

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: P579878

Luminaire Tested: **HC415D010-HM40525835-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579878
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: HC415D010-HM40525835-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1531.4 lumens
Efficiency: N/A
Efficacy: 109.4 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

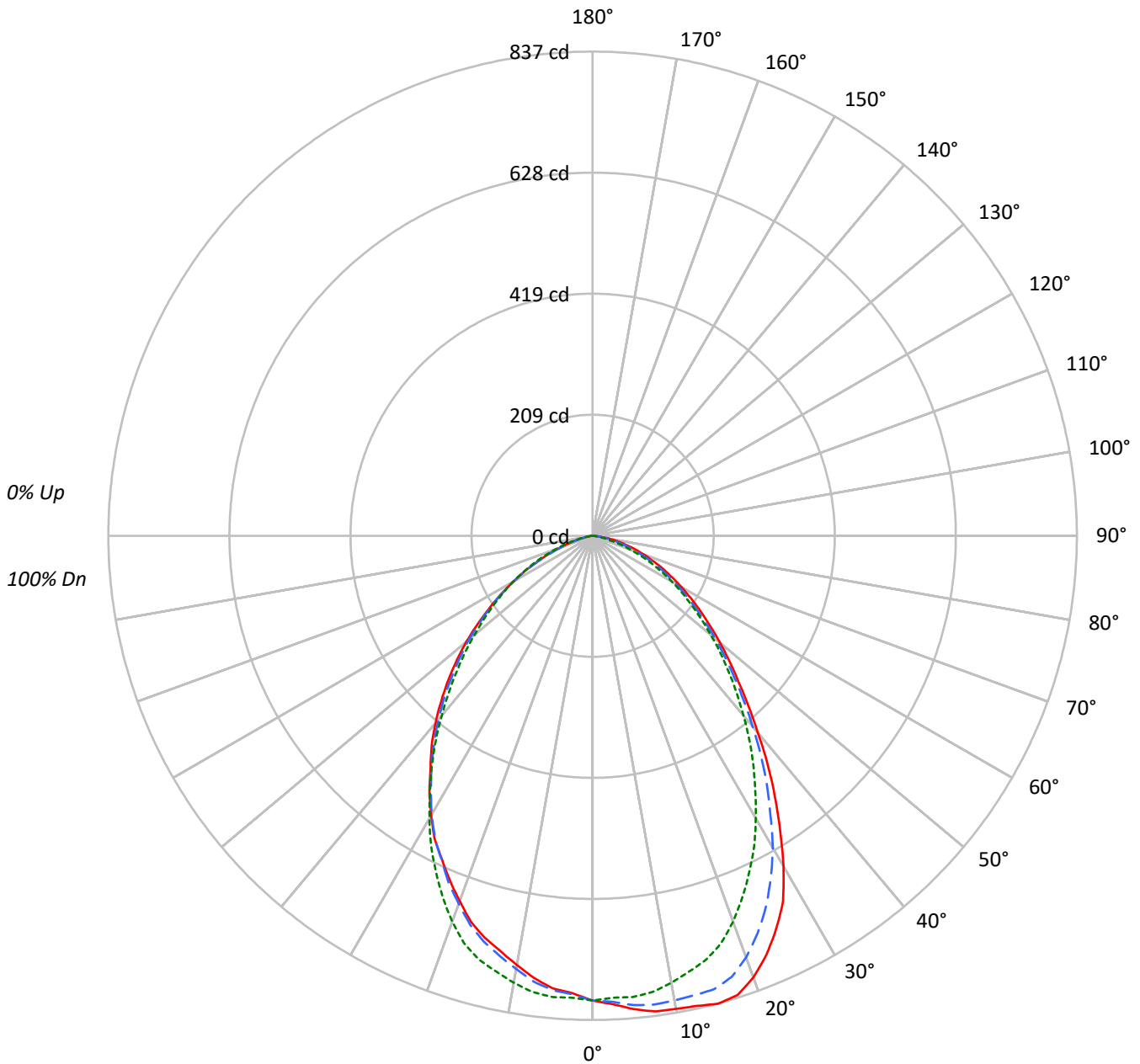
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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																			
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	99096	99096	99096
5°	101703	99103	97246
10°	104006	98257	94375
15°	106933	96858	91891
20°	106637	93143	88168
25°	102141	87211	83945
30°	93959	80329	79460
35°	82652	72879	73497
40°	71507	65244	67981
45°	62152	57965	61472
50°	55150	51139	54593
55°	48923	44859	46794
60°	43590	38903	38903
65°	38730	32309	30295
70°	33467	24487	21602
75°	28070	16156	13344
80°	21239	7814	7103
85°	11322	2830	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	5.0
10°-20°	215.7	14.1
20°-30°	304.2	19.9
30°-40°	314.3	20.5
40°-50°	266.4	17.4
50°-60°	193.8	12.7
60°-70°	113.3	7.4
70°-80°	42.1	2.7
80°-90°	5.5	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°	596.0	38.9
0°-40°	910.3	59.4
0°-60°	1370.5	89.5
0°-90°	1531.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1531.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	803	803	803	803	803	
5°	821	814	800	788	785	79
15°	837	812	758	726	720	235
25°	750	709	641	618	617	343
35°	549	525	484	485	488	343
45°	356	346	332	344	352	277
55°	228	217	209	216	218	205
65°	133	122	111	104	104	132
75°	59	49	34	27	28	63
85°	8	5	2	2	2	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°	803.4	803.4	803.4	803.4	803.4	803.4	803.4	803.4	803.4
2.5°	810.5	808.4	806.5	803.4	799.4	796.5	793.5	791.5	791.5
5°	821.4	818.4	814.4	807.5	800.4	794.4	788.5	785.4	785.4
