

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: P580645

Luminaire Tested: **HC440D010-HM43040930-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580645
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC440D010-HM43040930-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3471.9 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

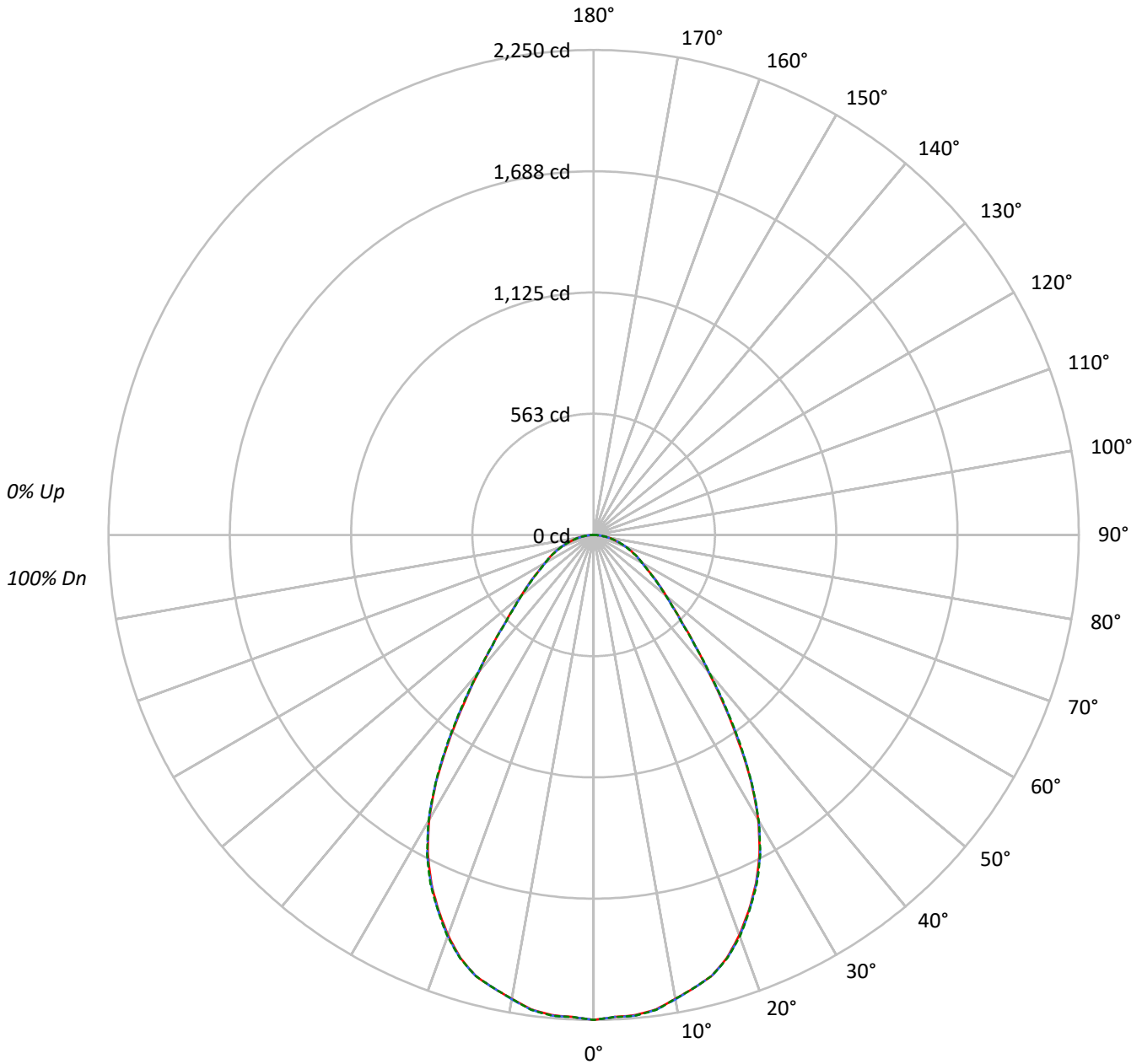
Input Watts (W): 41
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69			69
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51			51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46			46
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42			42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39			39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	277565	277565	277565
5°	276891	277176	277176
10°	273680	273968	273680
15°	270398	270398	270398
20°	259294	259898	260213
25°	242538	242851	243477
30°	217316	217985	217985
35°	176446	177847	178178
40°	133160	133917	134271
45°	101993	101592	101592
50°	84049	83588	83588
55°	72127	71654	71654
60°	64362	63794	63794
65°	60503	60503	60503
70°	56260	56260	56260
75°	51088	52185	51088
80°	48018	46313	48018
85°	39485	39485	39485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.0	6.1
10°-20°	593.3	17.1
20°-30°	815.3	23.5
30°-40°	733.1	21.1
40°-50°	463.2	13.3
50°-60°	302.4	8.7
60°-70°	204.9	5.9
70°-80°	115.3	3.3
80°-90°	32.4	0.9
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°	1620.6	46.7
0°-40°	2353.7	67.8
0°-60°	3119.3	89.8
0°-90°	3471.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3471.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2250	2250	2250	2250	2250	
