

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: P585014

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P585014
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC855D010-HM82555930-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4343.9 lumens
Efficiency: N/A
Efficacy: 83.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.07 / 1.16
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

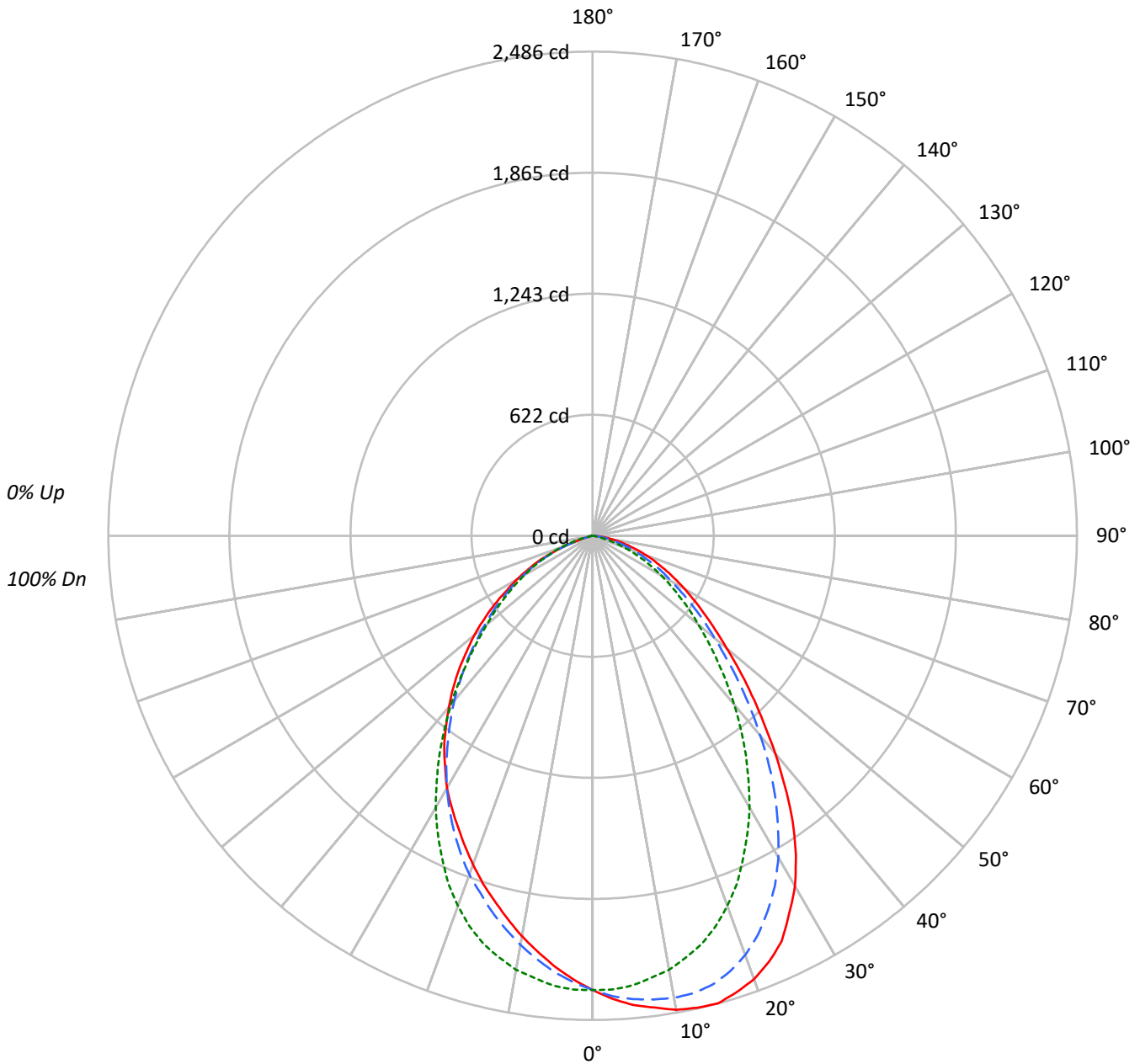
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	63	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	47																			
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43																			
8	66	54	46	41	65	53	46	41	52	46	41	51	45	41	50	44	40	39																			
9	62	50	43	37	61	50	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	71910	71910	71910
5°	74884	71755	68734
10°	77388	70837	65379
15°	79347	69218	61987
20°	79498	66346	58913
25°	78160	62148	55864
30°	73976	57341	53250
35°	67451	51573	49995
40°	58654	45467	46163
45°	50316	39370	42262
50°	42979	33950	37961
55°	37665	29235	32983
60°	33538	24934	27734
65°	29762	20343	22130
70°	26399	15093	12577
75°	22006	7887	3741
80°	17332	2468	622
85°	12312	1238	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.7	5.1
10°-20°	615.9	14.2
20°-30°	871.7	20.1
30°-40°	912.0	21.0
40°-50°	760.7	17.5
50°-60°	539.4	12.4
60°-70°	310.7	7.2
70°-80°	100.0	2.3
80°-90°	13.8	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°	1707.4	39.3
0°-40°	2619.4	60.3
0°-60°	3919.5	90.2
0°-90°	4343.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4343.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2332	2332	2332	2332	2332	
5°	2419	2388	2318	2248	2220	232
15°	2486	2384	2168	1997	1942	699
25°	2297	2126	1827	1680	1642	1048
35°	1792	1635	1370	1297	1328	1111
45°	1154	1060	903	913	969	894
55°	701	628	544	572	614	633
65°	408	342	279	279	303	408
75°	185	136	66	31	31	200
85°	35	18	4	0	0	44
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°	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0
2.5°	2380.8	2377.4	2373.9	2377.4	2373.9	2377.4	2373.9	2373.9	2370.4	2366.9	2366.9
5°	2419.2	2415.7	2415.7	2415.7	2412.2	2408.7	2408.7	2405.3	2398.3	2394.7	2387.8
7.5°	2443.6	2447.1	2447.1	2447.1	2440.1	2440.1	2433.2	2426.2	2419.2	2412.2	2401.8
10°	2471.5	2471.5	2468.0	2464.5	2457.6	2454.1	2450.5	2443.6	2433.2	2419.2	2408.7
12.5°	2481.9	2481.9	2478.4	2471.5	2468.0	2464.5	2461.1	2450.5	2436.6	2419.2	2405.3
