

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: P584148

Luminaire Tested: **HC825D010-HM82555835-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC825D010-HM82555835-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2324.7 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.04 / 1.13
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

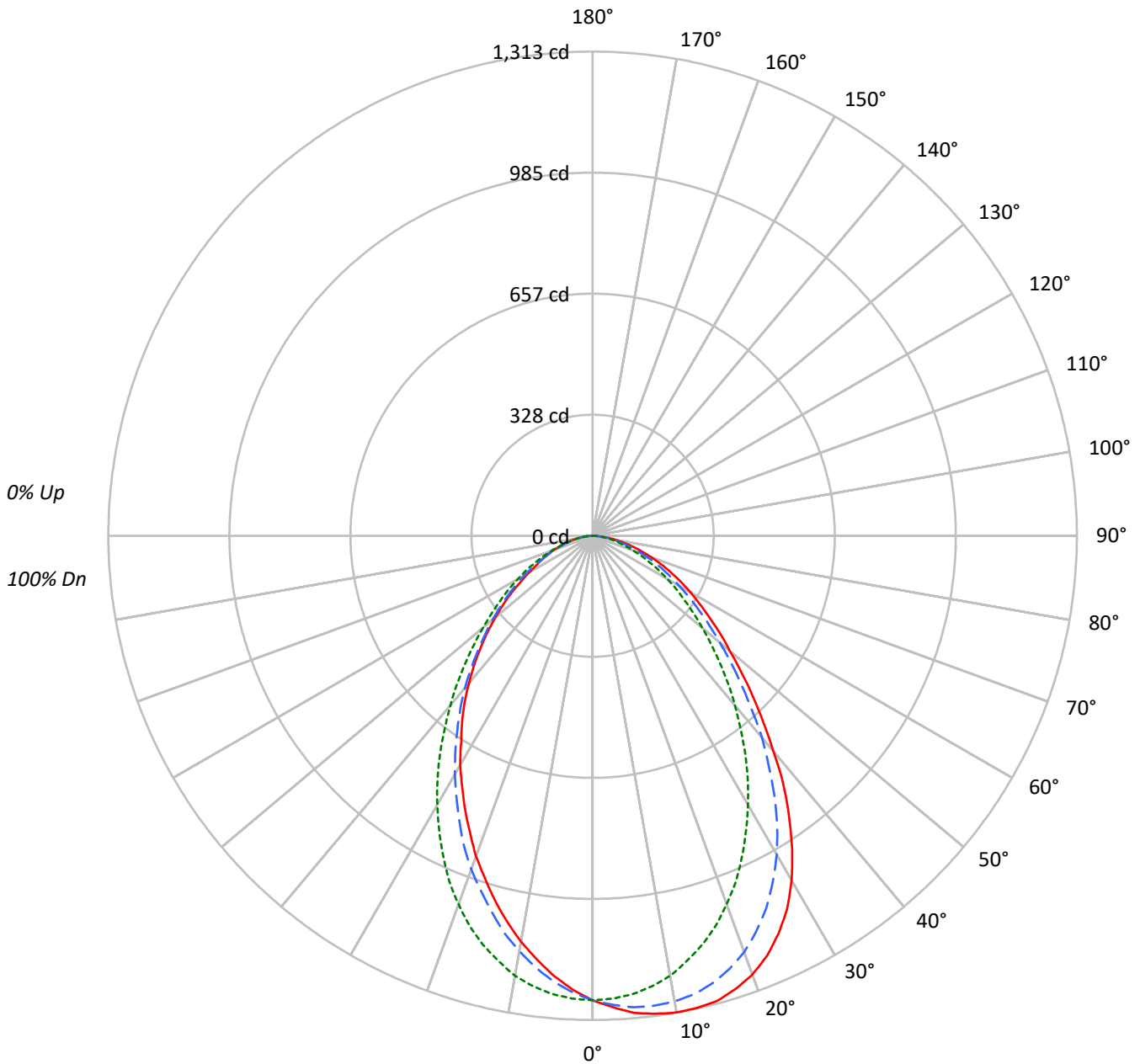
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87								
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76								
3	94	85	78	72	92	83	77	71	81	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	54	64	59	54	63	57	53	51								
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	38841	38841	38841
5°	40206	38618	37086
10°	41100	37944	34997
15°	41683	36665	32684
20°	41561	34883	30341
25°	40530	32622	27856
30°	38402	30002	25562
35°	34934	27153	23226
40°	30686	24144	20984
45°	26754	21242	18708
50°	23286	18613	16483
55°	20768	16354	14333
60°	18866	14333	12230
65°	16957	12470	11105
70°	15102	10630	10017
75°	13237	8960	8554
80°	11223	7281	7583
85°	8491	5449	6050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.0	5.1
10°-20°	325.1	14.0
20°-30°	451.2	19.4
30°-40°	466.5	20.1
40°-50°	390.6	16.8
50°-60°	283.6	12.2
60°-70°	179.0	7.7
70°-80°	88.6	3.8
80°-90°	22.0	0.9
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°	894.3	38.5
0°-40°	1360.8	58.5
0°-60°	2035.0	87.5
0°-90°	2324.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2324.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1260	1260	1260	1260	1260	
5°	1299	1284	1248	1214	1198	124
15°	1306	1256	1148	1056	1024	367
25°	1191	1114	959	854	819	546
35°	928	860	721	639	617	578
45°	614	569	487	439	429	475
55°	386	352	304	279	267	349
65°	232	203	171	150	152	232
75°	111	92	75	72	72	119
85°	24	19	15	17	17	29
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°	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6
2.5°	1280.1	1280.1	1281.9	1280.1	1280.1	1280.1	1278.4	1278.4	1276.7	1276.7	1273.3
5°	1298.9	1295.4	1298.9	1295.4	1295.4	1295.4	1293.7	1290.3	1288.6	1285.3	1283.6
7.5°	1307.4	1305.7	1305.7	1304.0	1304.0	1302.3	1300.6	1298.9	1292.0	1290.3	1285.3
10°	1312.6	1310.9	1310.9	1309.1	1305.7	1305.7	1302.3	1300.6	1292.0	1288.6	1281.9
12.5°	1310.9	1310.9	1310.9	1309.1	1304.0	1302.3	1298.9	1293.7	1287.0	1280.1	1273.3
15°	1305.7	1305.7	1302.3	1300.6	1295.4	1292.0	1290.3	1281.9	1275.0	1266.5	1256.2
