

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: P581457

Luminaire Tested: **HC407D010-HM40525835-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC407D010-HM40525835-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 909.3 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

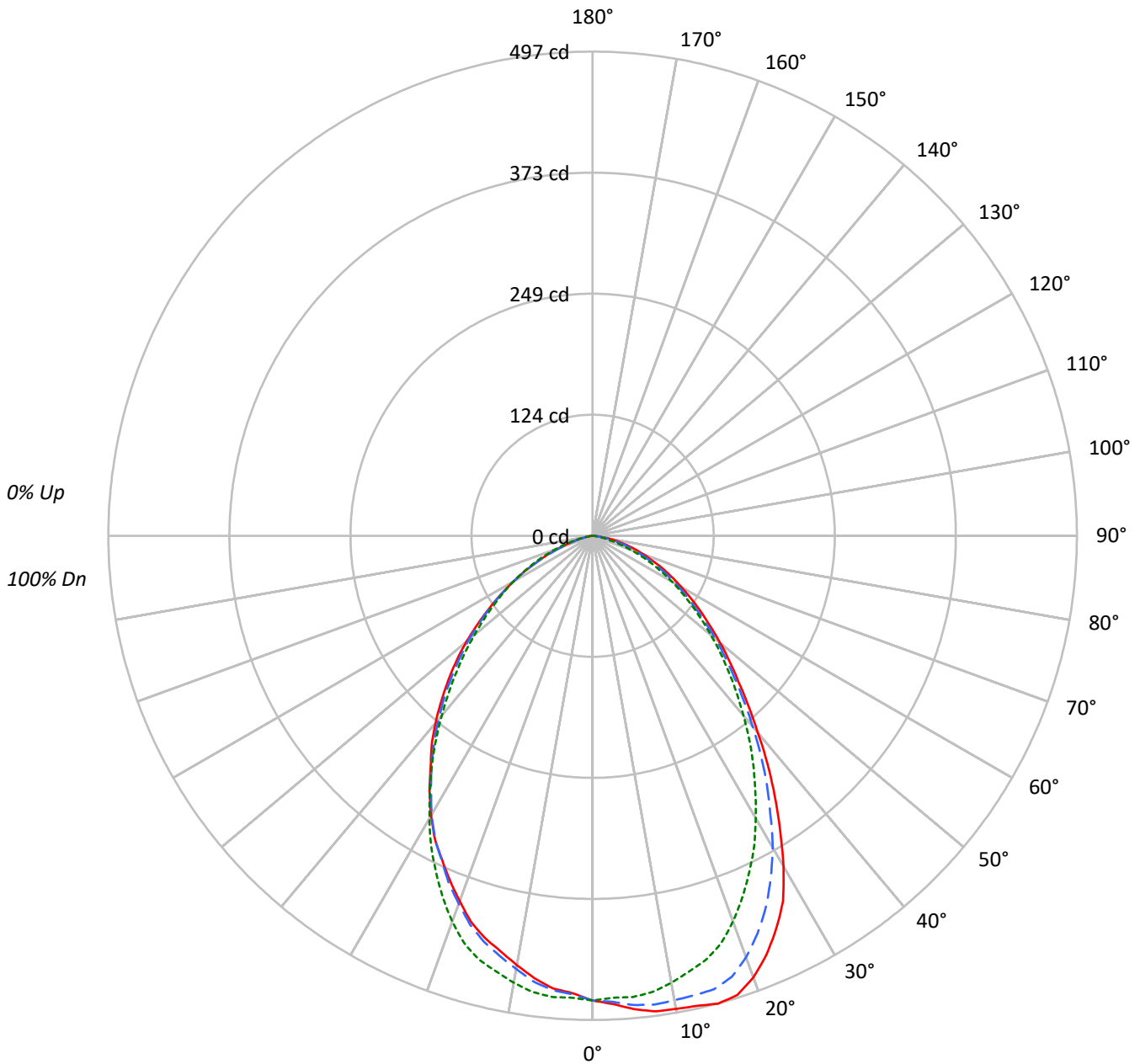
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	58836	58836	58836
5°	60385	58838	57748
10°	61760	58341	56049
15°	63491	57515	54565
20°	63321	55301	52360
25°	60645	51771	49839
30°	55789	47685	47186
35°	49073	43291	43622
40°	42460	38741	40367
45°	36911	34416	36492
50°	32756	30357	32411
55°	29053	26623	27784
60°	25878	23115	23115
65°	23028	19204	18008
70°	19871	14534	12803
75°	16632	9579	7911
80°	12644	4617	4191
85°	6793	1557	1557



