

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: P592762

Luminaire Tested: **HCC4S30D010BZ-HM43040950-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592762  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S30D010BZ-HM43040950-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

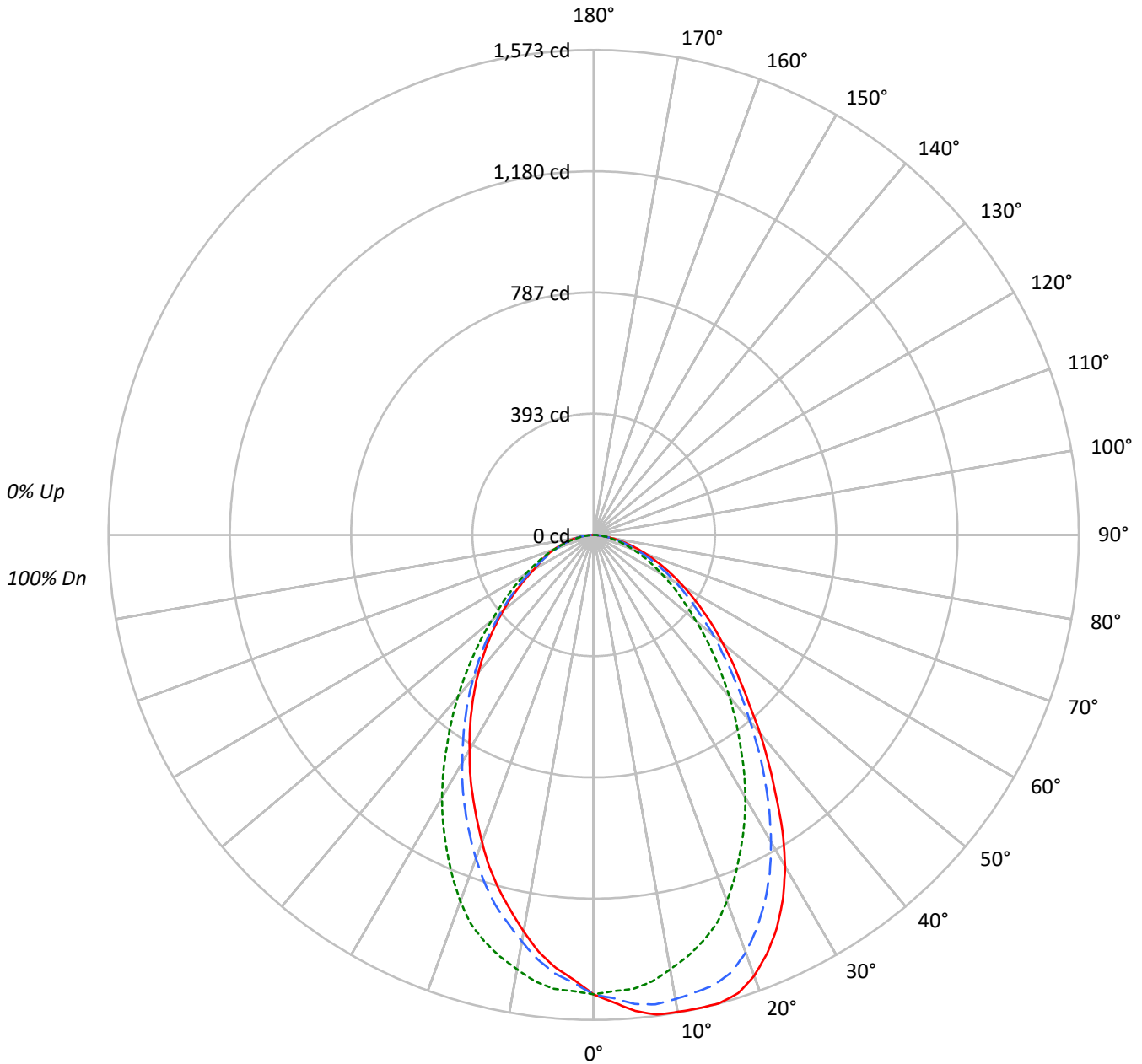
Lumens per Lamp: N/A  
Luminaire Lumens: 2661.3 lumens  
Efficiency: N/A  
Efficacy: 95.0 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87								
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76								
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66								
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58								
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52								
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47								
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	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	42	37	47	41	37	46	41	37	35								
10	59	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°	183810	183810	183810
5°	191904	182989	174520
10°	196753	179180	163587
15°	200829	174408	151793
20°	199754	165915	139006
25°	191366	153422	126461
30°	176795	140077	114611
35°	154959	124603	103748
40°	134932	110103	93454
45°	117431	96028	83486
50°	104639	82744	73686
55°	93502	72772	63718
60°	83480	63572	54938
65°	74220	55775	52185
70°	65131	48037	48686
75°	55139	40985	45084
80°	42335	34877	41127
85°	24767	27314	34815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.7	5.2
10°-20°	385.3	14.5
20°-30°	526.4	19.8
30°-40°	528.6	19.9
40°-50°	437.3	16.4
50°-60°	316.9	11.9
60°-70°	200.7	7.5
70°-80°	101.5	3.8
80°-90°	24.8	0.9
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°	1051.4	39.5
0°-40°	1580.0	59.4
0°-60°	2334.2	87.7
0°-90°	2661.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2661.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1490	1490	1490	1490	1490	
5°	1550	1527	1478	1429	1410	149
15°	1573	1511	1366	1240	1189	442
25°	1406	1313	1127	985	929	643
35°	1029	968	828	726	689	645
45°	673	635	550	496	479	524
55°	435	396	338	308	296	391
65°	254	226	191	172	179	253
75°	116	100	86	90	95	124
85°	18	18	19	23	25	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°	1490.2	1490.2	1490.2	1490.2	1490.2	1490.2	1490.2	1490.2	1490.2
