

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: P584208

Luminaire Tested: **HC825D010-HM82555935-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584208
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-HM82555935-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2269.9 lumens
Efficiency: N/A
Efficacy: 84.7 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

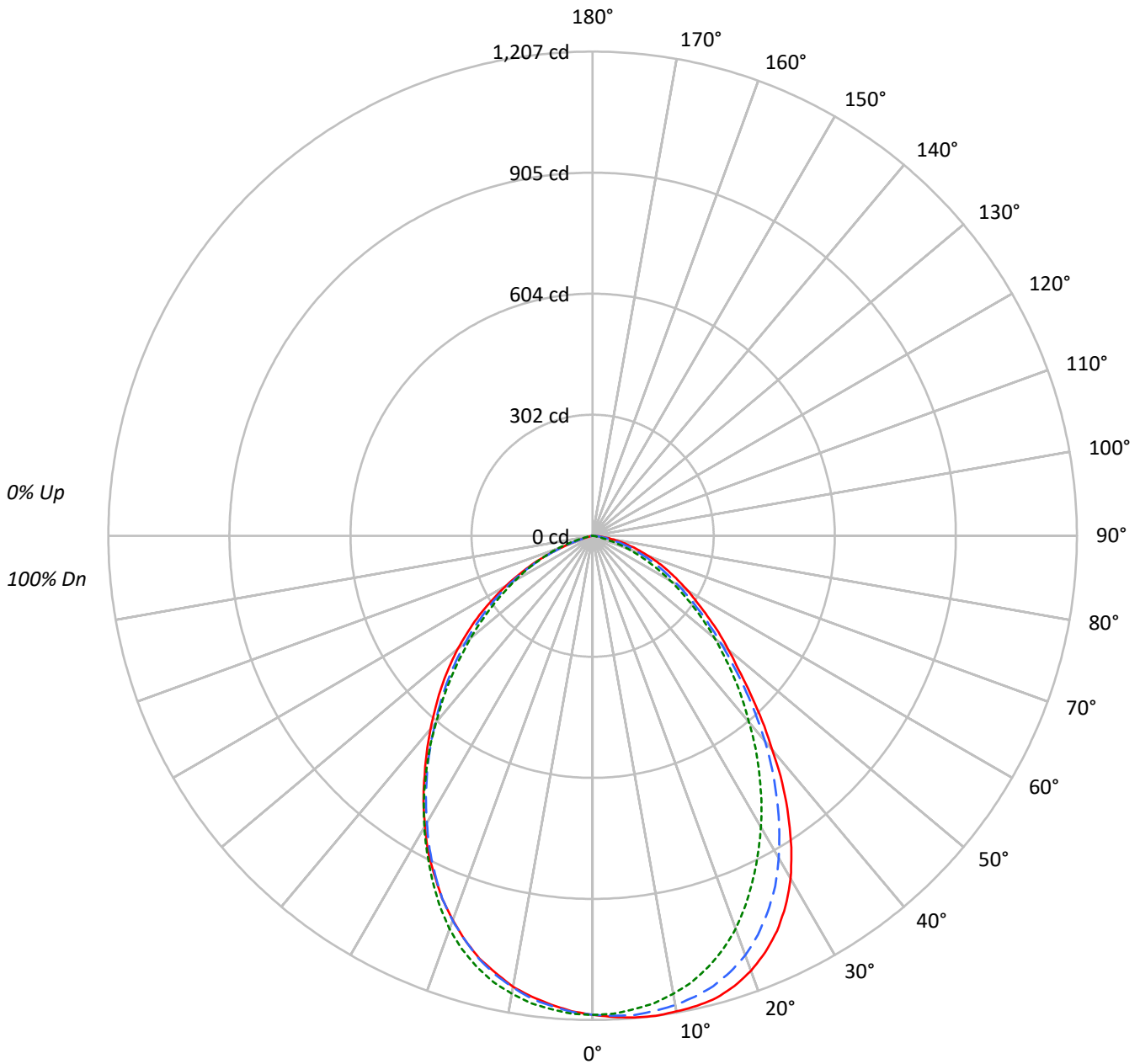
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	36828	36828	36828
5°	37315	36671	36328
10°	37697	36297	35749
15°	38076	35532	34820
20°	37882	34220	33439
25°	36998	32173	31738
30°	35147	29867	29753
35°	31994	27254	27492
40°	28049	24390	25292
45°	24199	21700	23222
50°	21190	19050	21036
55°	18774	16370	18515
60°	16911	13765	15344
65°	15242	11054	11747
70°	13371	8051	6473
75°	11402	4182	1704
80°	8772	1137	284
85°	5626	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.7	5.0
10°-20°	316.8	14.0
20°-30°	449.6	19.8
30°-40°	473.3	20.9
40°-50°	402.6	17.7
50°-60°	290.9	12.8
60°-70°	165.5	7.3
70°-80°	52.1	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°	879.1	38.7
0°-40°	1352.4	59.6
0°-60°	2045.9	90.1
0°-90°	2269.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2269.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1194	1194	1194	1194	1194	
5°	1206	1199	1185	1177	1174	115
15°	1193	1162	1113	1092	1091	336
25°	1087	1033	946	930	933	498
35°	850	800	724	719	730	529
45°	555	534	498	510	532	431
55°	349	324	304	322	344	315
65°	209	180	152	150	161	207
75°	96	73	35	16	14	103
85°	16	10	0	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°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3
2.5°	1200.6	1202.3	1199.1	1199.1	1202.3	1199.1	1200.6	1200.6	1199.1	1199.1	1197.5
5°	1205.5	1203.9	1203.9	1203.9	1205.5	1202.3	1200.6	1202.3	1199.1	1199.1	1199.1
7.5°	1207.1	1207.1	1205.5	1203.9	1203.9	1203.9	1202.3	1200.6	1199.1	1195.9	1194.3
10°	1203.9	1203.9	1205.5	1202.3	1202.3	1199.1	1199.1	1195.9	1195.9	1192.7	1187.9
12.5°	1200.6	1199.1	1199.1	1195.9	1195.9	1192.7	1192.7	1187.9	1186.3	1181.6	1176.8
15°	1192.7	1191.1	1187.9	1186.3	1184.7	1183.2	1180.0	1178.4	1173.6	1167.3	1162.4
17.5°	1176.8	1175.2	1173.6	1170.4	1167.3	1165.7	1164.1	1159.2	1152.8	1148.1	1140.1
