

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: HALO COMMERCIAL

Report Number: P21912

Luminaire Tested: **PD6V142E-60VWWC_42TTT**

Issue Date: 03/03/2020



Test Information

Test Method: LM-79-08
Report Number: P21912
Test Lab: INNOVATION CENTER P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PD6V142E-60VWWC_42TTT
Description: 6-INCH APERTURE OPEN WALL WASH DOWNLIGHT,
VERTICAL LAMP. SPECULAR CLEAR TRIM WITH SPECULAR KICKER.
Light Source: (1) GX24Q-4 FOUR PIN BASE TTT CFL LAMP
CF42DT/E/IN/827 42 WATTS
Ballast/Driver: (1) SYLVANIA ELECTRONIC BALLAST
QTP2x26CF/UNV DM

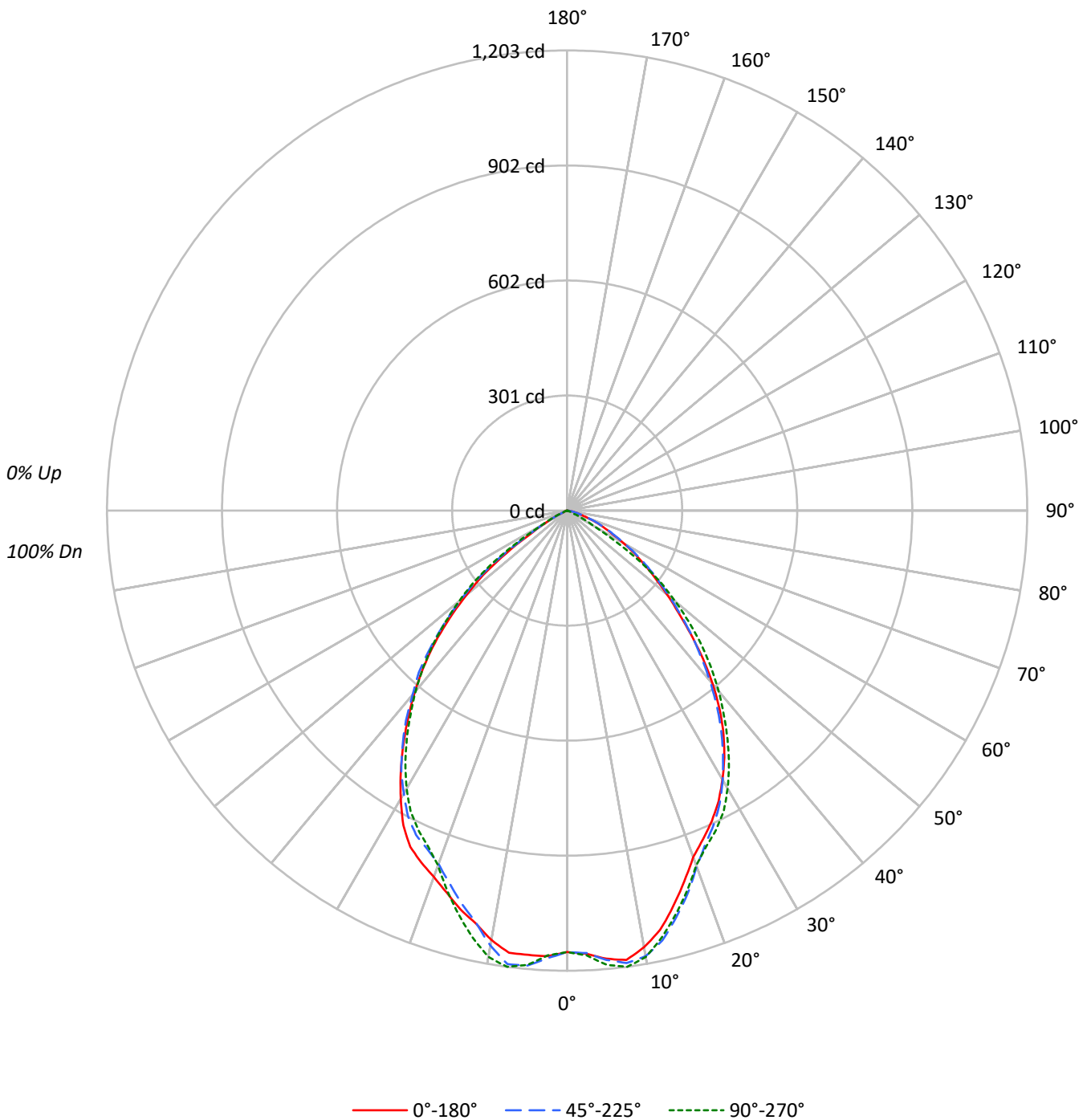
Summary

Lumens per Lamp: 3200 (1 lamp)
Luminaire Lumens: 1939.3 lumens
Efficiency: 60.6%
Efficacy: 44.9 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.16
Luminous Opening: Vertical Cylinder (Dia: 0.7' x H: 0.1')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): 0.36042
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 13 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					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	72	72	72	72	70	70	70	70	67	67	67	64	64	64	62	62	62	61					61			
1	68	66	64	62	66	64	63	61	62	61	59	60	58	57	57	57	56	55					55			
2	63	59	56	54	62	58	56	53	56	54	52	55	53	51	53	51	50	49					49			
3	59	54	50	47	58	53	49	47	51	48	46	50	47	45	48	46	44	43					43			
4	55	49	45	41	54	48	44	41	47	43	41	46	43	40	44	42	40	39					39			
5	51	45	40	37	50	44	40	37	43	39	36	42	39	36	41	38	36	35					35			
