

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: P580306

Luminaire Tested: **HCC4S30D010BZ-HM43040835-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580306  
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-HM43040835-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

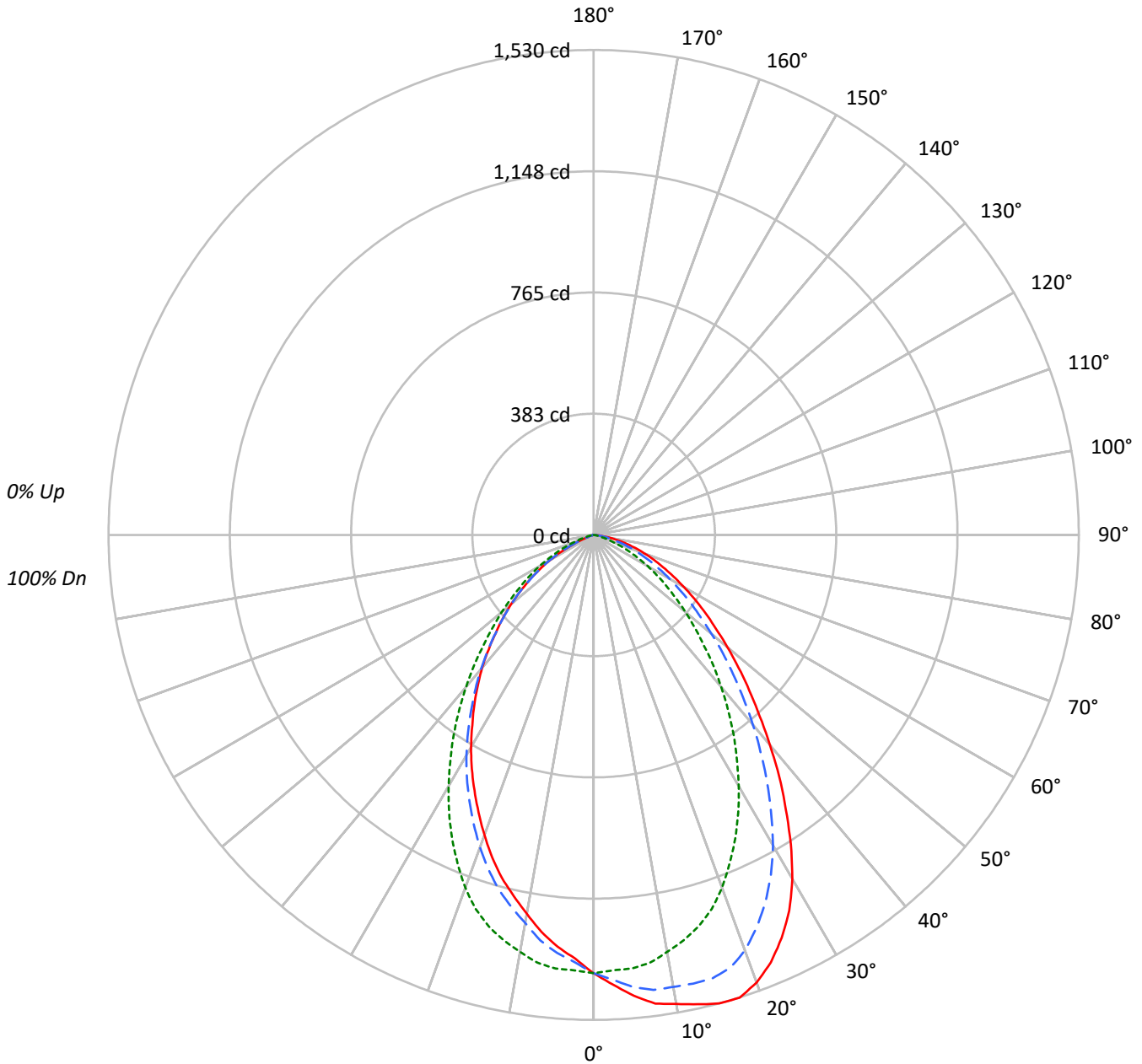
Lumens per Lamp: N/A  
Luminaire Lumens: 2388.8 lumens  
Efficiency: N/A  
Efficacy: 85.3 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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

