

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: P592634

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592634
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-HM40525850-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1573.6 lumens
Efficiency: N/A
Efficacy: 112.4 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

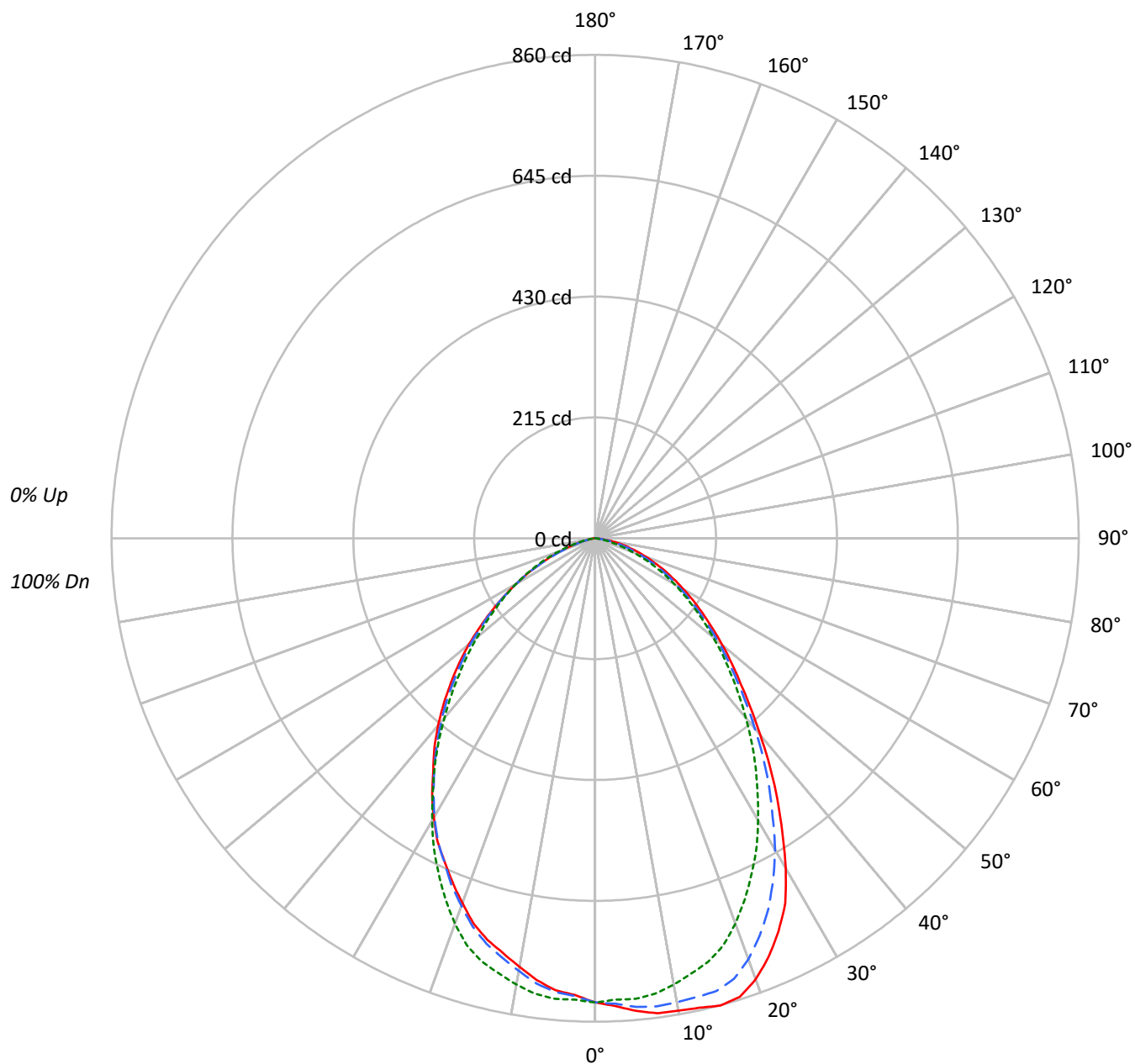
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	100	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	85	100	94	89	84		90	86	82			87	84	80			84
3	95	86	79	73	92	84	78	73		81	76	71			79	74	70			76
4	88	77	70	64	86	76	69	63		74	67	62			71	66	62			69
5	81	70	62	56	79	69	61	56		67	60	55			65	59	55			63
6	76	64	56	50	74	63	55	50		61	54	49			60	54	49			58
7	71	58	51	45	69	58	50	45		56	49	45			55	49	44			54
8	66	54	46	41	65	53	46	41		52	45	40			51	45	40			50
9	62	50	42	37	61	49	42	37		48	41	37			47	41	37			46
10	58	46	39	34	57	46	39	34		45	38	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	101846	101846	101846
5°	104514	101839	99945
10°	106874	100963	96980
15°	109883	99540	94432
20°	109590	95729	90610
25°	104958	89606	86272
30°	96566	82537	81654
35°	84941	74897	75514
40°	73488	67047	69865
45°	63861	59588	63146
50°	56685	52540	56090
55°	50299	46084	48063
60°	44799	39964	39964
65°	39810	33214	31142
70°	34405	25137	22179
75°	28833	16632	13725
80°	21878	8027	7245
85°	11605	2830	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.2	5.0
10°-20°	221.7	14.1
20°-30°	312.6	19.9
30°-40°	322.9	20.5
40°-50°	273.8	17.4
50°-60°	199.2	12.7
60°-70°	116.4	7.4
70°-80°	43.2	2.7
80°-90°	5.6	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°	612.5	38.9
0°-40°	935.4	59.4
0°-60°	1408.4	89.5
0°-90°	1573.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1573.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	826	826	826	826	826	
5°	844	837	822	810	807	81
15°	860	834	780	747	740	242
25°	771	728	658	635	634	353
35°	564	540	497	498	502	352
45°	366	356	342	354	362	285
55°	234	222	214	222	224	210
65°	136	125	114	107	107	135
75°	60	50	35	28	29	65
