

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: P21911

Luminaire Tested: **PD6V142E-60VWWC\_32TTT**

Issue Date: 03/03/2020



**Test Information**

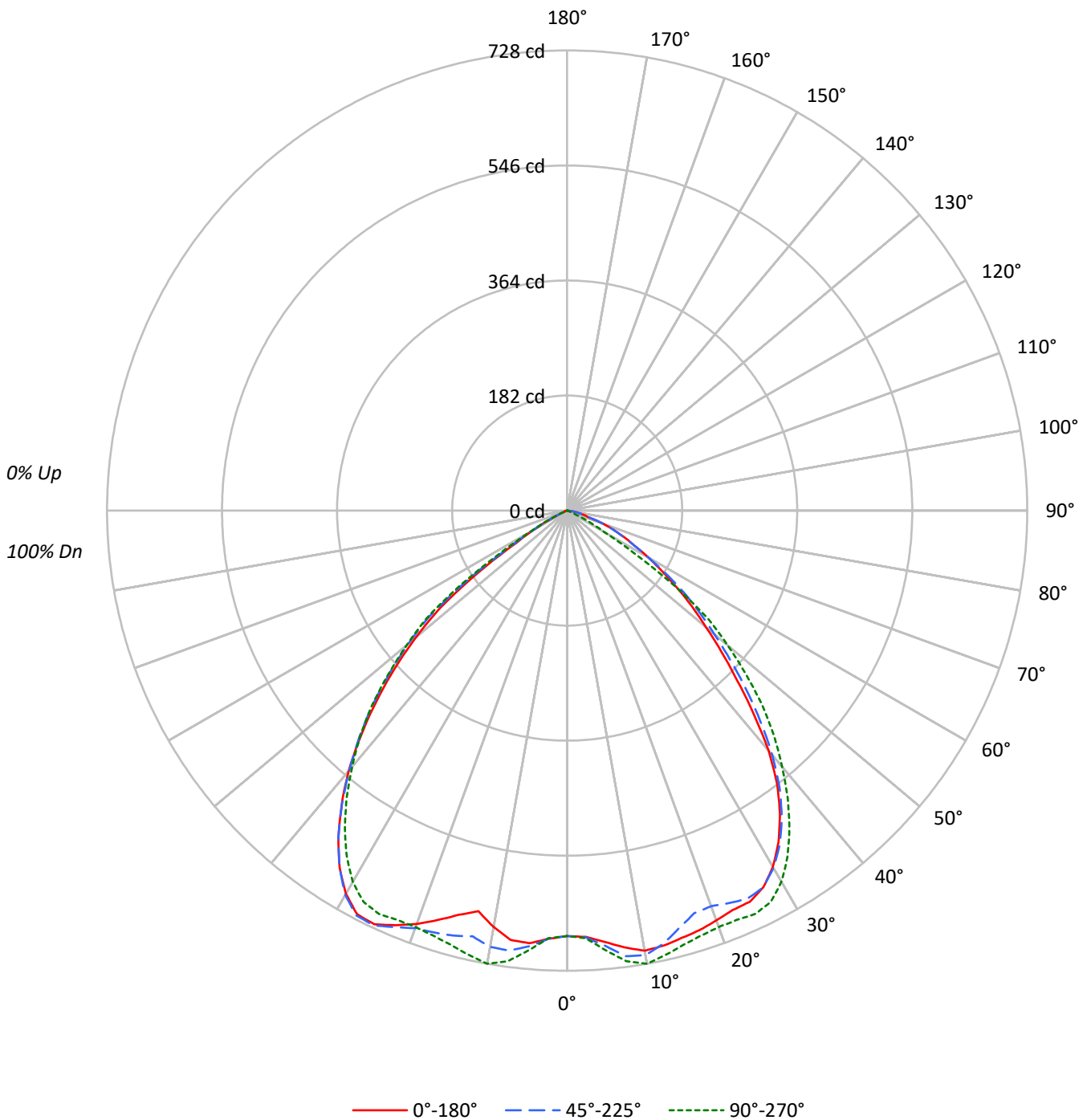
Test Method: LM-79-08  
Report Number: P21911  
Test Lab: INNOVATION CENTER P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PD6V142E-60VWWC\_32TTT  
Description: 6-INCH APERTURE OPEN WALL WASH DOWNLIGHT,  
VERTICAL LAMP. SPECULAR CLEAR TRIM WITH SPECULAR KICKER.  
Light Source: (1) GX24Q-3 FOUR PIN BASE TTT CFL LAMP  
CF32DT/E/IN/827 32 WATTS  
Ballast/Driver: (1) SYLVANIA ELECTRONIC BALLAST  
QTP2x26CF/UNV DM

