

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: P580578

Luminaire Tested: **HCC4S40D010MB-HM43040830-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S40D010MB-HM43040830-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

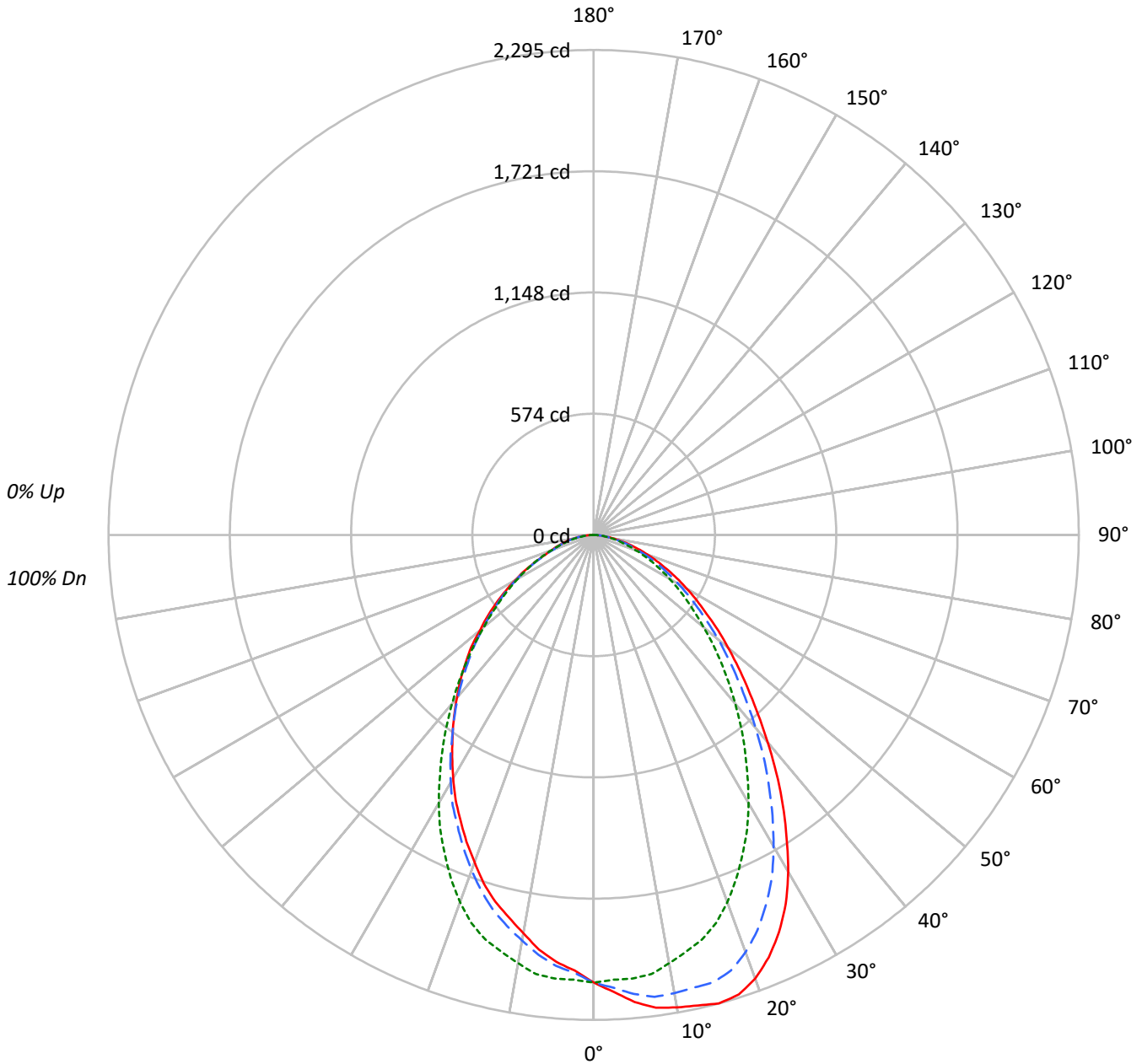
Lumens per Lamp: N/A  
Luminaire Lumens: 4107.3 lumens  
Efficiency: N/A  
Efficacy: 100.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P580578  
CATALOG NUMBER: HCC4S40D010MB-HM43040830-41WWWB

### Luminous Intensity Polar Plot



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



TEST NUMBER: P580578

CATALOG NUMBER: HCC4S40D010MB-HM43040830-41WWWB

**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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

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

	0°	90°	180°
0°	261234	261234	261234
5°	274688	260882	251113
10°	284326	257761	239725
15°	293013	253082	229484
20°	293330	242677	216254
25°	282319	226819	202757
30°	262152	208713	189343
35°	234976	187905	175212
40°	206181	167666	161966
45°	180211	148446	149370
50°	159117	129911	134593
55°	140318	115179	121007
60°	125418	101933	105979
65°	111082	89689	89689
70°	97084	76491	76491
75°	82923	64814	72534
80°	65705	57962	65705
85°	42315	49958	61563



