

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: P584956

Luminaire Tested: **HC855D010-HM82555835-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584956
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-HM82555835-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5352.2 lumens
Efficiency: N/A
Efficacy: 102.9 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

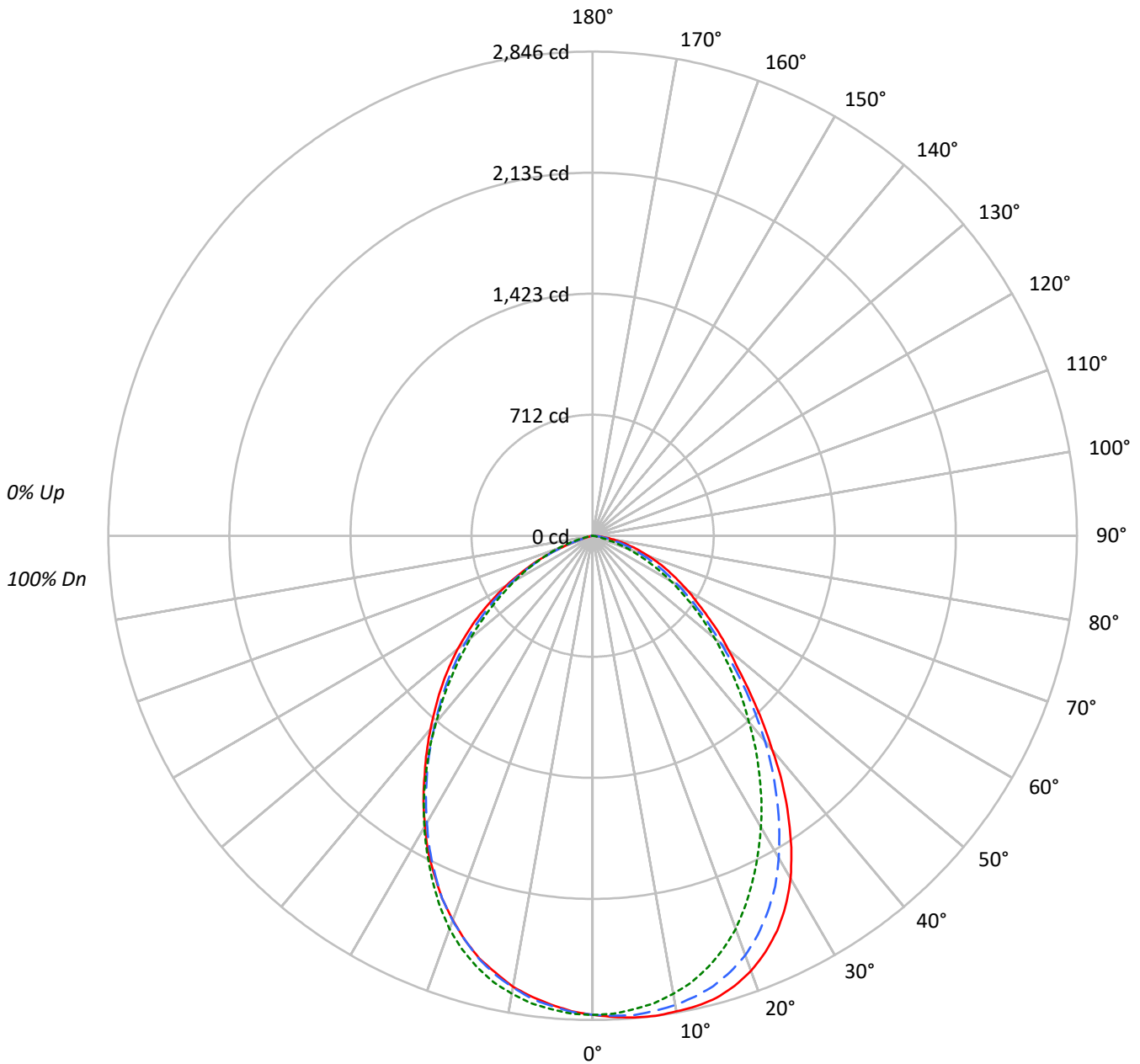
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	84	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°	86838	86838	86838
5°	87987	86473	85656
10°	88885	85585	84292
15°	89780	83778	82099
20°	89327	80690	78839
25°	87245	75860	74836
30°	82871	70416	70149
35°	75439	64255	64823
40°	66137	57511	59632
45°	57058	51158	54764
50°	49959	44912	49599
55°	44267	38606	43660
60°	39884	32458	36177
65°	35943	26063	27705
70°	31520	18979	15255
75°	26879	9853	4039
80°	20688	2664	675
85°	13303	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.7	5.0
10°-20°	746.9	14.0
20°-30°	1060.1	19.8
30°-40°	1115.9	20.9
40°-50°	949.3	17.7
50°-60°	686.0	12.8
60°-70°	390.2	7.3
70°-80°	123.0	2.3
80°-90°	14.9	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°	2072.8	38.7
0°-40°	3188.7	59.6
0°-60°	4824.1	90.1
0°-90°	5352.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5352.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2816	2816	2816	2816	2816	
5°	2842	2827	2794	2775	2767	271
15°	2812	2741	2624	2576	2572	792
25°	2564	2436	2230	2192	2200	1174
35°	2004	1887	1707	1696	1722	1247
45°	1308	1260	1173	1203	1256	1017
55°	823	763	718	760	812	742
65°	493	425	357	354	380	488
75°	226	173	83	38	34	243
85°	38	22	0	0	0	49
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°	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1
2.5°	2831.1	2834.8	2827.3	2827.3	2834.8	2827.3	2831.1	2831.1	2827.3	2827.3	2823.6
5°	2842.5	2838.7	2838.7	2838.7	2842.5	2834.8	2831.1	2834.8	2827.3	2827.3	2827.3
7.5°	2846.2	2846.2	2842.5	2838.7	2838.7	2838.7	2834.8	2831.1	2827.3	2819.8	2816.1
10°	2838.7	2838.7	2842.5	2834.8	2834.8	2827.3	2827.3	2819.8	2819.8	2812.3	2801.1
12.5°	2831.1	2827.3	2827.3	2819.8	2819.8	2812.3	2812.3	2801.1	2797.3	2786.0	2774.7
15°	2812.3	2808.6	2801.1	2797.3	2793.6	2789.7	2782.2	2778.5	2767.2	2752.2	2740.8
17.5°	2774.7	2771.0	2767.2	2759.7	2752.2	2748.5	2744.7	2733.3	2718.3	2707.1	2688.2
