

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: P30065

Luminaire Tested: **ML706830-493HS06**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30065
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML706830-493HS06
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

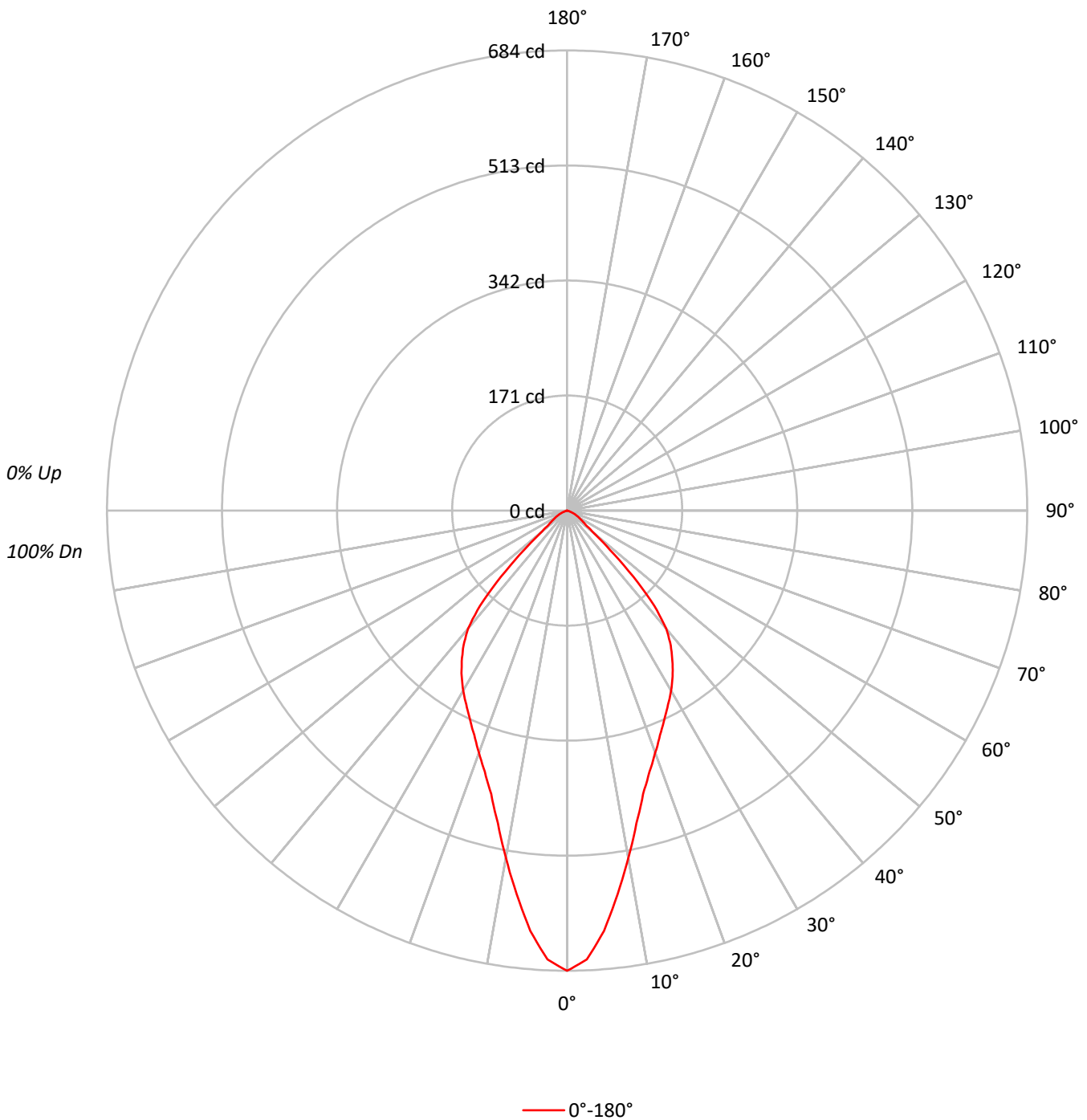
Lumens per Lamp: 652 (1 lamp)
Luminaire Lumens: 653.8 lumens
Efficiency: 100.3%
Efficacy: 46.7 lumens/watt
Spacing Criteria (0/90/45): 0.66 / 0.66 / 0.91
Luminous Opening: Circular (Dia: 0.35' x H: 0')
CIE Type: Direct

Input Watts (W): 14
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: P30065
CATALOG NUMBER: ML706830-493HS06

Luminous Intensity Polar Plot





TEST NUMBER: P30065

CATALOG NUMBER: ML706830-493HS06

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	105	110	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	71	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	60	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	54	53
8	73	63	56	51	72	62	56	51	61	55	51	60	54	51	59	54	50	49
9	69	58	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°	74734
5°	68768
10°	58136
15°	49318
20°	44533
25°	41230
30°	38985
35°	36413
40°	32662
45°	21478
50°	8669
55°	5334
60°	4152
65°	3102
70°	1597
75°	422
80°	0
85°	0



TEST NUMBER: P30065

CATALOG NUMBER: ML706830-493HS06

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	56.5	8.6	8.7
10°-20°	123.6	18.9	19.0
20°-30°	158.0	24.2	24.2
30°-40°	169.7	26.0	26.0
40°-50°	105.8	16.2	16.2
50°-60°	26.9	4.1	4.1
60°-70°	11.6	1.8	1.8
70°-80°	1.7	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°	338.1	51.7	51.9
0°-40°	507.8	77.7	77.9
0°-60°	640.6	98.0	98.2
0°-90°	653.8	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°	653.8	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	684	
5°	627	57
15°	436	124
25°	342	158
35°	273	170
45°	139	106
55°	28	27
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



TEST NUMBER: P30065

CATALOG NUMBER: ML706830-493HS06

CANDELA DISTRIBUTION (FULL):

	0°
0°	684
2.5°	668
5°	627
7.5°	575
10°	524
12.5°	476
15°	436
17.5°	407
20°	383
22.5°	361
25°	342
27.5°	325
30°	309
32.5°	292
35°	273
37.5°	253
40°	229
42.5°	192
45°	139
47.5°	86
50°	51
52.5°	35
55°	28
57.5°	23
60°	19
62.5°	15
65°	12
67.5°	8
70°	5
72.5°	3
75°	1
77.5°	0
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



TEST NUMBER: P30065

CATALOG NUMBER: ML706830-493HS06

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)