

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: P31428

Luminaire Tested: **PD8H142E-82HWWC\_26DTT**

Issue Date: 03/03/2020



**Test Information**

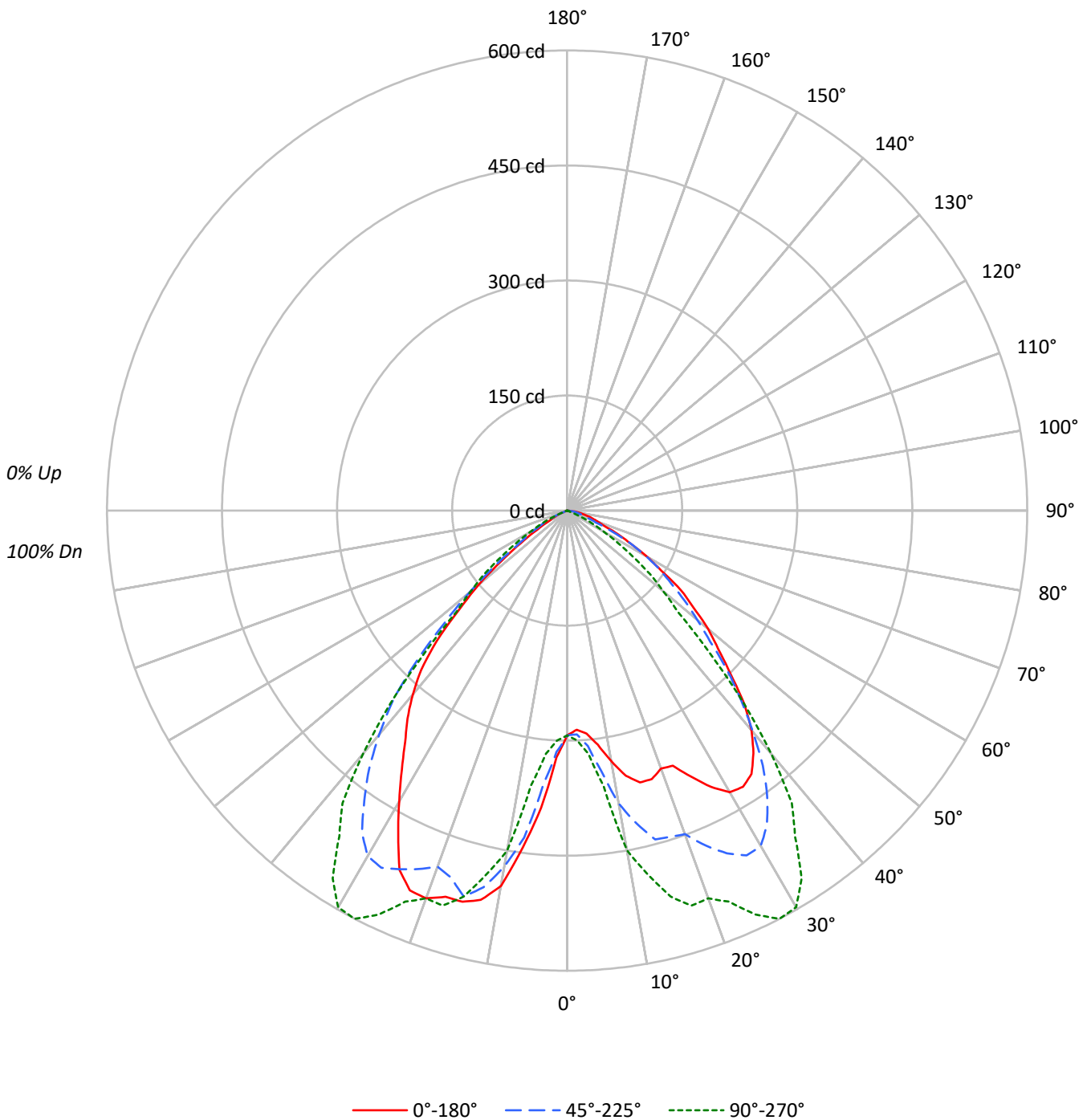
Test Method: LM-79-08  
Report Number: P31428  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PD8H142E-82HWWC\_26DTT  
Description: HALO 8-INCH APERTURE OPEN WALL WASH DOWNLIGHT, HORIZONTAL LAMP, SPECULAR CLEAR TRIM WITH SPECULAR KICKER.  
Light Source: (1) SYLVANIA G24Q-3 SINGLE END FOUR PIN BASE DTT CFL LAMP  
4100K  
CF26DD/E/IN/841 26 WATTS  
Ballast/Driver: (1) SYLVANIA ELECTRONIC BALLAST  
SYLVANIA QTP2x26CF/UNV DM

