

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: P20083

Luminaire Tested: **EL405840-TL400H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20083
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TL400H
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH HAZED SEMI-SPECULAR REFLECTOR IN TRIM UNIT 1 LED MODULE EL405840
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

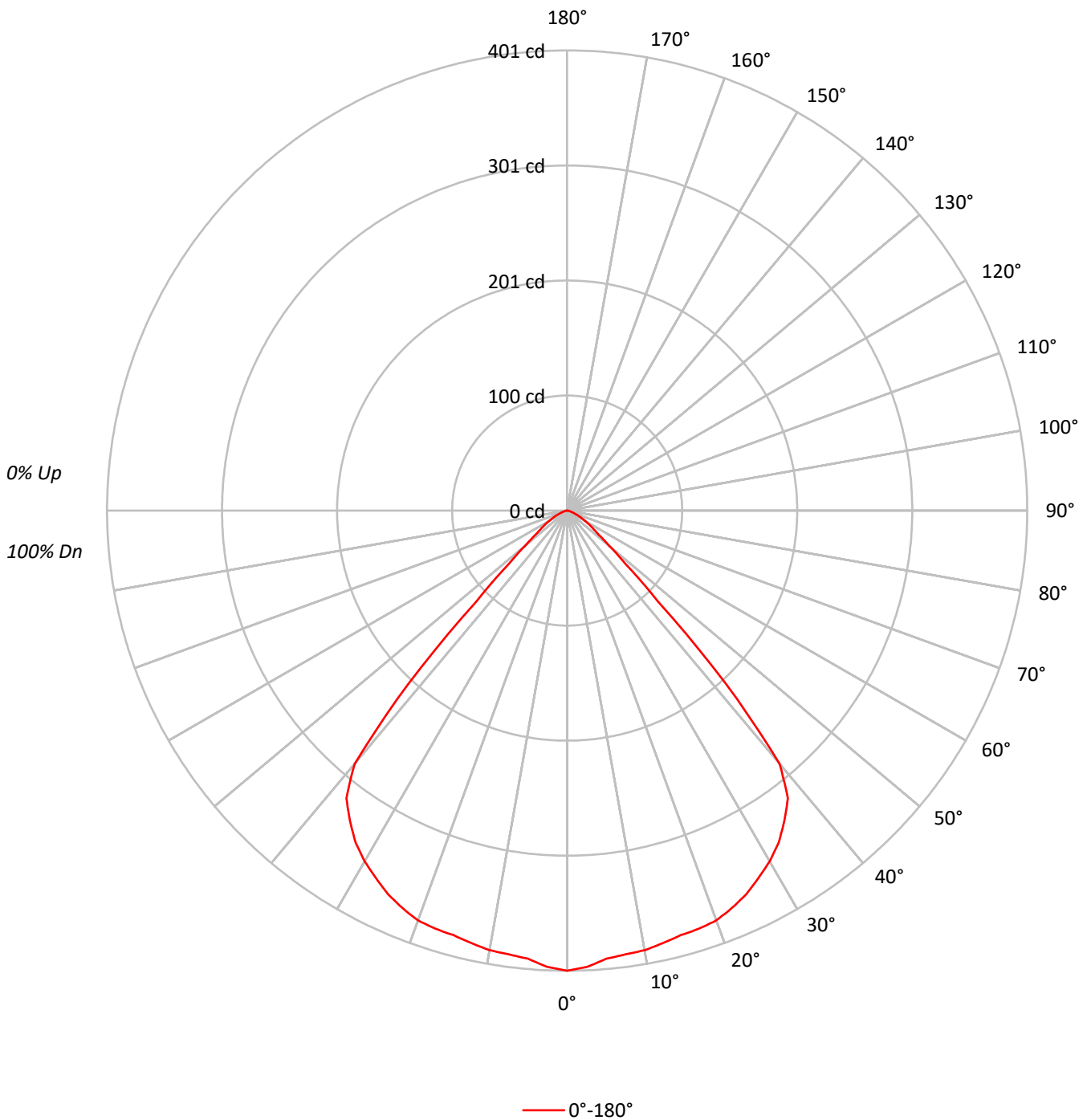
Lumens per Lamp: 666.9 (1 lamp)
Luminaire Lumens: 667.5 lumens
Efficiency: 100.1%
Efficacy: 47.3 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.3 / 1.25
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (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	112	109	106	104	110	107	104	102	103	101	99		99	97	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	81	97	90	84	80	87	82	79		84	81	77		82	79	76	74
4	93	84	77	72	91	82	76	71	80	75	71		78	73	70		76	72	69	67
5	87	77	70	65	85	76	69	64	74	68	64		72	67	63		70	66	62	61
6	81	71	63	58	80	70	63	58	68	62	58		67	61	57		65	61	57	55
7	76	65	58	53	75	64	58	53	63	57	53		62	56	52		61	56	52	50
8	71	60	53	48	70	60	53	48	58	52	48		57	52	48		56	51	48	46
9	67	56	49	44	66	55	49	44	54	48	44		53	48	44		52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41		50	44	40		49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	49462
5°	48536
10°	48722
15°	48908
20°	49879
25°	50220
30°	50277
35°	49690
40°	46373
45°	19537
50°	9211
55°	6021
60°	4440
65°	3210
70°	2164
75°	1430
80°	1421
85°	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	37.4	5.6	5.6
10°-20°	108.7	16.3	16.3
20°-30°	169.9	25.5	25.5
30°-40°	204.9	30.7	30.7
40°-50°	104.6	15.7	15.7
50°-60°	26.5	4.0	4.0
60°-70°	11.1	1.7	1.7
70°-80°	3.4	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°	316.0	47.3	47.4
0°-40°	520.9	78.0	78.1
0°-60°	651.9	97.7	97.8
0°-90°	667.5	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°	667.5	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	401	
5°	392	37
15°	383	109
25°	369	170
35°	330	205
45°	112	105
55°	28	26
65°	11	11
75°	3	3
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	401
2.5°	398
5°	392
7.5°	390
10°	389
12.5°	386
15°	383
17.5°	382
20°	380
22.5°	375
25°	369
27.5°	361
30°	353
32.5°	343
35°	330
37.5°	316
40°	288
42.5°	205
45°	112
47.5°	69
50°	48
52.5°	35
55°	28
57.5°	23
60°	18
62.5°	14
65°	11
67.5°	8
70°	6
72.5°	4
75°	3
77.5°	2
80°	2
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)