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	5.0
10°-20°	128.1	14.1
20°-30°	180.6	19.9
30°-40°	186.6	20.5
40°-50°	158.2	17.4
50°-60°	115.1	12.7
60°-70°	67.3	7.4
70°-80°	25.0	2.7
80°-90°	3.3	0.4
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°	353.9	38.9
0°-40°	540.5	59.4
0°-60°	813.8	89.5
0°-90°	909.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	909.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	477	477	477	477	477	
5°	488	484	475	468	466	47
15°	497	482	450	431	427	140
25°	446	421	380	367	366	204
35°	326	312	288	288	290	204
45°	212	206	197	204	209	165
55°	135	129	124	128	129	122
65°	79	72	66	62	62	78
75°	35	29	20	16	17	38
85°	5	3	1	1	1	7
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°	477.0	477.0	477.0	477.0	477.0	477.0	477.0	477.0	477.0
2.5°	481.1	480.0	478.9	477.0	474.7	473.0	471.1	469.9	469.9
5°	487.7	485.9	483.5	479.4	475.2	471.7	468.2	466.4	466.4
7.5°	492.4	490.1	485.4	479.4	472.3	466.9	461.7	459.3	458.0
10°	493.1	490.7	484.1	475.2	465.8	457.5	451.6	448.0	447.5
12.5°	494.2	491.3	483.0	470.6	458.0	448.0	441.5	437.9	436.8
15°	497.2	493.1	481.8	465.8	450.4	438.5	431.4	428.5	427.3
17.5°	494.2	488.3	474.7	455.7	438.5	425.5	418.3	415.4	415.4
20°	482.4	476.5	460.4	439.7	421.3	408.9	401.8	400.0	398.9
22.5°	465.8	459.3	442.1	420.1	401.8	390.6	385.8	383.4	382.8
25°	445.6	439.2	420.7	398.2	380.4	371.0	366.8	366.8	366.2
27.5°	423.1	414.8	395.9	376.3	359.2	352.0	350.3	350.3	350.8
30°	391.7	385.8	369.7	350.8	334.8	330.1	330.1	331.3	331.3
32.5°	357.9	353.8	339.6	323.0	310.6	307.6	308.7	311.1	311.7
35°	325.9	321.1	311.7	296.9	287.5	286.2	288.0	289.7	289.7
37.5°	294.5	289.7	283.2	271.4	264.2	264.9	267.3	269.6	271.4
40°	263.7	260.1	255.4	245.9	240.6	243.0	245.9	248.3	250.7
42.5°	236.5	232.9	229.3	222.3	218.7	221.7	225.2	227.6	229.9
45°	211.6	209.2	205.6	199.7	197.3	200.3	204.5	206.8	209.2
47.5°	190.3	189.0	184.4	179.0	177.8	180.7	184.4	187.3	189.0
50°	170.7	168.9	164.8	159.4	158.2	163.0	165.4	167.1	168.9
52.5°	151.7	149.9	145.2	140.4	140.4	144.0	145.8	146.3	148.2
55°	135.1	133.4	128.6	125.1	123.8	126.8	128.0	128.0	129.2
57.5°	119.7	117.9	113.2	109.0	108.5	110.3	110.3	110.3	110.8
60°	104.9	103.1	98.3	94.8	93.7	94.2	93.7	93.1	93.7
62.5°	91.3	89.4	84.8	80.6	79.4	79.4	77.6	77.0	77.6
65°	78.9	75.9	72.3	68.2	65.8	64.0	61.7	61.7	61.7
67.5°	66.3	64.0	59.9	55.6	52.7	49.7	46.2	47.5	48.0
70°	55.1	53.4	48.6	44.5	40.3	36.8	33.8	34.9	35.5
72.5°	45.1	42.7	38.5	33.8	30.3	25.5	23.7	24.9	24.9
75°	34.9	32.5	29.0	24.4	20.1	16.0	16.0	16.6	16.6
77.5°	26.1	23.7	20.1	16.0	12.4	9.4	10.1	10.1	10.1
80°	17.8	16.0	13.1	9.4	6.5	5.3	5.3	5.3	5.9
82.5°	10.1	8.9	7.1	4.8	3.0	3.0	3.0	3.0	3.0
85°	4.8	3.5	3.0	1.8	1.1	1.1	1.1	1.1	1.1
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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)