

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: P584198

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584198  
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-HM82555930-81WWBB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1975.5 lumens  
Efficiency: N/A  
Efficacy: 73.7 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

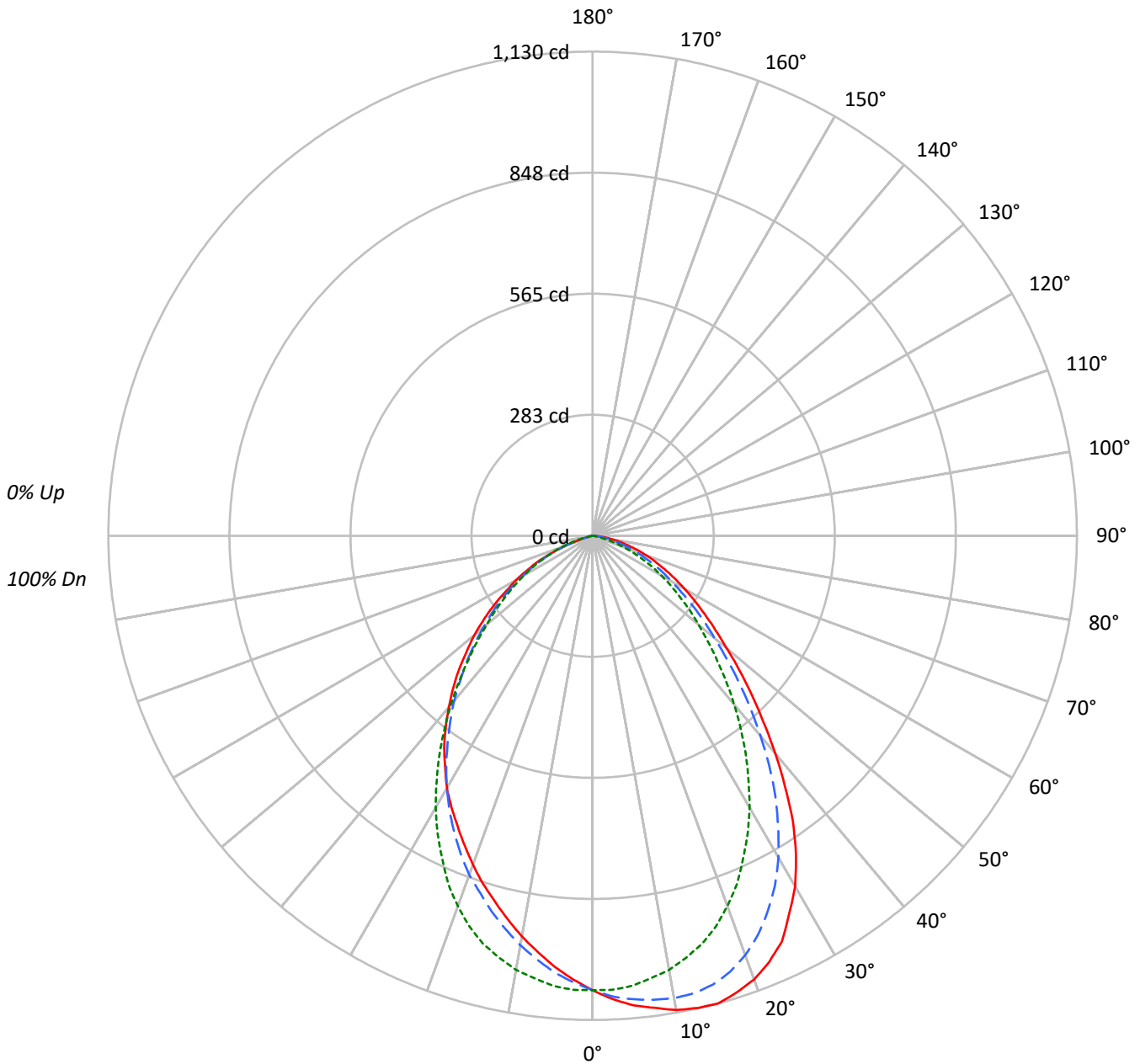
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P584198

