

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: P580324

Luminaire Tested: **HCC4S30D010BZ-HM43040840-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580324  
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: HCC4S30D010BZ-HM43040840-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

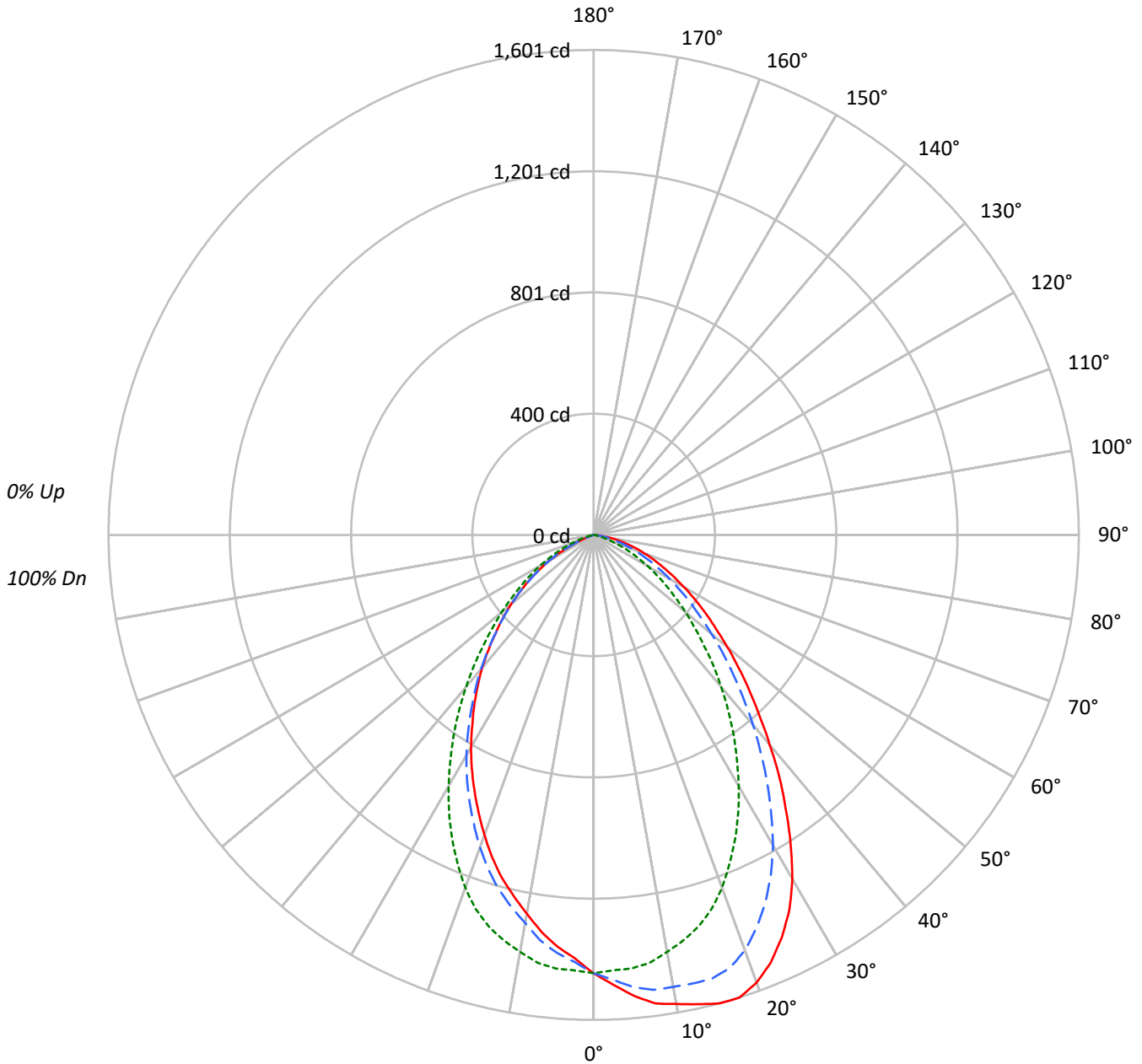
Lumens per Lamp: N/A  
Luminaire Lumens: 2499.4 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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				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			100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			34

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

	0°	90°	180°
0°	178481	178481	178481
5°	189105	177888	168973
10°	196953	175047	159066
15°	204494	170846	149558
20°	206409	162646	138337
25°	199722	150428	126625
30°	186751	136317	115209
35°	166433	121185	103522
40°	145494	105401	92134
45°	126729	89416	79718
50°	110587	75855	68333
55°	96921	62858	55331
60°	84788	50794	40630
65°	73870	37854	22824
70°	64590	24487	7393
75°	52947	12724	1954
80°	39494	5825	1421
85°	23351	2830	2830



