

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: P581062

Luminaire Tested: **HC405D010-HM40525927-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581062
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525927-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 414.6 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

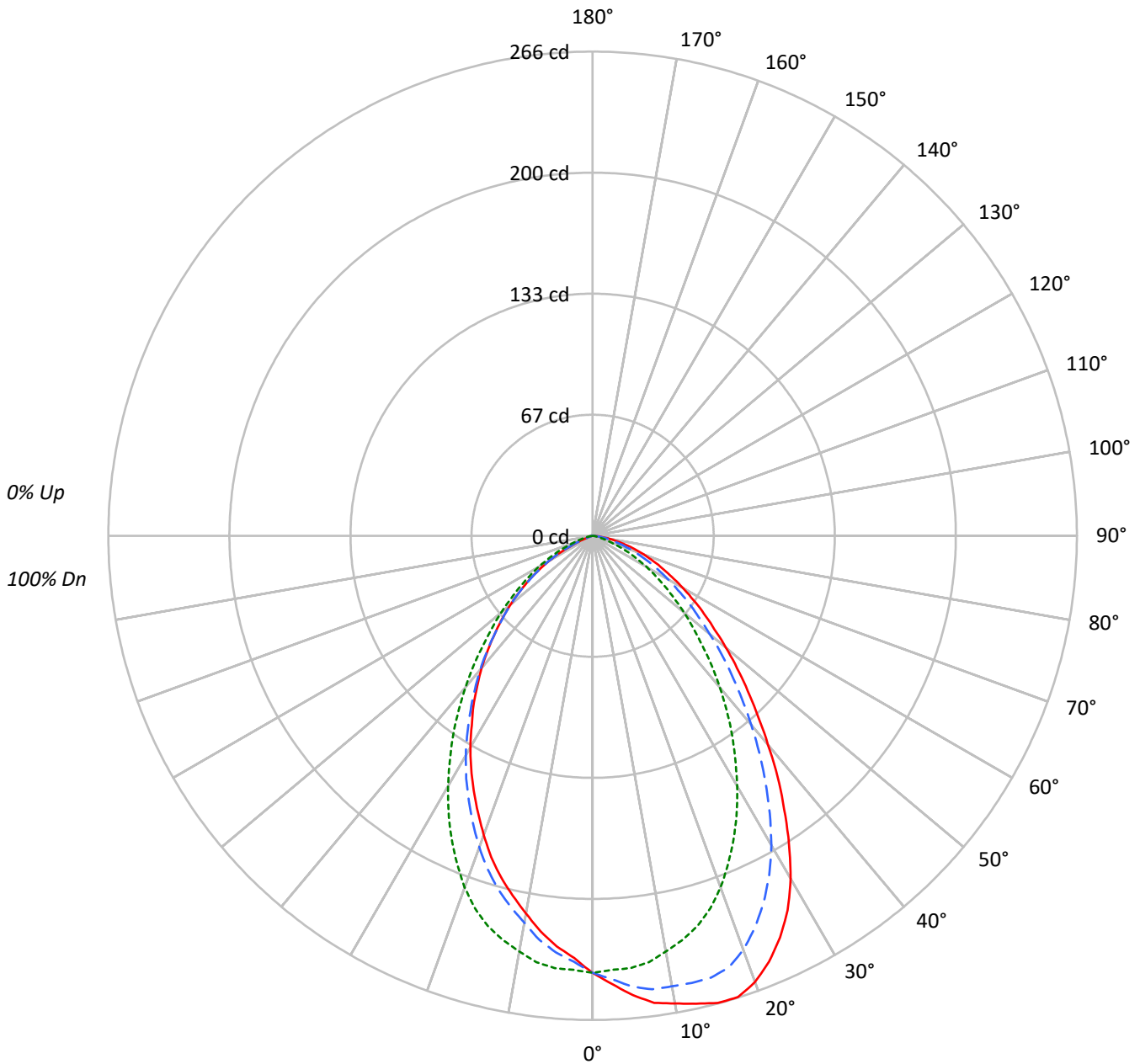
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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																			
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	60	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	29615	29615	29615
5°	31363	29518	28032
10°	32677	29045	26390
15°	33929	28349	24811
20°	34246	26974	22945
25°	33140	24960	21013
30°	30978	22617	19114
35°	27616	20102	17181
40°	24136	17486	15280
45°	21020	14827	13222
50°	18345	12588	11322
55°	16085	10430	9182
60°	14061	8437	6759
65°	12258	6304	3765
70°	10711	4039	1226
75°	8769	2097	334
80°	6535	994	213
85°	3821	425	425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.7	5.5
10°-20°	63.4	15.3
20°-30°	87.7	21.1
30°-40°	88.2	21.3
40°-50°	71.1	17.2
50°-60°	48.1	11.6
60°-70°	24.5	5.9
70°-80°	7.8	1.9
80°-90°	1.2	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°	173.7	41.9
0°-40°	261.9	63.2
0°-60°	381.1	91.9
0°-90°	414.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	414.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	240	240	240	240	240	
5°	253	249	238	230	226	24
15°	266	251	222	201	194	75
25°	244	222	183	161	154	111
35°	183	166	134	117	114	115
45°	120	108	85	76	76	93
55°	75	65	48	42	43	67
65°	42	34	22	14	13	42
75°	18	13	4	1	1	20
85°	3	1	0	0	0	4
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°	240.1	240.1	240.1	240.1	240.1	240.1	240.1	240.1	240.1
2.5°	246.5	245.2	243.8	241.4	238.7	236.0	234.3	232.9	232.2
