

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: P585296

Luminaire Tested: **HC880D010-HM86080935-81RWWC**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P585296  
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: HC880D010-HM86080935-81RWWC  
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: 6283.1 lumens  
Efficiency: N/A  
Efficacy: 89.8 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

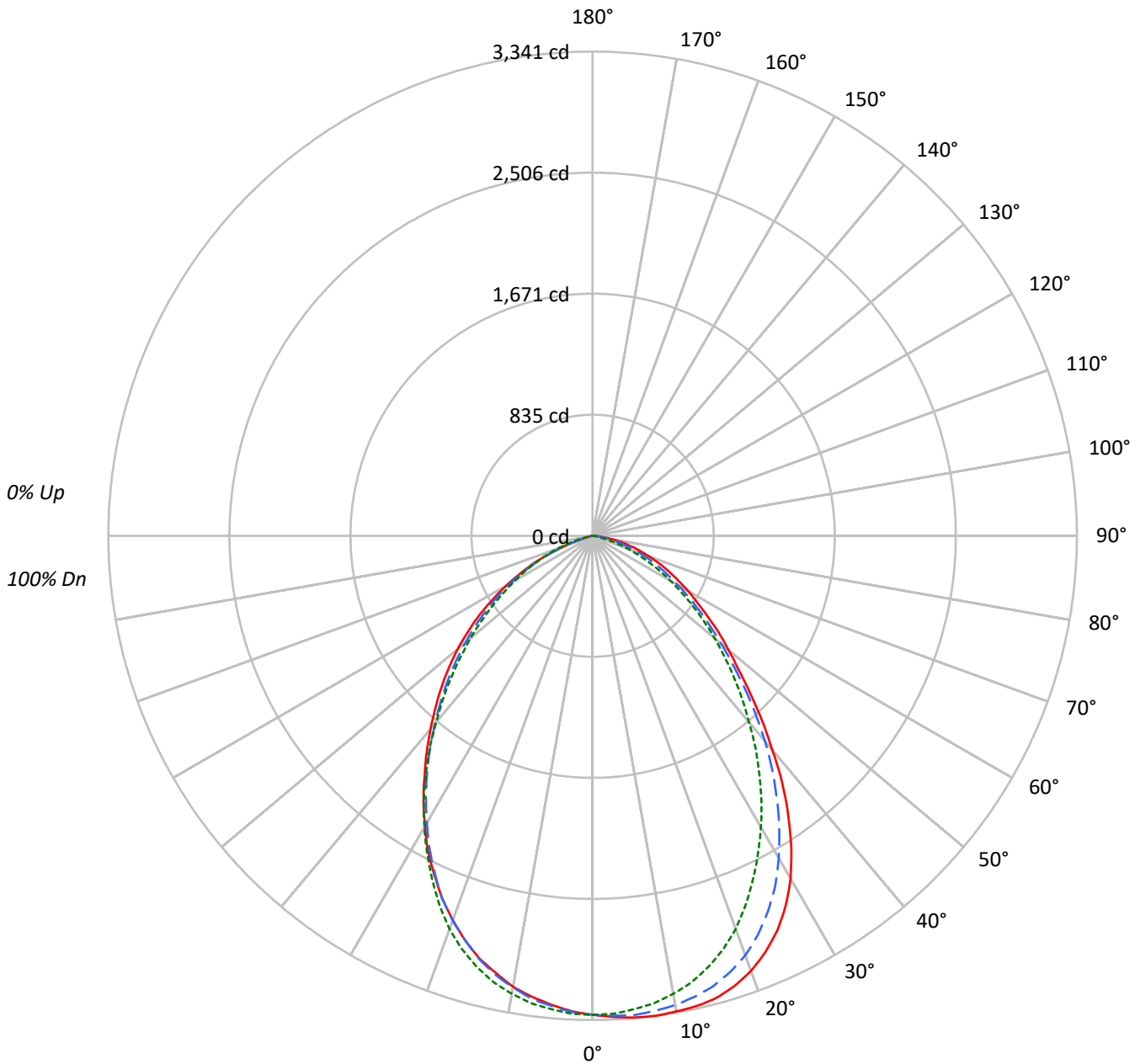
Input Watts (W): 70  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P585296

