

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P27362

Luminaire Tested: **MPBL-3-LD4-UNV-1DN-HI-40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P27362
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MPBL-3-LD4-UNV-1DN-HI-40
Description: FAILSAFE MPBL LED PATIENT BED LIGHT
Light Source: (84) 4000K NICHIA LEDS
2UT109028A8404A
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVERS
OT50W

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3447.9 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.18 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 3' x L: 0.42' x H: 0.29')
CIE Type: Direct

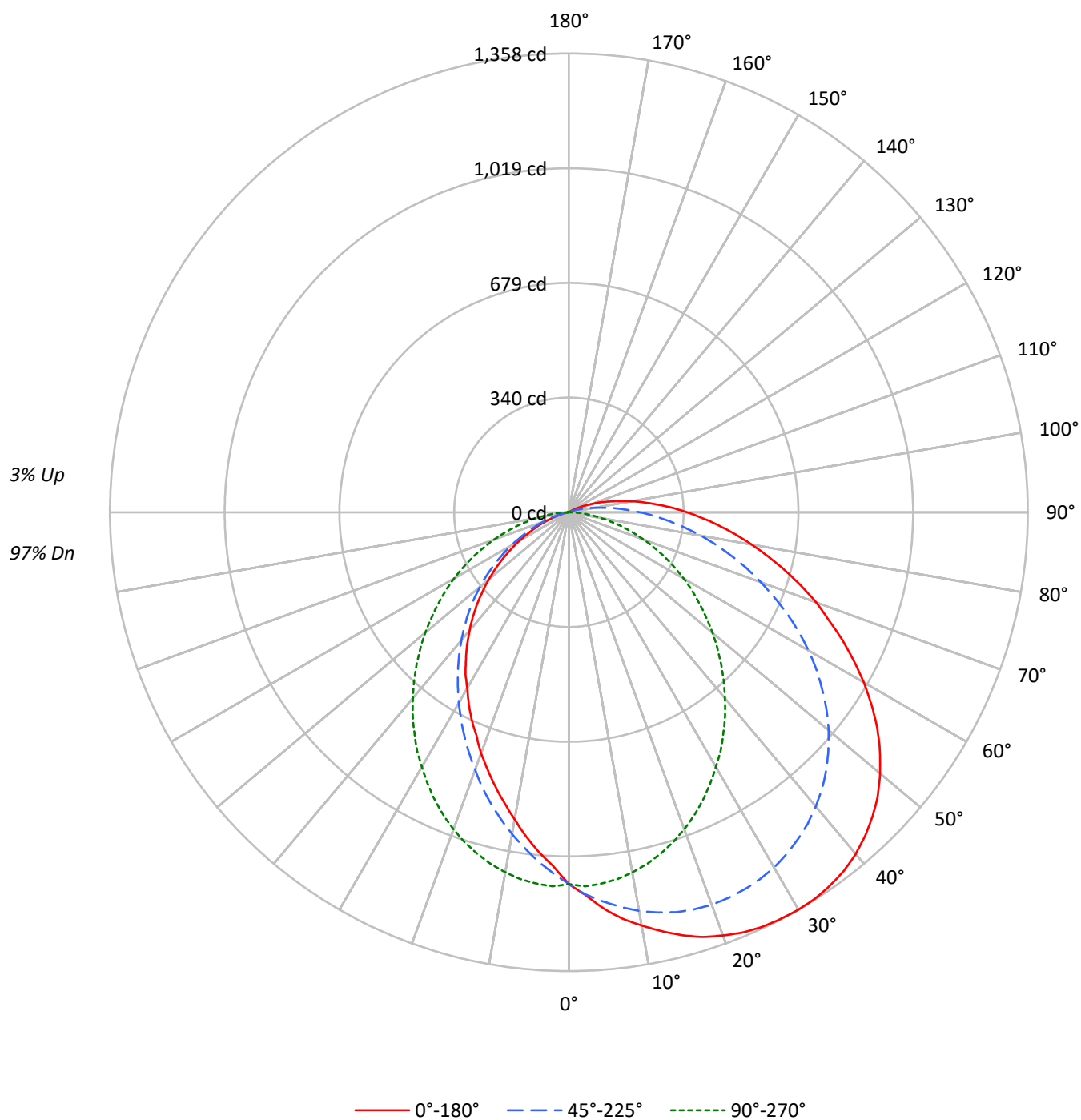
Input Watts (W): 36.8
Input Voltage (V): 120.06
Input Current (Ain): 0.30759
Voltage Rise (V): NR
Power Factor: 0.9986
Total Harmonic Distortion (THDi): 8.37%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 24 HR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99
1	107	101	97	92	104	99	94	90	94	90	87	89	86	84	85	83	81
2	97	88	80	74	94	86	79	73	81	76	71	78	73	69	74	70	67
3	88	77	68	61	85	75	67	61	71	65	59	68	62	58	65	60	56
4	80	68	59	52	78	66	58	51	63	56	50	61	54	49	58	53	48
5	74	61	51	44	71	59	51	44	57	49	43	54	48	42	52	46	42
6	68	54	45	39	66	53	45	38	51	43	38	49	42	37	47	41	37
7	63	49	40	34	61	48	40	34	46	39	33	45	38	33	43	37	32
8	59	45	36	30	57	44	36	30	42	35	30	41	34	29	40	34	29
9	55	41	33	27	53	40	33	27	39	32	27	38	31	26	37	31	26
10	51	38	30	25	50	37	30	25	36	29	24	35	29	24	34	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9472	9472	9472
5°	9587	9454	8227
10°	9667	9302	7184
15°	9729	9088	6306
20°	9735	8833	5543
25°	9699	8535	4864
30°	9616	8191	4256
35°	9509	7844	3746
40°	9348	7462	3236
45°	9105	7070	2744
50°	8779	6663	2257
55°	8364	6222	1779
60°	7847	5793	1323
65°	7267	5277	904
70°	6701	4669	534
75°	6088	3955	267
80°	5478	3101	100
85°	4885	2106	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	3.0
10°-20°	298.0	8.6
20°-30°	451.0	13.1
30°-40°	545.6	15.8
40°-50°	570.4	16.5
50°-60°	520.9	15.1
60°-70°	410.5	11.9
70°-80°	275.9	8.0
80°-90°	157.3	4.6
90°-100°	75.6	2.2
100°-110°	28.8	0.8
110°-120°	8.1	0.2
120°-130°	1.6	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°	853.1	24.7
0°-40°	1398.7	40.6
0°-60°	2490.0	72.2
0°-90°	3333.8	96.7
90°-120°	112.5	3.3
90°-150°	114.1	3.3
90°-180°	114.0	3.3
0°-180°	3447.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1100	1100	1100	1100	1100	
5°	1177	1156	1103	1037	1010	114
15°	1296	1225	1046	892	840	368
25°	1354	1231	939	731	679	625
35°	1348	1181	797	572	531	844
45°	1271	1077	637	420	383	980
55°	1114	915	472	269	237	994
65°	892	713	313	133	111	883
75°	661	498	162	38	29	699
85°	445	298	45	5	4	385
