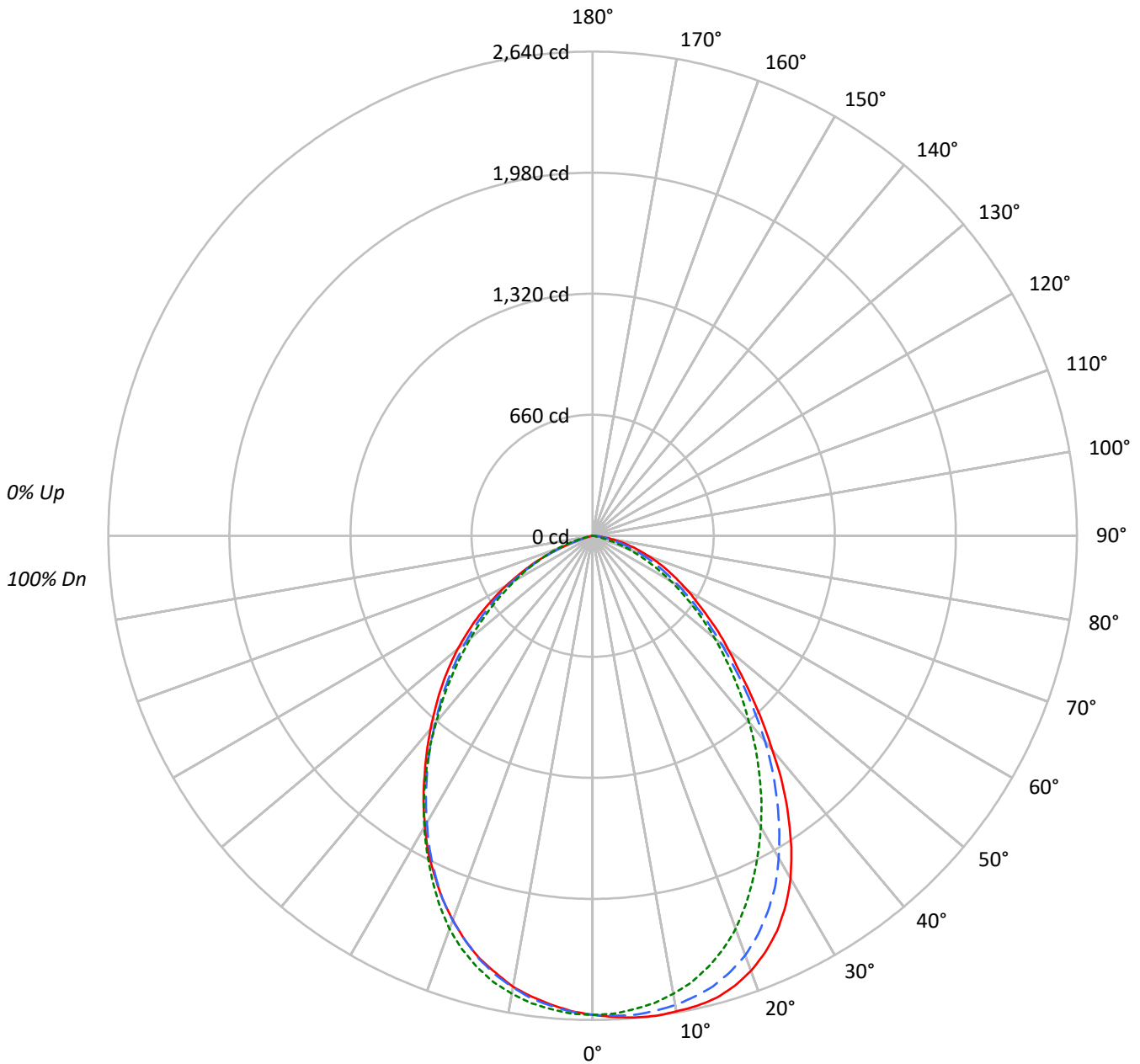
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77			77
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67			67
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59			59
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	80544	80544	80544
5°	81610	80208	79453
10°	82445	79388	78189
15°	83277	77710	76152
20°	82859	74845	73126
25°	80926	70362	69413
30°	76864	65317	65068
35°	69973	59602	60125
40°	61351	53345	55313
45°	52924	47451	50800
50°	46342	41655	46006
55°	41063	35805	40493
60°	36991	30115	33550
65°	33330	24173	25698
70°	29239	17608	14146
75°	24925	9150	3741
80°	19196	2468	622
85°	12348	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.4	5.0
10°-20°	692.8	14.0
20°-30°	983.4	19.8
30°-40°	1035.1	20.9
40°-50°	880.6	17.7
50°-60°	636.3	12.8
60°-70°	361.9	7.3
70°-80°	114.0	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°	1922.6	38.7
0°-40°	2957.7	59.6
0°-60°	4474.6	90.1
0°-90°	4964.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4964.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2612	2612	2612	2612	2612	
5°	2636	2623	2591	2574	2567	252
15°	2609	2542	2434	2389	2385	735
25°	2378	2260	2068	2033	2040	1089
35°	1859	1751	1583	1573	1597	1157
45°	1214	1168	1088	1116	1165	943
55°	764	708	666	704	753	689
65°	457	394	331	328	352	453
75°	209	160	77	35	31	225
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°	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0
2.5°	2626.0	2629.5	2622.6	2622.6	2629.5	2622.6	2626.0	2626.0	2622.6	2622.6	2619.1
5°	2636.5	2633.0	2633.0	2633.0	2636.5	2629.5	2626.0	2629.5	2622.6	2622.6	2622.6
7.5°	2640.0	2640.0	2636.5	2633.0	2633.0	2633.0	2629.5	2626.0	2622.6	2615.6	2612.0
10°	2633.0	2633.0	2636.5	2629.5	2629.5	2622.6	2622.6	2615.6	2615.6	2608.6	2598.1
12.5°	2626.0	2622.6	2622.6	2615.6	2615.6	2608.6	2608.6	2598.1	2594.7	2584.1	2573.7
15°	2608.6	2605.1	2598.1	2594.7	2591.2	2587.7	2580.7	2577.2	2566.8	2552.9	2542.3
17.5°	2573.7	2570.2	2566.8	2559.8	2552.9	2549.3	2545.8	2535.4	2521.4	2511.0	2493.5
20°	2525.0	2521.4	2521.4	2511.0	2507.5	2497.1	2493.5	2479.6	2469.1	2448.2	2434.2
22.5°	2458.6	2462.1	2455.1	2448.2	2441.2	2430.7	2423.8	2409.9	2392.4	2371.4	2354.1
25°	2378.5	2382.0	2374.9	2368.0	2357.5	2350.6	2343.5	2322.7	2305.2	2280.8	2259.9
