

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: P20077

Luminaire Tested: **EL405835-TL401WB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20077  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL405835-TL401WB  
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED BAFFLED  
DESIGN REFLECTOR IN TRIM UNIT 1 LED MODULE EL405835  
Light Source: (1)SURFACE MOUNT LED  
14 WATTS  
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

**Summary**

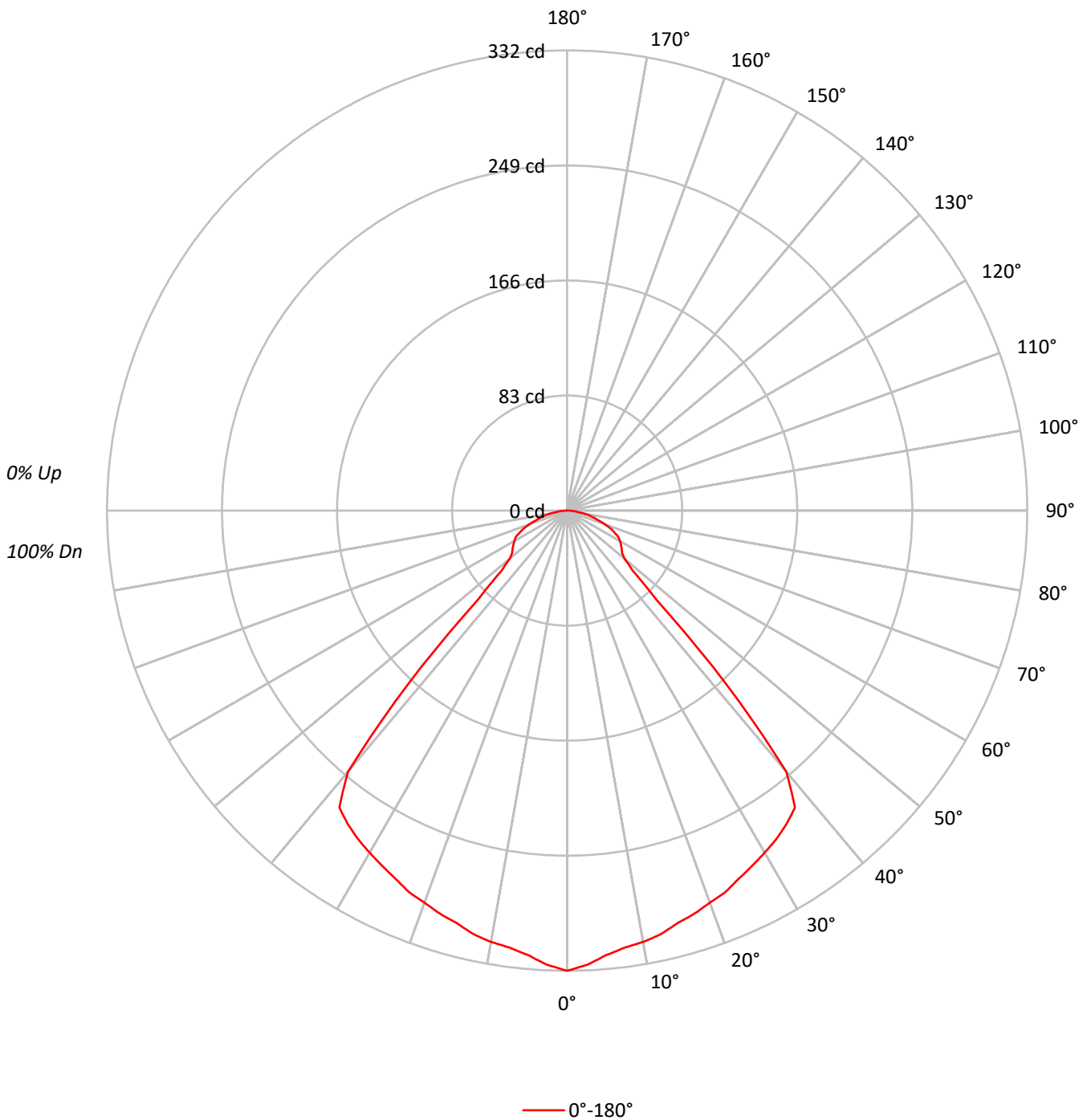
Lumens per Lamp: 621 (1 lamp)  
Luminaire Lumens: 621.8 lumens  
Efficiency: 100.1%  
Efficacy: 44.1 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.25  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.1  
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	116	116	116	116	111	111	111		107	107	107		102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	91	86	101	95	89	85	91	87	83		88	84	81		85	82	80	78
3	96	87	80	75	93	85	79	74	83	77	73		80	76	72		78	74	71	69
4	89	79	71	66	87	78	71	65	75	69	65		73	68	64		71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58		67	61	57		65	60	57	55
6	77	66	58	53	76	65	58	52	63	57	52		62	56	51		60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47		57	51	47		56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43		53	47	43		52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39		49	43	39		48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36		46	40	36		45	39	36	34

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

	0°
0°	40951
5°	39869
10°	39579
15°	39331
20°	39510
25°	39876
30°	40592
35°	41559
40°	39610
45°	15874
50°	10362
55°	10322
60°	10854
65°	11091
70°	10459
75°	9531
80°	8524
85°	7076



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	30.6	4.9	4.9
10°-20°	87.3	14.0	14.1
20°-30°	135.5	21.8	21.8
30°-40°	171.2	27.5	27.6
40°-50°	89.8	14.4	14.5
50°-60°	43.2	6.9	7.0
60°-70°	37.3	6.0	6.0
70°-80°	21.2	3.4	3.4
80°-90°	5.7	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°	253.3	40.7	40.8
0°-40°	424.5	68.3	68.4
0°-60°	557.6	89.7	89.8
0°-90°	621.8	100.0	100.1
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°	621.8	100.0	100.1

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	332	
5°	322	31
15°	308	87
25°	293	136
35°	276	171
45°	91	90
55°	48	43
65°	38	37
75°	20	21
85°	5	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	332
2.5°	328
5°	322
7.5°	318
10°	316
12.5°	313
15°	308
17.5°	305
20°	301
22.5°	298
25°	293
27.5°	289
30°	285
32.5°	281
35°	276
37.5°	270
40°	246
42.5°	170
45°	91
47.5°	64
50°	54
52.5°	50
55°	48
57.5°	46
60°	44
62.5°	42
65°	38
67.5°	34
70°	29
72.5°	24
75°	20
77.5°	16
80°	12
82.5°	8
85°	5
87.5°	2
90°	0

(END OF REPORT)