CATALOG NUMBER: HC825D010-HM82555930-81WWBB

### Luminous Intensity Polar Plot





TEST NUMBER: P584198

CATALOG NUMBER: HC825D010-HM82555930-81WWBB

**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°	32705	32705	32705
5°	34056	32635	31261
10°	35192	32214	29734
15°	36084	31477	28189
20°	36156	30174	26790
25°	35545	28264	25402
30°	33641	26078	24216
35°	30672	23456	22737
40°	26676	20674	20992
45°	22882	17906	19219
50°	19549	15442	17261
55°	17128	13295	15005
60°	15252	11342	12612
65°	13528	9252	10062
70°	12009	6861	5725
75°	10008	3598	1692
80°	7885	1119	284
85°	5590	566	0



TEST NUMBER: P584198

CATALOG NUMBER: HC825D010-HM82555930-81WWBB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.9	5.1
10°-20°	280.1	14.2
20°-30°	396.4	20.1
30°-40°	414.8	21.0
40°-50°	345.9	17.5
50°-60°	245.3	12.4
60°-70°	141.3	7.2
70°-80°	45.5	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°	776.5	39.3
0°-40°	1191.2	60.3
0°-60°	1782.5	90.2
0°-90°	1975.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1975.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1061	1061	1061	1061	1061	
5°	1100	1086	1054	1022	1010	106
15°	1130	1084	986	908	883	318
25°	1045	967	831	764	747	477
35°	815	744	623	590	604	505
45°	525	482	411	415	441	407
55°	319	285	247	260	279	288
65°	185	155	127	127	138	185
75°	84	62	30	14	14	91
85°	16	8	2	0	0	20
90°	0	0	0	0	0	



TEST NUMBER: P584198

CATALOG NUMBER: HC825D010-HM82555930-81WWBB

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6
2.5°	1082.7	1081.1	1079.6	1081.1	1079.6	1081.1	1079.6	1079.6	1078.0	1076.4	1076.4
5°	1100.2	1098.6	1098.6	1098.6	1097.1	1095.5	1095.5	1093.9	1090.7	1089.0	1085.9
7.5°	1111.3	1112.9	1112.9	1112.9	1109.7	1109.7	1106.5	1103.4	1100.2	1097.1	1092.3
10°	1123.9	1123.9	1122.4	1120.8	1117.6	1116.0	1114.5	1111.3	1106.5	1100.2	1095.5
12.5°	1128.7	1128.7	1127.1	1123.9	1122.4	1120.8	1119.2	1114.5	1108.1	1100.2	1093.9
15°	1130.3	1127.1	1125.5	1123.9	1120.8	1116.0	1116.0	1109.7	1101.8	1092.3	1084.3
17.5°	1117.6	1119.2	1116.0	1112.9	1108.1	1105.0	1100.2	1095.5	1085.9	1074.8	1066.9
20°	1101.8	1100.2	1098.6	1093.9	1087.5	1085.9	1081.1	1073.2	1065.3	1052.7	1041.5
22.5°	1076.4	1074.8	1071.7	1068.5	1062.2	1059.0	1054.3	1044.7	1033.6	1020.9	1008.3
25°	1044.7	1041.5	1036.8	1030.4	1025.7	1022.5	1016.2	1006.7	994.0	979.7	967.1
27.5°	994.0	998.7	995.5	986.0	981.3	975.0	973.4	960.6	949.6	935.3	921.1
30°	944.8	944.8	940.1	935.3	927.4	922.7	916.3	906.8	895.7	878.3	867.1
32.5°	883.0	881.5	875.0	873.5	867.1	857.6	856.1	843.4	832.2	819.6	805.3
35°	814.8	811.7	805.3	800.6	797.4	792.7	787.8	776.8	765.7	753.1	743.5
37.5°	737.1	737.1	735.6	727.6	724.5	721.3	716.6	705.5	699.1	686.4	676.9
40°	662.7	661.0	656.3	654.7	651.5	646.8	643.6	637.3	627.8	618.2	608.7
42.5°	589.7	591.3	585.0	586.6	580.3	577.1	575.4	565.9	561.2	551.7	543.8
45°	524.7	523.1	520.0	518.4	515.2	512.1	508.9	504.1	496.2	486.6	481.9
47.5°	464.5	459.8	459.8	458.2	456.6	450.3	448.7	443.8	439.1	429.6	423.3
50°	407.5	407.5	407.5	405.9	401.0	399.5	396.3	391.6	386.8	380.5	371.0
52.5°	361.4	361.4	361.4	359.8	353.5	351.9	350.3	344.0	337.7	332.9	326.6
55°	318.6	320.3	318.6	315.4	310.7	310.7	305.9	302.8	296.5	291.7	285.4
57.5°	282.2	282.2	279.1	277.5	274.2	272.6	269.5	266.3	258.4	253.7	245.7
60°	247.3	245.7	245.7	242.6	239.4	236.3	234.7	229.8	226.7	218.8	212.4
62.5°	215.6	215.6	212.4	212.4	206.1	206.1	204.5	199.8	195.0	187.0	183.9
65°	185.4	185.4	183.9	182.3	177.5	176.0	174.4	169.6	164.9	160.1	155.4
67.5°	158.6	158.6	155.4	153.8	150.7	149.1	145.8	142.6	137.9	133.2	128.4
70°	133.2	131.6	130.0	128.4	125.2	123.7	120.5	117.3	112.6	109.4	104.6
72.5°	107.7	107.7	106.3	103.0	101.4	99.8	98.3	95.1	90.4	85.6	82.4
75°	84.0	84.0	84.0	80.9	77.7	76.1	76.1	73.0	69.8	64.9	61.8
77.5°	64.9	63.5	61.8	61.8	58.6	57.0	55.5	53.9	49.1	47.5	44.4
80°	44.4	46.0	44.4	42.8	41.2	39.6	39.6	36.5	34.9	31.7	28.6
82.5°	30.2	28.6	28.6	27.0	27.0	25.4	25.4	22.1	20.7	19.0	17.4
85°	15.8	15.8	14.2	14.2	14.2	12.7	12.7	11.1	11.1	9.5	7.9
87.5°	4.7	4.7	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