**Summary**

Lumens per Lamp: 2400 (1 lamp)  
Luminaire Lumens: 1529.9 lumens  
Efficiency: 63.7%  
Efficacy: 47.5 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.4 / 1.35  
Luminous Opening: Vertical Cylinder (Dia: 0.7' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 32.2  
Input Voltage (V): NR  
Input Current (Ain): 0.26873  
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	0
RCR																				
0	76	76	76	76	74	74	74	74	71	71	71		68	68	68		65	65	65	64
1	71	69	67	65	70	67	66	64	65	63	62		62	61	60		60	59	58	57
2	66	62	59	56	65	61	58	55	59	56	54		57	55	53		55	53	52	50
3	61	56	52	48	60	55	51	48	53	50	47		52	49	46		50	48	46	44
4	57	51	46	42	56	50	45	42	48	44	41		47	44	41		46	43	40	39
5	53	46	41	37	52	45	41	37	44	40	37		43	39	36		42	38	36	35
6	49	42	37	33	48	41	36	33	40	36	33		39	35	32		38	35	32	31
7	46	38	33	30	45	38	33	30	37	32	29		36	32	29		35	32	29	28
8	43	35	30	27	42	35	30	27	34	30	27		33	29	26		32	29	26	25
9	40	32	27	24	39	32	27	24	31	27	24		31	27	24		30	26	24	23
10	38	30	25	22	37	29	25	22	29	25	22		28	25	22		28	24	22	21

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	18936	18936	18936
5°	19043	19405	19099
10°	19570	20151	18518
15°	19440	19746	18385
20°	19374	19683	19542
25°	19542	20142	20657
30°	19135	19929	20575
35°	17879	18671	19219
40°	15799	16851	17137
45°	12821	14706	14369
50°	10319	11901	11218
55°	8211	8056	6771
60°	6329	2951	2608
65°	4785	718	526
70°	3288	219	219
75°	1811	129	194
80°	1195	80	239
85°	209	0	0



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	66.6	4.4	2.8	0°	673	673	673	673	673	
10°-20°	196.6	12.9	8.2	5°	685	691	698	692	687	66
20°-30°	321.4	21.0	13.4	15°	700	684	711	696	662	198
30°-40°	378.7	24.8	15.8	25°	683	677	704	724	722	313
40°-50°	321.2	21.0	13.4	35°	587	592	613	631	631	364
50°-60°	180.6	11.8	7.5	45°	381	401	437	435	427	296
60°-70°	49.7	3.2	2.1	55°	211	224	207	193	174	190
70°-80°	13.1	0.9	0.5	65°	100	97	15	12	11	99
80°-90°	1.9	0.1	0.1	75°	28	26	2	2	3	32
90°-100°	0.0	0.0	0.0	85°	2	2	0	0	0	4
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°	584.6	38.2	24.4							
0°-40°	963.3	63.0	40.1							
0°-60°	1465.1	95.8	61.0							
0°-90°	1529.9	100.0	63.7							
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°	1529.9	100.0	63.7							