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.6	5.5
10°-20°	382.2	15.3
20°-30°	528.5	21.1
30°-40°	531.4	21.3
40°-50°	428.8	17.2
50°-60°	289.9	11.6
60°-70°	147.6	5.9
70°-80°	47.2	1.9
80°-90°	7.2	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°	1047.3	41.9
0°-40°	1578.6	63.2
0°-60°	2297.4	91.9
0°-90°	2499.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2499.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1447	1447	1447	1447	1447	
5°	1527	1498	1437	1385	1365	147
15°	1601	1515	1338	1210	1171	451
25°	1468	1340	1105	970	930	672
35°	1105	998	805	704	688	691
45°	726	650	513	457	457	563
55°	451	389	292	255	257	405
65°	253	206	130	84	78	254
75°	111	78	27	6	4	120
85°	16	8	2	2	2	22
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°	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0
2.5°	1486.1	1477.9	1469.7	1455.2	1438.8	1422.3	1412.0	1403.8	1399.6
5°	1527.3	1516.9	1498.4	1467.5	1436.7	1407.9	1385.3	1370.9	1364.7
7.5°	1560.2	1545.8	1514.9	1471.7	1424.3	1379.1	1350.2	1329.7	1321.5
10°	1572.5	1556.1	1514.9	1457.3	1397.6	1342.0	1300.8	1280.3	1270.0
12.5°	1587.0	1568.5	1516.9	1445.0	1370.9	1305.0	1257.6	1230.9	1220.6
15°	1601.4	1576.7	1514.9	1426.4	1337.9	1261.8	1210.3	1183.5	1171.2
17.5°	1601.4	1572.5	1498.4	1395.6	1294.7	1214.4	1156.8	1125.9	1115.6
20°	1572.5	1539.6	1459.3	1346.2	1239.1	1152.7	1097.1	1066.2	1053.9
22.5°	1527.3	1490.2	1403.8	1286.5	1173.2	1088.9	1033.2	1004.5	992.1
25°	1467.5	1430.5	1340.0	1218.5	1105.3	1021.0	969.5	942.7	930.4
27.5°	1397.6	1356.4	1265.8	1144.5	1033.2	953.0	905.7	881.0	870.7
30°	1311.2	1272.0	1183.5	1064.2	957.1	883.0	839.8	817.1	808.9
32.5°	1210.3	1177.4	1090.9	979.8	878.9	810.9	771.9	753.4	745.2
35°	1105.3	1074.4	998.3	895.4	804.8	741.0	704.0	691.6	687.5
37.5°	1006.5	979.8	905.7	810.9	728.7	673.1	640.1	631.9	627.7
40°	903.6	885.0	817.1	730.7	654.6	605.2	578.4	572.2	572.2
42.5°	810.9	790.4	730.7	652.4	584.5	535.1	516.6	510.4	512.6
45°	726.5	706.0	650.4	578.4	512.6	471.4	457.0	457.0	457.0
47.5°	648.4	629.9	578.4	504.3	450.7	417.8	403.5	403.5	405.5
50°	576.3	564.0	506.4	442.5	395.3	364.3	354.1	351.9	356.1
52.5°	508.4	494.0	442.5	384.9	339.6	314.9	304.7	302.5	304.7
55°	450.7	434.3	389.0	333.4	292.3	267.6	255.3	253.1	257.3
57.5°	395.3	382.8	335.5	286.1	247.0	222.3	212.0	207.9	209.9
60°	343.7	331.4	288.2	240.8	205.9	181.2	166.7	162.7	164.7
62.5°	296.4	286.1	244.9	199.7	164.7	142.0	127.6	117.3	121.5
65°	253.1	242.9	205.9	160.5	129.7	105.0	84.4	76.1	78.2
67.5°	216.1	203.7	168.7	127.6	96.8	69.9	47.4	43.2	43.2
70°	179.1	166.7	135.8	98.8	67.9	37.0	20.5	20.5	20.5
72.5°	144.0	133.8	105.0	74.1	43.2	16.5	8.2	8.2	8.2
75°	111.1	102.9	78.2	51.4	26.7	8.2	6.2	4.1	4.1
77.5°	82.3	74.1	55.6	35.0	16.5	4.1	4.1	4.1	4.1
80°	55.6	49.4	37.0	20.5	8.2	2.0	2.0	2.0	2.0
82.5°	32.9	28.8	20.5	10.3	4.1	2.0	2.0	2.0	2.0
85°	16.5	12.3	8.2	4.1	2.0	2.0	2.0	2.0	2.0
87.5°	4.1	2.0	2.0	2.0	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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