

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: P579841

Luminaire Tested: **HC415D010-HM40525827-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525827-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1371.1 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

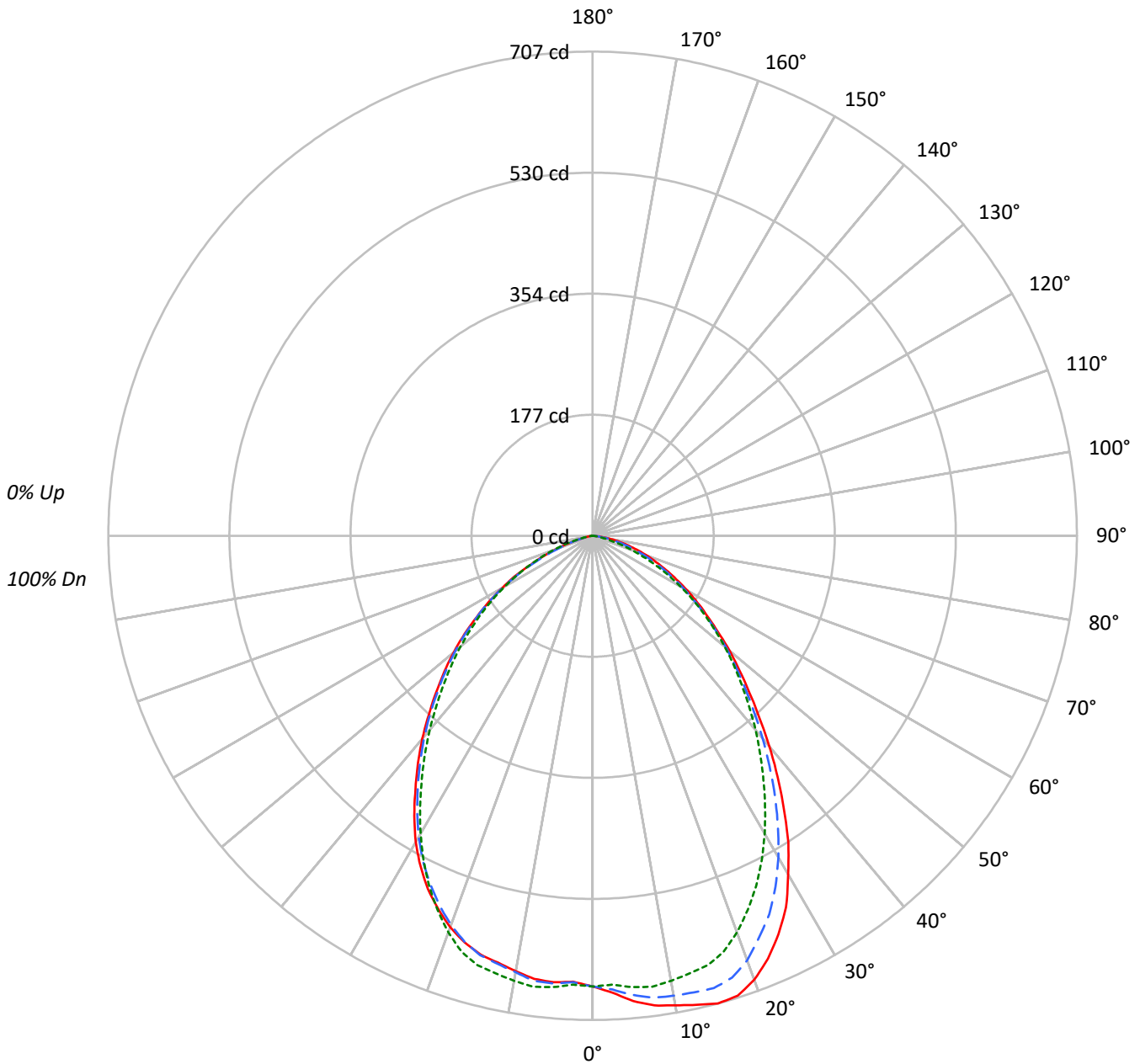
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76			76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67			67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46			46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41			41
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37			37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	81161	81161	81161
5°	84443	81905	81038
10°	87198	82639	80860
15°	90269	82888	80845
20°	90571	80870	79833
25°	87374	76840	77453
30°	81312	71541	73592
35°	73241	65471	67880
40°	64568	59560	62281
45°	56465	53674	56308
50°	49988	48280	50832
55°	43977	42644	44364
60°	39273	36412	37497
65°	34498	29595	29069
70°	30149	21819	19871
75°	24972	13106	10628
80°	18966	5114	3125
85°	8916	1274	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.5	4.6
10°-20°	185.2	13.5
20°-30°	268.2	19.6
30°-40°	283.0	20.6
40°-50°	244.9	17.9
50°-60°	181.4	13.2
60°-70°	104.6	7.6
70°-80°	36.5	2.7
80°-90°	3.8	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°	516.9	37.7
0°-40°	799.9	58.3
0°-60°	1226.2	89.4
0°-90°	1371.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1371.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	658	658	658	658	658	
5°	682	673	662	656	654	66
15°	707	684	649	634	633	199
25°	642	610	565	561	569	294
35°	486	464	435	445	451	304
45°	324	315	308	319	323	251
55°	204	200	198	205	206	184
65°	118	111	101	96	100	118
75°	52	44	28	22	22	56
85°	6	4	1	1	1	10
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°	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
2.5°	667.8	665.9	663.3	659.8	656.2	653.5	652.6	651.7	651.7
