

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: P584147

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584147
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: HC825D010-HM82555835-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2129.8 lumens
Efficiency: N/A
Efficacy: 79.5 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

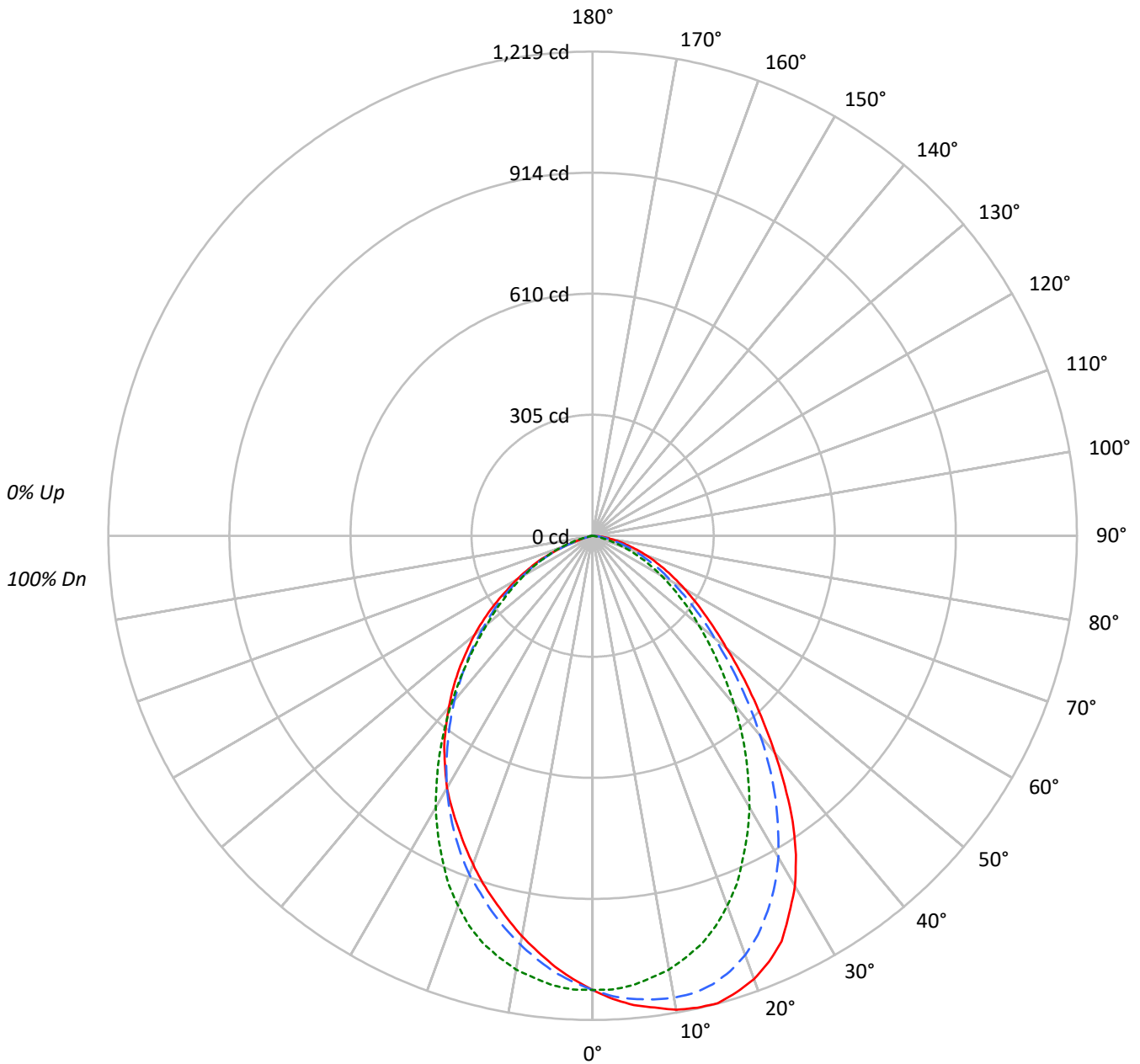
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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°	35258	35258	35258
5°	36715	35182	33700
10°	37944	34731	32057
15°	38903	33935	30392
20°	38978	32527	28884
25°	38321	30472	27389
30°	36269	28115	26107
35°	33070	25282	24514
40°	28757	22289	22635
45°	24670	19306	20719
50°	21070	16647	18613
55°	18472	14333	16171
60°	16442	12230	13599
65°	14593	9974	10850
70°	12947	7402	6167
75°	10794	3860	1835
80°	8488	1208	302
85°	6050	601	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.7	5.1
10°-20°	302.0	14.2
20°-30°	427.4	20.1
30°-40°	447.2	21.0
40°-50°	373.0	17.5
50°-60°	264.5	12.4
60°-70°	152.3	7.2
70°-80°	49.0	2.3
80°-90°	6.7	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°	837.1	39.3
0°-40°	1284.3	60.3
0°-60°	1921.7	90.2
0°-90°	2129.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2129.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1143	1143	1143	1143	1143	
5°	1186	1171	1137	1102	1089	114
15°	1219	1169	1063	979	952	343
25°	1126	1042	896	824	805	514
35°	878	802	672	636	651	545
45°	566	520	443	448	475	438
55°	344	308	267	280	301	310
65°	200	168	137	137	149	200
75°	91	67	32	15	15	98
85°	17	9	2	0	0	21
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°	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4
2.5°	1167.4	1165.7	1163.9	1165.7	1163.9	1165.7	1163.9	1163.9	1162.2	1160.5	1160.5
5°	1186.1	1184.4	1184.4	1184.4	1182.7	1181.0	1181.0	1179.2	1175.8	1174.1	1170.7
7.5°	1198.1	1199.8	1199.8	1199.8	1196.4	1196.4	1192.9	1189.5	1186.1	1182.7	1177.5
10°	1211.8	1211.8	1210.1	1208.4	1204.9	1203.2	1201.5	1198.1	1192.9	1186.1	1181.0
12.5°	1216.9	1216.9	1215.2	1211.8	1210.1	1208.4	1206.6	1201.5	1194.7	1186.1	1179.2
15°	1218.6	1215.2	1213.5	1211.8	1208.4	1203.2	1203.2	1196.4	1187.8	1177.5	1169.0
17.5°	1204.9	1206.6	1203.2	1199.8	1194.7	1191.2	1186.1	1181.0	1170.7	1158.8	1150.2