90°	350	211	3	3	2	192
95°	264	137	3	2	1	200
105°	124	38	3	2	0	134
115°	38	5	3	2	0	40
125°	4	2	3	2	1	5
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	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°	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
2.5°	1134	1131	1133	1132	1137	1139	1140	1139	1140	1136	1132
5°	1177	1172	1173	1172	1172	1171	1172	1170	1169	1162	1156
7.5°	1213	1209	1208	1205	1206	1204	1203	1200	1196	1186	1178
10°	1242	1239	1239	1235	1235	1233	1232	1226	1221	1209	1198
12.5°	1270	1268	1265	1262	1260	1258	1255	1249	1241	1227	1213
15°	1296	1294	1292	1287	1284	1280	1278	1269	1258	1241	1225
17.5°	1318	1316	1314	1308	1302	1298	1294	1284	1271	1252	1232
20°	1333	1332	1329	1322	1315	1310	1306	1295	1279	1258	1236
22.5°	1346	1344	1340	1333	1323	1318	1313	1300	1282	1259	1235
25°	1354	1351	1347	1339	1328	1323	1317	1302	1282	1258	1231
27.5°	1357	1355	1350	1342	1331	1325	1318	1302	1280	1254	1224
30°	1358	1356	1350	1341	1329	1322	1315	1297	1273	1245	1214
32.5°	1356	1353	1347	1337	1323	1316	1308	1288	1261	1232	1199
35°	1348	1346	1338	1328	1313	1305	1296	1275	1247	1217	1181
37.5°	1337	1334	1327	1316	1301	1291	1281	1259	1230	1198	1161
40°	1320	1317	1310	1298	1282	1272	1261	1238	1208	1175	1136
42.5°	1298	1297	1288	1277	1259	1249	1238	1214	1181	1149	1109
45°	1271	1270	1260	1250	1232	1221	1209	1184	1151	1118	1077
47.5°	1240	1238	1228	1217	1200	1188	1177	1151	1118	1083	1041
50°	1202	1201	1192	1179	1163	1151	1139	1111	1078	1045	1003
52.5°	1160	1160	1149	1138	1121	1109	1097	1069	1038	1003	961
55°	1114	1113	1103	1092	1075	1063	1051	1024	993	957	915
57.5°	1062	1062	1051	1041	1025	1013	1001	974	941	909	869
60°	1008	1008	997	988	972	960	948	922	889	858	819
62.5°	950	950	940	931	916	903	893	867	837	804	766
65°	892	892	882	874	858	847	836	812	783	749	713
67.5°	831	832	822	814	799	788	778	754	723	693	658
70°	778	772	764	756	741	730	720	698	668	639	604
72.5°	719	713	703	699	683	676	665	643	613	583	551
75°	661	655	647	639	626	619	609	588	559	530	498
77.5°	604	599	590	585	569	563	553	532	504	476	446
80°	549	544	535	530	515	508	499	478	451	424	395
82.5°	496	491	482	477	462	455	446	426	399	373	345
85°	445	441	433	425	412	405	396	376	351	325	298
87.5°	396	391	383	378	363	356	348	328	303	281	253
90°	350	346	337	330	318	310	302	283	259	236	211
92.5°	306	302	294	287	275	270	260	241	218	196	172
95°	264	261	252	245	233	229	220	201	180	160	137
97.5°	224	222	214	207	195	191	183	165	145	127	106
100°	188	185	178	171	161	156	149	133	114	97	78
102.5°	154	152	146	139	131	125	118	103	87	72	56
105°	124	122	115	110	101	98	92	79	64	51	38
107.5°	97	95	90	84	77	74	68	58	45	35	25
110°	73	71	68	64	56	54	50	41	31	23	16



