

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: P581420

Luminaire Tested: **HC407D010-HM40525827-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581420
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: HC407D010-HM40525827-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 814.1 lumens
Efficiency: N/A
Efficacy: 101.8 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

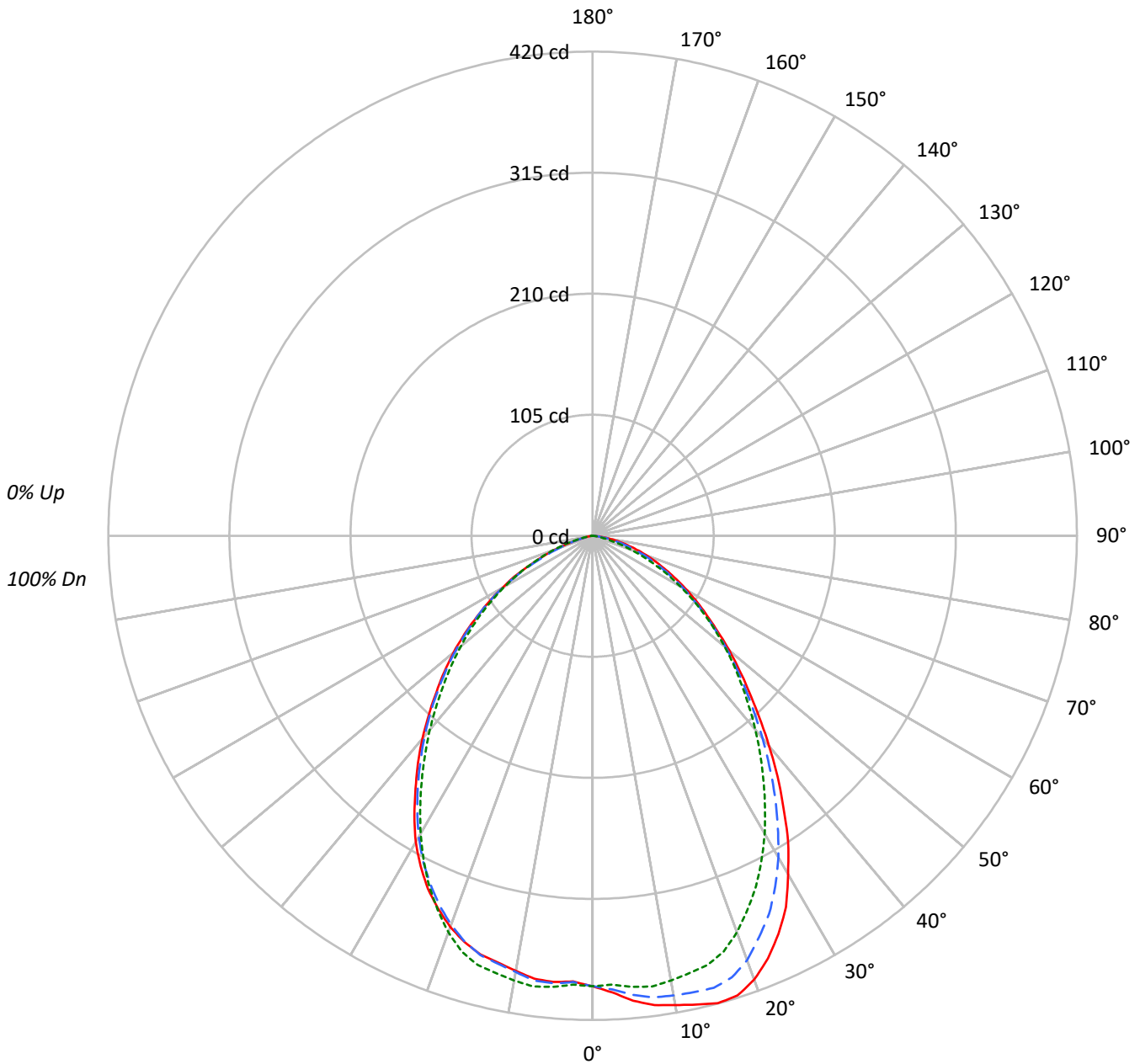
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	48191	48191	48191
5°	50133	48635	48103
10°	51765	49060	48008
15°	53594	49214	48001
20°	53778	48029	47399
25°	51880	45633	45987
30°	48269	42486	43682
35°	43487	38879	40310
40°	38338	35359	36969
45°	33527	31852	33422
50°	29686	28669	30185
55°	26107	25332	26322
60°	23312	21610	22252
65°	20489	17570	17278
70°	17888	12911	11829
75°	14869	7816	6291
80°	11223	2983	1847
85°	5095	849	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.7	4.6
10°-20°	110.0	13.5
20°-30°	159.3	19.6
30°-40°	168.0	20.6
40°-50°	145.4	17.9
50°-60°	107.7	13.2
60°-70°	62.1	7.6
70°-80°	21.7	2.7
80°-90°	2.3	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°	306.9	37.7
0°-40°	474.9	58.3
0°-60°	728.0	89.4
0°-90°	814.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	814.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	391	391	391	391	391	
5°	405	400	393	390	388	39
15°	420	406	385	376	376	118
25°	381	362	335	333	338	174
35°	289	276	258	264	268	180
45°	192	187	183	190	192	149
55°	121	119	118	122	122	110
65°	70	66	60	57	59	70
75°	31	26	16	13	13	34
85°	4	2	1	1	1	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°	390.7	390.7	390.7	390.7	390.7	390.7	390.7	390.7	390.7
2.5°	396.5	395.5	393.9	391.7	389.7	388.1	387.5	387.0	387.0
5°	404.9	402.9	399.7	395.5	392.8	391.2	389.7	388.5	388.5
7.5°	410.7	408.7	403.9	398.1	394.3	391.2	389.1	387.5	387.5
