

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: P581547

Luminaire Tested: **HC407D010-HM40525950-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581547
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-HM40525950-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 841.4 lumens
Efficiency: N/A
Efficacy: 105.2 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

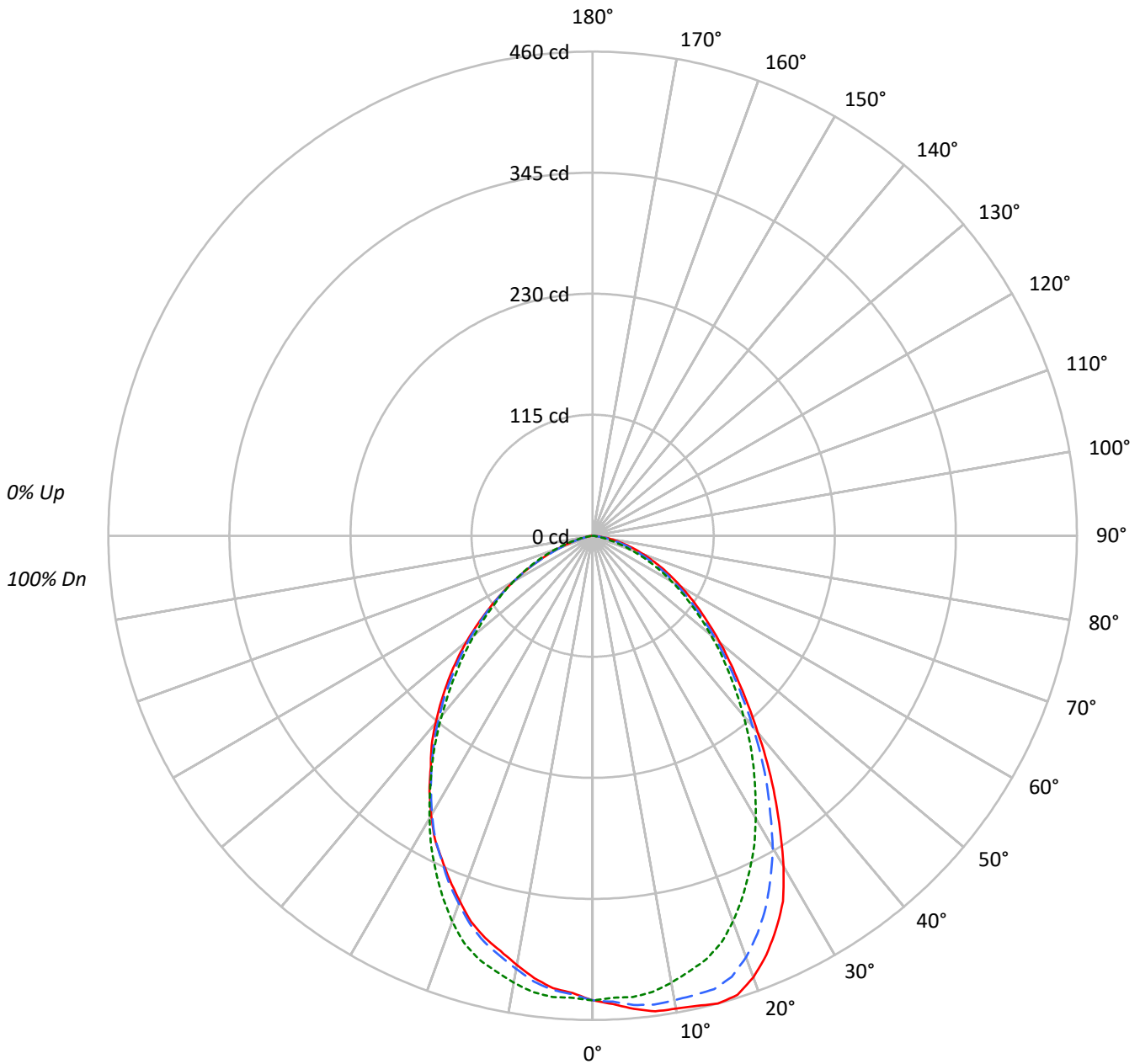
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	54445	54445	54445
5°	55879	54455	53427
10°	57138	53995	51853
15°	58753	53211	50479
20°	58595	51179	48449
25°	56126	47920	46123
30°	51630	44138	43668
35°	45414	40054	40370
40°	39288	35842	37340
45°	34137	31852	33771
50°	30319	28112	29973
55°	26902	24644	25720
60°	23954	21363	21363
65°	21277	17774	16636
70°	18393	13452	11865
75°	15393	8912	7339
80°	11720	4262	3907
85°	6227	1557	1557



