

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: P20074

Luminaire Tested: **EL405835-TL400SC**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20074
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405835-TL400SC
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH 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: 685 (1 lamp)
Luminaire Lumens: 685.9 lumens
Efficiency: 100.1%
Efficacy: 685.9 lumens/watt
Spacing Criteria (0/90/45): 1.5 / 1.5 / 1.28
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

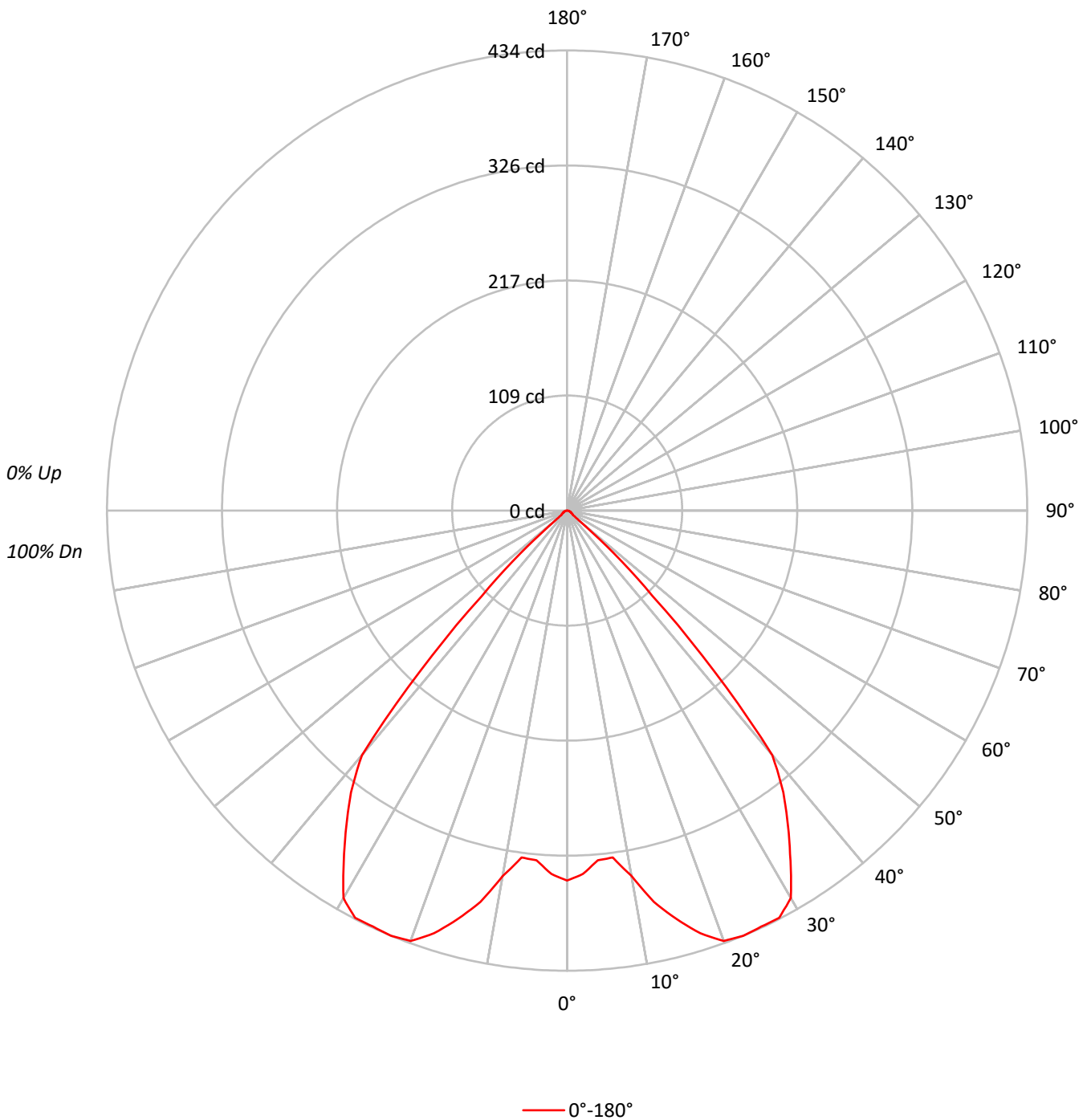
Input Watts (W): 1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: EL405835-TL400SC

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	110	107	104	110	108	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69
5	88	78	71	66	86	77	71	66	75	70	66	74	69	65	72	68	64	63
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	50	71	61	54	50	60	54	50	59	53	49	58	53	49	48
9	68	57	50	46	67	57	50	46	56	50	46	55	49	45	54	49	45	44
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	43048
5°	40983
10°	43837
15°	50951
20°	56705
25°	58930
30°	60104
35°	54660
40°	48466
45°	19886
50°	2686
55°	1290
60°	1233
65°	1167
70°	1082
75°	953
80°	710
85°	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	32.2	4.7	4.7
10°-20°	113.6	16.6	16.6
20°-30°	199.8	29.1	29.2
30°-40°	226.5	33.0	33.1
40°-50°	100.8	14.7	14.7
50°-60°	6.3	0.9	0.9
60°-70°	3.7	0.5	0.5
70°-80°	2.1	0.3	0.3
80°-90°	1.0	0.1	0.1
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°	345.5	50.4	50.4
0°-40°	572.0	83.4	83.5
0°-60°	679.1	99.0	99.1
0°-90°	685.9	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°	685.9	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	349	
5°	331	32
15°	399	114
25°	433	200
35°	363	227
45°	114	101
55°	6	6
65°	4	4
75°	2	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	349
2.5°	343
5°	331
7.5°	330
10°	350
12.5°	378
15°	399
17.5°	418
20°	432
22.5°	434
25°	433
27.5°	433
30°	422
32.5°	392
35°	363
37.5°	335
40°	301
42.5°	205
45°	114
47.5°	60
50°	14
52.5°	7
55°	6
57.5°	6
60°	5
62.5°	4
65°	4
67.5°	3
70°	3
72.5°	2
75°	2
77.5°	2
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)