

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: P580450

Luminaire Tested: **HCC4S35D010BZ-HM43040835-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580450  
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: HCC4S35D010BZ-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**

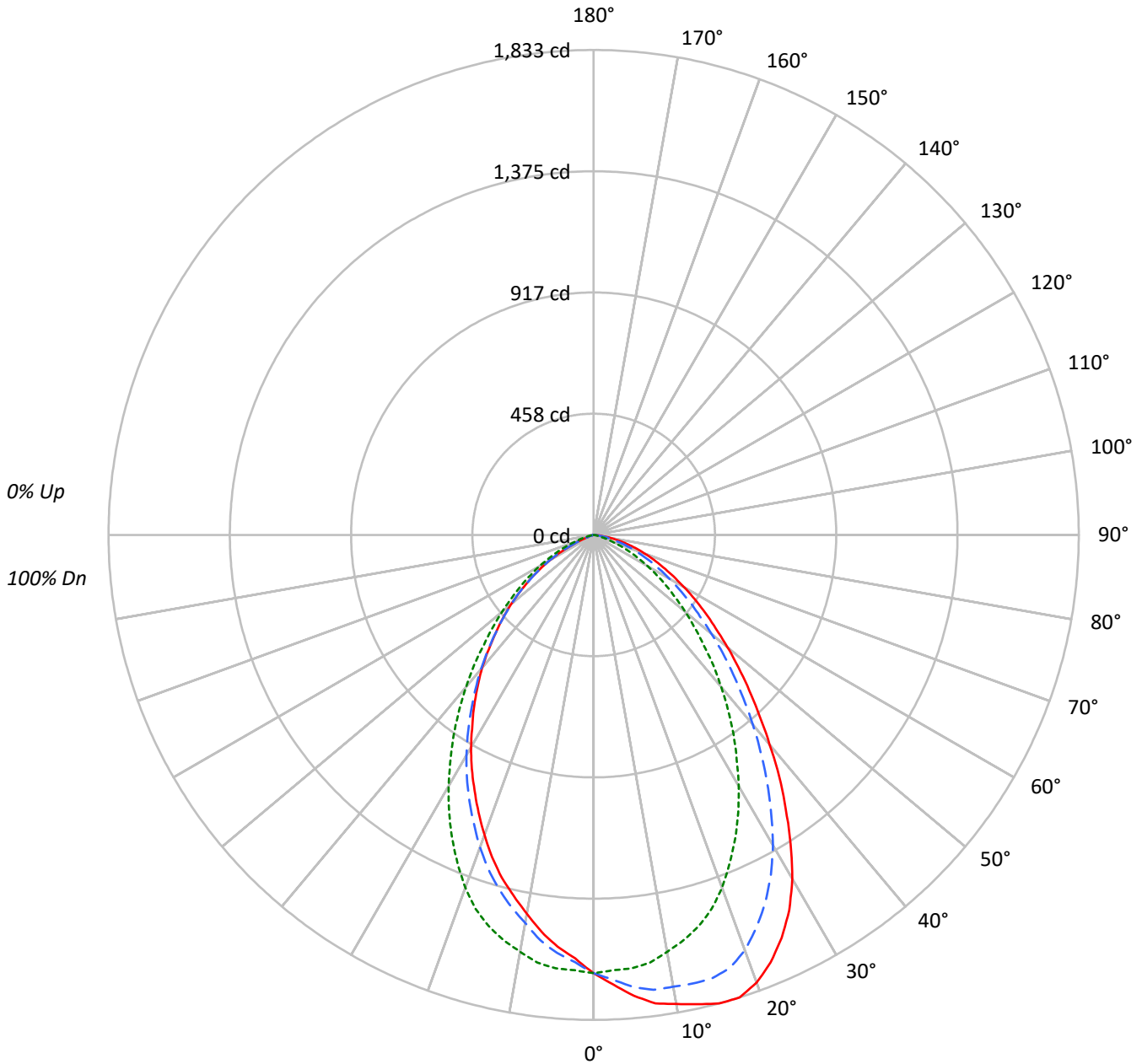
Lumens per Lamp: N/A  
Luminaire Lumens: 2861.2 lumens  
Efficiency: N/A  
Efficacy: 84.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.7  
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					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	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°	204310	204310	204310
5°	216481	203629	193414
10°	225472	200385	182086
15°	234081	195580	171203
20°	236297	186195	158354
25°	228643	172203	144943
30°	213769	156058	131888
35°	190525	138727	118504
40°	166555	120649	105482
45°	145097	102342	91248
50°	126610	86812	78234
55°	110964	71955	63331
60°	97073	58120	46501
65°	84581	43341	26151
70°	73931	28058	8511
75°	60620	14631	2240
80°	45176	6677	1705
85°	26748	3397	3397