15°	2485.5	2478.4	2475.0	2471.5	2464.5	2454.1	2454.1	2440.1	2422.6	2401.8	2384.3
17.5°	2457.6	2461.1	2454.1	2447.1	2436.6	2429.7	2419.2	2408.7	2387.8	2363.5	2346.0
20°	2422.6	2419.2	2415.7	2405.3	2391.3	2387.8	2377.4	2359.9	2342.5	2314.6	2290.2
22.5°	2366.9	2363.5	2356.4	2349.5	2335.6	2328.5	2318.1	2297.2	2272.7	2244.8	2217.1
25°	2297.2	2290.2	2279.8	2265.8	2255.4	2248.4	2234.4	2213.6	2185.7	2154.3	2126.4
27.5°	2185.7	2196.1	2189.2	2168.2	2157.8	2143.8	2140.3	2112.4	2088.0	2056.6	2025.3
30°	2077.6	2077.6	2067.2	2056.6	2039.3	2028.7	2014.8	1993.9	1969.5	1931.2	1906.7
32.5°	1941.7	1938.1	1924.2	1920.7	1906.7	1885.9	1882.3	1854.5	1830.1	1802.2	1770.8
35°	1791.8	1784.7	1770.8	1760.3	1753.4	1742.9	1732.5	1708.1	1683.7	1655.8	1634.8
37.5°	1620.9	1620.9	1617.5	1600.0	1593.1	1586.1	1575.6	1551.3	1537.3	1509.4	1488.4
40°	1457.1	1453.6	1443.2	1439.7	1432.7	1422.2	1415.3	1401.4	1380.4	1359.5	1338.5
42.5°	1296.7	1300.2	1286.3	1289.8	1275.8	1268.8	1265.4	1244.4	1234.0	1213.1	1195.7
45°	1153.8	1150.3	1143.4	1139.9	1132.9	1125.9	1118.9	1108.5	1091.1	1070.2	1059.7
47.5°	1021.4	1010.8	1010.8	1007.5	1003.9	990.0	986.5	976.0	965.6	944.6	930.7
50°	895.9	895.9	895.9	892.4	881.9	878.4	871.5	861.1	850.5	836.6	815.7
52.5°	794.7	794.7	794.7	791.3	777.4	773.9	770.4	756.4	742.5	732.0	718.1
55°	700.6	704.1	700.6	693.7	683.3	683.3	672.7	665.8	651.9	641.4	627.5
57.5°	620.5	620.5	613.5	610.0	603.1	599.6	592.6	585.6	568.2	557.8	540.3
60°	543.8	540.3	540.3	533.4	526.3	519.4	515.9	505.5	498.5	481.1	467.2
62.5°	474.1	474.1	467.2	467.2	453.2	453.2	449.7	439.3	428.7	411.4	404.3
65°	407.9	407.9	404.3	400.8	390.4	386.9	383.5	372.9	362.5	352.1	341.6
67.5°	348.6	348.6	341.6	338.1	331.2	327.7	320.7	313.7	303.3	292.8	282.3
70°	292.8	289.4	285.9	282.3	275.4	271.9	264.9	258.0	247.5	240.5	230.1
72.5°	237.1	237.1	233.6	226.5	223.1	219.6	216.1	209.2	198.7	188.2	181.3
75°	184.7	184.7	184.7	177.8	170.8	167.4	167.4	160.3	153.4	142.9	136.0
77.5°	142.9	139.5	136.0	136.0	128.9	125.5	122.0	118.5	108.1	104.5	97.6
80°	97.6	101.1	97.6	94.1	90.6	87.2	87.2	80.2	76.6	69.7	62.7
82.5°	66.2	62.7	62.7	59.3	59.3	55.8	55.8	48.8	45.4	41.8	38.3
85°	34.8	34.8	31.4	31.4	31.4	27.9	27.9	24.4	24.4	20.9	17.5
87.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	6.9	6.9	6.9
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°	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0
