

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: P592745

Luminaire Tested: **HCC4S30D010BZ-HM43040850-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592745  
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: HCC4S30D010BZ-HM43040850-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

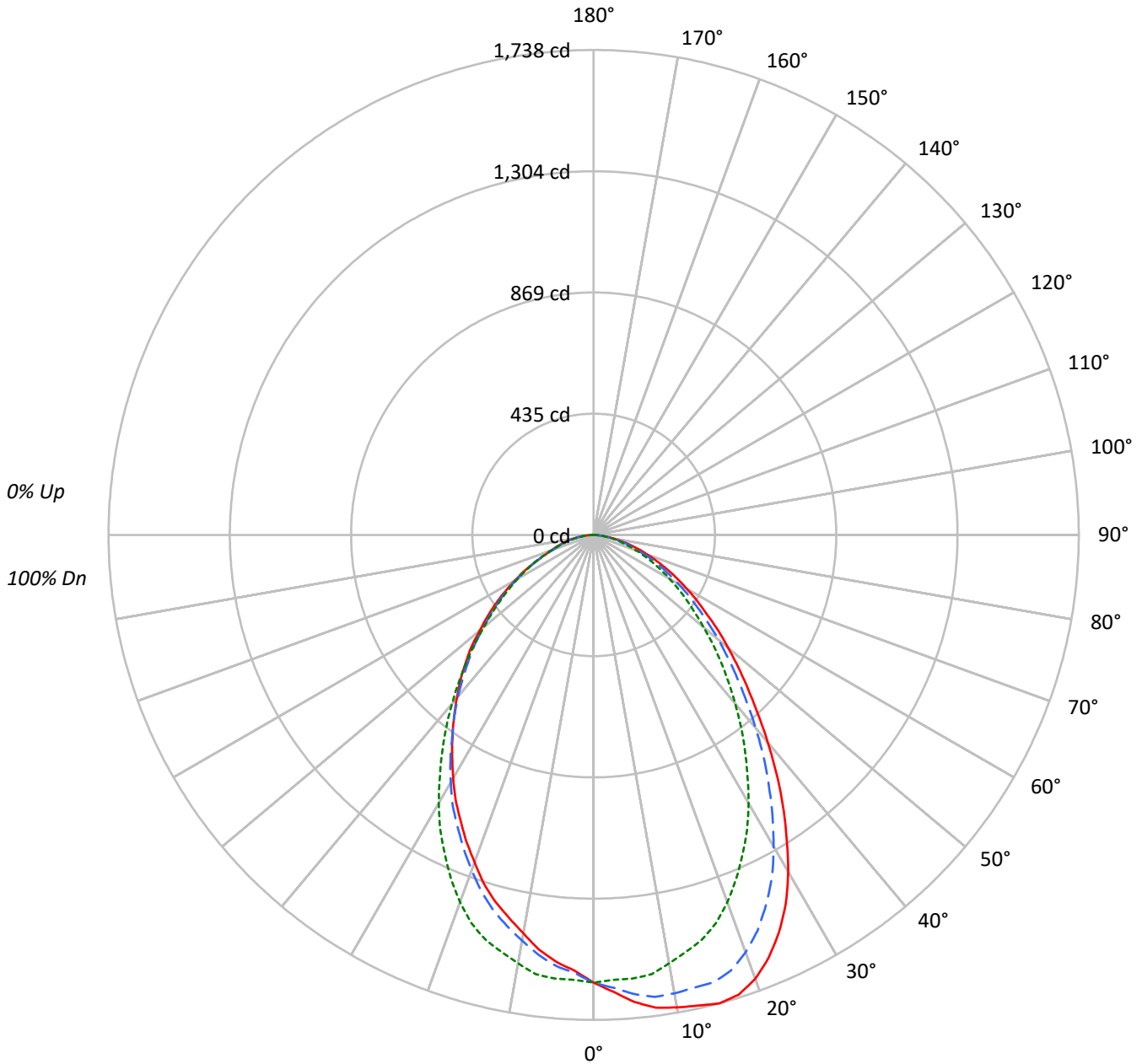
Lumens per Lamp: N/A  
Luminaire Lumens: 3110.9 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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°	197859	197859	197859
5°	208049	197599	190195
10°	215352	195237	181573
15°	221924	191686	173821
20°	222187	183793	163801
25°	213835	171781	153585
30°	198558	158066	143424
35°	177967	142326	132704
40°	156170	126994	122678
45°	136497	112425	113140
50°	120527	98383	101952
55°	106276	87223	91674
60°	95001	77214	80249
65°	84143	67916	67916
70°	73498	57919	57919
75°	62812	49087	54949
80°	49722	43898	49722
85°	32126	37787	46561