TEST NUMBER: P584198

CATALOG NUMBER: HC825D010-HM82555930-81WWBB

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6
2.5°	1074.8	1071.7	1070.1	1070.1	1068.5	1066.9	1065.3	1063.7	1060.6	1060.6	1057.4
5°	1082.7	1079.6	1078.0	1073.2	1070.1	1070.1	1063.7	1062.2	1057.4	1054.3	1051.1
7.5°	1089.0	1082.7	1078.0	1073.2	1070.1	1066.9	1060.6	1054.3	1047.9	1041.5	1038.3
10°	1089.0	1082.7	1074.8	1066.9	1063.7	1060.6	1052.7	1043.1	1035.2	1028.8	1020.9
12.5°	1085.9	1076.4	1066.9	1060.6	1054.3	1049.5	1039.9	1030.4	1020.9	1008.3	1001.9
15°	1076.4	1063.7	1054.3	1043.1	1038.3	1030.4	1022.5	1008.3	997.1	986.0	978.1
17.5°	1057.4	1041.5	1030.4	1019.4	1011.5	1006.7	994.0	981.3	968.6	955.9	946.4
20°	1028.8	1014.6	1001.9	987.6	981.3	975.0	959.1	946.4	933.8	919.5	909.9
22.5°	994.0	979.7	962.3	951.2	941.7	933.8	919.5	905.2	892.5	879.9	867.1
25°	951.2	936.9	921.1	903.6	897.3	889.4	873.5	859.2	845.0	830.7	819.6
27.5°	905.2	886.2	873.5	854.5	848.1	840.2	822.7	806.9	794.3	783.1	770.5
30°	849.7	835.5	818.0	800.6	794.3	786.3	772.0	757.8	745.0	732.4	719.7
32.5°	789.4	775.2	757.8	745.0	735.6	729.2	715.0	702.2	689.6	676.9	665.9
35°	726.1	710.3	697.5	684.8	676.9	669.0	654.7	643.6	634.1	623.1	611.9
37.5°	661.0	650.0	637.3	623.1	615.1	608.7	597.7	585.0	577.1	567.5	559.6
40°	597.7	585.0	573.8	561.2	554.9	550.1	539.0	529.4	521.5	513.6	508.9
42.5°	532.6	521.5	510.5	502.6	497.8	493.1	485.1	474.0	469.2	461.3	456.6
45°	472.4	462.9	455.0	443.8	440.7	437.5	428.0	420.1	415.4	410.6	407.5
47.5°	415.4	409.0	399.5	393.1	388.4	385.2	378.9	372.6	367.8	364.7	361.4
50°	366.2	358.2	351.9	345.6	342.4	337.7	331.4	328.2	325.0	321.9	321.9
52.5°	320.3	312.3	305.9	301.2	298.0	294.9	290.1	288.5	285.4	285.4	283.8
55°	277.5	272.6	266.3	260.0	258.4	256.8	253.7	250.5	248.9	247.3	248.9
57.5°	241.0	236.3	229.8	225.1	223.5	221.9	220.3	217.2	215.6	215.6	215.6
60°	207.7	202.9	198.2	193.5	193.5	190.2	188.6	187.0	185.4	183.9	183.9
62.5°	177.5	172.8	168.0	164.9	163.3	161.7	158.6	157.0	155.4	155.4	153.8
65°	150.7	144.2	142.6	137.9	136.3	134.7	133.2	130.0	128.4	126.8	125.2
67.5°	123.7	120.5	115.8	112.6	111.0	109.4	107.7	104.6	103.0	101.4	98.3
70°	99.8	96.7	93.5	90.4	88.8	87.2	84.0	80.9	79.3	76.1	71.4
72.5°	77.7	74.5	71.4	68.2	66.6	64.9	61.8	58.6	55.5	52.3	49.1
75°	58.6	55.5	50.7	47.5	46.0	46.0	41.2	38.1	34.9	30.2	27.0
77.5°	41.2	36.5	34.9	31.7	30.2	27.0	23.8	20.7	17.4	15.8	12.7
80°	27.0	23.8	20.7	19.0	17.4	15.8	14.2	11.1	7.9	6.3	4.7
82.5°	15.8	14.2	12.7	11.1	9.5	7.9	6.3	6.3	4.7	3.2	1.6
85°	7.9	6.3	4.7	4.7	3.2	3.2	3.2	1.6	1.6	1.6	1.6
87.5°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	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: P584198

