

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: P593651

Luminaire Tested: **HC825D010-HM82555950-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593651
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC825D010-HM82555950-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2494.9 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

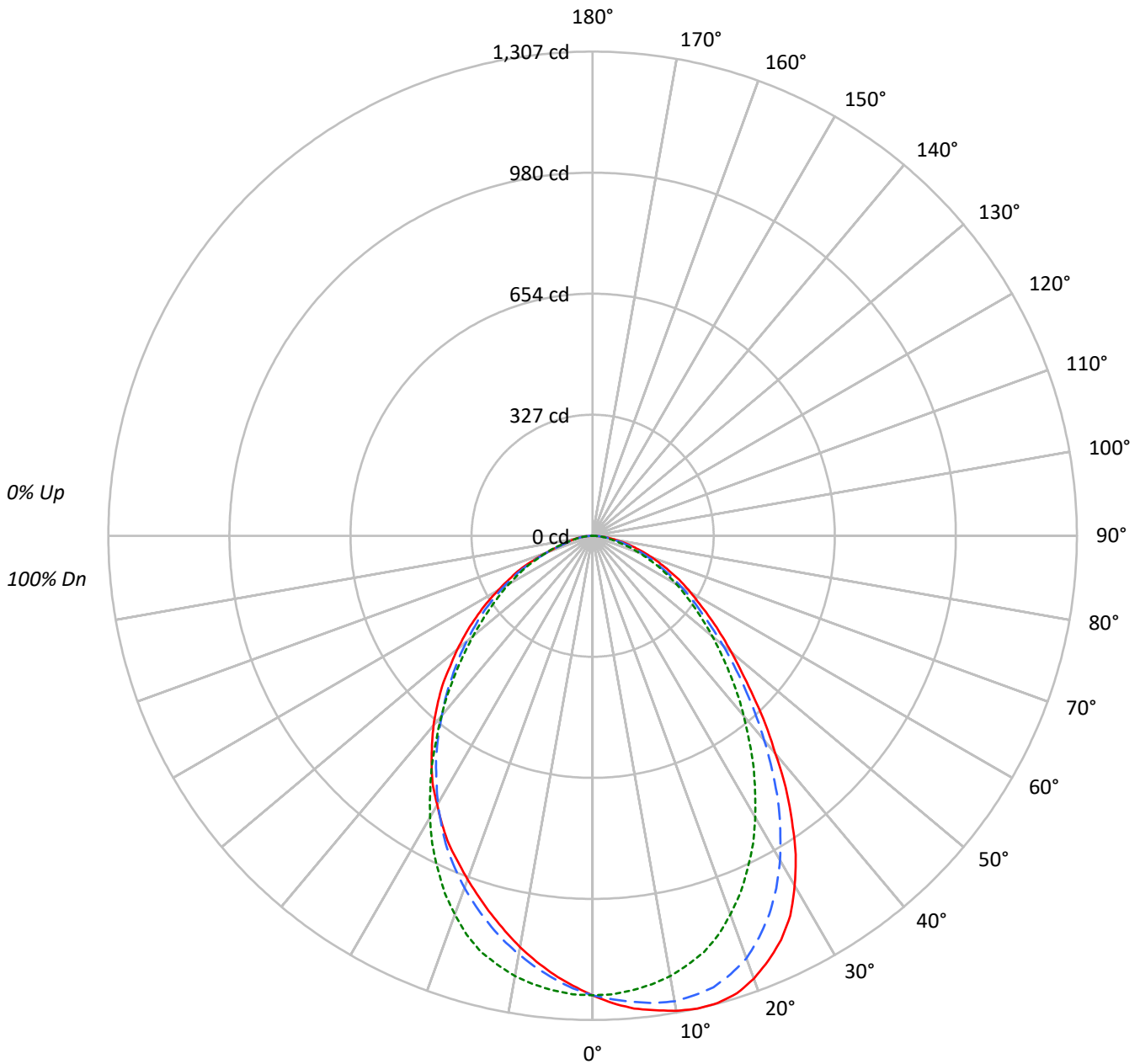
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50					50			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	38252	38252	38252
5°	39652	38126	36817
10°	40775	37794	35311
15°	41683	37128	33753
20°	41748	35677	32382
25°	40948	33694	31238
30°	38840	31245	29867
35°	35288	28459	28523
40°	30855	25533	26882
45°	26741	22742	25053
50°	23416	20206	22821
55°	20843	17903	20650
60°	18798	16084	18144
65°	16972	14141	15819
70°	15255	11910	11757
75°	13439	9448	8817
80°	11276	7831	8453
85°	8739	6864	7501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.0	4.7
10°-20°	329.6	13.2
20°-30°	471.1	18.9
30°-40°	500.5	20.1
40°-50°	430.9	17.3
50°-60°	322.2	12.9
60°-70°	205.5	8.2
70°-80°	93.5	3.7
80°-90°	24.6	1.0
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°	917.7	36.8
0°-40°	1418.2	56.8
0°-60°	2171.4	87.0
0°-90°	2494.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2494.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1240	1240	1240	1240	1240	
5°	1281	1263	1232	1200	1189	123
15°	1306	1262	1163	1084	1057	368
25°	1204	1128	990	930	918	551
35°	937	872	756	737	758	584
45°	613	580	522	536	574	477
55°	388	356	333	361	384	349
65°	233	206	194	203	217	232
75°	113	97	79	72	74	120
85°	25	21	19	21	21	30
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°	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5
2.5°	1263.3	1259.8	1261.6	1259.8	1261.6	1261.6	1258.1	1258.1	1258.1	1258.1	1252.9
5°	1281.0	1279.3	1279.3	1277.5	1275.8	1277.5	1275.8	1273.9	1270.4	1268.7	1263.3
7.5°	1291.6	1291.6	1291.6	1291.6	1289.8	1288.1	1286.4	1282.8	1279.3	1275.8	1272.2
10°	1302.2	1303.9	1302.2	1300.4	1298.7	1295.1	1293.3	1289.8	1284.5	1279.3	1275.8
12.5°	1307.4	1307.4	1305.7	1305.7	1302.2	1300.4	1295.1	1289.8	1284.5	1279.3	1270.4
15°	1305.7	1305.7	1303.9	1302.2	1296.8	1295.1	1291.6	1286.4	1277.5	1270.4	1261.6
17.5°	1295.1	1293.3	1289.8	1289.8	1282.8	1281.0	1277.5	1270.4	1261.6	1251.0	1240.5
