

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: 267p141

Luminaire Tested: **H278ICAT-78P- 30 DEG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 267p141
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H278ICAT-78P- 30 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: 883.4 lumens
Efficiency: 52.7%
Efficacy: 29.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.39
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

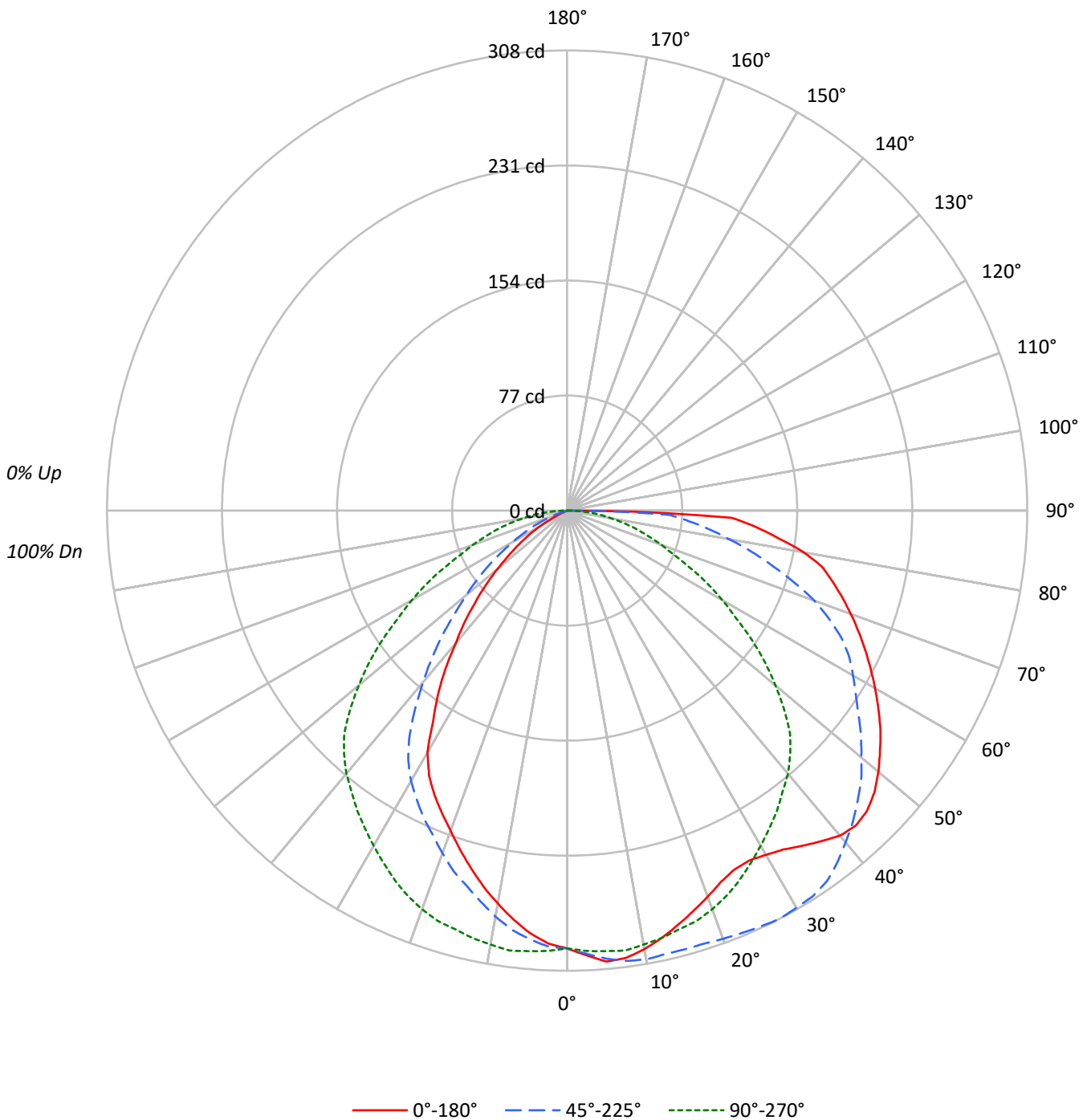
Input Watts (W): 30
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: 267p141

CATALOG NUMBER: H278ICAT-78P- 30 DEG

Luminous Intensity Polar Plot





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CATALOG NUMBER: H278ICAT-78P- 30 DEG

