

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: P21809-R4

Luminaire Tested: **RL406830WH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P21809-R4
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RL406830WH
Description: ***THIS IS A REVISION OF P21809-R3 TO UPDATE LUMINAIRE CATALOG NUMBER*** HALO 4 INCH RETRO FIT LED MODULE WITH WHITE TRIM AND DIFFUSE 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
CL-221
Ballast/Driver: (1) ELECTRONIC DRIVER
RLD011

Summary

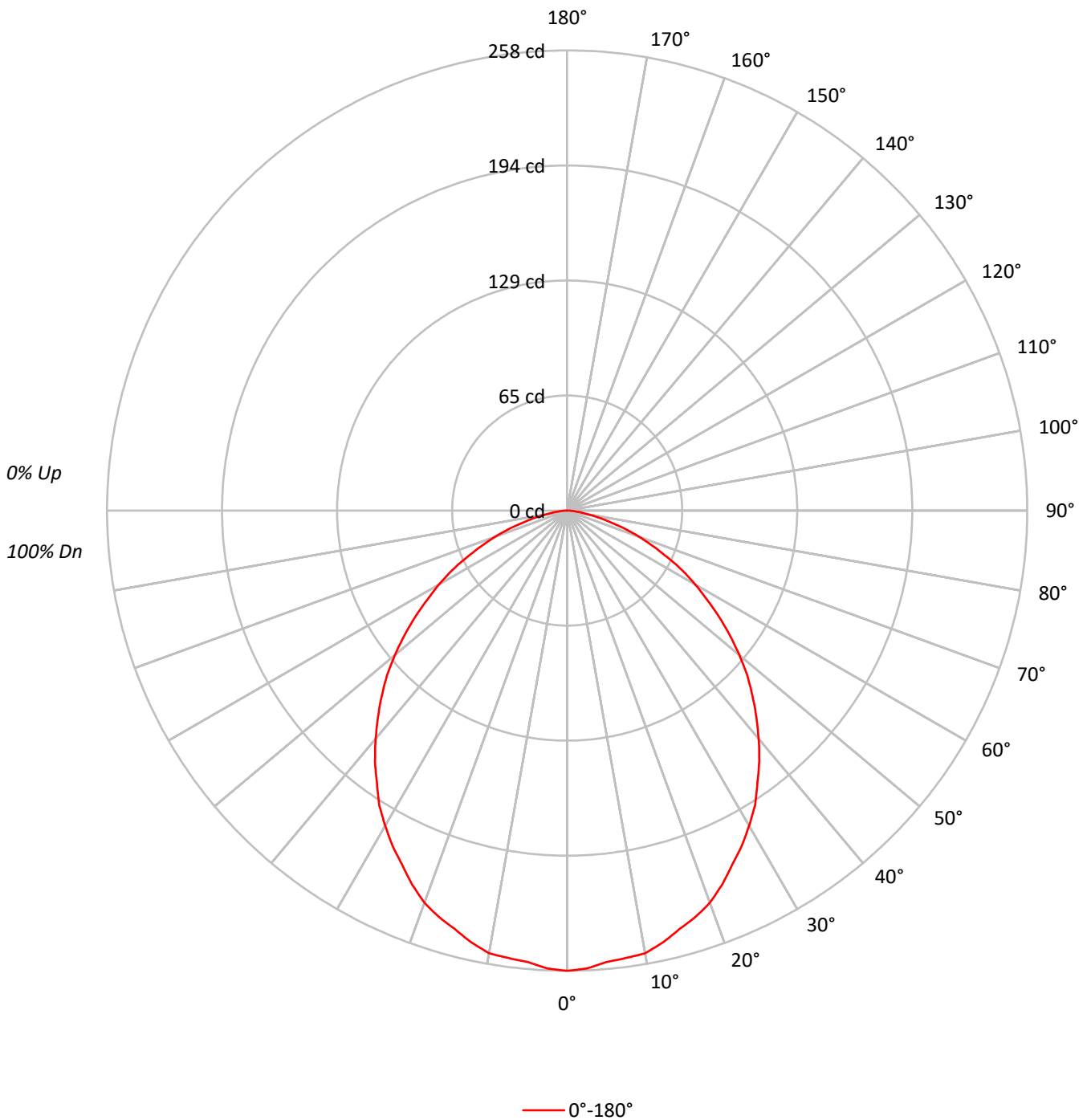
Lumens per Lamp: N/A
Luminaire Lumens: 611.0 lumens
Efficiency: N/A
Efficacy: 44.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.28
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 13.6
Input Voltage (V): NR
Input Current (Ain): 0.119
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	81	98	91	85	81	88	83	79	84	80	77	82	78	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	74	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	34	29	41	34	29	40	34	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	56574
5°	55910
10°	56111
15°	55165
20°	54605
25°	52987
30°	51654
35°	49791
40°	47804
45°	45586
50°	42984
55°	39760
60°	36401
65°	32169
70°	27569
75°	21181
80°	13891
85°	10064



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	4.0
10°-20°	68.7	11.2
20°-30°	101.1	16.5
30°-40°	116.5	19.1
40°-50°	113.3	18.5
50°-60°	93.0	15.2
60°-70°	61.8	10.1
70°-80°	27.4	4.5
80°-90°	5.0	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	194.0	31.7
0°-40°	310.5	50.8
0°-60°	516.8	84.6
0°-90°	611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	611.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	258	
5°	254	24
15°	243	69
25°	219	101
35°	186	116
45°	147	113
55°	104	93
65°	62	62
75°	25	27
85°	4	5
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	258
2.5°	257
5°	254
7.5°	253
10°	252
12.5°	248
15°	243
17.5°	239
20°	234
22.5°	227
25°	219
27.5°	212
30°	204
32.5°	196
35°	186
37.5°	177
40°	167
42.5°	157
45°	147
47.5°	137
50°	126
52.5°	115
55°	104
57.5°	93
60°	83
62.5°	73
65°	62
67.5°	52
70°	43
72.5°	34
75°	25
77.5°	18
80°	11
82.5°	7
85°	4
87.5°	2
90°	0

(END OF REPORT)