

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: P580304

Luminaire Tested: **HCC4W30D010BZ-HM43040835-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580304  
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: HCC4W30D010BZ-HM43040835-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

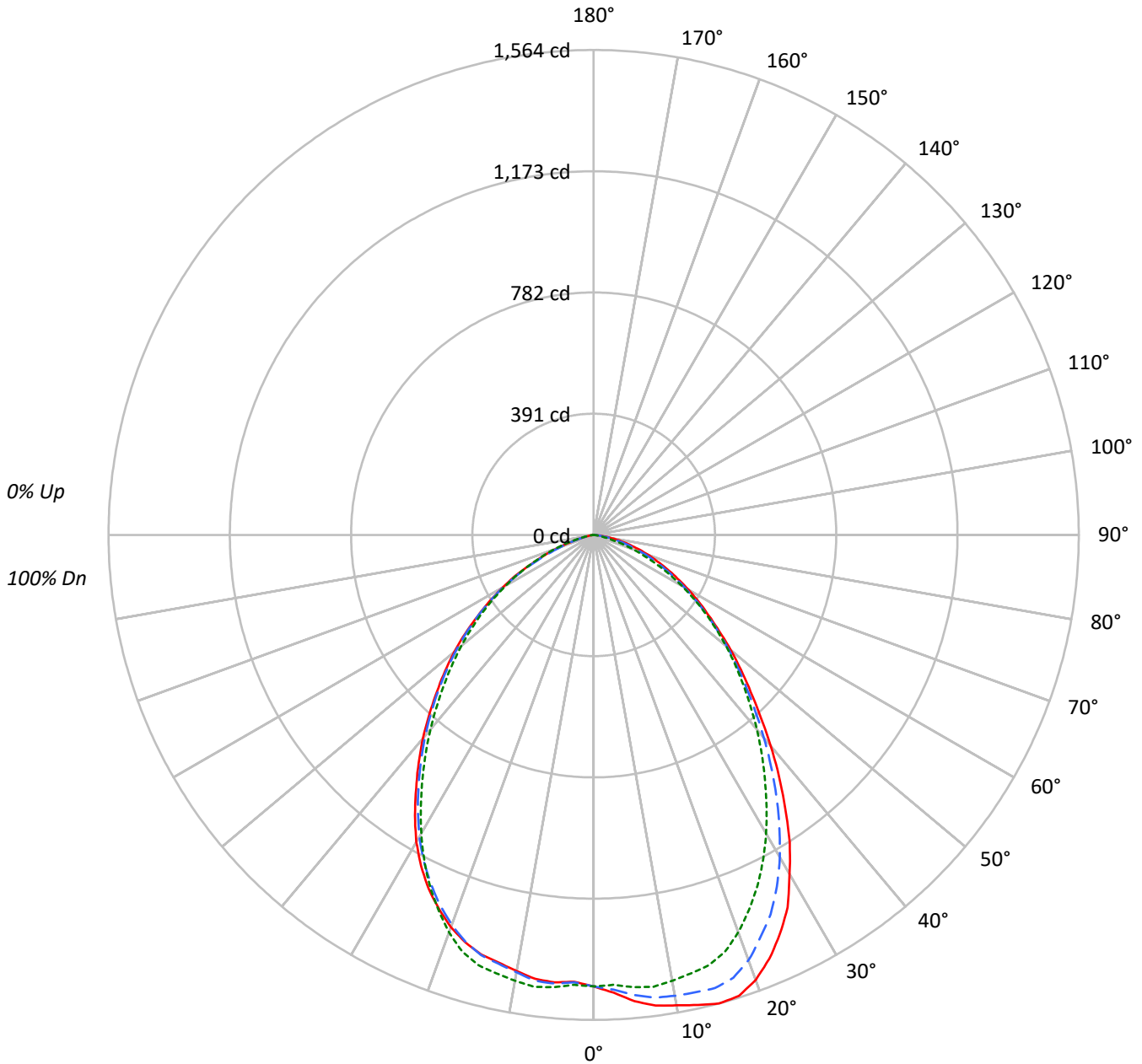
Lumens per Lamp: N/A  
Luminaire Lumens: 3034.3 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
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								
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°	179591	179591	179591
5°	186864	181255	179311
10°	192970	182863	178917
15°	199756	183424	178903
20°	200423	178988	176665
25°	193339	170053	171387
30°	179914	158351	162823
35°	162066	144885	150216
40°	142886	131808	137814
45°	124949	118774	124583
50°	110626	106865	112506
55°	97330	94362	98169
60°	86885	80594	83012
65°	76380	65494	64326
70°	66718	48253	43998
75°	55330	29071	23447
80°	41909	11223	6961
85°	19530	2689	2689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.4	4.6
10°-20°	409.9	13.5
20°-30°	593.6	19.6
30°-40°	626.2	20.6
40°-50°	542.0	17.9
50°-60°	401.5	13.2
60°-70°	231.4	7.6
70°-80°	80.8	2.7
80°-90°	8.5	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°	1143.8	37.7
0°-40°	1770.1	58.3
0°-60°	2713.5	89.4
0°-90°	3034.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3034.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1456	1456	1456	1456	1456	
5°	1509	1490	1464	1452	1448	145
15°	1564	1513	1436	1403	1401	440
25°	1421	1350	1250	1242	1259	650
35°	1076	1027	962	984	998	672
45°	716	696	681	706	714	556
55°	453	443	439	455	456	408
65°	262	246	224	212	220	261
75°	116	98	61	49	49	125
85°	14	8	2	2	2	21
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°	1456.0	1456.0	1456.0	1456.0	1456.0	1456.0	1456.0	1456.0	1456.0
2.5°	1477.7	1473.7	1467.9	1460.0	1452.2	1446.2	1444.3	1442.3	1442.3
5°	1509.2	1501.4	1489.5	1473.7	1463.9	1458.1	1452.2	1448.2	1448.2
7.5°	1530.8	1523.0	1505.3	1483.7	1469.9	1458.1	1450.2	1444.3	1444.3
