

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: P20067

Luminaire Tested: **EL405830-TL400H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20067
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405830-TL400H
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH HAZED SEMI-SPECULAR REFLECTOR IN TRIM UNIT 1 LED MODULE EL405830
Light Source: (1)SURFACE MOUNT LED
CL221 14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

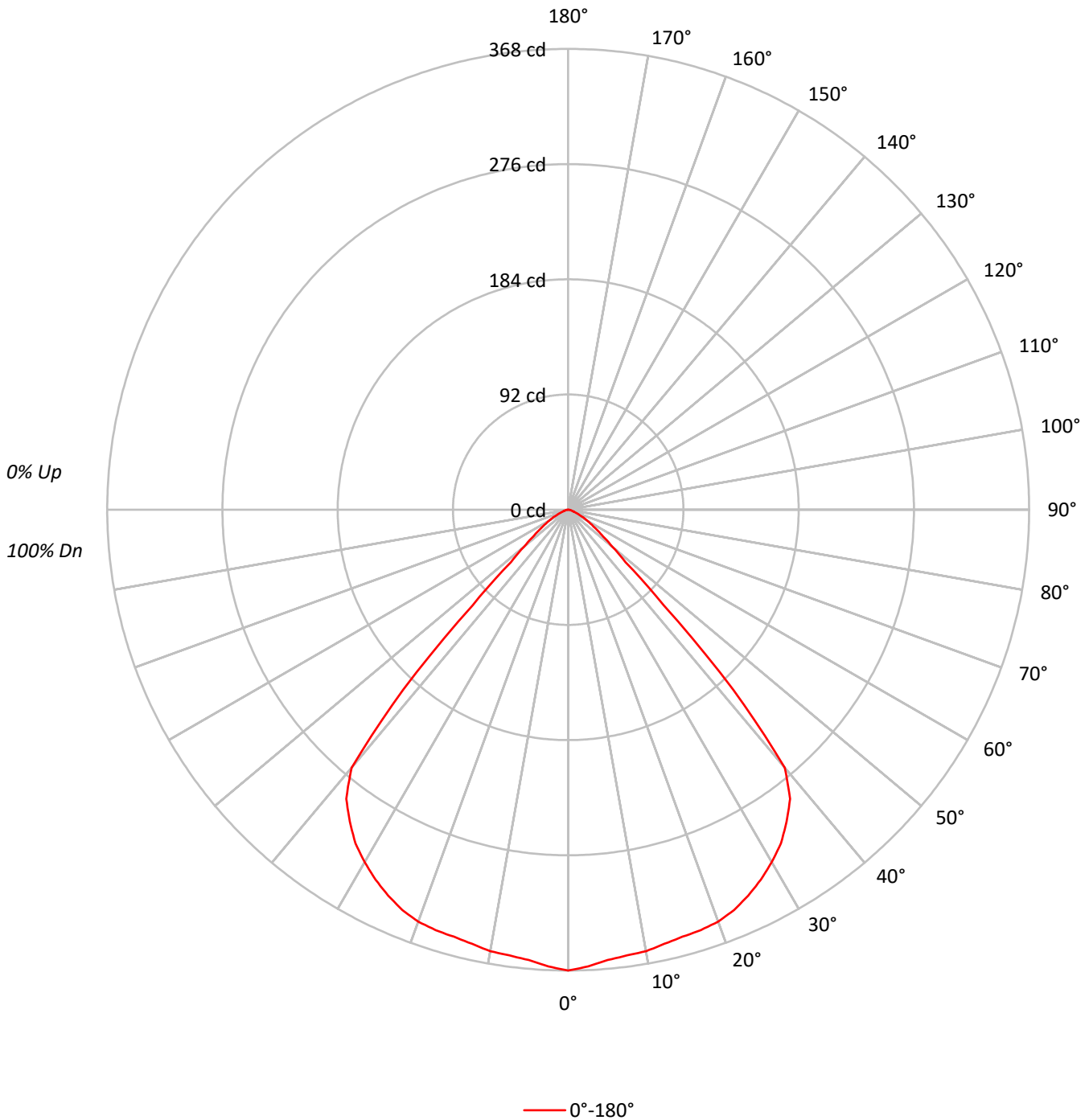
Lumens per Lamp: 618 (1 lamp)
Luminaire Lumens: 619.6 lumens
Efficiency: 100.3%
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.3 / 1.26
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	113	109	106	104	110	107	105	102	103	101	99		99	98	96		96	94	93	91
2	106	100	95	91	103	98	94	90	95	91	88		92	89	86		89	86	84	82
3	99	91	85	81	97	90	84	80	87	82	79		85	81	77		82	79	76	74
4	93	84	77	72	91	82	76	71	80	75	70		78	73	70		76	72	69	67
5	87	77	70	64	85	76	69	64	74	68	64		72	67	63		70	66	62	61
6	81	71	63	58	80	70	63	58	68	62	58		67	61	57		65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	52		62	56	52		60	56	52	50
8	71	60	53	48	70	60	53	48	58	52	48		57	52	48		56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44		53	48	44		52	47	44	42
10	63	52	45	41	62	51	45	41	51	45	40		50	44	40		49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	45391
5°	44698
10°	44839
15°	45077
20°	45942
25°	46273
30°	46289
35°	45775
40°	43313
45°	18839
50°	8827
55°	6021
60°	4440
65°	2919
70°	1803
75°	1430
80°	1421
85°	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	34.4	5.6	5.6
10°-20°	100.1	16.2	16.2
20°-30°	156.6	25.3	25.3
30°-40°	189.1	30.5	30.6
40°-50°	98.6	15.9	16.0
50°-60°	26.0	4.2	4.2
60°-70°	10.5	1.7	1.7
70°-80°	3.3	0.5	0.5
80°-90°	1.1	0.2	0.2
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°	291.1	47.0	47.1
0°-40°	480.2	77.5	77.7
0°-60°	604.8	97.6	97.9
0°-90°	619.6	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°	619.6	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	368	
5°	361	34
15°	353	100
25°	340	157
35°	304	189
45°	108	99
55°	28	26
65°	10	10
75°	3	3
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	368
2.5°	365
5°	361
7.5°	359
10°	358
12.5°	355
15°	353
17.5°	352
20°	350
22.5°	346
25°	340
27.5°	333
30°	325
32.5°	316
35°	304
37.5°	291
40°	269
42.5°	195
45°	108
47.5°	62
50°	46
52.5°	35
55°	28
57.5°	22
60°	18
62.5°	14
65°	10
67.5°	7
70°	5
72.5°	4
75°	3
77.5°	2
80°	2
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)