

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: P580646

Luminaire Tested: **HCC4S40D010BZ-HM43040930-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580646  
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: HCC4S40D010BZ-HM43040930-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

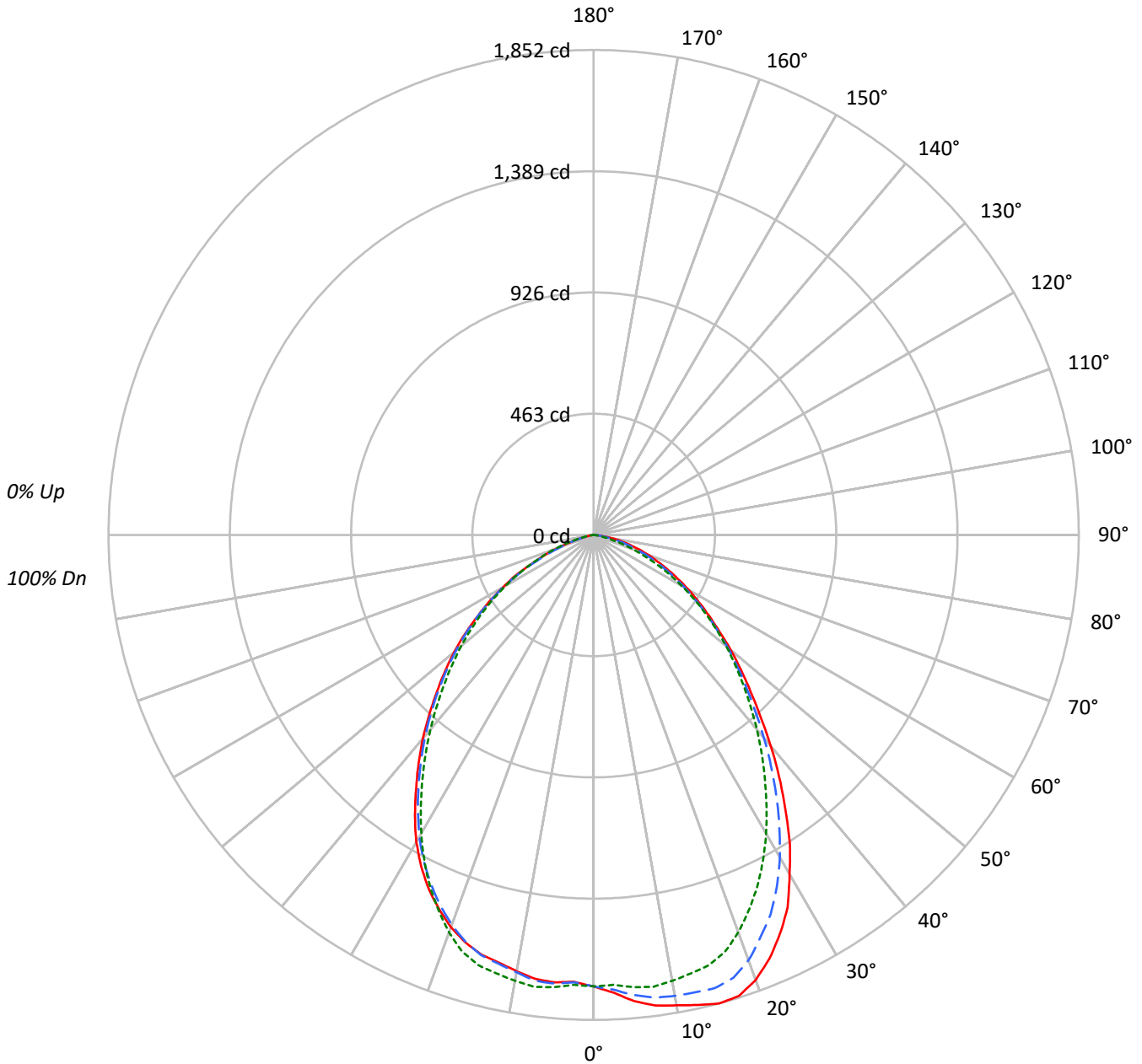
Lumens per Lamp: N/A  
Luminaire Lumens: 3593.2 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P580646  
CATALOG NUMBER: HCC4S40D010BZ-HM43040930-41RWWC

### Luminous Intensity Polar Plot



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



TEST NUMBER: P580646

CATALOG NUMBER: HCC4S40D010BZ-HM43040930-41RWWC

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

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

	0°	90°	180°
0°	212673	212673	212673
5°	221285	214649	212333
10°	228503	216542	211870
15°	236558	217212	211849
20°	237347	211961	209192
25°	228956	201369	202961
30°	213057	187505	192818
35°	191926	171568	177877
40°	169196	156073	163206
45°	147940	140631	147539
50°	131004	126533	133230
55°	115265	111738	116233
60°	102895	95396	98282
65°	90477	77547	76176
70°	78980	57125	52112
75°	65481	34408	27784
80°	49722	13212	8311
85°	23210	3397	3397



