

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: P581495

Luminaire Tested: **HC407D010-HM40525927-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581495
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC407D010-HM40525927-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 685.7 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

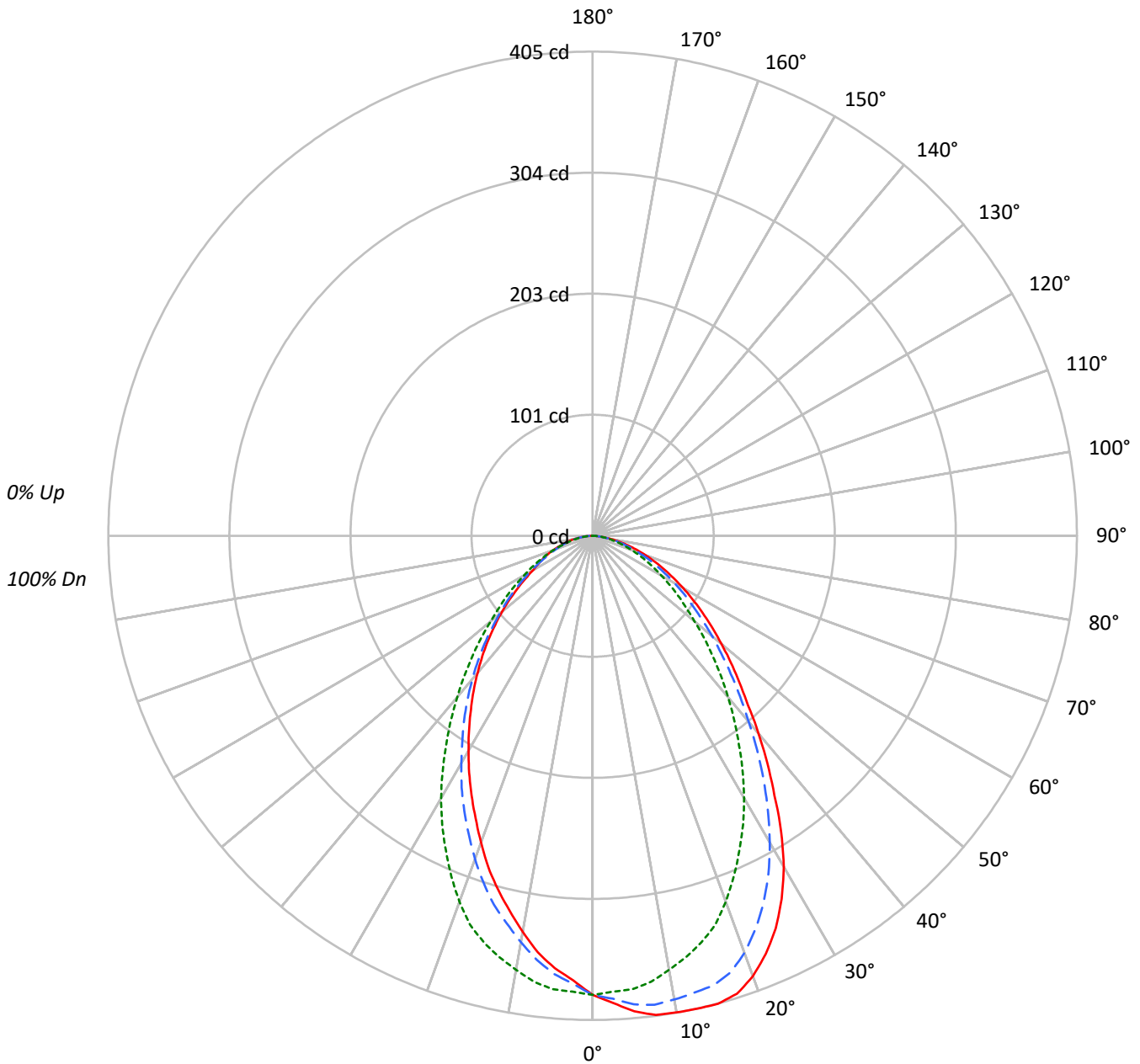
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38				
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35				
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	47365	47365	47365
5°	49440	47149	44958
10°	50701	46167	42146
15°	51743	44937	39101
20°	51455	42752	35808
25°	49294	39523	32582
30°	45548	36091	29525
35°	39933	32118	26727
40°	34763	28371	24072
45°	30247	24735	21526
50°	26942	21319	18978
55°	24085	18752	16430
60°	21511	16356	14160
65°	19117	14389	13455
70°	16770	12406	12550
75°	14202	10532	11628
80°	10939	8950	10584
85°	6510	7076	9057