CATALOG NUMBER: HC880D010-HM86080935-81RWWC

### Luminous Intensity Polar Plot





TEST NUMBER: P585296

CATALOG NUMBER: HC880D010-HM86080935-81RWWC

**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	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°	101942	101942	101942
5°	103288	101514	100558
10°	104344	100477	98952
15°	105397	98352	96379
20°	104865	94728	92552
25°	102419	89051	87850
30°	97281	82665	82351
35°	88562	75431	76098
40°	77642	67514	70002
45°	66984	60054	64289
50°	58652	52722	58234
55°	51971	45321	51251
60°	46822	38108	42462
65°	42188	30601	32528
70°	37001	22287	17906
75°	31549	11569	4730
80°	24311	3125	781
85°	15603	0	0



TEST NUMBER: P585296

CATALOG NUMBER: HC880D010-HM86080935-81RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	311.9	5.0
10°-20°	876.8	14.0
20°-30°	1244.6	19.8
30°-40°	1310.1	20.9
40°-50°	1114.5	17.7
50°-60°	805.4	12.8
60°-70°	458.1	7.3
70°-80°	144.3	2.3
80°-90°	17.5	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°	2433.3	38.7
0°-40°	3743.4	59.6
0°-60°	5663.2	90.1
0°-90°	6283.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6283.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3306	3306	3306	3306	3306	
5°	3337	3319	3280	3257	3249	318
15°	3302	3218	3081	3024	3019	930
25°	3010	2860	2617	2573	2582	1379
35°	2353	2216	2004	1991	2022	1464
45°	1536	1479	1377	1412	1474	1194
55°	967	896	843	892	953	872
65°	578	499	419	415	446	573
75°	265	203	97	44	40	285
85°	44	26	0	0	0	57
90°	0	0	0	0	0	



