

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: P580469

Luminaire Tested: **HCC4S35D010BZ-HM43040840-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580469  
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: HCC4S35D010BZ-HM43040840-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

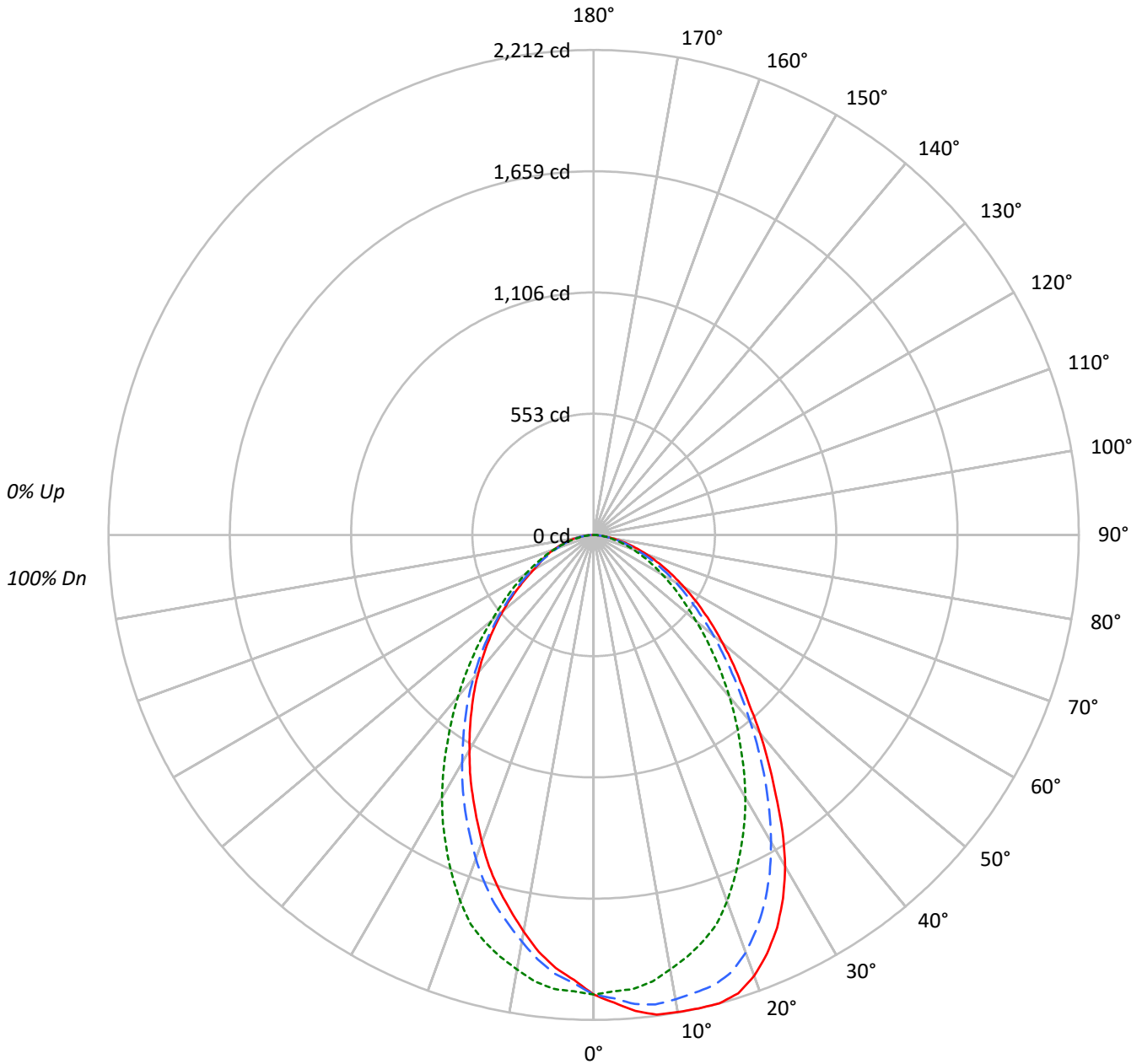
Lumens per Lamp: N/A  
Luminaire Lumens: 3743.3 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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					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°	258545	258545	258545
5°	269921	257390	245492
10°	276749	252037	230106
15°	282465	245306	213509
20°	280966	233396	195514
25°	269172	215795	177879
30°	248664	197034	161213
35°	217976	175272	145924
40°	189790	154865	131421
45°	165192	135067	117448
50°	147162	116402	103641
55°	131522	102341	89631
60°	117400	89426	77239
65°	104340	78423	73432
70°	91602	67584	68449
75°	77586	57570	63479
80°	59596	49012	57820
85°	34815	38353	48826



