

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: P580270

Luminaire Tested: **HCC4W30D010BZ-HM43040827-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580270  
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: HCC4W30D010BZ-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**

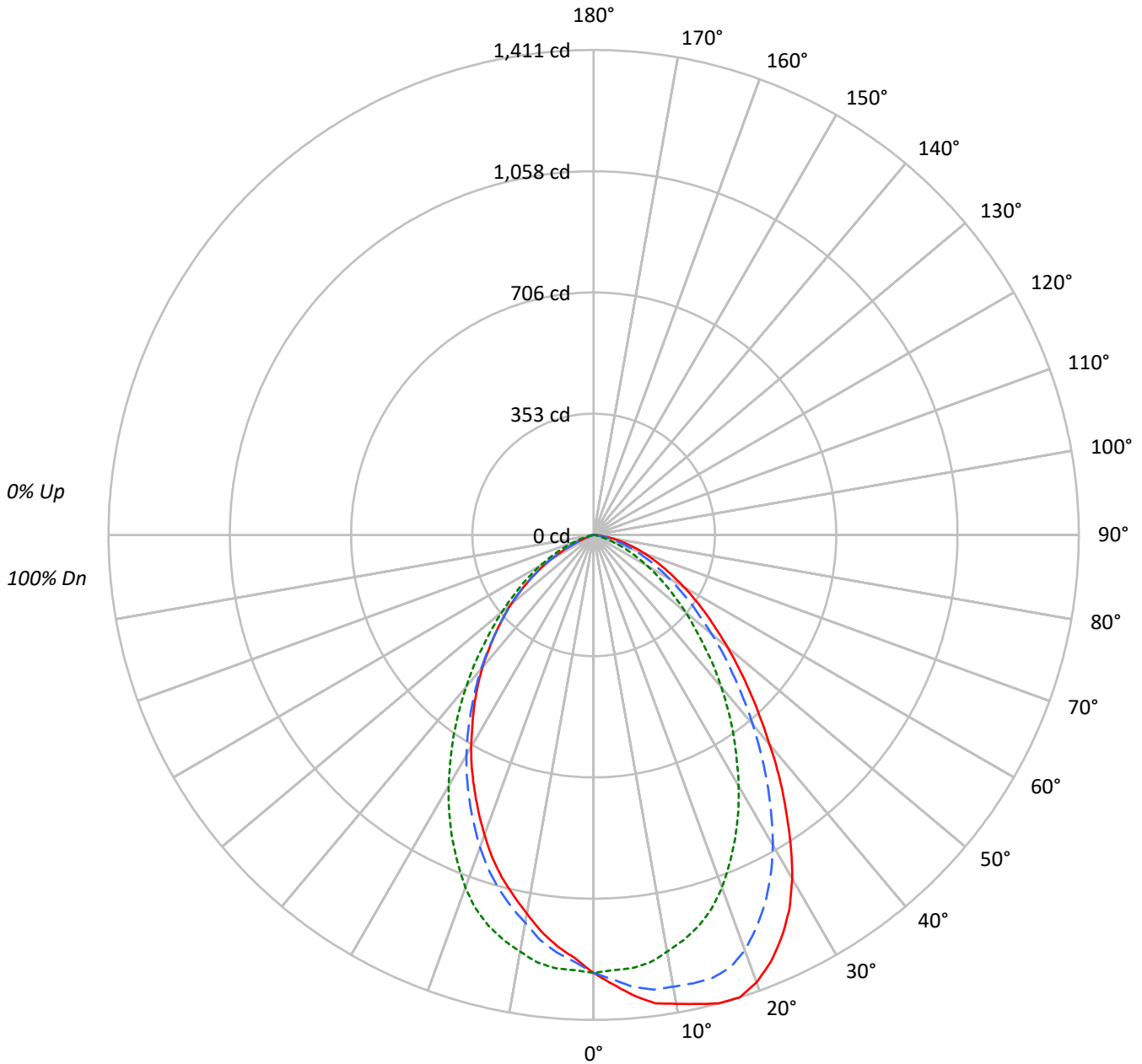
Lumens per Lamp: N/A  
Luminaire Lumens: 2201.8 lumens  
Efficiency: N/A  
Efficacy: 78.6 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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										
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°	157216	157216	157216
5°	166583	156703	148840
10°	173507	154193	140128
15°	180142	150491	131745
20°	181837	143285	121850
25°	175946	132517	111545
30°	164503	120095	101494
35°	146617	106744	91190
40°	128169	92842	81168
45°	111640	78758	70228
50°	97423	66798	60196
55°	85395	55374	48730
60°	74698	44725	35795
65°	65085	33360	20109
70°	56873	21566	6564
75°	46656	11247	1716
80°	34806	5114	1279
85°	20662	2547	2547