5°	253.3	251.6	248.6	243.5	238.4	233.6	229.8	227.5	226.4
7.5°	258.8	256.4	251.3	244.1	236.3	228.8	224.0	220.5	219.2
10°	260.9	258.1	251.3	241.8	231.9	222.7	215.8	212.4	210.7
12.5°	263.3	260.1	251.6	239.7	227.5	216.4	208.6	204.2	202.5
15°	265.7	261.6	251.3	236.6	222.0	209.3	200.8	196.4	194.3
17.5°	265.7	260.9	248.6	231.5	214.7	201.5	191.9	186.8	185.1
20°	260.9	255.4	242.1	223.4	205.5	191.2	182.1	176.8	174.8
22.5°	253.3	247.2	232.9	213.4	194.7	180.7	171.4	166.6	164.6
25°	243.5	237.3	222.3	202.1	183.4	169.3	160.8	156.4	154.4
27.5°	231.9	225.1	210.0	189.9	171.4	158.1	150.3	146.2	144.5
30°	217.5	211.0	196.4	176.5	158.8	146.5	139.3	135.5	134.2
32.5°	200.8	195.3	181.0	162.5	145.8	134.5	128.0	125.0	123.6
35°	183.4	178.2	165.6	148.6	133.5	122.9	116.8	114.7	114.1
37.5°	167.0	162.5	150.3	134.5	120.9	111.7	106.2	104.9	104.2
40°	149.9	146.9	135.5	121.2	108.6	100.4	95.9	94.9	94.9
42.5°	134.5	131.1	121.2	108.3	96.9	88.8	85.7	84.7	85.0
45°	120.5	117.1	107.9	95.9	85.0	78.2	75.8	75.8	75.8
47.5°	107.6	104.5	95.9	83.6	74.8	69.3	67.0	67.0	67.3
50°	95.6	93.5	84.0	73.4	65.6	60.5	58.7	58.3	59.0
52.5°	84.3	81.9	73.4	63.9	56.3	52.2	50.5	50.2	50.5
55°	74.8	72.1	64.6	55.3	48.5	44.4	42.3	42.0	42.7
57.5°	65.6	63.6	55.6	47.4	41.0	36.9	35.2	34.5	34.8
60°	57.0	54.9	47.8	40.0	34.2	30.1	27.7	27.0	27.4
62.5°	49.1	47.4	40.6	33.1	27.4	23.6	21.2	19.4	20.2
65°	42.0	40.3	34.2	26.7	21.6	17.4	14.0	12.6	12.9
67.5°	35.9	33.8	28.0	21.2	16.0	11.6	7.8	7.2	7.2
70°	29.7	27.7	22.6	16.3	11.2	6.1	3.4	3.4	3.4
72.5°	23.9	22.2	17.4	12.3	7.2	2.7	1.4	1.4	1.4
75°	18.4	17.0	12.9	8.5	4.4	1.4	1.0	0.7	0.7
77.5°	13.6	12.3	9.2	5.8	2.7	0.7	0.7	0.7	0.7
80°	9.2	8.2	6.1	3.4	1.4	0.3	0.3	0.3	0.3
82.5°	5.4	4.8	3.4	1.7	0.7	0.3	0.3	0.3	0.3
85°	2.7	2.0	1.4	0.7	0.3	0.3	0.3	0.3	0.3
87.5°	0.7	0.3	0.3	0.3	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)