

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: P592633

Luminaire Tested: **HC415D010-HM40525850-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592633
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-HM40525850-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1581.9 lumens
Efficiency: N/A
Efficacy: 113.0 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

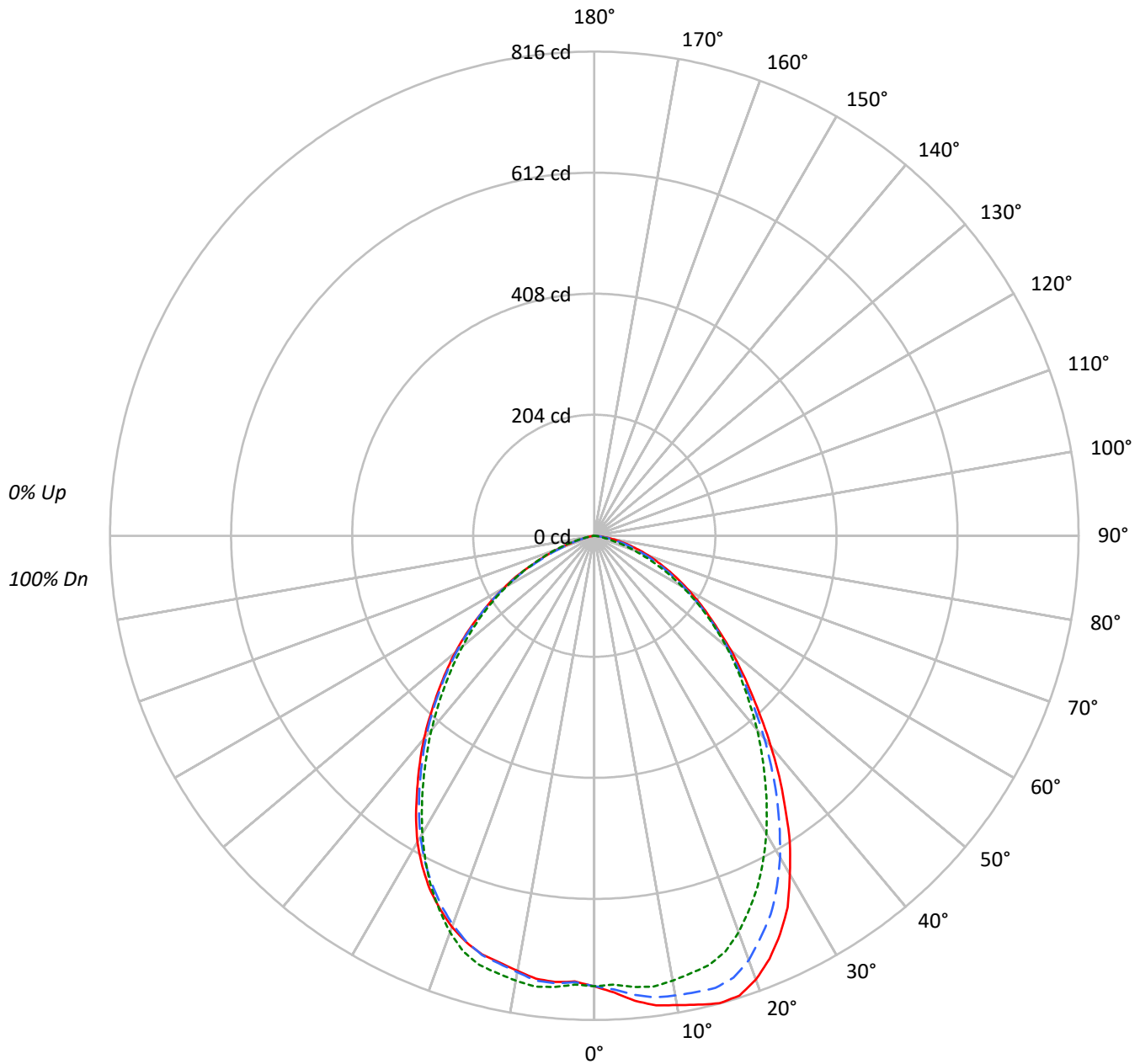
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76		
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67		
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58		
5	81	70	62	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52		
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46		
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41		
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37		
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	93632	93632	93632
5°	97419	94509	93482
10°	100600	95339	93273
15°	104150	95619	93270
20°	104484	93314	92093
25°	100793	88653	89348
30°	93803	82551	84887
35°	84489	75530	78315
40°	74486	68706	71862
45°	65135	61925	64960
50°	57683	55706	58661
55°	50729	49203	51181
60°	45293	42012	43270
65°	39810	34148	33506
70°	34766	25173	22937
75°	28833	15155	12248
80°	21878	5825	3623
85°	10190	1415	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	4.6
10°-20°	213.7	13.5
20°-30°	309.4	19.6
30°-40°	326.5	20.6
40°-50°	282.5	17.9
50°-60°	209.3	13.2
60°-70°	120.6	7.6
70°-80°	42.1	2.7
80°-90°	4.4	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°	596.3	37.7
0°-40°	922.8	58.3
0°-60°	1414.7	89.4
0°-90°	1581.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1581.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	759	759	759	759	759	
5°	787	777	763	757	755	76
15°	816	789	749	731	730	229
25°	741	704	651	647	656	339
35°	561	536	502	513	520	350
45°	373	363	355	368	372	290
55°	236	231	229	237	238	213
65°	136	128	117	111	115	136
75°	60	51	32	26	26	65
85°	7	4	1	1	1	11
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°	759.1	759.1	759.1	759.1	759.1	759.1	759.1	759.1	759.1
