

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: P580307

Luminaire Tested: **HCC4W30D010BZ-HM43040835-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580307  
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: HCC4W30D010BZ-HM43040835-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

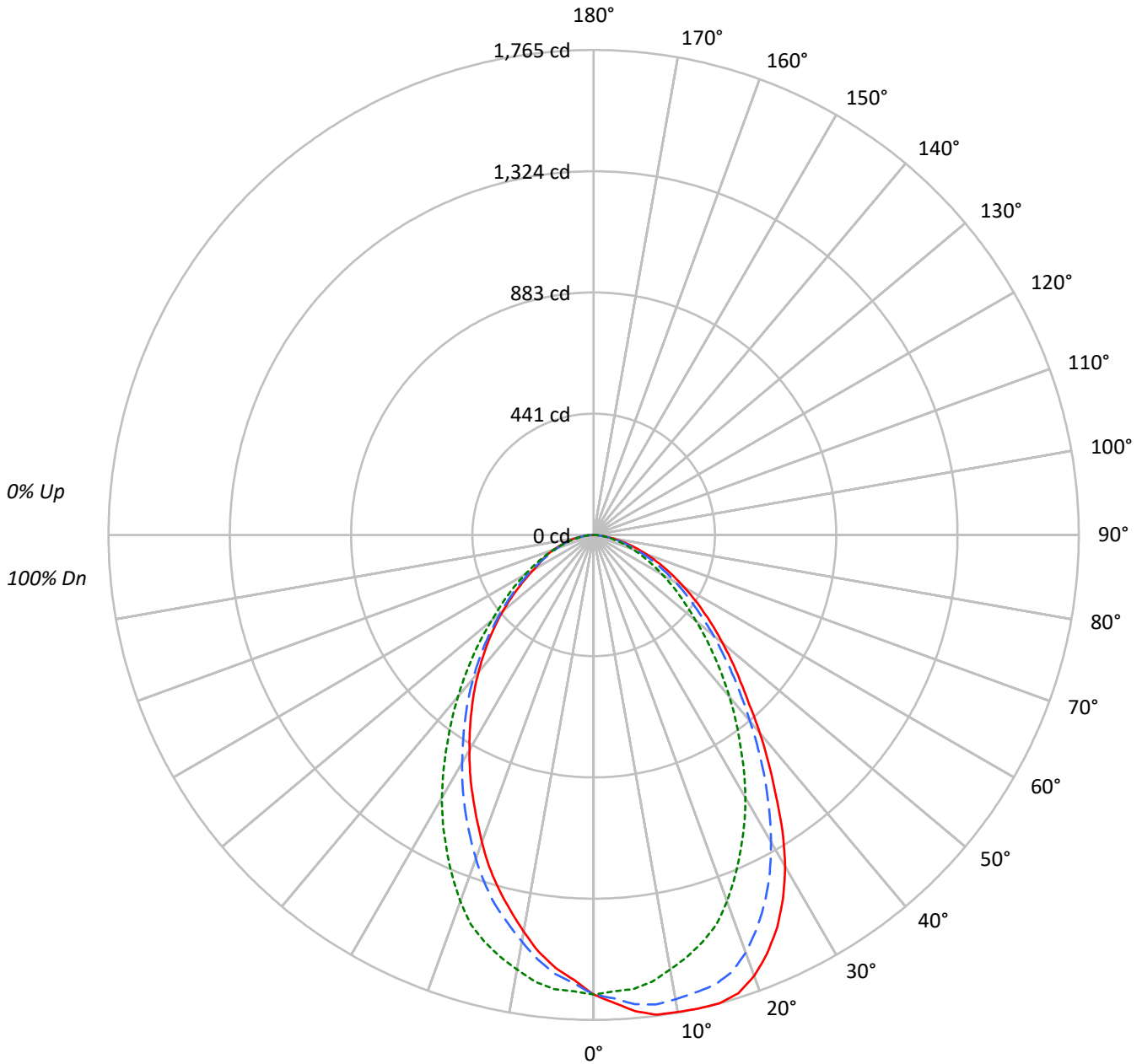
Lumens per Lamp: N/A  
Luminaire Lumens: 2987.0 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
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°	206308	206308	206308
5°	215392	205387	195891
10°	220838	201111	183627
15°	225398	195759	170373
20°	224208	186234	156018
25°	214788	172203	141935
30°	198430	157240	128640
35°	173932	139856	116456
40°	151452	123580	104870
45°	131805	107785	93725
50°	117419	92895	82705
55°	104943	81675	71503
60°	93693	71343	61673
65°	83297	62604	58576
70°	73101	53952	54637
75°	61859	45941	50659
80°	47520	39068	46171
85°	27739	30711	38919