2.5°	2363.5	2356.4	2353.0	2353.0	2349.5	2346.0	2342.5	2339.1	2332.0	2332.0	2325.1
5°	2380.8	2373.9	2370.4	2359.9	2353.0	2353.0	2339.1	2335.6	2325.1	2318.1	2311.2
7.5°	2394.7	2380.8	2370.4	2359.9	2353.0	2346.0	2332.0	2318.1	2304.2	2290.2	2283.3
10°	2394.7	2380.8	2363.5	2346.0	2339.1	2332.0	2314.6	2293.7	2276.3	2262.3	2244.8
12.5°	2387.8	2366.9	2346.0	2332.0	2318.1	2307.7	2286.7	2265.8	2244.8	2217.1	2203.1
15°	2366.9	2339.1	2318.1	2293.7	2283.3	2265.8	2248.4	2217.1	2192.6	2168.2	2150.7
17.5°	2325.1	2290.2	2265.8	2241.4	2224.0	2213.6	2185.7	2157.8	2129.9	2102.0	2081.1
20°	2262.3	2231.0	2203.1	2171.7	2157.8	2143.8	2109.0	2081.1	2053.2	2021.8	2000.8
22.5°	2185.7	2154.3	2115.9	2091.6	2070.6	2053.2	2021.8	1990.4	1962.5	1934.6	1906.7
25°	2091.6	2060.1	2025.3	1987.0	1973.1	1955.6	1920.7	1889.4	1858.0	1826.6	1802.2
27.5°	1990.4	1948.6	1920.7	1878.8	1864.9	1847.5	1809.2	1774.3	1746.4	1722.0	1694.1
30°	1868.4	1837.1	1798.7	1760.3	1746.4	1729.1	1697.6	1666.2	1638.3	1610.4	1582.6
32.5°	1736.0	1704.6	1666.2	1638.3	1617.5	1603.5	1572.1	1544.2	1516.3	1488.4	1464.1
35°	1596.5	1561.7	1533.8	1505.9	1488.4	1471.1	1439.7	1415.3	1394.3	1370.0	1345.6
37.5°	1453.6	1429.3	1401.4	1370.0	1352.5	1338.5	1314.2	1286.3	1268.8	1247.9	1230.5
40°	1314.2	1286.3	1261.9	1234.0	1220.1	1209.6	1185.2	1164.3	1146.8	1129.5	1118.9
42.5°	1171.3	1146.8	1122.4	1105.1	1094.5	1084.1	1066.6	1042.3	1031.8	1014.4	1003.9
45°	1038.7	1017.9	1000.4	976.0	969.1	962.1	941.2	923.8	913.3	902.8	895.9
47.5°	913.3	899.4	878.4	864.5	854.0	847.1	833.2	819.2	808.7	801.8	794.7
50°	805.3	787.8	773.9	759.9	752.9	742.5	728.5	721.6	714.6	707.7	707.7
52.5°	704.1	686.7	672.7	662.3	655.4	648.4	637.9	634.4	627.5	627.5	624.0
55°	610.0	599.6	585.6	571.7	568.2	564.7	557.8	550.7	547.3	543.8	547.3
57.5°	529.9	519.4	505.5	495.1	491.5	488.0	484.5	477.6	474.1	474.1	474.1
60°	456.6	446.2	435.7	425.3	425.3	418.3	414.8	411.4	407.9	404.3	404.3
62.5°	390.4	380.0	369.5	362.5	359.1	355.6	348.6	345.2	341.6	341.6	338.1
65°	331.2	317.3	313.7	303.3	299.8	296.3	292.8	285.9	282.3	278.8	275.4
67.5°	271.9	264.9	254.4	247.5	244.0	240.5	237.1	230.1	226.5	223.1	216.1
70°	219.6	212.6	205.7	198.7	195.3	191.7	184.7	177.8	174.3	167.4	156.8
72.5°	170.8	163.8	156.8	149.9	146.4	142.9	136.0	128.9	122.0	115.1	108.1
75°	128.9	122.0	111.6	104.5	101.1	101.1	90.6	83.7	76.6	66.2	59.3
77.5°	90.6	80.2	76.6	69.7	66.2	59.3	52.3	45.4	38.3	34.8	27.9
80°	59.3	52.3	45.4	41.8	38.3	34.8	31.4	24.4	17.5	13.9	10.4