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.0	4.9
10°-20°	428.0	13.8
20°-30°	599.6	19.3
30°-40°	617.7	19.9
40°-50°	525.9	16.9
50°-60°	389.7	12.5
60°-70°	244.5	7.9
70°-80°	121.5	3.9
80°-90°	31.9	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°	1179.6	37.9
0°-40°	1797.3	57.8
0°-60°	2712.9	87.2
0°-90°	3110.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3110.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1604	1604	1604	1604	1604	
5°	1680	1652	1596	1550	1536	162
15°	1738	1660	1501	1392	1361	489
25°	1571	1462	1262	1153	1128	719
35°	1182	1093	945	883	881	737
45°	782	729	644	632	649	607
55°	494	455	406	414	426	447
65°	288	259	233	228	233	288
75°	132	117	103	111	115	141
85°	23	23	27	31	33	29
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°	1604.1	1604.1	1604.1	1604.1	1604.1	1604.1	1604.1	1604.1	1604.1
2.5°	1639.1	1632.9	1624.7	1610.2	1595.9	1583.5	1571.2	1565.0	1563.0
5°	1680.3	1668.0	1651.5	1624.7	1595.9	1571.2	1550.5	1540.3	1536.1
7.5°	1709.1	1696.7	1670.0	1628.8	1587.7	1550.5	1517.6	1503.2	1499.1
10°	1719.4	1705.0	1668.0	1612.4	1558.8	1513.4	1476.4	1457.9	1449.7
12.5°	1727.6	1709.1	1661.8	1595.9	1529.9	1474.4	1435.3	1410.6	1404.4
15°	1737.9	1717.4	1659.7	1579.4	1501.1	1435.3	1392.0	1369.4	1361.2
17.5°	1727.6	1705.0	1637.1	1546.5	1457.9	1385.9	1338.5	1317.8	1309.6
20°	1692.7	1668.0	1591.7	1494.9	1400.2	1326.1	1278.7	1258.2	1247.9
22.5°	1639.1	1612.4	1534.1	1431.1	1334.3	1262.2	1217.0	1196.4	1190.2
25°	1571.2	1544.3	1462.0	1357.0	1262.2	1192.3	1153.2	1134.7	1128.5
27.5°	1490.9	1464.0	1383.7	1280.8	1190.2	1124.3	1093.4	1074.9	1070.8
30°	1394.1	1367.2	1289.1	1194.3	1109.8	1048.1	1023.4	1009.0	1007.0
32.5°	1286.9	1264.4	1192.3	1105.8	1025.5	974.0	955.4	945.2	943.1
35°	1181.9	1157.2	1093.4	1015.2	945.2	899.8	883.3	881.3	881.3
37.5°	1074.9	1050.2	998.7	926.7	866.9	825.7	819.5	821.6	821.6
40°	969.9	947.2	901.9	842.2	788.7	757.8	755.8	759.8	761.9
42.5°	871.0	852.5	811.3	759.8	714.5	689.8	691.9	700.1	706.2
45°	782.5	766.0	728.9	683.7	644.5	626.0	632.1	642.5	648.6
47.5°	702.2	687.7	652.8	611.6	578.7	566.3	574.5	586.9	595.1
50°	628.1	615.7	582.7	539.5	512.7	504.4	514.8	527.1	531.3
52.5°	562.2	549.8	514.8	477.7	457.2	453.0	463.3	473.6	479.7
55°	494.2	483.9	455.0	422.1	405.6	403.6	413.9	422.1	426.3
57.5°	438.6	428.3	401.6	372.7	358.3	356.2	366.5	372.7	374.7
60°	385.1	374.7	350.0	323.3	313.0	313.0	319.2	323.3	325.3
62.5°	335.7	325.3	302.6	280.1	271.8	271.8	271.8	273.9	280.1
65°	288.3	280.1	259.4	238.9	232.7	228.5	228.5	228.5	232.7
67.5°	245.0	236.8	220.3	201.8	195.6	189.4	187.4	191.5	191.5
70°	203.8	197.6	181.2	166.8	160.6	154.4	152.4	160.6	160.6
72.5°	166.8	160.6	150.4	135.9	129.7	127.7	131.8	135.9	138.0
75°	131.8	125.7	117.4	109.2	103.0	105.0	111.2	113.3	115.3
77.5°	98.8	96.8	88.5	82.3	82.3	84.4	88.5	92.6	94.8
80°	70.0	67.9	63.8	59.7	61.8	65.9	67.9	72.1	70.0
82.5°	43.2	43.2	41.2	41.2	43.2	47.4	49.4	51.4	53.6
85°	22.7	22.7	22.7	24.7	26.7	28.9	30.9	32.9	32.9
87.5°	6.2	8.2	8.2	10.3	12.4	12.4	14.4	14.4	14.4
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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