

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: P580558

Luminaire Tested: **HCC4W40D010BZ-HM43040827-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580558  
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: HCC4W40D010BZ-HM43040827-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

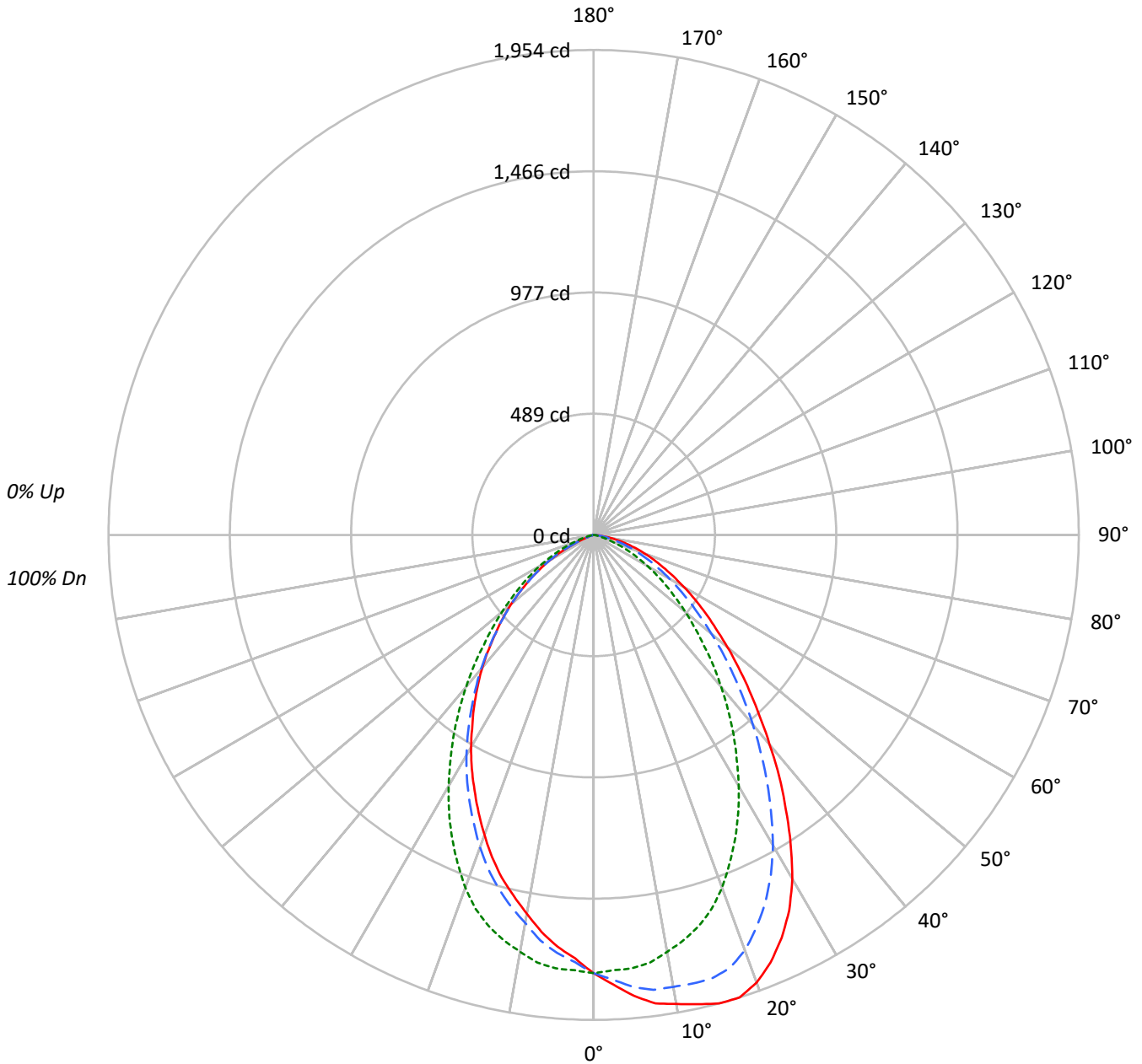
Lumens per Lamp: N/A  
Luminaire Lumens: 3050.2 lumens  
Efficiency: N/A  
Efficacy: 74.4 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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°	217816	217816	217816
5°	230782	217100	206204
10°	240377	213624	194123
15°	249545	208491	182517
20°	251917	198481	168816
25°	243749	183581	154511
30°	227898	166369	140604
35°	203114	147882	126334
40°	177553	128620	112438
45°	154673	109110	97284
50°	134957	92549	83396
55°	118297	76707	67525
60°	103487	61969	49585
65°	90156	46202	27844
70°	78800	29861	9052
75°	64623	15536	2383
80°	48160	7174	1776
85°	28446	3538	3538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.7	5.5
10°-20°	466.4	15.3
20°-30°	644.9	21.1
30°-40°	648.5	21.3
40°-50°	523.3	17.2
50°-60°	353.8	11.6
60°-70°	180.1	5.9
70°-80°	57.7	1.9
80°-90°	8.8	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°	1278.0	41.9
0°-40°	1926.5	63.2
0°-60°	2803.6	91.9
0°-90°	3050.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3050.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1766	1766	1766	1766	1766	
5°	1864	1829	1753	1690	1665	180
15°	1954	1849	1633	1477	1429	550
25°	1791	1635	1349	1183	1135	820
35°	1349	1218	982	859	839	843
45°	887	794	626	558	558	687
55°	550	475	357	312	314	494
65°	309	251	158	103	95	310
75°	136	95	33	8	5	146
85°	20	10	2	2	2	27
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°	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9
2.5°	1813.6	1803.6	1793.5	1775.9	1755.8	1735.8	1723.2	1713.1	1708.1
5°	1863.9	1851.3	1828.7	1791.0	1753.4	1718.2	1690.5	1673.0	1665.4
7.5°	1904.0	1886.4	1848.8	1796.1	1738.2	1683.0	1647.8	1622.6	1612.7
10°	1919.2	1899.0	1848.8	1778.5	1705.6	1637.8	1587.6	1562.4	1549.9
