

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: P584191

Luminaire Tested: **HC825D010-HM82555930-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC825D010-HM82555930-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2257.7 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.08 / 1.17
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

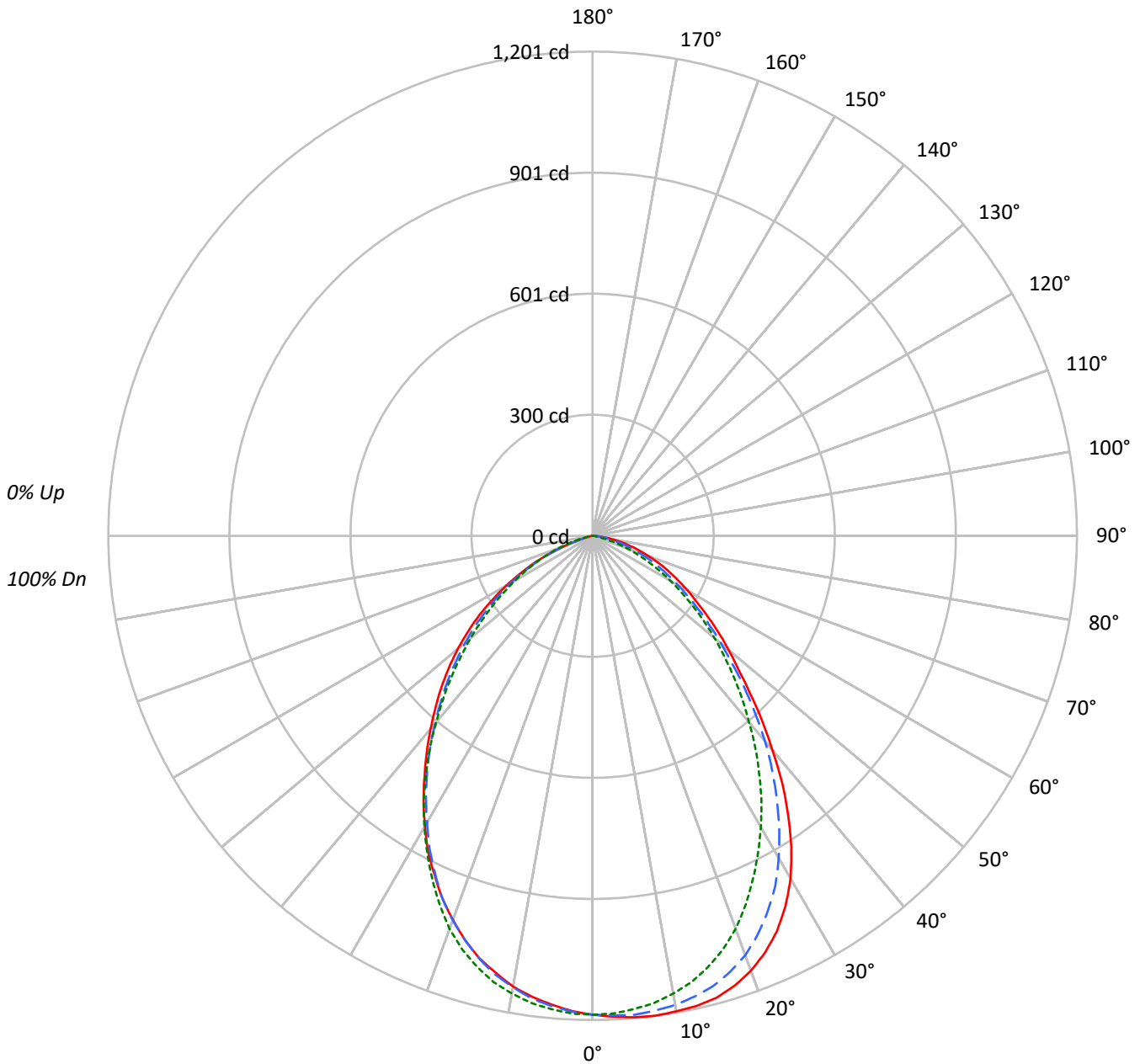
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77								
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67								
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59								
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52								
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47								
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42								
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38								
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35								
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	36630	36630	36630
5°	37114	36476	36133
10°	37493	36103	35558
15°	37872	35340	34634
20°	37679	34039	33258
25°	36804	32000	31568
30°	34955	29707	29593
35°	31821	27104	27345
40°	27896	24261	25155
45°	24068	21582	23104
50°	21074	18944	20921
55°	18671	16284	18419
60°	16818	13691	15258
65°	15162	10996	11689
70°	13289	8006	6437
75°	11330	4158	1692
80°	8719	1119	284
85°	5590	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	5.0
10°-20°	315.1	14.0
20°-30°	447.2	19.8
30°-40°	470.7	20.9
40°-50°	400.5	17.7
50°-60°	289.4	12.8
60°-70°	164.6	7.3
70°-80°	51.9	2.3
80°-90°	6.3	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°	874.4	38.7
0°-40°	1345.1	59.6
0°-60°	2034.9	90.1
0°-90°	2257.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2257.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1188	1188	1188	1188	1188	
5°	1199	1193	1178	1170	1167	114
15°	1186	1156	1107	1086	1085	334
25°	1082	1028	940	925	928	495
35°	845	796	720	715	726	526
45°	552	531	495	508	530	429
55°	347	322	303	320	343	313
65°	208	179	151	149	160	206
75°	95	73	35	16	14	102
85°	16	10	0	0	0	20
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°	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9
2.5°	1194.2	1195.8	1192.7	1192.7	1195.8	1192.7	1194.2	1194.2	1192.7	1192.7	1191.1
5°	1199.0	1197.4	1197.4	1197.4	1199.0	1195.8	1194.2	1195.8	1192.7	1192.7	1192.7