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.3	5.5
10°-20°	437.5	15.3
20°-30°	605.0	21.1
30°-40°	608.3	21.3
40°-50°	490.9	17.2
50°-60°	331.9	11.6
60°-70°	168.9	5.9
70°-80°	54.1	1.9
80°-90°	8.3	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°	1198.8	41.9
0°-40°	1807.1	63.2
0°-60°	2629.9	91.9
0°-90°	2861.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2861.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1656	1656	1656	1656	1656	
5°	1748	1715	1645	1586	1562	168
15°	1833	1734	1532	1385	1341	516
25°	1680	1534	1265	1110	1065	769
35°	1265	1143	921	806	787	791
45°	832	744	587	523	523	645
55°	516	445	335	292	294	464
65°	290	236	148	97	90	291
75°	127	90	31	7	5	137
85°	19	9	2	2	2	25
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°	1656.4	1656.4	1656.4	1656.4	1656.4	1656.4	1656.4	1656.4	1656.4
2.5°	1701.2	1691.7	1682.4	1665.9	1647.0	1628.1	1616.4	1607.0	1602.3
5°	1748.4	1736.6	1715.3	1680.0	1644.6	1611.7	1585.7	1569.2	1562.1
7.5°	1786.0	1769.5	1734.2	1684.8	1630.5	1578.7	1545.7	1522.1	1512.7
10°	1800.2	1781.3	1734.2	1668.2	1599.9	1536.3	1489.2	1465.6	1453.8
12.5°	1816.6	1795.5	1736.6	1654.1	1569.2	1493.9	1439.6	1409.0	1397.2
15°	1833.1	1804.9	1734.2	1632.8	1531.6	1444.3	1385.4	1354.9	1340.7
17.5°	1833.1	1800.2	1715.3	1597.5	1482.1	1390.2	1324.2	1288.9	1277.1
20°	1800.2	1762.4	1670.6	1541.0	1418.5	1319.5	1255.8	1220.6	1206.4
22.5°	1748.4	1705.9	1607.0	1472.7	1343.1	1246.4	1182.8	1149.9	1135.7
25°	1680.0	1637.6	1533.9	1394.9	1265.3	1168.7	1109.8	1079.2	1065.0
27.5°	1599.9	1552.8	1449.1	1310.0	1182.8	1091.0	1036.8	1008.5	996.7
30°	1500.9	1456.1	1354.9	1218.2	1095.7	1010.8	961.4	935.4	926.0
32.5°	1385.4	1347.8	1248.8	1121.5	1006.1	928.3	883.6	862.3	853.0
35°	1265.3	1230.0	1142.8	1025.0	921.3	848.3	805.8	791.7	787.0
37.5°	1152.2	1121.5	1036.8	928.3	834.1	770.5	732.7	723.4	718.7
40°	1034.4	1013.2	935.4	836.5	749.3	692.7	662.1	655.1	655.1
42.5°	928.3	904.8	836.5	746.9	669.1	612.6	591.4	584.4	586.7
45°	831.8	808.2	744.5	662.1	586.7	539.6	523.1	523.1	523.1
47.5°	742.2	721.0	662.1	577.3	516.0	478.3	461.9	461.9	464.2
50°	659.8	645.6	579.6	506.6	452.4	417.0	405.3	403.0	407.7
52.5°	582.0	565.5	506.6	440.6	388.8	360.5	348.8	346.4	348.8
55°	516.0	497.1	445.3	381.7	334.6	306.3	292.1	289.8	294.5
57.5°	452.4	438.2	384.1	327.5	282.8	254.5	242.7	238.0	240.3
60°	393.5	379.4	329.9	275.7	235.6	207.4	190.9	186.1	188.5
62.5°	339.3	327.5	280.4	228.5	188.5	162.5	146.1	134.3	139.0
65°	289.8	278.1	235.6	183.8	148.5	120.2	96.6	87.2	89.6
67.5°	247.4	233.2	193.2	146.1	110.7	80.1	54.2	49.5	49.5
70°	205.0	190.9	155.6	113.1	77.8	42.4	23.6	23.6	23.6
72.5°	164.9	153.2	120.2	84.9	49.5	18.9	9.4	9.4	9.4
75°	127.2	117.8	89.6	58.9	30.7	9.4	7.1	4.7	4.7
77.5°	94.3	84.9	63.6	40.0	18.9	4.7	4.7	4.7	4.7
80°	63.6	56.5	42.4	23.6	9.4	2.4	2.4	2.4	2.4
82.5°	37.7	32.9	23.6	11.8	4.7	2.4	2.4	2.4	2.4
85°	18.9	14.2	9.4	4.7	2.4	2.4	2.4	2.4	2.4
87.5°	4.7	2.4	2.4	2.4	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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