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	54	52	49	46	40	38	34	28	20	15	9
115°	38	36	34	32	27	25	23	18	13	9	5
117.5°	25	24	22	21	18	16	14	11	7	5	3
120°	16	15	14	12	10	9	8	6	3	2	2
122.5°	9	8	8	7	5	4	4	3	1	1	2
125°	4	4	3	3	2	1	1	1	1	2	2
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	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°	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
2.5°	1129	1126	1120	1115	1114	1112	1110	1111	1111	1108	1104
5°	1151	1145	1136	1127	1125	1121	1116	1113	1109	1103	1096
7.5°	1170	1160	1148	1136	1132	1127	1118	1112	1104	1095	1083
10°	1186	1174	1158	1142	1136	1129	1116	1106	1095	1082	1068
12.5°	1198	1182	1163	1145	1136	1127	1111	1097	1082	1066	1048
15°	1207	1188	1165	1143	1133	1122	1102	1085	1067	1046	1026
17.5°	1212	1189	1164	1138	1126	1113	1090	1069	1047	1024	1001
20°	1213	1188	1159	1130	1116	1101	1075	1050	1025	998	972
22.5°	1209	1182	1151	1118	1103	1086	1056	1027	999	970	941
25°	1203	1172	1138	1103	1086	1067	1036	1004	972	939	908
27.5°	1193	1159	1123	1084	1066	1046	1011	974	941	905	873
30°	1180	1143	1104	1064	1044	1022	984	946	909	870	836
32.5°	1163	1125	1083	1039	1019	996	954	914	874	836	799
35°	1142	1101	1058	1012	990	967	923	880	837	797	758
37.5°	1120	1077	1032	983	961	936	890	844	800	759	719
40°	1095	1049	1002	952	928	902	854	807	760	718	678
42.5°	1066	1019	970	918	894	867	818	769	722	678	637
45°	1031	984	934	881	857	829	779	729	680	637	597
47.5°	996	947	896	843	817	790	736	688	639	596	557
50°	957	909	857	802	776	749	696	647	598	555	516
52.5°	915	867	815	760	733	708	653	605	555	513	475
55°	869	823	769	715	688	664	610	560	513	472	435
57.5°	822	775	724	669	643	618	565	518	471	433	395
60°	773	727	677	622	596	573	520	475	430	393	356
62.5°	723	677	628	574	549	526	475	432	388	352	316
65°	671	627	576	526	502	479	431	387	349	313	278
67.5°	618	575	527	478	455	433	386	347	308	273	240
70°	565	522	478	430	408	387	343	303	268	235	205
72.5°	513	472	427	383	362	342	301	263	229	198	169
75°	462	422	380	337	317	298	260	224	191	162	136
77.5°	410	373	332	293	274	255	219	185	155	128	104
80°	361	325	287	249	231	214	180	149	121	97	76
82.5°	313	279	245	210	191	176	144	116	91	70	51
85°	267	236	203	171	153	139	111	86	64	45	28
87.5°	224	194	164	134	120	106	81	59	40	22	8
90°	184	156	129	102	88	77	54	35	17	3	3
92.5°	147	122	97	73	62	50	32	15	4	3	3
95°	115	91	69	49	39	30	15	5	3	3	3
97.5°	86	65	46	30	22	16	7	3	3	3	3
100°	61	44	29	17	12	8	3	3	3	3	3
102.5°	41	27	17	9	6	4	3	3	3	3	3
105°	27	17	10	5	3	3	3	3	3	3	3
107.5°	17	10	5	3	2	3	3	3	3	3	3
110°	10	6	3	2	3	3	3	3	3	3	3