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.8	5.2
10°-20°	432.5	14.5
20°-30°	590.9	19.8
30°-40°	593.3	19.9
40°-50°	490.8	16.4
50°-60°	355.7	11.9
60°-70°	225.3	7.5
70°-80°	113.9	3.8
80°-90°	27.9	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°	1180.1	39.5
0°-40°	1773.4	59.4
0°-60°	2619.9	87.7
0°-90°	2987.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2987.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1673	1673	1673	1673	1673	
5°	1740	1714	1659	1604	1582	167
15°	1765	1696	1533	1391	1334	496
25°	1578	1474	1265	1106	1043	721
35°	1155	1086	929	815	773	724
45°	756	712	618	557	537	588
55°	488	445	380	346	332	439
65°	285	254	214	193	201	284
75°	130	112	96	100	106	139
85°	20	20	22	26	28	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°	1672.6	1672.6	1672.6	1672.6	1672.6	1672.6	1672.6	1672.6	1672.6
2.5°	1704.2	1698.2	1688.4	1676.5	1662.8	1647.1	1633.3	1625.4	1621.5
5°	1739.6	1731.7	1714.0	1688.4	1658.8	1629.4	1603.8	1588.0	1582.1
7.5°	1761.3	1749.4	1723.8	1684.4	1639.2	1595.9	1558.6	1536.9	1530.9
10°	1763.2	1749.4	1715.9	1662.8	1605.7	1548.6	1503.4	1471.9	1466.1
12.5°	1765.1	1747.4	1706.1	1643.2	1572.3	1501.5	1446.3	1409.0	1399.2
15°	1765.1	1747.4	1696.3	1621.5	1533.0	1452.3	1391.3	1348.0	1334.2
17.5°	1749.4	1729.7	1668.8	1582.1	1485.7	1395.2	1324.4	1279.0	1265.3
20°	1708.1	1686.5	1617.6	1523.1	1418.8	1324.4	1253.5	1206.3	1188.6
22.5°	1649.0	1623.4	1550.7	1448.4	1344.0	1247.6	1178.8	1129.6	1113.8
25°	1578.2	1552.6	1474.0	1373.6	1265.3	1174.8	1105.9	1060.7	1042.9
27.5°	1491.7	1464.0	1387.3	1286.9	1186.7	1096.1	1033.1	991.7	974.0
30°	1393.2	1363.8	1290.9	1194.4	1104.0	1017.3	956.3	922.9	903.2
32.5°	1279.0	1253.5	1188.6	1101.9	1017.3	934.8	883.6	854.0	838.3
35°	1155.1	1141.3	1086.3	1011.5	928.8	860.0	814.6	787.1	773.4
37.5°	1044.9	1031.1	984.0	920.9	848.1	785.2	747.8	724.2	712.3
40°	940.6	928.8	883.6	830.4	767.5	712.3	680.9	663.2	651.3
42.5°	838.3	832.4	795.0	745.8	690.7	643.5	617.9	604.2	594.2
45°	755.6	747.8	712.3	665.2	617.9	578.6	556.9	547.1	537.3
47.5°	682.9	673.0	635.6	594.2	551.0	515.6	495.9	486.1	482.1
50°	611.9	602.1	568.7	527.3	484.1	458.5	442.7	432.9	431.0
52.5°	549.0	539.2	501.8	462.5	429.0	407.3	393.6	383.7	379.8
55°	488.0	476.2	444.8	407.3	379.8	360.1	346.3	336.5	332.5
57.5°	432.9	421.1	393.6	358.1	332.5	314.8	303.1	293.2	289.2
60°	379.8	370.0	344.4	310.9	289.2	273.5	261.7	253.8	250.0
62.5°	330.6	322.7	297.1	267.7	250.0	236.1	226.3	218.4	222.3
65°	285.4	277.5	253.8	228.3	214.5	200.7	192.9	192.9	200.7
67.5°	242.1	234.2	214.5	192.9	181.0	171.2	165.3	171.2	177.1
70°	202.7	194.8	177.1	159.4	149.6	141.7	141.7	147.5	151.5
72.5°	165.3	157.5	143.7	129.8	122.0	116.1	122.0	125.9	129.8
75°	129.8	124.0	112.1	102.3	96.4	94.4	100.4	104.3	106.3
77.5°	96.4	92.5	84.6	76.7	72.8	74.8	80.7	82.7	84.6
80°	66.9	65.0	59.0	55.0	55.0	57.1	61.0	62.9	65.0
82.5°	41.3	41.3	37.3	35.4	37.3	41.3	43.3	45.2	45.2
85°	19.6	21.7	19.6	19.6	21.7	25.6	25.6	27.5	27.5
87.5°	5.9	5.9	7.9	7.9	9.8	9.8	9.8	9.8	11.8
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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