

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: P584402

Luminaire Tested: **HC835D010-HM82555830-81WWBB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584402
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: HC835D010-HM82555830-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3248.8 lumens
Efficiency: N/A
Efficacy: 96.4 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

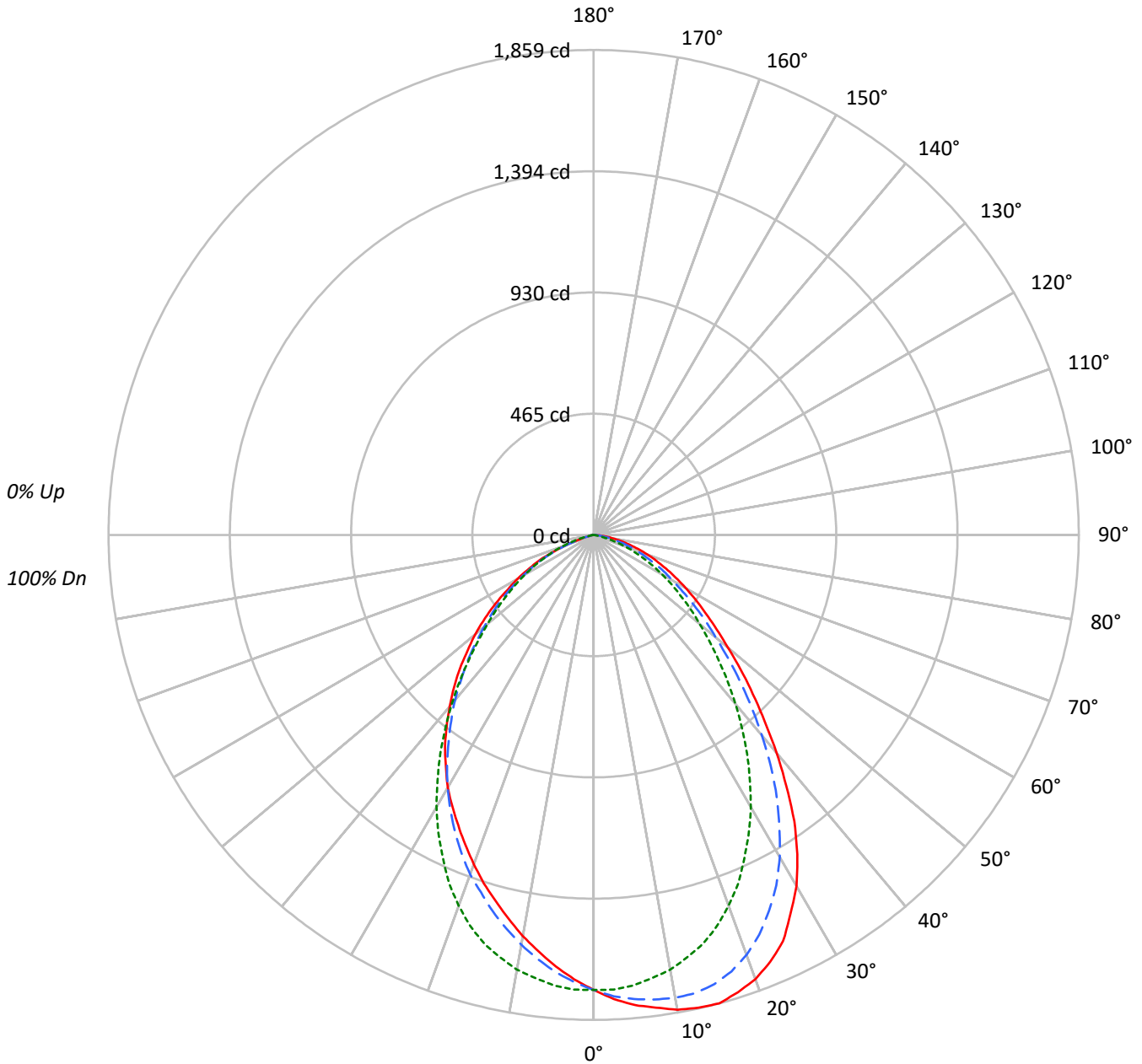
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P584402

CATALOG NUMBER: HC835D010-HM82555830-81WWBB

Luminous Intensity Polar Plot





TEST NUMBER: P584402

CATALOG NUMBER: HC835D010-HM82555830-81WWBB

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	53785	53785	53785
5°	56005	53665	51405
10°	57877	52983	48897
15°	59341	51768	46357
20°	59461	49620	44058
25°	58457	46480	41782
30°	55326	42888	39826
35°	50447	38570	37392
40°	43869	34003	34530
45°	37630	29445	31608
50°	32142	25392	28390
55°	28171	21865	24666
60°	25082	18650	20741
65°	22254	15220	16548
70°	19745	11288	9395
75°	16454	5898	2800
80°	12963	1847	462
85°	9234	920	0