7.5°	1200.6	1200.6	1199.0	1197.4	1197.4	1197.4	1195.8	1194.2	1192.7	1189.5	1187.9
10°	1197.4	1197.4	1199.0	1195.8	1195.8	1192.7	1192.7	1189.5	1189.5	1186.3	1181.6
12.5°	1194.2	1192.7	1192.7	1189.5	1189.5	1186.3	1186.3	1181.6	1180.0	1175.2	1170.5
15°	1186.3	1184.7	1181.6	1180.0	1178.4	1176.8	1173.7	1172.1	1167.3	1161.0	1156.2
17.5°	1170.5	1168.9	1167.3	1164.2	1161.0	1159.3	1157.7	1153.0	1146.7	1141.9	1134.0
20°	1148.2	1146.7	1146.7	1141.9	1140.3	1135.6	1134.0	1127.7	1122.9	1113.3	1107.0
22.5°	1118.2	1119.8	1116.5	1113.3	1110.2	1105.4	1102.3	1095.9	1088.0	1078.5	1070.5
25°	1081.7	1083.3	1080.1	1076.8	1072.1	1068.9	1065.8	1056.3	1048.4	1037.3	1027.7
27.5°	1035.7	1035.7	1035.7	1032.4	1024.5	1023.0	1019.8	1010.3	999.2	989.6	980.1
30°	981.7	980.1	980.1	975.4	972.2	965.9	961.1	953.2	945.2	934.1	923.1
32.5°	916.7	918.3	913.6	910.4	905.6	905.6	899.2	892.9	883.4	872.3	861.2
35°	845.3	846.9	843.8	842.2	834.3	832.7	831.1	823.2	816.8	808.8	796.2
37.5°	772.4	770.8	769.2	769.2	764.4	761.3	758.1	753.4	743.9	737.4	731.1
40°	693.0	693.0	693.0	691.5	689.9	686.7	685.1	682.0	675.6	669.3	664.6
42.5°	621.7	621.7	620.2	618.6	615.4	617.0	613.8	610.6	604.2	599.5	596.3
45°	551.9	551.9	551.9	553.5	550.3	545.6	545.6	542.4	539.3	536.1	531.4
47.5°	490.1	494.9	491.7	490.1	491.7	485.4	485.4	482.1	478.9	475.8	469.4
50°	439.3	439.3	439.3	436.1	434.5	434.5	429.8	426.6	425.0	421.9	415.5
52.5°	393.3	390.1	390.1	388.6	387.0	383.8	383.8	380.6	374.3	371.1	366.4
55°	347.3	347.3	345.7	344.1	342.6	341.0	339.4	334.7	331.5	326.7	322.0
57.5°	306.1	309.2	307.7	304.5	301.3	301.3	298.2	295.0	290.3	285.5	280.8
60°	272.7	271.2	271.2	269.6	266.4	264.8	263.3	258.5	253.8	249.0	244.3
62.5°	237.9	237.9	237.9	234.8	231.5	229.9	228.3	225.2	218.9	214.1	210.9
65°	207.8	206.2	204.6	203.0	201.4	198.3	196.7	193.5	188.7	183.9	179.2
67.5°	177.6	176.0	176.0	174.4	169.7	168.1	168.1	163.4	158.6	153.9	149.1
70°	147.4	147.4	147.4	144.3	142.7	141.1	139.5	136.4	131.6	126.9	122.1
72.5°	122.1	120.6	120.6	119.0	114.2	112.6	111.1	107.9	103.0	99.9	96.7
75°	95.1	95.1	93.6	92.0	90.4	88.8	87.2	84.1	79.3	74.6	73.0
77.5°	73.0	71.4	71.4	69.8	66.7	65.1	65.1	61.8	57.1	53.9	50.7
80°	49.1	50.7	49.1	47.6	46.0	44.4	42.8	41.2	38.1	34.9	31.7
82.5°	30.2	31.7	30.2	30.2	28.6	27.0	27.0	23.8	22.3	20.7	19.0
85°	15.8	15.8	15.8	15.8	14.2	14.2	14.2	12.7	11.1	9.5	9.5