82.5°	34.8	31.4	27.9	24.4	20.9	17.5	13.9	13.9	10.4	6.9	3.5
85°	17.5	13.9	10.4	10.4	6.9	6.9	6.9	3.5	3.5	3.5	3.5
87.5°	6.9	3.5	3.5	3.5	3.5	3.5	3.5	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°	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0
2.5°	2321.6	2318.1	2314.6	2311.2	2311.2	2304.2	2304.2	2300.6	2293.7	2290.2	2290.2
5°	2300.6	2290.2	2283.3	2279.8	2276.3	2265.8	2262.3	2255.4	2248.4	2241.4	2237.9
7.5°	2269.3	2251.9	2244.8	2241.4	2231.0	2220.5	2213.6	2203.1	2192.6	2182.1	2178.6
10°	2231.0	2213.6	2196.1	2189.2	2178.6	2171.7	2157.8	2143.8	2133.4	2122.8	2112.4
12.5°	2182.1	2161.3	2143.8	2136.8	2126.4	2112.4	2091.6	2084.5	2067.2	2060.1	2046.2
15°	2126.4	2102.0	2084.5	2074.1	2063.7	2042.7	2028.7	2014.8	1997.4	1990.4	1976.5
17.5°	2056.6	2028.7	2011.4	2000.8	1993.9	1976.5	1955.6	1938.1	1920.7	1913.8	1903.3
20°	1973.1	1955.6	1931.2	1920.7	1913.8	1892.8	1871.9	1864.9	1851.1	1837.1	1826.6
22.5°	1878.8	1861.5	1837.1	1826.6	1823.2	1805.7	1788.2	1777.8	1767.4	1756.8	1746.4
25°	1781.3	1760.3	1739.5	1732.5	1725.5	1711.6	1697.6	1690.6	1680.2	1673.3	1666.2
27.5°	1676.7	1655.8	1638.3	1627.9	1620.9	1610.4	1603.5	1596.5	1589.6	1582.6	1579.2
30°	1565.2	1544.2	1530.3	1523.4	1516.3	1512.8	1502.4	1498.9	1495.5	1488.4	1492.0
32.5°	1453.6	1436.2	1422.2	1411.8	1411.8	1404.8	1401.4	1401.4	1397.8	1397.8	1397.8
35°	1331.6	1321.2	1310.6	1307.2	1303.7	1300.2	1296.7	1300.2	1296.7	1300.2	1303.7
37.5°	1220.1	1209.6	1202.6	1199.2	1195.7	1199.2	1195.7	1195.7	1199.2	1206.1	1209.6
40°	1105.1	1098.0	1091.1	1094.5	1091.1	1091.1	1091.1	1101.6	1105.1	1108.5	1112.0
42.5°	996.9	990.0	986.5	986.5	990.0	986.5	993.5	996.9	1003.9	1014.4	1021.4
45°	892.4	888.8	888.8	892.4	888.8	895.9	895.9	902.8	913.3	920.3	927.3
47.5°	794.7	794.7	794.7	798.2	798.2	801.8	808.7	812.2	819.2	826.1	833.2
50°	704.1	707.7	711.2	711.2	711.2	718.1	725.1	728.5	732.0	735.5	746.0
52.5°	624.0	627.5	627.5	630.9	634.4	637.9	641.4	648.4	651.9	658.8	662.3
55°	547.3	547.3	554.2	557.8	557.8	557.8	564.7	564.7	571.7	575.2	582.1
57.5°	474.1	477.6	477.6	481.1	481.1	484.5	488.0	491.5	495.1	498.5	502.0
60°	404.3	404.3	404.3	407.9	411.4	414.8	411.4	418.3	418.3	425.3	428.7
62.5°	338.1	341.6	341.6	341.6	341.6	341.6	341.6	345.2	348.6	352.1	355.6
65°	275.4	275.4	275.4	271.9	275.4	271.9	275.4	278.8	278.8	282.3	285.9
67.5°	212.6	212.6	205.7	205.7	209.2	209.2	209.2	209.2	205.7	212.6	212.6
70°	153.4	149.9	146.4	142.9	142.9	139.5	139.5	136.0	136.0	136.0	136.0