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	673	673	673	673	673	673	673	673	673	673	673
2.5°	675	675	675	675	675	674	675	674	675	676	677
5°	685	686	687	689	690	690	691	691	692	691	692
7.5°	697	699	702	706	709	710	711	711	711	711	709
10°	707	706	706	707	710	715	719	719	718	714	711
12.5°	705	704	701	698	700	705	708	707	705	702	701
15°	700	700	694	686	686	690	692	690	687	684	686
17.5°	696	697	690	679	675	675	675	672	668	668	676
20°	690	691	685	673	666	663	660	657	656	666	684
22.5°	684	683	677	669	658	655	653	651	656	672	690
25°	683	679	672	665	655	651	651	652	660	677	694
27.5°	672	669	661	655	646	642	643	647	656	672	688
30°	651	645	640	634	626	621	622	628	638	653	668
32.5°	622	617	613	607	600	595	595	600	612	626	638
35°	587	583	582	575	568	562	562	567	579	592	602
37.5°	546	545	543	537	529	522	521	527	538	552	559
40°	496	493	495	490	483	476	474	480	492	505	512
42.5°	437	438	439	436	431	426	425	431	441	453	459
45°	381	380	385	384	380	378	378	383	391	401	405
47.5°	331	332	335	335	334	333	334	337	342	350	356
50°	287	285	290	292	292	292	293	293	298	304	309
52.5°	248	248	251	253	254	255	255	254	258	263	268
55°	211	212	215	217	218	219	219	218	221	224	226
57.5°	177	178	180	182	183	184	184	183	185	184	182
60°	148	148	150	151	152	153	152	151	151	148	142
62.5°	120	121	122	123	124	124	124	122	122	119	113
65°	100	100	101	101	102	103	102	101	101	97	90
67.5°	79	80	80	81	81	82	81	81	81	78	72
70°	60	61	61	60	60	61	61	61	60	59	55
72.5°	36	37	37	37	38	39	40	40	41	40	38
75°	28	28	28	27	27	27	27	27	27	26	25
77.5°	21	21	21	21	21	20	20	20	20	19	18
80°	15	15	14	14	14	14	14	13	13	13	12
82.5°	6	6	6	6	6	7	7	7	7	7	6
85°	2	2	2	2	2	2	2	3	3	2	2
87.5°	1	1	1	1	1	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°	673	673	673	673	673	673	673	673	673	673	673
2.5°	678	679	679	678	678	677	676	677	678	679	680
5°	692	693	693	694	695	696	697	698	698	697	697
7.5°	708	707	708	713	718	720	720	719	717	712	708
10°	709	710	715	722	728	728	728	728	724	718	710
12.5°	702	705	711	718	724	724	722	720	716	710	702
15°	692	699	707	715	720	715	713	711	709	709	702
17.5°	692	702	701	706	713	709	706	705	704	709	705
20°	700	707	702	701	706	705	702	701	702	710	710
22.5°	704	711	707	704	707	702	701	701	705	716	720
25°	708	717	711	708	708	702	701	704	712	724	731
27.5°	701	711	703	701	700	694	693	698	707	721	728
30°	679	690	680	678	676	671	670	678	687	701	710
32.5°	648	659	649	647	645	641	641	649	659	672	680
35°	610	621	611	610	608	605	606	613	623	635	643
37.5°	566	577	570	567	565	562	565	573	583	593	600
40°	518	528	519	519	517	516	520	529	538	547	553
42.5°	465	474	470	468	465	465	473	485	491	500	502
45°	410	419	416	415	414	415	423	437	440	445	447
47.5°	359	367	366	364	364	366	373	384	387	392	392
50°	312	318	317	316	315	319	324	331	337	339	337
