

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: P592832

Luminaire Tested: **HCC4W40D010BZ-HM43040950-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592832  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W40D010BZ-HM43040950-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

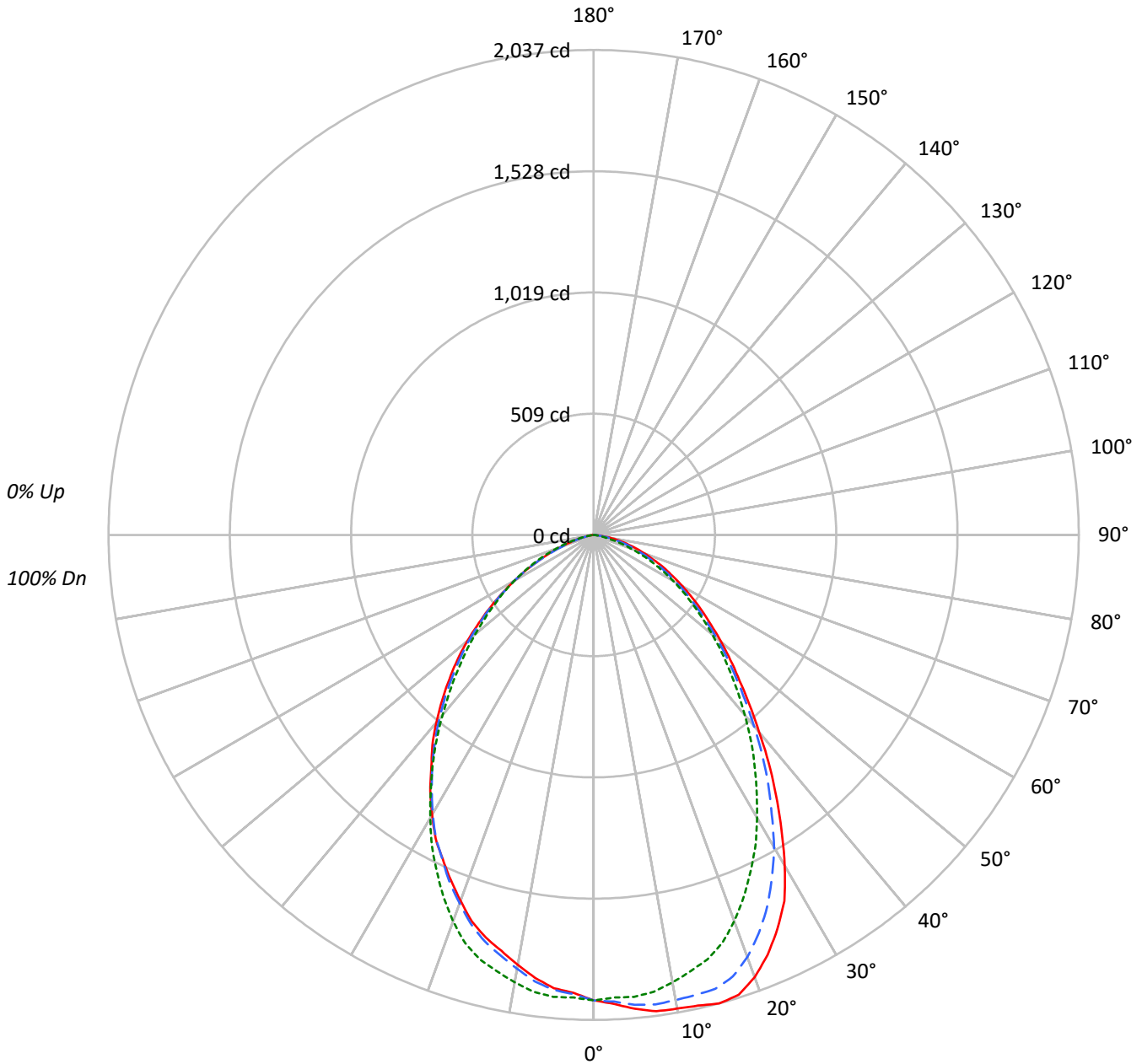
Lumens per Lamp: N/A  
Luminaire Lumens: 3725.6 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 41  
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				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				100
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

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

	0°	90°	180°
0°	241104	241104	241104
5°	247435	241121	236614
10°	253039	239037	229618
15°	260144	235652	223559
20°	259439	226623	214508
25°	248513	212161	204227
30°	228596	195396	193317
35°	201081	177320	178795
40°	173978	158730	165380
45°	151219	141050	149510
50°	134190	124403	132789
55°	119071	109136	113824
60°	106028	94631	94631
65°	94271	78656	73724
70°	81432	59541	52545
75°	68293	39317	32359
80°	51782	18966	17261
85°	27456	6793	6793