27.5°	2277.3	2277.3	2277.3	2270.3	2252.9	2249.4	2242.4	2221.5	2197.0	2176.2	2155.2
30°	2158.7	2155.2	2155.2	2144.8	2137.8	2123.9	2113.4	2096.0	2078.5	2054.0	2029.7
32.5°	2015.7	2019.2	2008.8	2001.8	1991.3	1991.3	1977.4	1963.5	1942.5	1918.1	1893.7
35°	1858.8	1862.3	1855.3	1851.9	1834.4	1830.9	1827.4	1810.0	1796.0	1778.6	1750.7
37.5°	1698.3	1694.9	1691.4	1691.4	1681.0	1674.0	1667.1	1656.5	1635.6	1621.7	1607.7
40°	1524.1	1524.1	1524.1	1520.6	1517.0	1510.0	1506.6	1499.6	1485.6	1471.7	1461.2
42.5°	1367.0	1367.0	1363.6	1360.1	1353.1	1356.6	1349.7	1342.6	1328.7	1318.3	1311.2
45°	1213.6	1213.6	1213.6	1217.1	1210.1	1199.7	1199.7	1192.7	1185.7	1178.8	1168.2
47.5°	1077.7	1088.1	1081.1	1077.7	1081.1	1067.1	1067.1	1060.2	1053.2	1046.2	1032.3
50°	966.0	966.0	966.0	959.0	955.5	955.5	945.1	938.1	934.7	927.6	913.7
52.5°	864.9	857.9	857.9	854.4	851.0	844.0	844.0	837.0	823.0	816.1	805.6
55°	763.8	763.8	760.3	756.8	753.2	749.8	746.3	735.9	728.9	718.4	708.0
57.5°	673.1	680.0	676.6	669.6	662.6	662.6	655.6	648.7	638.2	627.7	617.3
60°	599.8	596.3	596.3	592.9	585.9	582.4	579.0	568.4	558.0	547.6	537.0
62.5°	523.1	523.1	523.1	516.1	509.1	505.7	502.2	495.2	481.2	470.8	463.9
65°	456.8	453.3	449.9	446.4	442.9	436.0	432.5	425.4	415.0	404.6	394.0
67.5°	390.6	387.1	387.1	383.6	373.2	369.6	369.6	359.2	348.8	338.2	327.8
70°	324.3	324.3	324.3	317.4	313.9	310.3	306.9	299.9	289.5	279.1	268.5
72.5°	268.5	265.0	265.0	261.6	251.0	247.6	244.1	237.1	226.7	219.8	212.7
75°	209.2	209.2	205.8	202.3	198.8	195.3	191.9	184.8	174.4	164.0	160.4
77.5°	160.4	156.9	156.9	153.4	146.5	143.0	143.0	136.0	125.5	118.6	111.6
80°	108.1	111.6	108.1	104.7	101.1	97.6	94.1	90.7	83.7	76.8	69.7
82.5°	66.2	69.7	66.2	66.2	62.8	59.3	59.3	52.3	48.9	45.4	41.8
85°	34.9	34.9	34.9	34.9	31.4	31.4	31.4	27.9	24.4	21.0	21.0
87.5°	10.4	13.9	10.4	10.4	10.4	10.4	10.4	10.4	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°	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0
2.5°	2622.6	2619.1	2615.6	2615.6	2615.6	2615.6	2615.6	2612.0	2608.6	2608.6	2608.6
5°	2615.6	2615.6	2615.6	2612.0	2608.6	2608.6	2601.6	2598.1	2594.7	2591.2	2587.7
7.5°	2608.6	2601.6	2598.1	2594.7	2591.2	2591.2	2584.1	2577.2	2577.2	2570.2	2563.3
