

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: P30077

Luminaire Tested: **ML706840-493HS06**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30077
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML706840-493HS06
Description: HALO RECESSED LED RETROFIT MODULE WITH TRIM THAT INCLUDES SPECULAR UPPER REFLECTOR, HAZE LOWER REFLECTOR, AND SOFT FOCUS LENS BETWEEN THE TWO
Light Source: HIGH OUPUT LED PACKAGE
LED 14 WATTS
Ballast/Driver: 120V ELECTRONIC DRIVER

Summary

Lumens per Lamp: 688 (1 lamp)
Luminaire Lumens: 690.3 lumens
Efficiency: 100.3%
Efficacy: 50.0 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.9
Luminous Opening: Circular (Dia: 0.35' x H: 0')
CIE Type: Direct

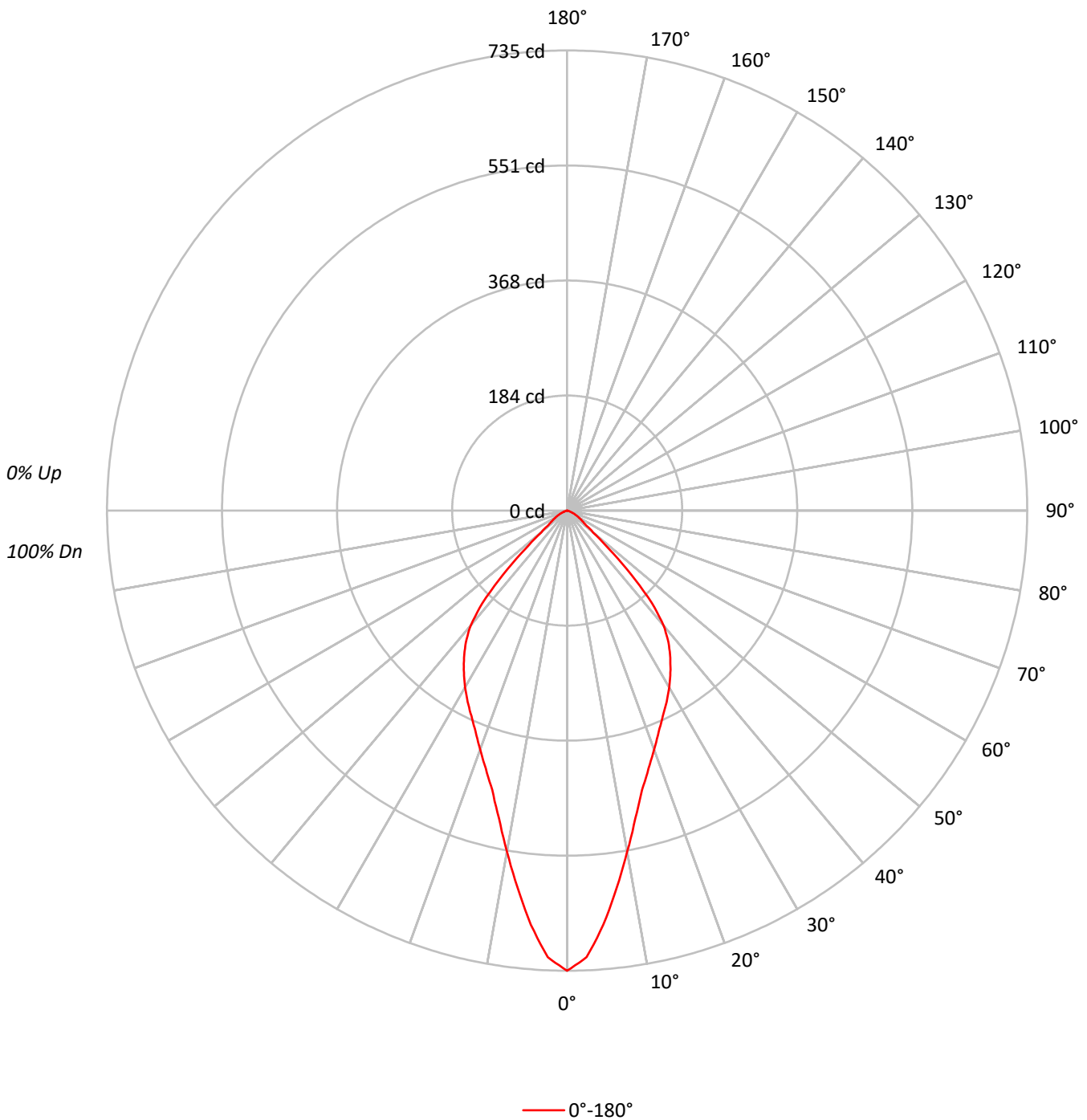
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	110	107	105	111	108	105	103	104	102	100		100	98	97		96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89		93	90	87		90	87	85	84
3	100	92	87	82	98	91	86	81	88	84	80		86	82	79		83	80	78	76
4	94	85	79	74	92	84	78	73	82	76	72		79	75	72		78	74	71	69
5	88	78	72	67	86	77	71	66	76	70	66		74	69	65		72	68	65	63
6	83	73	66	61	81	72	65	61	70	64	60		69	64	60		67	63	59	58
7	78	67	60	56	76	67	60	55	65	59	55		64	59	55		63	58	55	53
8	74	63	56	51	72	62	56	51	61	55	51		60	54	51		59	54	50	49
9	69	59	52	47	68	58	52	47	57	51	47		56	51	47		55	50	47	45
10	66	55	48	44	65	54	48	44	53	48	44		53	47	44		52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	80307
5°	72826
10°	61353
15°	52259
20°	47207
25°	43641
30°	41129
35°	38281
40°	34231
45°	22251
50°	9179
55°	5715
60°	4370
65°	3102
70°	1917
75°	422
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	59.8	8.7	8.7
10°-20°	130.9	19.0	19.0
20°-30°	167.2	24.2	24.3
30°-40°	178.5	25.9	25.9
40°-50°	110.6	16.0	16.1
50°-60°	28.7	4.2	4.2
60°-70°	12.3	1.8	1.8
70°-80°	2.4	0.3	0.3
80°-90°	0.0	0.0	0.0
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°	357.9	51.8	52.0
0°-40°	536.4	77.7	78.0
0°-60°	675.6	97.9	98.2
0°-90°	690.3	100.0	100.3
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°	690.3	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	735	
5°	664	60
15°	462	131
25°	362	167
35°	287	178
45°	144	111
55°	30	29
65°	12	12
75°	1	2
85°	0	0
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°	735
2.5°	714
5°	664
7.5°	607
10°	553
12.5°	503
15°	462
17.5°	432
20°	406
22.5°	382
25°	362
27.5°	344
30°	326
32.5°	307
35°	287
37.5°	266
40°	240
42.5°	201
45°	144
47.5°	90
50°	54
52.5°	37
55°	30
57.5°	25
60°	20
62.5°	16
65°	12
67.5°	9
70°	6
72.5°	4
75°	1
77.5°	1
80°	0
82.5°	0
85°	0
87.5°	0
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)