

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: P580664

Luminaire Tested: **HCC4S40D010MB-HM43040935-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580664  
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: HCC4S40D010MB-HM43040935-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

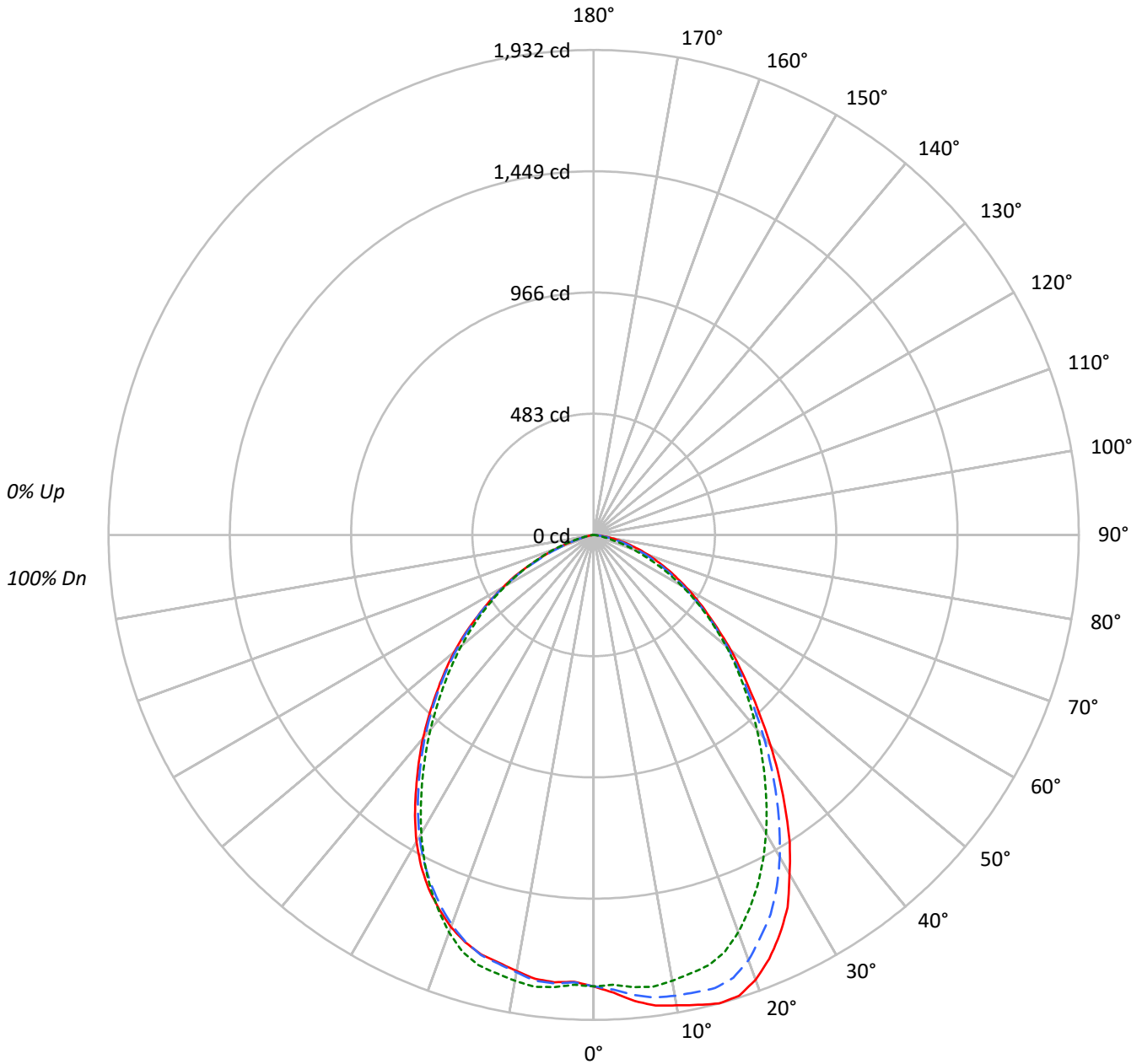
Lumens per Lamp: N/A  
Luminaire Lumens: 3747.7 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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