10°	1540.7	1530.8	1509.2	1481.6	1460.0	1444.3	1432.4	1428.5	1428.5
12.5°	1552.5	1540.7	1511.2	1475.8	1448.2	1428.5	1416.8	1412.8	1412.8
15°	1564.3	1550.5	1513.1	1471.8	1436.4	1412.8	1402.9	1401.0	1401.0
17.5°	1558.4	1540.7	1497.4	1448.2	1408.9	1385.2	1375.4	1375.4	1377.4
20°	1526.9	1509.2	1460.0	1404.9	1363.6	1345.9	1338.0	1342.0	1345.9
22.5°	1479.7	1458.1	1404.9	1351.8	1308.5	1292.8	1292.8	1298.7	1304.5
25°	1420.6	1401.0	1349.8	1290.8	1249.5	1237.6	1241.6	1251.4	1259.3
27.5°	1353.7	1332.1	1279.0	1223.9	1182.6	1176.6	1186.5	1200.3	1204.3
30°	1263.2	1245.5	1200.3	1147.2	1111.8	1109.7	1123.5	1133.4	1143.2
32.5°	1176.6	1157.0	1113.7	1062.6	1037.0	1038.9	1054.7	1066.5	1072.4
35°	1076.3	1058.6	1027.2	985.8	962.2	966.1	983.8	995.7	997.6
37.5°	981.8	970.1	938.6	907.1	889.4	897.2	913.0	926.8	926.8
40°	887.4	877.6	854.0	828.4	818.6	828.4	844.1	855.9	855.9
42.5°	796.9	791.0	771.3	753.6	747.8	761.5	775.3	785.1	783.2
45°	716.3	710.3	696.5	682.8	680.9	694.6	706.4	712.3	714.2
47.5°	643.4	639.5	627.7	617.8	617.8	631.6	641.5	647.4	649.3
50°	576.5	572.6	562.8	554.9	556.9	570.7	578.4	584.4	586.3
52.5°	509.6	507.7	499.8	490.0	495.9	505.7	515.5	519.4	521.5
55°	452.6	452.6	442.7	434.8	438.8	448.6	454.6	456.5	456.5
57.5°	401.5	399.4	387.6	379.8	381.7	391.5	395.5	397.5	397.5
60°	352.2	350.2	338.4	326.7	326.7	332.5	334.5	336.5	336.5
62.5°	305.0	303.0	289.2	279.4	275.5	273.5	273.5	277.5	285.3
65°	261.7	259.8	245.9	230.2	224.4	218.4	212.5	216.5	220.4
67.5°	222.3	218.4	204.6	190.9	177.1	167.3	157.5	163.3	171.2
70°	185.0	181.0	165.3	149.6	133.8	118.1	110.2	118.1	122.0
72.5°	149.6	145.6	129.8	114.2	94.4	78.7	76.7	78.7	80.7
75°	116.1	114.2	98.4	80.7	61.0	49.2	49.2	49.2	49.2
77.5°	86.6	82.7	66.9	51.2	35.4	27.5	25.6	25.6	25.6
80°	59.0	55.0	41.3	29.6	15.8	11.8	11.8	9.8	9.8
82.5°	33.5	31.5	21.7	11.8	5.9	3.9	3.9	3.9	3.9
85°	13.8	11.8	7.9	3.9	1.9	1.9	1.9	1.9	1.9
87.5°	1.9	1.9	1.9	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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