5°	2236	2236	2239	2239	2239	212
15°	2118	2118	2118	2118	2118	593
25°	1782	1784	1784	1789	1789	813
35°	1172	1176	1181	1186	1183	730
45°	585	582	582	582	582	464
55°	335	335	333	335	333	304
65°	207	207	207	207	207	205
75°	107	110	110	110	107	115
85°	28	28	28	28	28	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2250.3	2250.3	2250.3	2250.3	2250.3
2.5°	2238.6	2238.6	2238.6	2238.6	2238.6
5°	2236.3	2236.3	2238.6	2238.6	2238.6
7.5°	2220.0	2222.4	2222.4	2222.4	2222.4
10°	2185.1	2185.1	2187.4	2187.4	2185.1
12.5°	2152.4	2152.4	2152.4	2154.8	2152.4
15°	2117.5	2117.5	2117.5	2117.5	2117.5
17.5°	2056.9	2059.3	2059.3	2059.3	2059.3
20°	1975.4	1980.0	1980.0	1982.4	1982.4
22.5°	1882.3	1884.5	1886.9	1889.2	1886.9
25°	1782.1	1784.4	1784.4	1789.0	1789.0
27.5°	1665.6	1667.9	1672.5	1672.5	1672.5
30°	1525.8	1528.1	1530.5	1530.5	1530.5
32.5°	1360.4	1360.4	1365.0	1367.4	1365.0
35°	1171.8	1176.4	1181.1	1185.7	1183.3
37.5°	992.3	997.0	999.4	999.4	1001.7
40°	827.0	831.7	831.7	836.3	833.9
42.5°	696.5	694.2	694.2	698.8	696.5
45°	584.7	582.4	582.4	582.4	582.4
47.5°	503.2	500.9	500.9	500.9	500.9
50°	438.0	435.6	435.6	435.6	435.6
52.5°	384.4	382.0	382.0	382.0	379.7
55°	335.4	335.4	333.2	335.4	333.2
57.5°	291.2	291.2	291.2	291.2	291.2
60°	260.9	258.6	258.6	258.6	258.6
62.5°	232.9	232.9	232.9	232.9	232.9
65°	207.3	207.3	207.3	207.3	207.3
67.5°	181.7	179.4	181.7	181.7	179.4
70°	156.0	153.8	156.0	156.0	156.0
72.5°	130.5	130.5	130.5	132.7	130.5
75°	107.2	109.5	109.5	109.5	107.2
77.5°	86.2	88.6	86.2	86.2	86.2
80°	67.6	65.2	65.2	65.2	67.6
82.5°	46.6	46.6	46.6	46.6	46.6
85°	27.9	27.9	27.9	27.9	27.9
87.5°	11.7	11.7	11.7	11.7	11.7
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)