87.5°	4.7	6.3	4.7	4.7	4.7	4.7	4.7	4.7	3.2	3.2	3.2
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°	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9
2.5°	1192.7	1191.1	1189.5	1189.5	1189.5	1189.5	1189.5	1187.9	1186.3	1186.3	1186.3
5°	1189.5	1189.5	1189.5	1187.9	1186.3	1186.3	1183.2	1181.6	1180.0	1178.4	1176.8
7.5°	1186.3	1183.2	1181.6	1180.0	1178.4	1178.4	1175.2	1172.1	1172.1	1168.9	1165.8
10°	1176.8	1175.2	1172.1	1168.9	1167.3	1165.8	1162.6	1157.7	1156.2	1153.0	1149.8
12.5°	1165.8	1162.6	1159.3	1153.0	1151.4	1149.8	1143.5	1138.8	1135.6	1134.0	1126.1
15°	1151.4	1145.1	1140.3	1132.4	1130.8	1127.7	1122.9	1118.2	1111.8	1107.0	1103.8
17.5°	1126.1	1119.8	1111.8	1103.8	1100.7	1100.7	1092.8	1086.4	1078.5	1075.4	1068.9
20°	1095.9	1088.0	1081.7	1072.1	1067.4	1062.6	1057.9	1048.4	1042.0	1037.3	1029.3
22.5°	1061.0	1049.9	1042.0	1032.4	1024.5	1019.8	1011.9	1004.0	996.1	991.2	984.9
25°	1016.6	1007.1	994.5	984.9	980.1	973.8	964.3	956.4	948.4	940.5	937.3
27.5°	967.5	954.8	943.6	932.6	927.8	923.1	912.0	902.4	896.1	888.2	885.0
30°	913.6	900.8	888.2	878.7	873.9	866.0	859.6	848.5	840.6	834.3	826.4
32.5°	851.7	842.2	831.1	816.8	813.6	807.3	797.8	793.0	783.5	778.7	772.4
35°	785.1	778.7	767.6	756.5	751.8	748.6	740.7	731.1	724.8	720.0	716.9
37.5°	721.6	713.7	702.6	694.6	691.5	686.7	677.2	672.5	666.1	663.0	656.7
40°	653.4	645.5	637.6	632.8	628.1	624.9	618.6	613.8	607.4	602.7	601.1
42.5°	586.8	582.1	575.8	569.3	567.7	563.0	559.8	555.1	550.3	548.8	544.0
45°	526.5	521.8	515.4	509.1	507.5	504.4	502.8	498.0	494.9	494.9	494.9
47.5°	466.3	461.5	455.2	452.0	453.6	447.3	447.3	445.7	442.4	442.4	444.0
50°	412.4	406.1	404.5	401.2	398.0	394.9	396.5	391.7	391.7	394.9	393.3
52.5°	361.7	355.2	353.6	350.5	348.9	348.9	347.3	347.3	345.7	347.3	347.3
55°	315.7	310.8	307.7	304.5	302.9	302.9	302.9	301.3	299.7	302.9	304.5
57.5°	274.3	272.7	269.6	264.8	263.3	261.7	260.1	260.1	260.1	260.1	261.7
60°	237.9	234.8	231.5	226.8	226.8	225.2	223.6	222.0	222.0	222.0	222.0
62.5°	206.2	201.4	196.7	193.5	192.0	190.4	188.7	185.5	185.5	185.5	185.5
65°	174.4	169.7	166.5	163.4	160.2	160.2	157.0	155.5	152.3	150.7	147.4
67.5°	144.3	141.1	138.0	133.2	131.6	130.0	126.9	125.3	120.6	119.0	117.4
70°	117.4	112.6	109.5	106.3	104.6	101.5	98.3	95.1	92.0	88.8	85.6
72.5°	92.0	87.2	84.1	80.9	77.7	77.7	73.0	69.8	65.1	61.8	57.1
