

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: P581045

Luminaire Tested: **HCC4W05D010BZ-HM40525840-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581045  
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: HCC4W05D010BZ-HM40525840-41WWW  
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**

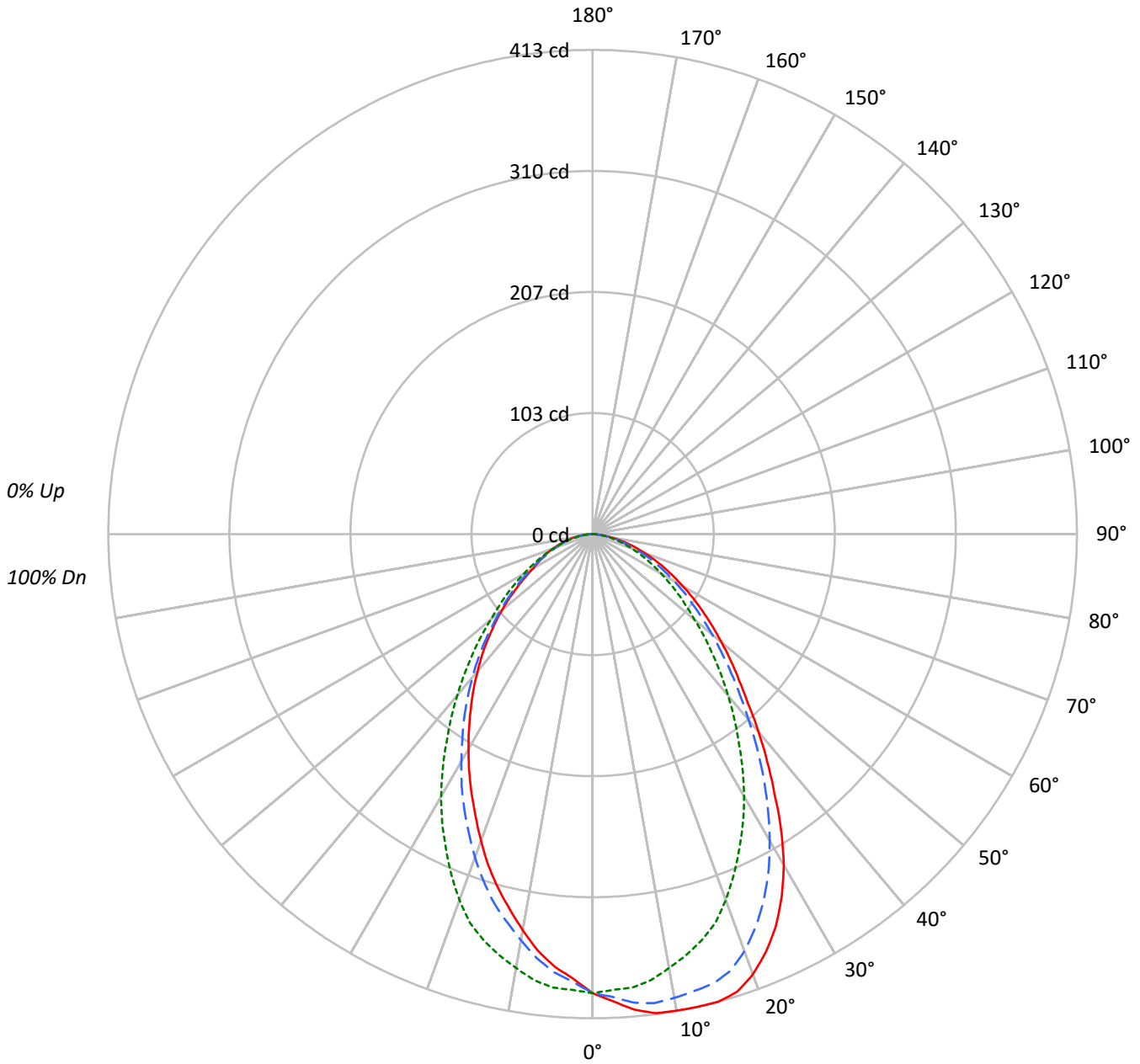
Lumens per Lamp: N/A  
Luminaire Lumens: 699.2 lumens  
Efficiency: N/A  
Efficacy: 116.5 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 6  
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										
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°	48290	48290	48290
5°	50406	48078	45862
10°	51690	47068	42973
15°	52752	45818	39867
20°	52465	43592	36517
25°	50274	40298	33221
30°	46446	36803	30123
35°	40716	32735	27254
40°	35456	28935	24539
45°	30840	25224	21944
50°	27479	21741	19362
55°	24558	19118	16752
60°	21931	16726	14431
65°	19467	14651	13717
70°	17094	12622	12767
75°	14488	10771	11867
80°	11152	9163	10797
85°	6652	7218	9199



