

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: P580362

Luminaire Tested: **HCC4W30D010BZ-HM43040930-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580362  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W30D010BZ-HM43040930-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

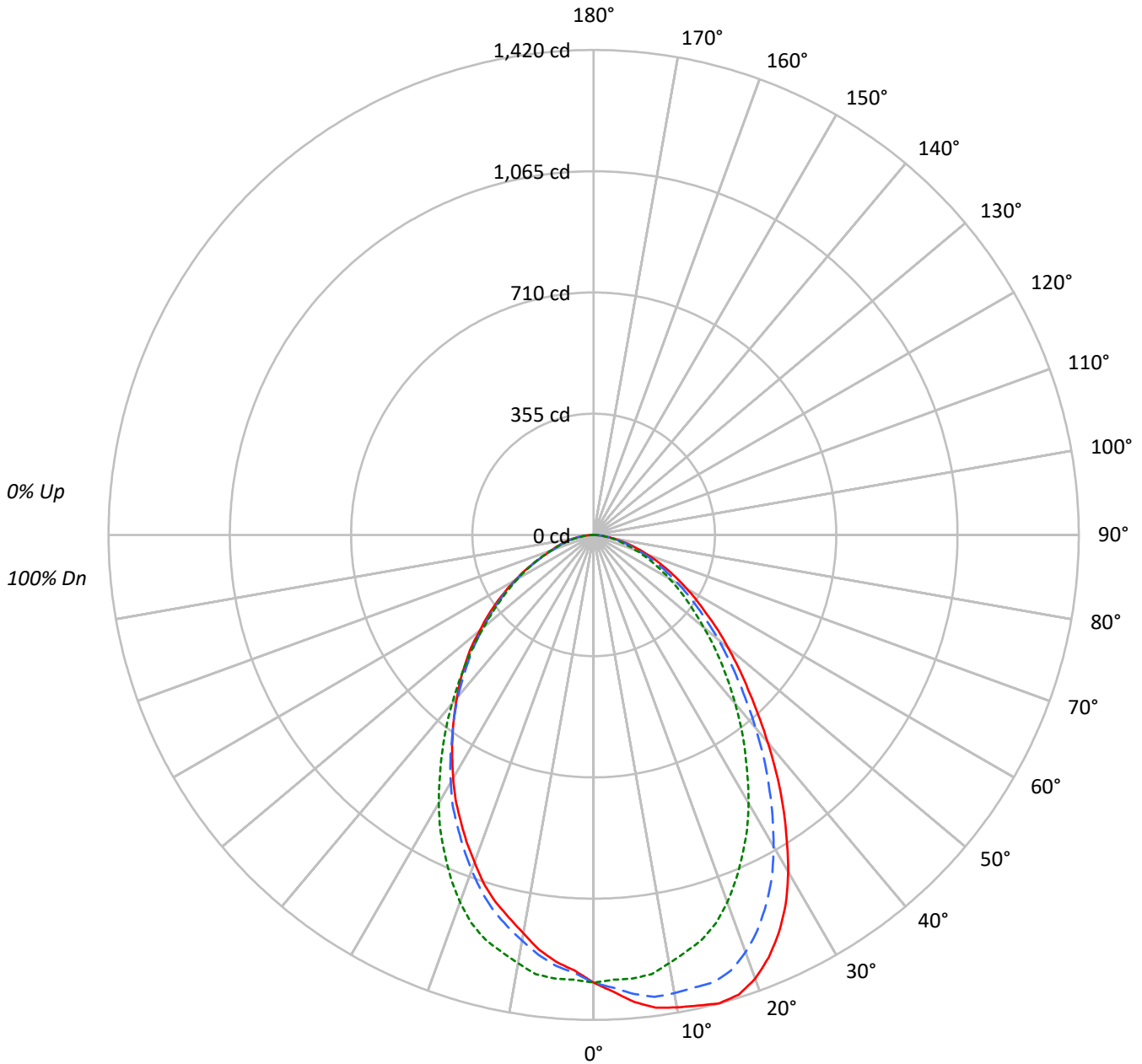
Lumens per Lamp: N/A  
Luminaire Lumens: 2541.5 lumens  
Efficiency: N/A  
Efficacy: 90.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

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

	0°	90°	180°
0°	161644	161644	161644
5°	169976	161420	155390
10°	175936	159504	148332
15°	181304	156607	141999
20°	181509	150150	133821
25°	174694	140343	125468
30°	162210	129153	117175
35°	145412	116261	108416
40°	127573	103743	100217
45°	111500	91859	92434
50°	98460	80383	83300
55°	86814	71266	74879
60°	77609	63079	65571
65°	68733	55483	55483
70°	60046	47316	47316
75°	51279	40080	44893
80°	40630	35800	40630
85°	26182	30994	38211