20°	1272.2	1272.2	1270.4	1268.7	1261.6	1256.4	1252.9	1244.0	1236.9	1224.6	1214.0
22.5°	1240.5	1244.0	1240.5	1236.9	1228.1	1226.4	1221.1	1210.5	1200.0	1185.9	1173.6
25°	1203.5	1201.7	1200.0	1196.5	1189.4	1185.9	1178.8	1168.2	1157.6	1141.8	1127.7
27.5°	1155.9	1148.9	1148.9	1141.8	1136.6	1131.2	1127.7	1117.2	1103.1	1090.8	1073.1
30°	1090.8	1092.5	1083.7	1081.9	1073.1	1069.6	1062.5	1051.9	1039.6	1025.5	1011.5
32.5°	1020.2	1014.9	1014.9	1007.9	1000.9	995.5	993.8	981.5	970.9	956.8	942.7
35°	937.4	937.4	932.1	930.4	923.3	919.8	914.5	907.5	895.2	882.8	872.3
37.5°	856.3	852.8	851.1	847.5	842.3	837.0	837.0	824.6	822.8	808.8	794.7
40°	766.5	770.0	766.5	761.2	759.5	756.0	754.1	747.1	741.8	729.5	720.6
42.5°	690.7	687.2	687.2	685.4	678.4	678.4	674.8	671.3	662.5	659.0	648.4
45°	613.2	616.7	611.4	613.2	606.2	606.2	606.2	599.1	592.0	586.8	579.7
47.5°	546.2	547.9	547.9	542.7	541.0	541.0	537.5	533.9	528.6	521.5	516.3
50°	488.1	489.8	486.3	484.6	481.1	479.3	479.3	472.2	468.7	461.7	458.2
52.5°	435.3	435.3	433.5	433.5	428.2	428.2	424.7	419.3	415.8	412.3	403.5
55°	387.7	387.7	385.8	384.1	384.1	378.9	377.1	371.8	368.3	361.2	355.9
57.5°	341.9	343.6	341.9	340.0	338.3	336.5	333.0	327.7	324.2	319.0	315.4
60°	304.8	304.8	303.0	301.3	297.8	296.1	294.2	290.7	285.5	281.9	276.6
62.5°	269.6	267.8	266.1	264.3	260.8	260.8	257.2	253.7	248.5	244.9	241.4
65°	232.6	232.6	230.8	230.8	229.1	225.6	223.7	222.0	215.0	213.3	206.2
67.5°	199.1	200.8	197.3	197.3	193.8	193.8	192.1	186.8	185.0	181.5	177.9
70°	169.2	169.2	169.2	167.3	163.9	162.1	160.4	156.9	155.0	151.5	148.0
72.5°	139.2	139.2	137.4	137.4	135.7	134.0	132.1	128.6	128.6	125.1	121.6
75°	112.8	112.8	111.0	109.2	107.5	107.5	105.7	104.0	100.5	98.7	96.9
77.5°	86.3	86.3	86.3	84.5	82.8	82.8	82.8	79.3	75.8	75.8	74.0
80°	63.5	63.5	61.6	61.6	59.9	59.9	59.9	58.1	56.4	54.7	52.9
82.5°	42.3	42.3	42.3	42.3	40.6	40.6	40.6	38.7	37.0	37.0	37.0
85°	24.7	24.7	24.7	24.7	22.9	22.9	22.9	22.9	22.9	21.2	21.2
87.5°	10.6	8.8	10.6	8.8	10.6	8.8	10.6	8.8	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5
2.5°	1254.6	1252.9	1251.0	1249.3	1249.3	1247.5	1244.0	1242.3	1240.5	1238.7	1238.7
5°	1261.6	1259.8	1256.4	1252.9	1251.0	1247.5	1244.0	1240.5	1236.9	1231.7	1230.0
7.5°	1266.9	1261.6	1258.1	1251.0	1249.3	1245.8	1240.5	1235.2	1228.1	1221.1	1215.8
