

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: P580684

Luminaire Tested: **HCC4S40D010MB-HM43040940-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580684  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S40D010MB-HM43040940-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

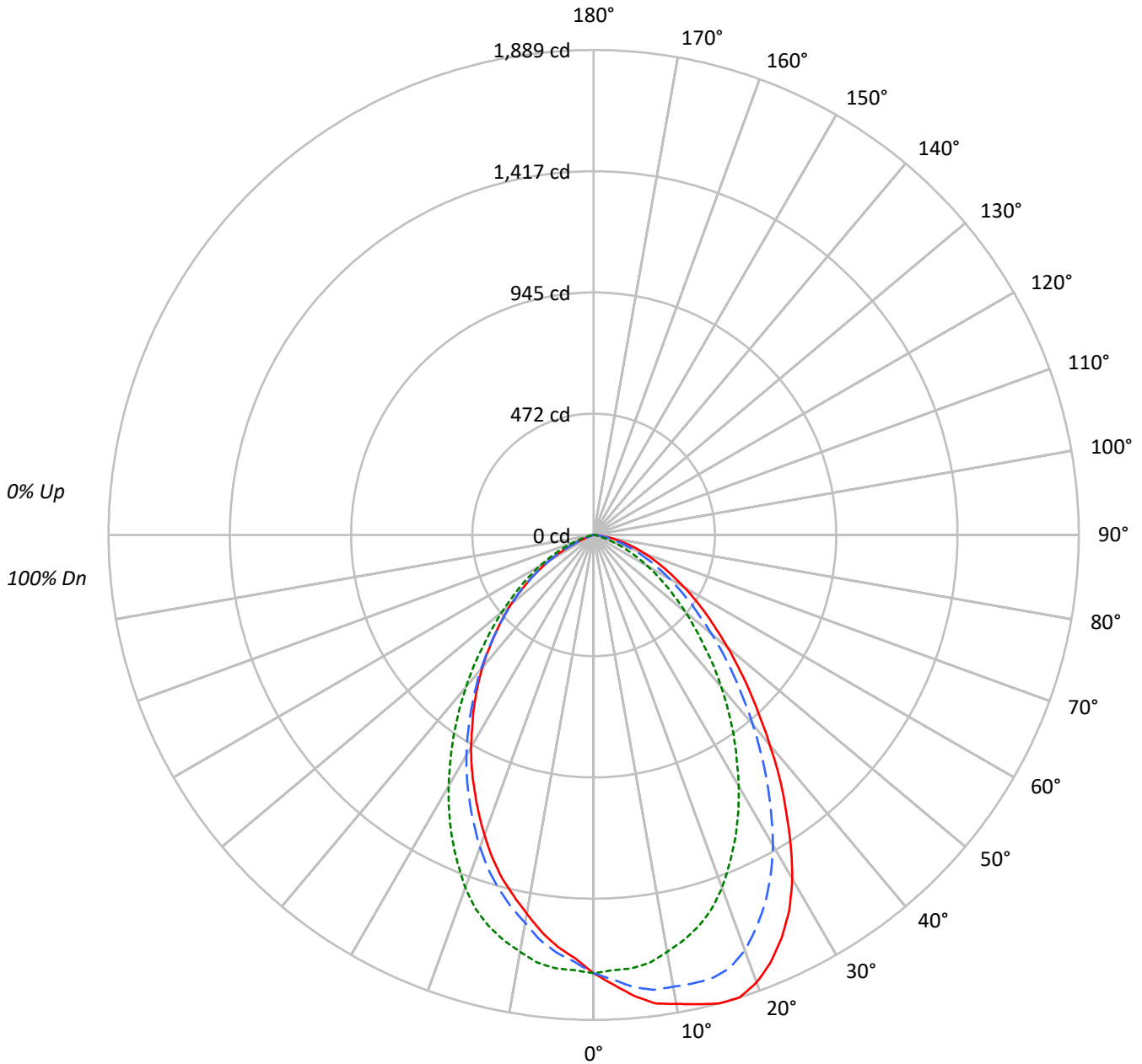
Lumens per Lamp: N/A  
Luminaire Lumens: 2948.5 lumens  
Efficiency: N/A  
Efficacy: 71.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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: P580684  
CATALOG NUMBER: HCC4S40D010MB-HM43040940-41WWBB

### Luminous Intensity Polar Plot



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



TEST NUMBER: P580684

CATALOG NUMBER: HCC4S40D010MB-HM43040940-41WWBB

**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	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78								
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69								
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61								
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55								
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49								
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44								
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40								
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37								
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34								

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

	0°	90°	180°
0°	210539	210539	210539
5°	223081	209845	199333
10°	232336	206497	187635
15°	241232	201544	176426
20°	243490	191865	163185
25°	235624	177443	149366
30°	220278	160815	135904
35°	196323	142958	122103
40°	171643	124321	108686
45°	149510	105465	94039
50°	130467	89460	80595
55°	114362	74148	65288
60°	100033	59897	47932
65°	87150	44655	26939
70°	76167	28923	8764
75°	62526	15060	2288
80°	46597	6961	1776
85°	27456	3538	3538



