

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: P584217

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584217
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC825D010-HM82555935-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2257.1 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

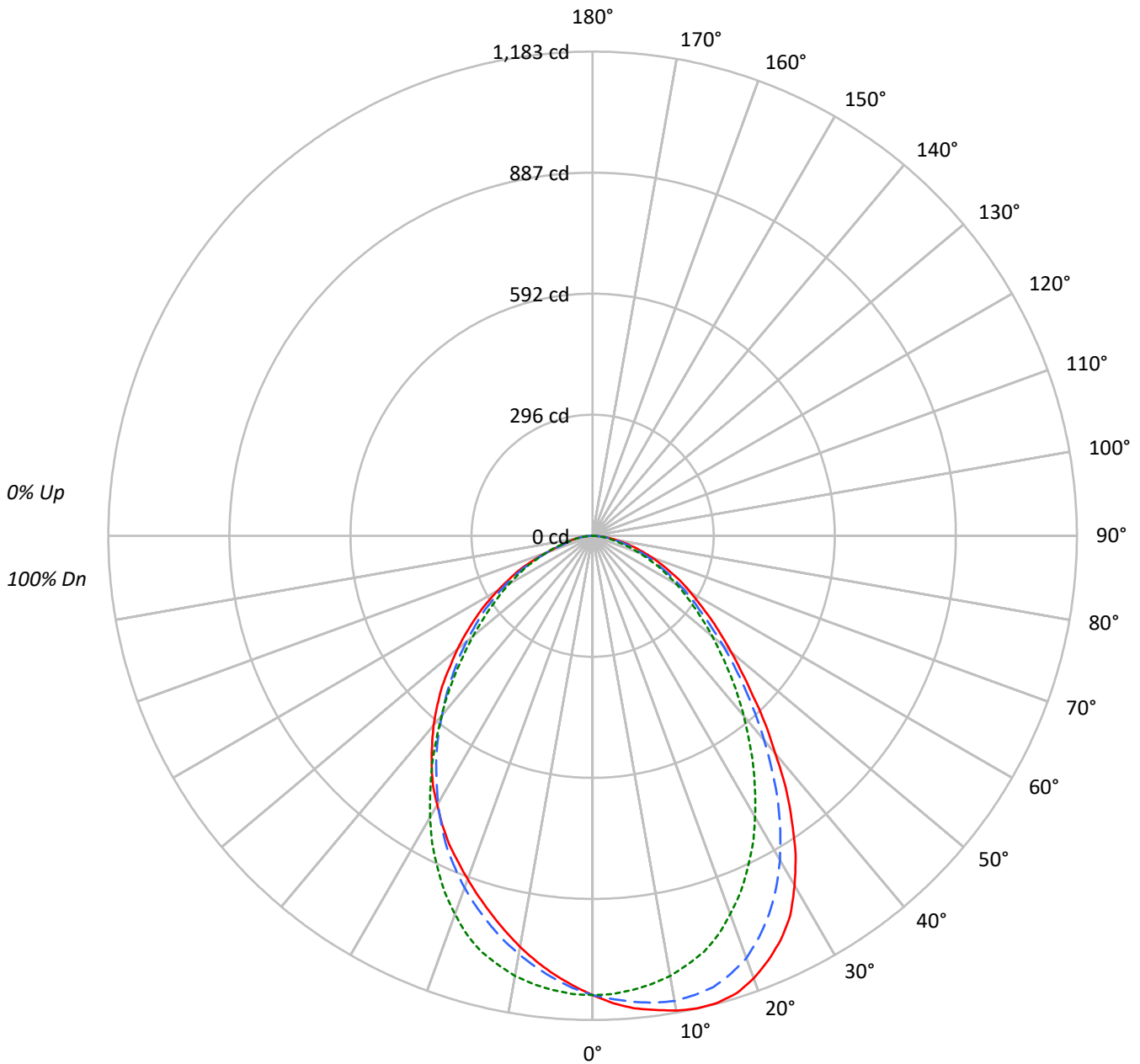
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P584217

CATALOG NUMBER: HC825D010-HM82555935-81WWWB

Luminous Intensity Polar Plot





TEST NUMBER: P584217

CATALOG NUMBER: HC825D010-HM82555935-81WWWB

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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50					50			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	34605	34605	34605
5°	35873	34492	33307
10°	36889	34190	31945
15°	37712	33587	30535
20°	37767	32274	29294
25°	37042	30482	28257
30°	35137	28265	27018
35°	31926	25741	25801
40°	27916	23098	24317
45°	24194	20579	22664
50°	21185	18278	20652
55°	18854	16198	18682
60°	17003	14549	16417
65°	15359	12798	14301
70°	13794	10774	10630
75°	12153	8543	7983
80°	10193	7068	7636
85°	7925	6192	6793