10°	1266.9	1259.8	1254.6	1245.8	1242.3	1238.7	1231.7	1222.9	1214.0	1207.0	1198.2
12.5°	1263.3	1254.6	1245.8	1236.9	1231.7	1226.4	1215.8	1207.0	1196.5	1185.9	1178.8
15°	1251.0	1240.5	1230.0	1219.4	1214.0	1207.0	1196.5	1184.1	1173.6	1163.0	1150.6
17.5°	1228.1	1217.6	1205.2	1192.9	1185.9	1180.5	1164.7	1155.9	1140.1	1129.5	1118.9
20°	1198.2	1185.9	1170.0	1157.6	1148.9	1143.6	1131.2	1115.4	1103.1	1087.2	1076.6
22.5°	1159.5	1143.6	1127.7	1115.4	1106.6	1099.5	1083.7	1067.8	1057.3	1043.1	1030.8
25°	1113.7	1097.7	1081.9	1064.3	1055.4	1048.4	1034.4	1020.2	1006.1	990.3	979.7
27.5°	1059.0	1041.3	1027.3	1011.5	1002.6	992.0	976.2	962.0	948.0	937.4	923.3
30°	999.1	979.7	965.6	949.7	941.0	932.1	916.2	902.2	889.8	877.5	870.4
32.5°	926.8	912.7	898.7	882.8	875.8	870.4	854.6	840.5	826.4	815.9	810.5
35°	858.1	842.3	829.9	815.9	807.0	801.8	787.6	775.3	768.3	756.0	748.9
37.5°	785.9	773.5	759.5	745.4	740.0	734.8	724.2	711.9	701.3	692.5	689.0
40°	710.2	699.6	687.2	678.4	673.1	667.8	659.0	650.2	643.2	634.3	630.8
42.5°	637.8	630.8	620.3	609.7	604.3	602.6	592.0	585.0	581.4	577.9	574.5
45°	572.7	562.1	555.0	547.9	542.7	539.2	533.9	528.6	525.0	521.5	518.1
47.5°	509.2	500.4	493.4	488.1	482.8	481.1	477.5	472.2	468.7	468.7	468.7
50°	451.1	444.0	437.0	433.5	431.7	428.2	424.7	422.9	421.2	421.2	421.2
52.5°	400.0	392.9	387.7	384.1	384.1	380.6	377.1	375.4	375.4	375.4	375.4
55°	352.5	347.1	343.6	340.0	336.5	334.8	334.8	334.8	333.0	333.0	334.8
57.5°	310.1	306.6	301.3	297.8	296.1	296.1	294.2	292.5	294.2	296.1	297.8
60°	271.4	267.8	266.1	260.8	260.8	260.8	259.0	259.0	259.0	260.8	262.6
62.5°	236.1	234.3	230.8	229.1	227.3	227.3	225.6	225.6	225.6	225.6	227.3
65°	204.4	200.8	197.3	197.3	197.3	195.6	195.6	192.1	193.8	193.8	192.1
67.5°	174.4	170.9	169.2	167.3	165.6	165.6	163.9	162.1	160.4	160.4	160.4
70°	146.3	142.7	142.7	139.2	139.2	137.4	135.7	135.7	134.0	132.1	130.4
72.5°	118.0	116.3	114.5	112.8	112.8	112.8	111.0	109.2	107.5	105.7	102.2
75°	93.4	93.4	89.9	88.1	88.1	86.3	84.5	82.8	81.1	79.3	77.6
77.5°	72.2	70.5	67.0	65.2	65.2	65.2	63.5	61.6	59.9	58.1	56.4
80°	52.9	51.1	49.3	47.6	47.6	47.6	45.8	45.8	44.1	44.1	44.1
82.5°	35.2	35.2	33.5	33.5	33.5	33.5	31.7	31.7	31.7	31.7	31.7
85°	21.2	21.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
87.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5