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	6	3	2	2	2	2	3	3	3	3	3
115°	3	2	2	2	3	3	3	3	3	3	3
117.5°	2	2	2	3	3	3	3	3	3	3	3
120°	2	2	2	3	3	3	3	3	3	3	3
122.5°	2	2	2	3	3	3	3	3	3	3	3
125°	2	2	2	3	3	3	3	3	3	3	3
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	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°	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
2.5°	1099	1091	1085	1082	1079	1075	1073	1071	1069	1068	1066
5°	1086	1075	1066	1062	1057	1050	1046	1041	1037	1032	1029
7.5°	1072	1057	1044	1038	1033	1023	1016	1009	1002	996	991
10°	1052	1035	1020	1012	1006	994	984	975	967	959	953
12.5°	1030	1010	992	984	976	962	951	940	930	920	913
15°	1005	982	962	952	944	928	915	902	892	880	873
17.5°	976	952	929	919	911	892	878	864	853	840	832
20°	946	919	895	884	874	855	839	824	811	802	791
22.5°	913	885	859	848	837	816	800	784	771	761	750
25°	878	848	821	809	798	777	760	743	731	718	710
27.5°	841	810	782	770	759	737	720	703	691	679	671
30°	803	771	743	731	719	697	680	663	651	640	631
32.5°	764	734	704	691	678	658	640	626	611	601	593
35°	724	693	664	651	638	617	600	586	572	562	554
37.5°	684	654	624	611	599	578	561	548	534	525	517
40°	643	613	584	571	558	538	521	508	495	486	478
42.5°	603	573	544	531	519	499	482	470	456	448	441
45°	562	531	504	491	479	460	443	431	420	409	402
47.5°	522	491	465	451	440	421	404	390	381	372	365
50°	483	452	426	412	402	383	367	353	343	334	327
52.5°	443	413	387	374	363	343	329	317	306	297	289
55°	404	374	348	335	325	306	290	278	269	260	252
57.5°	364	335	310	299	287	268	255	243	232	223	217
60°	325	297	273	260	250	232	219	208	197	189	183
62.5°	287	259	235	225	214	197	184	173	164	157	151
65°	250	223	200	190	180	163	150	141	133	126	122
67.5°	213	188	166	157	147	132	121	112	104	99	95
70°	179	155	134	125	116	103	94	85	79	74	71
72.5°	144	122	103	96	88	77	68	62	57	52	50
75°	113	93	76	70	63	55	47	42	38	35	34
77.5°	84	66	52	47	43	35	31	27	24	22	21
80°	58	43	32	28	25	20	18	16	14	13	13
82.5°	35	23	17	15	13	11	10	9	8	8	7
85°	15	10	7	7	6	6	5	5	5	4	4
87.5°	5	4	4	4	4	4	4	4	4	4	3
90°	3	3	3	3	3	3	3	3	3	3	3
92.5°	3	3	3	3	3	3	3	3	3	2	2
95°	3	3	3	3	3	2	2	2	2	2	2
97.5°	3	3	3	3	3	2	2	2	2	2	1
100°	3	3	3	3	3	2	2	2	2	2	1
102.5°	3	3	3	3	2	2	2	2	2	1	1
105°	3	3	3	3	3	2	2	2	2	2	1
107.5°	3	3	3	3	2	2	2	2	2	1	1
110°	3	3	3	3	2	2	2	2	2	1	1