2.5°	770.4	768.4	765.3	761.2	757.0	753.9	752.9	751.9	751.9
5°	786.8	782.7	776.6	768.4	763.3	760.1	757.0	755.0	755.0
7.5°	798.1	794.0	784.8	773.5	766.3	760.1	756.0	752.9	752.9
10°	803.2	798.1	786.8	772.5	761.2	752.9	746.8	744.7	744.7
12.5°	809.4	803.2	787.8	769.4	755.0	744.7	738.6	736.5	736.5
15°	815.6	808.4	788.9	767.4	748.8	736.5	731.4	730.4	730.4
17.5°	812.5	803.2	780.7	755.0	734.5	722.2	717.1	717.1	718.1
20°	796.0	786.8	761.2	732.5	710.9	701.6	697.5	699.6	701.6
22.5°	771.5	760.1	732.5	704.7	682.2	674.0	674.0	677.1	680.2
25°	740.6	730.4	703.7	673.0	651.4	645.2	647.3	652.4	656.5
27.5°	705.7	694.5	666.7	638.1	616.5	613.4	618.5	625.8	627.9
30°	658.6	649.3	625.8	598.1	579.6	578.6	585.8	590.9	596.0
32.5°	613.4	603.2	580.7	553.9	540.6	541.7	549.9	556.0	559.1
35°	561.1	551.9	535.5	513.9	501.6	503.7	512.9	519.0	520.1
37.5°	511.9	505.7	489.4	472.9	463.7	467.8	475.9	483.1	483.1
40°	462.6	457.5	445.2	431.8	426.7	431.8	440.1	446.3	446.3
42.5°	415.5	412.4	402.2	392.9	389.8	397.0	404.2	409.3	408.3
45°	373.4	370.3	363.2	356.0	355.0	362.1	368.3	371.3	372.4
47.5°	335.4	333.4	327.2	322.1	322.1	329.3	334.4	337.5	338.5
50°	300.6	298.5	293.3	289.3	290.3	297.4	301.6	304.7	305.7
52.5°	265.7	264.7	260.6	255.5	258.6	263.7	268.8	270.8	271.9
55°	235.9	235.9	230.8	226.7	228.8	233.9	237.0	238.0	238.0
57.5°	209.3	208.3	202.0	198.0	199.0	204.1	206.1	207.2	207.2
60°	183.6	182.6	176.5	170.3	170.3	173.4	174.4	175.4	175.4
62.5°	159.0	157.9	150.8	145.6	143.6	142.6	142.6	144.6	148.7
65°	136.4	135.4	128.3	120.1	117.0	113.8	110.7	112.8	114.8
67.5°	116.0	113.8	106.7	99.5	92.3	87.2	82.1	85.2	89.3
70°	96.4	94.4	86.2	78.0	69.8	61.5	57.4	61.5	63.6
72.5°	78.0	76.0	67.7	59.5	49.2	41.0	40.0	41.0	42.1
75°	60.5	59.5	51.3	42.1	31.8	25.7	25.7	25.7	25.7
77.5°	45.1	43.1	34.9	26.7	18.4	14.3	13.3	13.3	13.3
80°	30.8	28.8	21.5	15.3	8.2	6.1	6.1	5.1	5.1
82.5°	17.4	16.4	11.3	6.1	3.1	2.0	2.0	2.0	2.0
85°	7.2	6.1	4.1	2.0	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	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)