

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: P85090

Luminaire Tested: **EL405840-TL422PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P85090
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21176)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TL422PS
Description: ***THIS IS A REVISION OF P21161 TO UPDATE CATALOG NUMBER***HALO 4 INCH RECESSED FIXTURE WITH WHITE TRIM, REGRESSED FROSTED LENS, SPECULAR UPPER REFLECTOR AND LOWER WHITE BAFFLE. ---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 4000K
(1) 221 14 WATTS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 669 (1 lamp)
Luminaire Lumens: 669.0 lumens
Efficiency: 100.0%
Efficacy: 48.8 lumens/watt
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.65
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')
CIE Type: Direct

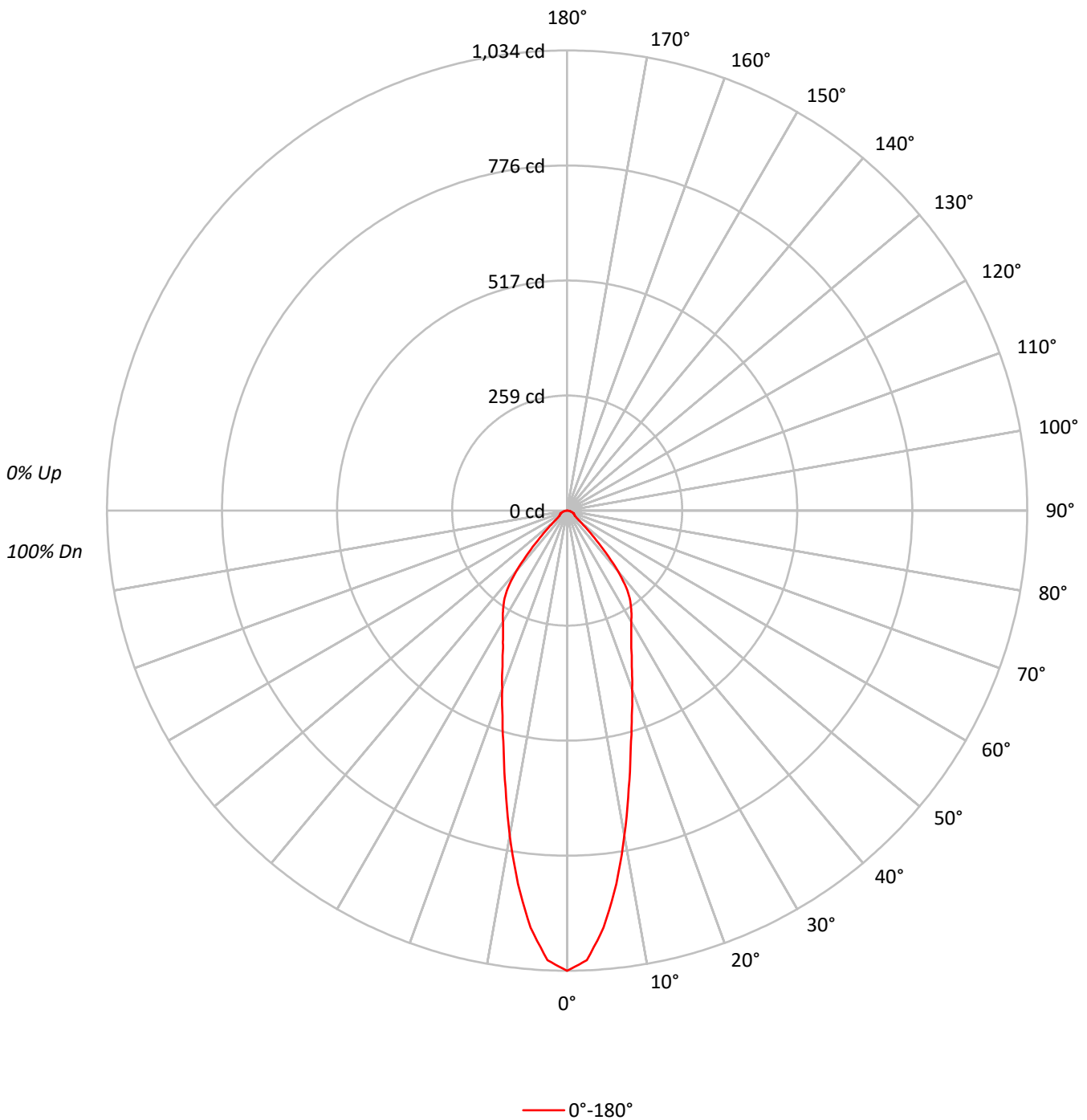
Input Watts (W): 13.7
Input Voltage (V): NR
Input Current (A_{in}): 0.12013
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		106	106	106		102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	99		100	98	96		96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89		93	90	87		90	88	86	84
3	100	93	88	83	98	92	87	83	89	85	81		87	83	80		84	81	79	77
4	95	86	80	76	93	85	80	75	83	78	74		81	77	73		79	75	72	71
5	89	80	74	69	88	79	73	69	78	72	68		76	71	68		74	70	67	65
6	85	75	69	64	83	74	68	64	73	67	63		71	66	63		70	66	62	61
7	80	70	64	59	79	70	63	59	68	63	59		67	62	58		66	61	58	57
8	76	66	60	55	75	65	59	55	64	59	55		63	58	55		62	58	54	53
9	72	62	56	52	71	62	56	52	61	55	51		60	55	51		59	54	51	50
10	69	59	53	49	68	58	52	48	57	52	48		57	52	48		56	51	48	47

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	127564
5°	112708
10°	87011
15°	63851
20°	49196
25°	39404
30°	33643
35°	29404
40°	21595
45°	10830
50°	4787
55°	3061
60°	2776
65°	2647
70°	2323
75°	1729
80°	1234
85°	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	83.4	12.5	12.5
10°-20°	155.5	23.2	23.2
20°-30°	158.9	23.8	23.8
30°-40°	150.7	22.5	22.5
40°-50°	71.3	10.7	10.7
50°-60°	21.3	3.2	3.2
60°-70°	15.9	2.4	2.4
70°-80°	9.4	1.4	1.4
80°-90°	2.5	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°	397.8	59.5	59.5
0°-40°	548.4	82.0	82.0
0°-60°	641.1	95.8	95.8
0°-90°	669.0	100.0	100.0
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°	669.0	100.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1034	
5°	941	83
15°	551	155
25°	341	159
35°	248	151
45°	86	71
55°	22	21
65°	16	16
75°	9	9
85°	2	3
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	1034.2
2.5°	1011.1
5°	940.7
7.5°	846.1
10°	741.5
12.5°	639.2
15°	551.2
17.5°	483.0
20°	426.9
22.5°	379.6
25°	341.1
27.5°	311.4
30°	288.3
32.5°	268.5
35°	247.5
37.5°	218.9
40°	177.1
42.5°	128.7
45°	85.8
47.5°	55.0
50°	36.3
52.5°	26.4
55°	22.0
57.5°	19.8
60°	18.7
62.5°	17.6
65°	16.5
67.5°	14.3
70°	13.2
72.5°	11.0
75°	8.8
77.5°	6.6
80°	5.5
82.5°	3.3
85°	2.2
87.5°	1.1
90°	0.0

(END OF REPORT)