

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P580647

Luminaire Tested: **HCC4W40D010MB-HM43040930-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580647  
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: HCC4W40D010MB-HM43040930-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

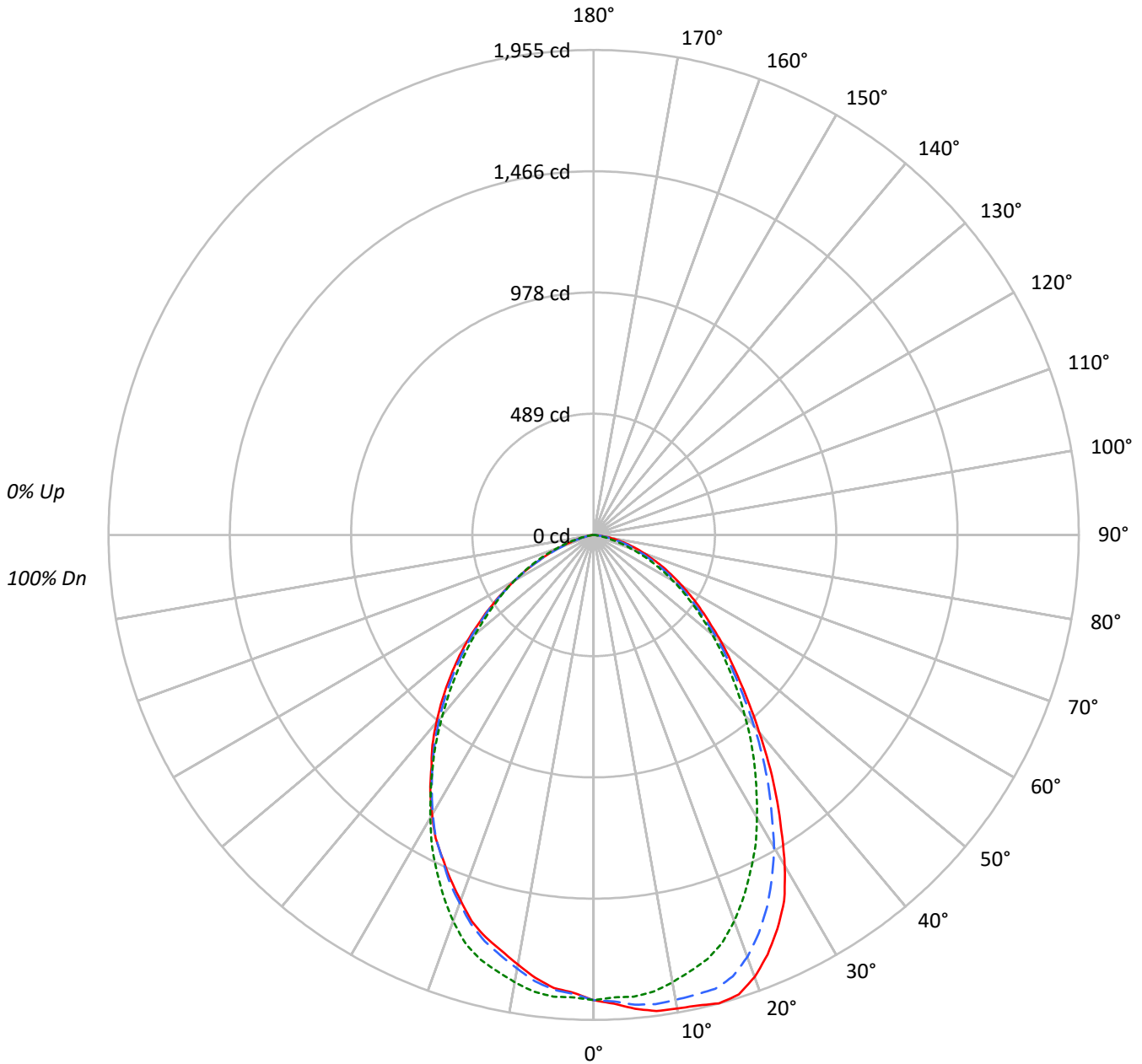
Lumens per Lamp: N/A  
Luminaire Lumens: 3574.5 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	231310	231310	231310
5°	237382	231339	227006
10°	242757	229330	220287
15°	249596	226087	214492
20°	248912	217422	205792
25°	238428	203546	195939
30°	219324	187477	185483
35°	192935	170137	171538
40°	166926	152289	158682
45°	145079	135311	143457
50°	128740	119357	127416
55°	114211	104706	109201
60°	101711	90807	90807
65°	90418	75475	70689
70°	78150	57125	50417
75°	65481	37792	31072
80°	49580	18255	16550
85°	26323	6652	6652