TEST NUMBER: P584217

CATALOG NUMBER: HC825D010-HM82555935-81WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	4.7
10°-20°	298.2	13.2
20°-30°	426.2	18.9
30°-40°	452.8	20.1
40°-50°	389.9	17.3
50°-60°	291.5	12.9
60°-70°	185.9	8.2
70°-80°	84.6	3.7
80°-90°	22.2	1.0
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°	830.2	36.8
0°-40°	1283.0	56.8
0°-60°	1964.4	87.0
0°-90°	2257.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2257.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1122	1122	1122	1122	1122	
5°	1159	1143	1114	1086	1076	111
15°	1181	1141	1052	980	956	333
25°	1089	1020	896	842	830	498
35°	848	789	684	666	685	528
45°	555	524	472	485	520	431
55°	351	322	301	327	348	315
65°	210	186	175	183	196	210
75°	102	88	72	65	67	108
85°	22	19	18	19	19	27
90°	0	0	0	0	0	



TEST NUMBER: P584217

CATALOG NUMBER: HC825D010-HM82555935-81WWWB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2
2.5°	1143.0	1139.8	1141.4	1139.8	1141.4	1141.4	1138.2	1138.2	1138.2	1138.2	1133.5
5°	1158.9	1157.3	1157.3	1155.7	1154.1	1155.7	1154.1	1152.5	1149.4	1147.8	1143.0
7.5°	1168.4	1168.4	1168.4	1168.4	1166.8	1165.3	1163.7	1160.5	1157.3	1154.1	1150.9
10°	1178.1	1179.7	1178.1	1176.5	1174.9	1171.6	1170.0	1166.8	1162.1	1157.3	1154.1
12.5°	1182.8	1182.8	1181.3	1181.3	1178.1	1176.5	1171.6	1166.8	1162.1	1157.3	1149.4
15°	1181.3	1181.3	1179.7	1178.1	1173.3	1171.6	1168.4	1163.7	1155.7	1149.4	1141.4
17.5°	1171.6	1170.0	1166.8	1166.8	1160.5	1158.9	1155.7	1149.4	1141.4	1131.8	1122.2
20°	1150.9	1150.9	1149.4	1147.8	1141.4	1136.6	1133.5	1125.4	1119.1	1107.9	1098.4
22.5°	1122.2	1125.4	1122.2	1119.1	1111.1	1109.5	1104.7	1095.1	1085.6	1072.8	1061.7
25°	1088.7	1087.2	1085.6	1082.4	1076.0	1072.8	1066.5	1056.8	1047.3	1033.0	1020.2
27.5°	1045.7	1039.4	1039.4	1033.0	1028.2	1023.5	1020.2	1010.6	997.9	986.8	970.8
30°	986.8	988.4	980.3	978.7	970.8	967.6	961.3	951.7	940.5	927.8	915.1
32.5°	923.0	918.2	918.2	911.9	905.4	900.6	899.1	887.9	878.4	865.6	852.9
35°	848.1	848.1	843.3	841.7	835.3	832.1	827.3	821.0	809.8	798.6	789.1
37.5°	774.8	771.6	770.0	766.8	761.9	757.2	757.2	746.0	744.4	731.7	718.9
40°	693.5	696.7	693.5	688.7	687.0	683.8	682.2	675.9	671.1	660.0	652.0
42.5°	624.9	621.7	621.7	620.1	613.8	613.8	610.5	607.3	599.4	596.2	586.7
45°	554.8	557.9	553.2	554.8	548.4	548.4	548.4	542.0	535.6	530.8	524.5
47.5°	494.1	495.7	495.7	491.0	489.4	489.4	486.2	483.0	478.2	471.9	467.1
50°	441.6	443.2	440.0	438.4	435.2	433.6	433.6	427.3	424.0	417.6	414.5
52.5°	393.8	393.8	392.2	392.2	387.3	387.3	384.1	379.4	376.2	373.0	365.1
55°	350.7	350.7	349.1	347.5	347.5	342.7	341.1	336.4	333.2	326.8	322.0
57.5°	309.2	310.8	309.2	307.6	306.0	304.5	301.3	296.5	293.3	288.6	285.4
60°	275.7	275.7	274.1	272.6	269.4	267.8	266.2	263.0	258.3	255.1	250.3
62.5°	243.9	242.4	240.8	239.1	235.9	235.9	232.7	229.5	224.8	221.6	218.4
65°	210.5	210.5	208.9	208.9	207.3	204.0	202.4	200.8	194.5	192.9	186.5
67.5°	180.1	181.7	178.6	178.6	175.4	175.4	173.8	169.0	167.3	164.2	161.0
70°	153.0	153.0	153.0	151.4	148.3	146.7	145.1	141.9	140.3	137.1	133.9
72.5°	125.9	125.9	124.3	124.3	122.7	121.1	119.5	116.4	116.4	113.2	110.0
75°	102.0	102.0	100.5	98.9	97.3	97.3	95.7	94.1	90.8	89.2	87.6
77.5°	78.1	78.1	78.1	76.5	74.9	74.9	74.9	71.7	68.6	68.6	67.0
80°	57.4	57.4	55.7	55.7	54.2	54.2	54.2	52.6	51.0	49.4	47.8
82.5°	38.3	38.3	38.3	38.3	36.7	36.7	36.7	35.1	33.5	33.5	33.5
85°	22.4	22.4	22.4	22.4	20.8	20.8	20.8	20.8	20.8	19.2	19.2
87.5°	9.5	7.9	9.5	7.9	9.5	7.9	9.5	7.9	7.9	7.9	7.9
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: P584217

