

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: P30054

Luminaire Tested: **ML706835-493TBZO6**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P30054  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML706835-493TBZO6  
Description: HALO RECESSED LED RETROFIT MODULE WITH TRIM THAT INCLUDES  
SHOWER RATED,SOLITE LENS,TUSCAN BRONZE DESIGN REFLECTOR IN  
TRIM  
Light Source: HIGH OUPUT LED PACKAGE  
14 WATTS  
Ballast/Driver: 120V ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 510 (1 lamp)  
Luminaire Lumens: 512.6 lumens  
Efficiency: 100.5%  
Efficacy: 512.6 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 0.55 / 0.82  
Luminous Opening: Circular (Dia: 0.35' x H: 0')  
CIE Type: Direct

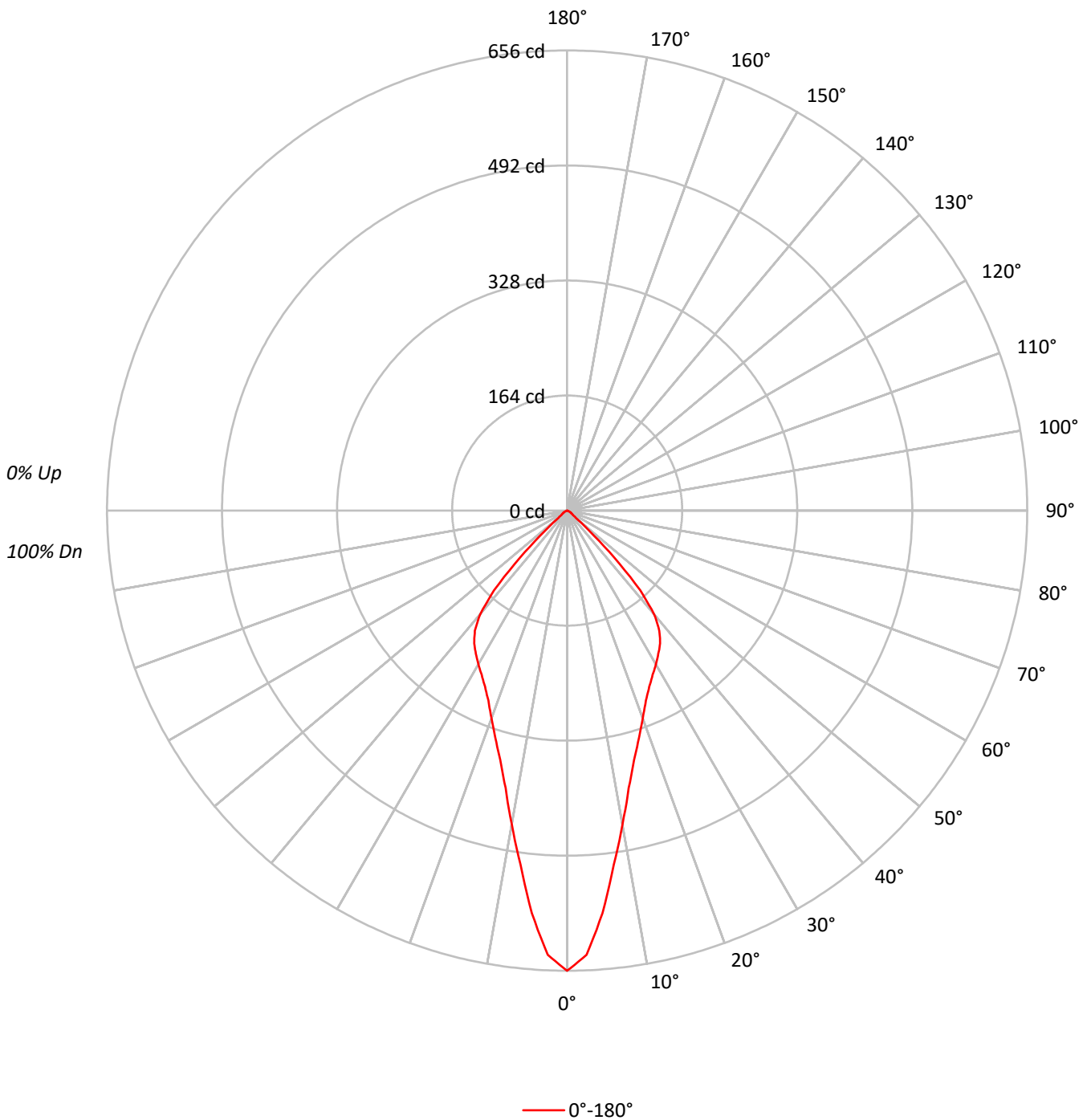
Input Watts (W): 1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	120	120	120	120	117	117	117	117	112	112	112		107	107	107		103	103	103	101
1	114	111	108	106	111	108	106	104	104	102	101		101	99	98		97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91		94	91	89		91	89	87	85
3	101	94	89	84	99	93	88	84	90	86	82		88	84	81		85	82	80	78
4	95	87	81	76	93	86	80	76	84	79	75		82	77	74		80	76	73	72
5	90	81	74	70	88	80	74	69	78	73	69		76	72	68		75	71	67	66
6	85	75	68	64	83	74	68	63	73	67	63		71	66	63		70	65	62	61
7	80	70	63	59	79	69	63	58	68	62	58		67	62	58		65	61	57	56
8	76	65	59	54	74	65	58	54	63	58	54		62	57	54		61	57	53	52
9	72	61	55	50	70	61	54	50	60	54	50		59	53	50		58	53	50	48
10	68	57	51	47	67	57	51	47	56	50	47		55	50	46		54	50	46	45

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

	0°
0°	71675
5°	63175
10°	50370
15°	41626
20°	36626
25°	33394
30°	31919
35°	30811
40°	27528
45°	14679
50°	2890
55°	1714
60°	1311
65°	776
70°	319
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	51.0	9.9	10.0
10°-20°	104.2	20.3	20.4
20°-30°	128.6	25.1	25.2
30°-40°	142.5	27.8	27.9
40°-50°	74.6	14.6	14.6
50°-60°	8.3	1.6	1.6
60°-70°	3.3	0.6	0.7
70°-80°	0.1	0.0	0.0
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°	283.7	55.3	55.6
0°-40°	426.2	83.1	83.6
0°-60°	509.2	99.3	99.8
0°-90°	512.6	100.0	100.5
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°	512.6	100.0	100.5

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	656	
5°	576	51
15°	368	104
25°	277	129
35°	231	143
45°	95	75
55°	9	8
65°	3	3
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	656
2.5°	634
5°	576
7.5°	509
10°	454
12.5°	405
15°	368
17.5°	340
20°	315
22.5°	293
25°	277
27.5°	264
30°	253
32.5°	242
35°	231
37.5°	216
40°	193
42.5°	154
45°	95
47.5°	42
50°	17
52.5°	10
55°	9
57.5°	7
60°	6
62.5°	5
65°	3
67.5°	2
70°	1
72.5°	0
75°	0
77.5°	0
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)