

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: P584725

Luminaire Tested: **HC845D010-HM82555927-81WWBB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584725
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: HC845D010-HM82555927-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3308.5 lumens
Efficiency: N/A
Efficacy: 75.2 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

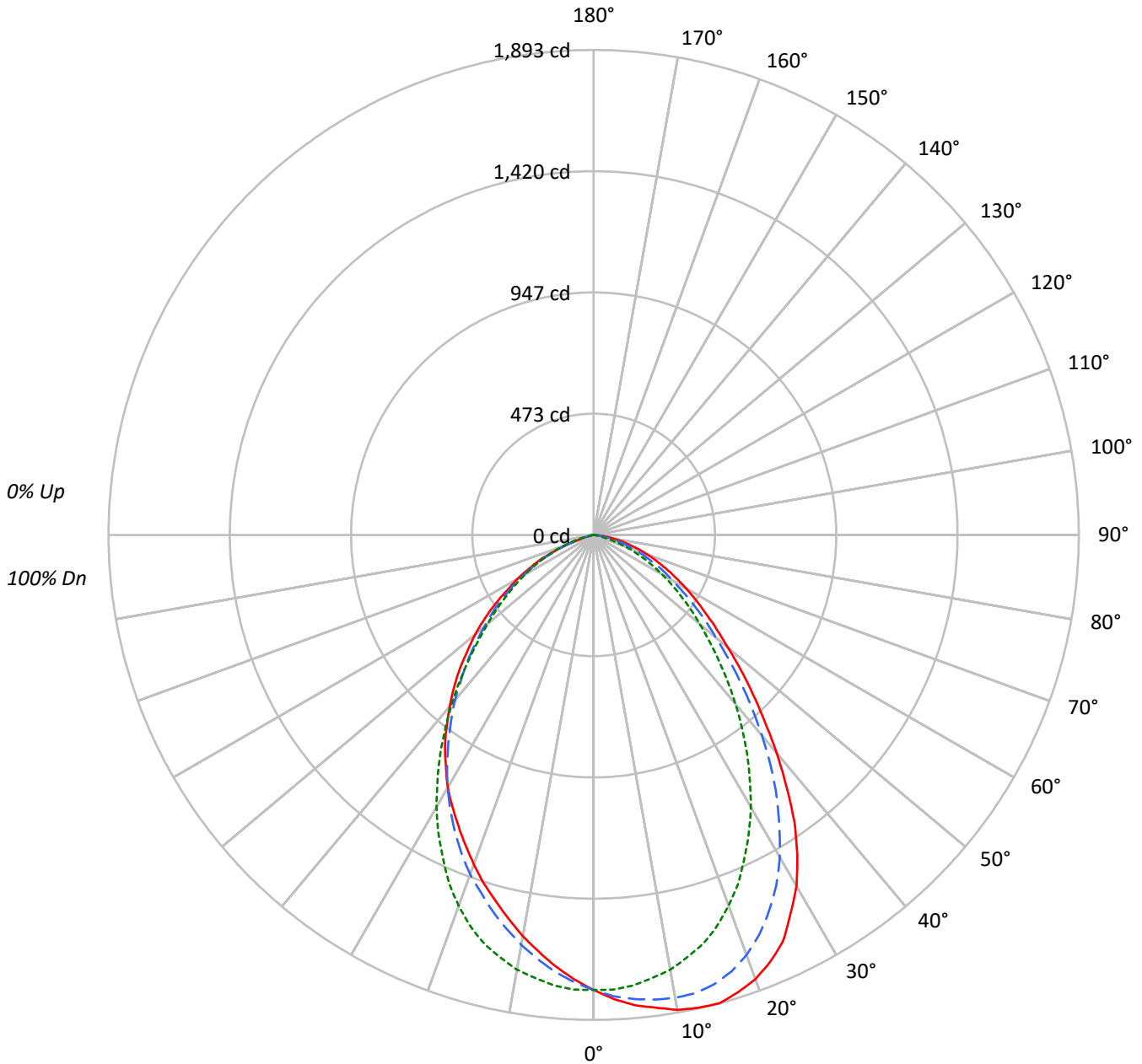
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P584725

CATALOG NUMBER: HC845D010-HM82555927-81WWBB

Luminous Intensity Polar Plot





TEST NUMBER: P584725

CATALOG NUMBER: HC845D010-HM82555927-81WWBB

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	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°	54771	54771	54771
5°	57033	54653	52350
10°	58942	53954	49799
15°	60432	52723	47209
20°	60551	50532	44872
25°	59529	47334	42547
30°	56344	43675	40556
35°	51373	39278	38081
40°	44674	34630	35162
45°	38324	29986	32188
50°	32732	25857	28913
55°	28687	22268	25123
60°	25545	18995	21123
65°	22663	15498	16855
70°	20106	11486	9575
75°	16775	6005	2848
80°	13212	1900	479
85°	9376	955	0