20°	2722.1	2718.3	2718.3	2707.1	2703.3	2692.0	2688.2	2673.2	2662.0	2639.3	2624.3
22.5°	2650.7	2654.5	2646.8	2639.3	2631.8	2620.6	2613.1	2598.0	2579.2	2556.7	2537.8
25°	2564.2	2568.0	2560.5	2552.9	2541.6	2534.1	2526.6	2504.0	2485.2	2458.9	2436.4
27.5°	2455.1	2455.1	2455.1	2447.6	2428.9	2425.1	2417.6	2395.0	2368.7	2346.1	2323.6
30°	2327.4	2323.6	2323.6	2312.2	2304.7	2289.7	2278.5	2259.6	2240.9	2214.5	2188.2
32.5°	2173.1	2176.9	2165.6	2158.1	2146.9	2146.9	2131.8	2116.7	2094.2	2067.9	2041.6
35°	2004.0	2007.8	2000.3	1996.5	1977.6	1973.9	1970.1	1951.4	1936.3	1917.5	1887.4
37.5°	1831.0	1827.3	1823.5	1823.5	1812.3	1804.6	1797.1	1785.9	1763.4	1748.3	1733.3
40°	1643.0	1643.0	1643.0	1639.3	1635.5	1628.0	1624.3	1616.7	1601.7	1586.7	1575.4
42.5°	1473.8	1473.8	1470.0	1466.3	1458.8	1462.5	1455.0	1447.5	1432.5	1421.2	1413.7
45°	1308.4	1308.4	1308.4	1312.2	1304.7	1293.4	1293.4	1285.8	1278.3	1270.8	1259.5
47.5°	1161.8	1173.1	1165.6	1161.8	1165.6	1150.6	1150.6	1142.9	1135.4	1127.9	1112.9
50°	1041.4	1041.4	1041.4	1033.9	1030.2	1030.2	1018.9	1011.4	1007.6	1000.1	985.1
52.5°	932.4	924.9	924.9	921.2	917.4	909.8	909.8	902.3	887.3	879.8	868.6
55°	823.4	823.4	819.6	815.8	812.1	808.3	804.6	793.3	785.8	774.6	763.2
57.5°	725.6	733.2	729.5	721.8	714.3	714.3	706.8	699.3	688.1	676.7	665.5
60°	646.7	643.0	643.0	639.2	631.6	627.8	624.1	612.8	601.6	590.3	579.0
62.5°	564.0	564.0	564.0	556.5	549.0	545.2	541.5	533.8	518.8	507.6	500.1
65°	492.6	488.7	485.0	481.2	477.5	470.0	466.2	458.7	447.5	436.1	424.8
67.5°	421.1	417.3	417.3	413.6	402.3	398.5	398.5	387.2	376.0	364.7	353.5
70°	349.6	349.6	349.6	342.1	338.4	334.6	330.9	323.4	312.1	300.7	289.5
72.5°	289.5	285.7	285.7	282.0	270.7	267.0	263.2	255.6	244.4	236.9	229.4
75°	225.6	225.6	221.9	218.1	214.4	210.5	206.7	199.2	188.0	176.7	173.0
77.5°	173.0	169.2	169.2	165.5	157.9	154.1	154.1	146.6	135.4	127.9	120.4
80°	116.5	120.4	116.5	112.7	109.0	105.2	101.5	97.7	90.2	82.7	75.2
82.5°	71.5	75.2	71.5	71.5	67.6	63.9	63.9	56.4	52.6	48.9	45.1
85°	37.6	37.6	37.6	37.6	33.9	33.9	33.9	30.1	26.4	22.5	22.5
87.5°	11.3	15.0	11.3	11.3	11.3	11.3	11.3	11.3	7.5	7.5	7.5
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°	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1
2.5°	2827.3	2823.6	2819.8	2819.8	2819.8	2819.8	2819.8	2816.1	2812.3	2812.3	2812.3
5°	2819.8	2819.8	2819.8	2816.1	2812.3	2812.3	2804.8	2801.1	2797.3	2793.6	2789.7
