

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: P30063

Luminaire Tested: **ML706830-493SNS06**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30063
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML706830-493SNS06
Description: HALO RECESSED LED RETROFIT MODULE WITH TRIM THAT INCLUDES SPECULAR UPPER REFLECTOR, SATIN NICKLE LOWER REFLECTOR AND SOFT FOCUS LENS IN BETWEEN REFLECTORS
Light Source: HIGH OUPUT LED PACKAGE
LED 14 WATTS
Ballast/Driver: 120V ELECTRONIC DRIVER

Summary

Lumens per Lamp: 574 (1 lamp)
Luminaire Lumens: 575.4 lumens
Efficiency: 100.2%
Efficacy: 40.8 lumens/watt
Spacing Criteria (0/90/45): 0.7 / 0.7 / 0.93
Luminous Opening: Circular (Dia: 0.35' x H: 0')
CIE Type: Direct

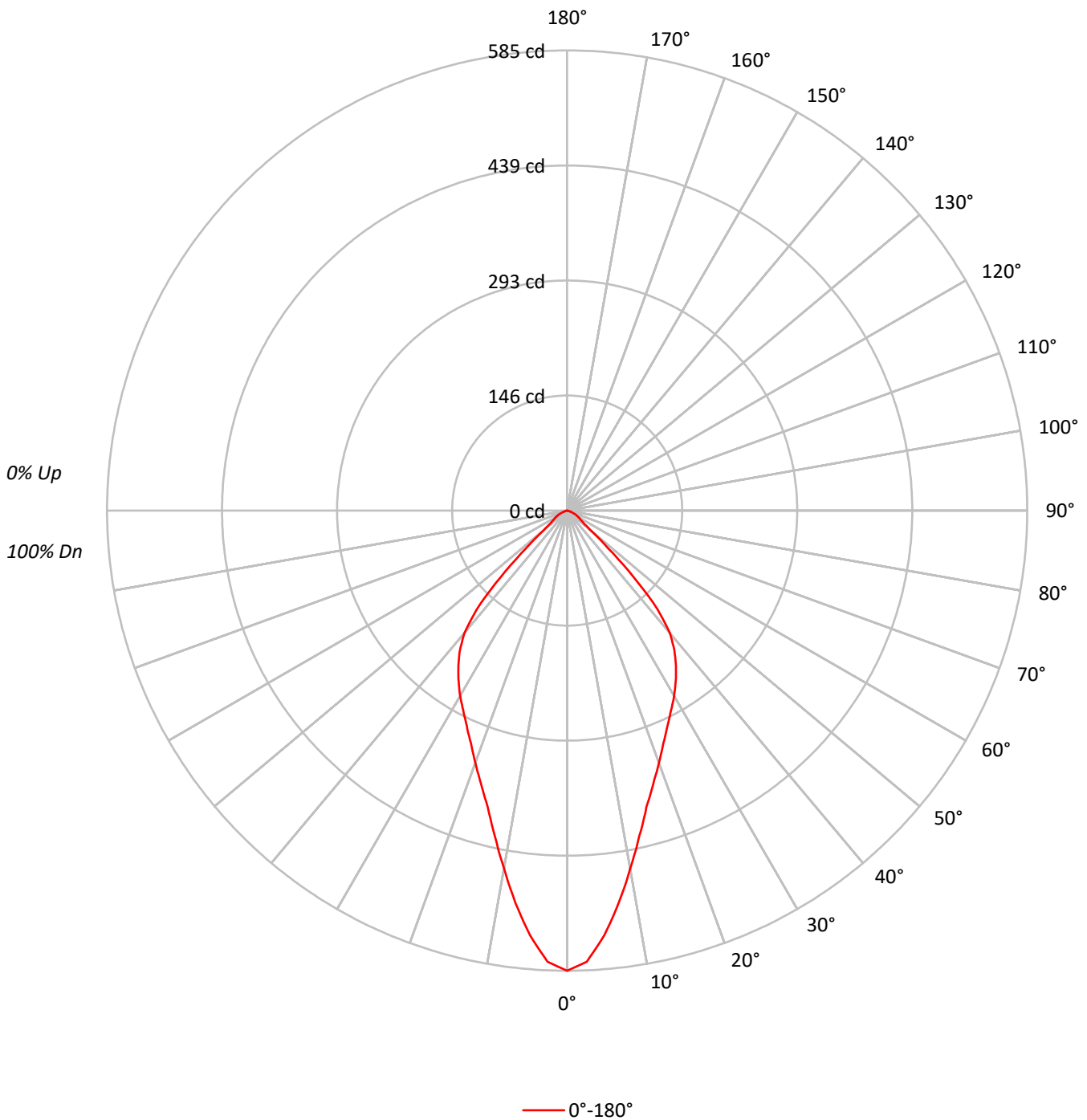
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P30063

CATALOG NUMBER: ML706830-493SNS06

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	104	110	108	105	103	103	101	100		100	98	97		96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89		92	90	87		90	87	85	83
3	100	92	87	82	98	91	86	81	88	84	80		86	82	79		83	80	77	76
4	94	85	79	74	92	84	78	73	81	76	72		79	75	71		77	74	71	69
5	88	78	72	67	86	77	71	66	75	70	66		74	69	65		72	68	65	63
6	83	73	66	61	81	72	65	60	70	64	60		69	63	60		67	63	59	58
7	78	67	60	56	76	67	60	55	65	59	55		64	59	55		63	58	54	53
8	73	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°	63918
5°	59446
10°	51257
15°	44115
20°	39649
25°	36408
30°	34316
35°	32145
40°	28954
45°	18542
50°	6629
55°	4191
60°	3496
65°	2844
70°	1917
75°	1266
80°	629
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	49.2	8.5	8.6
10°-20°	110.2	19.2	19.2
20°-30°	139.6	24.3	24.3
30°-40°	149.9	26.0	26.1
40°-50°	91.2	15.9	15.9
50°-60°	21.0	3.7	3.7
60°-70°	11.1	1.9	1.9
70°-80°	3.0	0.5	0.5
80°-90°	0.1	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°	299.0	52.0	52.1
0°-40°	448.8	78.0	78.2
0°-60°	561.1	97.5	97.8
0°-90°	575.4	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°	575.4	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	585	
5°	542	49
15°	390	110
25°	302	140
35°	241	150
45°	120	91
55°	22	21
65°	11	11
75°	3	3
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°	585
2.5°	574
5°	542
7.5°	503
10°	462
12.5°	424
15°	390
17.5°	364
20°	341
22.5°	320
25°	302
27.5°	286
30°	272
32.5°	257
35°	241
37.5°	224
40°	203
42.5°	170
45°	120
47.5°	70
50°	39
52.5°	26
55°	22
57.5°	19
60°	16
62.5°	14
65°	11
67.5°	9
70°	6
72.5°	4
75°	3
77.5°	1
80°	1
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)