

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: P21161-R2

Luminaire Tested: **EL405830-TL422PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P21161-R2
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405830-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 3000K
(1) 14 WATTS
Ballast/Driver: ELECTRONIC DRIVER

Summary

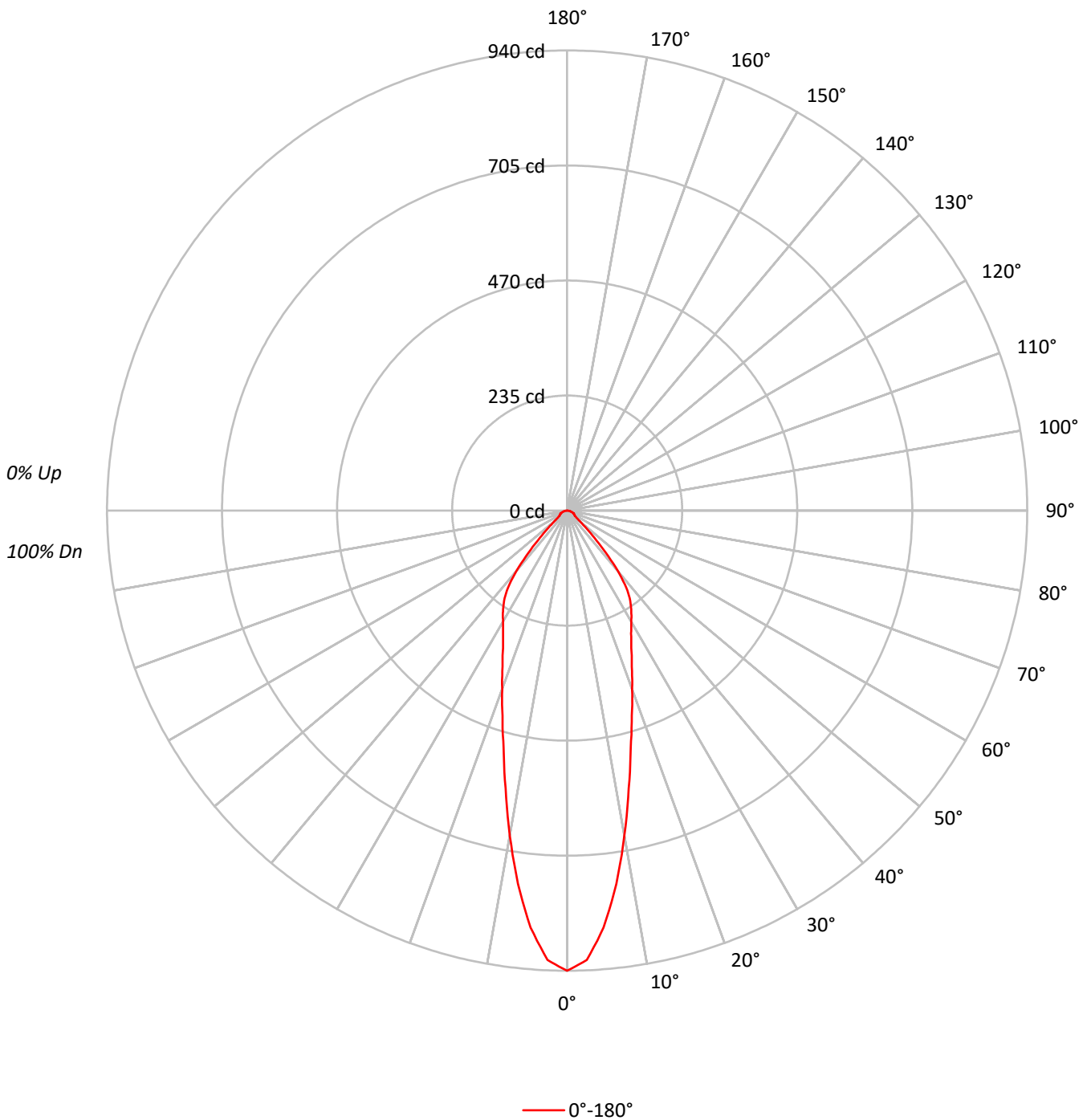
Lumens per Lamp: 607 (1 lamp)
Luminaire Lumens: 608.1 lumens
Efficiency: 100.2%
Efficacy: 44.4 lumens/watt
Spacing Criteria (0/90/45): 0.52 / 0.52 / 0.65
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	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	93	104	99	95	92	96	93	90	93	90	88	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	87	80	76	93	85	80	75	83	78	74	81	77	73	79	76	73	71
5	90	80	74	69	88	80	74	69	78	72	68	76	71	68	74	70	67	66
6	85	75	69	64	83	74	68	64	73	67	63	71	67	63	70	66	62	61
7	80	70	64	59	79	70	64	59	68	63	59	67	62	59	66	62	58	57
8	76	66	60	55	75	66	59	55	64	59	55	63	58	55	62	58	54	53
9	73	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	49	58	52	48	57	52	48	56	51	48	47

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	115945
5°	105863
10°	84417
15°	63976
20°	50930
25°	42190
30°	37316
35°	33880
40°	25924
45°	13606
50°	6332
55°	4301
60°	4194
65°	4378
70°	4328
75°	3813
80°	3552
85°	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	75.8	12.5	12.5
10°-20°	141.3	23.2	23.3
20°-30°	144.5	23.8	23.8
30°-40°	136.9	22.5	22.6
40°-50°	64.8	10.7	10.7
50°-60°	19.4	3.2	3.2
60°-70°	14.5	2.4	2.4
70°-80°	8.6	1.4	1.4
80°-90°	2.3	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°	361.5	59.5	59.6
0°-40°	498.5	82.0	82.1
0°-60°	582.7	95.8	96.0
0°-90°	608.1	100.0	100.2
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°	608.1	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	940	
5°	855	76
15°	501	141
25°	310	144
35°	225	137
45°	78	65
55°	20	19
65°	15	14
75°	8	9
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	940
2.5°	919
5°	855
7.5°	769
10°	674
12.5°	581
15°	501
17.5°	439
20°	388
22.5°	345
25°	310
27.5°	283
30°	262
32.5°	244
35°	225
37.5°	199
40°	161
42.5°	117
45°	78
47.5°	50
50°	33
52.5°	24
55°	20
57.5°	18
60°	17
62.5°	16
65°	15
67.5°	13
70°	12
72.5°	10
75°	8
77.5°	6
80°	5
82.5°	3
85°	2
87.5°	1
90°	0

(END OF REPORT)