

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: 267p140

Luminaire Tested: **H278ICAT-78P- 0 DEG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 267p140  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H278ICAT-78P- 0 DEG  
Description: HALO RECESSED WITH WHITE TRIM AND WHITE EYEBALL IN H27  
Light Source: ONE COMPACT FLUORESCENT ECO TWIST LAMP  
CF28T/827 28 WATTS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 1675 (1 lamp)  
Luminaire Lumens: 889.2 lumens  
Efficiency: 53.1%  
Efficacy: 30.7 lumens/watt  
Spacing Criteria (0/90/45): 1.47 / 1.52 / 1.55  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

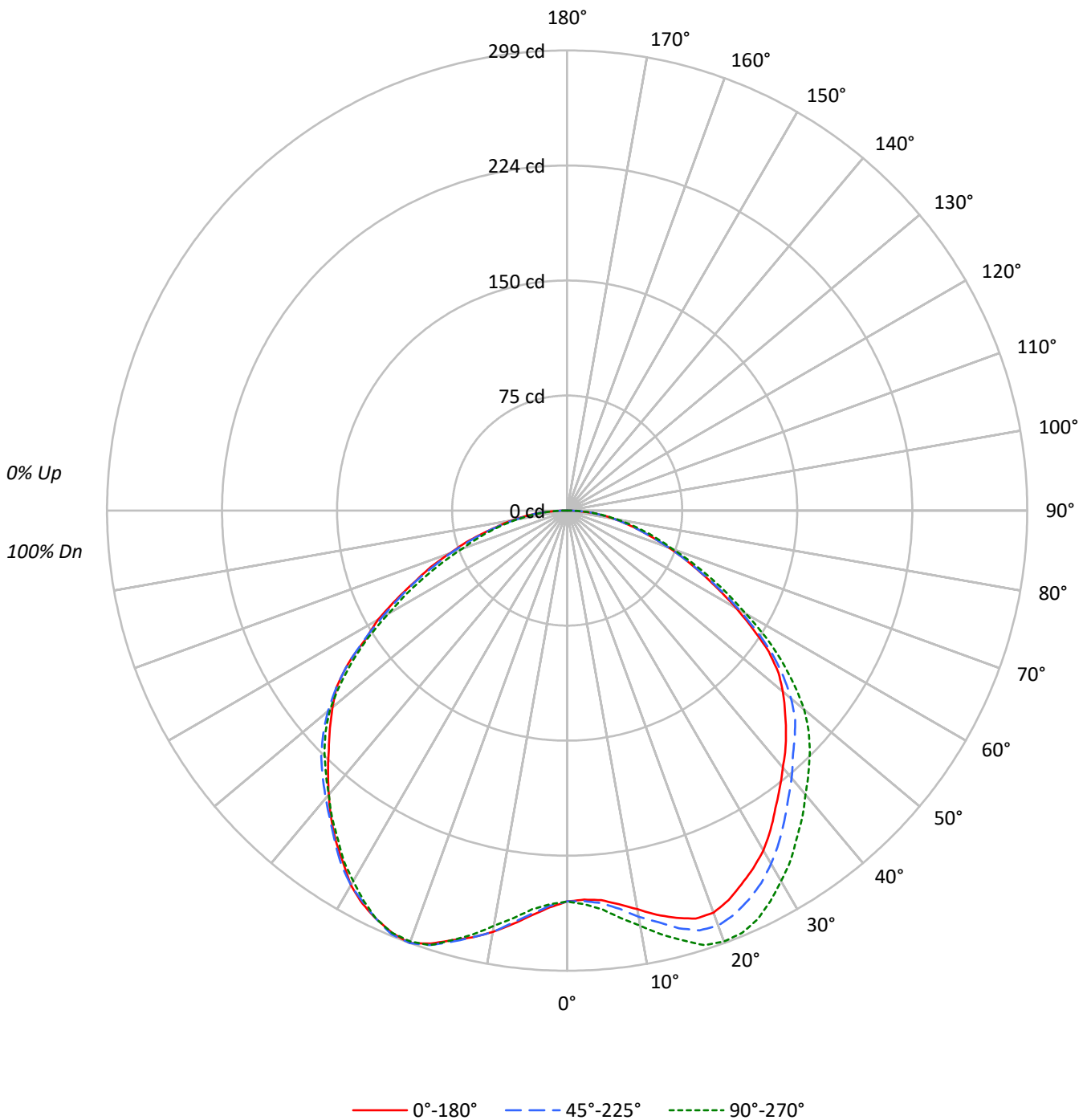
Input Watts (W): 29  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	63	63	63	63	62	62	62	62	59	59	59	56	56	56	54	54	54	53
1	58	55	53	51	56	54	52	50	52	50	48	50	48	47	48	47	46	44
2	53	48	45	41	51	47	44	41	45	42	40	44	41	39	42	40	38	37
3	48	42	38	34	47	41	37	34	40	36	34	38	35	33	37	35	32	31
4	44	37	33	29	43	37	32	29	35	32	29	34	31	28	33	30	28	27
5	40	33	29	25	39	33	28	25	32	28	25	31	27	24	30	27	24	23
6	37	30	25	22	36	29	25	22	29	24	21	28	24	21	27	24	21	20
7	34	27	22	19	33	27	22	19	26	22	19	25	22	19	24	21	19	18
8	32	25	20	17	31	24	20	17	24	20	17	23	19	17	22	19	17	16
9	30	23	18	15	29	22	18	15	22	18	15	21	18	15	21	17	15	14
10	28	21	17	14	27	21	17	14	20	16	14	20	16	14	19	16	14	13