6	48	41	36	33	47	40	36	33	39	36	33	38	35	32	38	35	32	31					31			
7	45	38	33	30	44	37	33	30	36	32	30	35	32	29	35	32	29	28					28			
8	42	35	30	27	41	34	30	27	34	30	27	33	29	27	32	29	27	26					26			
9	39	32	28	25	39	32	28	25	31	27	25	31	27	25	30	27	24	23					23			
10	37	30	26	23	36	30	26	23	29	25	23	29	25	23	28	25	23	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	32470	32470	32470
5°	32693	33138	32415
10°	32081	32801	31556
15°	29743	30382	29966
20°	27067	27713	28612
25°	25607	26351	27753
30°	23867	24661	25572
35°	21716	22265	22752
40°	18857	19622	19749
45°	15379	16691	16456
50°	12225	13232	12333
55°	9612	9106	7550
60°	7269	3464	2908
65°	5168	957	670
70°	3398	274	274
75°	1876	194	194
80°	1195	159	239
85°	314	0	105



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	112.6	5.8	3.5	0°	1154	1154	1154	1154	1154	
10°-20°	303.8	15.7	9.5	5°	1176	1179	1192	1194	1166	112
20°-30°	423.3	21.8	13.2	15°	1071	1101	1094	1064	1079	300
30°-40°	452.8	23.3	14.1	25°	895	906	921	935	970	411
40°-50°	369.2	19.0	11.5	35°	713	702	731	750	747	443
50°-60°	204.0	10.5	6.4	45°	457	459	496	504	489	354
60°-70°	56.9	2.9	1.8	55°	247	257	234	217	194	223
70°-80°	14.4	0.7	0.4	65°	108	111	20	17	14	109
80°-90°	2.4	0.1	0.1	75°	29	30	3	2	3	34
90°-100°	0.0	0.0	0.0	85°	3	3	0	0	1	5
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	839.8	43.3	26.2							
0°-40°	1292.5	66.6	40.4							
0°-60°	1865.7	96.2	58.3							
0°-90°	1939.3	100.0	60.6							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	1939.3	100.0	60.6							