CATALOG NUMBER: HC825D010-HM82555935-81WWWB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2
2.5°	1135.1	1133.5	1131.8	1130.2	1130.2	1128.6	1125.4	1123.8	1122.2	1120.6	1120.6
5°	1141.4	1139.8	1136.6	1133.5	1131.8	1128.6	1125.4	1122.2	1119.1	1114.3	1112.7
7.5°	1146.2	1141.4	1138.2	1131.8	1130.2	1127.0	1122.2	1117.5	1111.1	1104.7	1100.0
10°	1146.2	1139.8	1135.1	1127.0	1123.8	1120.6	1114.3	1106.3	1098.4	1091.9	1084.0
12.5°	1143.0	1135.1	1127.0	1119.1	1114.3	1109.5	1100.0	1091.9	1082.4	1072.8	1066.5
15°	1131.8	1122.2	1112.7	1103.2	1098.4	1091.9	1082.4	1071.3	1061.7	1052.1	1041.0
17.5°	1111.1	1101.6	1090.3	1079.2	1072.8	1068.1	1053.7	1045.7	1031.4	1021.8	1012.2
20°	1084.0	1072.8	1058.4	1047.3	1039.4	1034.6	1023.5	1009.1	997.9	983.5	974.0
22.5°	1048.9	1034.6	1020.2	1009.1	1001.1	994.7	980.3	966.0	956.5	943.7	932.5
25°	1007.5	993.2	978.7	962.9	954.9	948.4	935.7	923.0	910.2	895.9	886.3
27.5°	958.1	942.1	929.4	915.1	907.0	897.5	883.2	870.3	857.6	848.1	835.3
30°	903.8	886.3	873.5	859.2	851.3	843.3	828.9	816.2	805.1	793.8	787.5
32.5°	838.5	825.7	813.0	798.6	792.2	787.5	773.2	760.3	747.6	738.1	733.3
35°	776.3	761.9	750.8	738.1	730.1	725.4	712.5	701.4	695.1	683.8	677.5
37.5°	711.0	699.8	687.0	674.3	669.5	664.8	655.2	644.0	634.4	626.5	623.3
40°	642.4	632.9	621.7	613.8	608.9	604.1	596.2	588.2	581.9	573.8	570.7
42.5°	577.1	570.7	561.1	551.6	546.8	545.2	535.6	529.2	526.0	522.9	519.7
45°	518.1	508.6	502.2	495.7	491.0	487.8	483.0	478.2	475.1	471.9	468.7
47.5°	460.7	452.7	446.3	441.6	436.8	435.2	432.0	427.3	424.0	424.0	424.0
50°	408.1	401.7	395.4	392.2	390.6	387.3	384.1	382.6	381.0	381.0	381.0
52.5°	361.9	355.5	350.7	347.5	347.5	344.3	341.1	339.5	339.5	339.5	339.5
55°	318.9	314.0	310.8	307.6	304.5	302.9	302.9	302.9	301.3	301.3	302.9
57.5°	280.6	277.3	272.6	269.4	267.8	267.8	266.2	264.6	266.2	267.8	269.4
60°	245.5	242.4	240.8	235.9	235.9	235.9	234.3	234.3	234.3	235.9	237.5
62.5°	213.6	212.0	208.9	207.3	205.7	205.7	204.0	204.0	204.0	204.0	205.7
65°	184.9	181.7	178.6	178.6	178.6	177.0	177.0	173.8	175.4	175.4	173.8
67.5°	157.8	154.6	153.0	151.4	149.8	149.8	148.3	146.7	145.1	145.1	145.1
70°	132.4	129.1	129.1	125.9	125.9	124.3	122.7	122.7	121.1	119.5	117.9
72.5°	106.8	105.2	103.6	102.0	102.0	102.0	100.5	98.9	97.3	95.7	92.4
75°	84.5	84.5	81.3	79.7	79.7	78.1	76.5	74.9	73.3	71.7	70.2
77.5°	65.4	63.8	60.6	59.0	59.0	59.0	57.4	55.7	54.2	52.6	51.0
80°	47.8	46.2	44.6	43.0	43.0	43.0	41.4	41.4	39.8	39.8	39.8
82.5°	31.9	31.9	30.3	30.3	30.3	30.3	28.7	28.7	28.7	28.7	28.7
85°	19.2	19.2	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
87.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
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: P584217