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.1	5.0
10°-20°	524.8	14.1
20°-30°	740.1	19.9
30°-40°	764.6	20.5
40°-50°	648.1	17.4
50°-60°	471.6	12.7
60°-70°	275.6	7.4
70°-80°	102.4	2.7
80°-90°	13.4	0.4
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°	1450.0	38.9
0°-40°	2214.6	59.4
0°-60°	3334.3	89.5
0°-90°	3725.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3725.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1955	1955	1955	1955	1955	
5°	1998	1981	1947	1918	1911	191
15°	2037	1974	1845	1768	1751	573
25°	1826	1724	1559	1503	1501	835
35°	1335	1277	1178	1180	1187	834
45°	867	842	809	838	857	675
55°	554	527	508	524	529	498
65°	323	296	270	253	253	321
75°	143	119	82	66	68	154
85°	19	12	5	5	5	27
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°	1954.7	1954.7	1954.7	1954.7	1954.7	1954.7	1954.7	1954.7	1954.7
2.5°	1971.6	1966.8	1962.0	1954.7	1944.9	1937.6	1930.4	1925.5	1925.5
5°	1998.4	1991.1	1981.4	1964.3	1947.4	1932.8	1918.3	1911.0	1911.0
7.5°	2017.8	2008.0	1988.7	1964.3	1935.2	1913.3	1891.6	1881.8	1877.0
10°	2020.3	2010.5	1983.8	1947.4	1908.5	1874.5	1850.2	1835.6	1833.3
12.5°	2025.1	2013.0	1978.9	1927.9	1877.0	1835.6	1809.0	1794.4	1789.6
15°	2037.2	2020.3	1974.1	1908.5	1845.4	1796.9	1767.7	1755.6	1750.7
17.5°	2025.1	2000.8	1944.9	1867.2	1796.9	1743.4	1714.2	1702.1	1702.1
20°	1976.5	1952.2	1886.6	1801.7	1726.5	1675.4	1646.3	1639.0	1634.2
22.5°	1908.5	1881.8	1811.4	1721.5	1646.3	1600.1	1580.7	1571.0	1568.6
25°	1826.0	1799.2	1724.0	1631.7	1558.9	1520.0	1503.0	1503.0	1500.6
27.5°	1733.7	1699.7	1622.0	1541.8	1471.4	1442.3	1435.0	1435.0	1437.5
30°	1605.0	1580.7	1515.1	1437.5	1371.9	1352.5	1352.5	1357.3	1357.3
32.5°	1466.6	1449.6	1391.3	1323.3	1272.3	1260.2	1265.0	1274.8	1277.2
35°	1335.4	1316.1	1277.2	1216.5	1177.6	1172.8	1180.1	1187.4	1187.4
37.5°	1206.8	1187.4	1160.7	1112.1	1083.0	1085.4	1095.1	1104.9	1112.1
40°	1080.5	1066.0	1046.6	1007.7	985.8	995.6	1007.7	1017.4	1027.1
42.5°	968.9	954.3	939.7	910.6	896.0	908.1	922.7	932.4	942.1
45°	866.9	857.1	842.5	818.3	808.6	820.7	837.7	847.5	857.1
47.5°	779.4	774.6	755.1	733.2	728.4	740.5	755.1	767.3	774.6
50°	699.3	692.0	675.1	653.2	648.3	667.8	677.4	684.7	692.0
52.5°	621.6	614.3	594.9	575.5	575.5	590.1	597.3	599.7	607.0
55°	553.7	546.4	526.9	512.3	507.5	519.6	524.5	524.5	529.3
57.5°	490.4	483.2	463.8	446.8	444.4	451.7	451.7	451.7	454.1
60°	429.8	422.5	403.1	388.5	383.6	386.1	383.6	381.3	383.6
62.5°	374.0	366.7	347.2	330.2	325.4	325.4	318.1	315.7	318.1
65°	323.0	310.9	296.3	279.2	269.5	262.2	252.6	252.6	252.6
67.5°	272.0	262.2	245.3	228.2	216.1	203.9	189.4	194.3	196.7
70°	225.8	218.5	199.1	182.2	165.1	150.6	138.4	143.3	145.7
72.5°	184.5	174.9	157.8	138.4	123.9	104.4	97.1	102.0	102.0
75°	143.3	133.5	118.9	99.5	82.5	65.6	65.6	67.9	67.9
77.5°	106.8	97.1	82.5	65.6	51.0	38.9	41.3	41.3	41.3
80°	72.9	65.6	53.5	38.9	26.7	21.9	21.9	21.9	24.3
82.5°	41.3	36.4	29.1	19.4	12.1	12.1	12.1	12.1	12.1
85°	19.4	14.6	12.1	7.3	4.8	4.8	4.8	4.8	4.8
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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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