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1154	1154	1154	1154	1154	1154	1154	1154	1154	1154	1154
2.5°	1160	1160	1160	1160	1159	1159	1158	1158	1158	1158	1159
5°	1176	1175	1173	1172	1170	1170	1171	1173	1176	1179	1184
7.5°	1185	1183	1183	1182	1182	1184	1185	1186	1189	1193	1198
10°	1159	1158	1162	1166	1168	1167	1166	1169	1175	1183	1189
12.5°	1123	1120	1126	1132	1134	1127	1121	1126	1138	1151	1157
15°	1071	1070	1081	1089	1088	1073	1061	1067	1086	1101	1106
17.5°	1017	1019	1036	1041	1034	1015	1003	1015	1037	1049	1051
20°	964	968	979	978	970	955	946	958	979	990	991
22.5°	929	929	933	929	919	911	906	914	934	944	946
25°	895	893	895	891	881	872	871	878	896	906	908
27.5°	857	855	853	850	841	831	832	840	855	864	867
30°	812	807	803	801	794	784	784	792	804	813	817
32.5°	765	758	752	749	744	735	735	742	751	758	763
35°	713	704	696	693	690	682	682	687	694	702	707
37.5°	655	647	638	634	630	624	623	628	634	643	649
40°	592	584	575	571	568	563	562	566	572	580	588
42.5°	525	517	509	505	506	503	501	505	510	518	526
45°	457	450	444	442	444	442	440	445	451	459	465
47.5°	394	390	386	385	386	384	383	388	394	401	406
50°	340	337	335	334	335	333	331	336	343	347	351
52.5°	291	289	288	288	289	287	286	290	298	300	303
55°	247	246	245	246	247	247	247	250	256	257	258
57.5°	208	207	206	206	208	208	208	211	215	215	212
60°	170	170	169	170	172	172	172	174	177	174	166
62.5°	134	135	135	135	137	138	139	141	143	140	131
65°	108	109	109	110	111	111	112	114	115	111	104
67.5°	85	86	86	87	87	88	89	90	91	88	81
70°	62	62	62	63	63	64	66	67	67	66	61
72.5°	41	42	42	42	43	43	44	44	45	45	42
75°	29	29	29	29	29	29	29	29	30	30	29
77.5°	21	22	22	22	22	22	22	21	21	21	20
80°	15	15	15	15	15	14	14	14	14	14	13
82.5°	7	7	8	8	8	8	8	8	7	7	7
85°	3	3	3	3	3	3	3	3	3	3	3
87.5°	2	2	2	2	2	1	1	1	1	1	1
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1154	1154	1154	1154	1154	1154	1154	1154	1154	1154	1154
2.5°	1160	1161	1162	1163	1164	1164	1165	1164	1168	1166	1166
5°	1187	1189	1190	1190	1192	1193	1193	1192	1192	1188	1182
7.5°	1203	1204	1200	1199	1202	1203	1203	1203	1203	1203	1197
10°	1191	1189	1182	1180	1184	1183	1184	1185	1182	1188	1184
12.5°	1157	1155	1149	1149	1150	1146	1143	1143	1139	1149	1153
15°	1108	1108	1107	1110	1109	1100	1096	1094	1090	1100	1101
17.5°	1053	1056	1061	1068	1064	1049	1043	1042	1042	1051	1060
20°	993	1002	1012	1020	1014	993	986	987	993	1005	1016
22.5°	951	966	981	982	974	953	946	950	958	971	983
25°	919	940	950	948	941	922	916	921	930	942	955
27.5°	883	906	911	907	901	884	880	886	894	906	919
30°	835	859	860	853	851	836	833	839	847	860	871
32.5°	782	805	805	797	797	785	781	787	796	808	818
35°	725	746	745	737	739	729	726	731	740	750	759
37.5°	666	686	685	677	678	669	667	673	682	691	699
40°	603	623	624	616	617	610	610	616	624	631	638
42.5°	538	557	559	553	555	550	552	557	562	568	573
45°	473	489	491	486	490	489	491	496	497	500	503
47.5°	413	426	426	422	425	426	427	432	431	432	433
50°	358	367	365	361	363	363	364	368	366	364	364