TEST NUMBER: P584402

CATALOG NUMBER: HC835D010-HM82555830-81WWBB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.3	5.1
10°-20°	460.6	14.2
20°-30°	652.0	20.1
30°-40°	682.1	21.0
40°-50°	568.9	17.5
50°-60°	403.4	12.4
60°-70°	232.4	7.2
70°-80°	74.8	2.3
80°-90°	10.3	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°	1276.9	39.3
0°-40°	1959.0	60.3
0°-60°	2931.4	90.2
0°-90°	3248.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3248.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1744	1744	1744	1744	1744	
5°	1809	1786	1734	1682	1661	174
15°	1859	1783	1622	1494	1452	523
25°	1718	1590	1366	1257	1228	784
35°	1340	1223	1025	970	993	831
45°	863	793	675	683	725	669
55°	524	469	407	428	459	473
65°	305	256	209	209	227	305
75°	138	102	50	24	24	150
85°	26	13	3	0	0	33
90°	0	0	0	0	0	



TEST NUMBER: P584402

CATALOG NUMBER: HC835D010-HM82555830-81WWBB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2
2.5°	1780.7	1778.1	1775.4	1778.1	1775.4	1778.1	1775.4	1775.4	1772.8	1770.2	1770.2
5°	1809.3	1806.7	1806.7	1806.7	1804.1	1801.6	1801.6	1798.9	1793.6	1791.1	1785.9
7.5°	1827.5	1830.2	1830.2	1830.2	1824.9	1824.9	1819.8	1814.5	1809.3	1804.1	1796.3
10°	1848.4	1848.4	1845.9	1843.2	1838.0	1835.5	1832.8	1827.5	1819.8	1809.3	1801.6
12.5°	1856.3	1856.3	1853.7	1848.4	1845.9	1843.2	1840.6	1832.8	1822.4	1809.3	1798.9
15°	1858.8	1853.7	1851.0	1848.4	1843.2	1835.5	1835.5	1824.9	1812.0	1796.3	1783.2
17.5°	1838.0	1840.6	1835.5	1830.2	1822.4	1817.1	1809.3	1801.6	1785.9	1767.6	1754.6
20°	1812.0	1809.3	1806.7	1798.9	1788.5	1785.9	1778.1	1765.0	1752.0	1731.1	1712.9
22.5°	1770.2	1767.6	1762.4	1757.2	1746.8	1741.5	1733.7	1718.1	1699.8	1679.0	1658.2
25°	1718.1	1712.9	1705.0	1694.6	1686.8	1681.6	1671.1	1655.5	1634.7	1611.2	1590.3
27.5°	1634.7	1642.5	1637.3	1621.6	1613.8	1603.4	1600.8	1579.9	1561.6	1538.2	1514.8
30°	1553.8	1553.8	1546.0	1538.2	1525.2	1517.4	1506.8	1491.3	1473.1	1444.3	1426.1
32.5°	1452.1	1449.6	1439.2	1436.5	1426.1	1410.4	1407.9	1386.9	1368.7	1347.9	1324.4
35°	1340.1	1334.8	1324.4	1316.6	1311.3	1303.5	1295.8	1277.4	1259.2	1238.4	1222.7
37.5°	1212.3	1212.3	1209.7	1196.7	1191.4	1186.3	1178.4	1160.1	1149.7	1128.9	1113.2
40°	1089.8	1087.2	1079.4	1076.8	1071.5	1063.7	1058.4	1048.0	1032.4	1016.7	1001.2
42.5°	969.8	972.4	962.0	964.6	954.2	948.9	946.4	930.7	922.9	907.2	894.2
45°	862.9	860.3	855.1	852.5	847.3	842.1	836.9	829.0	816.1	800.4	792.6
47.5°	763.8	756.1	756.1	753.4	750.8	740.4	737.8	729.9	722.2	706.6	696.0
50°	670.0	670.0	670.0	667.4	659.6	657.0	651.8	643.9	636.1	625.7	610.0
52.5°	594.4	594.4	594.4	591.8	581.4	578.8	576.1	565.7	555.3	547.5	537.1
55°	524.0	526.6	524.0	518.9	510.9	510.9	503.2	498.0	487.6	479.7	469.3
57.5°	464.1	464.1	458.8	456.2	451.0	448.4	443.3	438.0	424.9	417.1	404.1
60°	406.7	404.1	404.1	398.9	393.7	388.5	385.9	378.1	372.8	359.8	349.3
62.5°	354.6	354.6	349.3	349.3	338.9	338.9	336.3	328.5	320.7	307.6	302.4
65°	305.0	305.0	302.4	299.9	292.0	289.4	286.8	279.0	271.1	263.3	255.5
67.5°	260.7	260.7	255.5	252.9	247.6	245.1	239.8	234.7	226.8	219.0	211.2
70°	219.0	216.4	213.7	211.2	205.9	203.3	198.1	192.9	185.1	179.9	172.0
72.5°	177.3	177.3	174.7	169.5	166.9	164.2	161.6	156.5	148.6	140.8	135.6
75°	138.1	138.1	138.1	133.0	127.7	125.2	125.2	119.9	114.8	106.9	101.7
77.5°	106.9	104.2	101.7	101.7	96.4	93.8	91.3	88.7	80.9	78.2	73.0
80°	73.0	75.6	73.0	70.4	67.8	65.2	65.2	60.0	57.4	52.1	47.0
82.5°	49.5	47.0	47.0	44.3	44.3	41.7	41.7	36.5	33.9	31.3	28.6
85°	26.1	26.1	23.5	23.5	23.5	20.8	20.8	18.2	18.2	15.7	13.1
87.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	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: P584402

