

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: E395731

Luminaire Tested: **H7-310/H930**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: E395731  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H7-310/H930  
Description: HALO RECESSED INC - H7 HOUSING, ADJ, COILEX BAFFLE, MAX TILT  
Light Source: 75R30FL, 900 LUMENS  
Ballast/Driver: -

**Summary**

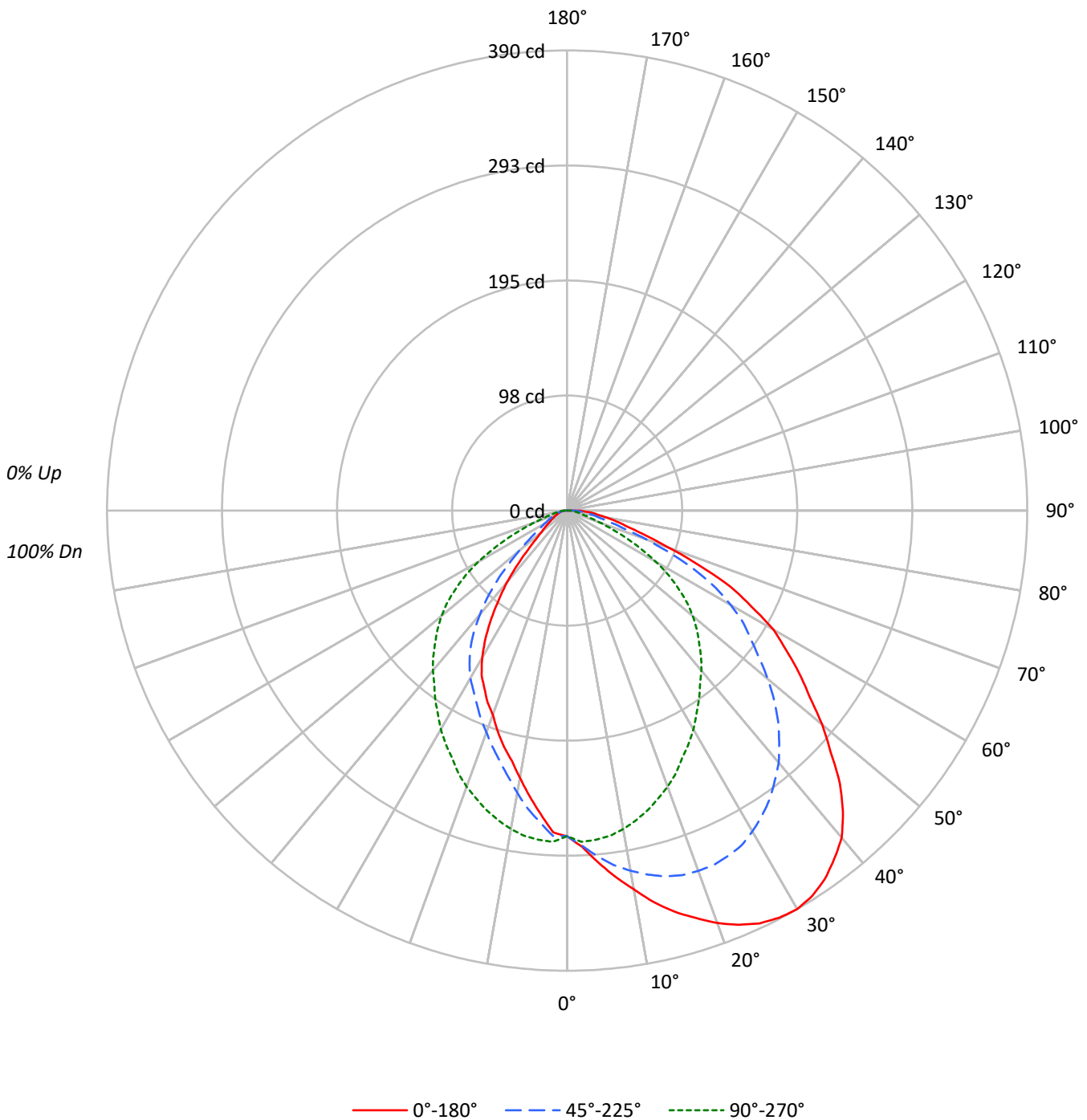
Lumens per Lamp: 900 (1 lamp)  
Luminaire Lumens: 698.3 lumens  
Efficiency: 77.6%  
Efficacy: 9.3 lumens/watt  
Spacing Criteria (0/90/45): 1.38 / 1.16 / 1.34  
Luminous Opening: (L: 0 ' x W: -0.49 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 75  
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



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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	92	92	92	92	90	90	90	90	86	86	86		83	83	83		79	79	79	78
1	85	82	79	76	83	80	77	75	77	75	73		74	72	70		71	70	68	67
2	78	72	67	63	76	71	66	63	68	64	61		66	62	60		63	61	58	57
3	72	64	58	53	70	63	57	53	61	56	52		59	55	51		57	53	50	49
4	66	57	51	46	64	56	50	46	54	49	45		52	48	44		51	47	44	42
5	61	51	45	40	59	50	44	40	49	43	39		47	43	39		46	42	38	37
6	56	46	40	35	55	46	39	35	44	39	35		43	38	34		42	37	34	32
7	52	42	36	31	51	42	35	31	40	35	31		39	34	31		38	34	30	29
8	49	39	32	28	48	38	32	28	37	32	28		36	31	27		35	31	27	26
9	46	36	29	25	45	35	29	25	34	29	25		33	28	25		33	28	25	23
10	43	33	27	23	42	32	27	23	32	26	23		31	26	23		30	26	23	21

