

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: P20080

Luminaire Tested: **EL405835-TL402WHS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20080
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405835-TL402WHS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED REFLECTOR IN TRIM WITH PRISMATIC LENS IN UNIT 1 LED MODULE EL405835
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 628 (1 lamp)
Luminaire Lumens: 629.9 lumens
Efficiency: 100.3%
Efficacy: 44.7 lumens/watt
Spacing Criteria (0/90/45): 0.62 / 0.62 / 0.81
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

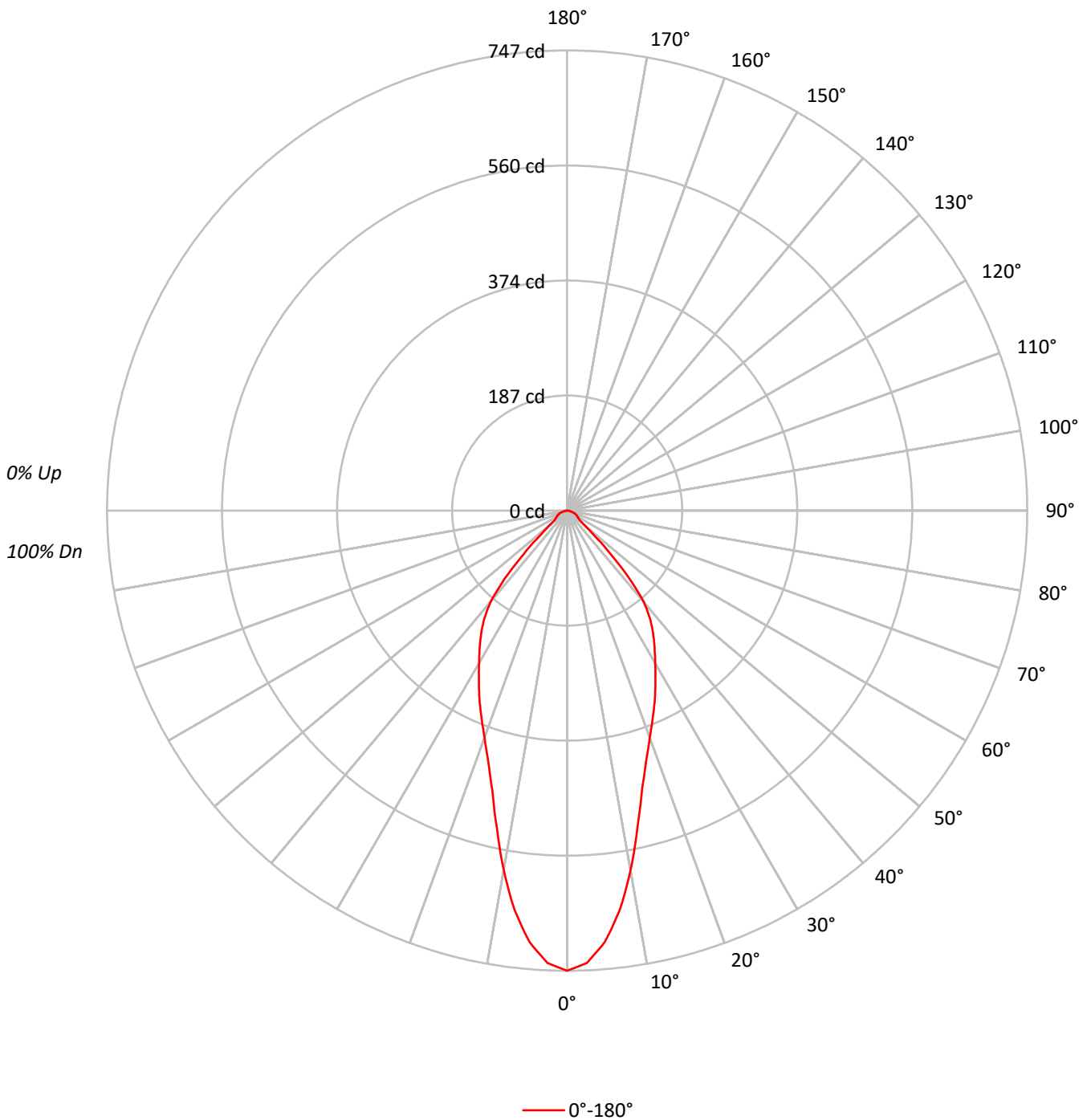
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	107	104	110	107	105	102	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	95	92	89	92	90	87	90	87	85	83
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	69
5	89	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	84	74	67	62	82	73	66	62	71	65	61	70	65	61	68	64	60	59
7	79	69	62	57	77	68	61	57	66	61	57	65	60	56	64	59	56	54
8	75	64	57	53	73	63	57	53	62	57	52	61	56	52	60	56	52	50
9	71	60	54	49	70	60	53	49	59	53	49	58	52	49	57	52	49	47
10	67	57	50	46	66	56	50	46	55	50	46	54	49	46	54	49	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	92139
5°	87043
10°	74272
15°	59890
20°	51455
25°	45865
30°	40734
35°	36590
40°	31076
45°	17444
50°	6908
55°	4946
60°	4687
65°	4670
70°	4688
75°	3336
80°	2841
85°	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	63.6	10.1	10.1
10°-20°	132.8	21.1	21.1
20°-30°	154.7	24.6	24.6
30°-40°	150.8	23.9	24.0
40°-50°	80.2	12.7	12.8
50°-60°	21.7	3.5	3.5
60°-70°	15.8	2.5	2.5
70°-80°	8.0	1.3	1.3
80°-90°	2.2	0.3	0.3
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°	351.0	55.7	55.9
0°-40°	501.8	79.7	79.9
0°-60°	603.8	95.9	96.1
0°-90°	629.9	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°	629.9	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	747	
5°	703	64
15°	469	133
25°	337	155
35°	243	151
45°	100	80
55°	23	22
65°	16	16
75°	7	8
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	747
2.5°	735
5°	703
7.5°	654
10°	593
12.5°	527
15°	469
17.5°	426
20°	392
22.5°	363
25°	337
27.5°	310
30°	286
32.5°	264
35°	243
37.5°	221
40°	193
42.5°	150
45°	100
47.5°	59
50°	36
52.5°	26
55°	23
57.5°	21
60°	19
62.5°	18
65°	16
67.5°	14
70°	13
72.5°	10
75°	7
77.5°	5
80°	4
82.5°	3
85°	2
87.5°	1
90°	0

(END OF REPORT)