

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: P85101

Luminaire Tested: **ELSG405830WH(25 deg Beam-0 deg tilt)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P85101  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ELSG405830WH(25 deg Beam-0 deg tilt)  
Description: HALO 4 INCH RECESSED FIXTURE WITH SQUARE TUSCAN BRONZE(WH) TRIM, TUSCAN BRONZE(WH) GIMBAL, NARROW UPPER REFLECTOR AND CLEAR LENS .  
---ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS  
CREATED USING A 500 WATT, NIST TRACEABLE, OMNI-DIRECTIONAL LAB LUMEN STANDARD IN THE GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET----  
Light Source: (1) SMT LED 3000K  
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Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 601 (1 lamp)  
Luminaire Lumens: 604.7 lumens  
Efficiency: 100.6%  
Efficacy: 44.5 lumens/watt  
Spacing Criteria (0/90/45): 0.38 / 0.38 / 0.42  
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')  
CIE Type: Direct

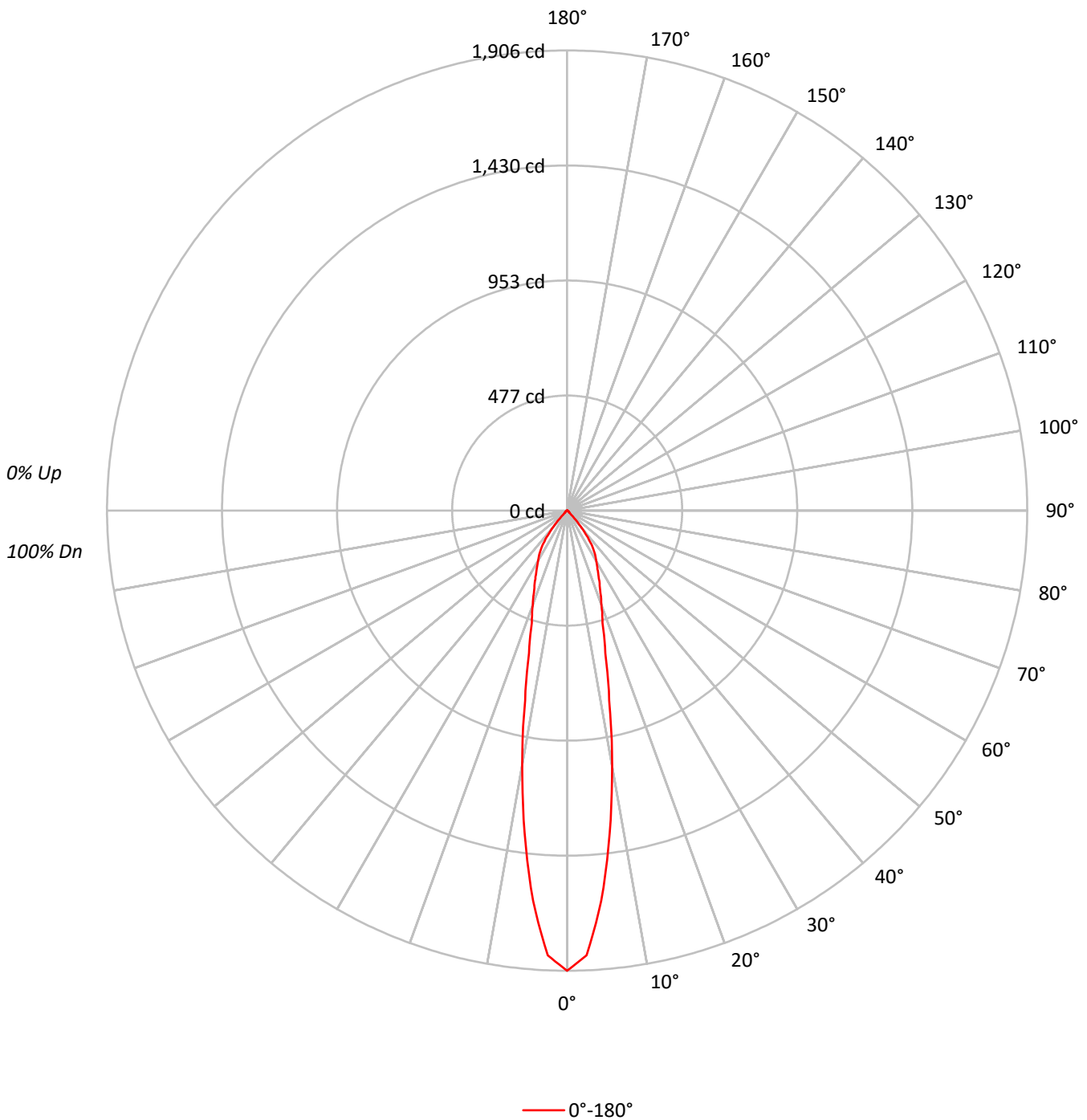
Input Watts (W): 13.6  
Input Voltage (V): NR  
Input Current (Ain): 0.1191  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	120	120	120	120	117	117	117	117	112	112	112	107	107	107	103	103	103	101
1	115	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	101	98	108	103	100	97	100	98	95	97	95	93	95	93	91	90
3	105	99	94	91	103	98	93	90	95	92	89	93	90	87	90	88	86	85
4	100	93	88	85	99	92	88	84	90	86	83	88	85	82	86	84	81	80
5	96	88	83	79	94	88	83	79	86	82	78	84	80	78	83	79	77	76
6	92	84	79	75	91	83	78	74	82	77	74	80	76	73	79	76	73	72
7	88	80	74	71	87	79	74	70	78	73	70	77	73	70	76	72	69	68
8	85	76	71	67	84	76	71	67	75	70	67	74	69	66	73	69	66	65
9	81	73	67	64	80	72	67	64	71	67	64	71	66	63	70	66	63	62
10	78	70	64	61	77	69	64	61	68	64	61	68	64	61	67	63	60	59

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	235097
5°	194456
10°	125911
15°	70779
20°	47940
25°	36042
30°	28240
35°	21741
40°	11340
45°	2651
50°	1582
55°	974
60°	297
65°	321
70°	352
75°	196
80°	224
85°	264



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	137.1	22.7	22.8
10°-20°	178.4	29.5	29.7
20°-30°	144.6	23.9	24.1
30°-40°	108.8	18.0	18.1
40°-50°	26.0	4.3	4.3
50°-60°	6.2	1.0	1.0
60°-70°	1.7	0.3	0.3
70°-80°	1.2	0.2	0.2
80°-90°	0.7	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°	460.1	76.1	76.6
0°-40°	568.9	94.1	94.7
0°-60°	601.1	99.4	100.0
0°-90°	604.7	100.0	100.6
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°	604.7	100.0	100.6

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1906	
5°	1623	137
15°	611	178
25°	312	145
35°	183	109
45°	21	26
55°	7	6
65°	2	2
75°	1	1
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1906
2.5°	1844
5°	1623
7.5°	1348
10°	1073
12.5°	806
15°	611
17.5°	488
20°	416
22.5°	357
25°	312
27.5°	272
30°	242
32.5°	214
35°	183
37.5°	140
40°	93
42.5°	51
45°	21
47.5°	14
50°	12
52.5°	10
55°	7
57.5°	4
60°	2
62.5°	2
65°	2
67.5°	1
70°	2
72.5°	1
75°	1
77.5°	1
80°	1
82.5°	1
85°	1
87.5°	0
90°	0

(END OF REPORT)