72.5°	101.1	94.1	87.2	83.7	80.2	80.2	73.2	69.7	73.2	73.2	73.2
75°	52.3	45.4	41.8	38.3	34.8	34.8	31.4	31.4	31.4	31.4	31.4
77.5°	20.9	17.5	13.9	13.9	10.4	10.4	10.4	10.4	10.4	10.4	10.4
80°	6.9	6.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
85°	3.5	0.0	0.0	3.5	0.0	3.5	3.5	3.5	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: P585014

CATALOG NUMBER: HC855D010-HM82555930-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0	2332.0
2.5°	2286.7	2286.7	2283.3	2286.7	2279.8	2283.3	2279.8	2279.8
5°	2234.4	2227.5	2227.5	2227.5	2224.0	2224.0	2220.5	2220.5
7.5°	2171.7	2168.2	2164.7	2161.3	2157.8	2154.3	2154.3	2154.3
10°	2109.0	2102.0	2102.0	2098.5	2091.6	2088.0	2088.0	2088.0
12.5°	2035.8	2032.2	2028.7	2028.7	2014.8	2018.3	2014.8	2014.8
15°	1966.0	1962.5	1962.5	1952.1	1945.2	1945.2	1945.2	1941.7
17.5°	1892.8	1889.4	1885.9	1878.8	1871.9	1871.9	1868.4	1871.9
20°	1816.1	1812.6	1805.7	1805.7	1802.2	1798.7	1791.8	1795.3
22.5°	1739.5	1732.5	1729.1	1729.1	1725.5	1725.5	1718.5	1718.5
25°	1659.3	1655.8	1652.3	1655.8	1648.8	1648.8	1641.9	1641.9
27.5°	1575.6	1572.1	1572.1	1572.1	1568.6	1572.1	1568.6	1568.6
30°	1492.0	1492.0	1488.4	1488.4	1492.0	1488.4	1492.0	1495.5
32.5°	1401.4	1401.4	1404.8	1404.8	1408.3	1408.3	1408.3	1408.3
35°	1307.2	1314.2	1314.2	1317.7	1321.2	1324.6	1324.6	1328.1
37.5°	1220.1	1223.6	1227.1	1230.5	1237.5	1237.5	1237.5	1237.5
40°	1125.9	1129.5	1136.4	1132.9	1146.8	1150.3	1146.8	1146.8
42.5°	1028.3	1035.3	1038.7	1045.8	1049.3	1056.2	1059.7	1059.7
45°	937.7	941.2	948.1	955.2	958.6	969.1	969.1	969.1
47.5°	843.6	850.5	854.0	861.1	864.5	874.9	878.4	874.9
50°	752.9	759.9	766.8	766.8	777.4	780.8	787.8	791.3
52.5°	665.8	669.3	676.2	679.8	686.7	693.7	697.2	700.6
55°	582.1	585.6	592.6	592.6	603.1	606.5	613.5	613.5
57.5°	505.5	508.9	515.9	512.4	519.4	526.3	526.3	522.8
60°	432.2	432.2	432.2	439.3	442.7	446.2	449.7	449.7
62.5°	355.6	362.5	366.0	366.0	369.5	372.9	372.9	369.5
65°	285.9	292.8	296.3	296.3	299.8	299.8	299.8	303.3
67.5°	216.1	216.1	216.1	219.6	216.1	216.1	216.1	216.1
70°	136.0	136.0	136.0	136.0	132.4	136.0	136.0	139.5
72.5°	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
75°	31.4	31.4	31.4	34.8	31.4	31.4	31.4	31.4
77.5°	13.9	10.4	13.9	13.9	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°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
85°	0.0	3.5	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)