75°	68.2	63.5	60.2	55.5	53.9	52.3	47.6	44.4	39.7	34.9	31.7
77.5°	46.0	42.8	39.7	34.9	31.7	31.7	27.0	23.8	20.7	15.8	14.2
80°	28.6	25.4	22.3	19.0	19.0	15.8	14.2	11.1	7.9	6.3	4.7
82.5°	15.8	14.2	12.7	9.5	9.5	7.9	6.3	4.7	3.2	1.6	1.6
85°	7.9	6.3	4.7	4.7	3.2	3.2	3.2	1.6	1.6	0.0	0.0
87.5°	3.2	1.6	1.6	1.6	1.6	1.6	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9
2.5°	1184.7	1184.7	1183.2	1183.2	1183.2	1181.6	1183.2	1181.6	1181.6	1181.6	1183.2
5°	1178.4	1175.2	1175.2	1173.7	1173.7	1172.1	1173.7	1172.1	1170.5	1168.9	1170.5
7.5°	1165.8	1162.6	1161.0	1159.3	1159.3	1159.3	1157.7	1156.2	1157.7	1153.0	1156.2
10°	1148.2	1146.7	1143.5	1141.9	1140.3	1141.9	1140.3	1137.2	1137.2	1137.2	1135.6
12.5°	1126.1	1122.9	1121.3	1119.8	1116.5	1116.5	1118.2	1114.9	1114.9	1111.8	1111.8
15°	1099.1	1095.9	1092.8	1092.8	1089.6	1089.6	1088.0	1088.0	1086.4	1084.9	1084.9
17.5°	1065.8	1061.0	1057.9	1059.4	1057.9	1056.3	1056.3	1053.1	1051.5	1053.1	1053.1
20°	1026.1	1023.0	1019.8	1021.4	1018.2	1016.6	1018.2	1013.5	1015.0	1015.0	1015.0
22.5°	981.7	980.1	975.4	975.4	972.2	970.6	972.2	972.2	973.8	972.2	972.2
25°	932.6	929.4	926.2	926.2	924.7	923.1	924.7	926.2	924.7	926.2	926.2
27.5°	880.2	875.5	875.5	872.3	872.3	873.9	872.3	873.9	875.5	875.5	878.7
30°	823.2	821.5	819.9	818.3	818.3	819.9	819.9	819.9	821.5	824.8	824.8
32.5°	769.2	766.0	762.9	762.9	766.0	764.4	766.0	766.0	769.2	769.2	772.4
35°	710.5	710.5	707.4	709.0	709.0	709.0	709.0	712.1	715.3	716.9	720.0
37.5°	656.7	651.8	653.4	653.4	655.1	653.4	658.2	658.2	661.4	661.4	664.6
40°	597.9	597.9	599.5	597.9	599.5	599.5	602.7	605.8	607.4	610.6	612.1
42.5°	542.4	545.6	542.4	544.0	545.6	547.2	548.8	550.3	556.7	559.8	564.6
45°	491.7	493.3	494.9	496.4	494.9	498.0	499.6	502.8	507.5	509.1	510.7
47.5°	442.4	444.0	445.7	447.3	447.3	450.5	452.0	455.2	458.4	460.0	461.5
50°	394.9	398.0	399.6	399.6	401.2	404.5	407.6	407.6	410.8	415.5	417.1
52.5°	352.1	352.1	355.2	356.8	358.5	358.5	363.2	364.8	366.4	369.6	372.7
55°	304.5	309.2	310.8	310.8	314.0	317.1	318.8	320.4	320.4	326.7	326.7
57.5°	263.3	264.8	268.0	268.0	268.0	272.7	272.7	276.0	277.6	279.2	282.3
60°	222.0	225.2	225.2	226.8	225.2	228.3	229.9	233.2	234.8	236.4	237.9
62.5°	183.9	183.9	185.5	185.5	185.5	185.5	188.7	188.7	192.0	193.5	195.1
65°	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	149.1	149.1	152.3
