

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: P20352

Luminaire Tested: **EL405830-TL403BBS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20352
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405830-TL403BBS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH BLACK
BAFFLED FINISH REFLECTOR AND PRISMATIC LENS IN TRIM EL405830-TL403BBS
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

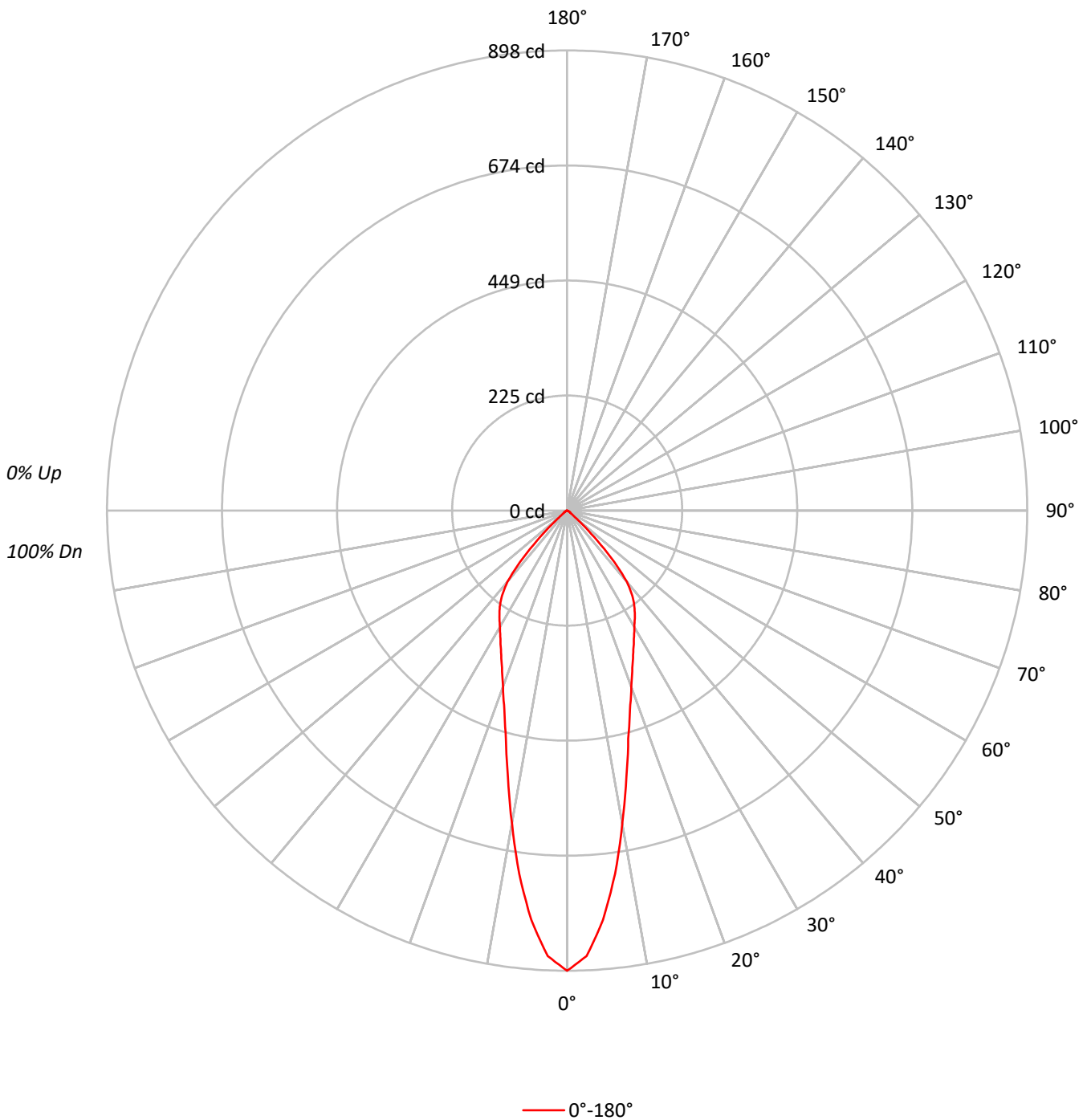
Lumens per Lamp: 565 (1 lamp)
Luminaire Lumens: 567.1 lumens
Efficiency: 100.4%
Efficacy: 40.2 lumens/watt
Spacing Criteria (0/90/45): 0.5 / 0.5 / 0.67
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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	117	117	117	117	112	112	112	107	107	107	102	102	102	100
1	114	111	108	106	111	108	106	104	104	102	101	101	99	98	97	96	95	93
2	108	102	98	94	105	101	97	93	97	94	91	94	92	89	92	89	88	86
3	102	95	90	85	100	93	89	85	91	87	83	88	85	82	86	83	81	79
4	96	88	82	78	94	87	82	77	85	80	76	83	79	76	81	77	75	73
5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69	68
6	86	77	70	66	85	76	70	66	74	69	65	73	68	65	72	67	64	63
7	82	72	66	61	80	71	65	61	70	64	61	69	64	60	67	63	60	58
8	77	67	61	57	76	67	61	57	66	60	56	65	60	56	64	59	56	55
9	74	64	57	53	72	63	57	53	62	57	53	61	56	53	60	56	52	51
10	70	60	54	50	69	59	54	50	59	53	50	58	53	49	57	53	49	48

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	86994
5°	77991
10°	60989
15°	46235
20°	37732
25°	32602
30°	29308
35°	27082
40°	22890
45°	11371
50°	3014
55°	1351
60°	1163
65°	917
70°	850
75°	374
80°	558
85°	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	70.7	12.5	12.5
10°-20°	130.6	23.0	23.1
20°-30°	141.3	24.9	25.0
30°-40°	141.3	24.9	25.0
40°-50°	68.0	12.0	12.0
50°-60°	8.6	1.5	1.5
60°-70°	4.1	0.7	0.7
70°-80°	1.6	0.3	0.3
80°-90°	1.0	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°	342.6	60.4	60.6
0°-40°	483.9	85.3	85.6
0°-60°	560.5	98.8	99.2
0°-90°	567.1	100.0	100.4
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°	567.1	100.0	100.4

CANDELA DISTRIBUTION:

	0°	Flux
0°	898	
5°	802	71
15°	461	131
25°	305	141
35°	229	141
45°	83	68
55°	8	9
65°	4	4
75°	1	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	898
2.5°	870
5°	802
7.5°	715
10°	620
12.5°	533
15°	461
17.5°	407
20°	366
22.5°	332
25°	305
27.5°	282
30°	262
32.5°	246
35°	229
37.5°	209
40°	181
42.5°	136
45°	83
47.5°	41
50°	20
52.5°	11
55°	8
57.5°	7
60°	6
62.5°	5
65°	4
67.5°	3
70°	3
72.5°	2
75°	1
77.5°	1
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)