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.6	5.0
10°-20°	503.5	14.1
20°-30°	710.1	19.9
30°-40°	733.6	20.5
40°-50°	621.8	17.4
50°-60°	452.4	12.7
60°-70°	264.4	7.4
70°-80°	98.2	2.7
80°-90°	12.9	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°	1391.2	38.9
0°-40°	2124.7	59.4
0°-60°	3199.0	89.5
0°-90°	3574.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3574.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1875	1875	1875	1875	1875	
5°	1917	1901	1868	1840	1833	184
15°	1955	1894	1770	1696	1680	549
25°	1752	1654	1496	1442	1440	801
35°	1281	1225	1130	1132	1139	800
45°	832	808	776	804	822	647
55°	531	506	487	503	508	478
65°	310	284	259	242	242	307
75°	137	114	79	63	65	148
85°	19	12	5	5	5	26
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°	1875.3	1875.3	1875.3	1875.3	1875.3	1875.3	1875.3	1875.3	1875.3
2.5°	1891.7	1887.0	1882.4	1875.3	1866.0	1859.1	1852.1	1847.4	1847.4
5°	1917.2	1910.3	1901.0	1884.6	1868.4	1854.4	1840.5	1833.4	1833.4
7.5°	1936.0	1926.7	1907.9	1884.6	1856.7	1835.7	1814.8	1805.5	1800.8
10°	1938.2	1928.9	1903.3	1868.4	1831.0	1798.5	1775.2	1761.2	1758.8
12.5°	1942.9	1931.3	1898.6	1849.8	1800.8	1761.2	1735.5	1721.6	1716.9
15°	1954.6	1938.2	1894.0	1831.0	1770.5	1724.0	1696.0	1684.3	1679.7
17.5°	1942.9	1919.6	1866.0	1791.5	1724.0	1672.6	1644.7	1633.1	1633.1
20°	1896.3	1873.1	1810.1	1728.6	1656.4	1607.4	1579.5	1572.5	1567.8
22.5°	1831.0	1805.5	1737.9	1651.7	1579.5	1535.2	1516.6	1507.3	1504.9
25°	1751.9	1726.2	1654.0	1565.5	1495.6	1458.3	1442.1	1442.1	1439.7
27.5°	1663.3	1630.7	1556.2	1479.3	1411.8	1383.8	1376.8	1376.8	1379.2
30°	1539.9	1516.6	1453.7	1379.2	1316.3	1297.6	1297.6	1302.3	1302.3
32.5°	1407.1	1390.8	1334.9	1269.6	1220.8	1209.1	1213.7	1223.0	1225.4
35°	1281.3	1262.7	1225.4	1167.2	1129.9	1125.3	1132.2	1139.2	1139.2
37.5°	1157.9	1139.2	1113.6	1067.0	1039.1	1041.3	1050.7	1060.0	1067.0
40°	1036.7	1022.7	1004.1	966.8	945.8	955.2	966.8	976.2	985.5
42.5°	929.5	915.5	901.6	873.6	859.6	871.2	885.3	894.6	903.9
45°	831.7	822.4	808.4	785.0	775.7	787.4	803.8	813.1	822.4
47.5°	747.8	743.1	724.5	703.5	698.9	710.5	724.5	736.2	743.1
50°	670.9	664.0	647.6	626.6	622.0	640.7	650.0	656.9	664.0
52.5°	596.4	589.4	570.8	552.1	552.1	566.1	573.1	575.4	582.4
55°	531.1	524.2	505.6	491.6	486.9	498.5	503.2	503.2	507.8
57.5°	470.6	463.6	444.9	428.7	426.3	433.3	433.3	433.3	435.6
60°	412.3	405.4	386.7	372.7	368.1	370.4	368.1	365.8	368.1
62.5°	358.7	351.8	333.2	316.8	312.2	312.2	305.1	302.9	305.1
65°	309.8	298.2	284.2	267.9	258.6	251.6	242.2	242.2	242.2
67.5°	261.0	251.6	235.3	218.9	207.4	195.7	181.7	186.4	188.7
70°	216.7	209.6	191.0	174.8	158.4	144.4	132.8	137.4	139.8
72.5°	177.0	167.7	151.4	132.8	118.8	100.2	93.2	97.9	97.9
75°	137.4	128.1	114.1	95.5	79.3	62.9	62.9	65.2	65.2
77.5°	102.5	93.2	79.3	62.9	48.9	37.3	39.6	39.6	39.6
80°	69.8	62.9	51.2	37.3	25.7	21.0	21.0	21.0	23.3
82.5°	39.6	35.0	27.9	18.6	11.7	11.7	11.7	11.7	11.7
85°	18.6	14.0	11.7	7.0	4.7	4.7	4.7	4.7	4.7
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



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

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