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	5.2
10°-20°	99.3	14.5
20°-30°	135.6	19.8
30°-40°	136.2	19.9
40°-50°	112.7	16.4
50°-60°	81.7	11.9
60°-70°	51.7	7.5
70°-80°	26.1	3.8
80°-90°	6.4	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°	270.9	39.5
0°-40°	407.1	59.4
0°-60°	601.4	87.7
0°-90°	685.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	685.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	384	384	384	384	384	
5°	399	393	381	368	363	38
15°	405	389	352	319	306	114
25°	362	338	290	254	239	166
35°	265	249	213	187	178	166
45°	173	164	142	128	123	135
55°	112	102	87	80	76	101
65°	66	58	49	44	46	65
75°	30	26	22	23	24	32
85°	5	5	5	6	6	6
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°	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0
2.5°	391.1	389.9	387.6	384.9	381.7	378.0	375.0	373.2	372.2
5°	399.3	397.5	393.4	387.6	380.8	374.1	368.1	364.5	363.1
7.5°	404.3	401.6	395.7	386.7	376.2	366.3	357.8	352.8	351.4
10°	404.8	401.6	393.9	381.7	368.6	355.5	345.2	337.9	336.5
12.5°	405.2	401.1	391.6	377.1	361.0	344.7	332.0	323.4	321.1
15°	405.2	401.1	389.4	372.2	351.9	333.3	319.3	309.4	306.2
17.5°	401.6	397.0	383.1	363.1	341.1	320.2	304.0	293.6	290.4
20°	392.0	387.1	371.3	349.6	325.7	304.0	287.7	276.9	272.8
22.5°	378.5	372.7	356.0	332.4	308.5	286.4	270.6	259.2	255.7
25°	362.2	356.4	338.3	315.3	290.4	269.7	253.9	243.4	239.4
27.5°	342.4	336.1	318.4	295.4	272.4	251.6	237.2	227.7	223.6
30°	319.8	313.1	296.3	274.1	253.4	233.5	219.5	211.9	207.3
32.5°	293.6	287.7	272.8	253.0	233.5	214.5	202.8	196.1	192.4
35°	265.2	262.0	249.3	232.2	213.3	197.4	187.0	180.7	177.5
37.5°	239.9	236.7	225.9	211.4	194.7	180.3	171.6	166.3	163.5
40°	215.9	213.3	202.8	190.6	176.2	163.5	156.2	152.3	149.5
42.5°	192.4	191.1	182.5	171.2	158.5	147.7	141.8	138.7	136.4
45°	173.4	171.6	163.5	152.7	141.8	132.8	127.8	125.5	123.4
47.5°	156.7	154.5	145.9	136.4	126.4	118.4	113.8	111.5	110.6
50°	140.4	138.3	130.5	121.1	111.1	105.3	101.6	99.3	98.9
52.5°	126.0	123.8	115.2	106.2	98.4	93.5	90.4	88.1	87.2
55°	112.0	109.4	102.1	93.5	87.2	82.6	79.5	77.3	76.4
57.5°	99.3	96.6	90.4	82.2	76.4	72.3	69.5	67.3	66.3
60°	87.2	84.9	79.1	71.4	66.3	62.8	60.1	58.3	57.4
62.5°	75.9	74.1	68.2	61.5	57.4	54.2	51.9	50.2	51.1
65°	65.5	63.7	58.3	52.3	49.3	46.1	44.3	44.3	46.1
67.5°	55.5	53.7	49.3	44.3	41.5	39.3	37.9	39.3	40.6
70°	46.5	44.7	40.6	36.6	34.4	32.5	32.5	33.9	34.8
72.5°	37.9	36.2	33.0	29.8	28.0	26.6	28.0	28.9	29.8
75°	29.8	28.4	25.7	23.4	22.1	21.7	23.0	23.9	24.4
77.5°	22.1	21.3	19.5	17.6	16.7	17.2	18.5	19.0	19.5
80°	15.4	14.9	13.5	12.6	12.6	13.1	14.0	14.5	14.9
82.5°	9.4	9.4	8.5	8.1	8.5	9.4	9.9	10.4	10.4
85°	4.6	5.0	4.6	4.6	5.0	5.9	5.9	6.4	6.4
87.5°	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3	2.7
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)