CATALOG NUMBER: HC825D010-HM82555930-81WWBB

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6
2.5°	1055.8	1054.3	1052.7	1051.1	1051.1	1047.9	1047.9	1046.2	1043.1	1041.5	1041.5
5°	1046.2	1041.5	1038.3	1036.8	1035.2	1030.4	1028.8	1025.7	1022.5	1019.4	1017.8
7.5°	1032.0	1024.1	1020.9	1019.4	1014.6	1009.9	1006.7	1001.9	997.1	992.4	990.8
10°	1014.6	1006.7	998.7	995.5	990.8	987.6	981.3	975.0	970.2	965.5	960.6
12.5°	992.4	982.9	975.0	971.8	967.1	960.6	951.2	948.0	940.1	936.9	930.6
15°	967.1	955.9	948.0	943.2	938.5	929.0	922.7	916.3	908.3	905.2	898.9
17.5°	935.3	922.7	914.7	909.9	906.8	898.9	889.4	881.5	873.5	870.3	865.5
20°	897.3	889.4	878.3	873.5	870.3	860.8	851.3	848.1	841.8	835.5	830.7
22.5°	854.5	846.6	835.5	830.7	829.1	821.2	813.3	808.5	803.8	799.0	794.3
25°	810.1	800.6	791.1	787.8	784.7	778.4	772.0	768.9	764.1	761.0	757.8
27.5°	762.5	753.1	745.0	740.3	737.1	732.4	729.2	726.1	722.9	719.7	718.2
30°	711.8	702.2	695.9	692.8	689.6	688.0	683.3	681.7	680.1	676.9	678.5
32.5°	661.0	653.1	646.8	642.0	642.0	638.9	637.3	637.3	635.7	635.7	635.7
35°	605.6	600.8	596.1	594.5	592.9	591.3	589.7	591.3	589.7	591.3	592.9
37.5°	554.9	550.1	546.9	545.4	543.8	545.4	543.8	543.8	545.4	548.5	550.1
40°	502.6	499.4	496.2	497.8	496.2	496.2	496.2	501.0	502.6	504.1	505.7
42.5°	453.4	450.3	448.7	448.7	450.3	448.7	451.9	453.4	456.6	461.3	464.5
45°	405.9	404.2	404.2	405.9	404.2	407.5	407.5	410.6	415.4	418.5	421.7
47.5°	361.4	361.4	361.4	363.1	363.1	364.7	367.8	369.4	372.6	375.7	378.9
50°	320.3	321.9	323.4	323.4	323.4	326.6	329.8	331.4	332.9	334.5	339.3
52.5°	283.8	285.4	285.4	287.0	288.5	290.1	291.7	294.9	296.5	299.6	301.2
55°	248.9	248.9	252.1	253.7	253.7	253.7	256.8	256.8	260.0	261.6	264.7
57.5°	215.6	217.2	217.2	218.8	218.8	220.3	221.9	223.5	225.1	226.7	228.2
60°	183.9	183.9	183.9	185.4	187.0	188.6	187.0	190.2	190.2	193.5	195.0
62.5°	153.8	155.4	155.4	155.4	155.4	155.4	155.4	157.0	158.6	160.1	161.7
65°	125.2	125.2	125.2	123.7	125.2	123.7	125.2	126.8	126.8	128.4	130.0
67.5°	96.7	96.7	93.5	93.5	95.1	95.1	95.1	95.1	93.5	96.7	96.7
70°	69.8	68.2	66.6	64.9	64.9	63.5	63.5	61.8	61.8	61.8	61.8
72.5°	46.0	42.8	39.6	38.1	36.5	36.5	33.3	31.7	33.3	33.3	33.3
75°	23.8	20.7	19.0	17.4	15.8	15.8	14.2	14.2	14.2	14.2	14.2
77.5°	9.5	7.9	6.3	6.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7
80°	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.6	0.0	0.0	1.6	0.0	1.6	1.6	1.6	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: P584198

