

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: INVUE

Report Number: P140920

Luminaire Tested: **ECM-E03-LED-E1-SL2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140920
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33690)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E03-LED-E1-SL2
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8633.7 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

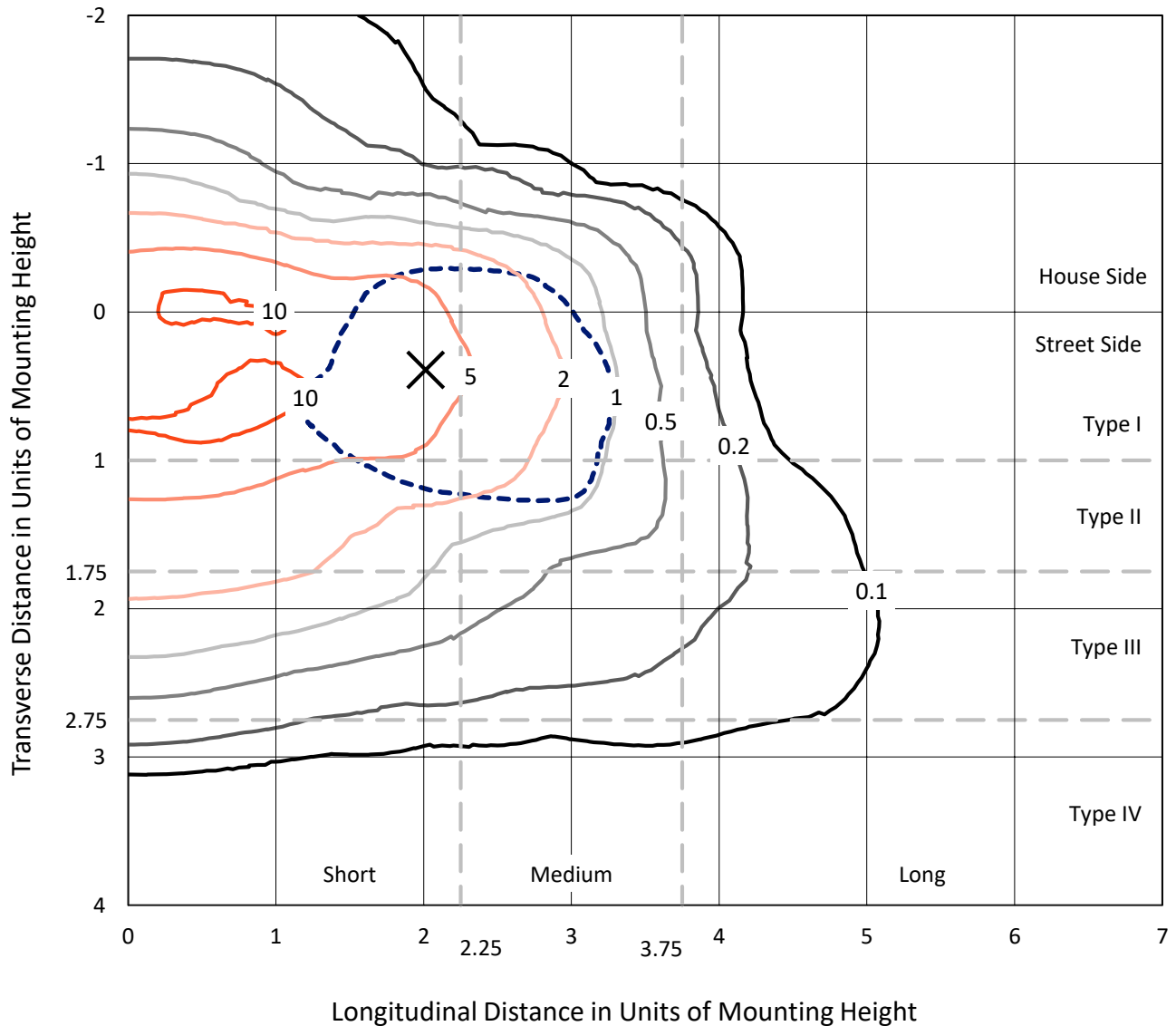
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P140920
 CATALOG NUMBER: ECM-E03-LED-E1-SL2