**Summary**

Lumens per Lamp: 1710 (1 lamp)  
Luminaire Lumens: 1053.3 lumens  
Efficiency: 61.6%  
Efficacy: 42.8 lumens/watt  
Spacing Criteria (0/90/45): 1.72 / 1.8 / 1.54  
Luminous Opening: Vertical Cylinder (Dia: 0.53' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 24.6  
Input Voltage (V): 120.05  
Input Current (A<sub>in</sub>): 0.20541  
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

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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	73	73	73	73	72	72	72	72	68	68	68	66	66	66	63	63	63	62
1	69	67	65	63	67	65	63	62	63	61	60	60	59	58	58	57	56	55
2	64	60	57	54	62	59	56	53	57	54	52	55	53	51	53	51	50	49
3	59	54	50	47	58	53	49	46	51	48	46	50	47	45	48	46	44	43
4	55	49	44	41	54	48	44	41	47	43	40	45	42	40	44	41	39	38
5	51	44	40	36	50	44	39	36	42	39	36	41	38	35	40	37	35	34
6	47	40	36	32	46	40	35	32	39	35	32	38	34	31	37	34	31	30
7	44	37	32	29	43	36	32	29	35	31	28	35	31	28	34	31	28	27
8	41	34	29	26	40	33	29	26	33	29	26	32	28	25	31	28	25	24
9	39	31	26	23	38	31	26	23	30	26	23	29	26	23	29	25	23	22
10	36	29	24	21	35	28	24	21	28	24	21	27	24	21	27	23	21	20

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

	0°	90°	180°
0°	14228	14228	14228
5°	13941	15183	18573
10°	15707	21290	23513
15°	17337	24612	24943
20°	17016	25572	25572
25°	18458	28001	24916
30°	20885	29406	21575
35°	21269	26295	18681
40°	19739	21850	16519
45°	16675	14570	13351
50°	14103	9637	8873
55°	11479	6560	4667
60°	8236	3775	1922
65°	5540	1821	987
70°	3681	257	171
75°	2773	99	99
80°	2015	0	0
85°	447	0	0



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	34.9	3.3	2.0	0°	293	293	293	293	293	
10°-20°	134.3	12.8	7.9	5°	292	308	318	359	389	29
20°-30°	234.3	22.2	13.7	15°	367	444	521	521	528	102
30°-40°	281.5	26.7	16.5	25°	383	493	581	516	517	179
40°-50°	212.3	20.2	12.4	35°	419	455	518	461	368	258
50°-60°	108.8	10.3	6.4	45°	301	296	263	278	241	234
60°-70°	36.3	3.4	2.1	55°	182	165	104	81	74	159
70°-80°	9.1	0.9	0.5	65°	73	65	24	17	13	74
80°-90°	1.8	0.2	0.1	75°	28	17	1	1	1	30
90°-100°	0.0	0.0	0.0	85°	3	3	0	0	0	6
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°	403.5	38.3	23.6							
0°-40°	685.0	65.0	40.1							
0°-60°	1006.2	95.5	58.8							
0°-90°	1053.3	100.0	61.6							
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°	1053.3	100.0	61.6							



