

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: P581493

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581493
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-HM40525927-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 692.9 lumens
Efficiency: N/A
Efficacy: 86.6 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

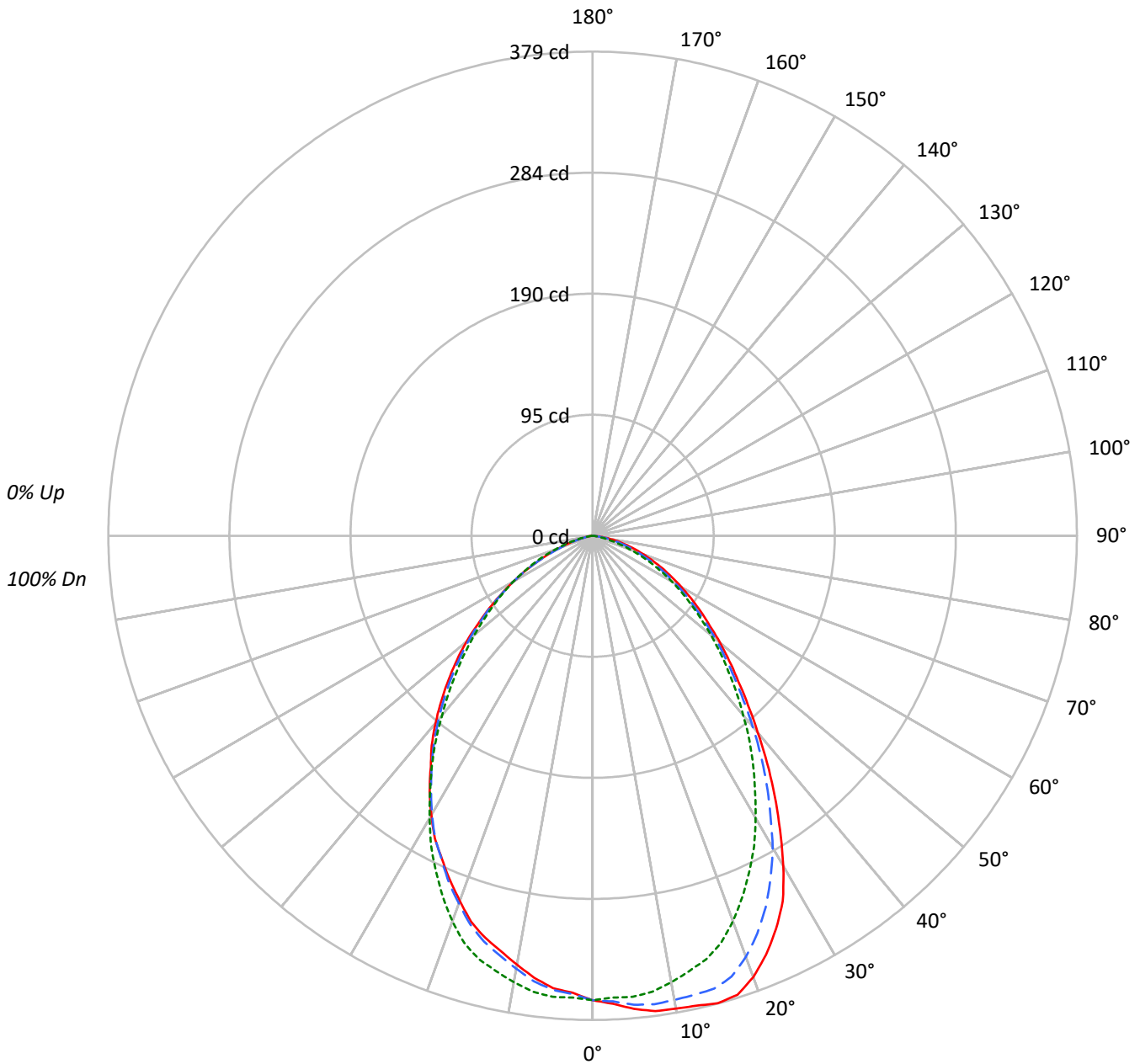
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77			77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67			67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47			47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	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	41	37	47	41	37	46	41	37	35			35
10	58	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°	44836	44836	44836
5°	46023	44846	44004
10°	47068	44451	42697
15°	48372	43826	41578
20°	48252	42135	39904
25°	46218	39468	37971
30°	42515	36333	35949
35°	37403	32991	33247
40°	32364	29514	30770
45°	28137	26218	27805
50°	24965	23142	24696
55°	22150	20279	21161
60°	19711	17614	17614
65°	17541	14622	13717
70°	15147	11072	9773
75°	12677	7339	6005
80°	9589	3552	3267
85°	5095	1274	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.4	5.0
10°-20°	97.6	14.1
20°-30°	137.6	19.9
30°-40°	142.2	20.5
40°-50°	120.5	17.4
50°-60°	87.7	12.7
60°-70°	51.2	7.4
70°-80°	19.0	2.7
80°-90°	2.5	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°	269.7	38.9
0°-40°	411.9	59.4
0°-60°	620.1	89.5
0°-90°	692.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	692.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	364	364	364	364	364	
5°	372	368	362	357	355	36
15°	379	367	343	329	326	107
25°	340	321	290	280	279	155
35°	248	238	219	220	221	155
45°	161	157	150	156	159	125
55°	103	98	94	98	98	93
65°	60	55	50	47	47	60
75°	27	22	15	12	13	29
85°	4	2	1	1	1	5
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°	363.5	363.5	363.5	363.5	363.5	363.5	363.5	363.5	363.5
