

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: P30089

Luminaire Tested: **ML706827-493HS06**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30089
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML706827-493HS06
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

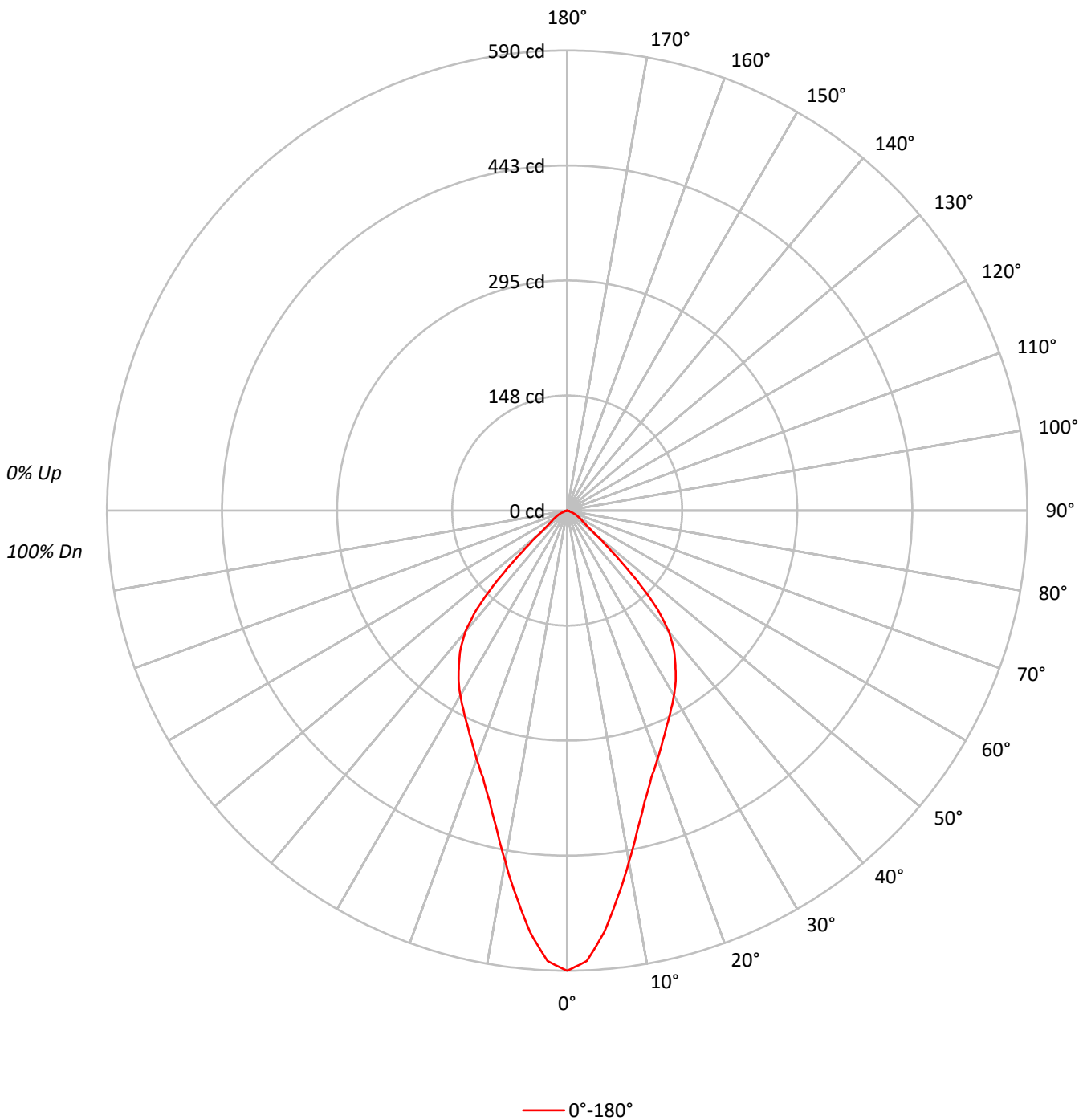
Lumens per Lamp: 579 (1 lamp)
Luminaire Lumens: 580.9 lumens
Efficiency: 100.3%
Efficacy: 42.1 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.93
Luminous Opening: Circular (Dia: 0.35' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P30089
CATALOG NUMBER: ML706827-493HS06

Luminous Intensity Polar Plot





TEST NUMBER: P30089

CATALOG NUMBER: ML706827-493HS06

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	104	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	86	82	98	91	85	81	88	84	80		86	82	79		83	80	77	76
4	94	85	78	73	92	84	78	73	81	76	72		79	75	71		77	74	70	69
5	88	78	71	66	86	77	71	66	75	70	65		74	69	65		72	68	64	63
6	83	72	65	60	81	71	65	60	70	64	60		68	63	59		67	62	59	57
7	78	67	60	55	76	66	60	55	65	59	55		64	58	54		62	58	54	53
8	73	62	56	51	72	62	55	51	61	55	50		59	54	50		58	54	50	48
9	69	58	51	47	68	58	51	47	57	51	47		56	50	46		55	50	46	45
10	65	55	48	44	64	54	48	43	53	47	43		52	47	43		52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	64464
5°	59555
10°	50702
15°	43549
20°	39417
25°	36528
30°	34569
35°	32279
40°	28954
45°	19315
50°	7989
55°	4762
60°	3715
65°	2844
70°	1597
75°	844
80°	629
85°	0



TEST NUMBER: P30089

CATALOG NUMBER: ML706827-493HS06

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	49.0	8.4	8.5
10°-20°	108.8	18.7	18.8
20°-30°	140.0	24.1	24.2
30°-40°	150.6	25.9	26.0
40°-50°	94.8	16.3	16.4
50°-60°	24.2	4.2	4.2
60°-70°	10.8	1.9	1.9
70°-80°	2.4	0.4	0.4
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°	297.9	51.3	51.4
0°-40°	448.5	77.2	77.5
0°-60°	567.5	97.7	98.0
0°-90°	580.9	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°	580.9	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	590	
5°	543	49
15°	385	109
25°	303	140
35°	242	151
45°	125	95
55°	25	24
65°	11	11
75°	2	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



TEST NUMBER: P30089

CATALOG NUMBER: ML706827-493HS06

CANDELA DISTRIBUTION (FULL):

0°	
0°	590
2.5°	578
5°	543
7.5°	499
10°	457
12.5°	418
15°	385
17.5°	359
20°	339
22.5°	320
25°	303
27.5°	288
30°	274
32.5°	259
35°	242
37.5°	225
40°	203
42.5°	172
45°	125
47.5°	77
50°	47
52.5°	31
55°	25
57.5°	21
60°	17
62.5°	14
65°	11
67.5°	8
70°	5
72.5°	3
75°	2
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



TEST NUMBER: P30089

CATALOG NUMBER: ML706827-493HS06

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)