TEST NUMBER: P585296

CATALOG NUMBER: HC880D010-HM86080935-81RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9
2.5°	3323.6	3328.0	3319.2	3319.2	3328.0	3319.2	3323.6	3323.6	3319.2	3319.2	3314.8
5°	3336.8	3332.4	3332.4	3332.4	3336.8	3328.0	3323.6	3328.0	3319.2	3319.2	3319.2
7.5°	3341.2	3341.2	3336.8	3332.4	3332.4	3332.4	3328.0	3323.6	3319.2	3310.3	3305.9
10°	3332.4	3332.4	3336.8	3328.0	3328.0	3319.2	3319.2	3310.3	3310.3	3301.5	3288.3
12.5°	3323.6	3319.2	3319.2	3310.3	3310.3	3301.5	3301.5	3288.3	3283.9	3270.6	3257.4
15°	3301.5	3297.1	3288.3	3283.9	3279.5	3275.0	3266.2	3261.8	3248.6	3230.9	3217.7
17.5°	3257.4	3253.0	3248.6	3239.7	3230.9	3226.5	3222.1	3208.9	3191.2	3178.0	3155.8
20°	3195.6	3191.2	3191.2	3178.0	3173.6	3160.2	3155.8	3138.2	3124.9	3098.5	3080.8
22.5°	3111.7	3116.1	3107.3	3098.5	3089.6	3076.4	3067.6	3049.9	3027.9	3001.4	2979.3
25°	3010.2	3014.6	3005.8	2997.0	2983.7	2974.9	2966.1	2939.6	2917.6	2886.7	2860.1
27.5°	2882.3	2882.3	2882.3	2873.3	2851.3	2846.9	2838.0	2811.6	2780.7	2754.2	2727.7
30°	2732.1	2727.7	2727.7	2714.5	2705.7	2688.0	2674.8	2652.7	2630.7	2599.7	2568.8
32.5°	2551.1	2555.6	2542.3	2533.5	2520.3	2520.3	2502.6	2485.0	2458.5	2427.6	2396.7
35°	2352.6	2357.0	2348.2	2343.8	2321.6	2317.2	2312.8	2290.7	2273.1	2251.0	2215.7
37.5°	2149.5	2145.1	2140.7	2140.7	2127.5	2118.7	2109.8	2096.6	2070.0	2052.5	2034.7
40°	1928.8	1928.8	1928.8	1924.4	1920.0	1911.2	1906.8	1897.9	1880.3	1862.6	1849.4
42.5°	1730.2	1730.2	1725.8	1721.4	1712.5	1716.9	1708.1	1699.3	1681.6	1668.4	1659.6
45°	1536.0	1536.0	1536.0	1540.5	1531.6	1518.4	1518.4	1509.6	1500.6	1491.8	1478.6
47.5°	1363.9	1377.1	1368.3	1363.9	1368.3	1350.6	1350.6	1341.8	1333.0	1324.2	1306.5
50°	1222.6	1222.6	1222.6	1213.9	1209.3	1209.3	1196.1	1187.3	1182.9	1174.0	1156.4
52.5°	1094.6	1085.8	1085.8	1081.4	1077.0	1068.2	1068.2	1059.3	1041.7	1032.9	1019.6
55°	966.7	966.7	962.3	957.7	953.3	948.9	944.5	931.3	922.4	909.2	896.0
57.5°	851.9	860.7	856.3	847.4	838.6	838.6	829.8	821.0	807.7	794.5	781.3
60°	759.2	754.8	754.8	750.4	741.5	737.1	732.7	719.5	706.3	692.9	679.8
62.5°	662.0	662.0	662.0	653.2	644.4	640.0	635.6	626.7	609.1	595.8	587.0
65°	578.2	573.8	569.4	565.0	560.5	551.7	547.3	538.5	525.3	512.0	498.8
67.5°	494.4	490.0	490.0	485.5	472.3	467.9	467.9	454.7	441.4	428.2	414.8
70°	410.4	410.4	410.4	401.6	397.2	392.8	388.4	379.5	366.3	353.1	339.8
72.5°	339.8	335.4	335.4	331.0	317.8	313.4	309.0	300.1	286.9	278.1	269.2
75°	264.8	264.8	260.4	256.0	251.6	247.2	242.8	233.9	220.7	207.5	203.1
77.5°	203.1	198.6	198.6	194.2	185.4	181.0	181.0	172.2	158.9	150.1	141.3
80°	136.9	141.3	136.9	132.5	128.1	123.5	119.1	114.7	105.9	97.1	88.2
82.5°	83.8	88.2	83.8	83.8	79.4	75.0	75.0	66.2	61.8	57.4	52.9
85°	44.1	44.1	44.1	44.1	39.7	39.7	39.7	35.3	30.9	26.5	26.5
87.5°	13.2	17.6	13.2	13.2	13.2	13.2	13.2	13.2	8.8	8.8	8.8
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: P585296

