

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: P20354

Luminaire Tested: **EL405827-TL400TBZ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20354
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL400TBZ
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH TUSCAN BRONZE FINISH
REFLECTOR EL405827-TL400TBZ
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 429 (1 lamp)
Luminaire Lumens: 429.5 lumens
Efficiency: 100.1%
Efficacy: 31.1 lumens/watt
Spacing Criteria (0/90/45): 1.38 / 1.38 / 1.25
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

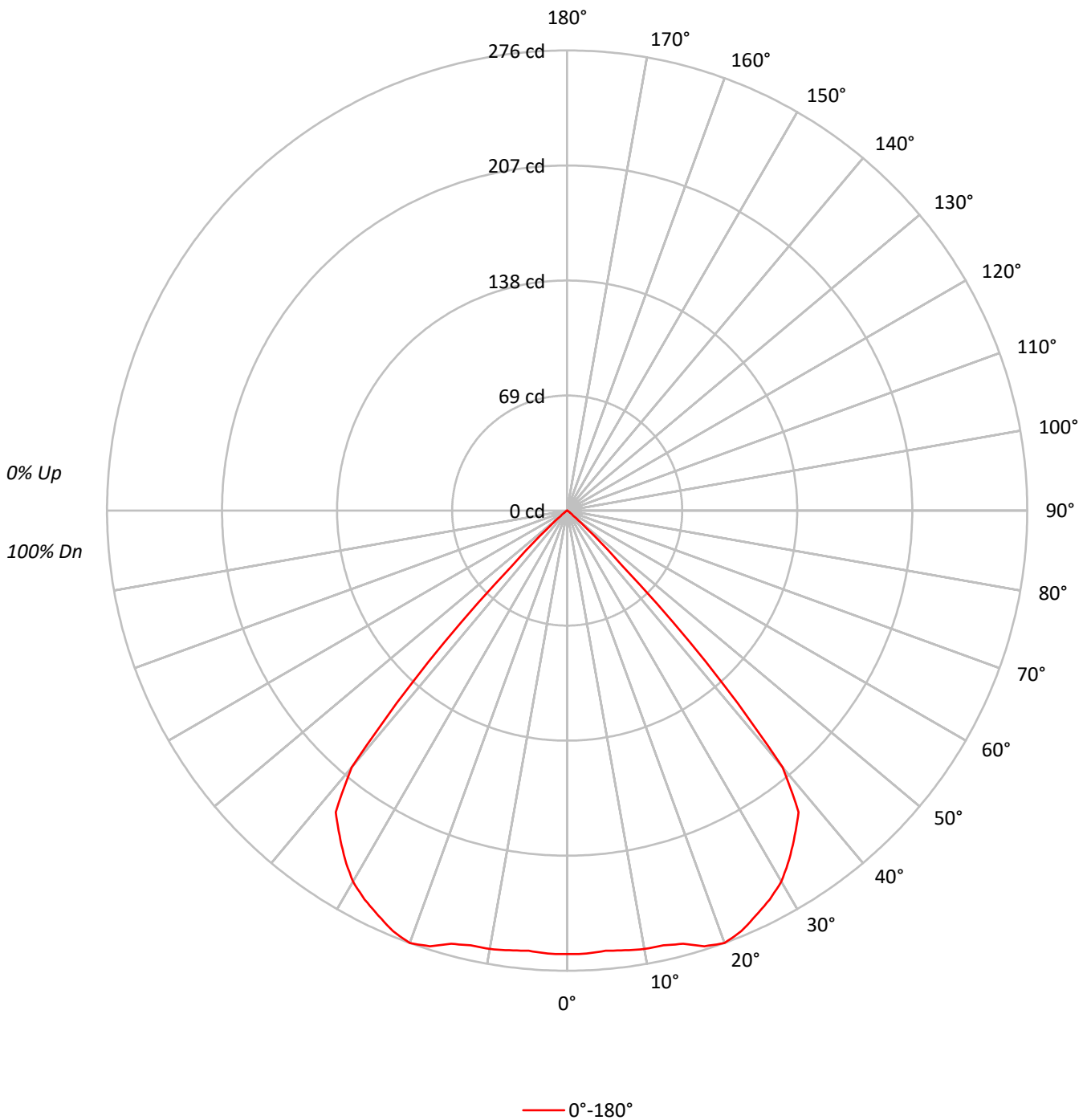
Input Watts (W): 13.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	113	110	107	105	111	108	105	103	104	102	100		100	99	97		97	95	94	92
2	107	101	97	93	104	100	96	92	96	93	90		93	91	88		91	88	86	85
3	101	93	88	83	98	92	87	83	89	85	81		87	83	80		84	81	79	77
4	95	86	80	75	93	85	79	75	83	78	74		81	76	73		79	75	72	70
5	89	80	73	68	87	79	72	68	77	71	67		75	70	67		73	69	66	64
6	84	74	67	62	82	73	66	62	71	66	61		70	65	61		68	64	60	59
7	79	68	61	57	77	67	61	56	66	60	56		65	60	56		64	59	56	54
8	74	63	57	52	73	63	56	52	61	56	52		60	55	51		59	55	51	50
9	70	59	52	48	68	58	52	48	57	52	47		56	51	47		55	51	47	46
10	66	55	48	44	65	54	48	44	54	48	44		53	47	44		52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	25769
5°	25770
10°	26265
15°	26979
20°	28454
25°	28647
30°	28749
35°	28147
40°	25419
45°	6439
50°	754
55°	338
60°	194
65°	229
70°	0
75°	0
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.4	5.9	5.9
10°-20°	76.8	17.9	17.9
20°-30°	123.6	28.8	28.8
30°-40°	147.5	34.3	34.4
40°-50°	53.8	12.5	12.5
50°-60°	1.8	0.4	0.4
60°-70°	0.6	0.1	0.1
70°-80°	0.0	0.0	0.0
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°	225.8	52.6	52.6
0°-40°	373.3	86.9	87.0
0°-60°	428.9	99.9	100.0
0°-90°	429.5	100.0	100.1
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°	429.5	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	266	
5°	265	25
15°	269	77
25°	268	124
35°	238	147
45°	47	54
55°	2	2
65°	1	1
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	266
2.5°	266
5°	265
7.5°	266
10°	267
12.5°	267
15°	269
17.5°	274
20°	276
22.5°	273
25°	268
27.5°	263
30°	257
32.5°	248
35°	238
37.5°	228
40°	201
42.5°	123
45°	47
47.5°	16
50°	5
52.5°	2
55°	2
57.5°	1
60°	1
62.5°	1
65°	1
67.5°	0
70°	0
72.5°	0
75°	0
77.5°	0
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)