17.5°	1288.6	1288.6	1287.0	1283.6	1278.4	1275.0	1271.6	1263.0	1256.2	1242.5	1232.2
20°	1266.5	1264.7	1263.0	1257.9	1252.8	1251.0	1245.9	1233.9	1225.5	1215.2	1201.5
22.5°	1233.9	1232.2	1230.5	1227.1	1218.6	1215.2	1211.8	1203.2	1187.8	1177.5	1160.5
25°	1191.2	1191.2	1187.8	1182.7	1174.1	1170.7	1165.6	1157.1	1143.4	1128.0	1114.3
27.5°	1141.7	1140.0	1134.8	1131.4	1124.6	1119.4	1110.9	1100.6	1087.0	1075.0	1057.9
30°	1078.5	1078.5	1075.0	1069.9	1061.3	1057.9	1051.1	1039.1	1025.5	1010.1	998.1
32.5°	1006.7	1006.7	1001.5	998.1	993.0	984.4	982.7	969.1	957.1	945.1	931.4
35°	928.0	929.7	926.3	919.5	911.0	911.0	907.6	895.6	881.9	869.9	859.6
37.5°	849.4	844.3	842.6	839.2	834.1	827.2	823.8	818.7	806.7	798.1	782.8
40°	762.3	764.0	760.6	757.1	755.4	750.3	748.6	740.0	731.5	721.3	714.4
42.5°	683.6	683.6	683.6	680.2	676.8	671.6	669.9	664.8	654.6	647.8	637.5
45°	613.5	608.4	608.4	606.7	605.0	601.6	596.5	593.1	586.3	581.1	569.1
47.5°	545.2	546.9	545.2	543.5	538.3	536.6	534.9	528.2	521.3	516.2	507.6
50°	485.4	488.8	485.4	485.4	481.9	480.2	476.8	471.7	466.6	458.1	449.5
52.5°	435.8	435.8	434.1	432.4	427.3	423.8	422.1	420.4	411.8	405.1	398.3
55°	386.3	388.0	388.0	382.8	381.1	377.7	376.0	370.9	367.4	357.2	352.0
57.5°	343.6	341.9	343.6	340.2	336.7	333.3	331.6	328.2	323.0	316.2	309.3
60°	305.9	302.5	302.5	300.8	297.4	295.6	292.2	287.1	282.1	275.2	270.1
62.5°	268.4	266.6	264.9	263.2	259.8	258.1	256.4	251.2	246.1	241.0	235.8
65°	232.4	232.4	230.7	227.3	225.6	223.8	222.1	218.8	212.0	208.5	203.4
67.5°	200.0	198.3	198.3	194.8	191.4	189.7	189.7	186.3	181.2	176.0	172.6
70°	167.5	169.2	167.5	165.7	162.3	162.3	158.9	157.2	150.4	148.7	143.6
72.5°	138.5	138.5	136.7	136.7	133.3	131.6	131.6	128.2	124.8	121.3	117.9
75°	111.1	111.1	111.1	109.4	107.6	104.2	104.2	102.5	99.1	95.7	92.3
77.5°	87.2	85.5	85.5	83.8	82.1	80.4	80.4	78.6	75.2	73.5	70.1
80°	63.2	61.5	61.5	61.5	58.1	59.8	58.1	56.4	54.7	53.0	51.3
82.5°	41.0	42.7	42.7	41.0	39.3	39.3	39.3	37.6	37.6	35.8	34.1
85°	24.0	24.0	24.0	24.0	22.3	22.3	22.3	20.5	20.5	20.5	18.8
87.5°	10.3	10.3	10.3	10.3	10.3	10.3	8.6	8.6	8.6	8.6	8.6
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°	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6
2.5°	1273.3	1269.9	1268.2	1266.5	1266.5	1264.7	1263.0	1259.6	1259.6	1256.2	1254.5
5°	1280.1	1275.0	1271.6	1268.2	1266.5	1263.0	1259.6	1254.5	1252.8	1247.6	1242.5