2.5°	1235.2	1235.2	1231.7	1230.0	1228.1	1230.0	1226.4	1224.6	1222.9	1222.9	1221.1
5°	1224.6	1222.9	1215.8	1214.0	1212.3	1210.5	1207.0	1203.5	1200.0	1198.2	1196.5
7.5°	1210.5	1205.2	1198.2	1196.5	1194.7	1189.4	1184.1	1180.5	1175.3	1173.6	1170.0
10°	1191.1	1184.1	1178.8	1173.6	1170.0	1164.7	1159.5	1154.1	1147.1	1145.3	1140.1
12.5°	1168.2	1159.5	1148.9	1147.1	1141.8	1134.7	1127.7	1122.4	1117.2	1113.7	1108.3
15°	1140.1	1131.2	1120.7	1115.4	1110.1	1104.8	1096.0	1088.9	1083.7	1078.3	1073.1
17.5°	1106.6	1096.0	1087.2	1081.9	1078.3	1069.6	1062.5	1053.7	1048.4	1043.1	1037.9
20°	1066.0	1057.3	1044.9	1039.6	1037.9	1030.8	1022.0	1018.4	1011.5	1006.1	1002.6
22.5°	1020.2	1011.5	1000.9	997.3	990.3	986.8	978.0	974.4	970.9	965.6	963.9
25°	969.1	960.3	951.6	949.7	944.5	941.0	935.6	930.4	930.4	925.1	925.1
27.5°	916.2	907.5	900.4	896.9	895.2	891.6	886.3	884.6	882.8	881.0	881.0
30°	859.9	849.3	845.8	844.0	842.3	838.8	837.0	833.4	835.2	837.0	835.2
32.5°	799.9	796.4	789.4	785.9	787.6	785.9	782.4	785.9	784.1	787.6	789.4
35°	741.8	738.3	734.8	734.8	731.2	731.2	731.2	733.1	736.6	738.3	741.8
37.5°	685.4	680.2	678.4	676.7	678.4	678.4	678.4	681.9	685.4	689.0	694.2
40°	625.5	622.0	622.0	622.0	622.0	627.3	625.5	629.1	632.6	637.8	643.2
42.5°	569.1	569.1	571.0	571.0	571.0	571.0	574.5	579.7	585.0	590.3	595.6
45°	516.3	516.3	516.3	519.8	519.8	521.5	528.6	532.1	535.6	541.0	546.2
47.5°	466.9	466.9	468.7	470.5	472.2	475.7	479.3	484.6	489.8	493.4	498.6
50°	421.2	422.9	426.4	429.9	429.9	431.7	437.0	440.5	444.0	449.3	451.1
52.5°	377.1	380.6	384.1	385.8	387.7	391.2	392.9	398.3	400.0	405.3	407.0
55°	336.5	338.3	343.6	345.4	345.4	348.9	352.5	355.9	361.2	361.2	364.8
57.5°	299.6	301.3	304.8	306.6	304.8	310.1	311.9	315.4	317.1	320.7	322.5
60°	262.6	266.1	267.8	267.8	269.6	271.4	274.9	274.9	278.4	281.9	281.9
62.5°	227.3	229.1	230.8	232.6	234.3	232.6	237.9	237.9	241.4	243.2	246.6
65°	193.8	195.6	195.6	197.3	197.3	199.1	199.1	200.8	202.7	206.2	207.9
67.5°	160.4	160.4	160.4	162.1	160.4	162.1	162.1	163.9	163.9	167.3	169.2
70°	130.4	128.6	126.9	126.9	126.9	126.9	125.1	126.9	126.9	128.6	128.6
72.5°	100.5	98.7	96.9	95.1	95.1	93.4	91.6	93.4	93.4	95.1	95.1
75°	75.8	72.2	72.2	72.2	70.5	70.5	70.5	72.2	72.2	72.2	74.0
77.5°	56.4	56.4	54.7	54.7	54.7	56.4	56.4	58.1	58.1	58.1	58.1
80°	42.3	44.1	44.1	44.1	44.1	45.8	45.8	45.8	45.8	47.6	47.6