CATALOG NUMBER: HC825D010-HM82555935-81WWWB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2
2.5°	1117.5	1117.5	1114.3	1112.7	1111.1	1112.7	1109.5	1107.9	1106.3	1106.3	1104.7
5°	1107.9	1106.3	1100.0	1098.4	1096.8	1095.1	1091.9	1088.7	1085.6	1084.0	1082.4
7.5°	1095.1	1090.3	1084.0	1082.4	1080.8	1076.0	1071.3	1068.1	1063.3	1061.7	1058.4
10°	1077.6	1071.3	1066.5	1061.7	1058.4	1053.7	1048.9	1044.1	1037.8	1036.2	1031.4
12.5°	1056.8	1048.9	1039.4	1037.8	1033.0	1026.6	1020.2	1015.4	1010.6	1007.5	1002.7
15°	1031.4	1023.5	1013.8	1009.1	1004.3	999.5	991.6	985.1	980.3	975.6	970.8
17.5°	1001.1	991.6	983.5	978.7	975.6	967.6	961.3	953.3	948.4	943.7	938.9
20°	964.4	956.5	945.3	940.5	938.9	932.5	924.6	921.4	915.1	910.2	907.0
22.5°	923.0	915.1	905.4	902.2	895.9	892.7	884.7	881.6	878.4	873.5	871.9
25°	876.8	868.8	860.8	859.2	854.4	851.3	846.5	841.7	841.7	837.0	837.0
27.5°	828.9	821.0	814.6	811.4	809.8	806.6	801.9	800.3	798.6	797.0	797.0
30°	777.9	768.4	765.2	763.6	761.9	758.8	757.2	754.0	755.6	757.2	755.6
32.5°	723.7	720.5	714.1	711.0	712.5	711.0	707.8	711.0	709.4	712.5	714.1
35°	671.1	667.9	664.8	664.8	661.6	661.6	661.6	663.2	666.3	667.9	671.1
37.5°	620.1	615.4	613.8	612.1	613.8	613.8	613.8	617.0	620.1	623.3	628.1
40°	565.9	562.7	562.7	562.7	562.7	567.5	565.9	569.1	572.2	577.1	581.9
42.5°	514.9	514.9	516.5	516.5	516.5	516.5	519.7	524.5	529.2	534.0	538.9
45°	467.1	467.1	467.1	470.3	470.3	471.9	478.2	481.4	484.6	489.4	494.1
47.5°	422.4	422.4	424.0	425.6	427.3	430.5	433.6	438.4	443.2	446.3	451.1
50°	381.0	382.6	385.7	388.9	388.9	390.6	395.4	398.6	401.7	406.5	408.1
52.5°	341.1	344.3	347.5	349.1	350.7	353.8	355.5	360.3	361.9	366.7	368.2
55°	304.5	306.0	310.8	312.4	312.4	315.7	318.9	322.0	326.8	326.8	330.0
57.5°	271.0	272.6	275.7	277.3	275.7	280.6	282.2	285.4	287.0	290.1	291.7
60°	237.5	240.8	242.4	242.4	243.9	245.5	248.7	248.7	251.9	255.1	255.1
62.5°	205.7	207.3	208.9	210.5	212.0	210.5	215.2	215.2	218.4	220.0	223.2
65°	175.4	177.0	177.0	178.6	178.6	180.1	180.1	181.7	183.3	186.5	188.1
67.5°	145.1	145.1	145.1	146.7	145.1	146.7	146.7	148.3	148.3	151.4	153.0
70°	117.9	116.4	114.8	114.8	114.8	114.8	113.2	114.8	114.8	116.4	116.4
72.5°	90.8	89.2	87.6	86.1	86.1	84.5	82.9	84.5	84.5	86.1	86.1
75°	68.6	65.4	65.4	65.4	63.8	63.8	63.8	65.4	65.4	65.4	67.0
77.5°	51.0	51.0	49.4	49.4	49.4	51.0	51.0	52.6	52.6	52.6	52.6
80°	38.3	39.8	39.8	39.8	39.8	41.4	41.4	41.4	41.4	43.0	43.0
82.5°	28.7	28.7	28.7	28.7	30.3	30.3	30.3	30.3	30.3	30.3	30.3
85°	17.5	19.2	19.2	17.5	19.2	19.2	19.2	19.2	19.2	19.2	19.2
87.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
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: P584217