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.2	4.9
10°-20°	349.7	13.8
20°-30°	489.8	19.3
30°-40°	504.7	19.9
40°-50°	429.7	16.9
50°-60°	318.3	12.5
60°-70°	199.8	7.9
70°-80°	99.2	3.9
80°-90°	26.1	1.0
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°	963.7	37.9
0°-40°	1468.3	57.8
0°-60°	2216.4	87.2
0°-90°	2541.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2541.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1310	1310	1310	1310	1310	
5°	1373	1349	1304	1267	1255	132
15°	1420	1356	1226	1137	1112	399
25°	1284	1194	1031	942	922	587
35°	966	893	772	722	720	602
45°	639	596	527	516	530	496
55°	404	372	331	338	348	365
65°	236	212	190	187	190	235
75°	108	96	84	91	94	115
85°	18	18	22	25	27	24
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°	1310.5	1310.5	1310.5	1310.5	1310.5	1310.5	1310.5	1310.5	1310.5
2.5°	1339.0	1334.1	1327.3	1315.6	1303.7	1293.7	1283.6	1278.5	1276.9
5°	1372.8	1362.6	1349.2	1327.3	1303.7	1283.6	1266.7	1258.4	1255.0
7.5°	1396.2	1386.2	1364.3	1330.7	1297.1	1266.7	1239.8	1228.1	1224.7
10°	1404.7	1393.0	1362.6	1317.2	1273.5	1236.5	1206.2	1191.1	1184.3
12.5°	1411.5	1396.2	1357.5	1303.7	1249.9	1204.5	1172.6	1152.4	1147.3
15°	1419.8	1403.0	1356.0	1290.3	1226.4	1172.6	1137.2	1118.8	1112.0
17.5°	1411.5	1393.0	1337.4	1263.4	1191.1	1132.2	1093.5	1076.7	1069.9
20°	1382.8	1362.6	1300.4	1221.3	1143.9	1083.3	1044.6	1027.8	1019.5
22.5°	1339.0	1317.2	1253.3	1169.2	1090.1	1031.2	994.2	977.4	972.3
25°	1283.6	1261.7	1194.4	1108.6	1031.2	974.0	942.1	926.9	921.9
27.5°	1218.0	1196.1	1130.5	1046.3	972.3	918.5	893.3	878.1	874.8
30°	1138.9	1117.1	1053.1	975.7	906.8	856.3	836.1	824.3	822.7
32.5°	1051.4	1032.9	974.0	903.4	837.8	795.7	780.6	772.1	770.5
35°	965.7	945.5	893.3	829.3	772.1	735.1	721.7	720.0	720.0
37.5°	878.1	858.0	815.9	757.0	708.3	674.5	669.6	671.3	671.3
40°	792.3	773.8	736.8	688.1	644.3	619.0	617.4	620.7	622.4
42.5°	711.7	696.4	662.8	620.7	583.7	563.5	565.2	572.0	577.0
45°	639.2	625.8	595.5	558.5	526.6	511.4	516.5	524.9	529.9
47.5°	573.7	561.9	533.3	499.6	472.7	462.6	469.4	479.4	486.2
50°	513.1	503.0	476.1	440.7	418.9	412.2	420.5	430.7	434.1
52.5°	459.2	449.2	420.5	390.3	373.5	370.1	378.6	386.9	392.0
55°	403.7	395.4	371.8	344.8	331.4	329.7	338.2	344.8	348.2
57.5°	358.4	349.9	328.0	304.4	292.7	291.0	299.5	304.4	306.1
60°	314.6	306.1	285.9	264.1	255.7	255.7	260.8	264.1	265.8
62.5°	274.2	265.8	247.3	228.8	222.1	222.1	222.1	223.8	228.8
65°	235.5	228.8	212.0	195.1	190.1	186.7	186.7	186.7	190.1
67.5°	200.2	193.5	180.0	164.9	159.8	154.8	153.1	156.5	156.5
70°	166.5	161.5	148.0	136.3	131.2	126.2	124.5	131.2	131.2
72.5°	136.3	131.2	122.8	111.0	106.0	104.3	107.6	111.0	112.7
75°	107.6	102.6	95.9	89.1	84.1	85.8	90.8	92.5	94.2
77.5°	80.8	79.1	72.3	67.3	67.3	68.9	72.3	75.7	77.4
80°	57.2	55.5	52.1	48.7	50.4	53.8	55.5	58.9	57.2
82.5°	35.3	35.3	33.6	33.6	35.3	38.7	40.4	42.1	43.8
85°	18.5	18.5	18.5	20.2	21.9	23.6	25.3	27.0	27.0
87.5°	5.1	6.8	6.8	8.5	10.0	10.0	11.7	11.7	11.7
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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