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	61	61	61	61	59	59	59	56	56	56	54	54	54	53
1	57	54	51	49	55	53	50	48	50	48	47	48	47	45	46	45	44	43
2	51	47	43	40	50	46	42	39	44	41	38	42	39	37	40	38	36	35
3	47	41	36	33	45	40	36	32	38	35	32	37	34	31	36	33	31	29
4	43	36	31	28	41	35	31	27	34	30	27	33	29	27	32	29	26	25
5	39	32	27	24	38	32	27	24	30	26	23	29	26	23	28	25	23	22
6	36	29	24	21	35	28	24	21	28	23	20	27	23	20	26	23	20	19
7	34	26	22	18	33	26	21	18	25	21	18	24	21	18	24	20	18	17
8	31	24	19	16	30	24	19	16	23	19	16	22	19	16	22	18	16	15
9	29	22	18	15	28	22	17	15	21	17	14	20	17	14	20	17	14	13
10	27	20	16	13	27	20	16	13	19	16	13	19	16	13	19	15	13	12

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	36140	36140	36140
5°	37516	36650	35164
10°	37324	36948	33441
15°	36649	37032	31669
20°	36097	37278	29928
25°	36066	37154	28580
30°	37886	36889	26634
35°	41258	36891	22737
40°	45729	37034	18678
45°	49540	36806	15176
50°	52195	34924	11705
55°	55052	32472	8387
60°	58713	29603	5181
65°	64209	26559	1167
70°	72849	24163	0
75°	87689	22875	0
80°	114361	21310	0
85°	179735	21228	0



TEST NUMBER: 267p141

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	28.0	3.2	1.7
10°-20°	79.3	9.0	4.7
20°-30°	120.5	13.6	7.2
30°-40°	147.5	16.7	8.8
40°-50°	151.5	17.2	9.0
50°-60°	134.9	15.3	8.1
60°-70°	106.6	12.1	6.4
70°-80°	74.9	8.5	4.5
80°-90°	40.3	4.6	2.4
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°	227.7	25.8	13.6
0°-40°	375.2	42.5	22.4
0°-60°	661.6	74.9	39.5
0°-90°	883.4	100.0	52.7
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°	883.4	100.0	52.7

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	293	293	293	293	293	
5°	303	301	296	288	284	29
15°	287	304	290	260	248	81
25°	265	307	273	227	210	124
35°	274	303	245	184	151	173
45°	284	275	211	118	87	218
55°	256	238	151	64	39	229
65°	220	203	91	25	4	218
75°	184	142	48	0	0	194
85°	127	82	15	0	0	125
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°	293	293	293	293	293	293	293	293	293
2.5°	298	298	297	297	295	294	292	291	290
5°	303	303	301	299	296	292	288	285	284
7.5°	302	304	304	302	297	290	283	278	276
10°	298	301	305	303	295	285	276	269	267
12.5°	293	296	304	304	293	280	268	260	258
15°	287	293	304	304	290	275	260	251	248
17.5°	281	290	304	304	288	269	253	242	238
20°	275	287	305	302	284	262	244	232	228
22.5°	269	285	306	300	279	255	235	223	219
25°	265	284	307	297	273	248	227	214	210
27.5°	264	285	308	294	266	241	218	204	200
30°	266	287	307	290	259	234	209	194	187
32.5°	269	290	306	284	252	225	198	176	167
35°	274	293	303	278	245	215	184	158	151
37.5°	279	296	297	271	237	203	167	143	134
40°	284	295	290	263	230	189	150	125	116
42.5°	286	292	283	254	221	174	134	109	102
45°	284	286	275	246	211	158	118	95	87
47.5°	279	279	267	237	197	141	102	80	74
50°	272	271	257	230	182	126	88	68	61
52.5°	264	262	248	221	167	111	76	55	49
55°	256	253	238	212	151	95	64	45	39
57.5°	247	244	229	199	134	82	52	35	30
60°	238	234	221	184	120	72	42	26	21
62.5°	229	225	213	169	106	61	33	18	12
65°	220	216	203	152	91	51	25	9	4
67.5°	211	208	190	135	77	41	17	1	0
70°	202	199	176	119	67	32	9	0	0
72.5°	193	189	159	105	57	24	1	0	0
75°	184	178	142	90	48	17	0	0	0
77.5°	175	164	126	77	39	9	0	0	0
80°	161	147	110	65	30	2	0	0	0
82.5°	143	131	96	55	23	0	0	0	0
85°	127	115	82	46	15	0	0	0	0
87.5°	110	99	69	37	8	0	0	0	0
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)