10°	413.3	410.7	404.9	397.5	391.7	387.5	384.3	383.3	383.3
12.5°	416.5	413.3	405.5	395.9	388.5	383.3	380.1	379.1	379.1
15°	419.7	416.1	406.0	394.9	385.4	379.1	376.5	375.9	375.9
17.5°	418.1	413.3	401.7	388.5	378.0	371.7	369.1	369.1	369.5
20°	409.7	404.9	391.7	376.9	365.9	361.1	359.0	360.1	361.1
22.5°	397.0	391.2	376.9	362.7	351.1	346.9	346.9	348.5	350.0
25°	381.2	375.9	362.1	346.3	335.3	332.1	333.1	335.8	337.9
27.5°	363.2	357.4	343.1	328.4	317.3	315.7	318.3	322.1	323.1
30°	338.9	334.2	322.1	307.8	298.3	297.8	301.5	304.1	306.7
32.5°	315.7	310.4	298.8	285.1	278.2	278.8	283.0	286.1	287.7
35°	288.8	284.0	275.6	264.5	258.2	259.2	264.0	267.1	267.7
37.5°	263.4	260.3	251.8	243.4	238.6	240.7	245.0	248.7	248.7
40°	238.1	235.5	229.1	222.3	219.6	222.3	226.5	229.6	229.6
42.5°	213.8	212.2	207.0	202.2	200.6	204.3	208.0	210.6	210.1
45°	192.2	190.6	186.9	183.2	182.6	186.4	189.5	191.1	191.6
47.5°	172.6	171.6	168.4	165.8	165.8	169.4	172.1	173.7	174.2
50°	154.7	153.6	151.0	148.9	149.4	153.1	155.2	156.8	157.3
52.5°	136.8	136.2	134.1	131.4	133.0	135.6	138.3	139.4	139.9
55°	121.4	121.4	118.8	116.6	117.8	120.4	122.0	122.4	122.4
57.5°	107.7	107.2	104.0	101.9	102.4	105.0	106.1	106.6	106.6
60°	94.5	94.0	90.8	87.6	87.6	89.2	89.8	90.2	90.2
62.5°	81.8	81.3	77.6	75.0	73.9	73.4	73.4	74.4	76.6
65°	70.2	69.6	66.0	61.8	60.2	58.6	57.0	58.0	59.2
67.5°	59.6	58.6	54.9	51.2	47.6	44.8	42.2	43.8	46.0
70°	49.6	48.6	44.4	40.2	35.8	31.6	29.6	31.6	32.8
72.5°	40.2	39.0	34.8	30.6	25.4	21.2	20.6	21.2	21.6
75°	31.2	30.6	26.4	21.6	16.4	13.2	13.2	13.2	13.2
77.5°	23.2	22.2	18.0	13.8	9.6	7.4	6.8	6.8	6.8
80°	15.8	14.8	11.0	8.0	4.2	3.2	3.2	2.6	2.6
82.5°	9.0	8.4	5.8	3.2	1.6	1.0	1.0	1.0	1.0
85°	3.6	3.2	2.2	1.0	0.6	0.6	0.6	0.6	0.6
87.5°	0.6	0.6	0.6	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)