TEST NUMBER: P584725

CATALOG NUMBER: HC845D010-HM82555927-81WWBB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.4	5.1
10°-20°	469.1	14.2
20°-30°	664.0	20.1
30°-40°	694.6	21.0
40°-50°	579.4	17.5
50°-60°	410.8	12.4
60°-70°	236.6	7.2
70°-80°	76.1	2.3
80°-90°	10.5	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°	1300.4	39.3
0°-40°	1995.0	60.3
0°-60°	2985.3	90.2
0°-90°	3308.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3308.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1776	1776	1776	1776	1776	
5°	1842	1819	1766	1712	1691	177
15°	1893	1816	1652	1521	1479	532
25°	1750	1620	1391	1280	1250	798
35°	1365	1245	1043	988	1012	846
45°	879	807	688	696	738	681
55°	534	478	414	435	467	482
65°	311	260	212	212	231	310
75°	141	104	50	24	24	153
85°	26	13	3	0	0	33
90°	0	0	0	0	0	



TEST NUMBER: P584725

CATALOG NUMBER: HC845D010-HM82555927-81WWBB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2
2.5°	1813.3	1810.8	1808.1	1810.8	1808.1	1810.8	1808.1	1808.1	1805.4	1802.8	1802.8
5°	1842.5	1840.0	1840.0	1840.0	1837.3	1834.6	1834.6	1832.0	1826.6	1824.0	1818.7
7.5°	1861.2	1863.8	1863.8	1863.8	1858.5	1858.5	1853.2	1847.8	1842.5	1837.3	1829.3
10°	1882.4	1882.4	1879.7	1877.0	1871.8	1869.2	1866.5	1861.2	1853.2	1842.5	1834.6
12.5°	1890.4	1890.4	1887.7	1882.4	1879.7	1877.0	1874.5	1866.5	1855.8	1842.5	1832.0
15°	1893.0	1887.7	1885.0	1882.4	1877.0	1869.2	1869.2	1858.5	1845.2	1829.3	1816.0
17.5°	1871.8	1874.5	1869.2	1863.8	1855.8	1850.5	1842.5	1834.6	1818.7	1800.1	1786.8
20°	1845.2	1842.5	1840.0	1832.0	1821.3	1818.7	1810.8	1797.4	1784.1	1762.9	1744.4
22.5°	1802.8	1800.1	1794.8	1789.5	1778.9	1773.6	1765.6	1749.6	1731.1	1709.8	1688.5
25°	1749.6	1744.4	1736.4	1725.7	1717.7	1712.5	1701.9	1686.0	1664.7	1640.8	1619.6
27.5°	1664.7	1672.7	1667.3	1651.5	1643.5	1632.8	1630.1	1608.9	1590.4	1566.4	1542.6
30°	1582.4	1582.4	1574.4	1566.4	1553.2	1545.2	1534.6	1518.7	1500.0	1470.8	1452.3
32.5°	1478.8	1476.2	1465.5	1463.0	1452.3	1436.3	1433.8	1412.4	1393.9	1372.6	1348.7
35°	1364.7	1359.4	1348.7	1340.7	1335.5	1327.5	1319.5	1301.0	1282.3	1261.1	1245.1
37.5°	1234.6	1234.6	1231.9	1218.6	1213.4	1208.1	1200.1	1181.4	1170.9	1149.7	1133.7
40°	1109.8	1107.2	1099.2	1096.5	1091.2	1083.3	1078.0	1067.3	1051.4	1035.4	1019.6
42.5°	987.7	990.4	979.7	982.4	971.7	966.4	963.7	947.8	939.9	924.0	910.7
45°	878.8	876.1	870.8	868.1	862.9	857.6	852.3	844.3	831.1	815.1	807.1
47.5°	777.9	770.0	770.0	767.3	764.7	754.0	751.4	743.4	735.5	719.5	708.8
50°	682.3	682.3	682.3	679.6	671.7	669.1	663.8	655.8	647.8	637.2	621.2
52.5°	605.4	605.4	605.4	602.7	592.0	589.4	586.7	576.2	565.5	557.5	547.0
55°	533.6	536.3	533.6	528.3	520.3	520.3	512.4	507.1	496.5	488.6	477.9
57.5°	472.6	472.6	467.3	464.6	459.3	456.6	451.4	446.1	432.7	424.7	411.5
60°	414.2	411.5	411.5	406.2	400.9	395.7	393.0	385.0	379.7	366.4	355.8
62.5°	361.0	361.0	355.8	355.8	345.1	345.1	342.5	334.5	326.6	313.3	308.0
65°	310.6	310.6	308.0	305.3	297.4	294.7	292.1	284.1	276.1	268.1	260.2
67.5°	265.4	265.4	260.2	257.6	252.2	249.6	244.2	238.9	231.0	223.0	215.0
70°	223.0	220.4	217.7	215.0	209.7	207.0	201.8	196.5	188.5	183.2	175.2
72.5°	180.5	180.5	177.8	172.5	170.0	167.3	164.6	159.3	151.3	143.3	138.1
75°	140.8	140.8	140.8	135.4	130.1	127.4	127.4	122.1	116.8	108.9	103.6
77.5°	108.9	106.2	103.6	103.6	98.2	95.6	92.9	90.3	82.3	79.6	74.4
80°	74.4	76.9	74.4	71.7	69.0	66.4	66.4	61.1	58.4	53.1	47.7
82.5°	50.4	47.7	47.7	45.2	45.2	42.5	42.5	37.2	34.5	31.9	29.2
85°	26.5	26.5	23.9	23.9	23.9	21.2	21.2	18.5	18.5	16.0	13.3
87.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.3	5.3	5.3
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: P584725

