

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: P20081

Luminaire Tested: **EL405835-TL402WBS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20081
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405835-TL402WBS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED BAFFLE
DESIGN REFLECTOR IN TRIM WITH PRISMATIC LENS IN UNIT 1 LED
MODULE EL405835
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 623 (1 lamp)
Luminaire Lumens: 624.8 lumens
Efficiency: 100.3%
Efficacy: 44.3 lumens/watt
Spacing Criteria (0/90/45): 0.61 / 0.61 / 0.78
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

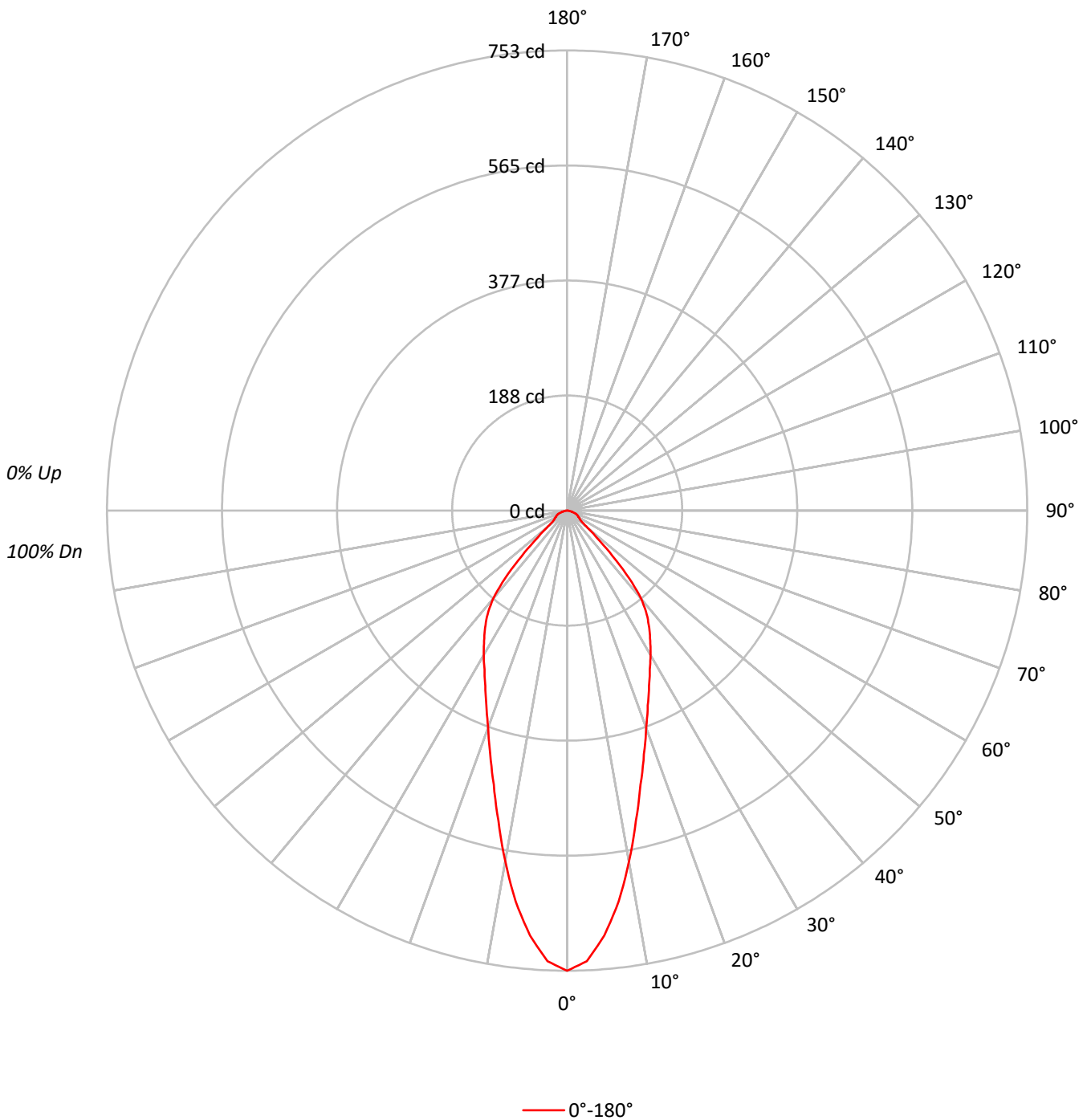
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	111	111	111	107	107	107	102	102	102	100
1	113	109	106	104	110	107	105	102	103	101	99	99	98	96	96	94	93	91
2	106	100	95	91	104	98	94	90	95	91	88	92	89	86	89	87	85	83
3	99	92	86	81	97	91	85	81	88	83	79	85	81	78	83	80	77	75
4	94	85	78	73	92	84	78	73	81	76	72	79	75	71	77	73	70	69
5	88	78	72	67	86	77	71	66	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	68	63	60	58
7	78	68	61	56	77	67	61	56	66	60	56	65	59	55	63	59	55	54
8	74	63	57	52	73	63	56	52	62	56	52	61	55	51	60	55	51	50
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46
10	67	56	49	45	66	55	49	45	55	49	45	54	49	45	53	48	45	43

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	92879
5°	86424
10°	73020
15°	59251
20°	49617
25°	43143
30°	38883
35°	35235
40°	30432
45°	18316
50°	8251
55°	5591
60°	5427
65°	5545
70°	5410
75°	4289
80°	3552
85°	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	63.0	10.1	10.1
10°-20°	130.5	20.9	20.9
20°-30°	146.8	23.5	23.6
30°-40°	145.4	23.3	23.3
40°-50°	83.4	13.3	13.4
50°-60°	25.1	4.0	4.0
60°-70°	18.4	3.0	3.0
70°-80°	10.0	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°	340.2	54.5	54.6
0°-40°	485.6	77.7	77.9
0°-60°	594.0	95.1	95.3
0°-90°	624.8	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°	624.8	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	753	
5°	698	63
15°	464	130
25°	317	147
35°	234	145
45°	105	83
55°	26	25
65°	19	18
75°	9	10
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	753
2.5°	738
5°	698
7.5°	645
10°	583
12.5°	520
15°	464
17.5°	418
20°	378
22.5°	345
25°	317
27.5°	293
30°	273
32.5°	253
35°	234
37.5°	214
40°	189
42.5°	151
45°	105
47.5°	67
50°	43
52.5°	30
55°	26
57.5°	24
60°	22
62.5°	20
65°	19
67.5°	17
70°	15
72.5°	12
75°	9
77.5°	7
80°	5
82.5°	3
85°	2
87.5°	1
90°	0

(END OF REPORT)