10°	2587.7	2584.1	2577.2	2570.2	2566.8	2563.3	2556.2	2545.8	2542.3	2535.4	2528.4
12.5°	2563.3	2556.2	2549.3	2535.4	2531.9	2528.4	2514.4	2504.0	2497.1	2493.5	2476.1
15°	2531.9	2517.9	2507.5	2490.0	2486.5	2479.6	2469.1	2458.6	2444.7	2434.2	2427.2
17.5°	2476.1	2462.1	2444.7	2427.2	2420.3	2420.3	2402.8	2388.9	2371.4	2364.5	2350.6
20°	2409.9	2392.4	2378.5	2357.5	2347.0	2336.6	2326.1	2305.2	2291.3	2280.8	2263.4
22.5°	2333.1	2308.7	2291.3	2270.3	2252.9	2242.4	2225.0	2207.6	2190.1	2179.7	2165.7
25°	2235.5	2214.5	2186.6	2165.7	2155.2	2141.2	2120.4	2102.9	2085.5	2068.0	2061.1
27.5°	2127.3	2099.4	2075.0	2050.6	2040.1	2029.7	2005.3	1984.3	1970.4	1953.0	1946.0
30°	2008.8	1980.9	1953.0	1932.0	1921.6	1904.1	1890.2	1865.8	1848.4	1834.4	1817.0
32.5°	1872.7	1851.9	1827.4	1796.0	1789.1	1775.1	1754.1	1743.7	1722.8	1712.3	1698.3
35°	1726.2	1712.3	1687.9	1663.5	1653.0	1646.1	1628.6	1607.7	1593.8	1583.3	1576.3
37.5°	1586.8	1569.3	1544.9	1527.5	1520.6	1510.0	1489.1	1478.7	1464.8	1457.7	1443.8
40°	1436.9	1419.4	1401.9	1391.5	1381.0	1374.1	1360.1	1349.7	1335.7	1325.2	1321.8
42.5°	1290.4	1279.9	1266.0	1252.0	1248.5	1238.0	1231.1	1220.6	1210.1	1206.7	1196.1
45°	1157.8	1147.4	1133.4	1119.5	1116.0	1109.1	1105.5	1095.0	1088.1	1088.1	1088.1
47.5°	1025.3	1014.8	1000.9	994.0	997.4	983.4	983.4	980.0	973.0	973.0	976.5
50°	906.8	892.8	889.3	882.3	875.4	868.3	871.9	861.4	861.4	868.3	864.9
52.5°	795.1	781.1	777.7	770.7	767.2	767.2	763.8	763.8	760.3	763.8	763.8
55°	694.1	683.5	676.6	669.6	666.0	666.0	666.0	662.6	659.1	666.0	669.6
57.5°	603.3	599.8	592.9	582.4	579.0	575.5	571.9	571.9	571.9	571.9	575.5
60°	523.1	516.1	509.1	498.7	498.7	495.2	491.8	488.3	488.3	488.3	488.3
62.5°	453.3	442.9	432.5	425.4	422.0	418.5	415.0	408.0	408.0	408.0	408.0
65°	383.6	373.2	366.1	359.2	352.2	352.2	345.3	341.8	334.8	331.3	324.3
67.5°	317.4	310.3	303.4	293.0	289.5	286.0	279.1	275.5	265.0	261.6	258.1
70°	258.1	247.6	240.6	233.7	230.2	223.1	216.2	209.2	202.3	195.3	188.3
72.5°	202.3	191.9	184.8	177.9	170.9	170.9	160.4	153.4	143.0	136.0	125.5
75°	150.0	139.5	132.6	122.0	118.6	115.1	104.7	97.6	87.2	76.8	69.7
77.5°	101.1	94.1	87.2	76.8	69.7	69.7	59.3	52.3	45.4	34.9	31.4
80°	62.8	55.8	48.9	41.8	41.8	34.9	31.4	24.4	17.5	13.9	10.4
82.5°	34.9	31.4	27.9	21.0	21.0	17.5	13.9	10.4	7.0	3.5	3.5