Iso-Footcandle Lines of Horizontal Illumination

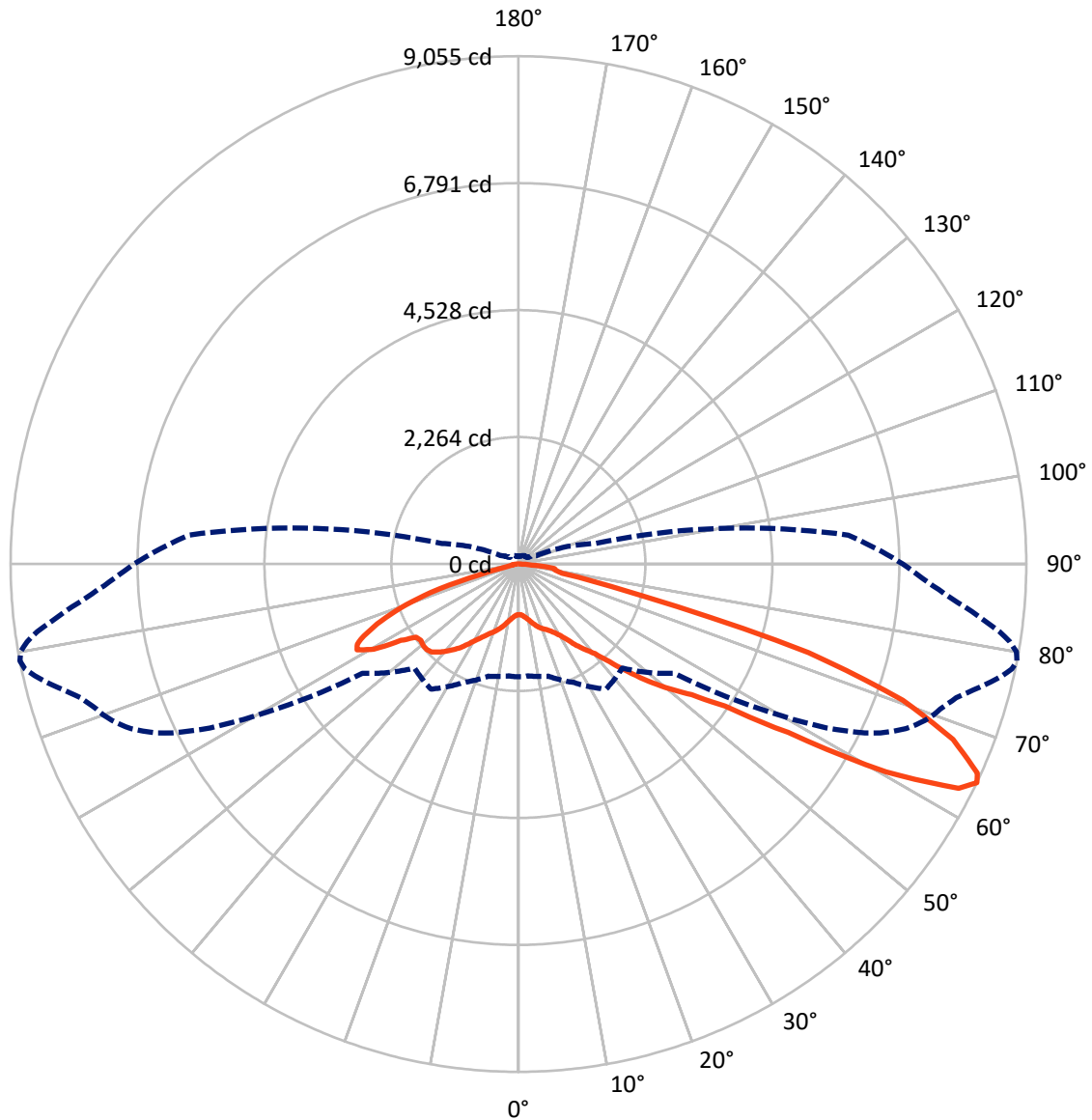
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P140920
CATALOG NUMBER: ECM-E03-LED-E1-SL2

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

REPORT NUMBER: P140920

CATALOG NUMBER: ECM-E03-LED-E1-SL2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2058.0	0.0	2058.0
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	6575.7	0.0	6575.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	8633.7	0.0	8633.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	1.0
10°-20°	290.0	3.4
20°-30°	497.8	5.8
30°-40°	832.2	9.6
40°-50°	1425.6	16.5
50°-60°	1923.1	22.3
60°-70°	2432.6	28.2
70°-80°	970.7	11.2
80°-90°	172.2	2.0
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°-90°	8633.7	100.0
0°-180°	8633.7	100.0