52.5°	309	314	309	305	304	302	304	308	307	304	303
55°	260	258	247	239	236	231	232	234	233	231	228
57.5°	209	202	184	169	162	154	151	151	148	145	142
60°	158	144	123	104	94	83	81	81	80	79	78
62.5°	122	109	88	70	60	51	48	48	47	46	46
65°	94	80	60	43	33	24	20	20	19	19	18
67.5°	72	59	40	24	16	9	7	6	6	6	6
70°	54	45	30	17	11	7	5	5	5	4	4
72.5°	37	29	20	12	8	5	4	3	3	3	3
75°	25	20	14	9	6	4	3	3	2	2	2
77.5°	17	14	10	6	4	3	2	2	2	2	2
80°	11	9	7	4	3	2	2	2	2	2	2
82.5°	6	5	3	2	2	1	1	1	1	1	1
85°	2	2	1	1	1	1	1	0	0	0	0
87.5°	1	1	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1154	1154	1154	1154	1154	1154	1154	1154	1154	1154	1154
2.5°	1163	1167	1168	1169	1170	1171	1171	1171	1171	1170	1169
5°	1177	1180	1184	1188	1192	1194	1196	1196	1195	1193	1190
7.5°	1192	1191	1191	1192	1195	1196	1196	1195	1193	1189	1184
10°	1182	1179	1174	1166	1162	1155	1152	1148	1144	1139	1134
12.5°	1149	1148	1143	1128	1117	1103	1094	1088	1082	1076	1072
15°	1103	1111	1113	1097	1081	1064	1054	1050	1046	1040	1036
17.5°	1059	1071	1075	1059	1042	1022	1011	1005	1002	997	994
20°	1017	1031	1034	1017	1002	983	969	963	959	955	956
22.5°	985	1000	1005	988	974	957	943	937	932	929	931
25°	957	974	981	963	950	935	921	914	910	907	909
27.5°	921	940	948	931	919	901	886	878	874	870	872
30°	873	892	892	882	871	854	838	829	824	821	825
32.5°	818	834	839	825	817	807	791	776	771	769	773
35°	759	773	777	763	758	750	735	720	714	713	717
37.5°	698	710	714	702	698	692	678	668	662	655	659
40°	636	647	651	641	639	628	617	607	606	600	603
42.5°	572	581	585	577	577	574	558	557	550	543	545
45°	502	506	509	505	505	504	498	488	484	483	483
47.5°	432	434	436	434	434	433	430	421	425	417	417
50°	361	362	363	361	362	362	361	359	358	349	347
52.5°	299	299	299	297	297	297	295	294	292	289	280
55°	224	222	221	219	218	217	215	214	212	209	198
57.5°	139	136	135	132	131	129	128	125	123	122	113
60°	76	75	75	73	74	73	73	72	72	68	68
62.5°	45	44	44	43	43	43	43	43	43	44	44
65°	18	18	17	16	17	17	16	16	16	17	17
67.5°	6	6	5	6	6	6	6	6	6	6	6
70°	4	4	4	4	4	5	5	5	5	5	5
72.5°	3	3	3	3	3	3	3	4	4	4	4
75°	2	2	2	2	2	2	2	3	3	3	3
77.5°	2	2	2	2	2	2	2	3	3	3	3
80°	2	2	2	2	2	2	2	2	3	3	3
82.5°	1	1	2	2	2	2	2	2	2	3	3
85°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1154	1154	1154	1154
2.5°	1168	1167	1166	1166
5°	1186	1179	1170	1166
7.5°	1181	1177	1170	1166
10°	1134	1137	1140	1140
12.5°	1076	1087	1099	1105
15°	1041	1055	1070	1079
17.5°	1003	1020	1036	1047
20°	969	988	1005	1019
22.5°	945	964	981	996
25°	922	939	955	970
27.5°	886	900	914	928
30°	838	849	859	870
32.5°	784	793	800	810
35°	727	733	737	747
37.5°	668	672	674	682
40°	609	612	612	620
42.5°	550	550	549	556
45°	485	484	483	489
47.5°	417	414	412	417
50°	345	343	341	343
52.5°	277	276	282	277
55°	196	194	201	194
57.5°	111	110	116	110
60°	68	67	70	68
62.5°	44	44	44	42
65°	17	14	17	14
67.5°	6	6	7	6
70°	5	5	5	5
72.5°	4	4	4	4
75°	3	3	3	3
77.5°	3	3	3	3
80°	3	3	3	3
82.5°	3	3	3	3
85°	1	1	1	1
87.5°	0	0	0	0
90°	0	0	0	0

(END OF REPORT)