CATALOG NUMBER: HC825D010-HM82555935-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2	1122.2
2.5°	1103.2	1103.2	1103.2	1103.2	1101.6	1101.6	1101.6	1100.0
5°	1079.2	1079.2	1079.2	1076.0	1077.6	1077.6	1074.4	1076.0
7.5°	1055.3	1053.7	1052.1	1052.1	1050.5	1048.9	1047.3	1048.9
10°	1028.2	1023.5	1023.5	1021.8	1021.8	1018.6	1018.6	1020.2
12.5°	997.9	994.7	994.7	993.2	991.6	990.0	988.4	988.4
15°	967.6	964.4	962.9	961.3	959.7	956.5	958.1	956.5
17.5°	937.3	932.5	932.5	931.0	929.4	926.2	926.2	924.6
20°	902.2	900.6	897.5	899.1	897.5	894.3	892.7	892.7
22.5°	867.2	867.2	865.6	865.6	864.0	862.4	860.8	860.8
25°	833.7	832.1	833.7	833.7	828.9	828.9	828.9	830.5
27.5°	795.4	797.0	795.4	795.4	795.4	795.4	797.0	795.4
30°	757.2	757.2	757.2	758.8	761.9	760.3	760.3	758.8
32.5°	715.7	717.3	717.3	718.9	720.5	723.7	723.7	725.4
35°	674.3	677.5	679.1	677.5	682.2	682.2	685.4	685.4
37.5°	631.3	632.9	636.0	637.6	640.8	642.4	644.0	644.0
40°	585.1	591.4	593.0	594.6	599.4	599.4	601.0	604.1
42.5°	542.0	548.4	550.0	551.6	554.8	559.5	557.9	561.1
45°	500.5	505.4	507.0	508.6	513.3	514.9	514.9	519.7
47.5°	455.9	459.1	460.7	463.8	467.1	470.3	473.5	471.9
50°	411.3	416.0	419.2	420.8	425.6	427.3	428.9	430.5
52.5°	371.4	374.6	376.2	377.8	382.6	384.1	385.7	388.9
55°	333.2	334.8	337.9	336.4	341.1	342.7	344.3	347.5
57.5°	294.9	296.5	298.1	298.1	301.3	304.5	306.0	307.6
60°	258.3	261.4	263.0	263.0	263.0	266.2	266.2	266.2
62.5°	224.8	224.8	226.4	226.4	229.5	229.5	229.5	229.5
65°	189.7	191.3	192.9	192.9	196.0	194.5	197.6	196.0
67.5°	153.0	153.0	156.2	156.2	154.6	156.2	156.2	156.2
70°	116.4	116.4	117.9	117.9	117.9	117.9	117.9	117.9
72.5°	86.1	86.1	86.1	87.6	86.1	86.1	87.6	86.1
75°	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
77.5°	52.6	52.6	54.2	54.2	54.2	54.2	54.2	54.2
80°	43.0	43.0	43.0	43.0	44.6	43.0	43.0	43.0
82.5°	31.9	30.3	31.9	30.3	31.9	31.9	31.9	31.9
85°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
87.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
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)