

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: P580377

Luminaire Tested: **HCC4W30D010MW-HM43040935-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580377  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W30D010MW-HM43040935-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

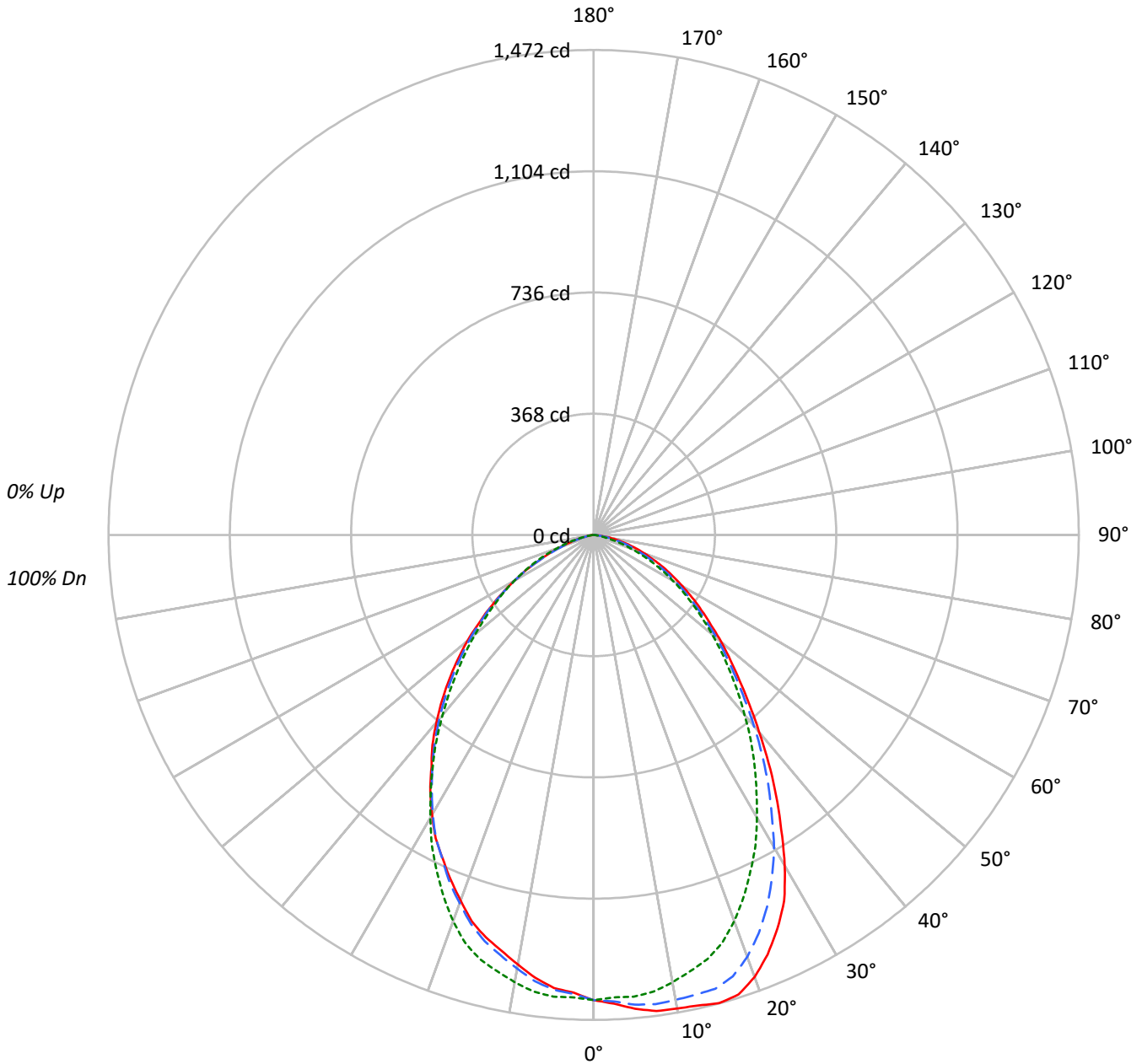
Lumens per Lamp: N/A  
Luminaire Lumens: 2691.2 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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									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	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	174152	174152	174152
5°	178730	174173	170904
10°	182775	172667	165866
15°	187919	170233	161485
20°	187402	163696	154954
25°	179512	153259	147529
30°	165130	141131	139650
35°	145262	128081	129150
40°	125673	114660	119458
45°	109232	101889	108011
50°	96925	89863	95927
55°	85997	78836	82234
60°	76573	68358	68358
65°	68091	56825	53235
70°	58820	42988	37939
75°	49277	28451	23400
80°	37363	13709	12431
85°	19813	4953	4953