20°	1154.4	1152.8	1152.8	1148.1	1146.5	1141.7	1140.1	1133.8	1129.0	1119.3	1113.0
22.5°	1124.1	1125.7	1122.5	1119.3	1116.2	1111.4	1108.2	1101.9	1093.9	1084.3	1076.3
25°	1087.4	1089.0	1085.8	1082.7	1077.9	1074.7	1071.5	1062.0	1054.0	1042.8	1033.3
27.5°	1041.2	1041.2	1041.2	1038.0	1030.1	1028.5	1025.3	1015.8	1004.5	995.0	985.5
30°	987.1	985.5	985.5	980.7	977.4	971.1	966.3	958.3	950.4	939.1	928.0
32.5°	921.7	923.2	918.5	915.3	910.5	910.5	904.2	897.7	888.2	877.0	865.8
35°	849.9	851.5	848.3	846.7	838.8	837.2	835.6	827.5	821.2	813.2	800.5
37.5°	776.5	775.0	773.4	773.4	768.6	765.4	762.2	757.5	747.8	741.5	735.1
40°	696.8	696.8	696.8	695.2	693.7	690.5	688.9	685.7	679.2	672.9	668.1
42.5°	625.1	625.1	623.5	621.9	618.7	620.3	617.1	613.9	607.5	602.7	599.5
45°	554.9	554.9	554.9	556.5	553.3	548.5	548.5	545.4	542.2	539.0	534.1
47.5°	492.7	497.6	494.3	492.7	494.3	487.9	487.9	484.7	481.6	478.4	472.0
50°	441.7	441.7	441.7	438.5	436.9	436.9	432.2	429.0	427.4	424.1	417.7
52.5°	395.5	392.3	392.3	390.7	389.1	385.8	385.8	382.7	376.3	373.1	368.3
55°	349.2	349.2	347.6	346.0	344.4	342.8	341.2	336.4	333.3	328.5	323.7
57.5°	307.7	310.9	309.3	306.1	302.9	302.9	299.8	296.6	291.8	287.0	282.3
60°	274.2	272.6	272.6	271.0	267.9	266.3	264.7	259.9	255.1	250.4	245.6
62.5°	239.1	239.1	239.1	236.0	232.8	231.2	229.6	226.4	220.1	215.3	212.1
65°	208.9	207.3	205.7	204.0	202.6	199.3	197.7	194.5	189.7	185.0	180.2
67.5°	178.6	177.0	177.0	175.4	170.7	169.1	169.1	164.2	159.4	154.7	149.9
70°	148.3	148.3	148.3	145.1	143.5	141.9	140.3	137.2	132.4	127.5	122.7
72.5°	122.7	121.2	121.2	119.6	114.8	113.2	111.6	108.4	103.7	100.5	97.3
75°	95.7	95.7	94.1	92.4	90.8	89.3	87.7	84.5	79.7	74.9	73.4
77.5°	73.4	71.8	71.8	70.2	67.0	65.4	65.4	62.2	57.4	54.2	51.0
80°	49.4	51.0	49.4	47.8	46.2	44.6	43.0	41.4	38.3	35.1	31.9
82.5°	30.3	31.9	30.3	30.3	28.7	27.1	27.1	24.0	22.4	20.8	19.2
85°	15.9	15.9	15.9	15.9	14.3	14.3	14.3	12.7	11.1	9.5	9.5
87.5°	4.8	6.4	4.8	4.8	4.8	4.8	4.8	4.8	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°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3
2.5°	1199.1	1197.5	1195.9	1195.9	1195.9	1195.9	1195.9	1194.3	1192.7	1192.7	1192.7
