

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: P579718

Luminaire Tested: **HCC4S10D010BZ-HM40525830-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579718  
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: HCC4S10D010BZ-HM40525830-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

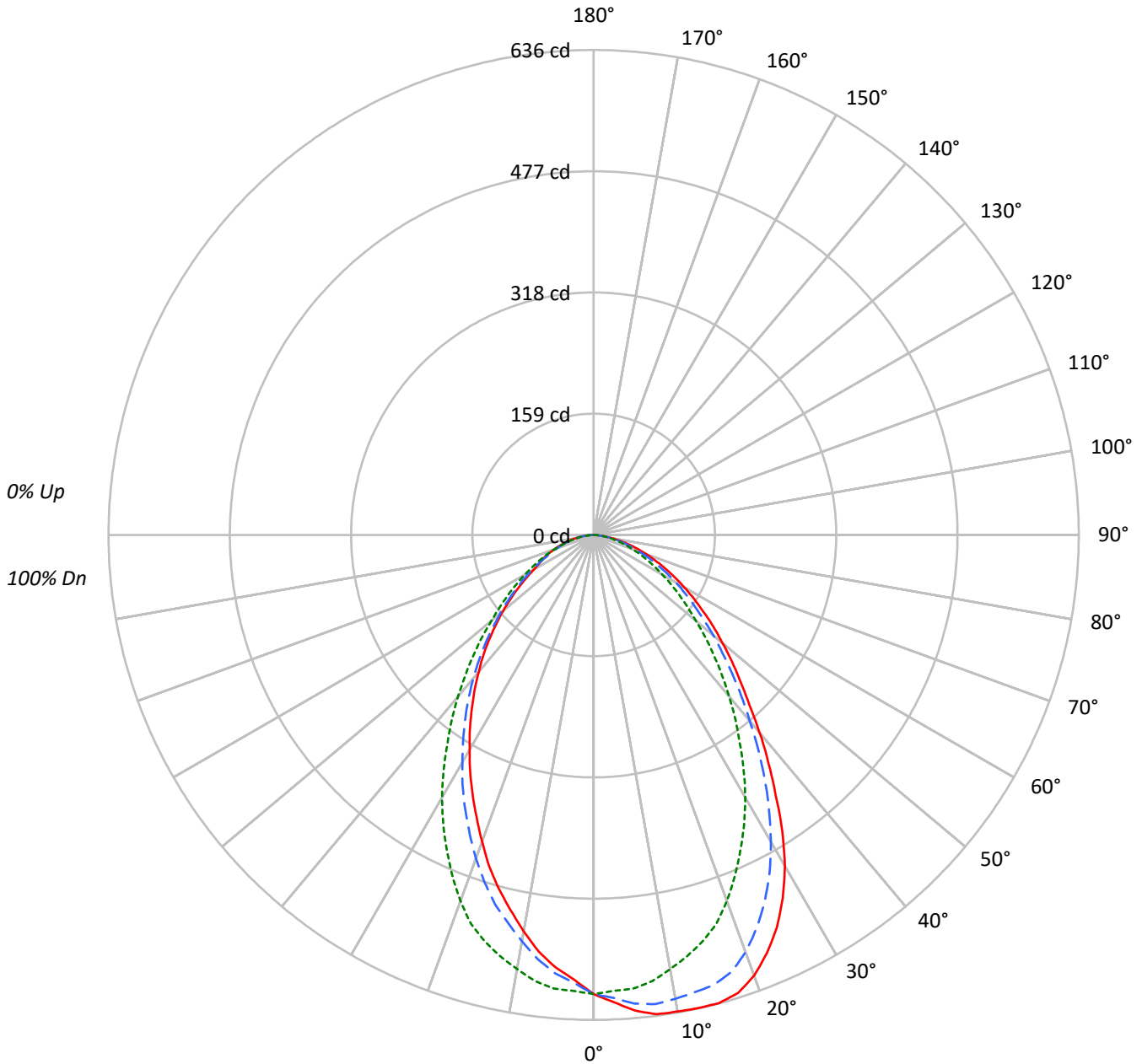
Lumens per Lamp: N/A  
Luminaire Lumens: 1075.3 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.9  
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°	74266	74266	74266
5°	77534	73943	70526
10°	79495	72406	66106
15°	81151	70463	61320
20°	80713	67035	56167
25°	77317	61992	51091
30°	71427	56601	46303
35°	62610	50338	41921
40°	54520	44489	37742
45°	47447	38812	33719
50°	42274	33428	29762
55°	37784	29397	25741
60°	33723	25681	22202
65°	30003	22561	21102
70°	26291	19402	19655
75°	22304	16537	18205
80°	17119	14064	16550
85°	10048	10897	14011