2.5°	366.7	365.8	364.8	363.5	361.8	360.4	359.0	358.1	358.1
5°	371.7	370.3	368.5	365.3	362.2	359.5	356.8	355.4	355.4
7.5°	375.3	373.5	369.8	365.3	359.9	355.9	351.8	349.9	349.0
10°	375.8	373.9	368.9	362.2	354.9	348.7	344.1	341.4	340.9
12.5°	376.7	374.4	368.0	358.6	349.0	341.4	336.4	333.8	332.9
15°	378.8	375.8	367.1	354.9	343.2	334.2	328.8	326.5	325.6
17.5°	376.7	372.1	361.8	347.3	334.2	324.2	318.9	316.6	316.6
20°	367.6	363.0	350.8	335.0	321.0	311.6	306.1	304.9	304.0
22.5°	354.9	349.9	336.8	320.2	306.1	297.6	293.9	292.1	291.8
25°	339.6	334.6	320.6	303.5	290.0	282.7	279.5	279.5	279.0
27.5°	322.4	316.1	301.7	286.8	273.7	268.2	266.9	266.9	267.3
30°	298.5	293.9	281.8	267.3	255.1	251.5	251.5	252.4	252.4
32.5°	272.8	269.6	258.8	246.1	236.6	234.4	235.2	237.0	237.5
35°	248.4	244.8	237.5	226.2	219.1	218.2	219.5	220.8	220.8
37.5°	224.4	220.8	215.9	206.8	201.4	201.9	203.7	205.5	206.8
40°	201.0	198.2	194.6	187.4	183.3	185.2	187.4	189.2	191.1
42.5°	180.1	177.5	174.8	169.3	166.6	168.9	171.6	173.4	175.3
45°	161.3	159.4	156.7	152.2	150.3	152.6	155.8	157.6	159.4
47.5°	145.0	144.1	140.4	136.3	135.4	137.7	140.4	142.7	144.1
50°	130.1	128.7	125.5	121.4	120.6	124.2	126.0	127.3	128.7
52.5°	115.6	114.3	110.6	107.0	107.0	109.7	111.1	111.5	112.9
55°	103.0	101.6	98.0	95.3	94.3	96.6	97.5	97.5	98.4
57.5°	91.3	89.9	86.3	83.1	82.6	84.0	84.0	84.0	84.4
60°	79.9	78.5	75.0	72.3	71.4	71.8	71.4	70.9	71.4
62.5°	69.5	68.2	64.5	61.5	60.5	60.5	59.2	58.7	59.2
65°	60.1	57.8	55.1	51.9	50.1	48.8	47.0	47.0	47.0
67.5°	50.5	48.8	45.6	42.4	40.2	37.9	35.3	36.1	36.5
70°	42.0	40.6	37.0	33.9	30.7	28.0	25.7	26.6	27.1
72.5°	34.4	32.5	29.4	25.7	23.0	19.5	18.1	19.0	19.0
75°	26.6	24.8	22.1	18.5	15.4	12.2	12.2	12.6	12.6
77.5°	19.9	18.1	15.4	12.2	9.4	7.2	7.6	7.6	7.6
80°	13.5	12.2	9.9	7.2	5.0	4.1	4.1	4.1	4.6
82.5°	7.6	6.8	5.5	3.6	2.3	2.3	2.3	2.3	2.3
85°	3.6	2.7	2.3	1.4	0.9	0.9	0.9	0.9	0.9
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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)