5°	682.0	678.4	673.1	665.9	661.5	658.9	656.2	654.5	654.5
7.5°	691.8	688.2	680.3	670.5	664.2	658.9	655.4	652.6	652.6
10°	696.2	691.8	682.0	669.6	659.8	652.6	647.3	645.6	645.6
12.5°	701.5	696.2	682.9	666.9	654.5	645.6	640.2	638.4	638.4
15°	706.9	700.6	683.8	665.1	649.1	638.4	634.0	633.1	633.1
17.5°	704.3	696.2	676.6	654.5	636.6	626.0	621.5	621.5	622.4
20°	690.0	682.0	659.8	634.9	616.1	608.2	604.7	606.4	608.2
22.5°	668.7	658.9	634.9	610.9	591.4	584.2	584.2	586.8	589.5
25°	642.0	633.1	610.0	583.3	564.6	559.3	561.1	565.5	569.1
27.5°	611.7	601.9	577.9	553.0	534.4	531.8	536.2	542.3	544.2
30°	570.9	562.8	542.3	518.4	502.3	501.5	507.7	512.2	516.7
32.5°	531.8	522.8	503.2	480.2	468.6	469.5	476.6	482.0	484.6
35°	486.4	478.3	464.1	445.5	434.8	436.6	444.6	449.9	450.8
37.5°	443.7	438.3	424.1	409.9	401.9	405.5	412.6	418.8	418.8
40°	401.0	396.6	385.9	374.3	369.9	374.3	381.5	386.8	386.8
42.5°	360.1	357.5	348.6	340.5	337.9	344.1	350.3	354.7	353.8
45°	323.7	321.0	314.7	308.6	307.7	313.9	319.2	321.9	322.8
47.5°	290.7	289.0	283.7	279.2	279.2	285.4	289.8	292.6	293.5
50°	260.5	258.8	254.3	250.7	251.6	257.9	261.4	264.1	264.9
52.5°	230.2	229.4	225.8	221.4	224.1	228.5	233.0	234.8	235.6
55°	204.5	204.5	200.1	196.5	198.3	202.7	205.3	206.3	206.3
57.5°	181.4	180.6	175.2	171.6	172.5	176.9	178.7	179.6	179.6
60°	159.2	158.3	152.9	147.6	147.6	150.3	151.1	152.0	152.0
62.5°	137.8	136.9	130.8	126.2	124.5	123.6	123.6	125.4	128.9
65°	118.2	117.3	111.2	104.0	101.4	98.7	96.1	97.8	99.6
67.5°	100.5	98.7	92.4	86.3	80.0	75.6	71.2	73.8	77.3
70°	83.6	81.8	74.7	67.5	60.5	53.3	49.8	53.3	55.1
72.5°	67.5	65.8	58.7	51.6	42.6	35.6	34.7	35.6	36.5
75°	52.4	51.6	44.5	36.5	27.5	22.3	22.3	22.3	22.3
77.5°	39.1	37.3	30.2	23.1	16.0	12.4	11.6	11.6	11.6
80°	26.7	24.9	18.6	13.3	7.2	5.3	5.3	4.4	4.4
82.5°	15.1	14.2	9.8	5.3	2.6	1.8	1.8	1.8	1.8
85°	6.3	5.3	3.5	1.8	0.9	0.9	0.9	0.9	0.9
87.5°	0.9	0.9	0.9	0.0	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)