7.5°	829.4	825.5	817.4	807.5	795.4	786.5	777.5	773.5	771.5
10°	830.4	826.4	815.5	800.4	784.5	770.5	760.5	754.5	753.5
12.5°	832.4	827.4	813.4	792.5	771.5	754.5	743.6	737.6	735.5
15°	837.4	830.4	811.5	784.5	758.5	738.6	726.5	721.7	719.6
17.5°	832.4	822.4	799.4	767.5	738.6	716.7	704.6	699.6	699.6
20°	812.4	802.5	775.5	740.5	709.6	688.7	676.7	673.7	671.7
22.5°	784.5	773.5	744.5	707.7	676.7	657.8	649.8	645.7	644.8
25°	750.5	739.6	708.6	670.7	640.8	624.8	617.8	617.8	616.8
27.5°	712.7	698.7	666.7	633.8	604.9	592.8	589.9	589.9	590.9
30°	659.7	649.8	622.8	590.9	564.0	555.9	555.9	557.9	557.9
32.5°	602.8	595.9	571.9	543.9	523.0	518.0	520.0	524.0	525.0
35°	548.9	541.0	525.0	500.1	484.0	482.1	485.0	488.1	488.1
37.5°	496.1	488.1	477.1	457.1	445.1	446.2	450.1	454.1	457.1
40°	444.1	438.2	430.1	414.2	405.2	409.2	414.2	418.2	422.2
42.5°	398.2	392.3	386.2	374.3	368.3	373.3	379.3	383.3	387.3
45°	356.3	352.4	346.3	336.3	332.3	337.3	344.3	348.4	352.4
47.5°	320.4	318.4	310.4	301.4	299.4	304.4	310.4	315.4	318.4
50°	287.4	284.5	277.4	268.4	266.5	274.5	278.5	281.4	284.5
52.5°	255.5	252.5	244.6	236.5	236.5	242.5	245.5	246.5	249.6
55°	227.5	224.6	216.6	210.6	208.6	213.6	215.6	215.6	217.6
57.5°	201.6	198.6	190.7	183.6	182.6	185.7	185.7	185.7	186.7
60°	176.7	173.6	165.7	159.6	157.7	158.7	157.7	156.7	157.7
62.5°	153.7	150.7	142.7	135.8	133.7	133.7	130.8	129.7	130.8
65°	132.7	127.8	121.8	114.7	110.7	107.8	103.8	103.8	103.8
67.5°	111.8	107.8	100.9	93.8	88.8	83.8	77.9	79.8	80.8
70°	92.8	89.8	81.9	74.8	67.9	61.9	56.8	58.9	59.9
72.5°	75.8	71.9	64.9	56.8	50.9	42.9	39.9	42.0	42.0
75°	58.9	54.9	48.9	40.9	33.9	26.9	26.9	28.0	28.0
77.5°	43.9	39.9	33.9	26.9	20.9	15.9	16.9	16.9	16.9
80°	29.9	26.9	21.9	15.9	11.0	9.0	9.0	9.0	10.0
82.5°	16.9	15.0	11.9	8.0	5.0	5.0	5.0	5.0	5.0
85°	8.0	6.0	5.0	3.0	2.0	2.0	2.0	2.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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)