CATALOG NUMBER: HC880D010-HM86080935-81RWWC

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9
2.5°	3319.2	3314.8	3310.3	3310.3	3310.3	3310.3	3310.3	3305.9	3301.5	3301.5	3301.5
5°	3310.3	3310.3	3310.3	3305.9	3301.5	3301.5	3292.7	3288.3	3283.9	3279.5	3275.0
7.5°	3301.5	3292.7	3288.3	3283.9	3279.5	3279.5	3270.6	3261.8	3261.8	3253.0	3244.2
10°	3275.0	3270.6	3261.8	3253.0	3248.6	3244.2	3235.3	3222.1	3217.7	3208.9	3200.0
12.5°	3244.2	3235.3	3226.5	3208.9	3204.5	3200.0	3182.4	3169.2	3160.2	3155.8	3133.8
15°	3204.5	3186.8	3173.6	3151.4	3147.0	3138.2	3124.9	3111.7	3094.0	3080.8	3072.0
17.5°	3133.8	3116.1	3094.0	3072.0	3063.2	3063.2	3041.1	3023.5	3001.4	2992.6	2974.9
20°	3049.9	3027.9	3010.2	2983.7	2970.5	2957.3	2944.0	2917.6	2899.9	2886.7	2864.5
22.5°	2952.9	2922.0	2899.9	2873.3	2851.3	2838.0	2816.0	2793.9	2771.9	2758.6	2741.0
25°	2829.2	2802.7	2767.4	2741.0	2727.7	2710.1	2683.6	2661.6	2639.5	2617.3	2608.5
27.5°	2692.4	2657.1	2626.3	2595.3	2582.0	2568.8	2537.9	2511.4	2493.8	2471.7	2462.9
30°	2542.3	2507.0	2471.7	2445.3	2432.0	2410.0	2392.3	2361.4	2339.4	2321.6	2299.6
32.5°	2370.2	2343.8	2312.8	2273.1	2264.3	2246.6	2220.1	2206.9	2180.4	2167.2	2149.5
35°	2184.8	2167.2	2136.3	2105.4	2092.2	2083.4	2061.3	2034.7	2017.1	2003.8	1995.0
37.5°	2008.2	1986.2	1955.3	1933.2	1924.4	1911.2	1884.7	1871.5	1853.8	1845.0	1827.3
40°	1818.5	1796.5	1774.3	1761.1	1747.8	1739.0	1721.4	1708.1	1690.5	1677.2	1672.8
42.5°	1633.1	1619.9	1602.2	1584.6	1580.2	1566.9	1558.1	1544.9	1531.6	1527.2	1514.0
45°	1465.3	1452.1	1434.5	1416.8	1412.4	1403.6	1399.2	1385.9	1377.1	1377.1	1377.1
47.5°	1297.7	1284.4	1266.8	1258.0	1262.4	1244.6	1244.6	1240.2	1231.4	1231.4	1235.8
50°	1147.6	1129.9	1125.5	1116.7	1107.9	1099.0	1103.4	1090.2	1090.2	1099.0	1094.6
52.5°	1006.4	988.7	984.3	975.5	971.1	971.1	966.7	966.7	962.3	966.7	966.7
55°	878.3	865.1	856.3	847.4	843.0	843.0	843.0	838.6	834.2	843.0	847.4
57.5°	763.6	759.2	750.4	737.1	732.7	728.3	723.9	723.9	723.9	723.9	728.3
60°	662.0	653.2	644.4	631.1	631.1	626.7	622.3	617.9	617.9	617.9	617.9
62.5°	573.8	560.5	547.3	538.5	534.1	529.7	525.3	516.4	516.4	516.4	516.4
65°	485.5	472.3	463.5	454.7	445.8	445.8	437.0	432.6	423.8	419.4	410.4
67.5°	401.6	392.8	384.0	370.7	366.3	361.9	353.1	348.7	335.4	331.0	326.6
70°	326.6	313.4	304.5	295.7	291.3	282.5	273.7	264.8	256.0	247.2	238.4
72.5°	256.0	242.8	233.9	225.1	216.3	216.3	203.1	194.2	181.0	172.2	158.9
75°	189.8	176.6	167.8	154.5	150.1	145.7	132.5	123.5	110.3	97.1	88.2
77.5°	128.1	119.1	110.3	97.1	88.2	88.2	75.0	66.2	57.4	44.1	39.7
80°	79.4	70.6	61.8	52.9	52.9	44.1	39.7	30.9	22.1	17.6	13.2
82.5°	44.1	39.7	35.3	26.5	26.5	22.1	17.6	13.2	8.8	4.4	4.4
85°	22.1	17.6	13.2	13.2	8.8	8.8	8.8	4.4	4.4	0.0	0.0
87.5°	8.8	4.4	4.4	4.4	4.4	4.4	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: P585296