67.5°	114.2	112.6	109.5	111.1	109.5	109.5	107.9	107.9	109.5	109.5	112.6
70°	82.5	80.9	77.7	77.7	76.1	74.6	73.0	71.4	69.8	69.8	69.8
72.5°	53.9	50.7	46.0	44.4	44.4	41.2	38.1	36.5	36.5	36.5	36.5
75°	27.0	23.8	20.7	19.0	19.0	15.8	17.4	15.8	15.8	15.8	15.8
77.5°	11.1	7.9	6.3	6.3	6.3	4.7	4.7	4.7	4.7	4.7	4.7
80°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	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	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: P584191

CATALOG NUMBER: HC825D010-HM82555930-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9	1187.9
2.5°	1181.6	1181.6	1178.4	1180.0	1180.0	1180.0	1180.0	1180.0
5°	1167.3	1168.9	1167.3	1168.9	1168.9	1167.3	1167.3	1167.3
7.5°	1153.0	1154.6	1153.0	1154.6	1154.6	1154.6	1153.0	1153.0
10°	1135.6	1135.6	1135.6	1135.6	1135.6	1134.0	1135.6	1135.6
12.5°	1111.8	1111.8	1111.8	1113.3	1113.3	1111.8	1111.8	1110.2
15°	1086.4	1083.3	1084.9	1086.4	1084.9	1084.9	1084.9	1084.9
17.5°	1051.5	1053.1	1051.5	1051.5	1051.5	1051.5	1053.1	1051.5
20°	1015.0	1015.0	1016.6	1015.0	1015.0	1015.0	1015.0	1013.5
22.5°	973.8	972.2	972.2	973.8	973.8	972.2	973.8	973.8
25°	927.8	929.4	927.8	927.8	929.4	929.4	929.4	927.8
27.5°	878.7	880.2	881.8	880.2	880.2	880.2	881.8	883.4
30°	827.9	831.1	827.9	827.9	831.1	829.5	831.1	831.1
32.5°	773.9	778.7	775.5	778.7	778.7	780.4	778.7	780.4
35°	720.0	724.8	724.8	724.8	726.4	728.0	728.0	726.4
37.5°	669.3	670.9	670.9	674.1	675.6	677.2	677.2	675.6
40°	617.0	620.2	621.7	621.7	621.7	624.9	628.1	624.9
42.5°	566.2	567.7	569.3	569.3	572.6	574.2	575.8	575.8
45°	517.0	520.2	521.8	523.3	524.9	528.2	526.5	529.8
47.5°	466.3	471.0	472.6	474.2	477.4	478.9	480.5	482.1
50°	420.3	423.5	423.5	426.6	431.4	431.4	434.5	436.1
52.5°	374.3	375.9	377.5	379.1	382.2	385.4	385.4	388.6
55°	329.9	331.5	331.5	333.1	334.7	341.0	342.6	342.6
57.5°	283.9	283.9	287.1	288.7	290.3	293.4	293.4	293.4
60°	239.5	241.1	241.1	242.7	244.3	247.4	249.0	247.4
62.5°	195.1	196.7	196.7	198.3	201.4	203.0	201.4	201.4
65°	153.9	155.5	155.5	157.0	160.2	160.2	158.6	160.2
67.5°	112.6	112.6	112.6	112.6	112.6	112.6	112.6	112.6
70°	71.4	69.8	68.2	69.8	69.8	69.8	68.2	71.4
72.5°	34.9	36.5	36.5	36.5	36.5	36.5	36.5	34.9
75°	15.8	15.8	14.2	14.2	14.2	15.8	15.8	14.2
77.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	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)