

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: P580452

Luminaire Tested: **HCC4W35D010BZ-HM43040835-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580452  
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: HCC4W35D010BZ-HM43040835-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

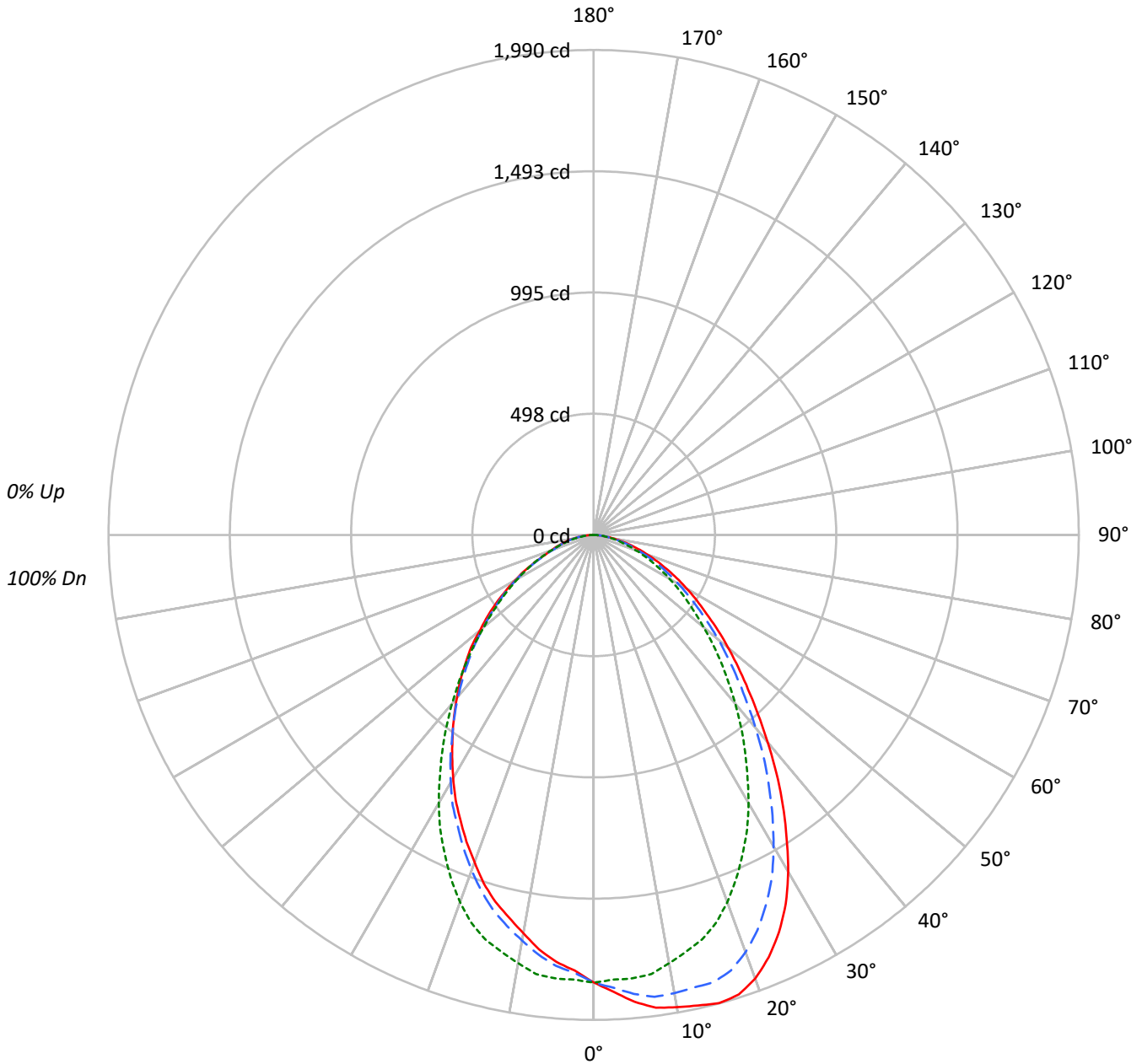
Lumens per Lamp: N/A  
Luminaire Lumens: 3561.2 lumens  
Efficiency: N/A  
Efficacy: 105.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	226500	226500	226500
5°	238162	226189	217732
10°	246514	223506	207850
15°	254053	219434	198964
20°	254346	210399	187507
25°	244770	196660	175796
30°	227300	180968	164176
35°	203746	162925	151917
40°	178776	145365	140438
45°	156243	128700	129520
50°	137951	112640	116709
55°	121652	99846	104921
60°	108742	88389	91892
65°	96314	77752	77752
70°	84137	66321	66321
75°	71867	56188	62907
80°	56897	50220	56897
85°	36796	43448	53496