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

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	26.6	3.8	3.0
10°-20°	76.5	11.0	8.5
20°-30°	116.8	16.7	13.0
30°-40°	138.1	19.8	15.3
40°-50°	131.8	18.9	14.6
50°-60°	105.4	15.1	11.7
60°-70°	67.3	9.6	7.5
70°-80°	26.2	3.7	2.9
80°-90°	9.7	1.4	1.1
90°-100°	0.0	0.0	0.0
100°-110°	0.0	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°	219.9	31.5	24.4
0°-40°	358.1	51.3	39.8
0°-60°	595.2	85.2	66.1
0°-90°	698.3	100.0	77.6
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°	698.3	100.0	77.6

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	276	276	276	276	276	
5°	299	294	280	265	258	29
15°	352	321	263	220	207	100
25°	386	323	231	181	166	178
35°	381	299	195	143	112	238
45°	327	253	158	84	47	250
55°	240	190	115	32	20	215
65°	153	120	56	16	12	147
75°	53	37	15	8	7	60
85°	21	13	5	4	4	23
90°	10	6	3	2	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	20°	22.5°	25°	30°
0°	276	276	276	276	276	276	276	276	276	276	276
2.5°	285	288	286	288	287	287	287	286	286	286	285
5°	299	303	301	300	301	301	301	300	299	298	297
7.5°	313	316	316	314	315	314	315	314	313	312	310
10°	326	330	329	329	328	327	327	326	324	322	319
12.5°	340	343	342	341	341	340	339	336	335	333	329
15°	352	355	354	353	352	352	351	347	345	342	337
17.5°	362	365	365	364	363	361	360	356	354	350	344
20°	372	375	374	373	371	370	369	363	360	357	350
22.5°	380	383	381	381	379	376	374	369	365	361	353
25°	386	388	387	386	384	382	379	372	368	364	354
27.5°	389	392	390	389	387	384	381	374	369	364	354
30°	390	393	391	389	386	384	381	373	368	362	350
32.5°	387	390	388	387	384	381	378	369	364	358	346
35°	381	385	383	382	378	375	371	363	357	351	339
37.5°	372	377	374	373	371	368	364	354	349	342	329
40°	362	366	363	362	358	357	352	344	339	331	319
42.5°	346	349	347	346	344	340	338	328	324	318	306
45°	327	331	325	327	325	323	319	309	305	299	290
47.5°	303	307	306	302	302	300	298	290	286	281	270
50°	282	284	280	279	279	276	276	271	264	261	251
52.5°	259	262	260	260	258	255	254	249	245	243	234
55°	240	242	239	239	237	235	234	230	226	224	216
57.5°	220	222	222	220	219	218	216	211	209	207	200
60°	202	202	201	202	199	199	197	194	190	187	182
62.5°	176	180	177	181	178	177	176	173	172	168	161
65°	153	155	153	154	154	154	151	148	147	145	137
67.5°	121	125	126	125	124	125	124	120	119	118	113
70°	91	93	93	93	93	96	96	91	91	89	86
72.5°	69	70	70	70	69	72	71	70	65	63	63
75°	53	53	51	54	54	53	53	52	50	49	46
77.5°	43	43	43	43	43	42	41	40	39	38	36
80°	34	34	33	33	33	32	32	31	30	30	28
82.5°	26	27	26	26	26	26	25	25	24	23	22
85°	21	20	20	20	20	20	19	19	18	18	17
87.5°	14	15	14	14	14	14	14	13	13	13	12
90°	10	9	9	9	9	9	9	8	8	8	8



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**CANDELA DISTRIBUTION (continued):**

	35°	40°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	276	276	276	276	276	276	276	276	276
2.5°	285	284	284	282	281	278	276	274	273
5°	296	295	294	286	280	271	265	261	258
7.5°	307	305	303	289	278	264	255	247	244
10°	317	313	310	291	274	256	243	234	230
12.5°	325	321	316	291	269	246	231	221	217
15°	332	327	321	290	263	238	220	210	207
17.5°	338	331	324	287	256	229	210	199	196
20°	342	334	325	284	249	219	200	188	184
22.5°	344	335	325	279	241	210	191	179	176
25°	344	334	323	273	231	201	181	170	166
27.5°	343	331	320	266	223	191	172	161	157
30°	338	327	314	257	214	182	164	150	144
32.5°	333	320	307	248	204	173	154	136	129
35°	326	312	299	239	195	166	143	122	112
37.5°	317	303	289	229	185	157	130	105	95
40°	306	293	279	219	177	147	115	88	79
42.5°	293	281	266	207	168	136	100	70	62
45°	279	266	253	196	158	123	84	56	47
47.5°	261	249	238	185	149	111	67	43	36
50°	243	232	222	173	139	97	53	33	28
52.5°	225	216	205	164	128	81	41	27	24
55°	208	200	190	152	115	67	32	22	20
57.5°	192	186	177	141	102	53	26	19	17
60°	176	168	160	125	87	41	22	16	15
62.5°	156	149	142	108	71	32	18	14	13
65°	133	125	120	87	56	26	16	12	12
67.5°	108	103	95	66	41	21	13	11	10
70°	80	77	71	47	29	16	12	9	9
72.5°	59	54	50	35	20	13	10	8	8
75°	43	39	37	25	15	11	8	7	7
77.5°	33	31	28	19	12	9	7	6	6
80°	27	25	23	14	9	7	6	5	5
82.5°	21	19	17	11	7	5	5	5	5
85°	16	14	13	8	5	4	4	4	4
87.5°	11	10	9	6	4	3	3	3	3
90°	7	6	6	4	3	2	2	3	3

(END OF REPORT)