52.5°	268	272	271	270	268	270	273	281	283	285	285
55°	223	223	218	213	204	202	201	207	207	208	206
57.5°	174	168	157	145	137	130	122	125	124	124	121
60°	129	118	104	88	76	69	67	69	69	69	68
62.5°	100	89	76	60	50	43	40	40	40	40	39
65°	78	66	52	36	25	18	14	15	14	14	13
67.5°	62	50	37	22	14	8	6	6	5	5	5
70°	49	38	27	16	9	6	5	4	4	4	4
72.5°	34	26	18	11	7	5	3	3	3	3	3
75°	22	18	12	8	5	3	3	2	2	2	2
77.5°	16	12	9	6	4	3	2	2	2	2	2
80°	10	8	6	4	2	2	2	1	1	1	1
82.5°	5	4	3	2	1	1	1	1	1	1	1
85°	2	1	1	1	1	1	0	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°	673	673	673	673	673	673	673	673	673	673	673
2.5°	680	679	679	678	678	678	678	678	678	677	677
5°	696	694	693	691	691	692	693	693	691	690	688
7.5°	705	703	701	700	701	702	703	703	701	698	694
10°	703	699	698	698	700	701	698	694	691	688	684
12.5°	695	689	688	686	688	690	685	679	674	671	669
15°	695	693	690	686	690	696	691	684	680	678	681
17.5°	699	699	695	688	691	700	697	689	683	684	689
20°	707	709	707	699	698	703	699	694	692	692	697
22.5°	717	721	721	713	710	713	708	702	701	701	707
25°	728	734	735	725	722	724	717	711	709	710	717
27.5°	726	735	735	724	720	722	715	708	706	706	712
30°	709	718	718	706	699	702	695	688	685	686	690
32.5°	679	689	689	675	666	670	666	659	656	657	659
35°	641	650	650	636	626	631	627	622	621	620	619
37.5°	598	606	605	591	582	585	582	579	578	576	575
40°	550	557	556	543	534	536	535	533	532	530	527
42.5°	498	504	502	493	485	487	486	485	484	483	482
45°	443	444	443	437	433	435	434	432	431	431	428
47.5°	388	387	386	381	379	381	380	378	377	376	377
50°	333	332	330	327	326	328	326	323	322	320	320
52.5°	281	278	277	275	274	274	272	268	266	265	263
55°	202	200	198	196	195	193	191	188	186	185	183
57.5°	117	115	113	112	110	109	108	106	104	103	102
60°	66	66	65	64	64	64	64	64	64	64	63
62.5°	38	38	38	37	37	38	38	38	38	38	38
65°	13	12	12	12	12	12	12	12	12	12	12
67.5°	5	5	5	5	5	5	5	5	5	5	5
70°	4	4	4	4	4	4	4	4	4	4	4
72.5°	3	3	3	3	3	3	3	3	3	3	3
75°	2	2	2	2	2	2	2	2	2	2	2
77.5°	2	2	2	2	2	2	2	2	2	3	3
80°	2	2	2	2	2	2	2	2	2	2	2
82.5°	1	1	1	1	1	1	1	1	1	2	2
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°	673	673	673	673
2.5°	678	678	678	678
5°	686	686	687	687
7.5°	688	686	685	685
10°	679	672	670	669
12.5°	662	653	650	649
15°	672	664	661	662
17.5°	681	673	674	679
20°	693	688	691	696
22.5°	706	703	706	710
25°	716	713	717	722
27.5°	712	708	715	720
30°	690	686	695	700
32.5°	658	655	664	670
35°	620	617	626	631
37.5°	576	577	585	586
40°	529	527	534	538
42.5°	479	479	481	483
45°	427	424	425	427
47.5°	373	368	368	370
50°	315	311	311	312
52.5°	259	256	253	254
55°	181	178	174	174
57.5°	100	99	99	96
60°	62	61	61	61
62.5°	37	36	37	36
65°	12	12	12	11
67.5°	5	5	6	5
70°	4	4	4	4
72.5°	3	3	3	3
75°	2	3	3	3
77.5°	3	3	3	3
80°	2	2	3	3
82.5°	2	2	2	2
85°	0	0	0	0
87.5°	0	0	0	0
90°	0	0	0	0

(END OF REPORT)