

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: P579949

Luminaire Tested: **HC415D010-HM40525935-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579949
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-HM40525935-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1374.8 lumens
Efficiency: N/A
Efficacy: 98.2 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

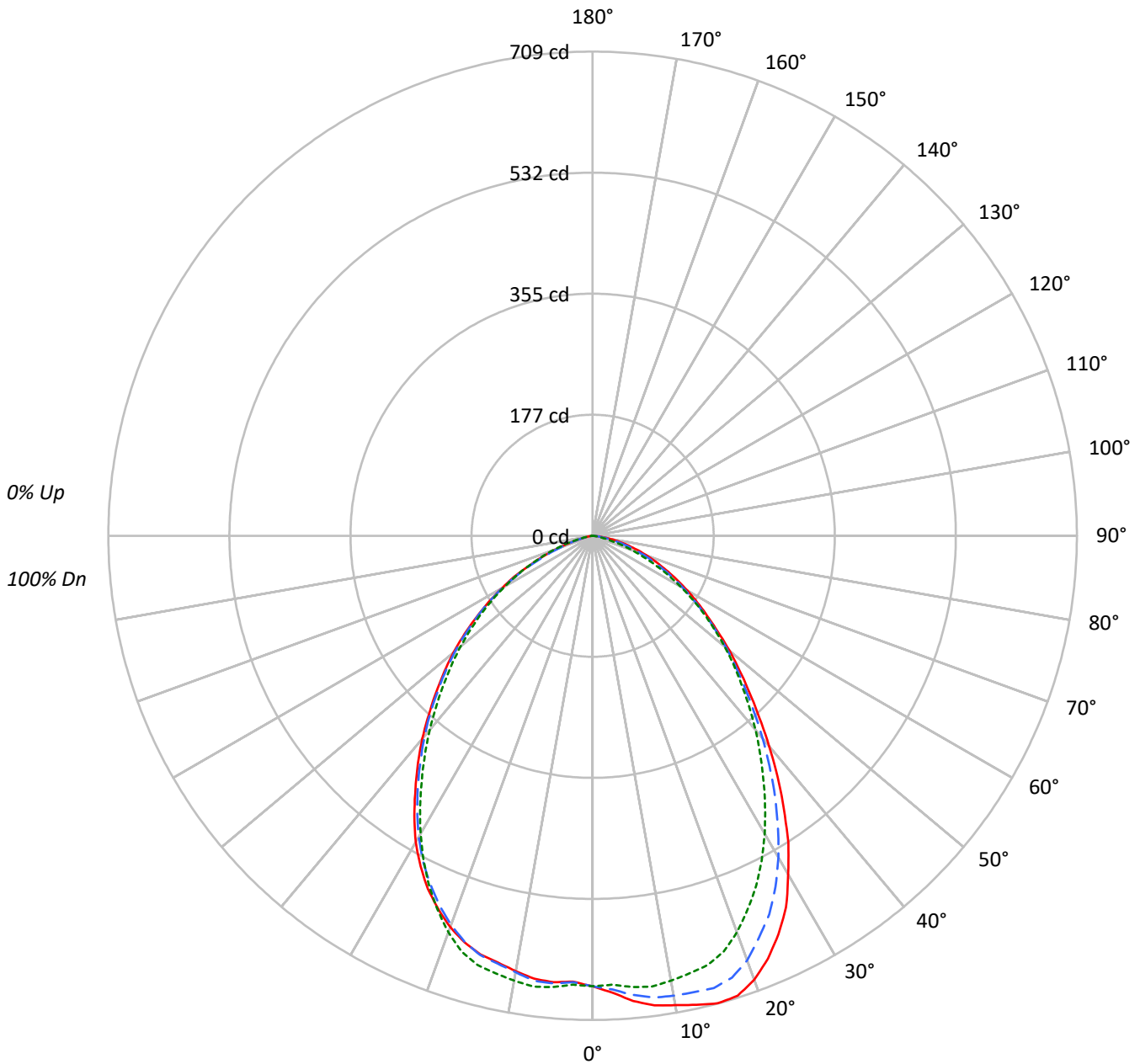
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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			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	62	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°	81371	81371	81371
5°	84666	82128	81249
10°	87423	82852	81073
15°	90511	83105	81062
20°	90820	81093	80043
25°	87606	77044	77643
30°	81525	71741	73777
35°	73437	65637	68061
40°	64729	59721	62442
45°	56605	53814	56448
50°	50122	48414	50986
55°	44085	42773	44472
60°	39372	36510	37620
65°	34615	29653	29128
70°	30222	21855	19943
75°	25068	13153	10628
80°	18966	5114	3125
85°	8916	1274	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	4.6
10°-20°	185.7	13.5
20°-30°	268.9	19.6
30°-40°	283.7	20.6
40°-50°	245.6	17.9
50°-60°	181.9	13.2
60°-70°	104.8	7.6
70°-80°	36.6	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°	518.3	37.7
0°-40°	802.0	58.3
0°-60°	1229.4	89.4
0°-90°	1374.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1374.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	660	660	660	660	660	
5°	684	675	663	658	656	66
15°	709	686	651	636	635	199
25°	644	612	566	563	570	295
35°	488	465	436	446	452	305
45°	324	316	308	320	324	252
55°	205	201	199	206	207	185
65°	119	111	102	96	100	118
75°	53	45	28	22	22	57
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°	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7	659.7
2.5°	669.6	667.8	665.0	661.5	658.0	655.3	654.3	653.4	653.4
