

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: P579716

Luminaire Tested: **HC410D010-HM40525830-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579716
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: HC410D010-HM40525830-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1086.6 lumens
Efficiency: N/A
Efficacy: 109.8 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

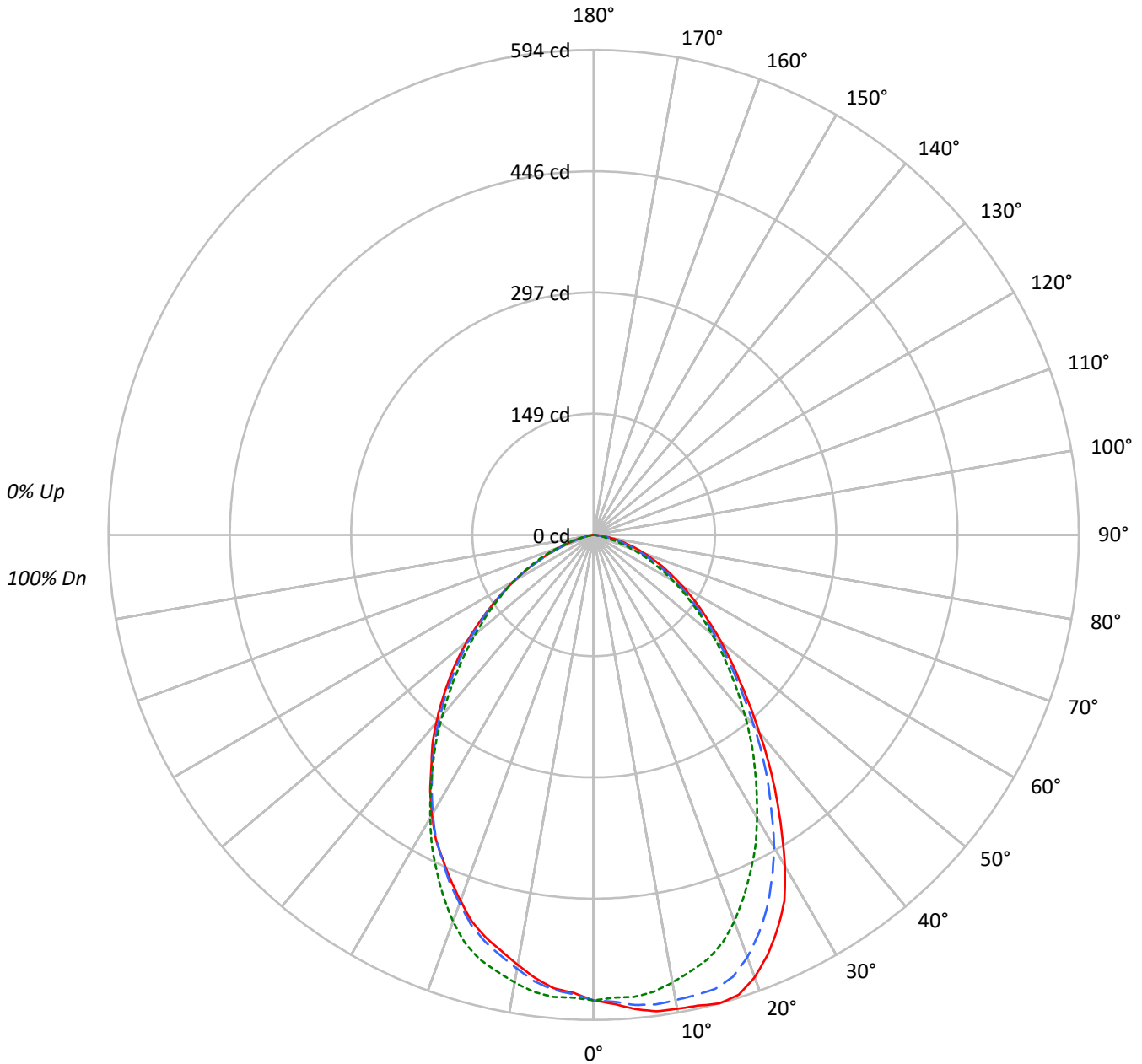
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	70319	70319	70319
5°	72173	70328	69015
10°	73809	69713	66958
15°	75865	68739	65202
20°	75672	66103	62559
25°	72485	61870	59570
30°	66684	56985	56387
35°	58650	51708	52145
40°	50736	46308	48224
45°	44115	41132	43609
50°	39127	36287	38743
55°	34730	31848	33203
60°	30935	27605	27605
65°	27493	22940	21481
70°	23766	17347	15291
75°	19921	11485	9436
80°	15130	5469	5043
85°	8067	1981	1981