20°	1187.8	1186.1	1184.4	1179.2	1172.4	1170.7	1165.7	1157.1	1148.5	1134.8	1122.9
22.5°	1160.5	1158.8	1155.4	1152.0	1145.1	1141.7	1136.6	1126.3	1114.3	1100.7	1087.0
25°	1126.3	1122.9	1117.7	1110.9	1105.7	1102.4	1095.6	1085.3	1071.6	1056.2	1042.5
27.5°	1071.6	1076.7	1073.3	1063.0	1057.9	1051.1	1049.3	1035.8	1023.8	1008.4	993.0
30°	1018.6	1018.6	1013.5	1008.4	999.8	994.7	987.8	977.7	965.7	946.8	934.9
32.5°	952.0	950.3	943.4	941.7	934.9	924.6	922.9	909.3	897.3	883.6	868.2
35°	878.5	875.0	868.2	863.1	859.6	854.5	849.5	837.5	825.5	811.8	801.5
37.5°	794.7	794.7	793.0	784.5	781.1	777.7	772.5	760.6	753.7	740.0	729.7
40°	714.4	712.7	707.6	705.9	702.5	697.3	693.9	687.0	676.8	666.5	656.3
42.5°	635.8	637.5	630.7	632.4	625.5	622.1	620.4	610.1	605.0	594.8	586.3
45°	565.7	564.0	560.6	558.9	555.4	552.0	548.6	543.5	535.0	524.7	519.6
47.5°	500.8	495.6	495.6	493.9	492.2	485.4	483.6	478.5	473.5	463.2	456.4
50°	439.2	439.2	439.2	437.5	432.4	430.7	427.3	422.1	417.0	410.2	400.0
52.5°	389.7	389.7	389.7	388.0	381.1	379.4	377.7	370.9	364.0	358.9	352.0
55°	343.6	345.3	343.6	340.2	335.0	335.0	329.9	326.5	319.6	314.5	307.6
57.5°	304.2	304.2	300.8	299.1	295.6	293.9	290.5	287.1	278.6	273.5	264.9
60°	266.6	264.9	264.9	261.5	258.1	254.7	252.9	247.8	244.4	235.8	229.0
62.5°	232.4	232.4	229.0	229.0	222.1	222.1	220.5	215.4	210.3	201.7	198.3
65°	200.0	200.0	198.3	196.6	191.4	189.7	188.0	182.9	177.7	172.6	167.5
67.5°	170.9	170.9	167.5	165.7	162.3	160.6	157.3	153.9	148.7	143.6	138.5
70°	143.6	141.9	140.2	138.5	135.0	133.3	129.9	126.5	121.3	117.9	112.8
72.5°	116.2	116.2	114.5	111.1	109.4	107.6	105.9	102.5	97.4	92.3	88.9
75°	90.6	90.6	90.6	87.2	83.8	82.1	82.1	78.6	75.2	70.1	66.7
77.5°	70.1	68.4	66.7	66.7	63.2	61.5	59.8	58.1	53.0	51.3	47.8
80°	47.8	49.5	47.8	46.1	44.4	42.7	42.7	39.3	37.6	34.1	30.8
82.5°	32.4	30.8	30.8	29.1	29.1	27.4	27.4	24.0	22.3	20.5	18.8
85°	17.1	17.1	15.4	15.4	15.4	13.7	13.7	12.0	12.0	10.3	8.6
87.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	3.4	3.4	3.4
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°	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4
2.5°	1158.8	1155.4	1153.7	1153.7	1152.0	1150.2	1148.5	1146.8	1143.4	1143.4	1140.0