CATALOG NUMBER: HC880D010-HM86080935-81RWWC

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9
2.5°	3297.1	3297.1	3292.7	3292.7	3292.7	3288.3	3292.7	3288.3	3288.3	3288.3	3292.7
5°	3279.5	3270.6	3270.6	3266.2	3266.2	3261.8	3266.2	3261.8	3257.4	3253.0	3257.4
7.5°	3244.2	3235.3	3230.9	3226.5	3226.5	3226.5	3222.1	3217.7	3222.1	3208.9	3217.7
10°	3195.6	3191.2	3182.4	3178.0	3173.6	3178.0	3173.6	3164.6	3164.6	3164.6	3160.2
12.5°	3133.8	3124.9	3120.5	3116.1	3107.3	3107.3	3111.7	3102.9	3102.9	3094.0	3094.0
15°	3058.7	3049.9	3041.1	3041.1	3032.3	3032.3	3027.9	3027.9	3023.5	3019.0	3019.0
17.5°	2966.1	2952.9	2944.0	2948.4	2944.0	2939.6	2939.6	2930.8	2926.4	2930.8	2930.8
20°	2855.7	2846.9	2838.0	2842.5	2833.6	2829.2	2833.6	2820.4	2824.8	2824.8	2824.8
22.5°	2732.1	2727.7	2714.5	2714.5	2705.7	2701.3	2705.7	2705.7	2710.1	2705.7	2705.7
25°	2595.3	2586.4	2577.6	2577.6	2573.2	2568.8	2573.2	2577.6	2573.2	2577.6	2577.6
27.5°	2449.7	2436.4	2436.4	2427.6	2427.6	2432.0	2427.6	2432.0	2436.4	2436.4	2445.3
30°	2290.7	2286.3	2281.9	2277.5	2277.5	2281.9	2281.9	2281.9	2286.3	2295.1	2295.1
32.5°	2140.7	2131.9	2123.1	2123.1	2131.9	2127.5	2131.9	2131.9	2140.7	2140.7	2149.5
35°	1977.4	1977.4	1968.5	1973.0	1973.0	1973.0	1973.0	1981.8	1990.6	1995.0	2003.8
37.5°	1827.3	1814.1	1818.5	1818.5	1822.9	1818.5	1831.8	1831.8	1840.6	1840.6	1849.4
40°	1664.0	1664.0	1668.4	1664.0	1668.4	1668.4	1677.2	1686.1	1690.5	1699.3	1703.7
42.5°	1509.6	1518.4	1509.6	1514.0	1518.4	1522.8	1527.2	1531.6	1549.3	1558.1	1571.3
45°	1368.3	1372.7	1377.1	1381.5	1377.1	1385.9	1390.3	1399.2	1412.4	1416.8	1421.2
47.5°	1231.4	1235.8	1240.2	1244.6	1244.6	1253.6	1258.0	1266.8	1275.6	1280.0	1284.4
50°	1099.0	1107.9	1112.3	1112.3	1116.7	1125.5	1134.3	1134.3	1143.2	1156.4	1160.8
52.5°	979.9	979.9	988.7	993.1	997.6	997.6	1010.8	1015.2	1019.6	1028.4	1037.3
55°	847.4	860.7	865.1	865.1	873.9	882.7	887.2	891.6	891.6	909.2	909.2
57.5°	732.7	737.1	746.0	746.0	746.0	759.2	759.2	768.0	772.4	776.8	785.7
60°	617.9	626.7	626.7	631.1	626.7	635.6	640.0	648.8	653.2	657.6	662.0
62.5°	512.0	512.0	516.4	516.4	516.4	516.4	525.3	525.3	534.1	538.5	542.9
65°	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	414.8	414.8	423.8
67.5°	317.8	313.4	304.5	309.0	304.5	304.5	300.1	300.1	304.5	304.5	313.4
70°	229.5	225.1	216.3	216.3	211.9	207.5	203.1	198.6	194.2	194.2	194.2
72.5°	150.1	141.3	128.1	123.5	123.5	114.7	105.9	101.5	101.5	101.5	101.5
75°	75.0	66.2	57.4	52.9	52.9	44.1	48.5	44.1	44.1	44.1	44.1
77.5°	30.9	22.1	17.6	17.6	17.6	13.2	13.2	13.2	13.2	13.2	13.2
80°	8.8	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
82.5°	4.4	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: P585296