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

	0°	90°	180°
0°	221825	221825	221825
5°	230807	223886	221483
10°	238348	225873	221001
15°	246736	226547	220967
20°	247560	221071	218196
25°	238809	210038	211685
30°	222229	195567	201107
35°	200177	178961	185541
40°	176490	162787	170226
45°	154324	146684	153888
50°	136646	131964	138987
55°	120190	116555	121265
60°	107335	99515	102525
65°	94329	80875	79444
70°	82406	59577	54348
75°	68340	35886	28976
80°	51782	13780	8595
85°	24059	3538	3538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.5	4.6
10°-20°	506.2	13.5
20°-30°	733.1	19.6
30°-40°	773.5	20.6
40°-50°	669.4	17.9
50°-60°	495.9	13.2
60°-70°	285.8	7.6
70°-80°	99.8	2.7
80°-90°	10.5	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°	1412.8	37.7
0°-40°	2186.3	58.3
0°-60°	3351.5	89.4
0°-90°	3747.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3747.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1798	1798	1798	1798	1798	
5°	1864	1840	1808	1794	1789	179
15°	1932	1869	1774	1733	1730	543
25°	1755	1667	1543	1534	1555	803
35°	1329	1269	1188	1215	1232	830
45°	885	860	841	872	882	687
55°	559	547	542	561	564	504
65°	323	304	277	262	272	323
75°	143	122	75	61	61	154
85°	17	10	2	2	2	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°	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4
2.5°	1825.2	1820.3	1813.0	1803.4	1793.6	1786.3	1783.8	1781.5	1781.5
5°	1864.1	1854.4	1839.8	1820.3	1808.2	1800.9	1793.6	1788.8	1788.8
7.5°	1890.8	1881.0	1859.2	1832.5	1815.5	1800.9	1791.1	1783.8	1783.8
10°	1903.0	1890.8	1864.1	1830.0	1803.4	1783.8	1769.3	1764.5	1764.5
12.5°	1917.6	1903.0	1866.5	1822.7	1788.8	1764.5	1749.9	1744.9	1744.9
15°	1932.2	1915.1	1868.9	1817.9	1774.1	1744.9	1732.8	1730.4	1730.4
17.5°	1924.9	1903.0	1849.5	1788.8	1740.1	1711.0	1698.8	1698.8	1701.2
20°	1886.0	1864.1	1803.4	1735.3	1684.2	1662.3	1652.6	1657.5	1662.3
22.5°	1827.6	1800.9	1735.3	1669.6	1616.1	1596.8	1596.8	1604.0	1611.3
25°	1754.7	1730.4	1667.3	1594.3	1543.3	1528.7	1533.5	1545.7	1555.4
27.5°	1672.1	1645.3	1579.7	1511.7	1460.7	1453.4	1465.5	1482.5	1487.3
30°	1560.3	1538.5	1482.5	1416.8	1373.1	1370.8	1387.7	1399.9	1412.0
32.5°	1453.4	1429.1	1375.6	1312.4	1280.7	1283.2	1302.7	1317.3	1324.6
35°	1329.4	1307.5	1268.6	1217.6	1188.5	1193.3	1215.2	1229.7	1232.2
37.5°	1212.7	1198.1	1159.2	1120.4	1098.5	1108.2	1127.7	1144.7	1144.7
40°	1096.1	1083.9	1054.7	1023.1	1011.0	1023.1	1042.6	1057.2	1057.2
42.5°	984.2	977.0	952.7	930.8	923.5	940.5	957.6	969.7	967.3
45°	884.7	877.4	860.4	843.3	840.9	857.9	872.5	879.8	882.2
47.5°	794.7	789.9	775.3	763.2	763.2	780.1	792.3	799.6	802.0
50°	712.1	707.2	695.1	685.4	687.7	704.8	714.5	721.8	724.3
52.5°	629.4	627.0	617.3	605.1	612.4	624.6	636.7	641.7	644.0
55°	558.9	558.9	546.8	537.1	542.0	554.1	561.4	563.9	563.9
57.5°	495.8	493.4	478.8	469.0	471.5	483.6	488.5	490.9	490.9
60°	435.1	432.6	418.0	403.4	403.4	410.7	413.2	415.6	415.6
62.5°	376.7	374.3	357.3	345.2	340.2	337.9	337.9	342.7	352.4
65°	323.2	320.8	303.8	284.4	277.1	269.7	262.4	267.4	272.2
67.5°	274.6	269.7	252.8	235.7	218.7	206.6	194.4	201.7	211.4
70°	228.5	223.6	204.1	184.7	165.2	145.8	136.1	145.8	150.7
72.5°	184.7	179.8	160.4	140.9	116.7	97.2	94.8	97.2	99.7
75°	143.4	140.9	121.5	99.7	75.3	60.8	60.8	60.8	60.8
77.5°	106.9	102.1	82.6	63.2	43.7	34.1	31.6	31.6	31.6
80°	72.9	68.0	51.0	36.4	19.4	14.6	14.6	12.1	12.1
82.5°	41.4	38.9	26.7	14.6	7.3	4.8	4.8	4.8	4.8
85°	17.0	14.6	9.8	4.8	2.5	2.5	2.5	2.5	2.5
87.5°	2.5	2.5	2.5	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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Scaled Data Report



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

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