12.5°	1936.6	1914.1	1851.3	1763.3	1673.0	1592.6	1534.8	1502.1	1489.6
15°	1954.2	1924.1	1848.8	1740.8	1632.7	1539.8	1477.0	1444.3	1429.3
17.5°	1954.2	1919.2	1828.7	1703.0	1579.9	1482.1	1411.7	1374.0	1361.5
20°	1919.2	1878.9	1780.9	1642.8	1512.1	1406.6	1338.8	1301.1	1286.1
22.5°	1863.9	1818.6	1713.1	1570.0	1431.7	1328.8	1261.0	1225.8	1210.8
25°	1791.0	1745.7	1635.2	1487.0	1348.9	1245.9	1183.1	1150.5	1135.3
27.5°	1705.6	1655.4	1544.9	1396.7	1261.0	1163.0	1105.2	1075.2	1062.5
30°	1600.1	1552.4	1444.3	1298.7	1168.1	1077.6	1024.8	997.2	987.2
32.5°	1477.0	1436.8	1331.3	1195.7	1072.6	989.7	942.0	919.3	909.4
35°	1348.9	1311.2	1218.3	1092.6	982.1	904.3	859.0	844.0	839.0
37.5°	1228.3	1195.7	1105.2	989.7	889.2	821.4	781.2	771.1	766.1
40°	1102.7	1080.1	997.2	891.8	798.8	738.5	705.9	698.3	698.3
42.5°	989.7	964.6	891.8	796.2	713.4	653.1	630.5	622.9	625.5
45°	886.7	861.6	793.8	705.9	625.5	575.2	557.7	557.7	557.7
47.5°	791.2	768.7	705.9	615.4	550.1	509.9	492.3	492.3	494.8
50°	703.3	688.3	617.9	540.1	482.3	444.6	432.0	429.6	434.6
52.5°	620.5	602.9	540.1	469.7	414.4	384.3	371.7	369.3	371.7
55°	550.1	530.0	474.7	406.9	356.7	326.5	311.5	308.9	314.0
57.5°	482.3	467.2	409.4	349.2	301.4	271.3	258.7	253.7	256.3
60°	419.5	404.5	351.7	293.9	251.2	221.1	203.5	198.4	201.0
62.5°	361.7	349.2	299.0	243.7	201.0	173.3	155.7	143.2	148.2
65°	308.9	296.4	251.2	196.0	158.3	128.1	103.0	92.9	95.4
67.5°	263.8	248.6	205.9	155.7	118.0	85.4	57.7	52.8	52.8
70°	218.5	203.5	165.8	120.6	82.8	45.2	25.1	25.1	25.1
72.5°	175.9	163.3	128.1	90.5	52.8	20.1	10.1	10.1	10.1
75°	135.6	125.6	95.4	62.8	32.6	10.1	7.5	5.0	5.0
77.5°	100.4	90.5	67.8	42.7	20.1	5.0	5.0	5.0	5.0
80°	67.8	60.3	45.2	25.1	10.1	2.5	2.5	2.5	2.5
82.5°	40.2	35.2	25.1	12.6	5.0	2.5	2.5	2.5	2.5
85°	20.1	15.0	10.1	5.0	2.5	2.5	2.5	2.5	2.5
87.5°	5.0	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

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Scaled Data Report



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

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