

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: P20062

Luminaire Tested: **EL405827-TL400WH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20062  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL405827-TL400WH  
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED REFLECTOR IN TRIM UNIT 1 LED MODULE EL405827  
Light Source: (1)SURFACE MOUNT LED  
CL221 14 WATTS  
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

**Summary**

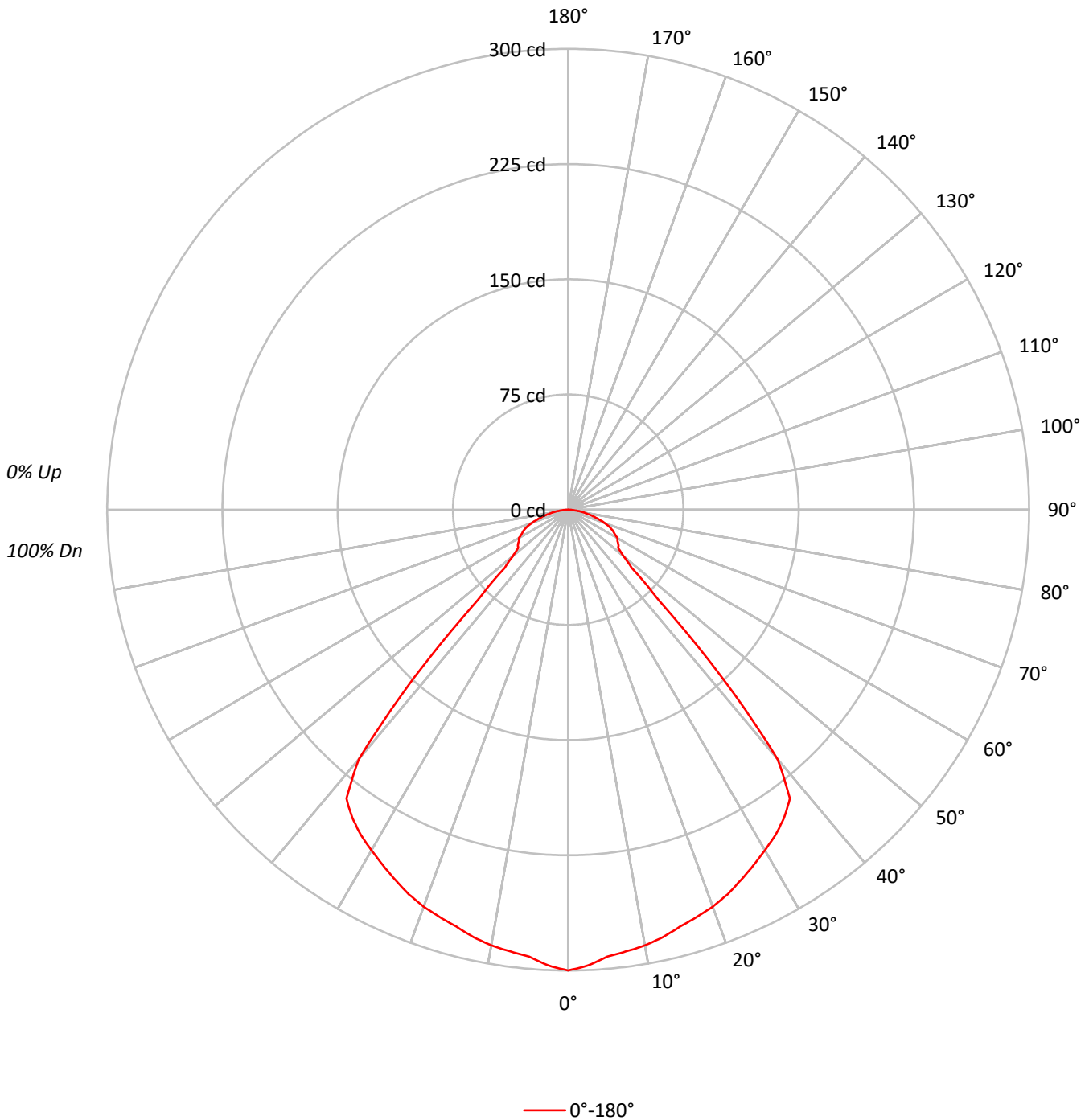
Lumens per Lamp: 550 (1 lamp)  
Luminaire Lumens: 550.8 lumens  
Efficiency: 100.1%  
Efficacy: 39.3 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.25  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	116	116	116	116	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	87	101	95	90	86	91	87	84		88	85	82		85	83	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		74	68	64		72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58		68	62	58		66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	53		62	56	52		61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48		57	52	47		56	51	47	45
8	68	56	49	44	67	56	49	44	54	48	43		53	47	43		52	47	43	41
9	64	52	45	40	63	52	45	40	51	44	40		50	44	40		49	43	39	38
10	60	49	41	37	59	48	41	37	47	41	36		46	40	36		45	40	36	35

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

	0°
0°	37004
5°	36155
10°	36072
15°	35883
20°	36097
25°	36202
30°	36461
35°	36891
40°	34135
45°	14478
50°	9019
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°	27.8	5.0	5.1
10°-20°	79.6	14.4	14.5
20°-30°	122.8	22.3	22.3
30°-40°	151.4	27.5	27.5
40°-50°	79.0	14.3	14.4
50°-60°	36.0	6.5	6.6
60°-70°	31.2	5.7	5.7
70°-80°	18.1	3.3	3.3
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°	230.2	41.8	41.8
0°-40°	381.6	69.3	69.4
0°-60°	496.6	90.2	90.3
0°-90°	550.8	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°	550.8	100.0	100.1

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	300	
5°	292	28
15°	281	80
25°	266	123
35°	245	151
45°	83	79
55°	40	36
65°	32	31
75°	17	18
85°	4	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	300
2.5°	297
5°	292
7.5°	290
10°	288
12.5°	285
15°	281
17.5°	278
20°	275
22.5°	271
25°	266
27.5°	261
30°	256
32.5°	251
35°	245
37.5°	237
40°	212
42.5°	149
45°	83
47.5°	56
50°	47
52.5°	41
55°	40
57.5°	38
60°	37
62.5°	34
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)