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

	0°	90°	180°
0°	31330	31330	31330
5°	31449	32192	32688
10°	32940	34318	34819
15°	34989	36904	36904
20°	36491	39116	39247
25°	36474	39876	39876
30°	36319	39595	40022
35°	35536	39150	39451
40°	35102	38805	38805
45°	35062	38899	38202
50°	35116	38570	38186
55°	34407	36558	37418
60°	31330	33057	35030
65°	28019	29770	31813
70°	25245	26327	29212
75°	22875	24782	26688
80°	22020	23441	25571
85°	21228	22644	25474



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.2	2.8	1.5
10°-20°	81.0	9.1	4.8
20°-30°	131.7	14.8	7.9
30°-40°	159.5	17.9	9.5
40°-50°	167.1	18.8	10.0
50°-60°	149.3	16.8	8.9
60°-70°	102.0	11.5	6.1
70°-80°	55.4	6.2	3.3
80°-90°	18.0	2.0	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°	237.9	26.8	14.2
0°-40°	397.5	44.7	23.7
0°-60°	713.9	80.3	42.6
0°-90°	889.2	100.0	53.1
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°	889.2	100.0	53.1

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	254	254	254	254	254	
5°	254	256	260	263	264	25
15°	274	281	289	290	289	78
25°	268	279	293	293	293	124
35°	236	246	260	263	262	148
45°	201	209	223	226	219	155
55°	160	163	170	174	174	141
65°	96	97	102	108	109	96
75°	48	48	52	55	56	52
85°	15	16	16	18	18	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	254	254	254	254	254	254	254	254	254
2.5°	253	253	254	255	256	257	257	258	258
5°	254	255	256	258	260	262	263	263	264
7.5°	258	259	261	264	267	269	270	270	271
10°	263	265	268	271	274	277	278	277	278
12.5°	269	271	274	278	282	284	284	284	284
15°	274	276	281	285	289	291	290	290	289
17.5°	278	280	286	291	296	297	296	295	295
20°	278	280	287	293	298	300	299	298	299
22.5°	274	277	284	291	297	298	298	297	297
25°	268	271	279	287	293	294	293	293	293
27.5°	262	266	273	281	286	288	287	288	288
30°	255	258	265	274	278	281	281	281	281
32.5°	246	250	256	265	270	273	273	272	271
35°	236	240	246	255	260	263	263	262	262
37.5°	227	230	236	245	251	253	253	253	252
40°	218	221	227	235	241	243	244	243	241
42.5°	210	211	217	225	232	234	235	232	230
45°	201	203	209	215	223	225	226	222	219
47.5°	192	194	201	206	213	216	215	212	209
50°	183	185	190	196	201	203	203	201	199
52.5°	173	174	177	181	186	188	189	190	189
55°	160	161	163	166	170	172	174	175	174
57.5°	143	145	146	149	153	154	156	156	155
60°	127	128	129	131	134	136	139	141	142
62.5°	111	112	113	114	118	121	123	125	125
65°	96	97	97	99	102	104	108	109	109
67.5°	83	83	83	84	87	88	93	95	96
70°	70	70	70	71	73	77	80	80	81
72.5°	58	58	58	60	62	65	67	68	69
75°	48	48	48	50	52	54	55	56	56
77.5°	39	39	39	40	42	43	44	45	45
80°	31	31	31	32	33	33	34	35	36
82.5°	23	23	23	24	24	25	26	27	27
85°	15	15	16	16	16	17	18	18	18
87.5°	7	7	8	8	8	9	9	10	10
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)