CATALOG NUMBER: HC845D010-HM82555927-81WWBB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2
2.5°	1800.1	1794.8	1792.1	1792.1	1789.5	1786.8	1784.1	1781.6	1776.2	1776.2	1770.9
5°	1813.3	1808.1	1805.4	1797.4	1792.1	1792.1	1781.6	1778.9	1770.9	1765.6	1760.3
7.5°	1824.0	1813.3	1805.4	1797.4	1792.1	1786.8	1776.2	1765.6	1754.9	1744.4	1739.0
10°	1824.0	1813.3	1800.1	1786.8	1781.6	1776.2	1762.9	1746.9	1733.7	1723.1	1709.8
12.5°	1818.7	1802.8	1786.8	1776.2	1765.6	1757.6	1741.7	1725.7	1709.8	1688.5	1678.0
15°	1802.8	1781.6	1765.6	1746.9	1739.0	1725.7	1712.5	1688.5	1670.0	1651.5	1638.1
17.5°	1770.9	1744.4	1725.7	1707.2	1693.9	1686.0	1664.7	1643.5	1622.3	1600.9	1585.1
20°	1723.1	1699.2	1678.0	1654.0	1643.5	1632.8	1606.3	1585.1	1563.8	1539.9	1524.0
22.5°	1664.7	1640.8	1611.6	1593.1	1577.1	1563.8	1539.9	1516.0	1494.8	1473.5	1452.3
25°	1593.1	1569.1	1542.6	1513.4	1502.7	1489.5	1463.0	1439.0	1415.1	1391.2	1372.6
27.5°	1516.0	1484.2	1463.0	1431.1	1420.4	1407.1	1377.9	1351.4	1330.2	1311.5	1290.3
30°	1423.1	1399.2	1369.9	1340.7	1330.2	1316.9	1293.0	1269.1	1247.8	1226.6	1205.4
32.5°	1322.2	1298.3	1269.1	1247.8	1231.9	1221.3	1197.4	1176.2	1154.9	1133.7	1115.1
35°	1216.0	1189.4	1168.2	1147.0	1133.7	1120.4	1096.5	1078.0	1062.0	1043.4	1024.9
37.5°	1107.2	1088.5	1067.3	1043.4	1030.1	1019.6	1000.9	979.7	966.4	950.5	937.2
40°	1000.9	979.7	961.2	939.9	929.3	921.3	902.7	886.8	873.5	860.3	852.3
42.5°	892.1	873.5	854.9	841.6	833.7	825.7	812.4	793.9	785.9	772.7	764.7
45°	791.2	775.2	762.0	743.4	738.1	732.8	716.8	703.6	695.6	687.6	682.3
47.5°	695.6	685.0	669.1	658.4	650.4	645.2	634.6	623.9	615.9	610.7	605.4
50°	613.4	600.0	589.4	578.8	573.5	565.5	554.9	549.6	544.3	539.0	539.0
52.5°	536.3	523.0	512.4	504.5	499.1	493.8	485.9	483.2	477.9	477.9	475.3
55°	464.6	456.6	446.1	435.4	432.7	430.1	424.7	419.5	416.9	414.2	416.9
57.5°	403.5	395.7	385.0	377.0	374.3	371.7	369.0	363.7	361.0	361.0	361.0
60°	347.8	339.8	331.8	323.9	323.9	318.6	315.9	313.3	310.6	308.0	308.0
62.5°	297.4	289.4	281.4	276.1	273.4	270.8	265.4	262.9	260.2	260.2	257.6
65°	252.2	241.6	238.9	231.0	228.4	225.7	223.0	217.7	215.0	212.4	209.7
67.5°	207.0	201.8	193.8	188.5	185.8	183.2	180.5	175.2	172.5	170.0	164.6
70°	167.3	162.0	156.6	151.3	148.7	146.0	140.8	135.4	132.8	127.4	119.5
72.5°	130.1	124.8	119.5	114.1	111.6	108.9	103.6	98.2	92.9	87.6	82.3
75°	98.2	92.9	84.9	79.6	76.9	76.9	69.0	63.7	58.4	50.4	45.2
77.5°	69.0	61.1	58.4	53.1	50.4	45.2	39.9	34.5	29.2	26.5	21.2
80°	45.2	39.9	34.5	31.9	29.2	26.5	23.9	18.5	13.3	10.7	8.0
82.5°	26.5	23.9	21.2	18.5	16.0	13.3	10.7	10.7	8.0	5.3	2.7
85°	13.3	10.7	8.0	8.0	5.3	5.3	5.3	2.7	2.7	2.7	2.7
87.5°	5.3	2.7	2.7	2.7	2.7	2.7	2.7	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: P584725