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	5.0
10°-20°	153.1	14.1
20°-30°	215.9	19.9
30°-40°	223.0	20.5
40°-50°	189.0	17.4
50°-60°	137.5	12.7
60°-70°	80.4	7.4
70°-80°	29.9	2.7
80°-90°	3.9	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°	422.9	38.9
0°-40°	645.9	59.4
0°-60°	972.5	89.5
0°-90°	1086.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1086.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	570	570	570	570	570	
5°	583	578	568	559	557	56
15°	594	576	538	516	511	167
25°	533	503	455	438	438	244
35°	390	372	343	344	346	243
45°	253	246	236	244	250	197
55°	162	154	148	153	154	145
65°	94	86	79	74	74	93
75°	42	35	24	19	20	45
85°	6	4	1	1	1	8
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°	570.1	570.1	570.1	570.1	570.1	570.1	570.1	570.1	570.1
2.5°	575.0	573.7	572.2	570.1	567.3	565.1	563.0	561.6	561.6
5°	582.9	580.7	577.9	573.0	568.0	563.8	559.4	557.4	557.4
7.5°	588.5	585.7	580.0	573.0	564.4	558.1	551.7	548.9	547.5
10°	589.3	586.4	578.6	568.0	556.6	546.7	539.6	535.4	534.6
12.5°	590.6	587.1	577.2	562.3	547.5	535.4	527.6	523.4	521.9
15°	594.1	589.3	575.7	556.6	538.3	524.0	515.5	512.0	510.6
17.5°	590.6	583.6	567.3	544.6	524.0	508.5	500.0	496.4	496.4
20°	576.5	569.3	550.2	525.5	503.6	488.7	480.1	478.1	476.6
22.5°	556.6	548.9	528.3	502.1	480.1	466.7	461.0	458.2	457.5
25°	532.6	524.7	502.8	475.9	454.6	443.4	438.4	438.4	437.7
27.5°	505.6	495.7	473.1	449.7	429.1	420.7	418.6	418.6	419.2
30°	468.2	461.0	441.9	419.2	400.1	394.4	394.4	395.9	395.9
32.5°	427.8	422.8	405.8	386.0	371.1	367.6	368.9	371.8	372.5
35°	389.5	383.8	372.5	354.8	343.4	342.1	344.1	346.3	346.3
37.5°	352.0	346.3	338.6	324.3	315.9	316.6	319.4	322.3	324.3
40°	315.1	310.9	305.2	293.9	287.6	290.4	293.9	296.8	299.5
42.5°	282.6	278.4	274.0	265.6	261.3	264.8	269.1	272.0	274.8
45°	252.9	250.0	245.7	238.6	235.8	239.3	244.3	247.2	250.0
47.5°	227.4	225.9	220.2	213.8	212.5	216.0	220.2	223.8	225.9
50°	203.9	201.9	196.9	190.5	189.1	194.7	197.6	199.7	201.9
52.5°	181.3	179.1	173.5	167.9	167.9	172.1	174.2	174.9	177.1
55°	161.5	159.3	153.6	149.4	148.1	151.6	152.9	152.9	154.4
57.5°	143.0	140.9	135.3	130.3	129.6	131.8	131.8	131.8	132.5
60°	125.4	123.2	117.6	113.3	111.9	112.5	111.9	111.2	111.9
62.5°	109.0	107.0	101.3	96.3	94.9	94.9	92.7	92.1	92.7
65°	94.2	90.7	86.4	81.5	78.6	76.5	73.6	73.6	73.6
67.5°	79.3	76.5	71.6	66.6	63.0	59.5	55.2	56.7	57.4
70°	65.9	63.7	58.0	53.1	48.1	43.9	40.4	41.8	42.4
72.5°	53.8	51.0	46.1	40.4	36.1	30.5	28.3	29.7	29.7
75°	41.8	38.9	34.7	29.0	24.1	19.1	19.1	19.8	19.8
77.5°	31.2	28.3	24.1	19.1	14.9	11.4	12.1	12.1	12.1
80°	21.3	19.1	15.6	11.4	7.7	6.4	6.4	6.4	7.1
82.5°	12.1	10.6	8.5	5.7	3.5	3.5	3.5	3.5	3.5
85°	5.7	4.2	3.5	2.2	1.4	1.4	1.4	1.4	1.4
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)