

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: P123710

Luminaire Tested: **EL406930-TL402TBZS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P123710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13986)
Test Lab: INNOVATION CENTER-P1
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL406930-TL402TBZS
Description: HALO 4-INCH RECESSED LED DOWNLIGHT
TUSCAN BRONZE REFLECTOR, SOLITE® LENS AND TUSCAN BRONZE TRIM RING
Light Source: (1)SURFACE MOUNT LED, 3000K CCT, 90CRI
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 690.0 lumens
Efficiency: N/A
Efficacy: 53.1 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.81
Luminous Opening: Circular (Dia: 0.29' x H: 0')
CIE Type: Direct

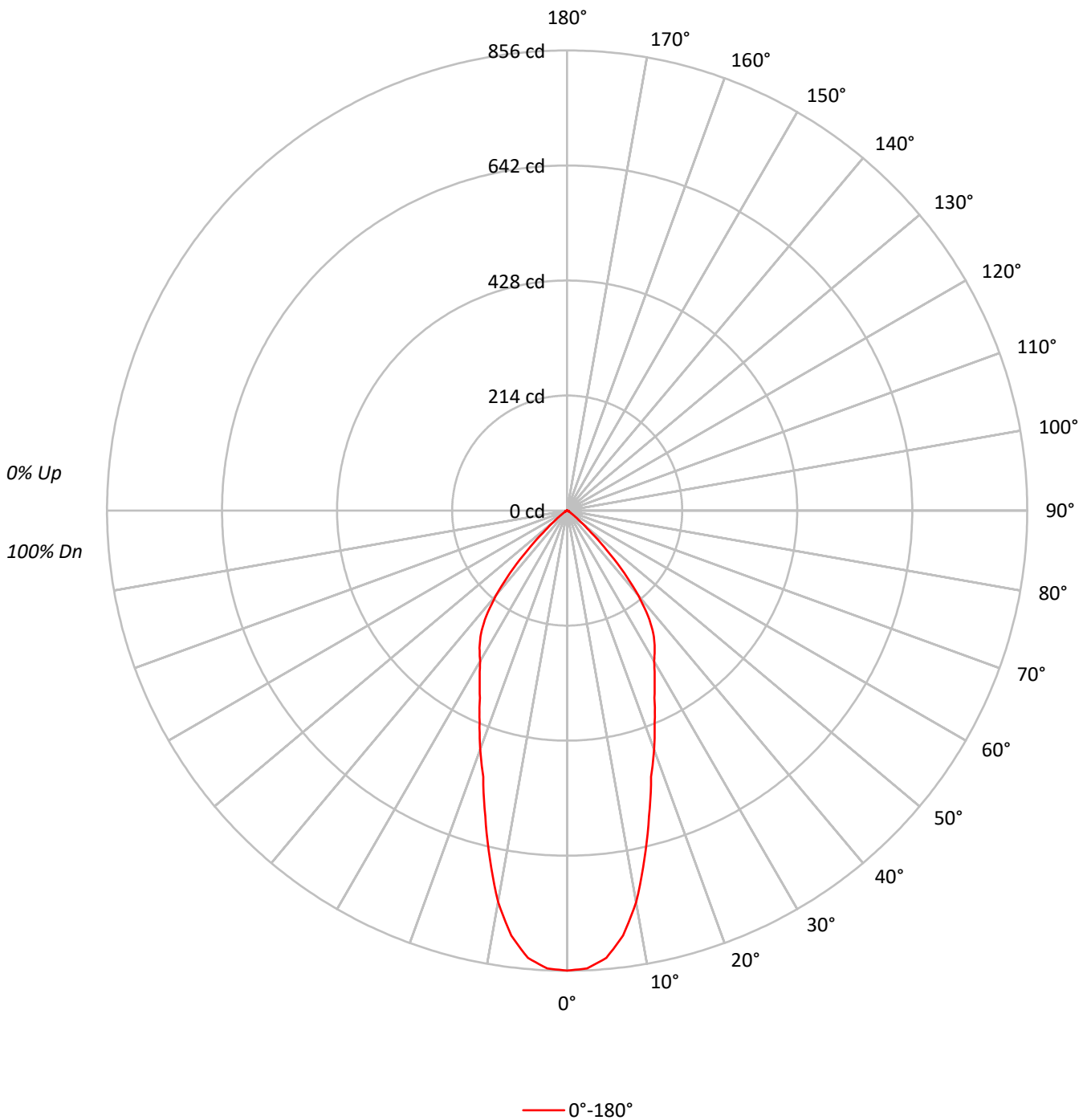
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		106	106	106		102	102	102	100
1	113	110	108	105	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	101	95	89	85	99	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	74	73
5	91	82	76	71	89	81	75	71	79	74	70		77	73	70		76	72	69	67
6	86	76	70	66	84	76	70	65	74	69	65		73	68	64		71	67	64	62
7	81	71	65	61	80	71	65	60	69	64	60		68	63	60		67	63	59	58
8	77	67	61	56	76	66	60	56	65	60	56		64	59	56		63	59	56	54
9	73	63	57	53	72	62	57	53	62	56	52		61	56	52		60	55	52	51
10	70	59	53	49	68	59	53	49	58	53	49		57	52	49		57	52	49	47

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	137857
5°	135116
10°	121007
15°	98171
20°	81024
25°	68295
30°	60198
35°	55048
40°	43197
45°	24014
50°	8271
55°	3286
60°	1385
65°	1639
70°	1507
75°	685
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	11.1
10°-20°	164.6	23.8
20°-30°	178.5	25.9
30°-40°	170.7	24.7
40°-50°	83.8	12.1
50°-60°	12.6	1.8
60°-70°	2.5	0.4
70°-80°	0.7	0.1
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	419.8	60.8
0°-40°	590.4	85.6
0°-60°	686.8	99.5
0°-90°	690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	690.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	856	
5°	836	77
15°	589	165
25°	384	179
35°	280	171
45°	105	84
55°	12	13
65°	4	3
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	855.7
2.5°	852.5
5°	835.5
7.5°	797.2
10°	739.7
12.5°	664.2
15°	588.6
17.5°	519.4
20°	472.6
22.5°	425.7
25°	384.2
27.5°	352.3
30°	323.6
32.5°	303.3
35°	279.9
37.5°	248.0
40°	205.4
42.5°	157.5
45°	105.4
47.5°	60.7
50°	33.0
52.5°	19.2
55°	11.7
57.5°	7.5
60°	4.3
62.5°	0.0
65°	4.3
67.5°	2.1
70°	3.2
72.5°	0.0
75°	1.1
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)