

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 COMMERCIAL

Report Number: P579913

Luminaire Tested: **HC415D010-HM40525927-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579913
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525927-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1173.1 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

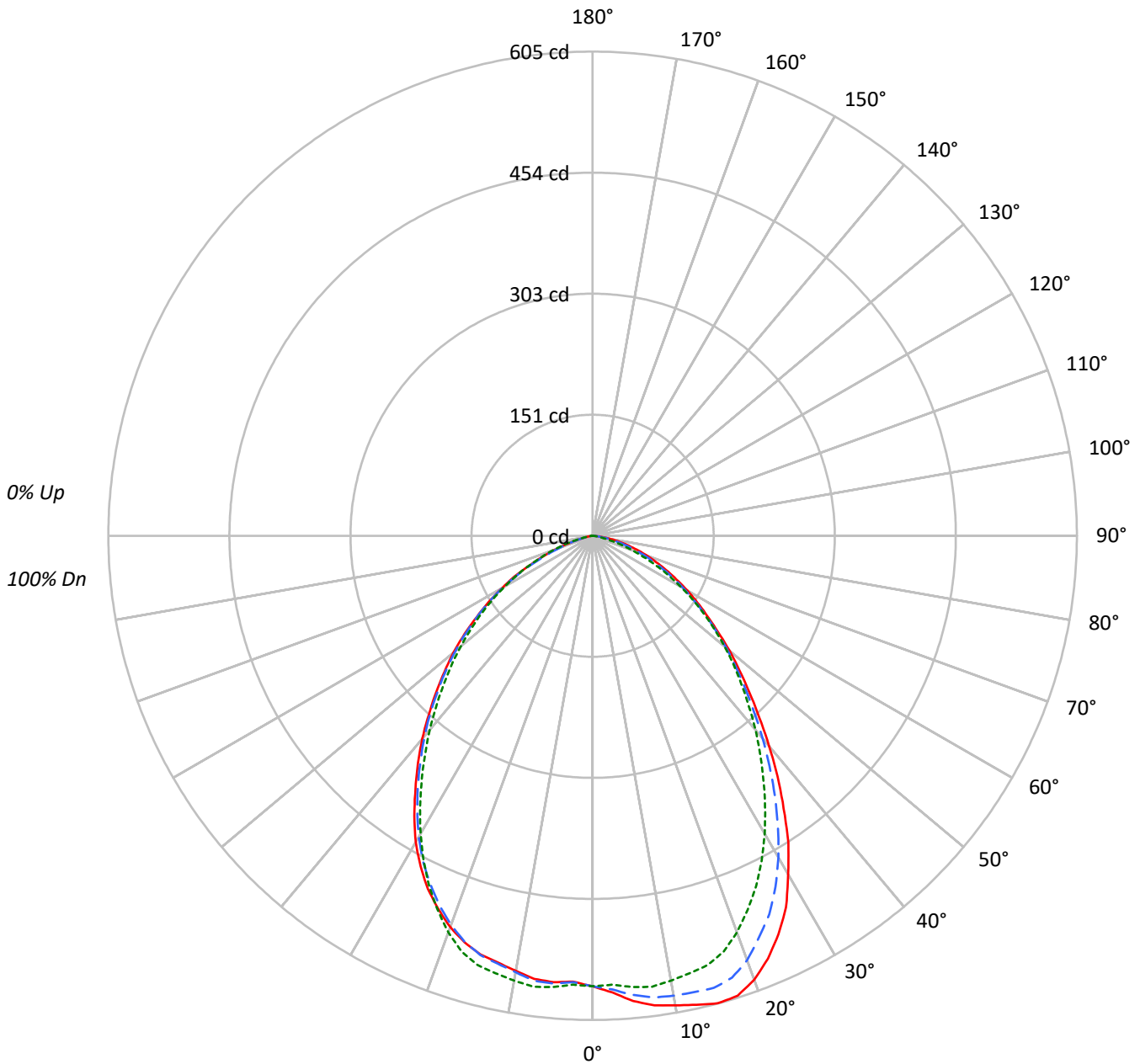
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100				
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76				76				
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				67				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41				41				
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37				37				
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31				31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	69431	69431	69431
5°	72247	70080	69325
10°	74610	70690	69162
15°	77231	70910	69173
20°	77484	69201	68295
25°	74758	65748	66266
30°	69547	61215	62953
35°	62655	56015	58078
40°	55229	50946	53280
45°	48302	45912	48180
50°	42773	41295	43502
55°	37633	36472	37956
60°	33599	31157	32095
65°	29536	25334	24867
70°	25786	18645	17022
75°	21398	11199	9055
80°	16266	4333	2699
85°	7501	1132	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	4.6
10°-20°	158.5	13.5
20°-30°	229.5	19.6
30°-40°	242.1	20.6
40°-50°	209.5	17.9
50°-60°	155.2	13.2
60°-70°	89.5	7.6
70°-80°	31.2	2.7
80°-90°	3.3	0.3
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°	442.2	37.7
0°-40°	684.3	58.3
0°-60°	1049.1	89.4
0°-90°	1173.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1173.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	563	563	563	563	563	
5°	584	576	566	562	560	56
15°	605	585	555	542	542	170
25°	549	522	483	480	487	251
35°	416	397	372	380	386	260
45°	277	269	263	273	276	215
55°	175	171	170	176	176	158
65°	101	95	87	82	85	101
75°	45	38	24	19	19	48
85°	5	3	1	1	1	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	562.9	562.9	562.9	562.9	562.9	562.9	562.9	562.9	562.9