CATALOG NUMBER: HC835D010-HM82555830-81WWBB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2
2.5°	1767.6	1762.4	1759.7	1759.7	1757.2	1754.6	1752.0	1749.3	1744.2	1744.2	1738.9
5°	1780.7	1775.4	1772.8	1765.0	1759.7	1759.7	1749.3	1746.8	1738.9	1733.7	1728.5
7.5°	1791.1	1780.7	1772.8	1765.0	1759.7	1754.6	1744.2	1733.7	1723.3	1712.9	1707.6
10°	1791.1	1780.7	1767.6	1754.6	1749.3	1744.2	1731.1	1715.4	1702.5	1692.1	1679.0
12.5°	1785.9	1770.2	1754.6	1744.2	1733.7	1726.0	1710.3	1694.6	1679.0	1658.2	1647.7
15°	1770.2	1749.3	1733.7	1715.4	1707.6	1694.6	1681.6	1658.2	1639.8	1621.6	1608.6
17.5°	1738.9	1712.9	1694.6	1676.4	1663.3	1655.5	1634.7	1613.8	1593.0	1572.1	1556.4
20°	1692.1	1668.6	1647.7	1624.2	1613.8	1603.4	1577.3	1556.4	1535.6	1512.1	1496.4
22.5°	1634.7	1611.2	1582.6	1564.2	1548.7	1535.6	1512.1	1488.6	1467.8	1446.9	1426.1
25°	1564.2	1540.7	1514.8	1486.0	1475.6	1462.6	1436.5	1413.0	1389.6	1366.1	1347.9
27.5°	1488.6	1457.4	1436.5	1405.3	1394.8	1381.8	1353.1	1327.0	1306.2	1287.8	1267.0
30°	1397.3	1374.0	1345.2	1316.6	1306.2	1293.1	1269.6	1246.2	1225.3	1204.5	1183.6
32.5°	1298.4	1274.9	1246.2	1225.3	1209.7	1199.3	1175.8	1155.0	1134.1	1113.2	1095.0
35°	1194.0	1167.9	1147.1	1126.2	1113.2	1100.2	1076.8	1058.4	1042.9	1024.6	1006.3
37.5°	1087.2	1068.9	1048.0	1024.6	1011.6	1001.2	982.8	962.0	948.9	933.4	920.3
40°	982.8	962.0	943.8	922.9	912.5	904.6	886.4	870.8	857.8	844.7	836.9
42.5°	876.0	857.8	839.4	826.5	818.6	810.8	797.7	779.5	771.8	758.7	750.8
45°	776.9	761.3	748.3	729.9	724.8	719.5	703.9	690.9	683.1	675.2	670.0
47.5°	683.1	672.7	657.0	646.6	638.8	633.5	623.1	612.7	604.9	599.6	594.4
50°	602.2	589.2	578.8	568.3	563.2	555.3	544.9	539.7	534.4	529.3	529.3
52.5°	526.6	513.6	503.2	495.4	490.1	485.0	477.0	474.5	469.3	469.3	466.6
55°	456.2	448.4	438.0	427.6	424.9	422.3	417.1	411.9	409.4	406.7	409.4
57.5°	396.3	388.5	378.1	370.2	367.5	365.0	362.4	357.1	354.6	354.6	354.6
60°	341.5	333.8	325.9	318.1	318.1	312.8	310.3	307.6	305.0	302.4	302.4
62.5°	292.0	284.2	276.4	271.1	268.5	266.0	260.7	258.0	255.5	255.5	252.9
65°	247.6	237.2	234.7	226.8	224.3	221.6	219.0	213.7	211.2	208.6	205.9
67.5°	203.3	198.1	190.4	185.1	182.5	179.9	177.3	172.0	169.5	166.9	161.6
70°	164.2	159.0	153.8	148.6	146.0	143.4	138.1	133.0	130.3	125.2	117.3
72.5°	127.7	122.6	117.3	112.1	109.5	106.9	101.7	96.4	91.3	86.0	80.9
75°	96.4	91.3	83.4	78.2	75.6	75.6	67.8	62.5	57.4	49.5	44.3
77.5°	67.8	60.0	57.4	52.1	49.5	44.3	39.1	33.9	28.6	26.1	20.8
80°	44.3	39.1	33.9	31.3	28.6	26.1	23.5	18.2	13.1	10.4	7.8
82.5°	26.1	23.5	20.8	18.2	15.7	13.1	10.4	10.4	7.8	5.3	2.6
85°	13.1	10.4	7.8	7.8	5.3	5.3	5.3	2.6	2.6	2.6	2.6
87.5°	5.3	2.6	2.6	2.6	2.6	2.6	2.6	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: P584402

