

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: P20061

Luminaire Tested: **EL405827-TL401WB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20061  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL405827-TL401WB  
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED BAFFLED  
DESIGN REFLECTOR IN TRIM UNIT 1 LED MODULE EL405827  
Light Source: (1)SURFACE MOUNT LED  
14 WATTS  
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

**Summary**

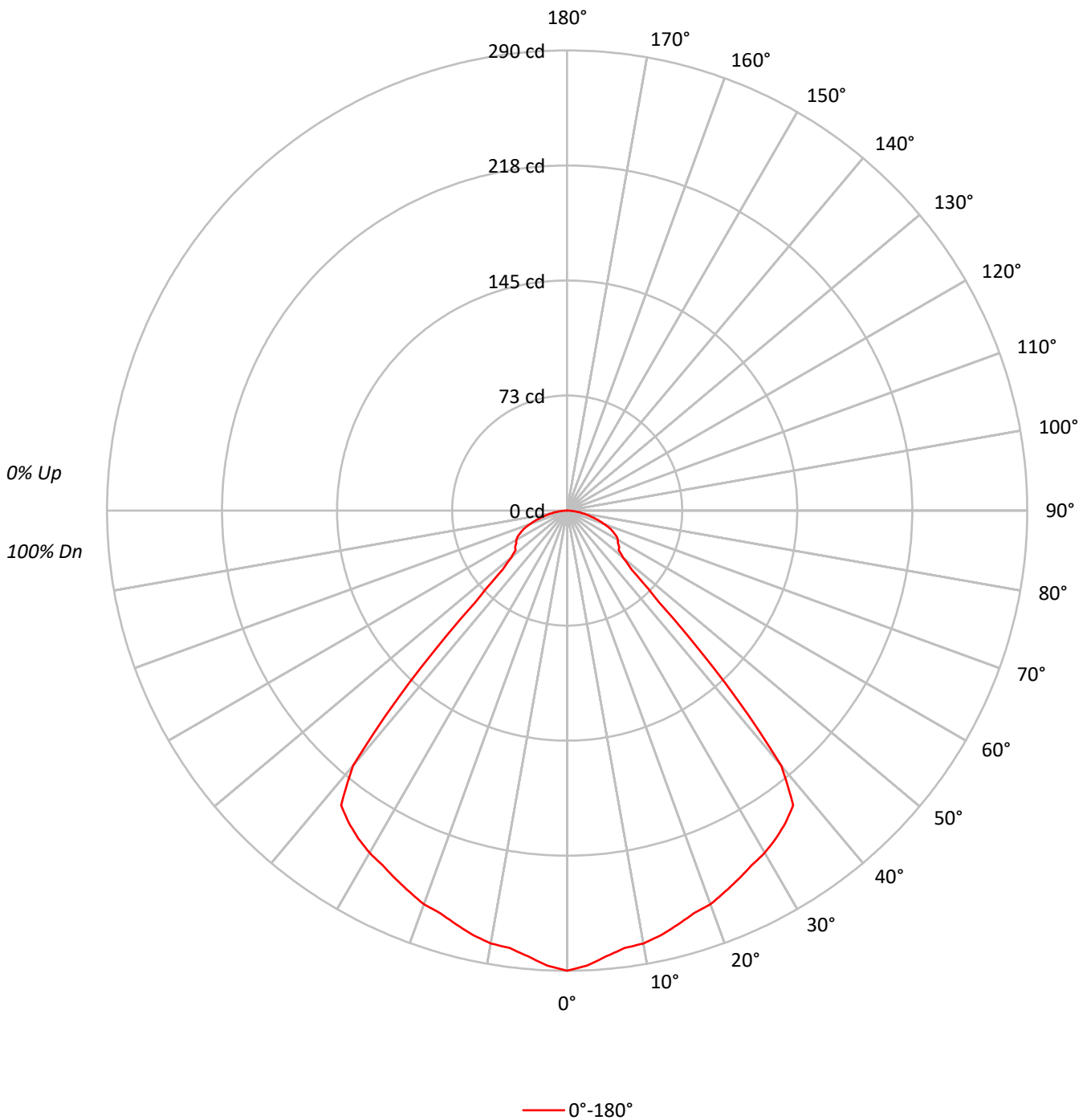
Lumens per Lamp: 537 (1 lamp)  
Luminaire Lumens: 538.5 lumens  
Efficiency: 100.3%  
Efficacy: 38.5 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.25  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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



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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	111	107	104	101	109	105	102	99	101	99	96		97	95	93		94	92	91	89
2	103	97	91	86	101	95	90	85	91	87	83		88	85	82		85	82	80	78
3	96	87	81	75	94	86	80	75	83	78	73		80	76	72		78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65		73	68	64		71	67	63	61
5	83	72	65	59	81	71	64	59	69	63	58		67	62	57		66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52		62	56	52		61	55	51	50
7	73	61	53	48	71	60	53	48	59	52	47		57	51	47		56	51	47	45
8	68	56	49	43	67	55	48	43	54	48	43		53	47	43		52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39		49	43	39		48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36		46	40	36		45	40	36	34

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

	0°
0°	35770
5°	34916
10°	34694
15°	34478
20°	34653
25°	34841
30°	35464
35°	36139
40°	33813
45°	14304
50°	8827
55°	8602
60°	9128
65°	9340
70°	9016
75°	8102
80°	7103
85°	5661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	26.8	5.0	5.0
10°-20°	76.4	14.2	14.2
20°-30°	118.3	22.0	22.0
30°-40°	148.6	27.6	27.7
40°-50°	78.1	14.5	14.5
50°-60°	35.9	6.7	6.7
60°-70°	31.4	5.8	5.9
70°-80°	18.1	3.4	3.4
80°-90°	4.9	0.9	0.9
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°	221.5	41.1	41.2
0°-40°	370.0	68.7	68.9
0°-60°	484.1	89.9	90.1
0°-90°	538.5	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°	538.5	100.0	100.3

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	290	
5°	282	27
15°	270	76
25°	256	118
35°	240	149
45°	82	78
55°	40	36
65°	32	31
75°	17	18
85°	4	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	290
2.5°	287
5°	282
7.5°	278
10°	277
12.5°	274
15°	270
17.5°	266
20°	264
22.5°	260
25°	256
27.5°	252
30°	249
32.5°	245
35°	240
37.5°	234
40°	210
42.5°	148
45°	82
47.5°	55
50°	46
52.5°	41
55°	40
57.5°	38
60°	37
62.5°	35
65°	32
67.5°	29
70°	25
72.5°	21
75°	17
77.5°	13
80°	10
82.5°	7
85°	4
87.5°	2
90°	0

(END OF REPORT)