7.5°	1281.9	1273.3	1269.9	1263.0	1259.6	1256.2	1249.3	1244.2	1237.3	1232.2	1225.5
10°	1275.0	1268.2	1259.6	1251.0	1249.3	1244.2	1233.9	1227.1	1218.6	1211.8	1201.5
12.5°	1264.7	1254.5	1245.9	1235.6	1230.5	1225.5	1215.2	1204.9	1192.9	1181.0	1170.7
15°	1247.6	1235.6	1223.8	1211.8	1204.9	1199.8	1187.8	1175.8	1163.8	1148.5	1138.3
17.5°	1222.0	1208.4	1196.4	1181.0	1174.1	1169.0	1153.7	1140.0	1124.6	1109.2	1099.0
20°	1189.5	1172.4	1158.8	1141.7	1136.6	1128.0	1112.6	1097.3	1080.2	1063.0	1051.1
22.5°	1146.8	1129.7	1114.3	1097.3	1088.7	1080.2	1064.8	1045.9	1028.9	1015.2	1003.2
25°	1097.3	1081.9	1063.0	1047.6	1037.4	1027.2	1010.1	994.7	979.3	958.8	946.8
27.5°	1042.5	1023.8	1010.1	989.5	979.3	972.5	953.7	933.1	919.5	900.7	887.0
30°	981.0	964.0	948.6	928.0	917.7	911.0	893.9	875.0	861.4	842.6	828.9
32.5°	916.0	897.3	878.5	864.8	852.8	846.0	827.2	815.2	798.1	782.8	767.4
35°	846.0	827.2	813.5	794.7	787.8	781.1	765.7	750.3	734.9	721.3	709.3
37.5°	770.8	757.1	741.7	728.0	722.9	716.2	697.3	683.6	671.6	658.1	647.8
40°	697.3	685.3	675.1	661.4	652.9	647.8	634.1	622.1	608.4	599.8	589.7
42.5°	630.7	617.0	606.7	596.5	588.0	582.8	570.8	562.3	552.0	543.5	531.6
45°	560.6	553.7	541.7	533.3	528.2	521.3	512.7	502.5	493.9	487.1	478.5
47.5°	499.0	492.2	483.6	473.4	470.1	464.9	456.4	449.5	442.7	435.8	427.3
50°	442.7	434.1	427.3	420.4	417.0	411.8	403.4	400.0	394.8	388.0	382.8
52.5°	391.4	384.6	377.7	369.2	367.4	364.0	358.9	352.0	346.9	343.6	340.2
55°	345.3	338.4	333.3	326.5	324.7	321.3	314.5	311.0	307.6	304.2	300.8
57.5°	304.2	297.4	290.5	287.1	283.7	280.3	278.6	273.5	270.1	268.4	264.9
60°	266.6	259.8	254.7	249.5	247.8	246.1	242.7	239.3	235.8	232.4	230.7
62.5°	230.7	223.8	220.4	217.1	213.7	213.7	210.3	206.8	203.4	201.7	198.3
65°	198.3	194.8	189.7	184.6	182.9	182.9	177.7	176.0	174.3	170.9	167.5
67.5°	167.5	164.0	158.9	157.2	155.6	153.9	152.2	148.7	145.3	143.6	140.2
70°	140.2	136.7	133.3	131.6	129.9	128.2	124.8	123.0	119.6	117.9	116.2
72.5°	112.8	111.1	107.6	105.9	104.2	102.5	100.8	99.1	95.7	94.1	92.3
75°	90.6	88.9	85.5	83.8	82.1	82.1	80.4	76.9	75.2	75.2	73.5
77.5°	68.4	66.7	64.9	63.2	61.5	61.5	59.8	58.1	56.4	56.4	54.7
80°	49.5	47.8	46.1	46.1	46.1	44.4	42.7	42.7	41.0	41.0	39.3
82.5°	32.4	32.4	30.8	30.8	30.8	29.1	29.1	27.4	27.4	27.4	27.4
85°	18.8	18.8	18.8	17.1	17.1	17.1	17.1	17.1	17.1	15.4	17.1
87.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	6.8	6.8	6.8