2.5°	1518.3	1513.0	1504.3	1493.7	1481.4	1467.4	1455.1	1448.1	1444.6
5°	1549.9	1542.8	1527.1	1504.3	1477.9	1451.6	1428.8	1414.9	1409.5
7.5°	1569.2	1558.6	1535.8	1500.7	1460.4	1421.8	1388.6	1369.3	1364.0
10°	1570.9	1558.6	1528.8	1481.4	1430.6	1379.8	1339.5	1311.4	1306.1
12.5°	1572.7	1556.9	1520.0	1463.9	1400.9	1337.7	1288.6	1255.2	1246.6
15°	1572.7	1556.9	1511.3	1444.6	1365.8	1293.8	1239.6	1201.0	1188.7
17.5°	1558.6	1541.1	1486.7	1409.5	1323.7	1243.1	1179.9	1139.6	1127.3
20°	1521.8	1502.5	1441.1	1357.0	1264.0	1179.9	1116.8	1074.8	1059.0
22.5°	1469.2	1446.4	1381.6	1290.3	1197.5	1111.5	1050.2	1006.3	992.3
25°	1406.1	1383.3	1313.1	1223.8	1127.3	1046.7	985.3	944.9	929.2
27.5°	1328.9	1304.4	1236.1	1146.6	1057.2	976.5	920.4	883.6	867.9
30°	1241.3	1215.0	1150.1	1064.2	983.5	906.5	852.1	822.2	804.7
32.5°	1139.6	1116.8	1059.0	981.8	906.5	832.8	787.2	760.8	746.8
35°	1029.1	1016.9	967.7	901.2	827.5	766.1	725.9	701.3	689.0
37.5°	930.9	918.6	876.6	820.5	755.6	699.5	666.2	645.2	634.6
40°	838.0	827.5	787.2	739.9	683.8	634.6	606.6	590.8	580.4
42.5°	746.8	741.7	708.3	664.5	615.3	573.2	550.5	538.3	529.5
45°	673.2	666.2	634.6	592.5	550.5	515.5	496.2	487.4	478.6
47.5°	608.3	599.6	566.3	529.5	490.9	459.3	441.8	433.0	429.5
50°	545.3	536.5	506.7	469.8	431.2	408.4	394.5	385.7	384.0
52.5°	489.1	480.4	447.0	412.1	382.2	362.9	350.7	341.9	338.4
55°	434.8	424.2	396.3	362.9	338.4	320.8	308.5	299.8	296.3
57.5°	385.7	375.2	350.7	319.1	296.3	280.5	270.0	261.2	257.7
60°	338.4	329.6	306.8	277.0	257.7	243.6	233.2	226.2	222.7
62.5°	294.5	287.5	264.7	238.5	222.7	210.4	201.6	194.6	198.1
65°	254.3	247.3	226.2	203.4	191.1	178.8	171.8	171.8	178.8
67.5°	215.7	208.7	191.1	171.8	161.3	152.5	147.3	152.5	157.8
70°	180.6	173.6	157.8	142.0	133.2	126.2	126.2	131.5	135.0
72.5°	147.3	140.2	128.0	115.7	108.7	103.4	108.7	112.2	115.7
75°	115.7	110.4	99.9	91.1	86.0	84.1	89.5	92.9	94.6
77.5°	86.0	82.5	75.4	68.4	64.9	66.7	71.9	73.7	75.4
80°	59.6	57.9	52.6	49.1	49.1	50.9	54.4	56.1	57.9
82.5°	36.8	36.8	33.3	31.6	33.3	36.8	38.6	40.3	40.3
85°	17.5	19.3	17.5	17.5	19.3	22.8	22.8	24.6	24.6
87.5°	5.3	5.3	7.0	7.0	8.8	8.8	8.8	8.8	10.5
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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