CATALOG NUMBER: HC845D010-HM82555927-81WWBB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2
2.5°	1768.2	1765.6	1762.9	1760.3	1760.3	1754.9	1754.9	1752.3	1746.9	1744.4	1744.4
5°	1752.3	1744.4	1739.0	1736.4	1733.7	1725.7	1723.1	1717.7	1712.5	1707.2	1704.5
7.5°	1728.4	1715.2	1709.8	1707.2	1699.2	1691.2	1686.0	1678.0	1670.0	1662.0	1659.3
10°	1699.2	1686.0	1672.7	1667.3	1659.3	1654.0	1643.5	1632.8	1624.8	1616.9	1608.9
12.5°	1662.0	1646.1	1632.8	1627.5	1619.6	1608.9	1593.1	1587.7	1574.4	1569.1	1558.4
15°	1619.6	1600.9	1587.7	1579.7	1571.8	1555.9	1545.2	1534.6	1521.3	1516.0	1505.4
17.5°	1566.4	1545.2	1531.9	1524.0	1518.7	1505.4	1489.5	1476.2	1463.0	1457.6	1449.6
20°	1502.7	1489.5	1470.8	1463.0	1457.6	1441.6	1425.8	1420.4	1409.8	1399.2	1391.2
22.5°	1431.1	1417.8	1399.2	1391.2	1388.6	1375.3	1362.0	1354.0	1346.1	1338.2	1330.2
25°	1356.7	1340.7	1324.9	1319.5	1314.2	1303.6	1293.0	1287.7	1279.7	1274.3	1269.1
27.5°	1277.0	1261.1	1247.8	1239.9	1234.6	1226.6	1221.3	1216.0	1210.7	1205.4	1202.7
30°	1192.1	1176.2	1165.5	1160.2	1154.9	1152.2	1144.3	1141.7	1139.0	1133.7	1136.3
32.5°	1107.2	1093.8	1083.3	1075.3	1075.3	1070.0	1067.3	1067.3	1064.6	1064.6	1064.6
35°	1014.2	1006.2	998.2	995.6	992.9	990.4	987.7	990.4	987.7	990.4	992.9
37.5°	929.3	921.3	916.0	913.3	910.7	913.3	910.7	910.7	913.3	918.6	921.3
40°	841.6	836.3	831.1	833.7	831.1	831.1	831.1	838.9	841.6	844.3	846.9
42.5°	759.3	754.0	751.4	751.4	754.0	751.4	756.7	759.3	764.7	772.7	777.9
45°	679.6	677.1	677.1	679.6	677.1	682.3	682.3	687.6	695.6	700.9	706.3
47.5°	605.4	605.4	605.4	608.0	608.0	610.7	615.9	618.6	623.9	629.2	634.6
50°	536.3	539.0	541.6	541.6	541.6	547.0	552.2	554.9	557.5	560.2	568.2
52.5°	475.3	477.9	477.9	480.6	483.2	485.9	488.6	493.8	496.5	501.8	504.5
55°	416.9	416.9	422.2	424.7	424.7	424.7	430.1	430.1	435.4	438.1	443.4
57.5°	361.0	363.7	363.7	366.4	366.4	369.0	371.7	374.3	377.0	379.7	382.3
60°	308.0	308.0	308.0	310.6	313.3	315.9	313.3	318.6	318.6	323.9	326.6
62.5°	257.6	260.2	260.2	260.2	260.2	260.2	260.2	262.9	265.4	268.1	270.8
65°	209.7	209.7	209.7	207.0	209.7	207.0	209.7	212.4	212.4	215.0	217.7
67.5°	162.0	162.0	156.6	156.6	159.3	159.3	159.3	159.3	156.6	162.0	162.0
70°	116.8	114.1	111.6	108.9	108.9	106.2	106.2	103.6	103.6	103.6	103.6
72.5°	76.9	71.7	66.4	63.7	61.1	61.1	55.7	53.1	55.7	55.7	55.7
75°	39.9	34.5	31.9	29.2	26.5	26.5	23.9	23.9	23.9	23.9	23.9
77.5°	16.0	13.3	10.7	10.7	8.0	8.0	8.0	8.0	8.0	8.0	8.0
80°	5.3	5.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	2.7	0.0	0.0	2.7	0.0	2.7	2.7	2.7	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: P584725