5°	1167.4	1163.9	1162.2	1157.1	1153.7	1153.7	1146.8	1145.1	1140.0	1136.6	1133.1
7.5°	1174.1	1167.4	1162.2	1157.1	1153.7	1150.2	1143.4	1136.6	1129.7	1122.9	1119.4
10°	1174.1	1167.4	1158.8	1150.2	1146.8	1143.4	1134.8	1124.6	1116.0	1109.2	1100.7
12.5°	1170.7	1160.5	1150.2	1143.4	1136.6	1131.4	1121.1	1110.9	1100.7	1087.0	1080.2
15°	1160.5	1146.8	1136.6	1124.6	1119.4	1110.9	1102.4	1087.0	1075.0	1063.0	1054.5
17.5°	1140.0	1122.9	1110.9	1099.0	1090.4	1085.3	1071.6	1057.9	1044.2	1030.6	1020.4
20°	1109.2	1093.9	1080.2	1064.8	1057.9	1051.1	1034.0	1020.4	1006.7	991.2	981.0
22.5°	1071.6	1056.2	1037.5	1025.5	1015.2	1006.7	991.2	975.9	962.3	948.6	934.9
25°	1025.5	1010.1	993.0	974.2	967.4	958.8	941.7	926.3	911.0	895.6	883.6
27.5°	975.9	955.4	941.7	921.2	914.4	905.9	887.0	869.9	856.2	844.3	830.6
30°	916.0	900.7	881.9	863.1	856.2	847.8	832.4	816.9	803.2	789.6	776.0
32.5°	851.2	835.8	816.9	803.2	793.0	786.2	770.8	757.1	743.4	729.7	717.9
35°	782.8	765.7	752.0	738.3	729.7	721.3	705.9	693.9	683.6	671.6	659.8
37.5°	712.7	700.7	687.0	671.6	663.1	656.3	644.4	630.7	622.1	611.8	603.3
40°	644.4	630.7	618.7	605.0	598.2	593.1	581.1	570.8	562.3	553.7	548.6
42.5°	574.3	562.3	550.3	541.7	536.6	531.6	523.0	511.0	505.9	497.3	492.2
45°	509.3	499.0	490.5	478.5	475.1	471.8	461.5	452.9	447.8	442.7	439.2
47.5°	447.8	440.9	430.7	423.8	418.7	415.3	408.5	401.7	396.5	393.1	389.7
50°	394.8	386.3	379.4	372.6	369.2	364.0	357.2	353.7	350.3	347.0	347.0
52.5°	345.3	336.7	329.9	324.7	321.3	317.9	312.8	311.0	307.6	307.6	305.9
55°	299.1	293.9	287.1	280.3	278.6	276.9	273.5	270.1	268.4	266.6	268.4
57.5°	259.8	254.7	247.8	242.7	241.0	239.3	237.5	234.1	232.4	232.4	232.4
60°	223.8	218.8	213.7	208.5	208.5	205.1	203.4	201.7	200.0	198.3	198.3
62.5°	191.4	186.3	181.2	177.7	176.0	174.3	170.9	169.2	167.5	167.5	165.7
65°	162.3	155.6	153.9	148.7	147.0	145.3	143.6	140.2	138.5	136.7	135.0
67.5°	133.3	129.9	124.8	121.3	119.6	117.9	116.2	112.8	111.1	109.4	105.9
70°	107.6	104.2	100.8	97.4	95.7	94.1	90.6	87.2	85.5	82.1	76.9
72.5°	83.8	80.4	76.9	73.5	71.8	70.1	66.7	63.2	59.8	56.4	53.0
75°	63.2	59.8	54.7	51.3	49.5	49.5	44.4	41.0	37.6	32.4	29.1
77.5°	44.4	39.3	37.6	34.1	32.4	29.1	25.7	22.3	18.8	17.1	13.7
80°	29.1	25.7	22.3	20.5	18.8	17.1	15.4	12.0	8.6	6.8	5.1