2.5°	571.3	569.8	567.5	564.4	561.5	559.2	558.4	557.6	557.6
5°	583.5	580.4	575.9	569.8	566.0	563.7	561.5	559.9	559.9
7.5°	591.8	588.9	581.9	573.6	568.3	563.7	560.7	558.4	558.4
10°	595.7	591.8	583.5	572.8	564.4	558.4	553.8	552.2	552.2
12.5°	600.2	595.7	584.2	570.5	559.9	552.2	547.7	546.2	546.2
15°	604.8	599.4	585.0	569.1	555.3	546.2	542.3	541.7	541.7
17.5°	602.5	595.7	579.0	559.9	544.6	535.5	531.8	531.8	532.5
20°	590.3	583.5	564.4	543.1	527.2	520.3	517.3	518.8	520.3
22.5°	572.0	563.7	543.1	522.6	505.9	499.8	499.8	502.1	504.4
25°	549.3	541.7	521.9	499.0	483.1	478.4	480.0	483.8	486.9
27.5°	523.4	515.1	494.5	473.2	457.2	454.9	458.7	464.0	465.6
30°	488.3	481.5	464.0	443.5	429.8	429.1	434.3	438.2	442.0
32.5°	454.9	447.3	430.6	410.8	400.9	401.7	407.7	412.3	414.6
35°	416.1	409.3	397.0	381.1	372.0	373.5	380.3	384.9	385.7
37.5°	379.6	375.0	362.8	350.7	343.8	346.9	352.9	358.3	358.3
40°	343.0	339.3	330.2	320.3	316.4	320.3	326.3	330.9	330.9
42.5°	308.1	305.9	298.2	291.4	289.0	294.4	299.7	303.6	302.8
45°	276.9	274.6	269.2	264.0	263.2	268.6	273.1	275.4	276.2
47.5°	248.8	247.2	242.6	238.9	238.9	244.2	248.0	250.3	251.0
50°	222.9	221.4	217.6	214.6	215.2	220.6	223.6	225.9	226.7
52.5°	197.0	196.2	193.2	189.4	191.7	195.5	199.3	200.8	201.6
55°	175.0	175.0	171.1	168.2	169.6	173.4	175.8	176.5	176.5
57.5°	155.2	154.4	149.9	146.8	147.6	151.3	152.9	153.7	153.7
60°	136.2	135.4	130.9	126.3	126.3	128.6	129.3	130.1	130.1
62.5°	117.9	117.1	111.9	108.0	106.5	105.7	105.7	107.2	110.3
65°	101.2	100.4	95.1	89.0	86.8	84.5	82.2	83.7	85.2
67.5°	86.0	84.5	79.1	73.8	68.4	64.7	60.8	63.1	66.2
70°	71.5	70.0	63.9	57.8	51.7	45.6	42.6	45.6	47.2
72.5°	57.8	56.3	50.3	44.1	36.5	30.5	29.7	30.5	31.2
75°	44.9	44.1	38.1	31.2	23.5	19.0	19.0	19.0	19.0
77.5°	33.4	31.9	25.8	19.8	13.6	10.7	9.9	9.9	9.9
80°	22.9	21.3	16.0	11.4	6.1	4.5	4.5	3.8	3.8
82.5°	13.0	12.2	8.4	4.5	2.3	1.5	1.5	1.5	1.5
85°	5.3	4.5	3.1	1.5	0.8	0.8	0.8	0.8	0.8
87.5°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)