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.3	5.5
10°-20°	336.7	15.3
20°-30°	465.5	21.1
30°-40°	468.1	21.3
40°-50°	377.7	17.2
50°-60°	255.4	11.6
60°-70°	130.0	5.9
70°-80°	41.6	1.9
80°-90°	6.4	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°	922.5	41.9
0°-40°	1390.6	63.2
0°-60°	2023.8	91.9
0°-90°	2201.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2201.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1275	1275	1275	1275	1275	
5°	1345	1320	1266	1220	1202	130
15°	1411	1334	1178	1066	1032	397
25°	1293	1180	974	854	820	592
35°	974	879	709	620	606	608
45°	640	573	452	403	403	496
55°	397	343	258	225	227	357
65°	223	181	114	74	69	224
75°	98	69	24	5	4	106
85°	15	7	2	2	2	19
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°	1274.6	1274.6	1274.6	1274.6	1274.6	1274.6	1274.6	1274.6	1274.6
2.5°	1309.2	1301.8	1294.6	1282.0	1267.4	1252.9	1243.8	1236.6	1233.0
5°	1345.4	1336.3	1320.0	1292.8	1265.6	1240.2	1220.3	1207.6	1202.1
7.5°	1374.4	1361.7	1334.5	1296.4	1254.7	1214.9	1189.5	1171.3	1164.1
10°	1385.3	1370.7	1334.5	1283.8	1231.1	1182.1	1145.9	1127.8	1118.8
12.5°	1397.9	1381.7	1336.3	1272.8	1207.6	1149.5	1107.8	1084.2	1075.2
15°	1410.7	1388.9	1334.5	1256.6	1178.5	1111.5	1066.2	1042.6	1031.7
17.5°	1410.7	1385.3	1320.0	1229.3	1140.5	1069.8	1019.0	991.9	982.7
20°	1385.3	1356.3	1285.6	1185.9	1091.6	1015.4	966.5	939.3	928.3
22.5°	1345.4	1312.8	1236.6	1133.2	1033.5	959.1	910.2	884.8	874.0
25°	1292.8	1260.2	1180.3	1073.4	973.7	899.4	854.0	830.4	819.6
27.5°	1231.1	1194.9	1115.1	1008.1	910.2	839.5	797.8	776.1	766.9
30°	1155.0	1120.6	1042.6	937.4	843.2	777.9	739.7	719.9	712.6
32.5°	1066.2	1037.2	960.9	863.0	774.3	714.4	680.0	663.6	656.4
35°	973.7	946.5	879.4	788.7	708.9	652.8	620.1	609.2	605.6
37.5°	886.6	863.0	797.8	714.4	641.8	592.9	563.9	556.7	553.1
40°	796.0	779.7	719.9	643.6	576.6	533.1	509.5	504.1	504.1
42.5°	714.4	696.3	643.6	574.8	514.9	471.4	455.1	449.6	451.5
45°	640.0	622.0	572.9	509.5	451.5	415.2	402.6	402.6	402.6
47.5°	571.1	554.9	509.5	444.2	397.1	368.1	355.4	355.4	357.2
50°	507.7	496.8	446.0	389.8	348.1	320.9	311.9	310.1	313.7
52.5°	447.8	435.2	389.8	339.1	299.1	277.4	268.4	266.5	268.4
55°	397.1	382.6	342.7	293.7	257.5	235.8	224.8	223.0	226.6
57.5°	348.1	337.3	295.5	252.0	217.6	195.8	186.8	183.2	185.0
60°	302.8	291.9	253.8	212.2	181.3	159.6	146.9	143.3	145.1
62.5°	261.1	252.0	215.8	175.9	145.1	125.1	112.5	103.3	106.9
65°	223.0	214.0	181.3	141.5	114.3	92.5	74.3	67.1	68.9
67.5°	190.4	179.5	148.7	112.5	85.2	61.7	41.7	38.1	38.1
70°	157.7	146.9	119.7	87.1	59.8	32.6	18.2	18.2	18.2
72.5°	126.9	117.9	92.5	65.3	38.1	14.6	7.2	7.2	7.2
75°	97.9	90.7	68.9	45.3	23.6	7.2	5.4	3.6	3.6
77.5°	72.5	65.3	49.0	30.8	14.6	3.6	3.6	3.6	3.6
80°	49.0	43.5	32.6	18.2	7.2	1.8	1.8	1.8	1.8
82.5°	29.0	25.4	18.2	9.0	3.6	1.8	1.8	1.8	1.8
85°	14.6	10.8	7.2	3.6	1.8	1.8	1.8	1.8	1.8
87.5°	3.6	1.8	1.8	1.8	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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