TEST NUMBER: P580578  
 CATALOG NUMBER: HCC4S40D010MB-HM43040830-41WWWB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.7	4.9
10°-20°	565.1	13.8
20°-30°	791.6	19.3
30°-40°	815.6	19.9
40°-50°	694.4	16.9
50°-60°	514.5	12.5
60°-70°	322.9	7.9
70°-80°	160.4	3.9
80°-90°	42.1	1.0
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°	1557.4	37.9
0°-40°	2373.0	57.8
0°-60°	3581.9	87.2
0°-90°	4107.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4107.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2118	2118	2118	2118	2118	
5°	2218	2180	2107	2047	2028	213
15°	2295	2191	1982	1838	1797	645
25°	2074	1930	1667	1522	1490	949
35°	1560	1444	1248	1166	1164	973
45°	1033	962	851	835	856	802
55°	652	601	536	546	563	590
65°	381	343	307	302	307	380
75°	174	155	136	147	152	186
85°	30	30	35	41	44	38
90°	0	0	0	0	0	

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



TEST NUMBER: P580578

CATALOG NUMBER: HCC4S40D010MB-HM43040830-41WWWB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9
2.5°	2164.1	2155.9	2145.0	2126.0	2107.0	2090.7	2074.4	2066.2	2063.5
5°	2218.5	2202.1	2180.3	2145.0	2107.0	2074.4	2047.2	2033.6	2028.1
7.5°	2256.5	2240.2	2204.9	2150.5	2096.2	2047.2	2003.7	1984.6	1979.2
10°	2270.1	2251.1	2202.1	2128.8	2058.0	1998.2	1949.3	1924.9	1914.0
12.5°	2281.0	2256.5	2194.0	2107.0	2019.9	1946.6	1894.9	1862.3	1854.1
15°	2294.6	2267.3	2191.2	2085.3	1981.9	1894.9	1837.9	1807.9	1797.1
17.5°	2281.0	2251.1	2161.4	2041.7	1924.9	1829.7	1767.1	1739.9	1729.0
20°	2234.7	2202.1	2101.5	1973.7	1848.8	1750.8	1688.3	1661.1	1647.5
22.5°	2164.1	2128.8	2025.4	1889.4	1761.8	1666.6	1606.7	1579.6	1571.4
25°	2074.4	2039.0	1930.2	1791.6	1666.6	1574.1	1522.4	1498.0	1489.8
27.5°	1968.4	1932.9	1827.0	1691.0	1571.4	1484.4	1443.6	1419.2	1413.7
30°	1840.6	1805.3	1701.9	1576.8	1465.4	1383.8	1351.1	1332.2	1329.4
32.5°	1699.2	1669.3	1574.1	1460.0	1353.9	1285.9	1261.5	1247.9	1245.2
35°	1560.5	1527.9	1443.6	1340.3	1247.9	1188.0	1166.3	1163.6	1163.6
37.5°	1419.2	1386.6	1318.5	1223.5	1144.5	1090.2	1082.0	1084.8	1084.8
40°	1280.5	1250.6	1190.8	1111.9	1041.3	1000.5	997.8	1003.2	1005.9
42.5°	1150.0	1125.5	1071.1	1003.2	943.4	910.8	913.5	924.4	932.6
45°	1033.1	1011.4	962.4	902.6	851.0	826.5	834.6	848.3	856.3
47.5°	927.1	908.0	861.8	807.5	764.0	747.6	758.5	774.8	785.7
50°	829.2	812.8	769.3	712.3	677.0	666.1	679.7	696.0	701.4
52.5°	742.2	725.8	679.7	630.8	603.5	598.2	611.7	625.3	633.5
55°	652.5	638.9	600.9	557.4	535.6	532.8	546.5	557.4	562.7
57.5°	579.1	565.4	530.1	492.1	473.1	470.4	483.9	492.1	494.8
60°	508.4	494.8	462.2	426.9	413.2	413.2	421.4	426.9	429.6
62.5°	443.1	429.6	399.6	369.7	358.8	358.8	358.8	361.6	369.7
65°	380.6	369.7	342.6	315.3	307.3	301.8	301.8	301.8	307.3
67.5°	323.5	312.6	290.9	266.5	258.3	250.1	247.4	252.8	252.8
70°	269.2	261.0	239.2	220.2	212.1	203.9	201.2	212.1	212.1
72.5°	220.2	212.1	198.4	179.5	171.3	168.6	174.0	179.5	182.2
75°	174.0	165.8	154.9	144.0	136.0	138.7	146.9	149.5	152.2
77.5°	130.5	127.8	116.9	108.7	108.7	111.4	116.9	122.3	125.1
80°	92.5	89.7	84.3	78.8	81.6	87.0	89.7	95.2	92.5
82.5°	57.1	57.1	54.4	54.4	57.1	62.6	65.2	67.9	70.7
85°	29.9	29.9	29.9	32.6	35.3	38.1	40.8	43.5	43.5
87.5°	8.2	10.9	10.9	13.6	16.4	16.4	19.1	19.1	19.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

Scaled Data Report





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

Scaled Data Report



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

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

Scaled Data Report



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

Scaled Data Report



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

Scaled Data Report



(END OF REPORT)