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

	0°	90°	180°
0°	170575	170575	170575
5°	180735	170013	161494
10°	188236	167307	152027
15°	195440	163286	142931
20°	197273	155453	132207
25°	190903	143773	121017
30°	178476	130292	110111
35°	159070	115824	98944
40°	139054	100732	88060
45°	121129	85457	76194
50°	105694	72497	65301
55°	92642	60084	52880
60°	81063	48524	38829
65°	70630	36191	21831
70°	61705	23442	7069
75°	50659	12200	1859
80°	37718	5612	1350
85°	22361	2689	2689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.5	5.5
10°-20°	365.3	15.3
20°-30°	505.1	21.1
30°-40°	507.9	21.3
40°-50°	409.8	17.2
50°-60°	277.1	11.6
60°-70°	141.0	5.9
70°-80°	45.2	1.9
80°-90°	6.9	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°	1000.9	41.9
0°-40°	1508.8	63.2
0°-60°	2195.7	91.9
0°-90°	2388.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2388.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1383	1383	1383	1383	1383	
5°	1460	1432	1373	1324	1304	141
15°	1530	1448	1279	1157	1119	431
25°	1403	1281	1056	926	889	642
35°	1056	954	769	673	657	660
45°	694	622	490	437	437	538
55°	431	372	279	244	246	387
65°	242	197	124	81	75	243
75°	106	75	26	6	4	115
85°	16	8	2	2	2	21
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°	1382.9	1382.9	1382.9	1382.9	1382.9	1382.9	1382.9	1382.9	1382.9
2.5°	1420.4	1412.5	1404.6	1390.8	1375.1	1359.4	1349.5	1341.6	1337.7
5°	1459.7	1449.8	1432.1	1402.7	1373.1	1345.6	1323.9	1310.2	1304.3
7.5°	1491.2	1477.5	1447.9	1406.6	1361.4	1318.1	1290.5	1270.8	1263.0
10°	1502.9	1487.3	1447.9	1392.9	1335.8	1282.6	1243.3	1223.7	1213.8
12.5°	1516.7	1499.0	1449.8	1381.0	1310.2	1247.2	1202.0	1176.4	1166.6
15°	1530.5	1506.9	1447.9	1363.3	1278.7	1205.9	1156.8	1131.2	1119.3
17.5°	1530.5	1502.9	1432.1	1333.7	1237.4	1160.7	1105.6	1076.1	1066.3
20°	1502.9	1471.5	1394.8	1286.6	1184.3	1101.6	1048.6	1019.0	1007.2
22.5°	1459.7	1424.3	1341.6	1229.5	1121.3	1040.7	987.6	960.0	948.2
25°	1402.7	1367.2	1280.7	1164.7	1056.4	975.7	926.5	901.0	889.2
27.5°	1335.8	1296.4	1209.9	1093.8	987.6	910.9	865.6	841.9	832.1
30°	1253.1	1215.8	1131.2	1017.1	914.8	844.0	802.7	781.0	773.1
32.5°	1156.8	1125.3	1042.6	936.5	840.0	775.0	737.7	720.0	712.1
35°	1056.4	1026.9	954.1	855.7	769.2	708.2	672.9	661.0	657.1
37.5°	962.0	936.5	865.6	775.0	696.4	643.3	611.8	603.9	600.0
40°	863.6	845.9	781.0	698.3	625.6	578.3	552.8	546.9	546.9
42.5°	775.0	755.4	698.3	623.7	558.7	511.4	493.7	487.9	489.9
45°	694.4	674.8	621.6	552.8	489.9	450.5	436.8	436.8	436.8
47.5°	619.7	602.0	552.8	482.0	430.8	399.3	385.6	385.6	387.6
50°	550.8	539.1	483.9	423.0	377.8	348.2	338.4	336.4	340.3
52.5°	485.9	472.2	423.0	367.8	324.6	301.0	291.1	289.2	291.1
55°	430.8	415.1	371.8	318.7	279.4	255.7	244.0	242.0	245.9
57.5°	377.8	365.9	320.7	273.4	236.1	212.5	202.6	198.6	200.7
60°	328.6	316.7	275.5	230.1	196.7	173.1	159.4	155.4	157.4
62.5°	283.2	273.4	234.1	190.9	157.4	135.7	121.9	112.1	116.1
65°	242.0	232.1	196.7	153.4	124.0	100.3	80.7	72.8	74.8
67.5°	206.5	194.8	161.3	121.9	92.5	66.9	45.2	41.3	41.3
70°	171.1	159.4	129.8	94.4	65.0	35.4	19.6	19.6	19.6
72.5°	137.7	127.9	100.3	70.8	41.3	15.8	7.9	7.9	7.9
75°	106.3	98.4	74.8	49.2	25.6	7.9	5.9	3.9	3.9
77.5°	78.7	70.8	53.1	33.4	15.8	3.9	3.9	3.9	3.9
80°	53.1	47.3	35.4	19.6	7.9	1.9	1.9	1.9	1.9
82.5°	31.5	27.5	19.6	9.8	3.9	1.9	1.9	1.9	1.9
85°	15.8	11.8	7.9	3.9	1.9	1.9	1.9	1.9	1.9
87.5°	3.9	1.9	1.9	1.9	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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