

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: P20059

Luminaire Tested: **EL405827-TL400SC**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20059
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL400SC
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SPECULAR REFLECTOR IN TRIM UNIT 1 LED MODULE EL405827
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

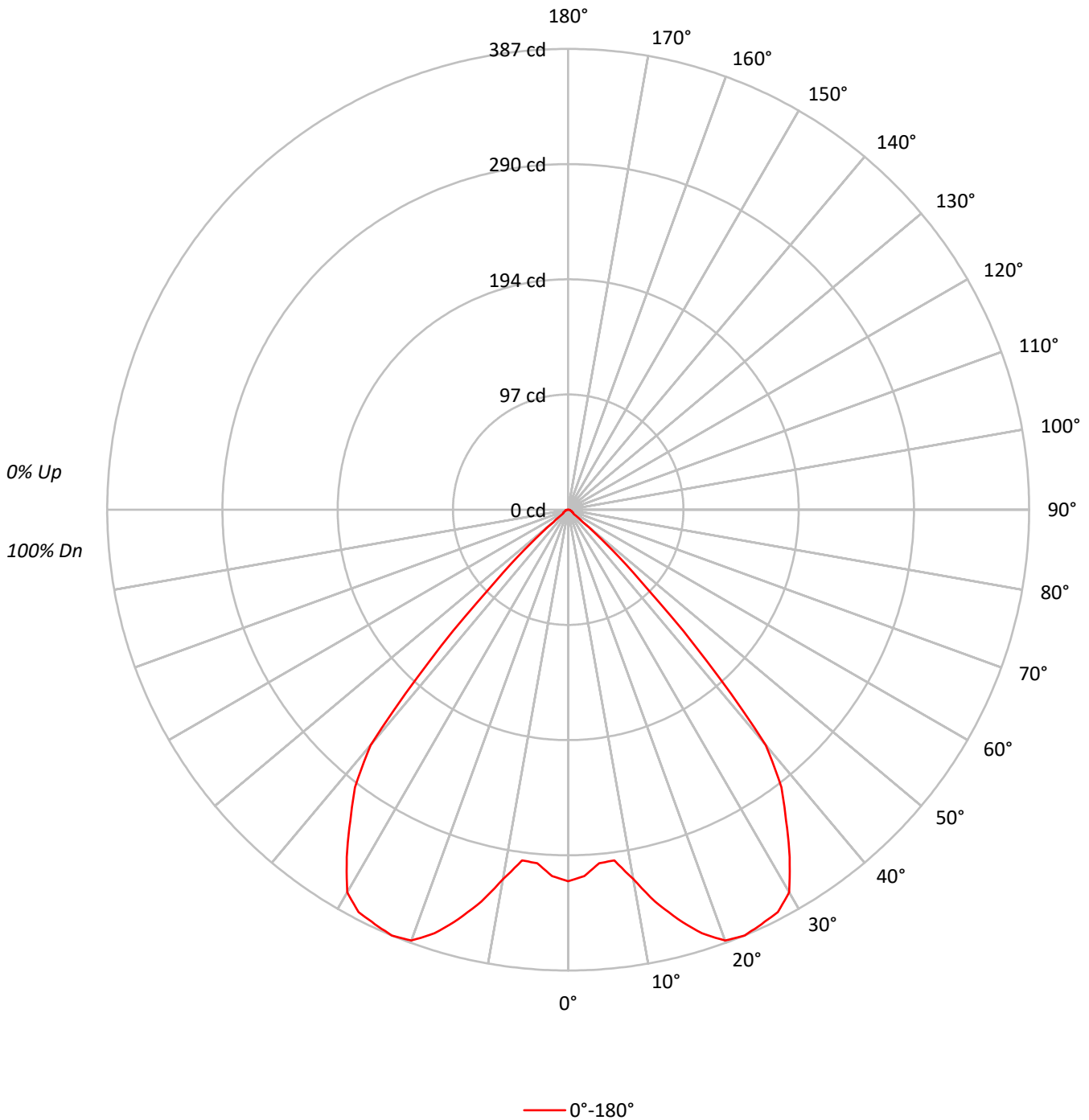
Lumens per Lamp: 602 (1 lamp)
Luminaire Lumens: 602.7 lumens
Efficiency: 100.1%
Efficacy: 42.7 lumens/watt
Spacing Criteria (0/90/45): 1.49 / 1.49 / 1.27
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	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	82	88	84	80		86	82	79		84	80	78	76
4	94	85	79	74	92	84	78	73	82	77	72		80	75	72		78	74	71	69
5	88	78	72	67	86	77	71	66	75	70	66		74	69	65		72	68	65	63
6	83	72	65	60	81	71	65	60	70	64	60		68	63	59		67	62	59	57
7	77	67	60	55	76	66	60	55	65	59	55		63	58	54		62	58	54	52
8	73	62	55	50	71	61	55	50	60	54	50		59	54	50		58	53	49	48
9	69	57	51	46	67	57	50	46	56	50	46		55	50	46		54	49	45	44
10	65	53	47	42	63	53	47	42	52	46	42		51	46	42		50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	38484
5°	36897
10°	39453
15°	45460
20°	50536
25°	52261
30°	52841
35°	48034
40°	41542
45°	16223
50°	3070
55°	1075
60°	987
65°	876
70°	721
75°	953
80°	710
85°	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	28.9	4.8	4.8
10°-20°	101.4	16.8	16.8
20°-30°	176.9	29.3	29.4
30°-40°	198.7	33.0	33.0
40°-50°	84.9	14.1	14.1
50°-60°	5.8	1.0	1.0
60°-70°	3.2	0.5	0.5
70°-80°	2.0	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°	307.2	51.0	51.0
0°-40°	505.8	83.9	84.0
0°-60°	596.5	99.0	99.1
0°-90°	602.7	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°	602.7	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	312	
5°	298	29
15°	356	101
25°	384	177
35°	319	199
45°	93	85
55°	5	6
65°	3	3
75°	2	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	312
2.5°	308
5°	298
7.5°	297
10°	315
12.5°	337
15°	356
17.5°	373
20°	385
22.5°	387
25°	384
27.5°	381
30°	371
32.5°	346
35°	319
37.5°	294
40°	258
42.5°	172
45°	93
47.5°	50
50°	16
52.5°	6
55°	5
57.5°	5
60°	4
62.5°	4
65°	3
67.5°	3
70°	2
72.5°	2
75°	2
77.5°	2
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)