

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: P580578

Luminaire Tested: **HCC4S40D010BZ-HM43040830-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580578
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: HCC4S40D010BZ-HM43040830-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

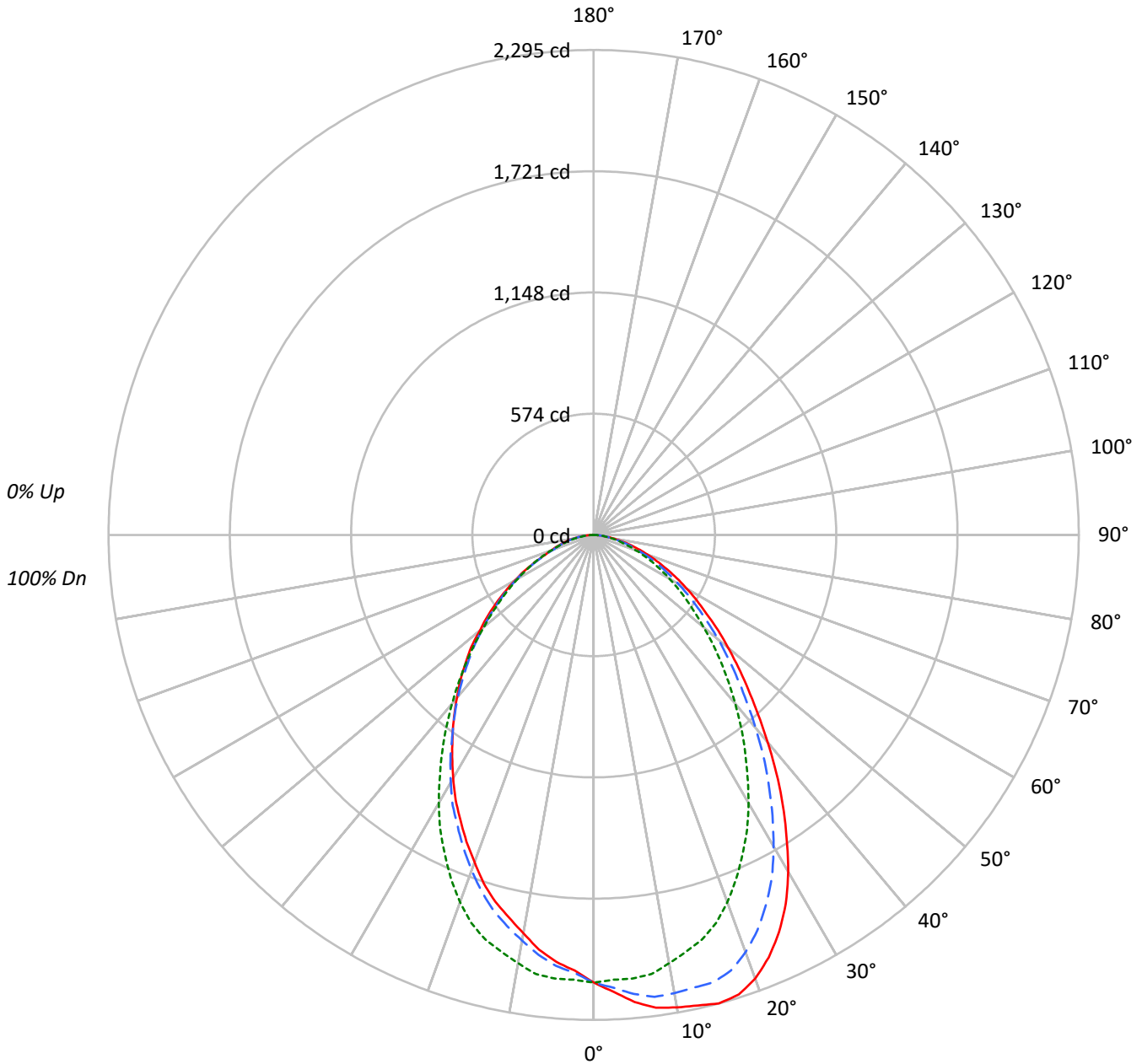
Lumens per Lamp: N/A
Luminaire Lumens: 4107.3 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 41
Input Voltage (V): NR
Input Current (A_{in}): 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°	261234	261234	261234
5°	274688	260882	251113
10°	284326	257761	239725
15°	293013	253082	229484
20°	293330	242677	216254
25°	282319	226819	202757
30°	262152	208713	189343
35°	234976	187905	175212
40°	206181	167666	161966
45°	180211	148446	149370
50°	159117	129911	134593
55°	140318	115179	121007
60°	125418	101933	105979
65°	111082	89689	89689
70°	97084	76491	76491
75°	82923	64814	72534
80°	65705	57962	65705
85°	42315	49958	61563