TEST NUMBER: P27362

CATALOG NUMBER: MPBL-3-LD4-UNV-1DN-HI-40

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	3	3	3	2	2	2	2	2	2	1	1
115°	3	3	3	3	3	2	2	2	2	2	1
117.5°	3	3	3	3	3	3	2	2	2	2	2
120°	3	3	3	3	3	3	2	2	2	2	1
122.5°	3	3	3	3	3	3	2	2	2	2	1
125°	3	3	3	3	3	3	2	2	2	2	2
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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CATALOG NUMBER: MPBL-3-LD4-UNV-1DN-HI-40

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1100	1100	1100	1100	1100	1100	1100	1100
2.5°	1064	1061	1056	1056	1052	1050	1049	1049
5°	1025	1021	1016	1015	1012	1010	1010	1010
7.5°	986	981	976	975	971	969	968	968
10°	946	941	934	933	927	924	923	923
12.5°	906	899	893	890	885	881	881	881
15°	865	858	853	850	844	840	839	840
17.5°	824	817	812	808	803	799	798	799
20°	783	775	771	767	762	758	757	759
22.5°	742	733	730	725	721	718	716	715
25°	702	693	690	686	682	679	677	679
27.5°	662	655	652	648	643	640	639	641
30°	624	617	614	610	606	603	602	601
32.5°	585	577	576	573	569	569	566	569
35°	547	540	538	534	533	532	530	531
37.5°	509	503	502	498	498	496	494	495
40°	471	465	464	462	459	458	456	457
42.5°	434	428	427	426	424	421	419	421
45°	396	390	389	386	385	382	382	383
47.5°	358	353	352	350	350	345	345	346
50°	321	316	315	313	309	309	308	309
52.5°	283	280	279	276	276	273	272	273
55°	247	244	243	241	239	238	237	237
57.5°	214	209	208	206	206	204	202	203
60°	180	176	175	173	171	171	170	170
62.5°	147	145	144	142	142	140	139	139
65°	118	115	115	113	112	111	110	111
67.5°	91	89	88	88	86	85	84	85
70°	68	66	65	65	64	63	62	62
72.5°	48	46	46	47	45	45	43	43
75°	32	31	31	31	30	29	29	29
77.5°	20	20	19	20	19	19	18	18
80°	12	11	11	11	11	11	10	10
82.5°	7	7	6	6	6	6	6	6
85°	4	4	4	4	4	4	4	4
87.5°	3	3	3	3	3	3	3	3
90°	3	2	2	2	2	2	2	2
92.5°	2	2	2	2	2	2	2	2
95°	2	2	2	2	1	1	1	1
97.5°	1	1	1	1	1	1	1	1
100°	1	1	1	1	1	0	0	0
102.5°	1	1	1	1	0	0	0	0
105°	1	1	1	1	1	0	0	0
107.5°	1	1	1	1	0	0	0	0
110°	1	1	1	1	0	0	0	0



TEST NUMBER: P27362

CATALOG NUMBER: MPBL-3-LD4-UNV-1DN-HI-40

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	1	1	1	0	0	0	0	0
115°	1	1	1	1	1	0	0	0
117.5°	1	1	1	1	1	1	0	0
120°	1	1	1	1	1	1	1	0
122.5°	1	1	1	1	1	1	1	0
125°	1	1	1	1	1	1	1	1
127.5°	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0

(END OF REPORT)