

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: P30051

Luminaire Tested: **ML706835-493SCS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P30051  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML706835-493SCS06  
Description: HALO RECESSED LED RETROFIT MODULE WITH TRIM THAT INCLUDES  
SHOWER RATED,SOLITE LENS, SPECULAR DESIGN REFLECTOR IN TRIM  
Light Source: HIGH OUPUT LED PACKAGE  
14 WATTS  
Ballast/Driver: 120V ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 639 (1 lamp)  
Luminaire Lumens: 641.2 lumens  
Efficiency: 100.3%  
Efficacy: 46.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.83 / 0.99  
Luminous Opening: Circular (Dia: 0.35' x H: 0')  
CIE Type: Direct

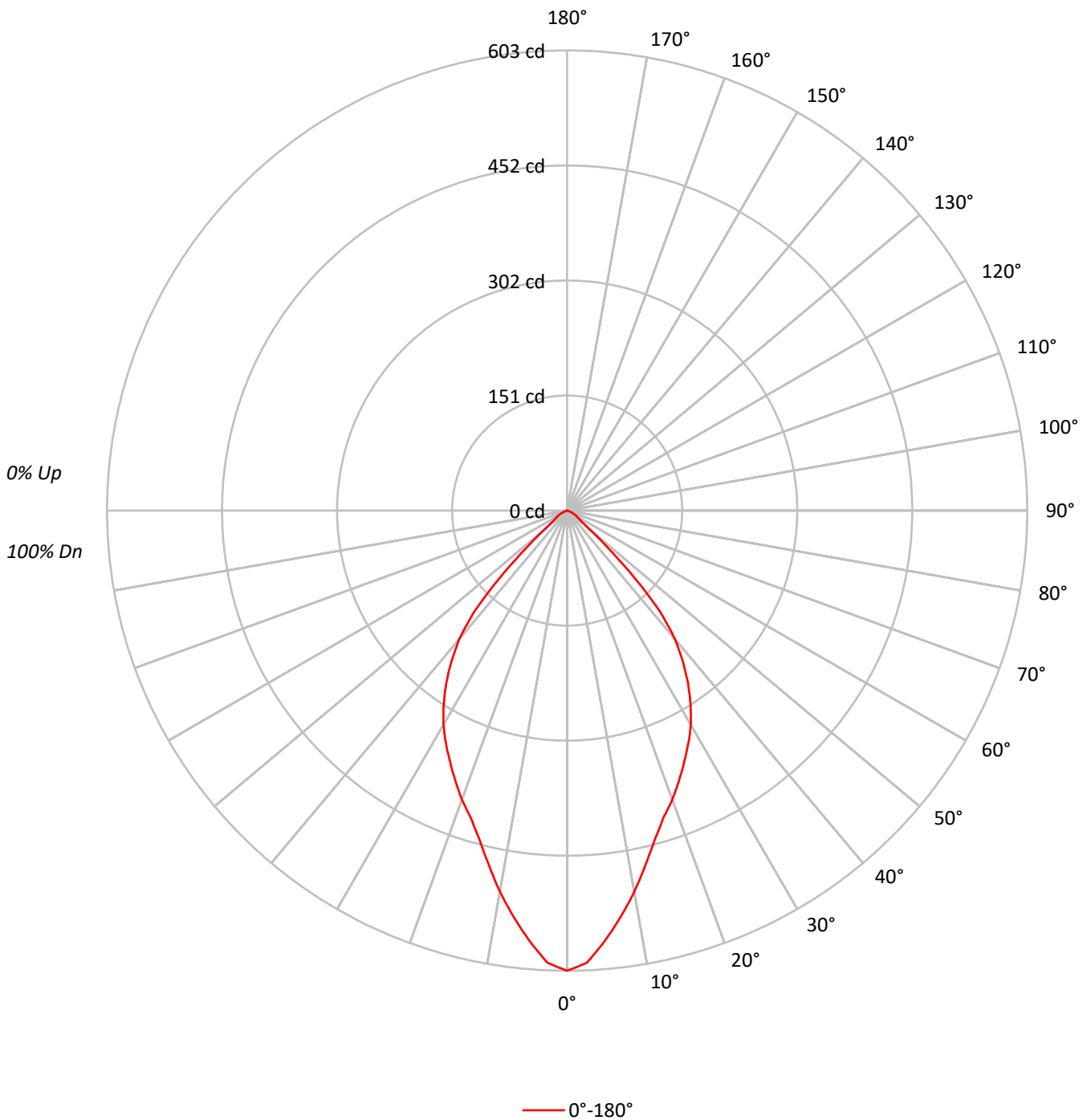
Input Watts (W): 13.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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		97	95	94	92
2	107	101	97	93	104	99	95	92	96	93	90		93	90	88		90	88	86	84
3	100	93	87	83	98	92	86	82	89	85	81		86	83	80		84	81	78	77
4	94	86	79	75	92	85	79	74	82	77	73		80	76	72		78	75	72	70
5	89	79	73	68	87	78	72	67	76	71	67		75	70	66		73	69	66	64
6	83	73	67	62	82	73	66	62	71	65	61		69	64	61		68	64	60	59
7	79	68	61	57	77	67	61	56	66	60	56		65	60	56		64	59	55	54
8	74	63	57	52	73	63	56	52	62	56	52		61	55	52		60	55	51	50
9	70	59	53	48	69	59	52	48	58	52	48		57	52	48		56	51	48	46
10	66	56	49	45	65	55	49	45	54	48	45		53	48	44		53	48	44	43

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	65884
5°	62078
10°	56250
15°	50336
20°	46858
25°	43762
30°	40877
35°	36814
40°	31379
45°	19469
50°	6629
55°	3619
60°	3059
65°	2068
70°	1278
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	52.2	8.1	8.2
10°-20°	125.8	19.6	19.7
20°-30°	167.1	26.1	26.2
30°-40°	171.2	26.7	26.8
40°-50°	96.6	15.1	15.1
50°-60°	19.0	3.0	3.0
60°-70°	8.4	1.3	1.3
70°-80°	1.0	0.2	0.2
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°	345.1	53.8	54.0
0°-40°	516.2	80.5	80.8
0°-60°	631.8	98.5	98.9
0°-90°	641.2	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°	641.2	100.0	100.3

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	603	
5°	566	52
15°	445	126
25°	363	167
35°	276	171
45°	126	97
55°	19	19
65°	8	8
75°	0	1
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°	603
2.5°	593
5°	566
7.5°	537
10°	507
12.5°	475
15°	445
17.5°	421
20°	403
22.5°	383
25°	363
27.5°	344
30°	324
32.5°	301
35°	276
37.5°	249
40°	220
42.5°	181
45°	126
47.5°	73
50°	39
52.5°	24
55°	19
57.5°	16
60°	14
62.5°	11
65°	8
67.5°	6
70°	4
72.5°	2
75°	0
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



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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)