

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: P20248

Luminaire Tested: **ML709835ICAT120D-493TBZS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20248  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML709835ICAT120D-493TBZS06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH TUSCAN BRONZE TRIM AND SOLITE GLASS LENS  
Light Source: HIGH OUTPUT LED  
LED 14 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

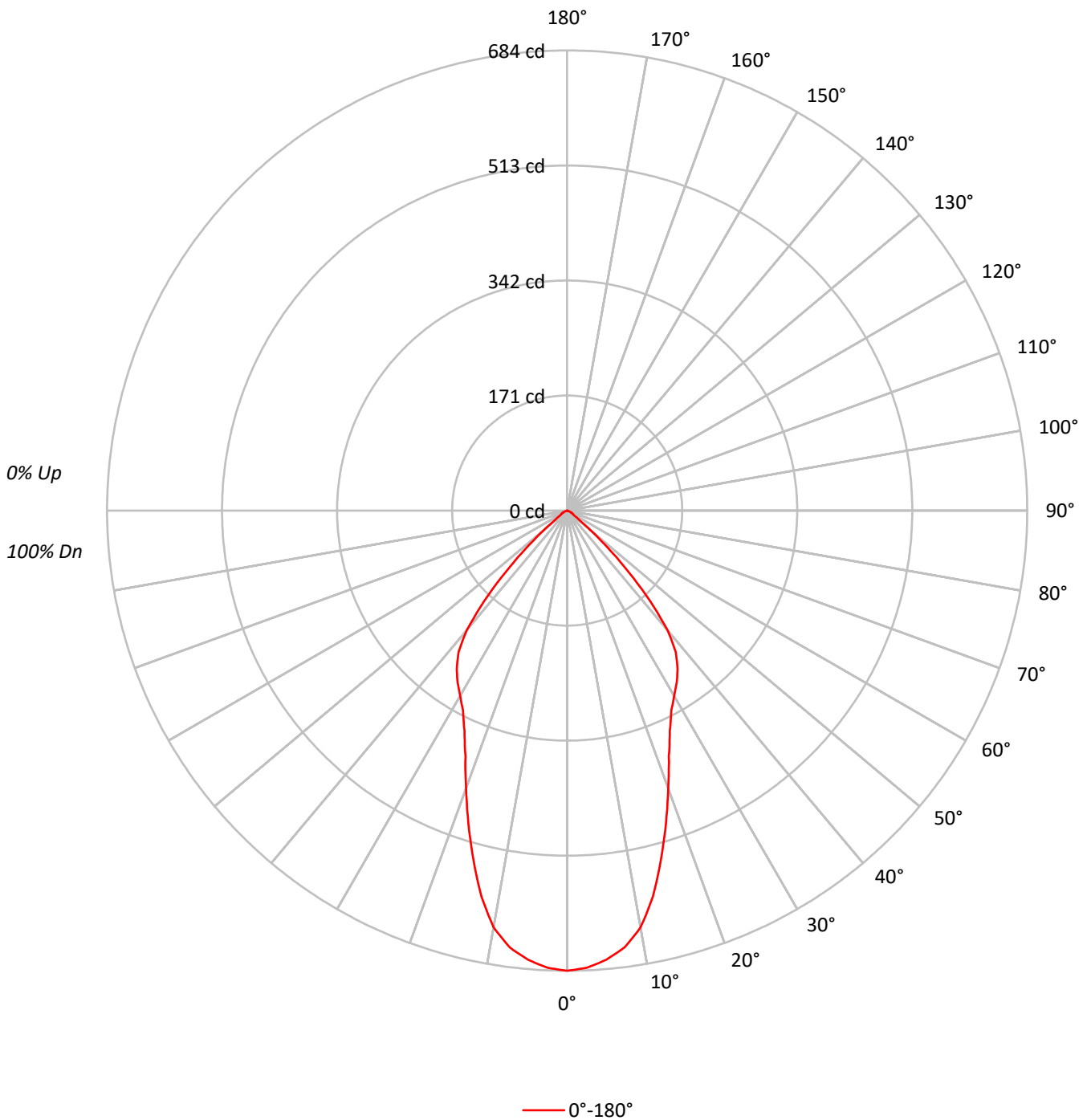
Lumens per Lamp: 679 (1 lamp)  
Luminaire Lumens: 680.5 lumens  
Efficiency: 100.2%  
Efficacy: 48.3 lumens/watt  
Spacing Criteria (0/90/45): 0.77 / 0.77 / 0.94  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.1  
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	108	105	111	108	106	103	104	102	100		100	99	97		97	96	94	93
2	107	102	97	93	105	100	96	92	97	93	90		94	91	88		91	89	87	85
3	101	94	88	84	99	92	87	83	90	85	82		87	84	81		85	82	79	78
4	95	87	81	76	93	85	80	75	83	78	74		81	77	74		79	76	73	71
5	89	80	74	69	88	79	73	69	77	72	68		76	71	67		74	70	67	65
6	84	75	68	63	83	74	67	63	72	67	63		71	66	62		69	65	62	60
7	80	69	63	58	78	69	62	58	67	62	58		66	61	57		65	60	57	55
8	75	65	58	54	74	64	58	54	63	57	53		62	57	53		61	56	53	51
9	71	61	54	50	70	60	54	50	59	54	50		58	53	49		57	53	49	48
10	68	57	51	46	66	57	50	46	56	50	46		55	50	46		54	49	46	45

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

	0°
0°	37497
5°	36870
10°	35014
15°	30534
20°	25611
25°	21836
30°	20130
35°	19140
40°	16603
45°	10079
50°	3838
55°	1338
60°	987
65°	778
70°	321
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	62.7	9.2	9.2
10°-20°	149.4	22.0	22.0
20°-30°	168.4	24.7	24.8
30°-40°	176.3	25.9	26.0
40°-50°	101.3	14.9	14.9
50°-60°	16.3	2.4	2.4
60°-70°	5.5	0.8	0.8
70°-80°	0.5	0.1	0.1
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°	380.6	55.9	56.0
0°-40°	556.9	81.8	82.0
0°-60°	674.4	99.1	99.3
0°-90°	680.5	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°	680.5	100.0	100.2

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	684	
5°	670	63
15°	538	149
25°	361	168
35°	286	176
45°	130	101
55°	14	16
65°	6	6
75°	0	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	684
2.5°	680
5°	670
7.5°	655
10°	629
12.5°	588
15°	538
17.5°	488
20°	439
22.5°	395
25°	361
27.5°	335
30°	318
32.5°	303
35°	286
37.5°	265
40°	232
42.5°	183
45°	130
47.5°	82
50°	45
52.5°	22
55°	14
57.5°	11
60°	9
62.5°	7
65°	6
67.5°	4
70°	2
72.5°	1
75°	0
77.5°	0
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)