TEST NUMBER: P580646

CATALOG NUMBER: HCC4S40D010BZ-HM43040930-41RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.3	4.6
10°-20°	485.3	13.5
20°-30°	702.9	19.6
30°-40°	741.6	20.6
40°-50°	641.8	17.9
50°-60°	475.4	13.2
60°-70°	274.1	7.6
70°-80°	95.7	2.7
80°-90°	10.1	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°	1354.5	37.7
0°-40°	2096.1	58.3
0°-60°	3213.3	89.4
0°-90°	3593.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3593.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1724	1724	1724	1724	1724	
5°	1787	1764	1734	1720	1715	172
15°	1852	1792	1701	1661	1659	521
25°	1682	1598	1480	1470	1491	770
35°	1275	1216	1139	1165	1181	796
45°	848	825	806	836	846	658
55°	536	524	520	538	540	483
65°	310	291	266	252	261	310
75°	137	116	72	58	58	148
85°	16	9	2	2	2	25
90°	0	0	0	0	0	

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



TEST NUMBER: P580646

CATALOG NUMBER: HCC4S40D010BZ-HM43040930-41RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1724.2	1724.2	1724.2	1724.2	1724.2	1724.2	1724.2	1724.2	1724.2
2.5°	1749.9	1745.3	1738.2	1728.9	1719.6	1712.7	1710.3	1708.0	1708.0
5°	1787.2	1777.9	1763.9	1745.3	1733.6	1726.6	1719.6	1714.9	1714.9
7.5°	1812.8	1803.5	1782.5	1756.8	1740.6	1726.6	1717.3	1710.3	1710.3
10°	1824.4	1812.8	1787.2	1754.6	1728.9	1710.3	1696.3	1691.6	1691.6
12.5°	1838.4	1824.4	1789.5	1747.5	1714.9	1691.6	1677.7	1673.0	1673.0
15°	1852.5	1836.1	1791.8	1742.9	1701.0	1673.0	1661.3	1659.0	1659.0
17.5°	1845.4	1824.4	1773.2	1714.9	1668.4	1640.4	1628.7	1628.7	1631.1
20°	1808.2	1787.2	1728.9	1663.7	1614.8	1593.7	1584.4	1589.1	1593.7
22.5°	1752.2	1726.6	1663.7	1600.8	1549.6	1530.8	1530.8	1537.9	1544.9
25°	1682.3	1659.0	1598.4	1528.5	1479.6	1465.6	1470.3	1482.0	1491.3
27.5°	1603.1	1577.5	1514.6	1449.3	1400.4	1393.4	1405.1	1421.3	1426.0
30°	1495.9	1474.9	1421.3	1358.4	1316.5	1314.1	1330.5	1342.2	1353.8
32.5°	1393.4	1370.1	1318.9	1258.2	1227.9	1230.3	1248.9	1262.9	1269.9
35°	1274.6	1253.6	1216.3	1167.4	1139.4	1144.1	1165.1	1179.1	1181.3
37.5°	1162.7	1148.7	1111.5	1074.1	1053.2	1062.5	1081.2	1097.5	1097.5
40°	1050.8	1039.2	1011.3	981.0	969.3	981.0	999.6	1013.6	1013.6
42.5°	943.7	936.7	913.4	892.4	885.5	901.7	918.1	929.8	927.4
45°	848.1	841.2	824.8	808.6	806.2	822.5	836.5	843.4	845.8
47.5°	761.9	757.2	743.3	731.7	731.7	747.9	759.6	766.7	768.9
50°	682.7	678.1	666.4	657.1	659.4	675.7	685.0	692.0	694.3
52.5°	603.5	601.2	591.9	580.2	587.2	598.8	610.5	615.1	617.4
55°	536.0	536.0	524.3	515.0	519.6	531.2	538.3	540.5	540.5
57.5°	475.3	473.1	459.0	449.7	452.0	463.6	468.4	470.7	470.7
60°	417.1	414.8	400.8	386.7	386.7	393.8	396.2	398.4	398.4
62.5°	361.2	358.8	342.6	330.9	326.2	323.9	323.9	328.6	337.9
65°	310.0	307.6	291.2	272.6	265.7	258.6	251.7	256.3	261.0
67.5°	263.3	258.6	242.4	226.0	209.7	198.1	186.4	193.4	202.7
70°	219.0	214.3	195.7	177.1	158.4	139.8	130.5	139.8	144.5
72.5°	177.1	172.4	153.8	135.2	111.9	93.2	90.9	93.2	95.5
75°	137.4	135.2	116.5	95.5	72.2	58.3	58.3	58.3	58.3
77.5°	102.6	97.9	79.3	60.5	41.9	32.6	30.3	30.3	30.3
80°	70.0	65.2	49.0	35.0	18.6	14.0	14.0	11.7	11.7
82.5°	39.6	37.3	25.7	14.0	7.0	4.7	4.7	4.7	4.7
85°	16.4	14.0	9.3	4.7	2.4	2.4	2.4	2.4	2.4
87.5°	2.4	2.4	2.4	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

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)