

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: P579966

Luminaire Tested: **HC415D010-HM40525940-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525940-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1376.4 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

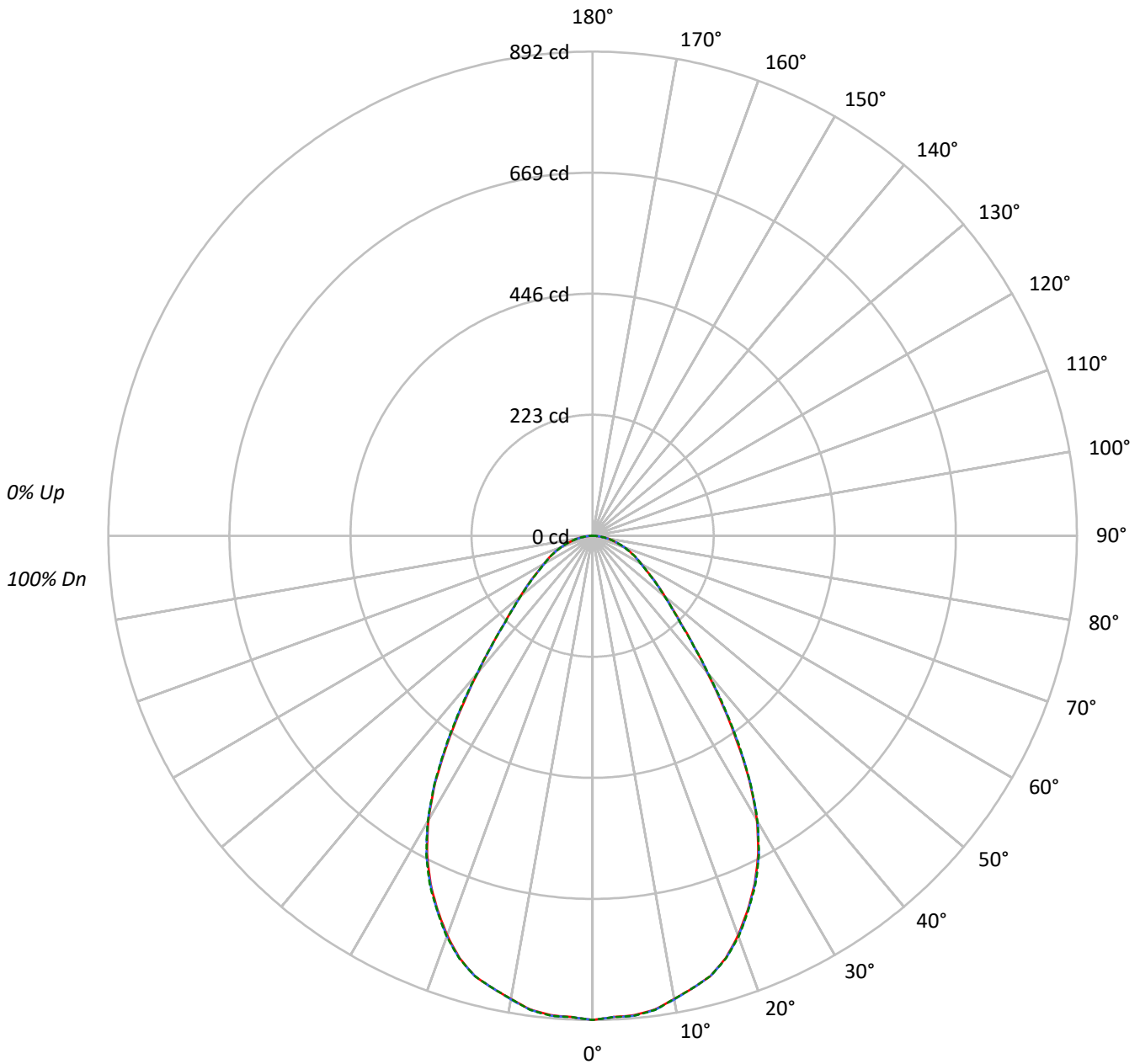
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69			69
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51			51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46			46
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42			42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39			39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	110037	110037	110037
5°	109776	109887	109887
10°	108503	108615	108503
15°	107189	107189	107189
20°	102804	103040	103159
25°	96152	96275	96533
30°	86154	86425	86425
35°	69958	70500	70636
40°	52797	53087	53232
45°	40435	40278	40278
50°	33312	33140	33140
55°	28601	28408	28408
60°	25533	25311	25311
65°	23991	23991	23991
70°	22324	22324	22324
75°	20254	20683	20254
80°	19037	18326	19037
85°	15568	15568	15568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.1	6.1
10°-20°	235.2	17.1
20°-30°	323.2	23.5
30°-40°	290.6	21.1
40°-50°	183.6	13.3
50°-60°	119.9	8.7
60°-70°	81.2	5.9
70°-80°	45.7	3.3
80°-90°	12.8	0.9
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°	642.5	46.7
0°-40°	933.1	67.8
0°-60°	1236.7	89.8
0°-90°	1376.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1376.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	887	887	888	888	888	84
15°	839	839	839	839	839	235
25°	706	707	707	709	709	322
35°	465	466	468	470	469	289
45°	232	231	231	231	231	184
55°	133	133	132	133	132	120
65°	82	82	82	82	82	81
75°	42	43	43	43	42	46
85°	11	11	11	11	11	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	892.1	892.1	892.1	892.1	892.1
2.5°	887.5	887.5	887.5	887.5	887.5
5°	886.6	886.6	887.5	887.5	887.5
7.5°	880.2	881.1	881.1	881.1	881.1
10°	866.3	866.3	867.2	867.2	866.3
12.5°	853.3	853.3	853.3	854.2	853.3
15°	839.4	839.4	839.4	839.4	839.4
17.5°	815.5	816.4	816.4	816.4	816.4
20°	783.2	785.0	785.0	785.9	785.9
22.5°	746.2	747.1	748.0	748.9	748.0
25°	706.5	707.4	707.4	709.3	709.3
27.5°	660.4	661.3	663.1	663.1	663.1
30°	604.9	605.8	606.8	606.8	606.8
32.5°	539.4	539.4	541.2	542.1	541.2
35°	464.6	466.4	468.2	470.0	469.1
37.5°	393.4	395.2	396.2	396.2	397.2
40°	327.9	329.7	329.7	331.5	330.6
42.5°	276.2	275.3	275.3	277.1	276.2
45°	231.8	230.9	230.9	230.9	230.9
47.5°	199.4	198.5	198.5	198.5	198.5
50°	173.6	172.7	172.7	172.7	172.7
52.5°	152.4	151.4	151.4	151.4	150.5
55°	133.0	133.0	132.1	133.0	132.1
57.5°	115.4	115.4	115.4	115.4	115.4
60°	103.5	102.6	102.6	102.6	102.6
62.5°	92.3	92.3	92.3	92.3	92.3
65°	82.2	82.2	82.2	82.2	82.2
67.5°	72.1	71.1	72.1	72.1	71.1
70°	61.9	60.9	61.9	61.9	61.9
72.5°	51.7	51.7	51.7	52.6	51.7
75°	42.5	43.4	43.4	43.4	42.5
77.5°	34.2	35.1	34.2	34.2	34.2
80°	26.8	25.8	25.8	25.8	26.8
82.5°	18.4	18.4	18.4	18.4	18.4
85°	11.0	11.0	11.0	11.0	11.0
87.5°	4.7	4.7	4.7	4.7	4.7
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)