CATALOG NUMBER: HC880D010-HM86080935-81RWWC

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9	3305.9
2.5°	3288.3	3288.3	3279.5	3283.9	3283.9	3283.9	3283.9	3283.9
5°	3248.6	3253.0	3248.6	3253.0	3253.0	3248.6	3248.6	3248.6
7.5°	3208.9	3213.3	3208.9	3213.3	3213.3	3213.3	3208.9	3208.9
10°	3160.2	3160.2	3160.2	3160.2	3160.2	3155.8	3160.2	3160.2
12.5°	3094.0	3094.0	3094.0	3098.5	3098.5	3094.0	3094.0	3089.6
15°	3023.5	3014.6	3019.0	3023.5	3019.0	3019.0	3019.0	3019.0
17.5°	2926.4	2930.8	2926.4	2926.4	2926.4	2926.4	2930.8	2926.4
20°	2824.8	2824.8	2829.2	2824.8	2824.8	2824.8	2824.8	2820.4
22.5°	2710.1	2705.7	2705.7	2710.1	2710.1	2705.7	2710.1	2710.1
25°	2582.0	2586.4	2582.0	2582.0	2586.4	2586.4	2586.4	2582.0
27.5°	2445.3	2449.7	2454.1	2449.7	2449.7	2449.7	2454.1	2458.5
30°	2304.0	2312.8	2304.0	2304.0	2312.8	2308.4	2312.8	2312.8
32.5°	2153.9	2167.2	2158.4	2167.2	2167.2	2171.6	2167.2	2171.6
35°	2003.8	2017.1	2017.1	2017.1	2021.5	2025.9	2025.9	2021.5
37.5°	1862.6	1867.1	1867.1	1875.9	1880.3	1884.7	1884.7	1880.3
40°	1716.9	1725.8	1730.2	1730.2	1730.2	1739.0	1747.8	1739.0
42.5°	1575.8	1580.2	1584.6	1584.6	1593.4	1597.8	1602.2	1602.2
45°	1438.9	1447.7	1452.1	1456.5	1460.9	1469.8	1465.3	1474.2
47.5°	1297.7	1310.9	1315.3	1319.7	1328.6	1333.0	1337.4	1341.8
50°	1169.6	1178.5	1178.5	1187.3	1200.5	1200.5	1209.3	1213.9
52.5°	1041.7	1046.1	1050.5	1054.9	1063.7	1072.6	1072.6	1081.4
55°	918.0	922.4	922.4	926.9	931.3	948.9	953.3	953.3
57.5°	790.1	790.1	798.9	803.3	807.7	816.6	816.6	816.6
60°	666.4	671.0	671.0	675.4	679.8	688.5	692.9	688.5
62.5°	542.9	547.3	547.3	551.7	560.5	565.0	560.5	560.5
65°	428.2	432.6	432.6	437.0	445.8	445.8	441.4	445.8
67.5°	313.4	313.4	313.4	313.4	313.4	313.4	313.4	313.4
70°	198.6	194.2	189.8	194.2	194.2	194.2	189.8	198.6
72.5°	97.1	101.5	101.5	101.5	101.5	101.5	101.5	97.1
75°	44.1	44.1	39.7	39.7	39.7	44.1	44.1	39.7
77.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
80°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
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)