

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: P30047

Luminaire Tested: **ML706835-494P06**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30047
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML706835-494P06
Description: HALO RECESSED LED RETROFIT MODULE WITH TRIM THAT INCLUDES
WHITE PAINTED REFLECTOR
Light Source: CITIZEN HIGH OUPUT LED PACKAGE
14 WATTS
Ballast/Driver: 120V ELECTRONIC DRIVER

Summary

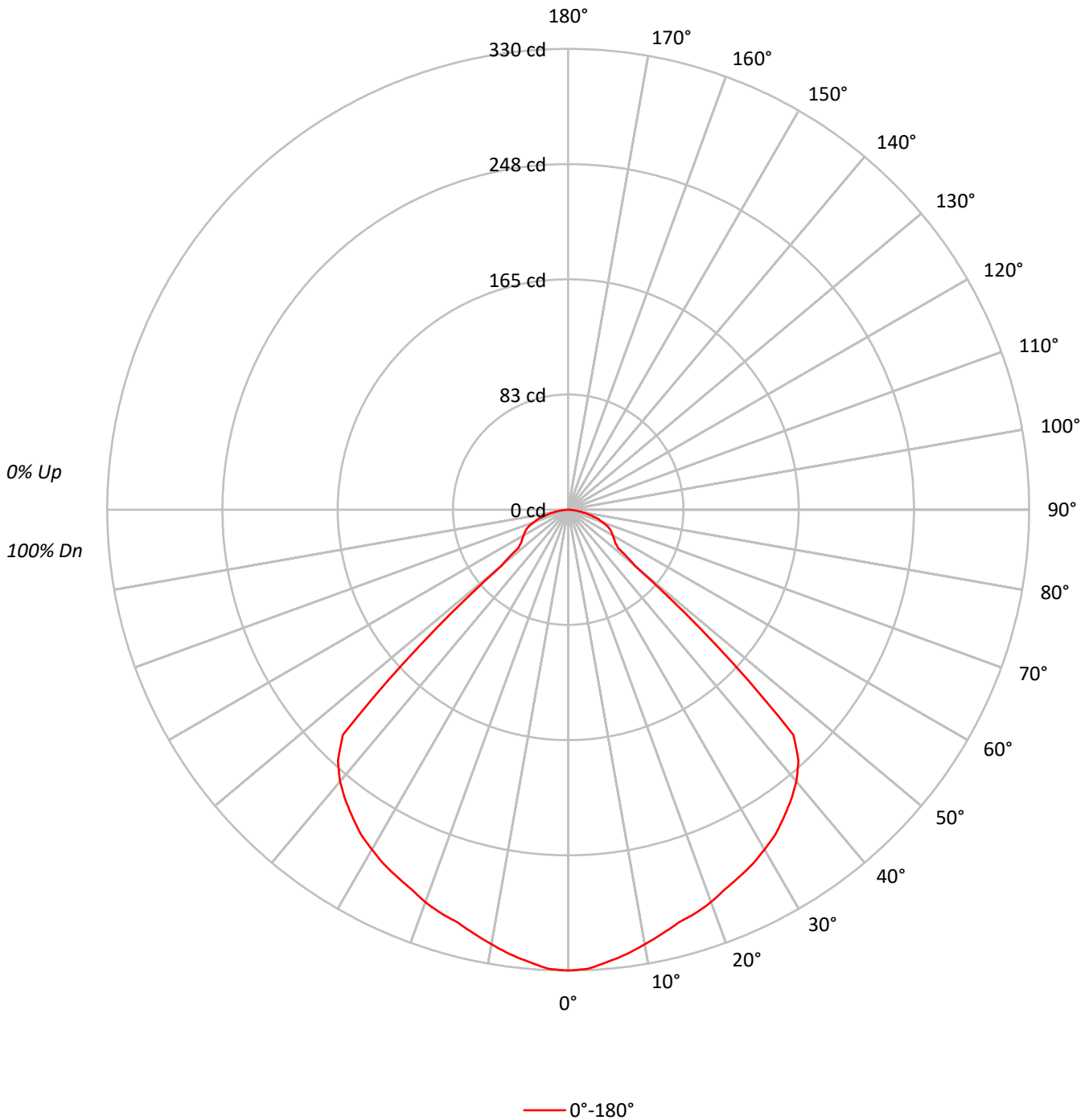
Lumens per Lamp: 661 (1 lamp)
Luminaire Lumens: 662.6 lumens
Efficiency: 100.2%
Efficacy: 48.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
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	119	119	119	119	117	117	117	117	111	111	111	107	107	107	102	102	102	100
1	111	108	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	86	101	95	90	85	91	87	84	88	85	82	85	83	80	78
3	96	87	80	75	94	86	79	74	83	77	73	80	76	72	78	74	71	69
4	89	79	71	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	38	35	33

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	26051
5°	25754
10°	25330
15°	25008
20°	25118
25°	25259
30°	25614
35°	25923
40°	26175
45°	25454
50°	7737
55°	5643
60°	5842
65°	6164
70°	6001
75°	5490
80°	4546
85°	2717



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	30.8	4.6	4.7
10°-20°	86.7	13.1	13.1
20°-30°	134.0	20.2	20.3
30°-40°	168.4	25.4	25.5
40°-50°	147.9	22.3	22.4
50°-60°	39.1	5.9	5.9
60°-70°	32.1	4.8	4.9
70°-80°	19.2	2.9	2.9
80°-90°	4.3	0.7	0.7
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°	251.5	38.0	38.0
0°-40°	419.9	63.4	63.5
0°-60°	606.9	91.6	91.8
0°-90°	662.6	100.0	100.2
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°	662.6	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	330	
5°	325	31
15°	306	87
25°	290	134
35°	269	168
45°	228	148
55°	41	39
65°	33	32
75°	18	19
85°	3	4
90°	0	0
95°	0	0
105°	0	0
115°	0	0
125°	0	0
135°	0	0
145°	0	0
155°	0	0
165°	0	0
175°	0	0
180°	0	0



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CANDELA DISTRIBUTION (FULL):

	0°
0°	330
2.5°	329
5°	325
7.5°	321
10°	316
12.5°	311
15°	306
17.5°	303
20°	299
22.5°	294
25°	290
27.5°	286
30°	281
32.5°	276
35°	269
37.5°	262
40°	254
42.5°	244
45°	228
47.5°	144
50°	63
52.5°	45
55°	41
57.5°	39
60°	37
62.5°	35
65°	33
67.5°	30
70°	26
72.5°	23
75°	18
77.5°	14
80°	10
82.5°	7
85°	3
87.5°	1
90°	0
92.5°	0
95°	0
97.5°	0
100°	0
102.5°	0
105°	0
107.5°	0
110°	0



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	0
115°	0
117.5°	0
120°	0
122.5°	0
125°	0
127.5°	0
130°	0
132.5°	0
135°	0
137.5°	0
140°	0
142.5°	0
145°	0
147.5°	0
150°	0
152.5°	0
155°	0
157.5°	0
160°	0
162.5°	0
165°	0
167.5°	0
170°	0
172.5°	0
175°	0
177.5°	0
180°	0

(END OF REPORT)