

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: P20358

Luminaire Tested: **EL405827-TL402TBZS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20358
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL402TBZS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH TUSCAN BRONZE FINISH
REFLECTOR AND PRISMATIC LENS IN TRIM EL405827-TL402TBZS
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 501 (1 lamp)
Luminaire Lumens: 502.8 lumens
Efficiency: 100.4%
Efficacy: 36.4 lumens/watt
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.7
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

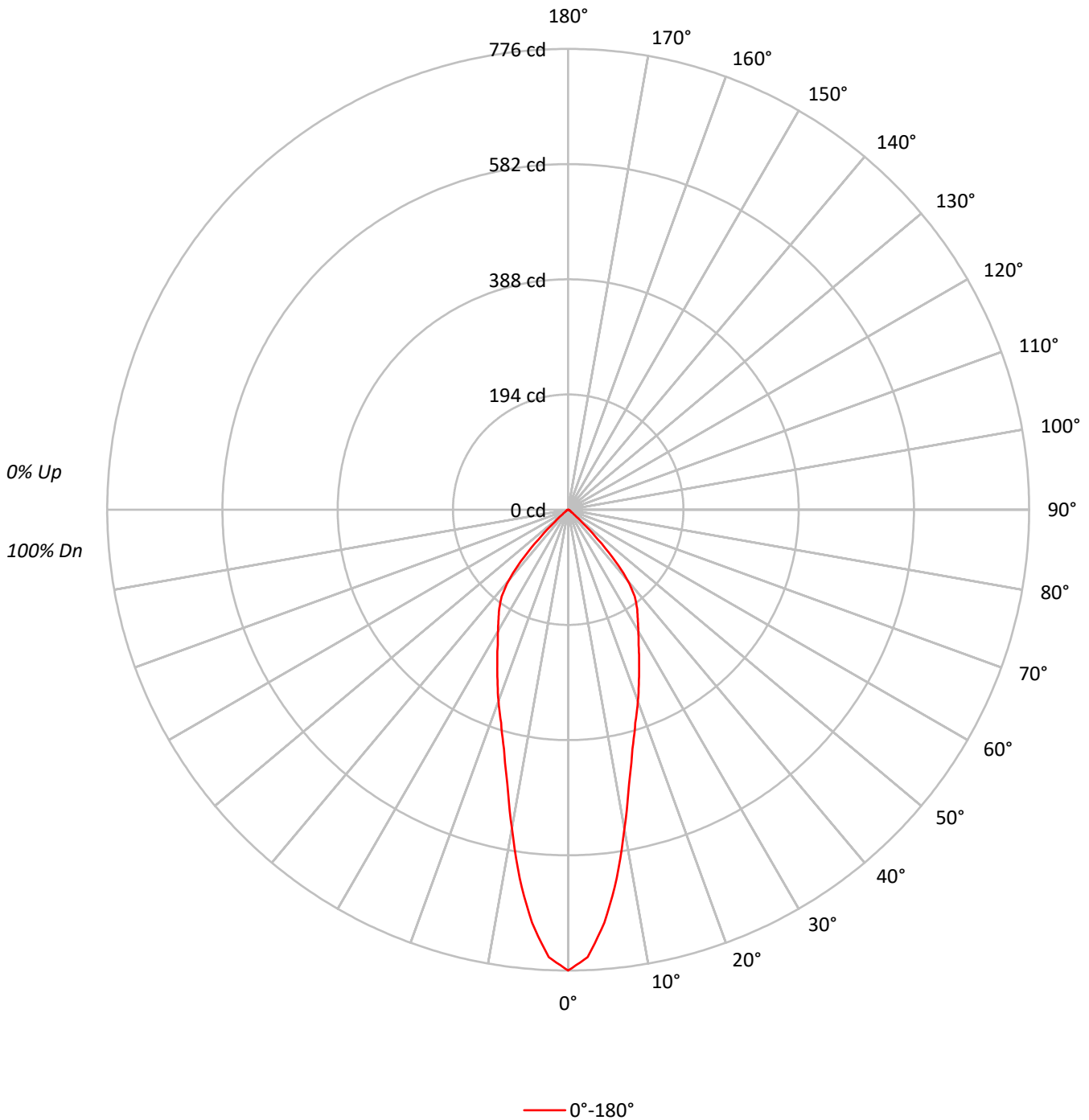
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	112	112	112	107	107	107	102	102	102	100
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93
2	108	103	99	95	106	101	97	94	98	95	92	95	92	90	92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84	89	85	83	87	84	81	80
4	97	89	83	78	95	87	82	78	85	81	77	83	79	76	81	78	75	74
5	91	83	77	72	90	82	76	72	80	75	71	78	74	70	77	73	70	68
6	87	77	71	66	85	76	71	66	75	70	66	73	69	65	72	68	65	63
7	82	72	66	62	81	72	66	61	70	65	61	69	64	61	68	64	60	59
8	78	68	62	57	77	67	61	57	66	61	57	65	60	57	64	60	57	55
9	74	64	58	54	73	63	58	54	62	57	53	62	57	53	61	56	53	52
10	70	60	54	50	69	60	54	50	59	54	50	58	53	50	58	53	50	48

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	75175
5°	67877
10°	53612
15°	41822
20°	35361
25°	30143
30°	26399
35°	23889
40°	19855
45°	9727
50°	2261
55°	1013
60°	775
65°	688
70°	283
75°	0
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	61.8	12.3	12.3
10°-20°	118.3	23.5	23.6
20°-30°	130.4	25.9	26.0
30°-40°	124.8	24.8	24.9
40°-50°	58.2	11.6	11.6
50°-60°	6.3	1.3	1.3
60°-70°	2.6	0.5	0.5
70°-80°	0.4	0.1	0.1
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°	310.5	61.8	62.0
0°-40°	435.3	86.6	86.9
0°-60°	499.8	99.4	99.8
0°-90°	502.8	100.0	100.4
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°	502.8	100.0	100.4

CANDELA DISTRIBUTION:

	0°	Flux
0°	776	
5°	698	62
15°	417	118
25°	282	130
35°	202	125
45°	71	58
55°	6	6
65°	3	3
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	776
2.5°	754
5°	698
7.5°	626
10°	545
12.5°	473
15°	417
17.5°	376
20°	343
22.5°	311
25°	282
27.5°	257
30°	236
32.5°	218
35°	202
37.5°	184
40°	157
42.5°	118
45°	71
47.5°	34
50°	15
52.5°	8
55°	6
57.5°	5
60°	4
62.5°	3
65°	3
67.5°	2
70°	1
72.5°	1
75°	0
77.5°	0
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)