REPORT NUMBER: P140920

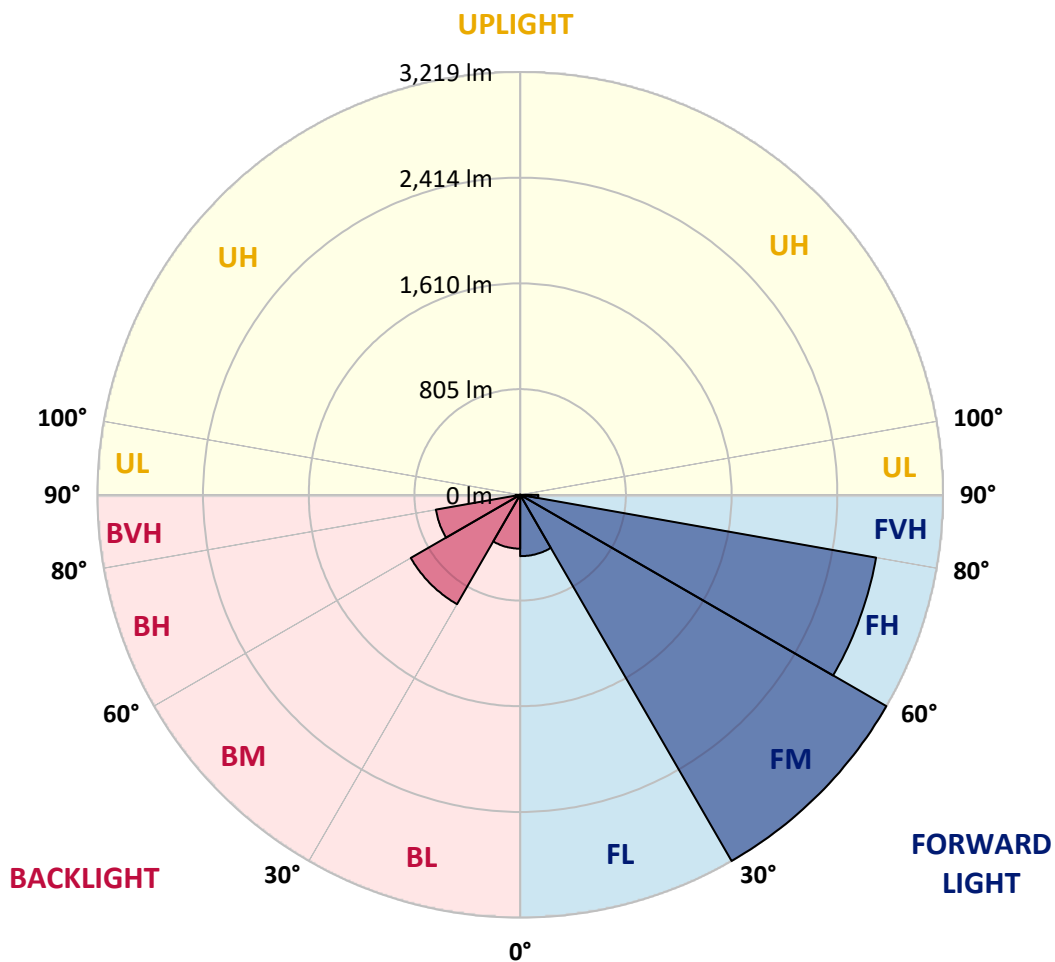
CATALOG NUMBER: ECM-E03-LED-E1-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	467.2	5.4			
FM	(30°-60°)	3219.2	37.3			
FH	(60°-80°)	2751.4	31.9			G2/5000
FVH	(80°-90°)	137.9	1.6			G2/225
BL	(0°-30°)	410.1	4.7	B1/500		
BM	(30°-60°)	961.7	11.1	B1/1000		
BH	(60°-80°)	651.9	7.6	B2/1000		G2/1000
BVH	(80°-90°)	34.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





