

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: P20355

Luminaire Tested: **EL405827-TL400SBK**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20355
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL400SBK
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SPECULAR BLACK FINISH
REFLECTOR IN TRIM EL405827-TL400SBK
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

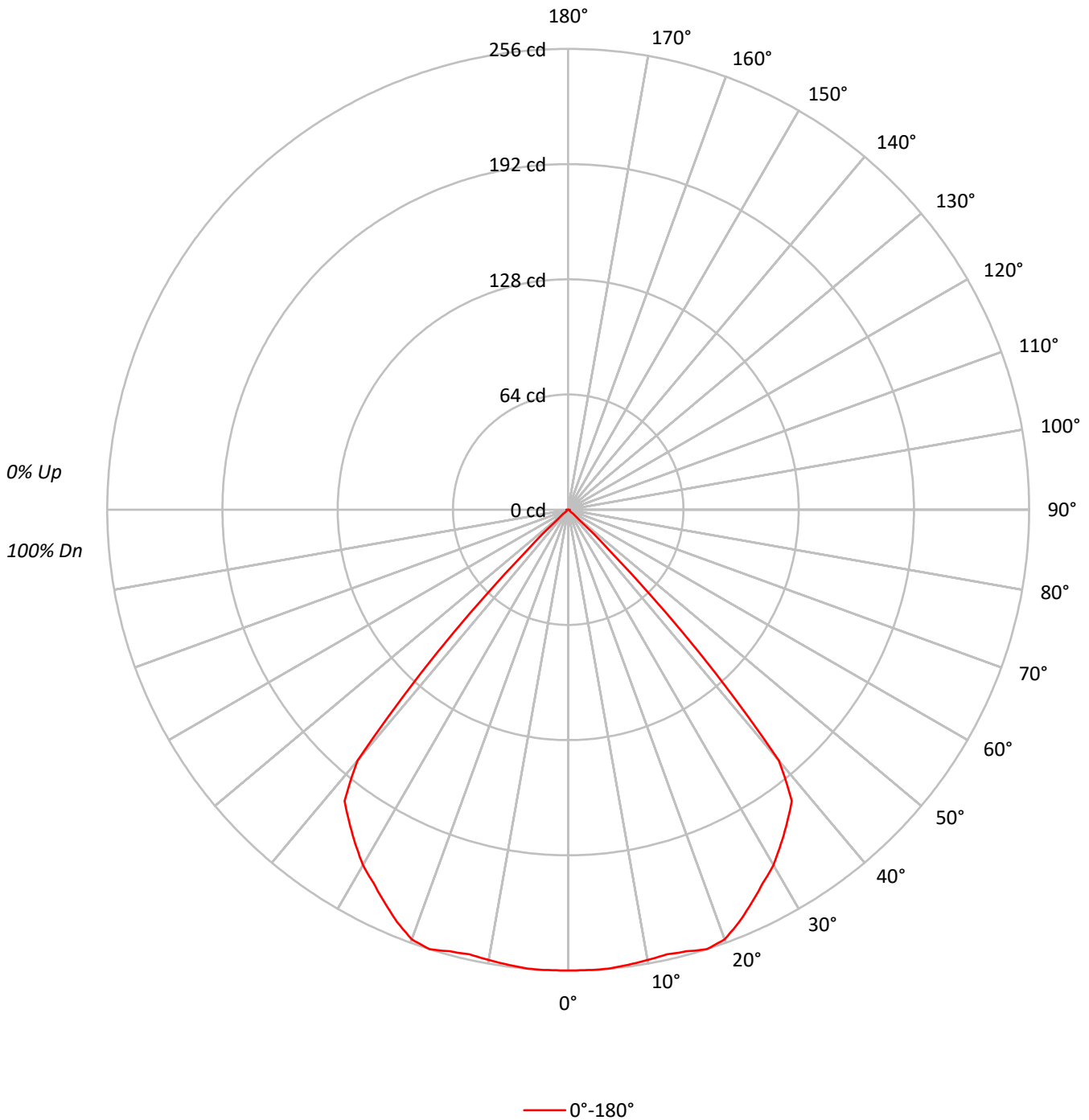
Lumens per Lamp: 386 (1 lamp)
Luminaire Lumens: 388.7 lumens
Efficiency: 100.7%
Efficacy: 28.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.31 / 1.23
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
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



TEST NUMBER: P20355
CATALOG NUMBER: EL405827-TL400SBK

Luminous Intensity Polar Plot





TEST NUMBER: P20355

CATALOG NUMBER: EL405827-TL400SBK

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	120	120	120	120	117	117	117	117	112	112	112	107	107	107	103	103	103	101
1	114	111	108	105	111	108	106	104	104	102	100	101	99	97	97	96	95	93
2	107	102	97	94	105	100	96	93	97	93	90	94	91	89	91	89	87	85
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78
4	95	87	80	76	93	85	80	75	83	78	74	81	77	73	79	76	73	71
5	89	80	74	69	88	79	73	68	77	72	68	75	71	67	74	70	67	65
6	84	74	67	63	83	73	67	62	72	66	62	70	65	62	69	64	61	59
7	79	69	62	57	78	68	62	57	67	61	57	65	60	56	64	60	56	55
8	75	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46
10	67	56	49	45	65	55	49	45	54	49	45	53	48	44	53	48	44	43

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	24800
5°	24895
10°	24986
15°	25474
20°	26186
25°	25761
30°	25505
35°	25072
40°	23016
45°	4932
50°	301
55°	169
60°	194
65°	229
70°	283
75°	374
80°	558
85°	1112



TEST NUMBER: P20355

CATALOG NUMBER: EL405827-TL400SBK

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	24.4	6.3	6.3
10°-20°	72.1	18.6	18.7
20°-30°	111.2	28.6	28.8
30°-40°	131.6	33.9	34.1
40°-50°	45.4	11.7	11.8
50°-60°	1.0	0.3	0.3
60°-70°	1.0	0.3	0.3
70°-80°	1.1	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°	207.7	53.4	53.8
0°-40°	339.2	87.3	87.9
0°-60°	385.7	99.2	99.9
0°-90°	388.7	100.0	100.7
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°	388.7	100.0	100.7

CANDELA DISTRIBUTION:

	0°	Flux
0°	256	
5°	256	24
15°	254	72
25°	241	111
35°	212	132
45°	36	45
55°	1	1
65°	1	1
75°	1	1
85°	1	1
90°	0	



TEST NUMBER: P20355

CATALOG NUMBER: EL405827-TL400SBK

CANDELA DISTRIBUTION (FULL):

	0°
0°	256
2.5°	256
5°	256
7.5°	255
10°	254
12.5°	253
15°	254
17.5°	256
20°	254
22.5°	248
25°	241
27.5°	234
30°	228
32.5°	220
35°	212
37.5°	204
40°	182
42.5°	108
45°	36
47.5°	9
50°	2
52.5°	1
55°	1
57.5°	1
60°	1
62.5°	1
65°	1
67.5°	1
70°	1
72.5°	1
75°	1
77.5°	1
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)