82.5°	31.7	31.7	31.7	31.7	33.5	33.5	33.5	33.5	33.5	33.5	33.5
85°	19.4	21.2	21.2	19.4	21.2	21.2	21.2	21.2	21.2	21.2	21.2
87.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	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: P593651

CATALOG NUMBER: HC825D010-HM82555950-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5	1240.5
2.5°	1219.4	1219.4	1219.4	1219.4	1217.6	1217.6	1217.6	1215.8
5°	1192.9	1192.9	1192.9	1189.4	1191.1	1191.1	1187.6	1189.4
7.5°	1166.5	1164.7	1163.0	1163.0	1161.2	1159.5	1157.6	1159.5
10°	1136.6	1131.2	1131.2	1129.5	1129.5	1126.0	1126.0	1127.7
12.5°	1103.1	1099.5	1099.5	1097.7	1096.0	1094.3	1092.5	1092.5
15°	1069.6	1066.0	1064.3	1062.5	1060.8	1057.3	1059.0	1057.3
17.5°	1036.1	1030.8	1030.8	1029.0	1027.3	1023.8	1023.8	1022.0
20°	997.3	995.5	992.0	993.8	992.0	988.5	986.8	986.8
22.5°	958.5	958.5	956.8	956.8	955.1	953.3	951.6	951.6
25°	921.6	919.8	921.6	921.6	916.2	916.2	916.2	918.1
27.5°	879.2	881.0	879.2	879.2	879.2	879.2	881.0	879.2
30°	837.0	837.0	837.0	838.8	842.3	840.5	840.5	838.8
32.5°	791.2	793.0	793.0	794.7	796.4	799.9	799.9	801.8
35°	745.4	748.9	750.6	748.9	754.1	754.1	757.7	757.7
37.5°	697.7	699.6	703.1	704.8	708.3	710.2	711.9	711.9
40°	646.7	653.8	655.5	657.2	662.5	662.5	664.3	667.8
42.5°	599.1	606.2	607.9	609.7	613.2	618.5	616.7	620.3
45°	553.3	558.5	560.4	562.1	567.4	569.1	569.1	574.5
47.5°	504.0	507.5	509.2	512.7	516.3	519.8	523.3	521.5
50°	454.6	459.9	463.4	465.2	470.5	472.2	474.0	475.7
52.5°	410.6	414.1	415.8	417.6	422.9	424.7	426.4	429.9
55°	368.3	370.0	373.5	371.8	377.1	378.9	380.6	384.1
57.5°	326.0	327.7	329.5	329.5	333.0	336.5	338.3	340.0
60°	285.5	289.0	290.7	290.7	290.7	294.2	294.2	294.2
62.5°	248.5	248.5	250.2	250.2	253.7	253.7	253.7	253.7
65°	209.7	211.4	213.3	213.3	216.8	215.0	218.5	216.8
67.5°	169.2	169.2	172.7	172.7	170.9	172.7	172.7	172.7
70°	128.6	128.6	130.4	130.4	130.4	130.4	130.4	130.4
72.5°	95.1	95.1	95.1	96.9	95.1	95.1	96.9	95.1
75°	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
77.5°	58.1	58.1	59.9	59.9	59.9	59.9	59.9	59.9
80°	47.6	47.6	47.6	47.6	49.3	47.6	47.6	47.6
82.5°	35.2	33.5	35.2	33.5	35.2	35.2	35.2	35.2
85°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
87.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
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)