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°	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6
2.5°	1252.8	1251.0	1247.6	1247.6	1244.2	1244.2	1242.5	1240.8	1239.1	1237.3	1235.6
5°	1240.8	1233.9	1230.5	1228.8	1225.5	1223.8	1218.6	1215.2	1213.5	1210.1	1206.6
7.5°	1218.6	1211.8	1204.9	1203.2	1201.5	1194.7	1189.5	1184.4	1181.0	1177.5	1174.1
10°	1192.9	1186.1	1177.5	1174.1	1170.7	1162.2	1155.4	1150.2	1143.4	1136.6	1134.8
12.5°	1162.2	1152.0	1141.7	1138.3	1133.1	1124.6	1117.7	1109.2	1104.0	1095.6	1093.9
15°	1126.3	1114.3	1105.7	1097.3	1093.9	1085.3	1073.3	1066.5	1056.2	1052.8	1044.2
17.5°	1083.6	1071.6	1059.6	1056.2	1051.1	1039.1	1027.2	1018.6	1008.4	1003.2	998.1
20°	1039.1	1023.8	1011.8	1008.4	1001.5	991.2	979.3	970.8	962.3	952.0	946.8
22.5°	987.8	970.8	960.5	952.0	950.3	938.3	924.6	917.7	911.0	902.4	895.6
25°	931.4	916.0	904.2	897.3	893.9	883.6	873.3	864.8	854.5	849.4	840.9
27.5°	873.3	863.1	847.8	840.9	835.8	827.2	815.2	810.1	799.8	793.0	787.8
30°	816.9	801.5	793.0	784.5	779.4	770.8	760.6	755.4	746.9	740.0	734.9
32.5°	755.4	745.1	733.2	729.7	722.9	714.4	707.6	699.0	692.2	685.3	683.6
35°	699.0	685.3	673.4	669.9	664.8	656.3	652.9	647.8	639.2	637.5	630.7
37.5°	637.5	630.7	617.0	611.8	610.1	603.3	596.5	593.1	588.0	582.8	581.1
40°	579.4	570.8	564.0	558.9	555.4	550.3	543.5	541.7	538.3	531.6	529.9
42.5°	524.7	516.2	509.3	507.6	502.5	497.3	493.9	488.8	487.1	485.4	481.9
45°	471.7	466.6	459.8	458.1	456.4	449.5	446.1	442.7	439.2	437.5	434.1
47.5°	423.8	418.7	413.6	411.8	408.5	406.8	401.7	400.0	394.8	393.1	391.4
50°	377.7	374.3	370.9	369.2	365.7	364.0	360.6	357.2	353.7	352.0	350.3
52.5°	336.7	333.3	329.9	328.2	326.5	323.0	319.6	316.2	314.5	312.8	311.0
55°	297.4	293.9	292.2	290.5	288.8	287.1	282.1	280.3	278.6	276.9	273.5
57.5°	261.5	258.1	254.7	254.7	252.9	251.2	247.8	244.4	244.4	241.0	237.5
60°	229.0	225.6	222.1	220.4	218.8	215.4	213.7	212.0	210.3	208.5	205.1
62.5°	194.8	193.1	189.7	189.7	186.3	184.6	182.9	181.2	179.4	176.0	174.3
65°	165.7	164.0	160.6	158.9	158.9	157.2	153.9	152.2	150.4	150.4	148.7
67.5°	138.5	136.7	133.3	131.6	131.6	129.9	128.2	128.2	126.5	124.8	126.5
70°	114.5	111.1	111.1	109.4	109.4	107.6	105.9	105.9	105.9	107.6	107.6
72.5°	90.6	88.9	87.2	87.2	87.2	87.2	85.5	85.5	87.2	88.9	88.9
75°	71.8	70.1	70.1	70.1	68.4	68.4	70.1	70.1	71.8	71.8	71.8
77.5°	53.0	53.0	53.0	53.0	53.0	53.0	54.7	54.7	56.4	56.4	56.4