85°	17.5	13.9	10.4	10.4	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°	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0
2.5°	2605.1	2605.1	2601.6	2601.6	2601.6	2598.1	2601.6	2598.1	2598.1	2598.1	2601.6
5°	2591.2	2584.1	2584.1	2580.7	2580.7	2577.2	2580.7	2577.2	2573.7	2570.2	2573.7
7.5°	2563.3	2556.2	2552.9	2549.3	2549.3	2549.3	2545.8	2542.3	2545.8	2535.4	2542.3
10°	2525.0	2521.4	2514.4	2511.0	2507.5	2511.0	2507.5	2500.5	2500.5	2500.5	2497.1
12.5°	2476.1	2469.1	2465.7	2462.1	2455.1	2455.1	2458.6	2451.7	2451.7	2444.7	2444.7
15°	2416.8	2409.9	2402.8	2402.8	2395.9	2395.9	2392.4	2392.4	2388.9	2385.4	2385.4
17.5°	2343.5	2333.1	2326.1	2329.6	2326.1	2322.7	2322.7	2315.6	2312.1	2315.6	2315.6
20°	2256.3	2249.4	2242.4	2245.9	2239.0	2235.5	2239.0	2228.4	2232.0	2232.0	2232.0
22.5°	2158.7	2155.2	2144.8	2144.8	2137.8	2134.3	2137.8	2137.8	2141.2	2137.8	2137.8
25°	2050.6	2043.6	2036.7	2036.7	2033.2	2029.7	2033.2	2036.7	2033.2	2036.7	2036.7
27.5°	1935.6	1925.0	1925.0	1918.1	1918.1	1921.6	1918.1	1921.6	1925.0	1925.0	1932.0
30°	1810.0	1806.5	1803.0	1799.5	1799.5	1803.0	1803.0	1803.0	1806.5	1813.4	1813.4
32.5°	1691.4	1684.4	1677.5	1677.5	1684.4	1681.0	1684.4	1684.4	1691.4	1691.4	1698.3
35°	1562.4	1562.4	1555.4	1558.9	1558.9	1558.9	1558.9	1565.9	1572.8	1576.3	1583.3
37.5°	1443.8	1433.4	1436.9	1436.9	1440.3	1436.9	1447.3	1447.3	1454.2	1454.2	1461.2
40°	1314.7	1314.7	1318.3	1314.7	1318.3	1318.3	1325.2	1332.2	1335.7	1342.6	1346.2
42.5°	1192.7	1199.7	1192.7	1196.1	1199.7	1203.2	1206.7	1210.1	1224.0	1231.1	1241.5
45°	1081.1	1084.6	1088.1	1091.6	1088.1	1095.0	1098.5	1105.5	1116.0	1119.5	1123.0
47.5°	973.0	976.5	980.0	983.4	983.4	990.5	994.0	1000.9	1007.9	1011.3	1014.8
50°	868.3	875.4	878.9	878.9	882.3	889.3	896.2	896.2	903.3	913.7	917.2
52.5°	774.2	774.2	781.1	784.7	788.2	788.2	798.6	802.1	805.6	812.5	819.6
55°	669.6	680.0	683.5	683.5	690.5	697.5	701.0	704.5	704.5	718.4	718.4
57.5°	579.0	582.4	589.4	589.4	589.4	599.8	599.8	606.9	610.3	613.8	620.8
60°	488.3	495.2	495.2	498.7	495.2	502.2	505.7	512.6	516.1	519.7	523.1
62.5°	404.6	404.6	408.0	408.0	408.0	408.0	415.0	415.0	422.0	425.4	429.0
65°	324.3	324.3	324.3	324.3	324.3	324.3	324.3	324.3	327.8	327.8	334.8
67.5°	251.0	247.6	240.6	244.1	240.6	240.6	237.1	237.1	240.6	240.6	247.6
