

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: P579912

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579912
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-HM40525927-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1133.5 lumens
Efficiency: N/A
Efficacy: 81.0 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

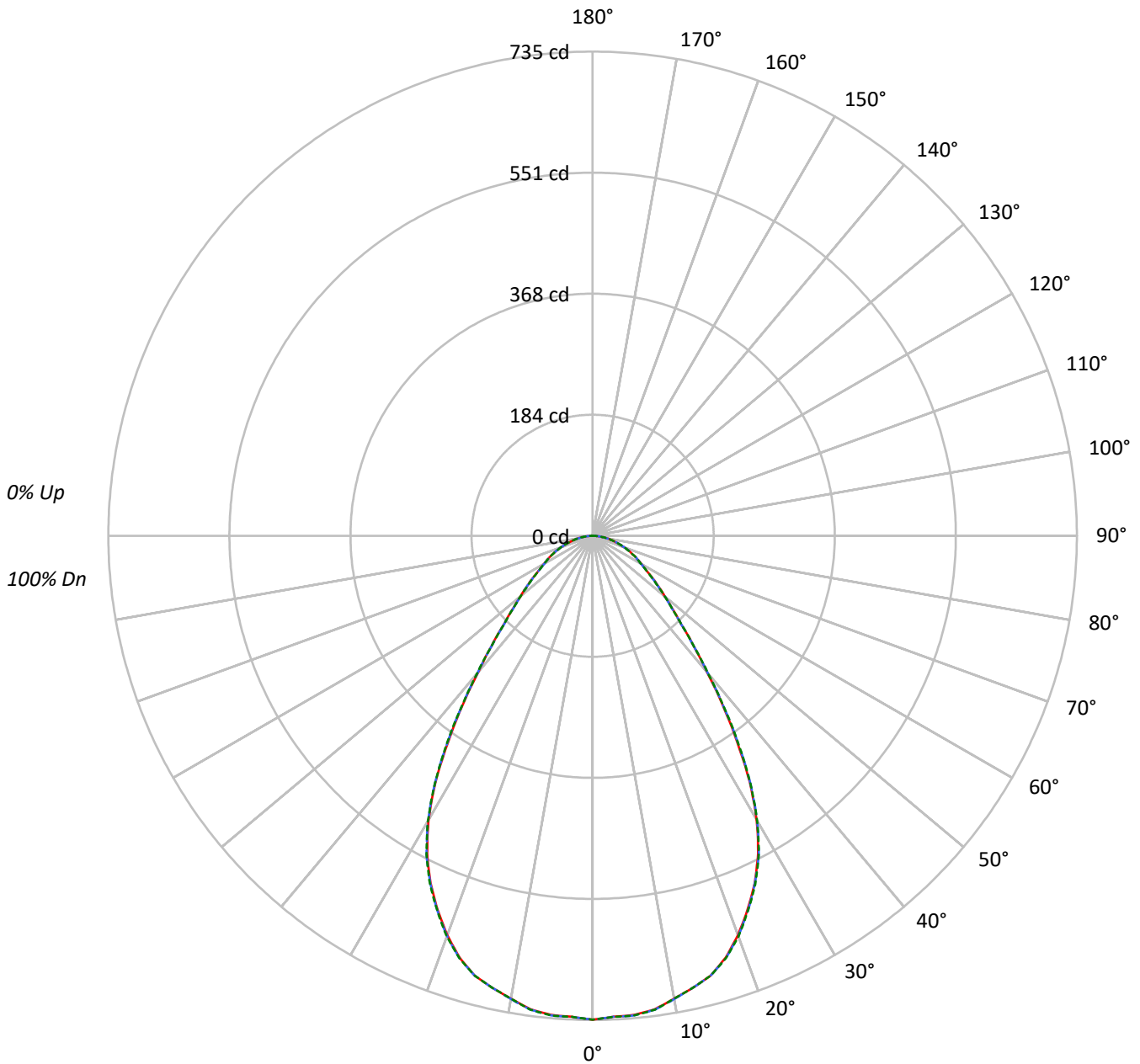
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	90610	90610	90610
5°	90399	90498	90498
10°	89352	89440	89352
15°	88277	88277	88277
20°	84651	84861	84953
25°	79181	79290	79494
30°	70943	71171	71171
35°	57611	58063	58183
40°	43474	43716	43845
45°	33300	33160	33160
50°	27441	27287	27287
55°	23548	23397	23397
60°	21018	20821	20821
65°	19759	19759	19759
70°	18356	18356	18356
75°	16680	17014	16680
80°	15698	15130	15698
85°	12879	12879	12879



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.2	6.1
10°-20°	193.7	17.1
20°-30°	266.2	23.5
30°-40°	239.3	21.1
40°-50°	151.2	13.3
50°-60°	98.7	8.7
60°-70°	66.9	5.9
70°-80°	37.6	3.3
80°-90°	10.6	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°	529.1	46.7
0°-40°	768.4	67.8
0°-60°	1018.4	89.8
0°-90°	1133.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1133.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	730	730	731	731	731	69
15°	691	691	691	691	691	194
25°	582	583	583	584	584	266
35°	383	384	386	387	386	238
45°	191	190	190	190	190	151
55°	110	110	109	110	109	99
65°	68	68	68	68	68	67
75°	35	36	36	36	35	37
85°	9	9	9	9	9	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	734.6	734.6	734.6	734.6	734.6
2.5°	730.9	730.9	730.9	730.9	730.9
5°	730.1	730.1	730.9	730.9	730.9
7.5°	724.8	725.5	725.5	725.5	725.5
10°	713.4	713.4	714.1	714.1	713.4
12.5°	702.8	702.8	702.8	703.5	702.8
15°	691.3	691.3	691.3	691.3	691.3
17.5°	671.5	672.3	672.3	672.3	672.3
20°	644.9	646.5	646.5	647.2	647.2
22.5°	614.5	615.2	616.0	616.8	616.0
25°	581.8	582.6	582.6	584.1	584.1
27.5°	543.8	544.5	546.1	546.1	546.1
30°	498.1	498.9	499.7	499.7	499.7
32.5°	444.1	444.1	445.7	446.4	445.7
35°	382.6	384.1	385.6	387.1	386.4
37.5°	323.9	325.5	326.3	326.3	327.0
40°	270.0	271.5	271.5	273.0	272.3
42.5°	227.4	226.6	226.6	228.2	227.4
45°	190.9	190.1	190.1	190.1	190.1
47.5°	164.3	163.5	163.5	163.5	163.5
50°	143.0	142.2	142.2	142.2	142.2
52.5°	125.5	124.7	124.7	124.7	123.9
55°	109.5	109.5	108.8	109.5	108.8
57.5°	95.1	95.1	95.1	95.1	95.1
60°	85.2	84.4	84.4	84.4	84.4
62.5°	76.1	76.1	76.1	76.1	76.1
65°	67.7	67.7	67.7	67.7	67.7
67.5°	59.4	58.6	59.4	59.4	58.6
70°	50.9	50.1	50.9	50.9	50.9
72.5°	42.6	42.6	42.6	43.3	42.6
75°	35.0	35.7	35.7	35.7	35.0
77.5°	28.1	28.9	28.1	28.1	28.1
80°	22.1	21.3	21.3	21.3	22.1
82.5°	15.2	15.2	15.2	15.2	15.2
85°	9.1	9.1	9.1	9.1	9.1
87.5°	3.8	3.8	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)