CATALOG NUMBER: HC835D010-HM82555830-81WWBB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2
2.5°	1736.4	1733.7	1731.1	1728.5	1728.5	1723.3	1723.3	1720.7	1715.4	1712.9	1712.9
5°	1720.7	1712.9	1707.6	1705.0	1702.5	1694.6	1692.1	1686.8	1681.6	1676.4	1673.7
7.5°	1697.2	1684.1	1679.0	1676.4	1668.6	1660.7	1655.5	1647.7	1639.8	1632.0	1629.4
10°	1668.6	1655.5	1642.5	1637.3	1629.4	1624.2	1613.8	1603.4	1595.5	1587.7	1579.9
12.5°	1632.0	1616.3	1603.4	1598.1	1590.3	1579.9	1564.2	1559.1	1546.0	1540.7	1530.3
15°	1590.3	1572.1	1559.1	1551.2	1543.4	1527.8	1517.4	1506.8	1493.9	1488.6	1478.2
17.5°	1538.2	1517.4	1504.3	1496.4	1491.3	1478.2	1462.6	1449.6	1436.5	1431.3	1423.5
20°	1475.6	1462.6	1444.3	1436.5	1431.3	1415.7	1400.0	1394.8	1384.4	1374.0	1366.1
22.5°	1405.3	1392.2	1374.0	1366.1	1363.6	1350.5	1337.4	1329.7	1321.8	1314.0	1306.2
25°	1332.2	1316.6	1300.9	1295.8	1290.5	1280.1	1269.6	1264.5	1256.6	1251.4	1246.2
27.5°	1254.1	1238.4	1225.3	1217.5	1212.3	1204.5	1199.3	1194.0	1188.9	1183.6	1181.0
30°	1170.6	1155.0	1144.6	1139.3	1134.1	1131.5	1123.6	1121.1	1118.5	1113.2	1115.8
32.5°	1087.2	1074.1	1063.7	1055.9	1055.9	1050.6	1048.0	1048.0	1045.5	1045.5	1045.5
35°	995.9	988.1	980.3	977.7	975.1	972.4	969.8	972.4	969.8	972.4	975.1
37.5°	912.5	904.6	899.5	896.8	894.2	896.8	894.2	894.2	896.8	902.1	904.6
40°	826.5	821.2	816.1	818.6	816.1	816.1	816.1	823.9	826.5	829.0	831.7
42.5°	745.6	740.4	737.8	737.8	740.4	737.8	743.0	745.6	750.8	758.7	763.8
45°	667.4	664.8	664.8	667.4	664.8	670.0	670.0	675.2	683.1	688.3	693.5
47.5°	594.4	594.4	594.4	597.1	597.1	599.6	604.9	607.5	612.7	617.9	623.1
50°	526.6	529.3	531.8	531.8	531.8	537.1	542.3	544.9	547.5	550.1	557.9
52.5°	466.6	469.3	469.3	471.9	474.5	477.0	479.7	485.0	487.6	492.7	495.4
55°	409.4	409.4	414.5	417.1	417.1	417.1	422.3	422.3	427.6	430.2	435.4
57.5°	354.6	357.1	357.1	359.8	359.8	362.4	365.0	367.5	370.2	372.8	375.5
60°	302.4	302.4	302.4	305.0	307.6	310.3	307.6	312.8	312.8	318.1	320.7
62.5°	252.9	255.5	255.5	255.5	255.5	255.5	255.5	258.0	260.7	263.3	266.0
65°	205.9	205.9	205.9	203.3	205.9	203.3	205.9	208.6	208.6	211.2	213.7
67.5°	159.0	159.0	153.8	153.8	156.5	156.5	156.5	156.5	153.8	159.0	159.0
70°	114.8	112.1	109.5	106.9	106.9	104.2	104.2	101.7	101.7	101.7	101.7
72.5°	75.6	70.4	65.2	62.5	60.0	60.0	54.7	52.1	54.7	54.7	54.7
75°	39.1	33.9	31.3	28.6	26.1	26.1	23.5	23.5	23.5	23.5	23.5
77.5°	15.7	13.1	10.4	10.4	7.8	7.8	7.8	7.8	7.8	7.8	7.8
80°	5.3	5.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
85°	2.6	0.0	0.0	2.6	0.0	2.6	2.6	2.6	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: P584402