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°	825.7	825.7	825.7	825.7	825.7	825.7	825.7	825.7	825.7
2.5°	832.9	830.8	828.8	825.7	821.5	818.4	815.3	813.3	813.3
5°	844.1	841.0	836.9	829.8	822.5	816.4	810.2	807.2	807.2
7.5°	852.3	848.2	840.0	829.8	817.4	808.2	799.0	794.9	792.8
10°	853.3	849.2	838.0	822.5	806.1	791.8	781.6	775.4	774.3
12.5°	855.4	850.2	835.9	814.3	792.8	775.4	764.1	757.9	755.9
15°	860.5	853.3	833.9	806.1	779.5	758.9	746.7	741.6	739.5
17.5°	855.4	845.1	821.5	788.7	758.9	736.4	724.0	718.9	718.9
20°	834.9	824.7	796.9	761.0	729.3	707.7	695.4	692.3	690.3
22.5°	806.1	794.9	765.1	727.2	695.4	675.9	667.6	663.6	662.5
25°	771.2	760.0	728.2	689.2	658.4	642.1	634.9	634.9	633.9
27.5°	732.3	717.9	685.2	651.3	621.5	609.2	606.1	606.1	607.2
30°	678.0	667.6	640.0	607.2	579.5	571.2	571.2	573.3	573.3
32.5°	619.4	612.3	587.7	558.9	537.5	532.3	534.4	538.5	539.5
35°	564.1	555.9	539.5	513.8	497.4	495.4	498.5	501.5	501.5
37.5°	509.7	501.5	490.3	469.7	457.4	458.4	462.5	466.6	469.7
40°	456.4	450.3	442.1	425.7	416.4	420.5	425.7	429.8	433.9
42.5°	409.2	403.1	396.9	384.6	378.5	383.6	389.8	393.9	398.0
45°	366.1	362.0	355.9	345.6	341.6	346.7	353.8	357.9	362.0
47.5°	329.3	327.2	318.9	309.7	307.7	312.8	318.9	324.0	327.2
50°	295.4	292.3	285.2	275.9	273.8	282.1	286.2	289.3	292.3
52.5°	262.5	259.5	251.3	243.1	243.1	249.2	252.3	253.3	256.4
55°	233.9	230.8	222.5	216.4	214.3	219.4	221.5	221.5	223.5
57.5°	207.2	204.1	195.9	188.7	187.7	190.8	190.8	190.8	191.8
60°	181.6	178.5	170.2	164.1	162.0	163.0	162.0	161.0	162.0
62.5°	157.9	154.9	146.7	139.5	137.5	137.5	134.4	133.4	134.4
65°	136.4	131.3	125.2	117.9	113.8	110.7	106.7	106.7	106.7
67.5°	114.8	110.7	103.6	96.4	91.3	86.2	80.0	82.1	83.1
70°	95.4	92.3	84.1	77.0	69.7	63.6	58.4	60.5	61.5
72.5°	78.0	73.8	66.6	58.4	52.3	44.1	41.0	43.1	43.1
75°	60.5	56.4	50.3	42.1	34.9	27.7	27.7	28.8	28.8
77.5°	45.1	41.0	34.9	27.7	21.5	16.4	17.4	17.4	17.4
80°	30.8	27.7	22.5	16.4	11.3	9.2	9.2	9.2	10.2
82.5°	17.4	15.3	12.3	8.2	5.1	5.1	5.1	5.1	5.1
85°	8.2	6.1	5.1	3.1	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)