7.5°	2812.3	2804.8	2801.1	2797.3	2793.6	2793.6	2786.0	2778.5	2778.5	2771.0	2763.5
10°	2789.7	2786.0	2778.5	2771.0	2767.2	2763.5	2756.0	2744.7	2740.8	2733.3	2725.8
12.5°	2763.5	2756.0	2748.5	2733.3	2729.6	2725.8	2710.8	2699.6	2692.0	2688.2	2669.5
15°	2729.6	2714.6	2703.3	2684.5	2680.7	2673.2	2662.0	2650.7	2635.6	2624.3	2616.8
17.5°	2669.5	2654.5	2635.6	2616.8	2609.3	2609.3	2590.5	2575.5	2556.7	2549.1	2534.1
20°	2598.0	2579.2	2564.2	2541.6	2530.3	2519.1	2507.7	2485.2	2470.2	2458.9	2440.1
22.5°	2515.3	2489.0	2470.2	2447.6	2428.9	2417.6	2398.7	2380.0	2361.1	2349.9	2334.9
25°	2410.0	2387.5	2357.4	2334.9	2323.6	2308.5	2286.0	2267.1	2248.4	2229.6	2222.0
27.5°	2293.5	2263.4	2237.1	2210.7	2199.5	2188.2	2161.9	2139.4	2124.2	2105.5	2098.0
30°	2165.6	2135.6	2105.5	2082.9	2071.6	2052.9	2037.8	2011.5	1992.6	1977.6	1958.9
32.5°	2019.0	1996.5	1970.1	1936.3	1928.8	1913.8	1891.1	1879.9	1857.4	1846.0	1831.0
35°	1861.1	1846.0	1819.8	1793.4	1782.1	1774.6	1755.8	1733.3	1718.3	1706.9	1699.4
37.5°	1710.7	1691.9	1665.6	1646.8	1639.3	1628.0	1605.4	1594.2	1579.2	1571.7	1556.5
40°	1549.0	1530.3	1511.4	1500.2	1488.9	1481.4	1466.3	1455.0	1440.0	1428.7	1424.9
42.5°	1391.2	1379.8	1364.8	1349.8	1346.0	1334.7	1327.2	1315.9	1304.7	1300.9	1289.7
45°	1248.3	1236.9	1221.9	1206.9	1203.2	1195.6	1191.8	1180.6	1173.1	1173.1	1173.1
47.5°	1105.4	1094.1	1079.1	1071.6	1075.3	1060.3	1060.3	1056.6	1048.9	1048.9	1052.7
50°	977.6	962.6	958.7	951.2	943.7	936.2	939.9	928.7	928.7	936.2	932.4
52.5°	857.2	842.2	838.4	830.9	827.2	827.2	823.4	823.4	819.6	823.4	823.4
55°	748.2	737.0	729.5	721.8	718.1	718.1	718.1	714.3	710.6	718.1	721.8
57.5°	650.5	646.7	639.2	627.8	624.1	620.3	616.6	616.6	616.6	616.6	620.3
60°	564.0	556.5	549.0	537.6	537.6	533.8	530.1	526.3	526.3	526.3	526.3
62.5°	488.7	477.5	466.2	458.7	455.0	451.2	447.5	439.9	439.9	439.9	439.9
65°	413.6	402.3	394.7	387.2	379.7	379.7	372.2	368.5	361.0	357.2	349.6
67.5°	342.1	334.6	327.1	315.9	312.1	308.4	300.7	297.0	285.7	282.0	278.2
70°	278.2	267.0	259.5	251.9	248.1	240.6	233.1	225.6	218.1	210.5	203.0
72.5°	218.1	206.7	199.2	191.7	184.2	184.2	173.0	165.5	154.1	146.6	135.4
75°	161.6	150.4	142.9	131.6	127.9	124.1	112.7	105.2	94.0	82.7	75.2
77.5°	109.0	101.5	94.0	82.7	75.2	75.2	63.9	56.4	48.9	37.6	33.9
80°	67.6	60.1	52.6	45.1	45.1	37.6	33.9	26.4	18.8	15.0	11.3
82.5°	37.6	33.9	30.1	22.5	22.5	18.8	15.0	11.3	7.5	3.8	3.8