CATALOG NUMBER: HC835D010-HM82555830-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2
2.5°	1710.3	1710.3	1707.6	1710.3	1705.0	1707.6	1705.0	1705.0
5°	1671.1	1665.9	1665.9	1665.9	1663.3	1663.3	1660.7	1660.7
7.5°	1624.2	1621.6	1619.0	1616.3	1613.8	1611.2	1611.2	1611.2
10°	1577.3	1572.1	1572.1	1569.5	1564.2	1561.6	1561.6	1561.6
12.5°	1522.5	1519.9	1517.4	1517.4	1506.8	1509.5	1506.8	1506.8
15°	1470.4	1467.8	1467.8	1460.0	1454.7	1454.7	1454.7	1452.1
17.5°	1415.7	1413.0	1410.4	1405.3	1400.0	1400.0	1397.3	1400.0
20°	1358.3	1355.7	1350.5	1350.5	1347.9	1345.2	1340.1	1342.6
22.5°	1300.9	1295.8	1293.1	1293.1	1290.5	1290.5	1285.3	1285.3
25°	1241.0	1238.4	1235.7	1238.4	1233.1	1233.1	1228.0	1228.0
27.5°	1178.4	1175.8	1175.8	1175.8	1173.2	1175.8	1173.2	1173.2
30°	1115.8	1115.8	1113.2	1113.2	1115.8	1113.2	1115.8	1118.5
32.5°	1048.0	1048.0	1050.6	1050.6	1053.3	1053.3	1053.3	1053.3
35°	977.7	982.8	982.8	985.5	988.1	990.7	990.7	993.3
37.5°	912.5	915.0	917.7	920.3	925.6	925.6	925.6	925.6
40°	842.1	844.7	849.9	847.3	857.8	860.3	857.8	857.8
42.5°	769.1	774.3	776.9	782.2	784.7	790.0	792.6	792.6
45°	701.3	703.9	709.1	714.4	717.0	724.8	724.8	724.8
47.5°	630.9	636.1	638.8	643.9	646.6	654.3	657.0	654.3
50°	563.2	568.3	573.6	573.6	581.4	584.0	589.2	591.8
52.5°	498.0	500.5	505.8	508.4	513.6	518.9	521.4	524.0
55°	435.4	438.0	443.3	443.3	451.0	453.7	458.8	458.8
57.5°	378.1	380.6	385.9	383.2	388.5	393.7	393.7	391.0
60°	323.2	323.2	323.2	328.5	331.1	333.8	336.3	336.3
62.5°	266.0	271.1	273.7	273.7	276.4	279.0	279.0	276.4
65°	213.7	219.0	221.6	221.6	224.3	224.3	224.3	226.8
67.5°	161.6	161.6	161.6	164.2	161.6	161.6	161.6	161.6
70°	101.7	101.7	101.7	101.7	99.1	101.7	101.7	104.2
72.5°	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7
75°	23.5	23.5	23.5	26.1	23.5	23.5	23.5	23.5
77.5°	10.4	7.8	10.4	10.4	7.8	7.8	7.8	7.8
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
85°	0.0	2.6	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)