REPORT NUMBER: P140920

CATALOG NUMBER: ECM-E03-LED-E1-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	903	903	903	903	903	903	903	903	903	903	903
2.5°	899	900	899	902	904	907	907	907	907	907	907
5°	898	899	898	903	908	914	920	922	922	923	924
7.5°	907	908	907	913	920	930	941	947	948	949	951
10°	935	933	929	935	942	957	970	980	983	984	988
12.5°	972	971	964	961	965	982	1006	1020	1023	1024	1028
15°	1000	997	991	987	994	1012	1044	1062	1068	1069	1076
17.5°	1018	1016	1006	1003	1014	1042	1082	1104	1108	1111	1119
20°	1048	1042	1027	1014	1023	1066	1113	1136	1142	1145	1152
22.5°	1088	1083	1065	1032	1032	1080	1141	1167	1172	1178	1186
25°	1157	1153	1118	1062	1048	1094	1167	1202	1207	1214	1226
27.5°	1228	1223	1184	1109	1076	1120	1205	1247	1254	1262	1276
30°	1319	1310	1271	1184	1131	1162	1265	1318	1326	1336	1355
32.5°	1523	1527	1456	1364	1271	1258	1358	1423	1435	1448	1474
35°	1855	1839	1813	1719	1616	1514	1539	1609	1622	1626	1637
37.5°	2067	2076	2097	2097	2020	1977	1906	1872	1875	1879	1870
40°	2185	2204	2276	2373	2443	2482	2470	2311	2292	2267	2187
42.5°	2270	2289	2412	2598	2772	2910	2986	2861	2847	2787	2691
45°	2322	2337	2485	2749	3012	3247	3455	3411	3407	3356	3230
47.5°	2312	2325	2479	2797	3142	3461	3783	3863	3867	3854	3777
50°	2164	2195	2348	2691	3070	3544	3995	4204	4210	4222	4192
52.5°	2032	2056	2193	2500	2864	3462	4122	4454	4505	4534	4590
55°	1978	1992	2097	2358	2694	3243	4165	4635	4726	4781	4909
57.5°	1968	1979	2060	2259	2581	3017	4151	4878	5022	5126	5374
60°	2035	2045	2102	2269	2503	2852	4023	5198	5400	5680	6080
62.5°	2085	2090	2160	2394	2589	2691	3697	5422	5781	6137	6732
64°	2012	2002	2071	2329	2722	2622	3395	5411	5832	6227	6871
65°	1905	1912	1974	2202	2699	2619	3197	5291	5728	6147	6806
67.5°	1480	1507	1524	1733	2211	2704	2677	4527	4966	5366	6145
70°	796	793	831	996	1538	2295	2297	3191	3677	4174	4949
72.5°	293	308	338	455	799	1656	2105	2213	2430	2825	3656
75°	168	170	176	214	385	914	1956	1958	1974	2039	2491
77.5°	131	127	130	139	210	481	1569	1860	1858	1848	1914
80°	98	102	108	108	130	258	892	1655	1711	1753	1777
82.5°	79	82	97	97	95	146	421	1226	1402	1516	1693
85°	51	54	82	81	77	86	220	411	443	540	768
87.5°	14	17	38	33	40	32	82	125	154	174	219
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P140920

CATALOG NUMBER: ECM-E03-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	903	903	903	903	903	903	903	903	903	903	903
2.5°	907	907	907	908	908	908	908	908	909	907	907
5°	925	924	925	925	928	927	928	928	927	929	929
7.5°	954	952	954	955	956	960	960	962	963	964	962
10°	989	992	993	993	998	1000	1000	1003	1006	1008	1007
12.5°	1032	1034	1035	1041	1042	1045	1050	1053	1053	1058	1061
15°	1080	1082	1088	1090	1094	1099	1102	1105	1105	1114	1117
17.5°	1121	1125	1129	1132	1139	1144	1149	1152	1157	1161	1168
20°	1156	1161	1166	1172	1177	1182	1188	1192	1198	1204	1211
22.5°	1190	1196	1202	1207	1214	1219	1224	1231	1235	1241	1249
25°	1227	1237	1243	1250	1257	1264	1270	1276	1282	1290	1298
27.5°	1286	1291	1299	1303	1315	1323	1331	1332	1340	1355	1357
30°	1363	1372	1377	1391	1393	1396	1409	1418	1428	1440	1445
32.5°	1479	1487	1494	1498	1509	1527	1529	1537	1554	1557	1575
35°	1649	1651	1662	1668	1682	1692	1697	1704	1713	1734	1739
37.5°	1853	1870	1856	1842	1867	1864	1870	1862	1886	1887	1896
40°	2170	2163	2133	2101	2086	2077	2059	2055	2068	2062	2065
42.5°	2637	2571	2520	2482	2435	2384	2355	2311	2311	2298	2310
45°	3186	3112	3017	2927	2869	2802	2733	2687	2640	2605	2636
47.5°	3727	3677	3571	3488	3372	3272	3163	3068	3012	2971	2977
50°	4197	4151	4096	3984	3896	3794	3679	3554	3433	3384	3342
52.5°	4593	4577	4530	4478	4406	4297	4224	4105	3962	3859	3815
55°	4943	4971	4996	4985	4959	4945	4855	4774	4677	4647	4556
57.5°	5494	5575	5671	5724	5776	5895	5924	5893	5905	5897	5849
60°	6274	6470	6638	6772	6915	7054	7218	7326	7371	7545	7542
62.5°	6943	7204	7419	7580	7747	7873	7979	8087	8219	8345	8504
64°	7125	7330	7505	7649	7769	7872	7953	8052	8161	8324	8500
65°	7031	7262	7389	7519	7627	7707	7790	7880	8018	8147	8335
67.5°	6392	6567	6751	6872	6976	7023	7101	7176	7253	7383	7618
70°	5390	5586	5851	5965	6073	6090	6163	6219	6270	6443	6559
72.5°	4044	4424	4684	4884	4906	4991	5021	5044	5102	5134	5169
75°	2787	3129	3350	3426	3519	3474	3422	3239	3240	3085	2909
77.5°	1961	2014	2016	2017	1894	1822	1740	1635	1594	1512	1400
80°	1778	1772	1735	1690	1623	1527	1428	1359	1305	1244	1164
82.5°	1716	1730	1703	1665	1626	1531	1417	1309	1220	1123	1025
85°	836	860	938	989	1001	942	861	763	669	563	514
87.5°	251	269	275	292	313	285	251	225	181	157	123
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P140920