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.5	5.2
10°-20°	542.0	14.5
20°-30°	740.5	19.8
30°-40°	743.5	19.9
40°-50°	615.1	16.4
50°-60°	445.7	11.9
60°-70°	282.3	7.5
70°-80°	142.7	3.8
80°-90°	34.9	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°	1478.9	39.5
0°-40°	2222.4	59.4
0°-60°	3283.3	87.7
0°-90°	3743.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3743.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2096	2096	2096	2096	2096	
5°	2180	2148	2079	2010	1983	209
15°	2212	2126	1921	1743	1672	622
25°	1978	1847	1586	1386	1307	904
35°	1448	1361	1164	1021	969	907
45°	947	893	774	698	673	736
55°	612	557	476	434	417	550
65°	358	318	269	242	252	356
75°	163	141	121	126	133	174
85°	25	25	27	32	34	34
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°	2096.1	2096.1	2096.1	2096.1	2096.1	2096.1	2096.1	2096.1	2096.1
2.5°	2135.6	2128.2	2115.8	2101.1	2083.8	2064.1	2046.8	2036.9	2032.0
5°	2180.0	2170.1	2148.0	2115.8	2078.8	2041.9	2009.8	1990.0	1982.7
7.5°	2207.1	2192.4	2160.2	2111.0	2054.2	1999.9	1953.1	1926.0	1918.6
10°	2209.6	2192.4	2150.4	2083.8	2012.3	1940.8	1884.0	1844.6	1837.2
12.5°	2212.0	2189.9	2138.1	2059.2	1970.4	1881.6	1812.6	1765.7	1753.3
15°	2212.0	2189.9	2125.7	2032.0	1921.0	1820.0	1743.4	1689.3	1672.0
17.5°	2192.4	2167.6	2091.2	1982.7	1861.9	1748.4	1659.7	1602.9	1585.6
20°	2140.5	2113.3	2027.1	1908.7	1778.1	1659.7	1570.9	1511.7	1489.5
22.5°	2066.6	2034.4	1943.3	1815.0	1684.3	1563.5	1477.2	1415.5	1395.8
25°	1977.8	1945.8	1847.1	1721.3	1585.6	1472.2	1385.9	1329.2	1307.0
27.5°	1869.2	1834.7	1738.6	1612.8	1487.1	1373.6	1294.6	1242.9	1220.7
30°	1745.9	1708.9	1617.8	1496.9	1383.4	1275.0	1198.5	1156.6	1131.9
32.5°	1602.9	1570.9	1489.5	1380.9	1275.0	1171.3	1107.3	1070.3	1050.5
35°	1447.6	1430.3	1361.3	1267.5	1164.0	1077.7	1020.9	986.4	969.1
37.5°	1309.5	1292.2	1233.0	1154.1	1062.9	983.9	937.1	907.5	892.7
40°	1178.7	1164.0	1107.3	1040.7	961.8	892.7	853.2	831.1	816.2
42.5°	1050.5	1043.2	996.3	934.6	865.6	806.4	774.3	757.1	744.8
45°	947.0	937.1	892.7	833.6	774.3	725.0	697.9	685.5	673.3
47.5°	855.7	843.3	796.6	744.8	690.5	646.1	621.5	609.1	604.2
50°	766.9	754.7	712.7	660.9	606.6	574.6	554.8	542.6	540.1
52.5°	688.0	675.7	628.9	579.5	537.6	510.5	493.2	480.8	475.9
55°	611.6	596.7	557.3	510.5	475.9	451.3	434.0	421.7	416.8
57.5°	542.6	527.7	493.2	448.8	416.8	394.5	379.8	367.4	362.5
60°	475.9	463.6	431.5	389.6	362.5	342.8	328.0	318.1	313.1
62.5°	414.3	404.4	372.4	335.4	313.1	295.9	283.6	273.7	278.6
65°	357.5	347.8	318.1	286.1	268.7	251.6	241.7	241.7	251.6
67.5°	303.4	293.5	268.7	241.7	226.8	214.6	207.2	214.6	222.0
70°	254.0	244.1	222.0	199.7	187.4	177.6	177.6	184.9	189.8
72.5°	207.2	197.3	180.1	162.8	152.9	145.4	152.9	157.8	162.8
75°	162.8	155.3	140.6	128.2	120.8	118.4	125.8	130.7	133.2
77.5°	120.8	115.9	106.0	96.2	91.3	93.7	101.2	103.5	106.0
80°	83.9	81.4	74.0	69.0	69.0	71.5	76.4	78.9	81.4
82.5°	51.8	51.8	46.9	44.4	46.9	51.8	54.3	56.8	56.8
85°	24.6	27.1	24.6	24.6	27.1	32.0	32.0	34.5	34.5
87.5°	7.4	7.4	9.9	9.9	12.4	12.4	12.4	12.4	14.8
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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