CATALOG NUMBER: HC845D010-HM82555927-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2	1776.2
2.5°	1741.7	1741.7	1739.0	1741.7	1736.4	1739.0	1736.4	1736.4
5°	1701.9	1696.5	1696.5	1696.5	1693.9	1693.9	1691.2	1691.2
7.5°	1654.0	1651.5	1648.8	1646.1	1643.5	1640.8	1640.8	1640.8
10°	1606.3	1600.9	1600.9	1598.3	1593.1	1590.4	1590.4	1590.4
12.5°	1550.5	1547.9	1545.2	1545.2	1534.6	1537.2	1534.6	1534.6
15°	1497.5	1494.8	1494.8	1486.8	1481.5	1481.5	1481.5	1478.8
17.5°	1441.6	1439.0	1436.3	1431.1	1425.8	1425.8	1423.1	1425.8
20°	1383.2	1380.6	1375.3	1375.3	1372.6	1369.9	1364.7	1367.4
22.5°	1324.9	1319.5	1316.9	1316.9	1314.2	1314.2	1309.0	1309.0
25°	1263.8	1261.1	1258.5	1261.1	1255.8	1255.8	1250.5	1250.5
27.5°	1200.1	1197.4	1197.4	1197.4	1194.7	1197.4	1194.7	1194.7
30°	1136.3	1136.3	1133.7	1133.7	1136.3	1133.7	1136.3	1139.0
32.5°	1067.3	1067.3	1070.0	1070.0	1072.6	1072.6	1072.6	1072.6
35°	995.6	1000.9	1000.9	1003.6	1006.2	1008.9	1008.9	1011.6
37.5°	929.3	931.9	934.5	937.2	942.5	942.5	942.5	942.5
40°	857.6	860.3	865.6	862.9	873.5	876.1	873.5	873.5
42.5°	783.2	788.5	791.2	796.5	799.2	804.4	807.1	807.1
45°	714.2	716.8	722.2	727.5	730.1	738.1	738.1	738.1
47.5°	642.6	647.8	650.4	655.8	658.4	666.4	669.1	666.4
50°	573.5	578.8	584.2	584.2	592.0	594.7	600.0	602.7
52.5°	507.1	509.8	515.1	517.8	523.0	528.3	531.0	533.6
55°	443.4	446.1	451.4	451.4	459.3	461.9	467.3	467.3
57.5°	385.0	387.7	393.0	390.3	395.7	400.9	400.9	398.2
60°	329.3	329.3	329.3	334.5	337.2	339.8	342.5	342.5
62.5°	270.8	276.1	278.8	278.8	281.4	284.1	284.1	281.4
65°	217.7	223.0	225.7	225.7	228.4	228.4	228.4	231.0
67.5°	164.6	164.6	164.6	167.3	164.6	164.6	164.6	164.6
70°	103.6	103.6	103.6	103.6	100.9	103.6	103.6	106.2
72.5°	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
75°	23.9	23.9	23.9	26.5	23.9	23.9	23.9	23.9
77.5°	10.7	8.0	10.7	10.7	8.0	8.0	8.0	8.0
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	0.0	2.7	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)