80°	39.3	39.3	39.3	39.3	39.3	41.0	41.0	41.0	41.0	41.0	42.7
82.5°	27.4	27.4	27.4	27.4	27.4	27.4	27.4	29.1	29.1	29.1	29.1
85°	15.4	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
87.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
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: P584148

CATALOG NUMBER: HC825D010-HM82555835-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6
2.5°	1233.9	1233.9	1233.9	1235.6	1232.2	1232.2	1232.2	1232.2
5°	1204.9	1203.2	1201.5	1203.2	1199.8	1199.8	1198.1	1198.1
7.5°	1169.0	1167.3	1165.6	1165.6	1162.2	1162.2	1160.5	1158.8
10°	1129.7	1126.3	1128.0	1124.6	1122.9	1121.1	1119.4	1117.7
12.5°	1087.0	1083.6	1081.9	1078.5	1075.0	1073.3	1075.0	1071.6
15°	1040.8	1035.8	1034.0	1030.6	1027.2	1025.5	1025.5	1023.8
17.5°	989.5	986.1	984.4	981.0	979.3	975.8	974.2	972.5
20°	941.7	933.1	934.9	931.4	929.7	922.9	922.9	924.6
22.5°	888.7	883.6	880.2	876.8	875.0	871.6	871.6	869.9
25°	835.8	830.6	828.9	825.5	823.8	820.4	818.7	818.7
27.5°	784.5	777.7	777.7	774.3	770.8	769.1	767.4	765.7
30°	729.7	724.6	722.9	722.9	721.3	721.3	716.2	717.9
32.5°	678.5	675.1	673.4	669.9	669.9	668.2	668.2	663.1
35°	627.2	622.1	623.8	620.4	618.7	617.0	618.7	617.0
37.5°	577.7	574.3	574.3	570.8	570.8	569.1	567.4	570.8
40°	528.2	526.4	524.7	523.0	524.7	523.0	519.6	521.3
42.5°	478.5	478.5	476.8	476.8	475.1	475.1	475.1	475.1
45°	434.1	432.4	432.4	430.7	430.7	430.7	430.7	429.0
47.5°	389.7	388.0	388.0	388.0	386.3	386.3	384.6	386.3
50°	346.9	346.9	345.3	345.3	346.9	345.3	343.6	343.6
52.5°	307.6	307.6	305.9	305.9	304.2	302.5	304.2	304.2
55°	271.8	270.1	268.4	268.4	266.6	264.9	264.9	266.6
57.5°	237.5	235.8	234.1	234.1	230.7	229.0	229.0	229.0
60°	205.1	201.7	201.7	200.0	200.0	198.3	198.3	198.3
62.5°	174.3	172.6	172.6	172.6	172.6	170.9	170.9	170.9
65°	148.7	148.7	148.7	150.4	150.4	152.2	152.2	152.2
67.5°	128.2	129.9	129.9	129.9	131.6	131.6	131.6	129.9
70°	109.4	109.4	109.4	111.1	111.1	111.1	111.1	111.1
72.5°	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
75°	71.8	73.5	73.5	73.5	71.8	73.5	73.5	71.8
77.5°	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4
80°	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7
82.5°	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
85°	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
87.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
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)