82.5°	17.1	15.4	13.7	12.0	10.3	8.6	6.8	6.8	5.1	3.4	1.7
85°	8.6	6.8	5.1	5.1	3.4	3.4	3.4	1.7	1.7	1.7	1.7
87.5°	3.4	1.7	1.7	1.7	1.7	1.7	1.7	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4
2.5°	1138.3	1136.6	1134.8	1133.1	1133.1	1129.7	1129.7	1128.0	1124.6	1122.9	1122.9
5°	1128.0	1122.9	1119.4	1117.7	1116.0	1110.9	1109.2	1105.7	1102.4	1099.0	1097.3
7.5°	1112.6	1104.1	1100.7	1099.0	1093.9	1088.7	1085.3	1080.2	1075.0	1069.9	1068.2
10°	1093.9	1085.3	1076.7	1073.3	1068.2	1064.8	1057.9	1051.1	1045.9	1040.9	1035.8
12.5°	1069.9	1059.6	1051.1	1047.6	1042.5	1035.8	1025.5	1022.1	1013.5	1010.1	1003.2
15°	1042.5	1030.6	1022.1	1016.9	1011.8	1001.5	994.7	987.8	979.3	975.9	969.1
17.5°	1008.4	994.7	986.1	981.0	977.7	969.1	958.8	950.3	941.7	938.3	933.1
20°	967.4	958.8	946.8	941.7	938.3	928.0	917.7	914.4	907.6	900.7	895.6
22.5°	921.2	912.7	900.7	895.6	893.9	885.3	876.8	871.6	866.5	861.4	856.2
25°	873.3	863.1	852.8	849.5	846.0	839.2	832.4	828.9	823.8	820.4	816.9
27.5°	822.1	811.8	803.2	798.1	794.7	789.6	786.2	782.8	779.4	776.0	774.3
30°	767.4	757.1	750.3	746.9	743.4	741.7	736.6	734.9	733.2	729.7	731.5
32.5°	712.7	704.2	697.3	692.2	692.2	688.8	687.0	687.0	685.3	685.3	685.3
35°	652.9	647.8	642.6	640.9	639.2	637.5	635.8	637.5	635.8	637.5	639.2
37.5°	598.2	593.1	589.7	588.0	586.3	588.0	586.3	586.3	588.0	591.4	593.1
40°	541.7	538.3	535.0	536.6	535.0	535.0	535.0	540.0	541.7	543.5	545.2
42.5°	488.8	485.4	483.6	483.6	485.4	483.6	487.1	488.8	492.2	497.3	500.8
45°	437.5	435.8	435.8	437.5	435.8	439.2	439.2	442.7	447.8	451.2	454.6
47.5°	389.7	389.7	389.7	391.4	391.4	393.1	396.5	398.3	401.7	405.1	408.5
50°	345.3	347.0	348.6	348.6	348.6	352.0	355.5	357.2	358.9	360.6	365.7
52.5°	305.9	307.6	307.6	309.3	311.0	312.8	314.5	317.9	319.6	323.0	324.7
55°	268.4	268.4	271.8	273.5	273.5	273.5	276.9	276.9	280.3	282.1	285.4
57.5°	232.4	234.1	234.1	235.8	235.8	237.5	239.3	241.0	242.7	244.4	246.1
60°	198.3	198.3	198.3	200.0	201.7	203.4	201.7	205.1	205.1	208.5	210.3
62.5°	165.7	167.5	167.5	167.5	167.5	167.5	167.5	169.2	170.9	172.6	174.3
65°	135.0	135.0	135.0	133.3	135.0	133.3	135.0	136.7	136.7	138.5	140.2
67.5°	104.2	104.2	100.8	100.8	102.5	102.5	102.5	102.5	100.8	104.2	104.2
70°	75.2	73.5	71.8	70.1	70.1	68.4	68.4	66.7	66.7	66.7	66.7
