

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: P20338

Luminaire Tested: **EL405840-TL402SNS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20338
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TL402SNS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SATIN NICKEL FINISH
REFLECTOR AND PRISMATIC LENS IN TRIM EL405840-TL402SNS
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

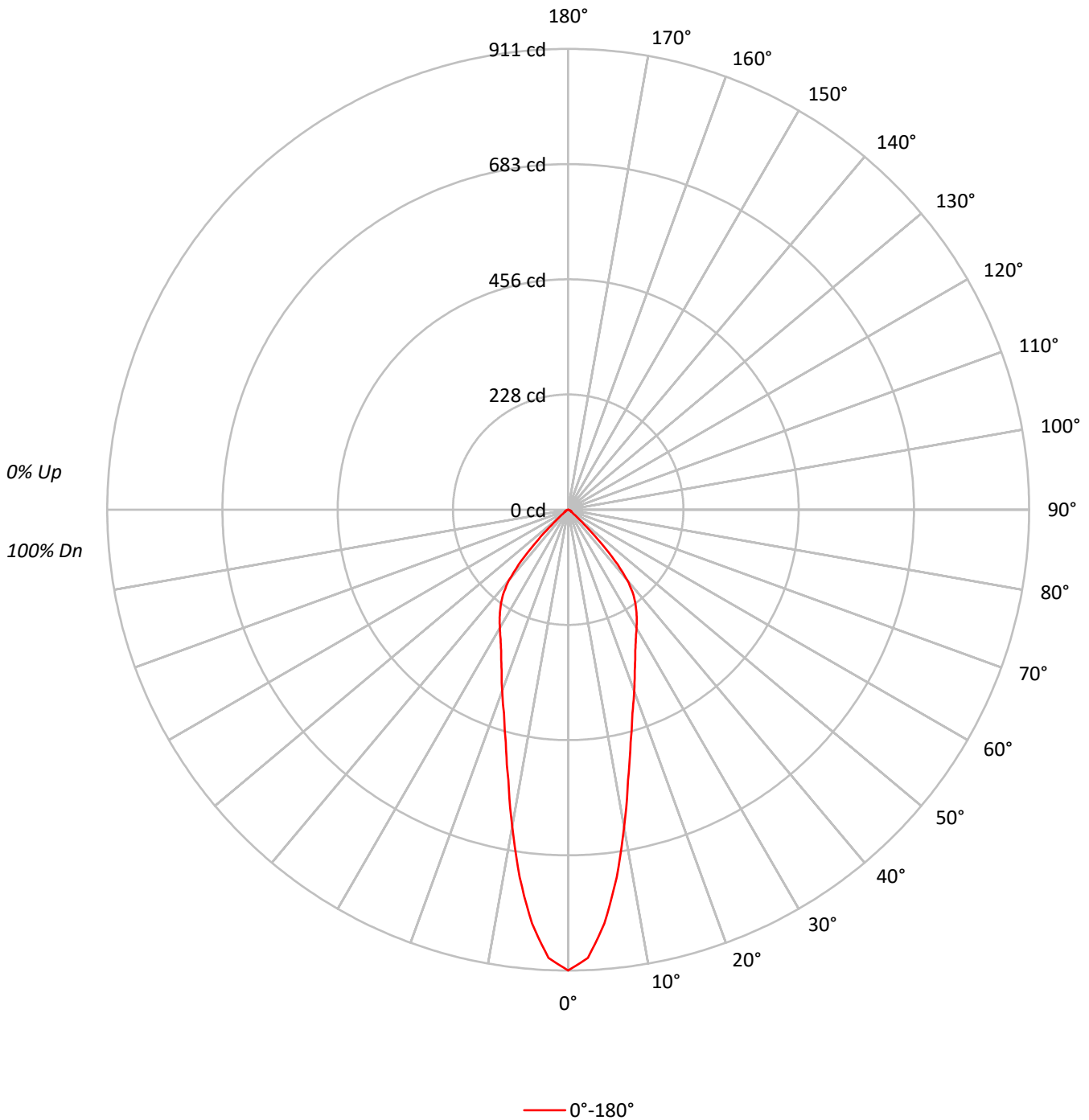
Lumens per Lamp: 581 (1 lamp)
Luminaire Lumens: 581.9 lumens
Efficiency: 100.2%
Efficacy: 41.9 lumens/watt
Spacing Criteria (0/90/45): 0.5 / 0.5 / 0.67
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 13.9
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	116	116	116	116	111	111	111		107	107	107		102	102	102	100
1	113	110	108	106	111	108	106	104	104	102	101		100	99	98		97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91		94	92	89		91	89	87	86
3	102	95	89	85	100	93	88	85	91	87	83		88	85	82		86	83	81	79
4	96	88	82	78	94	87	81	77	85	80	76		83	79	75		81	77	75	73
5	91	82	76	71	89	81	75	71	79	74	70		78	73	70		76	72	69	68
6	86	77	70	66	84	76	70	66	74	69	65		73	68	65		71	67	64	63
7	81	72	65	61	80	71	65	61	70	64	60		69	64	60		67	63	60	58
8	77	67	61	57	76	67	61	57	66	60	56		65	60	56		64	59	56	54
9	73	63	57	53	72	63	57	53	62	57	53		61	56	53		60	56	52	51
10	70	60	54	50	69	59	54	50	59	53	50		58	53	49		57	53	49	48

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	88254
5°	79839
10°	62563
15°	47739
20°	39278
25°	33457
30°	30203
35°	27555
40°	23016
45°	11508
50°	3165
55°	1520
60°	1356
65°	1146
70°	1133
75°	374
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	72.4	12.4	12.5
10°-20°	134.8	23.2	23.2
20°-30°	145.6	25.0	25.1
30°-40°	143.9	24.7	24.8
40°-50°	68.7	11.8	11.8
50°-60°	9.5	1.6	1.6
60°-70°	5.1	0.9	0.9
70°-80°	1.8	0.3	0.3
80°-90°	0.0	0.0	0.0
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°	352.8	60.6	60.7
0°-40°	496.8	85.4	85.5
0°-60°	575.0	98.8	99.0
0°-90°	581.9	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°	581.9	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	911	
5°	821	72
15°	476	135
25°	313	146
35°	233	144
45°	84	69
55°	9	10
65°	5	5
75°	1	2
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	911
2.5°	887
5°	821
7.5°	733
10°	636
12.5°	547
15°	476
17.5°	422
20°	381
22.5°	344
25°	313
27.5°	289
30°	270
32.5°	252
35°	233
37.5°	212
40°	182
42.5°	137
45°	84
47.5°	42
50°	21
52.5°	12
55°	9
57.5°	8
60°	7
62.5°	6
65°	5
67.5°	4
70°	4
72.5°	3
75°	1
77.5°	1
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)