5°	1195.9	1195.9	1195.9	1194.3	1192.7	1192.7	1189.5	1187.9	1186.3	1184.7	1183.2
7.5°	1192.7	1189.5	1187.9	1186.3	1184.7	1184.7	1181.6	1178.4	1178.4	1175.2	1172.0
10°	1183.2	1181.6	1178.4	1175.2	1173.6	1172.0	1168.8	1164.1	1162.4	1159.2	1156.0
12.5°	1172.0	1168.8	1165.7	1159.2	1157.6	1156.0	1149.7	1144.9	1141.7	1140.1	1132.2
15°	1157.6	1151.2	1146.5	1138.5	1136.9	1133.8	1129.0	1124.1	1117.8	1113.0	1109.8
17.5°	1132.2	1125.7	1117.8	1109.8	1106.6	1106.6	1098.7	1092.3	1084.3	1081.1	1074.7
20°	1101.9	1093.9	1087.4	1077.9	1073.1	1068.4	1063.6	1054.0	1047.6	1042.8	1034.9
22.5°	1066.8	1055.6	1047.6	1038.0	1030.1	1025.3	1017.4	1009.3	1001.4	996.6	990.2
25°	1022.1	1012.5	999.8	990.2	985.5	979.0	969.5	961.5	953.6	945.6	942.3
27.5°	972.6	959.9	948.8	937.6	932.8	928.0	916.9	907.3	900.9	892.9	889.7
30°	918.5	905.8	892.9	883.4	878.6	870.7	864.2	853.1	845.1	838.8	830.7
32.5°	856.3	846.7	835.6	821.2	818.0	811.6	802.1	797.3	787.7	782.9	776.5
35°	789.3	782.9	771.8	760.6	755.8	752.6	744.6	735.1	728.7	724.0	720.8
37.5°	725.6	717.5	706.4	698.4	695.2	690.5	680.8	676.1	669.7	666.5	660.2
40°	657.0	649.0	641.0	636.2	631.4	628.3	621.9	617.1	610.8	605.9	604.3
42.5°	590.0	585.2	578.9	572.4	570.8	566.0	562.9	558.1	553.3	551.7	546.9
45°	529.4	524.6	518.2	511.9	510.3	507.1	505.5	500.7	497.6	497.6	497.6
47.5°	468.8	464.1	457.6	454.4	456.0	449.6	449.6	448.1	444.9	444.9	446.5
50°	414.6	408.2	406.6	403.4	400.2	397.1	398.7	393.9	393.9	397.1	395.5
52.5°	363.6	357.2	355.6	352.4	350.9	350.9	349.2	349.2	347.6	349.2	349.2
55°	317.4	312.5	309.3	306.1	304.5	304.5	304.5	302.9	301.4	304.5	306.1
57.5°	275.8	274.2	271.0	266.3	264.7	263.1	261.5	261.5	261.5	261.5	263.1
60°	239.1	236.0	232.8	228.0	228.0	226.4	224.8	223.2	223.2	223.2	223.2
62.5°	207.3	202.6	197.7	194.5	192.9	191.3	189.7	186.6	186.6	186.6	186.6
65°	175.4	170.7	167.5	164.2	161.0	161.0	157.8	156.2	153.1	151.5	148.3
67.5°	145.1	141.9	138.8	134.0	132.4	130.8	127.5	125.9	121.2	119.6	118.0
70°	118.0	113.2	110.0	106.8	105.3	102.1	98.9	95.7	92.4	89.3	86.1
72.5°	92.4	87.7	84.5	81.3	78.1	78.1	73.4	70.2	65.4	62.2	57.4
75°	68.6	63.8	60.6	55.9	54.2	52.6	47.8	44.6	39.9	35.1	31.9
77.5°	46.2	43.0	39.9	35.1	31.9	31.9	27.1	24.0	20.8	15.9	14.3