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.0	4.9
10°-20°	489.9	13.8
20°-30°	686.4	19.3
30°-40°	707.2	19.9
40°-50°	602.1	16.9
50°-60°	446.1	12.5
60°-70°	280.0	7.9
70°-80°	139.1	3.9
80°-90°	36.5	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°	1350.3	37.9
0°-40°	2057.5	57.8
0°-60°	3105.6	87.2
0°-90°	3561.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3561.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1836	1836	1836	1836	1836	
5°	1924	1890	1827	1775	1758	185
15°	1990	1900	1718	1594	1558	559
25°	1798	1674	1445	1320	1292	823
35°	1353	1252	1082	1011	1009	844
45°	896	834	738	724	742	695
55°	566	521	464	474	488	511
65°	330	297	266	262	266	329
75°	151	134	118	127	132	161
85°	26	26	31	35	38	33
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°	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3
2.5°	1876.3	1869.3	1859.9	1843.4	1826.8	1812.7	1798.5	1791.4	1789.2
5°	1923.5	1909.3	1890.5	1859.9	1826.8	1798.5	1775.0	1763.2	1758.5
7.5°	1956.4	1942.4	1911.7	1864.6	1817.4	1775.0	1737.3	1720.7	1716.0
10°	1968.2	1951.8	1909.3	1845.7	1784.5	1732.5	1690.2	1668.9	1659.5
12.5°	1977.7	1956.4	1902.3	1826.8	1751.4	1687.8	1643.0	1614.7	1607.7
15°	1989.5	1965.9	1899.9	1808.0	1718.4	1643.0	1593.5	1567.5	1558.1
17.5°	1977.7	1951.8	1873.9	1770.3	1668.9	1586.4	1532.2	1508.6	1499.2
20°	1937.7	1909.3	1822.1	1711.3	1602.9	1518.1	1463.8	1440.3	1428.5
22.5°	1876.3	1845.7	1756.1	1638.2	1527.5	1445.0	1393.1	1369.6	1362.5
25°	1798.5	1767.9	1673.6	1553.4	1445.0	1364.9	1320.0	1298.8	1291.7
27.5°	1706.6	1676.0	1584.1	1466.1	1362.5	1287.1	1251.7	1230.4	1225.7
30°	1595.9	1565.2	1475.6	1367.2	1270.6	1199.9	1171.5	1155.0	1152.7
32.5°	1473.2	1447.4	1364.9	1265.8	1173.9	1115.0	1093.8	1082.0	1079.6
35°	1353.1	1324.7	1251.7	1162.1	1082.0	1030.1	1011.3	1008.9	1008.9
37.5°	1230.4	1202.2	1143.2	1060.7	992.4	945.3	938.2	940.6	940.6
40°	1110.3	1084.3	1032.5	964.1	902.8	867.5	865.1	869.9	872.2
42.5°	997.1	975.9	928.8	869.9	817.9	789.7	792.0	801.4	808.5
45°	895.7	876.8	834.5	782.6	737.8	716.6	723.6	735.4	742.5
47.5°	803.8	787.4	747.2	700.1	662.4	648.2	657.7	671.8	681.3
50°	718.9	704.9	667.1	617.6	587.0	577.5	589.3	603.5	608.2
52.5°	643.5	629.3	589.3	546.8	523.3	518.6	530.4	542.1	549.2
55°	565.7	553.9	521.0	483.2	464.3	462.0	473.8	483.2	487.9
57.5°	502.1	490.3	459.6	426.7	410.1	407.8	419.6	426.7	429.0
60°	440.8	429.0	400.7	370.1	358.3	358.3	365.4	370.1	372.5
62.5°	384.2	372.5	346.5	320.6	311.1	311.1	311.1	313.5	320.6
65°	330.0	320.6	297.0	273.5	266.4	261.7	261.7	261.7	266.4
67.5°	280.6	271.1	252.2	231.0	223.9	216.8	214.5	219.2	219.2
70°	233.3	226.3	207.5	191.0	183.9	176.8	174.4	183.9	183.9
72.5°	191.0	183.9	172.1	155.6	148.5	146.1	150.8	155.6	157.9
75°	150.8	143.8	134.3	124.9	117.9	120.3	127.2	129.6	132.0
77.5°	113.2	110.8	101.4	94.3	94.3	96.7	101.4	106.1	108.5
80°	80.1	77.8	73.1	68.3	70.7	75.4	77.8	82.5	80.1
82.5°	49.5	49.5	47.1	47.1	49.5	54.2	56.5	58.9	61.3
85°	26.0	26.0	26.0	28.3	30.7	33.0	35.4	37.8	37.8
87.5°	7.1	9.4	9.4	11.8	14.2	14.2	16.5	16.5	16.5
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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