

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: P20084

Luminaire Tested: **EL405840-TL400WH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20084
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TL400WH
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED REFLECTOR IN TRIM UNIT 1 LED MODULE EL405840
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

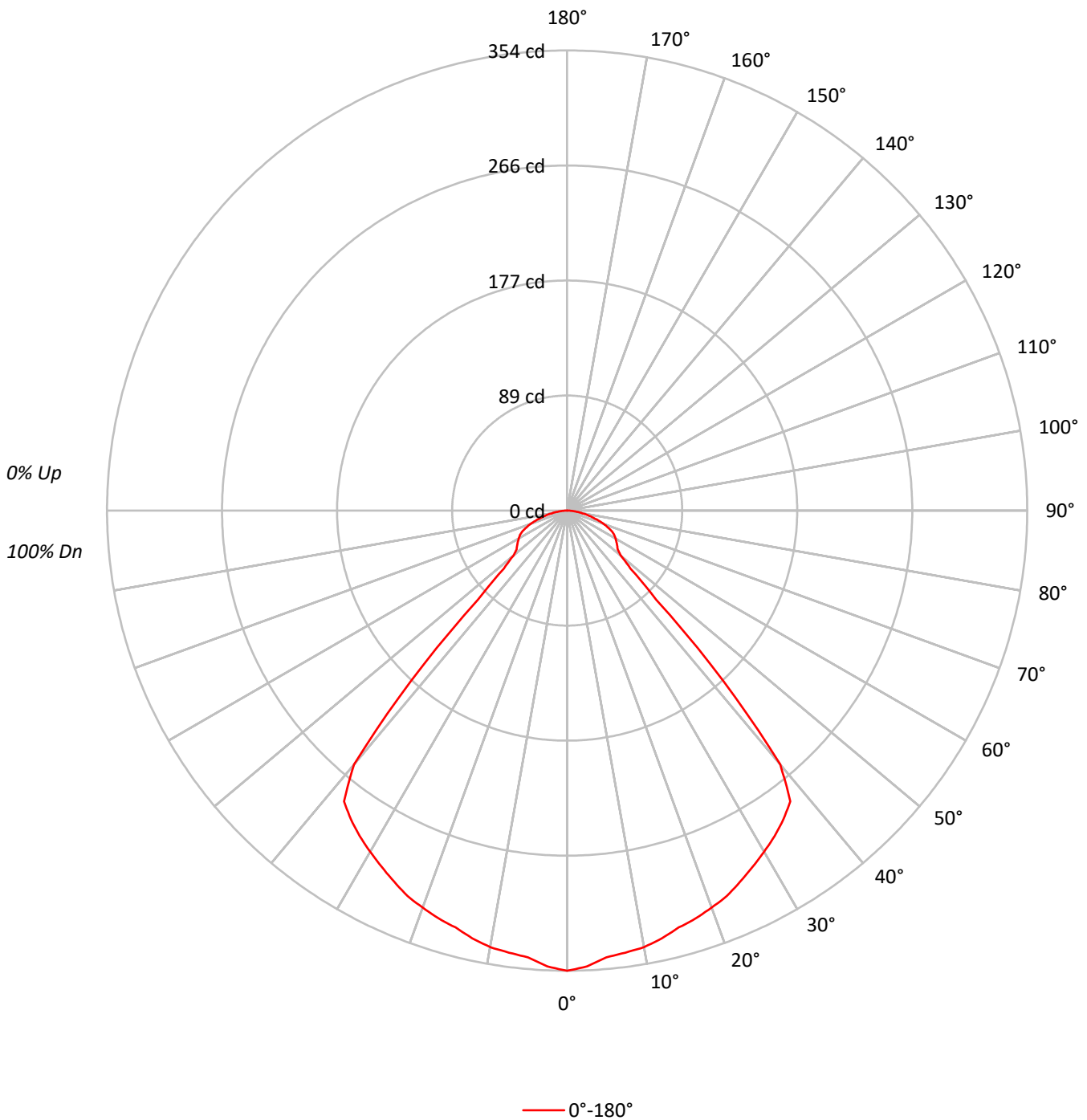
Lumens per Lamp: 652 (1 lamp)
Luminaire Lumens: 652.6 lumens
Efficiency: 100.1%
Efficacy: 46.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.25
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	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	91	89
2	103	97	91	86	101	95	90	85	91	87	84		88	85	82		85	82	80	78
3	96	87	81	75	94	86	80	75	83	78	73		80	76	72		78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65		74	68	64		71	67	63	62
5	83	72	65	59	81	71	64	59	69	63	58		67	62	58		66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	52		62	56	52		61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48		57	52	47		56	51	47	45
8	68	56	49	44	67	56	49	44	54	48	43		53	47	43		52	47	43	41
9	64	52	45	40	63	52	45	40	51	44	40		50	44	39		49	43	39	38
10	60	48	41	37	59	48	41	37	47	41	36		46	40	36		45	40	36	35

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	43664
5°	42717
10°	42710
15°	42395
20°	42660
25°	42871
30°	43155
35°	43667
40°	41059
45°	16920
50°	10362
55°	10107
60°	10608
65°	11091
70°	10819
75°	9531
80°	8524
85°	7076



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	32.9	5.0	5.0
10°-20°	94.1	14.4	14.4
20°-30°	145.4	22.3	22.3
30°-40°	179.8	27.6	27.6
40°-50°	93.7	14.4	14.4
50°-60°	42.4	6.5	6.5
60°-70°	37.0	5.7	5.7
70°-80°	21.6	3.3	3.3
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°	272.3	41.7	41.8
0°-40°	452.1	69.3	69.3
0°-60°	588.3	90.1	90.2
0°-90°	652.6	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°	652.6	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	354	
5°	345	33
15°	332	94
25°	315	145
35°	290	180
45°	97	94
55°	47	42
65°	38	37
75°	20	22
85°	5	6
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	354
2.5°	351
5°	345
7.5°	343
10°	341
12.5°	337
15°	332
17.5°	329
20°	325
22.5°	321
25°	315
27.5°	309
30°	303
32.5°	297
35°	290
37.5°	282
40°	255
42.5°	178
45°	97
47.5°	66
50°	54
52.5°	49
55°	47
57.5°	45
60°	43
62.5°	41
65°	38
67.5°	34
70°	30
72.5°	25
75°	20
77.5°	16
80°	12
82.5°	8
85°	5
87.5°	2
90°	0

(END OF REPORT)