80°	28.7	25.5	22.4	19.2	19.2	15.9	14.3	11.1	8.0	6.4	4.8
82.5°	15.9	14.3	12.7	9.5	9.5	8.0	6.4	4.8	3.2	1.6	1.6
85°	8.0	6.4	4.8	4.8	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°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3
2.5°	1191.1	1191.1	1189.5	1189.5	1189.5	1187.9	1189.5	1187.9	1187.9	1187.9	1189.5
5°	1184.7	1181.6	1181.6	1180.0	1180.0	1178.4	1180.0	1178.4	1176.8	1175.2	1176.8
7.5°	1172.0	1168.8	1167.3	1165.7	1165.7	1165.7	1164.1	1162.4	1164.1	1159.2	1162.4
10°	1154.4	1152.8	1149.7	1148.1	1146.5	1148.1	1146.5	1143.3	1143.3	1143.3	1141.7
12.5°	1132.2	1129.0	1127.4	1125.7	1122.5	1122.5	1124.1	1120.9	1120.9	1117.8	1117.8
15°	1105.0	1101.9	1098.7	1098.7	1095.5	1095.5	1093.9	1093.9	1092.3	1090.7	1090.7
17.5°	1071.5	1066.8	1063.6	1065.2	1063.6	1062.0	1062.0	1058.8	1057.2	1058.8	1058.8
20°	1031.7	1028.5	1025.3	1026.9	1023.7	1022.1	1023.7	1019.0	1020.5	1020.5	1020.5
22.5°	987.1	985.5	980.7	980.7	977.4	975.8	977.4	977.4	979.0	977.4	977.4
25°	937.6	934.4	931.2	931.2	929.6	928.0	929.6	931.2	929.6	931.2	931.2
27.5°	885.0	880.2	880.2	877.0	877.0	878.6	877.0	878.6	880.2	880.2	883.4
30°	827.5	825.9	824.4	822.8	822.8	824.4	824.4	824.4	825.9	829.1	829.1
32.5°	773.4	770.2	767.0	767.0	770.2	768.6	770.2	770.2	773.4	773.4	776.5
35°	714.3	714.3	711.1	712.7	712.7	712.7	712.7	715.9	719.1	720.8	724.0
37.5°	660.2	655.4	657.0	657.0	658.6	657.0	661.7	661.7	664.9	664.9	668.1
40°	601.1	601.1	602.7	601.1	602.7	602.7	605.9	609.2	610.8	613.9	615.5
42.5°	545.4	548.5	545.4	546.9	548.5	550.1	551.7	553.3	559.7	562.9	567.6
45°	494.3	495.9	497.6	499.0	497.6	500.7	502.3	505.5	510.3	511.9	513.5
47.5°	444.9	446.5	448.1	449.6	449.6	452.8	454.4	457.6	460.8	462.5	464.1
50°	397.1	400.2	401.8	401.8	403.4	406.6	409.8	409.8	413.0	417.7	419.3
52.5°	354.0	354.0	357.2	358.8	360.4	360.4	365.2	366.8	368.3	371.5	374.7
55°	306.1	310.9	312.5	312.5	315.8	318.9	320.5	322.1	322.1	328.5	328.5
57.5°	264.7	266.3	269.4	269.4	269.4	274.2	274.2	277.5	279.1	280.7	283.9
60°	223.2	226.4	226.4	228.0	226.4	229.6	231.2	234.4	236.0	237.5	239.1
62.5°	185.0	185.0	186.6	186.6	186.6	186.6	189.7	189.7	192.9	194.5	196.1
65°	148.3	148.3	148.3	148.3	148.3	148.3	148.3	148.3	149.9	149.9	153.1