5°	683.8	680.3	674.9	667.8	663.3	660.6	658.0	656.2	656.2
7.5°	693.6	690.0	682.0	672.2	665.9	660.6	657.1	654.3	654.3
10°	698.0	693.6	683.8	671.3	661.5	654.3	649.0	647.3	647.3
12.5°	703.5	698.0	684.7	668.7	656.2	647.3	641.8	640.1	640.1
15°	708.8	702.6	685.6	666.9	650.8	640.1	635.7	634.8	634.8
17.5°	706.1	698.0	678.4	656.2	638.3	627.6	623.2	623.2	624.1
20°	691.9	683.8	661.5	636.5	617.8	609.8	606.2	608.1	609.8
22.5°	670.4	660.6	636.5	612.5	592.8	585.8	585.8	588.4	591.1
25°	643.7	634.8	611.6	584.9	566.1	560.8	562.6	567.0	570.5
27.5°	613.4	603.5	579.5	554.5	535.8	533.1	537.6	543.8	545.6
30°	572.4	564.3	543.8	519.7	503.7	502.8	509.0	513.5	518.0
32.5°	533.1	524.2	504.6	481.4	469.8	470.7	477.9	483.2	485.8
35°	487.7	479.6	465.4	446.6	435.9	437.7	445.7	451.2	452.0
37.5°	444.9	439.6	425.2	411.0	403.0	406.5	413.6	419.9	419.9
40°	402.0	397.6	386.9	375.3	370.9	375.3	382.5	387.8	387.8
42.5°	361.1	358.4	349.5	341.4	338.8	345.0	351.2	355.8	354.9
45°	324.5	321.9	315.6	309.4	308.5	314.7	320.1	322.7	323.6
47.5°	291.5	289.7	284.4	279.9	279.9	286.2	290.6	293.3	294.3
50°	261.2	259.5	255.0	251.4	252.3	258.6	262.1	264.8	265.7
52.5°	230.9	230.0	226.5	221.9	224.7	229.1	233.5	235.4	236.3
55°	205.0	205.0	200.6	197.0	198.9	203.3	205.9	206.8	206.8
57.5°	181.9	181.0	175.7	172.0	172.9	177.4	179.2	180.1	180.1
60°	159.6	158.7	153.4	148.0	148.0	150.7	151.6	152.5	152.5
62.5°	138.1	137.3	131.1	126.5	124.8	123.9	123.9	125.8	129.3
65°	118.6	117.7	111.4	104.3	101.6	98.9	96.3	98.1	99.8
67.5°	100.7	98.9	92.7	86.5	80.3	75.7	71.3	74.0	77.5
70°	83.8	82.0	74.9	67.8	60.6	53.4	49.9	53.4	55.3
72.5°	67.8	65.9	58.9	51.7	42.8	35.7	34.8	35.7	36.5
75°	52.6	51.7	44.6	36.5	27.6	22.3	22.3	22.3	22.3
77.5°	39.2	37.4	30.4	23.2	16.0	12.5	11.6	11.6	11.6
80°	26.7	25.0	18.8	13.4	7.2	5.3	5.3	4.4	4.4
82.5°	15.1	14.2	9.8	5.3	2.7	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)