CATALOG NUMBER: HC825D010-HM82555930-81WWBB

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6	1060.6
2.5°	1039.9	1039.9	1038.3	1039.9	1036.8	1038.3	1036.8	1036.8
5°	1016.2	1013.0	1013.0	1013.0	1011.5	1011.5	1009.9	1009.9
7.5°	987.6	986.0	984.5	982.9	981.3	979.7	979.7	979.7
10°	959.1	955.9	955.9	954.3	951.2	949.6	949.6	949.6
12.5°	925.8	924.3	922.7	922.7	916.3	917.8	916.3	916.3
15°	894.1	892.5	892.5	887.8	884.6	884.6	884.6	883.0
17.5°	860.8	859.2	857.6	854.5	851.3	851.3	849.7	851.3
20°	825.9	824.3	821.2	821.2	819.6	818.0	814.8	816.4
22.5°	791.1	787.8	786.3	786.3	784.7	784.7	781.5	781.5
25°	754.6	753.1	751.5	753.1	749.9	749.9	746.6	746.6
27.5°	716.6	715.0	715.0	715.0	713.4	715.0	713.4	713.4
30°	678.5	678.5	676.9	676.9	678.5	676.9	678.5	680.1
32.5°	637.3	637.3	638.9	638.9	640.5	640.5	640.5	640.5
35°	594.5	597.7	597.7	599.2	600.8	602.4	602.4	604.0
37.5°	554.9	556.4	558.0	559.6	562.8	562.8	562.8	562.8
40°	512.1	513.6	516.8	515.2	521.5	523.1	521.5	521.5
42.5°	467.7	470.8	472.4	475.6	477.2	480.3	481.9	481.9
45°	426.4	428.0	431.2	434.4	435.9	440.7	440.7	440.7
47.5°	383.6	386.8	388.4	391.6	393.1	397.9	399.5	397.9
50°	342.4	345.6	348.7	348.7	353.5	355.1	358.2	359.8
52.5°	302.8	304.4	307.5	309.1	312.3	315.4	317.0	318.6
55°	264.7	266.3	269.5	269.5	274.2	275.8	279.1	279.1
57.5°	229.8	231.4	234.7	233.0	236.3	239.4	239.4	237.8
60°	196.6	196.6	196.6	199.8	201.4	202.9	204.5	204.5
62.5°	161.7	164.9	166.5	166.5	168.0	169.6	169.6	168.0
65°	130.0	133.2	134.7	134.7	136.3	136.3	136.3	137.9
67.5°	98.3	98.3	98.3	99.8	98.3	98.3	98.3	98.3
70°	61.8	61.8	61.8	61.8	60.2	61.8	61.8	63.5
72.5°	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
75°	14.2	14.2	14.2	15.8	14.2	14.2	14.2	14.2
77.5°	6.3	4.7	6.3	6.3	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°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	0.0	1.6	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)