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.7	5.2
10°-20°	101.2	14.5
20°-30°	138.3	19.8
30°-40°	138.9	19.9
40°-50°	114.9	16.4
50°-60°	83.3	11.9
60°-70°	52.7	7.5
70°-80°	26.7	3.8
80°-90°	6.5	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°	276.2	39.5
0°-40°	415.1	59.4
0°-60°	613.2	87.7
0°-90°	699.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	699.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	392	392	392	392	392	
5°	407	401	388	375	370	39
15°	413	397	359	326	312	116
25°	369	345	296	259	244	169
35°	270	254	217	191	181	169
45°	177	167	145	130	126	138
55°	114	104	89	81	78	103
65°	67	60	50	45	47	66
75°	30	26	23	24	25	32
85°	5	5	5	6	6	6
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°	391.5	391.5	391.5	391.5	391.5	391.5	391.5	391.5	391.5
2.5°	398.8	397.5	395.2	392.5	389.2	385.6	382.3	380.5	379.5
5°	407.1	405.3	401.2	395.2	388.3	381.4	375.3	371.7	370.4
7.5°	412.2	409.5	403.5	394.3	383.6	373.5	364.8	359.7	358.3
10°	412.7	409.5	401.7	389.2	375.8	362.5	351.8	344.6	343.1
12.5°	413.1	409.1	399.3	384.7	368.0	351.4	338.6	329.8	327.4
15°	413.1	409.1	397.0	379.5	358.8	339.9	325.6	315.5	312.2
17.5°	409.5	404.9	390.6	370.4	347.8	326.5	310.0	299.4	296.1
20°	399.7	394.8	378.6	356.5	332.1	310.0	293.4	282.4	278.2
22.5°	386.0	380.0	363.0	339.0	314.6	292.0	275.9	264.3	260.7
25°	369.4	363.4	345.0	321.5	296.1	275.0	258.9	248.2	244.1
27.5°	349.1	342.7	324.7	301.2	277.7	256.5	241.9	232.1	228.0
30°	326.1	319.2	302.1	279.6	258.4	238.1	223.8	216.0	211.5
32.5°	299.4	293.4	278.2	258.0	238.1	218.8	206.8	199.9	196.2
35°	270.4	267.2	254.2	236.8	217.4	201.2	190.7	184.2	181.0
37.5°	244.6	241.3	230.3	215.5	198.5	183.8	175.0	169.5	166.7
40°	220.2	217.4	206.8	194.4	179.7	166.7	159.4	155.3	152.4
42.5°	196.2	194.9	186.0	174.6	161.6	150.6	144.6	141.4	139.2
45°	176.8	175.0	166.7	155.7	144.6	135.4	130.3	128.0	125.8
47.5°	159.8	157.5	148.8	139.2	128.9	120.7	116.1	113.7	112.8
50°	143.2	141.0	133.1	123.5	113.3	107.4	103.6	101.4	100.9
52.5°	128.5	126.2	117.5	108.3	100.4	95.3	92.2	89.8	88.9
55°	114.2	111.5	104.1	95.3	88.9	84.3	81.0	78.8	77.9
57.5°	101.4	98.5	92.2	83.9	77.9	73.7	70.9	68.7	67.8
60°	88.9	86.6	80.6	72.8	67.8	64.0	61.3	59.5	58.5
62.5°	77.4	75.6	69.6	62.7	58.5	55.3	53.0	51.1	52.1
65°	66.7	64.9	59.5	53.5	50.2	47.0	45.2	45.2	47.0
67.5°	56.6	54.8	50.2	45.2	42.3	40.1	38.7	40.1	41.4
70°	47.4	45.6	41.4	37.3	35.0	33.1	33.1	34.5	35.4
72.5°	38.7	36.9	33.6	30.4	28.6	27.1	28.6	29.5	30.4
75°	30.4	29.1	26.2	23.9	22.6	22.1	23.5	24.4	24.9
77.5°	22.6	21.7	19.9	17.9	17.0	17.5	18.8	19.3	19.9
80°	15.7	15.2	13.8	12.9	12.9	13.4	14.3	14.8	15.2
82.5°	9.6	9.6	8.7	8.3	8.7	9.6	10.1	10.6	10.6
85°	4.7	5.1	4.7	4.7	5.1	6.0	6.0	6.5	6.5
87.5°	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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— 0°-180°    - - 45°-225°    - - - - 90°-270°

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