85°	18.8	15.0	11.3	11.3	7.5	7.5	7.5	3.8	3.8	0.0	0.0
87.5°	7.5	3.8	3.8	3.8	3.8	3.8	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°	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1
2.5°	2808.6	2808.6	2804.8	2804.8	2804.8	2801.1	2804.8	2801.1	2801.1	2801.1	2804.8
5°	2793.6	2786.0	2786.0	2782.2	2782.2	2778.5	2782.2	2778.5	2774.7	2771.0	2774.7
7.5°	2763.5	2756.0	2752.2	2748.5	2748.5	2748.5	2744.7	2740.8	2744.7	2733.3	2740.8
10°	2722.1	2718.3	2710.8	2707.1	2703.3	2707.1	2703.3	2695.7	2695.7	2695.7	2692.0
12.5°	2669.5	2662.0	2658.2	2654.5	2646.8	2646.8	2650.7	2643.1	2643.1	2635.6	2635.6
15°	2605.6	2598.0	2590.5	2590.5	2583.0	2583.0	2579.2	2579.2	2575.5	2571.7	2571.7
17.5°	2526.6	2515.3	2507.7	2511.6	2507.7	2504.0	2504.0	2496.5	2492.7	2496.5	2496.5
20°	2432.6	2425.1	2417.6	2421.4	2413.7	2410.0	2413.7	2402.5	2406.2	2406.2	2406.2
22.5°	2327.4	2323.6	2312.2	2312.2	2304.7	2301.0	2304.7	2304.7	2308.5	2304.7	2304.7
25°	2210.7	2203.2	2195.7	2195.7	2192.0	2188.2	2192.0	2195.7	2192.0	2195.7	2195.7
27.5°	2086.7	2075.4	2075.4	2067.9	2067.9	2071.6	2067.9	2071.6	2075.4	2075.4	2082.9
30°	1951.4	1947.6	1943.8	1940.0	1940.0	1943.8	1943.8	1943.8	1947.6	1955.1	1955.1
32.5°	1823.5	1816.0	1808.5	1808.5	1816.0	1812.3	1816.0	1816.0	1823.5	1823.5	1831.0
35°	1684.4	1684.4	1676.9	1680.6	1680.6	1680.6	1680.6	1688.1	1695.6	1699.4	1706.9
37.5°	1556.5	1545.3	1549.0	1549.0	1552.8	1549.0	1560.3	1560.3	1567.8	1567.8	1575.4
40°	1417.4	1417.4	1421.2	1417.4	1421.2	1421.2	1428.7	1436.3	1440.0	1447.5	1451.3
42.5°	1285.8	1293.4	1285.8	1289.7	1293.4	1297.2	1300.9	1304.7	1319.7	1327.2	1338.5
45°	1165.6	1169.3	1173.1	1176.8	1173.1	1180.6	1184.3	1191.8	1203.2	1206.9	1210.7
47.5°	1048.9	1052.7	1056.6	1060.3	1060.3	1067.8	1071.6	1079.1	1086.6	1090.3	1094.1
50°	936.2	943.7	947.4	947.4	951.2	958.7	966.3	966.3	973.8	985.1	988.8
52.5°	834.7	834.7	842.2	845.9	849.7	849.7	861.0	864.7	868.6	876.1	883.6
55°	721.8	733.2	737.0	737.0	744.5	752.0	755.7	759.5	759.5	774.6	774.6
57.5°	624.1	627.8	635.5	635.5	635.5	646.7	646.7	654.2	658.0	661.7	669.2
60°	526.3	533.8	533.8	537.6	533.8	541.5	545.2	552.7	556.5	560.2	564.0
62.5°	436.1	436.1	439.9	439.9	439.9	439.9	447.5	447.5	455.0	458.7	462.5
65°	349.6	349.6	349.6	349.6	349.6	349.6	349.6	349.6	353.5	353.5	361.0
67.5°	270.7	267.0	259.5	263.2	259.5	259.5	255.6	255.6	259.5	259.5	267.0
70°	195.5	191.7	184.2	184.2	180.5	176.7	173.0	169.2	165.5	165.5	165.5