CATALOG NUMBER: ECM-E03-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	903	903	903	903	903	903	903	903	903	903	903
2.5°	907	908	908	907	908	908	909	908	908	908	907
5°	927	931	930	930	932	932	931	933	932	932	931
7.5°	965	965	968	969	967	967	969	970	972	973	973
10°	1009	1014	1014	1015	1016	1019	1020	1020	1022	1022	1024
12.5°	1063	1065	1067	1072	1073	1073	1078	1077	1077	1082	1083
15°	1121	1124	1129	1131	1133	1138	1141	1144	1143	1150	1152
17.5°	1172	1175	1181	1186	1189	1192	1194	1198	1204	1209	1210
20°	1213	1217	1224	1230	1235	1238	1246	1250	1252	1256	1261
22.5°	1253	1260	1267	1269	1280	1283	1289	1295	1299	1308	1311
25°	1303	1309	1318	1324	1331	1337	1343	1348	1357	1365	1369
27.5°	1369	1374	1381	1392	1398	1402	1413	1423	1427	1435	1442
30°	1456	1461	1471	1482	1487	1500	1508	1515	1523	1534	1544
32.5°	1583	1589	1598	1612	1612	1621	1638	1653	1659	1672	1679
35°	1750	1751	1761	1782	1788	1786	1802	1816	1820	1840	1853
37.5°	1912	1915	1927	1935	1946	1954	1965	1986	1986	2015	2027
40°	2080	2095	2097	2099	2117	2149	2160	2181	2200	2228	2241
42.5°	2324	2340	2359	2381	2408	2426	2447	2477	2485	2520	2529
45°	2658	2677	2728	2733	2781	2805	2840	2880	2890	2913	2901
47.5°	2991	3013	3069	3127	3171	3213	3223	3240	3255	3241	3245
50°	3360	3392	3445	3496	3529	3577	3577	3581	3567	3544	3507
52.5°	3792	3797	3831	3871	3901	3911	3911	3888	3854	3817	3745
55°	4513	4458	4468	4468	4446	4428	4414	4358	4291	4224	4158
57.5°	5812	5864	5709	5667	5669	5532	5476	5380	5308	5188	5087
60°	7665	7629	7578	7530	7534	7353	7226	7083	6958	6694	6582
62.5°	8646	8774	8847	8810	8725	8612	8404	8187	7967	7743	7542
64°	8682	8851	8995	9055	9015	8872	8660	8390	8128	7864	7621
65°	8508	8722	8908	8992	8994	8868	8656	8384	8104	7798	7545
67.5°	7786	8032	8215	8356	8477	8413	8266	7977	7712	7365	7088
70°	6703	6855	7061	7267	7364	7379	7324	7178	6868	6586	6229
72.5°	5166	5402	5281	5408	5489	5410	5420	5171	5071	4823	4572
75°	2736	2744	2692	2314	2267	2094	2286	1943	1826	1718	1579
77.5°	1269	1105	952	795	650	569	444	391	352	310	319
80°	1061	935	801	664	558	451	362	281	225	189	172
82.5°	939	828	735	651	575	470	386	298	229	173	134
85°	424	332	302	238	202	172	137	113	93	79	62
87.5°	99	68	58	55	48	45	38	40	33	26	27
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P140920