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	293	293	293	293	293	293	293	293	293	293	293
2.5°	286	280	279	282	285	281	282	286	286	292	296
5°	292	287	287	292	297	293	296	301	303	308	311
7.5°	308	303	302	312	318	319	322	329	333	343	352
10°	332	329	330	340	345	346	356	367	374	388	398
12.5°	354	349	353	363	369	370	379	394	404	418	432
15°	367	363	369	377	385	388	400	415	426	444	457
17.5°	367	364	370	381	392	395	408	422	430	446	460
20°	358	358	366	378	390	396	409	423	433	449	465
22.5°	360	361	369	384	398	406	419	438	450	473	489
25°	383	379	391	406	419	423	440	458	471	493	513
27.5°	406	402	411	426	435	439	453	472	486	507	527
30°	424	416	422	433	437	439	452	470	484	505	525
32.5°	427	417	418	426	430	430	442	456	466	485	503
35°	419	402	399	405	413	414	424	434	441	455	462
37.5°	399	381	371	375	390	393	400	408	407	419	426
40°	374	360	342	348	363	366	370	375	372	377	374
42.5°	342	335	322	324	333	335	335	336	335	336	336
45°	301	298	297	295	295	299	299	299	294	296	287
47.5°	267	265	271	273	271	266	267	267	260	253	245
50°	240	238	245	250	249	240	239	237	226	221	212
52.5°	207	209	211	218	220	218	209	205	198	193	183
55°	182	176	177	181	183	182	179	178	169	165	158
57.5°	145	144	141	145	147	145	147	150	145	143	133
60°	120	116	114	113	116	118	117	120	118	118	111
62.5°	93	92	87	87	91	89	91	90	91	93	88
65°	73	69	66	65	68	65	66	65	64	65	60
67.5°	52	51	49	49	49	48	46	45	42	40	37
70°	43	41	41	40	40	38	38	36	33	30	28
72.5°	35	34	33	33	33	31	31	29	26	23	20
75°	28	26	26	26	26	24	24	22	20	17	14
77.5°	21	21	20	21	21	20	19	18	16	14	11
80°	17	16	16	16	16	15	16	15	13	11	9
82.5°	11	10	10	11	11	10	10	10	9	8	7
85°	3	3	3	3	3	3	3	3	3	3	2
87.5°	1	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):**

	55°	60°	65°	70°	75°	80°	85°	90°	112.5°	135°	157.5°
0°	293	293	293	293	293	293	293	293	293	293	293
2.5°	292	293	292	297	299	302	302	300	309	315	322
5°	309	309	310	315	316	320	320	318	332	359	384
7.5°	348	352	353	359	363	364	369	362	393	430	459
10°	401	406	413	426	434	442	445	450	455	471	503
12.5°	435	444	450	461	470	478	483	486	493	503	537
15°	462	473	480	494	504	512	518	521	529	521	531
17.5°	466	477	487	506	518	531	537	540	539	502	511
20°	467	477	487	502	513	527	535	538	536	494	503
22.5°	495	506	515	524	533	543	548	552	553	506	503
25°	518	532	541	557	566	577	579	581	570	516	500
27.5°	536	549	560	578	591	601	603	600	580	525	487
30°	536	551	564	584	591	600	602	597	583	520	462
32.5°	512	521	532	549	553	562	569	569	550	498	429
35°	464	474	479	492	497	510	518	518	500	461	400
37.5°	422	423	427	439	450	469	480	481	455	424	378
40°	378	383	382	396	394	407	414	414	413	381	347
42.5°	335	327	328	326	324	333	342	341	351	337	307
45°	281	271	267	257	253	255	262	263	278	278	253
47.5°	234	225	216	199	192	189	192	196	214	217	202
50°	198	187	177	170	165	165	167	164	159	167	156
52.5°	173	164	153	150	144	138	139	136	125	119	114
55°	147	138	125	117	113	107	109	104	92	81	74
57.5°	123	113	100	93	83	81	80	79	69	61	49
60°	99	91	80	70	63	57	57	55	51	44	32
62.5°	79	72	62	52	46	42	41	39	36	32	21
65°	55	51	44	35	30	26	24	24	19	17	12
67.5°	31	27	23	16	11	8	6	5	2	2	3
70°	23	19	15	11	7	5	4	3	1	1	1
72.5°	16	12	10	7	5	4	3	2	1	1	1
75°	11	8	6	5	4	3	2	1	1	1	1
77.5°	9	7	5	4	3	2	1	1	0	0	0
80°	7	5	3	2	1	1	0	0	0	0	0
82.5°	5	4	2	1	1	0	0	0	0	0	0
85°	2	1	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):**

	180°
0°	293
2.5°	322
5°	389
7.5°	443
10°	497
12.5°	520
15°	528
17.5°	528
20°	538
22.5°	536
25°	517
27.5°	477
30°	438
32.5°	401
35°	368
37.5°	342
40°	313
42.5°	282
45°	241
47.5°	190
50°	151
52.5°	108
55°	74
57.5°	46
60°	28
62.5°	20
65°	13
67.5°	2
70°	2
72.5°	1
75°	1
77.5°	1
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)