72.5°	49.5	46.1	42.7	41.0	39.3	39.3	35.8	34.1	35.8	35.8	35.8
75°	25.7	22.3	20.5	18.8	17.1	17.1	15.4	15.4	15.4	15.4	15.4
77.5°	10.3	8.6	6.8	6.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1
80°	3.4	3.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	1.7	0.0	0.0	1.7	0.0	1.7	1.7	1.7	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: P584147

CATALOG NUMBER: HC825D010-HM82555835-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4	1143.4
2.5°	1121.1	1121.1	1119.4	1121.1	1117.7	1119.4	1117.7	1117.7
5°	1095.6	1092.1	1092.1	1092.1	1090.4	1090.4	1088.7	1088.7
7.5°	1064.8	1063.0	1061.3	1059.6	1057.9	1056.2	1056.2	1056.2
10°	1034.0	1030.6	1030.6	1028.9	1025.5	1023.8	1023.8	1023.8
12.5°	998.1	996.4	994.7	994.7	987.8	989.5	987.8	987.8
15°	964.0	962.3	962.3	957.1	953.7	953.7	953.7	952.0
17.5°	928.0	926.3	924.6	921.2	917.7	917.7	916.0	917.7
20°	890.5	888.7	885.3	885.3	883.6	881.9	878.5	880.2
22.5°	852.8	849.5	847.8	847.8	846.0	846.0	842.6	842.6
25°	813.5	811.8	810.1	811.8	808.4	808.4	805.0	805.0
27.5°	772.5	770.8	770.8	770.8	769.1	770.8	769.1	769.1
30°	731.5	731.5	729.7	729.7	731.5	729.7	731.5	733.2
32.5°	687.0	687.0	688.8	688.8	690.5	690.5	690.5	690.5
35°	640.9	644.4	644.4	646.1	647.8	649.5	649.5	651.2
37.5°	598.2	599.8	601.6	603.3	606.7	606.7	606.7	606.7
40°	552.0	553.7	557.1	555.4	562.3	564.0	562.3	562.3
42.5°	504.2	507.6	509.3	512.7	514.5	517.9	519.6	519.6
45°	459.8	461.5	464.9	468.3	470.1	475.1	475.1	475.1
47.5°	413.6	417.0	418.7	422.1	423.8	429.0	430.7	429.0
50°	369.2	372.6	376.0	376.0	381.1	382.8	386.3	388.0
52.5°	326.5	328.2	331.6	333.3	336.7	340.2	341.9	343.6
55°	285.4	287.1	290.5	290.5	295.6	297.4	300.8	300.8
57.5°	247.8	249.5	252.9	251.2	254.7	258.1	258.1	256.4
60°	212.0	212.0	212.0	215.4	217.1	218.8	220.5	220.5
62.5°	174.3	177.7	179.4	179.4	181.2	182.9	182.9	181.2
65°	140.2	143.6	145.3	145.3	147.0	147.0	147.0	148.7
67.5°	105.9	105.9	105.9	107.6	105.9	105.9	105.9	105.9
70°	66.7	66.7	66.7	66.7	64.9	66.7	66.7	68.4
72.5°	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8
75°	15.4	15.4	15.4	17.1	15.4	15.4	15.4	15.4
77.5°	6.8	5.1	6.8	6.8	5.1	5.1	5.1	5.1
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	0.0	1.7	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)