72.5°	127.9	120.4	109.0	105.2	105.2	97.7	90.2	86.5	86.5	86.5	86.5
75°	63.9	56.4	48.9	45.1	45.1	37.6	41.4	37.6	37.6	37.6	37.6
77.5°	26.4	18.8	15.0	15.0	15.0	11.3	11.3	11.3	11.3	11.3	11.3
80°	7.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
82.5°	3.8	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: P584956

CATALOG NUMBER: HC855D010-HM82555835-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1	2816.1
2.5°	2801.1	2801.1	2793.6	2797.3	2797.3	2797.3	2797.3	2797.3
5°	2767.2	2771.0	2767.2	2771.0	2771.0	2767.2	2767.2	2767.2
7.5°	2733.3	2737.1	2733.3	2737.1	2737.1	2737.1	2733.3	2733.3
10°	2692.0	2692.0	2692.0	2692.0	2692.0	2688.2	2692.0	2692.0
12.5°	2635.6	2635.6	2635.6	2639.3	2639.3	2635.6	2635.6	2631.8
15°	2575.5	2568.0	2571.7	2575.5	2571.7	2571.7	2571.7	2571.7
17.5°	2492.7	2496.5	2492.7	2492.7	2492.7	2492.7	2496.5	2492.7
20°	2406.2	2406.2	2410.0	2406.2	2406.2	2406.2	2406.2	2402.5
22.5°	2308.5	2304.7	2304.7	2308.5	2308.5	2304.7	2308.5	2308.5
25°	2199.5	2203.2	2199.5	2199.5	2203.2	2203.2	2203.2	2199.5
27.5°	2082.9	2086.7	2090.5	2086.7	2086.7	2086.7	2090.5	2094.2
30°	1962.6	1970.1	1962.6	1962.6	1970.1	1966.4	1970.1	1970.1
32.5°	1834.8	1846.0	1838.5	1846.0	1846.0	1849.8	1846.0	1849.8
35°	1706.9	1718.3	1718.3	1718.3	1722.0	1725.8	1725.8	1722.0
37.5°	1586.7	1590.4	1590.4	1597.9	1601.7	1605.4	1605.4	1601.7
40°	1462.5	1470.0	1473.8	1473.8	1473.8	1481.4	1488.9	1481.4
42.5°	1342.3	1346.0	1349.8	1349.8	1357.3	1361.0	1364.8	1364.8
45°	1225.7	1233.2	1236.9	1240.7	1244.5	1252.0	1248.3	1255.8
47.5°	1105.4	1116.7	1120.4	1124.2	1131.7	1135.4	1139.2	1142.9
50°	996.3	1003.8	1003.8	1011.4	1022.7	1022.7	1030.2	1033.9
52.5°	887.3	891.1	894.8	898.6	906.1	913.6	913.6	921.2
55°	782.1	785.8	785.8	789.6	793.3	808.3	812.1	812.1
57.5°	673.0	673.0	680.6	684.3	688.1	695.6	695.6	695.6
60°	567.7	571.5	571.5	575.2	579.0	586.6	590.3	586.6
62.5°	462.5	466.2	466.2	470.0	477.5	481.2	477.5	477.5
65°	364.7	368.5	368.5	372.2	379.7	379.7	376.0	379.7
67.5°	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0
70°	169.2	165.5	161.6	165.5	165.5	165.5	161.6	169.2
72.5°	82.7	86.5	86.5	86.5	86.5	86.5	86.5	82.7
75°	37.6	37.6	33.9	33.9	33.9	37.6	37.6	33.9
77.5°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
80°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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)