CATALOG NUMBER: ECM-E03-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	903	903	903	903	903	903	903	903	903	903	903
2.5°	907	907	908	908	909	911	914	911	911	911	912
5°	933	934	933	933	935	938	939	933	930	927	923
7.5°	971	975	974	974	976	976	974	965	956	942	930
10°	1024	1026	1026	1026	1029	1031	1022	1002	978	953	931
12.5°	1087	1086	1089	1092	1090	1090	1073	1042	1003	962	924
15°	1153	1154	1154	1159	1160	1156	1129	1081	1021	959	898
17.5°	1215	1217	1218	1222	1227	1216	1177	1112	1024	931	849
20°	1267	1270	1273	1276	1281	1273	1221	1127	1008	886	792
22.5°	1314	1319	1321	1326	1334	1324	1261	1127	972	837	728
25°	1371	1377	1387	1389	1403	1392	1293	1119	931	775	659
27.5°	1446	1452	1461	1466	1483	1468	1317	1098	880	708	592
30°	1545	1551	1562	1567	1598	1548	1333	1066	821	630	515
32.5°	1683	1699	1698	1711	1739	1637	1340	1021	747	551	443
35°	1864	1875	1885	1903	1916	1732	1335	962	655	469	380
37.5°	2038	2057	2064	2076	2073	1796	1315	870	555	396	337
40°	2255	2266	2288	2299	2246	1857	1268	747	455	348	309
42.5°	2544	2558	2547	2544	2442	1891	1178	624	381	313	286
45°	2895	2901	2868	2846	2668	1888	1047	508	330	287	266
47.5°	3212	3200	3157	3124	2864	1818	883	419	303	266	250
50°	3474	3421	3375	3333	3021	1711	726	353	277	249	234
52.5°	3711	3639	3585	3514	3164	1570	601	308	251	232	217
55°	4062	3978	3909	3839	3417	1460	520	274	225	214	200
57.5°	5069	4844	4783	4720	4095	1436	473	247	205	197	188
60°	6446	6300	6202	6048	5221	1513	438	227	191	186	178
62.5°	7344	7168	7006	6849	5882	1511	395	214	183	182	170
64°	7401	7204	7023	6854	5903	1412	356	205	183	183	165
65°	7307	7109	6922	6746	5783	1336	330	201	186	185	162
67.5°	6828	6629	6419	6230	5275	1047	261	194	202	195	159
70°	5981	5755	5597	5461	4528	731	207	198	221	207	167
72.5°	4335	4151	4149	3995	3428	464	167	197	220	205	173
75°	1684	1444	1436	1490	1458	251	144	174	180	171	153
77.5°	288	283	280	295	325	139	132	148	134	121	127
80°	160	153	151	151	142	114	117	118	97	90	105
82.5°	111	103	99	96	93	102	104	93	70	69	98
85°	54	51	50	50	57	96	86	72	47	47	106
87.5°	23	23	20	20	31	61	39	30	19	22	43
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P140920

CATALOG NUMBER: ECM-E03-LED-E1-SL2

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	903	903	903
2.5°	911	913	912
5°	918	918	916
7.5°	917	913	911
10°	911	900	899
12.5°	895	877	872
15°	849	825	819
17.5°	791	763	755
20°	725	693	682
22.5°	661	624	613
25°	591	554	548
27.5°	514	479	470
30°	443	413	406
32.5°	379	358	358
35°	337	319	319
37.5°	304	296	295
40°	282	275	274
42.5°	265	257	256
45°	247	239	239
47.5°	230	221	222
50°	213	206	206
52.5°	199	192	191
55°	186	179	178
57.5°	174	166	165
60°	162	154	152
62.5°	152	143	141
64°	146	137	135
65°	143	133	132
67.5°	140	127	126
70°	151	125	120
72.5°	152	122	116
75°	144	116	111
77.5°	127	106	100
80°	122	83	73
82.5°	112	68	57
85°	92	44	41
87.5°	53	29	21
90°	0	0	0

(END OF REPORT)