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.7	5.0
10°-20°	379.1	14.1
20°-30°	534.6	19.9
30°-40°	552.3	20.5
40°-50°	468.2	17.4
50°-60°	340.6	12.7
60°-70°	199.0	7.4
70°-80°	74.0	2.7
80°-90°	9.7	0.4
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°	1047.4	38.9
0°-40°	1599.7	59.4
0°-60°	2408.5	89.5
0°-90°	2691.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2691.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1412	1412	1412	1412	1412	
5°	1444	1431	1407	1386	1380	138
15°	1472	1426	1333	1277	1265	414
25°	1319	1245	1126	1086	1084	603
35°	965	923	851	852	858	602
45°	626	609	584	605	619	487
55°	400	381	367	379	382	360
65°	233	214	195	182	182	232
75°	103	86	60	47	49	111
85°	14	9	4	4	4	20
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°	1411.9	1411.9	1411.9	1411.9	1411.9	1411.9	1411.9	1411.9	1411.9
2.5°	1424.2	1420.7	1417.2	1411.9	1404.9	1399.6	1394.4	1390.9	1390.9
5°	1443.5	1438.2	1431.2	1418.9	1406.7	1396.1	1385.6	1380.3	1380.3
7.5°	1457.6	1450.5	1436.5	1418.9	1397.9	1382.1	1366.3	1359.4	1355.9
10°	1459.3	1452.3	1433.0	1406.7	1378.6	1354.1	1336.6	1326.0	1324.3
12.5°	1462.8	1454.0	1429.5	1392.6	1355.9	1326.0	1306.7	1296.2	1292.7
15°	1471.6	1459.3	1426.0	1378.6	1333.1	1298.0	1276.9	1268.1	1264.6
17.5°	1462.8	1445.3	1404.9	1348.7	1298.0	1259.3	1238.3	1229.5	1229.5
20°	1427.7	1410.2	1362.8	1301.5	1247.1	1210.2	1189.1	1183.9	1180.5
22.5°	1378.6	1359.4	1308.5	1243.6	1189.1	1155.9	1141.9	1134.8	1133.1
25°	1319.0	1299.7	1245.3	1178.6	1126.1	1098.0	1085.7	1085.7	1084.0
27.5°	1252.3	1227.8	1171.7	1113.8	1062.9	1041.8	1036.6	1036.6	1038.3
30°	1159.4	1141.9	1094.5	1038.3	990.9	977.0	977.0	980.5	980.5
32.5°	1059.4	1047.1	1005.0	955.9	919.1	910.3	913.8	920.8	922.6
35°	964.7	950.7	922.6	878.7	850.6	847.1	852.4	857.7	857.7
37.5°	871.7	857.7	838.4	803.4	782.3	784.1	791.1	798.1	803.4
40°	780.5	770.0	756.0	727.9	712.1	719.1	727.9	734.9	741.9
42.5°	699.8	689.3	678.8	657.7	647.2	655.9	666.5	673.5	680.5
45°	626.2	619.2	608.7	591.1	584.1	592.9	605.2	612.2	619.2
47.5°	563.0	559.5	545.5	529.7	526.2	535.0	545.5	554.3	559.5
50°	505.1	499.9	487.6	471.8	468.3	482.3	489.3	494.6	499.9
52.5°	449.1	443.8	429.8	415.7	415.7	426.2	431.5	433.3	438.5
55°	399.9	394.7	380.6	370.1	366.6	375.4	378.9	378.9	382.4
57.5°	354.3	349.0	335.0	322.7	321.0	326.2	326.2	326.2	328.0
60°	310.4	305.2	291.1	280.6	277.1	278.8	277.1	275.3	277.1
62.5°	270.2	264.9	250.9	238.6	235.1	235.1	229.8	228.0	229.8
65°	233.3	224.5	214.0	201.7	194.7	189.4	182.4	182.4	182.4
67.5°	196.5	189.4	177.1	164.9	156.1	147.3	136.8	140.3	142.0
70°	163.1	157.8	143.8	131.5	119.2	108.7	99.9	103.4	105.2
72.5°	133.3	126.3	114.0	99.9	89.5	75.5	70.2	73.7	73.7
75°	103.4	96.4	86.0	72.0	59.7	47.4	47.4	49.1	49.1
77.5°	77.2	70.2	59.7	47.4	36.9	28.1	29.8	29.8	29.8
80°	52.6	47.4	38.6	28.1	19.3	15.8	15.8	15.8	17.5
82.5°	29.8	26.3	21.1	14.0	8.8	8.8	8.8	8.8	8.8
85°	14.0	10.5	8.8	5.3	3.5	3.5	3.5	3.5	3.5
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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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