

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: P20075

Luminaire Tested: **EL405835-TL400H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20075
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405835-TL400H
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH HAZED SEMI-SPECULAR REFLECTOR IN TRIM UNIT 1 LED MODULE EL405835
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

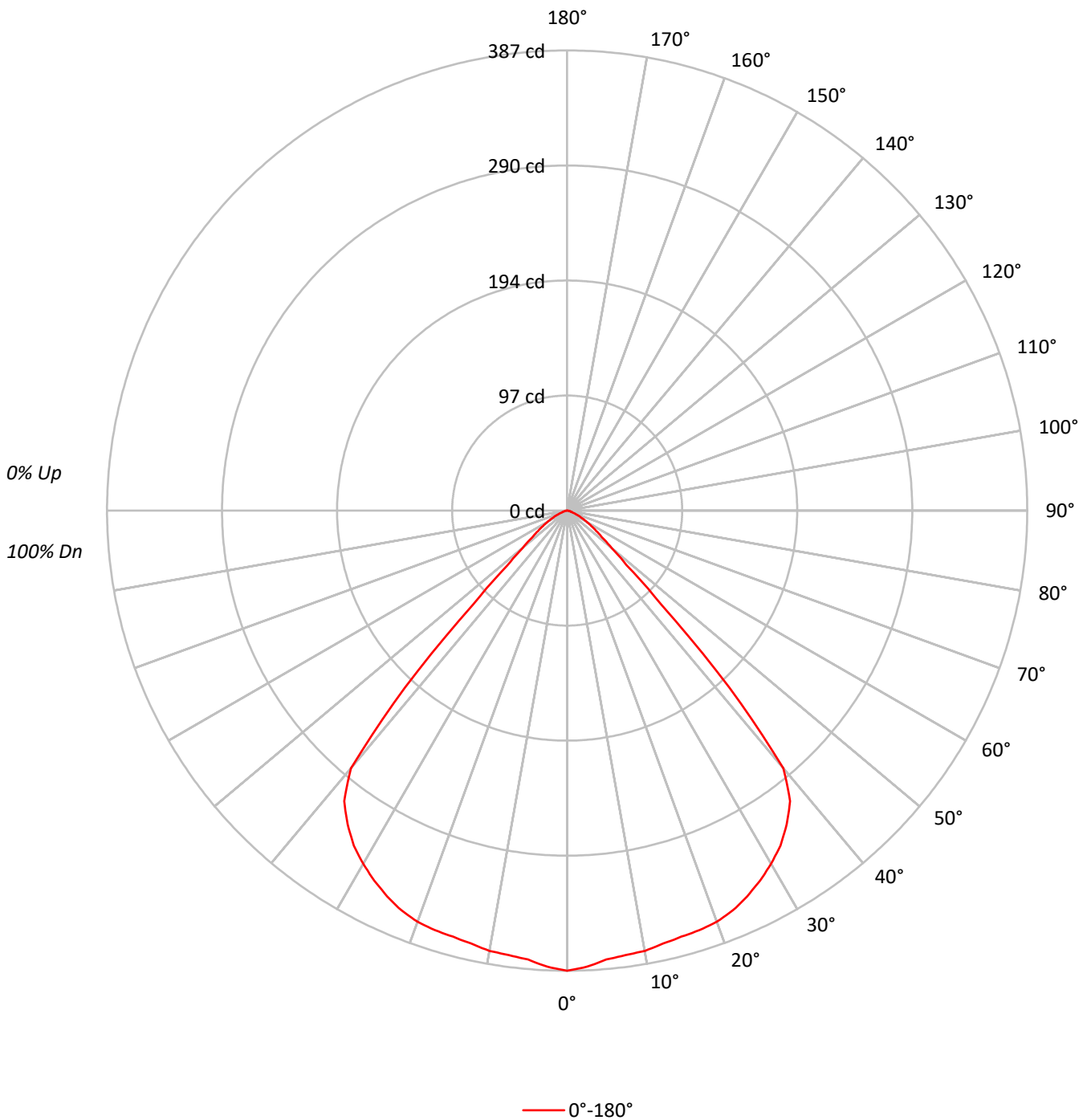
Lumens per Lamp: 652 (1 lamp)
Luminaire Lumens: 653.1 lumens
Efficiency: 100.2%
Efficacy: 46.3 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.31 / 1.26
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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		107	107	107		102	102	102	100
1	113	109	106	104	110	107	104	102	103	101	99		99	98	96		96	94	93	91
2	106	100	95	91	103	98	94	90	95	91	88		92	89	86		89	86	84	82
3	99	91	85	80	97	90	84	80	87	82	78		84	80	77		82	79	76	74
4	92	83	77	72	91	82	76	71	80	75	70		78	73	70		76	72	69	67
5	87	77	70	64	85	76	69	64	74	68	63		72	67	63		70	66	62	61
6	81	70	63	58	79	70	63	58	68	62	58		66	61	57		65	60	57	55
7	76	65	58	53	74	64	57	53	63	57	52		62	56	52		60	55	52	50
8	71	60	53	48	70	59	53	48	58	52	48		57	52	48		56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44		53	48	44		52	47	43	42
10	63	52	45	41	62	51	45	40	51	44	40		50	44	40		49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	47735
5°	46927
10°	47093
15°	47376
20°	48304
25°	48723
30°	48853
35°	48486
40°	45568
45°	19537
50°	9403
55°	6451
60°	4687
65°	3210
70°	1803
75°	1430
80°	1421
85°	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	36.1	5.5	5.5
10°-20°	105.2	16.1	16.1
20°-30°	165.0	25.3	25.3
30°-40°	199.9	30.6	30.7
40°-50°	103.5	15.8	15.9
50°-60°	27.8	4.3	4.3
60°-70°	11.3	1.7	1.7
70°-80°	3.3	0.5	0.5
80°-90°	1.1	0.2	0.2
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°	306.3	46.9	47.0
0°-40°	506.1	77.5	77.6
0°-60°	637.4	97.6	97.8
0°-90°	653.1	100.0	100.2
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°	653.1	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	387	
5°	379	36
15°	371	105
25°	358	165
35°	322	200
45°	112	103
55°	30	28
65°	11	11
75°	3	3
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	387
2.5°	384
5°	379
7.5°	377
10°	376
12.5°	373
15°	371
17.5°	370
20°	368
22.5°	364
25°	358
27.5°	351
30°	343
32.5°	334
35°	322
37.5°	308
40°	283
42.5°	202
45°	112
47.5°	68
50°	49
52.5°	37
55°	30
57.5°	24
60°	19
62.5°	15
65°	11
67.5°	8
70°	5
72.5°	4
75°	3
77.5°	2
80°	2
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)