TEST NUMBER: P580684  
 CATALOG NUMBER: HCC4S40D010MB-HM43040940-41WWBB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.1	5.5
10°-20°	450.9	15.3
20°-30°	623.4	21.1
30°-40°	626.8	21.3
40°-50°	505.8	17.2
50°-60°	342.0	11.6
60°-70°	174.1	5.9
70°-80°	55.7	1.9
80°-90°	8.6	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°	1235.4	41.9
0°-40°	1862.2	63.2
0°-60°	2710.1	91.9
0°-90°	2948.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2948.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1707	1707	1707	1707	1707	
5°	1802	1768	1695	1634	1610	174
15°	1889	1787	1578	1428	1382	532
25°	1731	1581	1304	1144	1098	792
35°	1304	1178	949	830	811	815
45°	857	767	605	539	539	664
55°	532	459	345	301	304	478
65°	299	243	153	100	92	299
75°	131	92	32	7	5	141
85°	19	10	2	2	2	26
90°	0	0	0	0	0	

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



TEST NUMBER: P580684

CATALOG NUMBER: HCC4S40D010MB-HM43040940-41WWBB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9
2.5°	1753.1	1743.4	1733.6	1716.7	1697.2	1677.8	1665.7	1655.9	1651.1
5°	1801.7	1789.5	1767.7	1731.3	1694.8	1660.8	1634.1	1617.2	1609.9
7.5°	1840.5	1823.5	1787.1	1736.1	1680.3	1626.8	1592.8	1568.5	1558.9
10°	1855.0	1835.6	1787.1	1719.1	1648.7	1583.1	1534.5	1510.3	1498.1
12.5°	1872.1	1850.2	1789.5	1704.5	1617.2	1539.4	1483.5	1452.0	1439.8
15°	1889.1	1860.0	1787.1	1682.6	1578.3	1488.5	1427.7	1396.2	1381.6
17.5°	1889.1	1855.0	1767.7	1646.3	1527.3	1432.5	1364.6	1328.2	1316.1
20°	1855.0	1816.2	1721.5	1588.0	1461.7	1359.8	1294.2	1257.8	1243.2
22.5°	1801.7	1758.0	1655.9	1517.6	1384.0	1284.4	1218.9	1184.9	1170.3
25°	1731.3	1687.6	1580.7	1437.5	1303.8	1204.3	1143.6	1112.0	1097.5
27.5°	1648.7	1600.1	1493.3	1350.0	1218.9	1124.3	1068.3	1039.3	1027.1
30°	1546.6	1500.6	1396.2	1255.3	1129.1	1041.6	990.6	963.9	954.2
32.5°	1427.7	1388.9	1286.9	1155.8	1036.8	956.7	910.6	888.7	879.0
35°	1303.8	1267.5	1177.6	1056.2	949.4	874.2	830.4	815.9	810.9
37.5°	1187.4	1155.8	1068.3	956.7	859.6	794.0	755.1	745.5	740.5
40°	1066.0	1044.1	963.9	861.9	772.1	713.9	682.2	675.0	675.0
42.5°	956.7	932.3	861.9	769.7	689.5	631.3	609.5	602.2	604.6
45°	857.1	832.8	767.3	682.2	604.6	556.0	539.1	539.1	539.1
47.5°	764.9	743.0	682.2	594.9	531.8	492.9	475.9	475.9	478.3
50°	679.9	665.3	597.3	522.0	466.2	429.8	417.7	415.2	420.0
52.5°	599.7	582.7	522.0	454.0	400.6	371.5	359.4	356.9	359.4
55°	531.8	512.3	458.9	393.4	344.8	315.7	301.1	298.6	303.6
57.5°	466.2	451.7	395.8	337.5	291.3	262.2	250.1	245.3	247.6
60°	405.5	390.9	339.9	284.1	242.8	213.7	196.6	191.8	194.3
62.5°	349.6	337.5	289.0	235.5	194.3	167.6	150.6	138.4	143.3
65°	298.6	286.5	242.8	189.3	153.0	123.9	99.5	89.8	92.3
67.5°	254.9	240.3	199.1	150.6	114.1	82.5	55.8	51.0	51.0
70°	211.2	196.6	160.3	116.6	80.2	43.7	24.3	24.3	24.3
72.5°	169.9	157.8	123.9	87.4	51.0	19.4	9.8	9.8	9.8
75°	131.2	121.4	92.3	60.8	31.6	9.8	7.3	4.8	4.8
77.5°	97.1	87.4	65.6	41.3	19.4	4.8	4.8	4.8	4.8
80°	65.6	58.3	43.7	24.3	9.8	2.5	2.5	2.5	2.5
82.5°	38.9	34.0	24.3	12.1	4.8	2.5	2.5	2.5	2.5
85°	19.4	14.6	9.8	4.8	2.5	2.5	2.5	2.5	2.5
87.5°	4.8	2.5	2.5	2.5	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

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)