67.5°	114.8	113.2	110.0	111.6	110.0	110.0	108.4	108.4	110.0	110.0	113.2
70°	82.9	81.3	78.1	78.1	76.5	74.9	73.4	71.8	70.2	70.2	70.2
72.5°	54.2	51.0	46.2	44.6	44.6	41.4	38.3	36.7	36.7	36.7	36.7
75°	27.1	24.0	20.8	19.2	19.2	15.9	17.5	15.9	15.9	15.9	15.9
77.5°	11.1	8.0	6.4	6.4	6.4	4.8	4.8	4.8	4.8	4.8	4.8
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: P584208

CATALOG NUMBER: HC825D010-HM82555935-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3
2.5°	1187.9	1187.9	1184.7	1186.3	1186.3	1186.3	1186.3	1186.3
5°	1173.6	1175.2	1173.6	1175.2	1175.2	1173.6	1173.6	1173.6
7.5°	1159.2	1160.8	1159.2	1160.8	1160.8	1160.8	1159.2	1159.2
10°	1141.7	1141.7	1141.7	1141.7	1141.7	1140.1	1141.7	1141.7
12.5°	1117.8	1117.8	1117.8	1119.3	1119.3	1117.8	1117.8	1116.2
15°	1092.3	1089.0	1090.7	1092.3	1090.7	1090.7	1090.7	1090.7
17.5°	1057.2	1058.8	1057.2	1057.2	1057.2	1057.2	1058.8	1057.2
20°	1020.5	1020.5	1022.1	1020.5	1020.5	1020.5	1020.5	1019.0
22.5°	979.0	977.4	977.4	979.0	979.0	977.4	979.0	979.0
25°	932.8	934.4	932.8	932.8	934.4	934.4	934.4	932.8
27.5°	883.4	885.0	886.6	885.0	885.0	885.0	886.6	888.2
30°	832.4	835.6	832.4	832.4	835.6	834.0	835.6	835.6
32.5°	778.1	782.9	779.7	782.9	782.9	784.5	782.9	784.5
35°	724.0	728.7	728.7	728.7	730.3	731.9	731.9	730.3
37.5°	672.9	674.5	674.5	677.6	679.2	680.8	680.8	679.2
40°	620.3	623.5	625.1	625.1	625.1	628.3	631.4	628.3
42.5°	569.2	570.8	572.4	572.4	575.7	577.3	578.9	578.9
45°	519.8	523.0	524.6	526.2	527.8	530.9	529.4	532.5
47.5°	468.8	473.6	475.2	476.8	480.0	481.6	483.1	484.7
50°	422.5	425.8	425.8	429.0	433.7	433.7	436.9	438.5
52.5°	376.3	377.9	379.5	381.1	384.2	387.4	387.4	390.7
55°	331.7	333.3	333.3	334.8	336.4	342.8	344.4	344.4
57.5°	285.5	285.5	288.6	290.2	291.8	295.0	295.0	295.0
60°	240.8	242.4	242.4	244.0	245.6	248.8	250.4	248.8
62.5°	196.1	197.7	197.7	199.3	202.6	204.0	202.6	202.6
65°	154.7	156.2	156.2	157.8	161.0	161.0	159.4	161.0
67.5°	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2
70°	71.8	70.2	68.6	70.2	70.2	70.2	68.6	71.8
72.5°	35.1	36.7	36.7	36.7	36.7	36.7	36.7	35.1
75°	15.9	15.9	14.3	14.3	14.3	15.9	15.9	14.3
77.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
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)