

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: P20073

Luminaire Tested: **EL405830-TL402WBS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20073
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405830-TL402WBS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED BAFFLE
DESIGN REFLECTOR IN TRIM WITH PRIZMATIC LENS IN UNIT 1 LED
MODULE EL405830
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 583 (1 lamp)
Luminaire Lumens: 584.6 lumens
Efficiency: 100.3%
Efficacy: 39.8 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.82
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

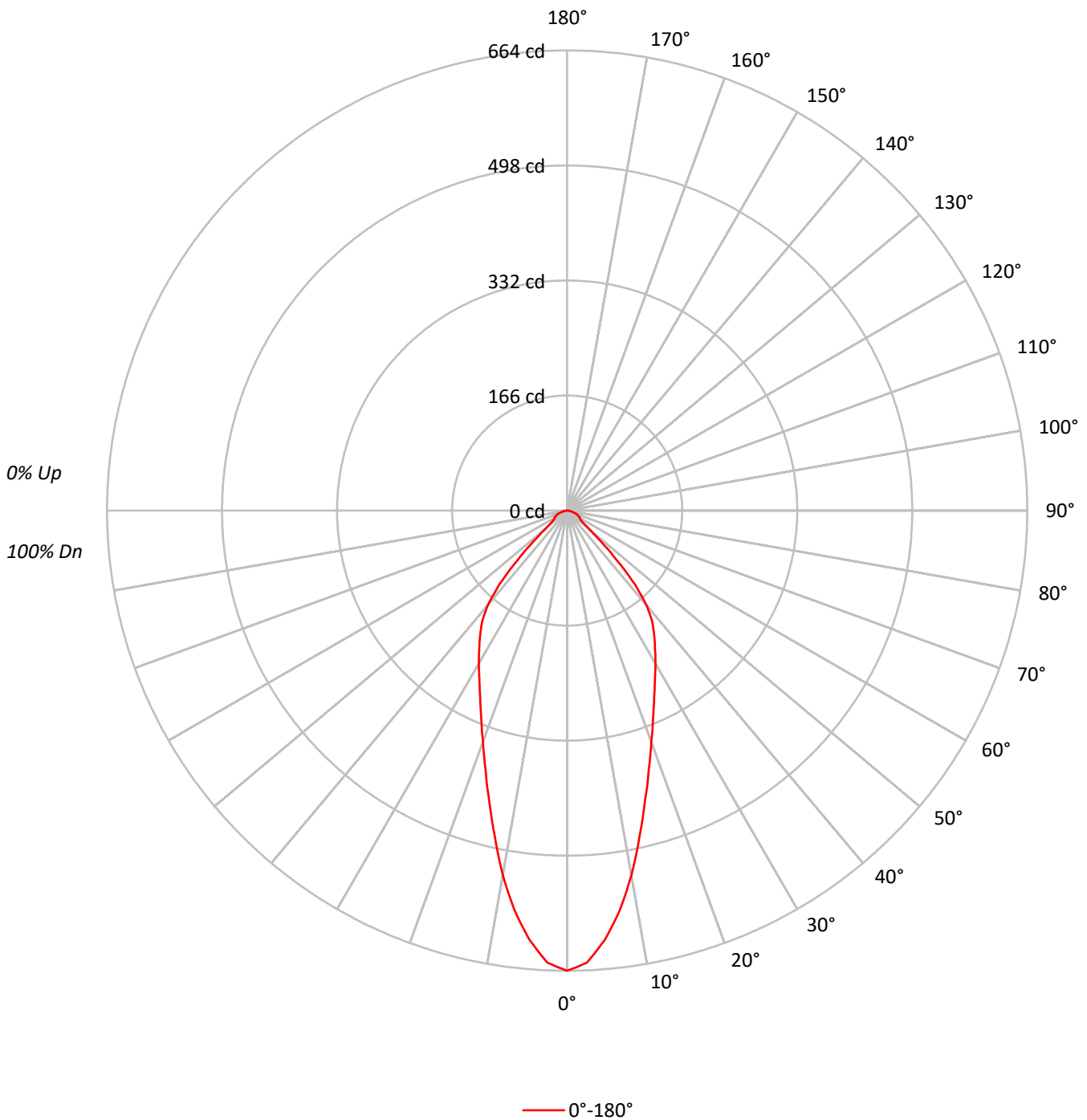
Input Watts (W): 14.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P20073

CATALOG NUMBER: EL405830-TL402WBS

Luminous Intensity Polar Plot





TEST NUMBER: P20073

CATALOG NUMBER: EL405830-TL402WBS

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	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	87	84	83
3	99	92	86	81	97	90	85	81	88	83	79		85	81	78		83	80	77	75
4	93	85	78	73	91	83	77	73	81	76	72		79	75	71		77	73	70	68
5	88	78	71	66	86	77	71	66	75	70	66		74	69	65		72	68	64	63
6	83	73	66	61	81	72	65	61	70	64	60		69	64	60		67	63	59	58
7	78	68	61	56	77	67	60	56	65	60	55		64	59	55		63	58	55	53
8	74	63	56	52	73	63	56	52	61	56	51		60	55	51		59	54	51	49
9	70	59	53	48	69	59	52	48	58	52	48		57	51	48		56	51	47	46
10	66	56	49	45	65	55	49	45	54	49	45		53	48	44		53	48	44	43

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	81901
5°	77014
10°	66883
15°	55420
20°	46598
25°	40421
30°	36319
35°	32976
40°	28661
45°	17793
50°	7868
55°	5161
60°	5181
65°	5253
70°	5049
75°	4289
80°	3552
85°	2830



TEST NUMBER: P20073

CATALOG NUMBER: EL405830-TL402WBS

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	56.6	9.7	9.7
10°-20°	121.6	20.8	20.9
20°-30°	137.5	23.5	23.6
30°-40°	136.1	23.3	23.3
40°-50°	80.1	13.7	13.7
50°-60°	23.6	4.0	4.1
60°-70°	17.5	3.0	3.0
70°-80°	9.4	1.6	1.6
80°-90°	2.3	0.4	0.4
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°	315.7	54.0	54.2
0°-40°	451.8	77.3	77.5
0°-60°	555.5	95.0	95.3
0°-90°	584.6	100.0	100.3
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°	584.6	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	664	
5°	622	57
15°	434	122
25°	297	138
35°	219	136
45°	102	80
55°	24	24
65°	18	17
75°	9	9
85°	2	2
90°	0	



TEST NUMBER: P20073

CATALOG NUMBER: EL405830-TL402WBS

CANDELA DISTRIBUTION (FULL):

	0°
0°	664
2.5°	653
5°	622
7.5°	582
10°	534
12.5°	482
15°	434
17.5°	392
20°	355
22.5°	324
25°	297
27.5°	274
30°	255
32.5°	236
35°	219
37.5°	201
40°	178
42.5°	145
45°	102
47.5°	65
50°	41
52.5°	29
55°	24
57.5°	22
60°	21
62.5°	19
65°	18
67.5°	16
70°	14
72.5°	11
75°	9
77.5°	6
80°	5
82.5°	3
85°	2
87.5°	1
90°	0

(END OF REPORT)