70°	181.3	177.9	170.9	170.9	167.4	164.0	160.4	156.9	153.4	153.4	153.4
72.5°	118.6	111.6	101.1	97.6	97.6	90.7	83.7	80.2	80.2	80.2	80.2
75°	59.3	52.3	45.4	41.8	41.8	34.9	38.3	34.9	34.9	34.9	34.9
77.5°	24.4	17.5	13.9	13.9	13.9	10.4	10.4	10.4	10.4	10.4	10.4
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: P585007

CATALOG NUMBER: HC855D010-HM82555930-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0
2.5°	2598.1	2598.1	2591.2	2594.7	2594.7	2594.7	2594.7	2594.7
5°	2566.8	2570.2	2566.8	2570.2	2570.2	2566.8	2566.8	2566.8
7.5°	2535.4	2538.9	2535.4	2538.9	2538.9	2538.9	2535.4	2535.4
10°	2497.1	2497.1	2497.1	2497.1	2497.1	2493.5	2497.1	2497.1
12.5°	2444.7	2444.7	2444.7	2448.2	2448.2	2444.7	2444.7	2441.2
15°	2388.9	2382.0	2385.4	2388.9	2385.4	2385.4	2385.4	2385.4
17.5°	2312.1	2315.6	2312.1	2312.1	2312.1	2312.1	2315.6	2312.1
20°	2232.0	2232.0	2235.5	2232.0	2232.0	2232.0	2232.0	2228.4
22.5°	2141.2	2137.8	2137.8	2141.2	2141.2	2137.8	2141.2	2141.2
25°	2040.1	2043.6	2040.1	2040.1	2043.6	2043.6	2043.6	2040.1
27.5°	1932.0	1935.6	1939.1	1935.6	1935.6	1935.6	1939.1	1942.5
30°	1820.5	1827.4	1820.5	1820.5	1827.4	1824.0	1827.4	1827.4
32.5°	1701.9	1712.3	1705.4	1712.3	1712.3	1715.8	1712.3	1715.8
35°	1583.3	1593.8	1593.8	1593.8	1597.2	1600.7	1600.7	1597.2
37.5°	1471.7	1475.2	1475.2	1482.1	1485.6	1489.1	1489.1	1485.6
40°	1356.6	1363.6	1367.0	1367.0	1367.0	1374.1	1381.0	1374.1
42.5°	1245.0	1248.5	1252.0	1252.0	1259.0	1262.5	1266.0	1266.0
45°	1137.0	1143.9	1147.4	1150.9	1154.3	1161.3	1157.8	1164.9
47.5°	1025.3	1035.8	1039.2	1042.7	1049.8	1053.2	1056.7	1060.2
50°	924.1	931.2	931.2	938.1	948.6	948.6	955.5	959.0
52.5°	823.0	826.5	830.0	833.5	840.4	847.5	847.5	854.4
55°	725.4	728.9	728.9	732.4	735.9	749.8	753.2	753.2
57.5°	624.2	624.2	631.2	634.8	638.2	645.2	645.2	645.2
60°	526.6	530.1	530.1	533.6	537.0	544.0	547.6	544.0
62.5°	429.0	432.5	432.5	436.0	442.9	446.4	442.9	442.9
65°	338.2	341.8	341.8	345.3	352.2	352.2	348.8	352.2
67.5°	247.6	247.6	247.6	247.6	247.6	247.6	247.6	247.6
70°	156.9	153.4	150.0	153.4	153.4	153.4	150.0	156.9
72.5°	76.8	80.2	80.2	80.2	80.2	80.2	80.2	76.8
75°	34.9	34.9	31.4	31.4	31.4	34.9	34.9	31.4
77.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
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)