

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: P20085

Luminaire Tested: **EL405840-TL401WB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20085
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TL401WB
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED BAFFLED
DESIGN REFLECTOR IN TRIM UNIT 1 LED MODULE EL405840
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

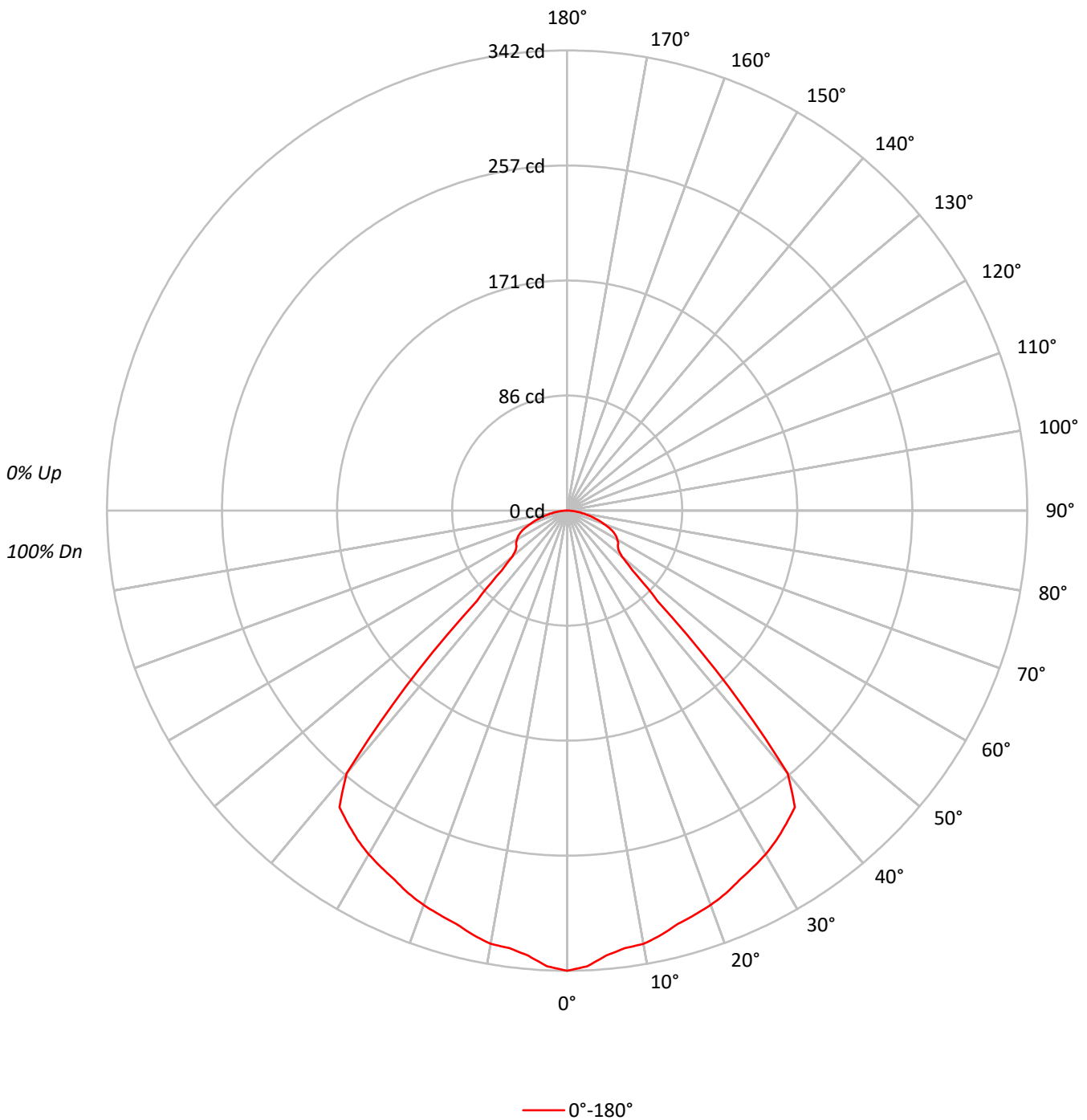
Lumens per Lamp: 637 (1 lamp)
Luminaire Lumens: 637.7 lumens
Efficiency: 100.1%
Efficacy: 45.5 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.26
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 14
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



TEST NUMBER: P20085
CATALOG NUMBER: EL405840-TL401WB

Luminous Intensity Polar Plot





TEST NUMBER: P20085

CATALOG NUMBER: EL405840-TL401WB

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	111	107	104	101	109	105	102	99	101	98	96		97	95	93		94	92	90	88
2	103	96	91	86	101	95	90	85	91	87	83		88	85	82		85	82	80	78
3	96	87	80	75	94	86	79	74	83	78	73		80	76	72		78	74	71	69
4	89	79	72	66	87	78	71	66	75	70	65		73	68	64		71	67	63	61
5	83	72	64	59	81	71	64	59	69	63	58		67	62	57		66	61	57	55
6	78	66	58	53	76	65	58	53	63	57	52		62	56	52		60	55	51	50
7	73	61	53	48	71	60	53	48	59	52	47		57	51	47		56	51	47	45
8	68	56	48	43	67	55	48	43	54	48	43		53	47	43		52	47	43	41
9	64	52	45	40	63	51	44	39	50	44	39		49	43	39		48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36		46	40	36		45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	42184
5°	41107
10°	40956
15°	40608
20°	40954
25°	41237
30°	42016
35°	42764
40°	41059
45°	16572
50°	10170
55°	9892
60°	10608
65°	11091
70°	10459
75°	9531
80°	8524
85°	7076



TEST NUMBER: P20085

CATALOG NUMBER: EL405840-TL401WB

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	31.6	4.9	5.0
10°-20°	90.2	14.1	14.2
20°-30°	140.2	22.0	22.0
30°-40°	176.6	27.7	27.7
40°-50°	93.2	14.6	14.6
50°-60°	41.9	6.6	6.6
60°-70°	36.9	5.8	5.8
70°-80°	21.5	3.4	3.4
80°-90°	5.7	0.9	0.9
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°	261.9	41.1	41.1
0°-40°	438.5	68.8	68.8
0°-60°	573.6	89.9	90.0
0°-90°	637.7	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°	637.7	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	342	
5°	332	32
15°	318	90
25°	303	140
35°	284	177
45°	95	93
55°	46	42
65°	38	37
75°	20	21
85°	5	6
90°	0	



TEST NUMBER: P20085

CATALOG NUMBER: EL405840-TL401WB

CANDELA DISTRIBUTION (FULL):

	0°
0°	342
2.5°	339
5°	332
7.5°	328
10°	327
12.5°	323
15°	318
17.5°	315
20°	312
22.5°	308
25°	303
27.5°	299
30°	295
32.5°	290
35°	284
37.5°	278
40°	255
42.5°	178
45°	95
47.5°	66
50°	53
52.5°	48
55°	46
57.5°	45
60°	43
62.5°	41
65°	38
67.5°	34
70°	29
72.5°	25
75°	20
77.5°	16
80°	12
82.5°	8
85°	5
87.5°	2
90°	0

(END OF REPORT)