

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: P20068

Luminaire Tested: **EL405830-TL400WH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20068
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405830-TL400WH
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED REFLECTOR IN TRIM UNIT 1 LED MODULE EL405830
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

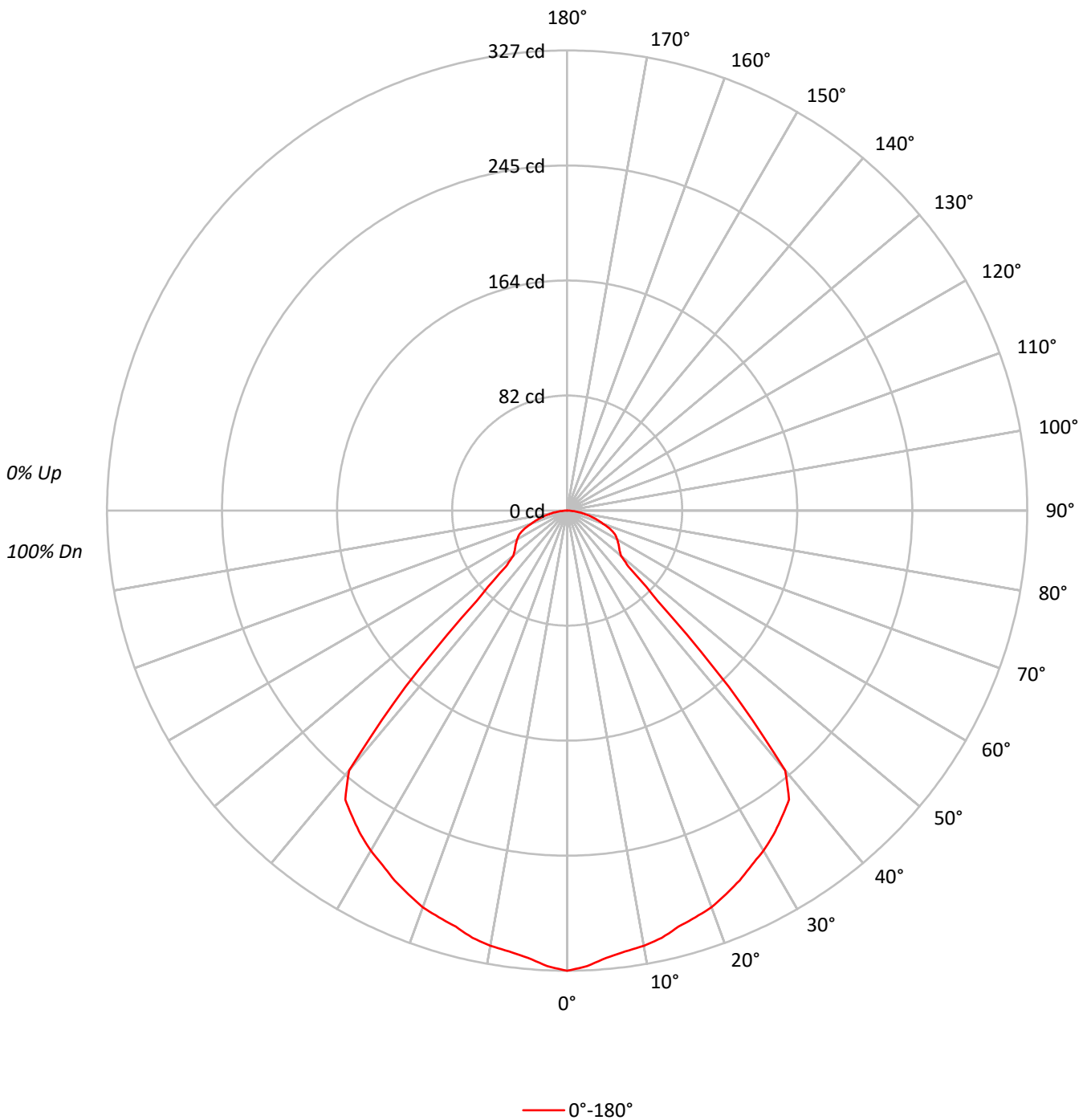
Lumens per Lamp: 604 (1 lamp)
Luminaire Lumens: 605.2 lumens
Efficiency: 100.2%
Efficacy: 41.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.26
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 14.7
Input Voltage (V): NR
Input Current (A_{in}): 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	84	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	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	52	62	56	52	61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	40	49	44	39	48	43	39	38
10	60	48	41	37	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	40334
5°	39498
10°	39328
15°	39075
20°	39379
25°	39468
30°	39737
35°	40054
40°	38805
45°	15874
50°	9595
55°	9677
60°	10114
65°	10507
70°	9737
75°	9055
80°	7814
85°	5661



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	30.3	5.0	5.0
10°-20°	86.7	14.3	14.4
20°-30°	133.8	22.1	22.1
30°-40°	165.7	27.4	27.4
40°-50°	88.0	14.5	14.6
50°-60°	40.4	6.7	6.7
60°-70°	34.9	5.8	5.8
70°-80°	20.0	3.3	3.3
80°-90°	5.3	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°	250.8	41.4	41.5
0°-40°	416.6	68.8	69.0
0°-60°	545.0	90.0	90.2
0°-90°	605.2	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°	605.2	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	327	
5°	319	30
15°	306	87
25°	290	134
35°	266	166
45°	91	88
55°	45	40
65°	36	35
75°	19	20
85°	4	5
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	327
2.5°	324
5°	319
7.5°	316
10°	314
12.5°	311
15°	306
17.5°	303
20°	300
22.5°	295
25°	290
27.5°	284
30°	279
32.5°	273
35°	266
37.5°	259
40°	241
42.5°	170
45°	91
47.5°	59
50°	50
52.5°	47
55°	45
57.5°	43
60°	41
62.5°	39
65°	36
67.5°	32
70°	27
72.5°	23
75°	19
77.5°	15
80°	11
82.5°	8
85°	4
87.5°	2
90°	0

(END OF REPORT)