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.7	4.9
10°-20°	565.1	13.8
20°-30°	791.6	19.3
30°-40°	815.6	19.9
40°-50°	694.4	16.9
50°-60°	514.5	12.5
60°-70°	322.9	7.9
70°-80°	160.4	3.9
80°-90°	42.1	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°	1557.4	37.9
0°-40°	2373.0	57.8
0°-60°	3581.9	87.2
0°-90°	4107.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4107.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2118	2118	2118	2118	2118	
5°	2218	2180	2107	2047	2028	213
15°	2295	2191	1982	1838	1797	645
25°	2074	1930	1667	1522	1490	949
35°	1560	1444	1248	1166	1164	973
45°	1033	962	851	835	856	802
55°	652	601	536	546	563	590
65°	381	343	307	302	307	380
75°	174	155	136	147	152	186
85°	30	30	35	41	44	38
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°	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9	2117.9
2.5°	2164.1	2155.9	2145.0	2126.0	2107.0	2090.7	2074.4	2066.2	2063.5
5°	2218.5	2202.1	2180.3	2145.0	2107.0	2074.4	2047.2	2033.6	2028.1
7.5°	2256.5	2240.2	2204.9	2150.5	2096.2	2047.2	2003.7	1984.6	1979.2
10°	2270.1	2251.1	2202.1	2128.8	2058.0	1998.2	1949.3	1924.9	1914.0
12.5°	2281.0	2256.5	2194.0	2107.0	2019.9	1946.6	1894.9	1862.3	1854.1
15°	2294.6	2267.3	2191.2	2085.3	1981.9	1894.9	1837.9	1807.9	1797.1
17.5°	2281.0	2251.1	2161.4	2041.7	1924.9	1829.7	1767.1	1739.9	1729.0
20°	2234.7	2202.1	2101.5	1973.7	1848.8	1750.8	1688.3	1661.1	1647.5
22.5°	2164.1	2128.8	2025.4	1889.4	1761.8	1666.6	1606.7	1579.6	1571.4
25°	2074.4	2039.0	1930.2	1791.6	1666.6	1574.1	1522.4	1498.0	1489.8
27.5°	1968.4	1932.9	1827.0	1691.0	1571.4	1484.4	1443.6	1419.2	1413.7
30°	1840.6	1805.3	1701.9	1576.8	1465.4	1383.8	1351.1	1332.2	1329.4
32.5°	1699.2	1669.3	1574.1	1460.0	1353.9	1285.9	1261.5	1247.9	1245.2
35°	1560.5	1527.9	1443.6	1340.3	1247.9	1188.0	1166.3	1163.6	1163.6
37.5°	1419.2	1386.6	1318.5	1223.5	1144.5	1090.2	1082.0	1084.8	1084.8
40°	1280.5	1250.6	1190.8	1111.9	1041.3	1000.5	997.8	1003.2	1005.9
42.5°	1150.0	1125.5	1071.1	1003.2	943.4	910.8	913.5	924.4	932.6
45°	1033.1	1011.4	962.4	902.6	851.0	826.5	834.6	848.3	856.3
47.5°	927.1	908.0	861.8	807.5	764.0	747.6	758.5	774.8	785.7
50°	829.2	812.8	769.3	712.3	677.0	666.1	679.7	696.0	701.4
52.5°	742.2	725.8	679.7	630.8	603.5	598.2	611.7	625.3	633.5
55°	652.5	638.9	600.9	557.4	535.6	532.8	546.5	557.4	562.7
57.5°	579.1	565.4	530.1	492.1	473.1	470.4	483.9	492.1	494.8
60°	508.4	494.8	462.2	426.9	413.2	413.2	421.4	426.9	429.6
62.5°	443.1	429.6	399.6	369.7	358.8	358.8	358.8	361.6	369.7
65°	380.6	369.7	342.6	315.3	307.3	301.8	301.8	301.8	307.3
67.5°	323.5	312.6	290.9	266.5	258.3	250.1	247.4	252.8	252.8
70°	269.2	261.0	239.2	220.2	212.1	203.9	201.2	212.1	212.1
72.5°	220.2	212.1	198.4	179.5	171.3	168.6	174.0	179.5	182.2
75°	174.0	165.8	154.9	144.0	136.0	138.7	146.9	149.5	152.2
77.5°	130.5	127.8	116.9	108.7	108.7	111.4	116.9	122.3	125.1
80°	92.5	89.7	84.3	78.8	81.6	87.0	89.7	95.2	92.5
82.5°	57.1	57.1	54.4	54.4	57.1	62.6	65.2	67.9	70.7
85°	29.9	29.9	29.9	32.6	35.3	38.1	40.8	43.5	43.5
87.5°	8.2	10.9	10.9	13.6	16.4	16.4	19.1	19.1	19.1
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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