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	5.0
10°-20°	118.5	14.1
20°-30°	167.2	19.9
30°-40°	172.7	20.5
40°-50°	146.4	17.4
50°-60°	106.5	12.7
60°-70°	62.2	7.4
70°-80°	23.1	2.7
80°-90°	3.0	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°	327.5	38.9
0°-40°	500.2	59.4
0°-60°	753.0	89.5
0°-90°	841.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	841.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	441	441	441	441	441	
5°	451	448	440	433	432	43
15°	460	446	417	399	395	129
25°	412	389	352	340	339	189
35°	302	288	266	266	268	188
45°	196	190	183	189	194	152
55°	125	119	115	118	120	112
65°	73	67	61	57	57	72
75°	32	27	19	15	15	35
85°	4	3	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°	441.4	441.4	441.4	441.4	441.4	441.4	441.4	441.4	441.4
2.5°	445.3	444.2	443.1	441.4	439.3	437.6	436.0	434.8	434.8
5°	451.3	449.6	447.5	443.6	439.8	436.5	433.2	431.5	431.5
7.5°	455.7	453.5	449.2	443.6	437.1	432.1	427.2	425.0	423.9
10°	456.2	454.1	448.0	439.8	431.1	423.3	417.9	414.6	414.0
12.5°	457.4	454.6	446.9	435.4	423.9	414.6	408.5	405.2	404.1
15°	460.1	456.2	445.9	431.1	416.7	405.8	399.2	396.5	395.3
17.5°	457.4	451.9	439.3	421.7	405.8	393.7	387.1	384.4	384.4
20°	446.4	440.9	426.1	406.9	389.9	378.4	371.8	370.2	369.1
22.5°	431.1	425.0	409.1	388.9	371.8	361.4	357.0	354.8	354.3
25°	412.4	406.4	389.3	368.5	352.1	343.3	339.5	339.5	338.9
27.5°	391.6	383.8	366.3	348.2	332.3	325.7	324.1	324.1	324.7
30°	362.5	357.0	342.2	324.7	309.9	305.4	305.4	306.6	306.6
32.5°	331.3	327.4	314.2	298.8	287.3	284.6	285.8	287.9	288.5
35°	301.6	297.2	288.5	274.7	266.0	264.8	266.5	268.1	268.1
37.5°	272.6	268.1	262.1	251.2	244.6	245.1	247.3	249.6	251.2
40°	244.0	240.7	236.4	227.6	222.6	224.9	227.6	229.8	231.9
42.5°	218.8	215.5	212.2	205.6	202.3	205.1	208.4	210.5	212.8
45°	195.7	193.6	190.3	184.8	182.6	185.4	189.1	191.4	193.6
47.5°	176.0	174.9	170.6	165.6	164.6	167.3	170.6	173.3	174.9
50°	158.0	156.2	152.5	147.5	146.5	150.8	152.9	154.7	156.2
52.5°	140.4	138.7	134.4	130.0	130.0	133.3	134.9	135.4	137.1
55°	125.1	123.4	119.0	115.7	114.6	117.3	118.5	118.5	119.6
57.5°	110.7	109.1	104.7	100.9	100.4	102.0	102.0	102.0	102.5
60°	97.1	95.4	91.0	87.7	86.6	87.2	86.6	86.1	86.6
62.5°	84.4	82.8	78.4	74.5	73.5	73.5	71.8	71.2	71.8
65°	72.9	70.2	66.9	63.0	60.9	59.2	57.0	57.0	57.0
67.5°	61.5	59.2	55.4	51.6	48.8	46.1	42.8	43.9	44.4
70°	51.0	49.4	45.0	41.1	37.3	34.0	31.3	32.3	32.9
72.5°	41.7	39.5	35.6	31.3	28.0	23.6	22.0	23.0	23.0
75°	32.3	30.2	26.9	22.5	18.7	14.8	14.8	15.4	15.4
77.5°	24.1	22.0	18.7	14.8	11.5	8.8	9.3	9.3	9.3
80°	16.5	14.8	12.1	8.8	6.0	4.9	4.9	4.9	5.5
82.5°	9.3	8.2	6.6	4.4	2.7	2.7	2.7	2.7	2.7
85°	4.4	3.3	2.7	1.6	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)