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	5.2
10°-20°	155.7	14.5
20°-30°	212.7	19.8
30°-40°	213.6	19.9
40°-50°	176.7	16.4
50°-60°	128.0	11.9
60°-70°	81.1	7.5
70°-80°	41.0	3.8
80°-90°	10.0	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°	424.8	39.5
0°-40°	638.4	59.4
0°-60°	943.1	87.7
0°-90°	1075.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1075.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	602	602	602	602	602	
5°	626	617	597	577	570	60
15°	636	611	552	501	480	179
25°	568	530	456	398	375	260
35°	416	391	334	293	278	261
45°	272	256	222	200	193	212
55°	176	160	137	125	120	158
65°	103	91	77	69	72	102
75°	47	40	35	36	38	50
85°	7	7	8	9	10	10
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°	602.1	602.1	602.1	602.1	602.1	602.1	602.1	602.1	602.1
2.5°	613.5	611.3	607.8	603.6	598.6	592.9	588.0	585.2	583.7
5°	626.2	623.4	617.0	607.8	597.2	586.5	577.3	571.6	569.6
7.5°	634.0	629.8	620.6	606.3	590.1	574.5	561.0	553.3	551.1
10°	634.7	629.8	617.7	598.6	578.1	557.5	541.2	529.9	527.8
12.5°	635.5	629.1	614.2	591.5	566.0	540.6	520.6	507.2	503.7
15°	635.5	629.1	610.7	583.7	551.8	522.8	500.8	485.2	480.2
17.5°	629.8	622.7	600.8	569.6	534.9	502.2	476.7	460.4	455.5
20°	614.9	607.1	582.3	548.3	510.7	476.7	451.2	434.3	427.9
22.5°	593.6	584.5	558.2	521.4	483.9	449.2	424.4	406.6	400.9
25°	568.1	558.9	530.5	494.5	455.5	422.9	398.1	381.8	375.4
27.5°	536.9	527.0	499.5	463.3	427.2	394.5	371.9	357.0	350.6
30°	501.5	490.9	464.8	430.1	397.4	366.2	344.2	332.2	325.1
32.5°	460.4	451.2	427.9	396.7	366.2	336.5	318.1	307.5	301.8
35°	415.8	410.8	391.0	364.2	334.3	309.5	293.3	283.4	278.4
37.5°	376.1	371.2	354.1	331.5	305.3	282.7	269.1	260.7	256.4
40°	338.6	334.3	318.1	299.0	276.3	256.4	245.1	238.8	234.4
42.5°	301.8	299.6	286.2	268.5	248.7	231.7	222.5	217.5	213.9
45°	272.0	269.1	256.4	239.4	222.5	208.3	200.5	197.0	193.3
47.5°	245.8	242.3	228.9	213.9	198.4	185.6	178.6	175.0	173.5
50°	220.3	216.8	204.7	189.8	174.2	165.0	159.4	155.8	155.1
52.5°	197.7	194.1	180.6	166.5	154.4	146.7	141.7	138.2	136.7
55°	175.7	171.4	160.1	146.7	136.7	129.6	124.7	121.1	119.7
57.5°	155.8	151.6	141.7	128.9	119.7	113.3	109.1	105.6	104.1
60°	136.7	133.1	123.9	112.0	104.1	98.4	94.2	91.4	90.0
62.5°	119.0	116.2	107.0	96.4	90.0	85.0	81.5	78.6	80.0
65°	102.8	99.9	91.4	82.2	77.3	72.3	69.4	69.4	72.3
67.5°	87.2	84.3	77.3	69.4	65.2	61.7	59.5	61.7	63.7
70°	72.9	70.1	63.7	57.4	53.8	51.0	51.0	53.1	54.5
72.5°	59.5	56.7	51.7	46.8	43.9	41.8	43.9	45.3	46.8
75°	46.8	44.6	40.4	36.9	34.7	34.0	36.1	37.6	38.2
77.5°	34.7	33.3	30.5	27.7	26.2	27.0	29.0	29.7	30.5
80°	24.1	23.3	21.3	19.8	19.8	20.6	22.0	22.6	23.3
82.5°	14.9	14.9	13.4	12.7	13.4	14.9	15.6	16.3	16.3
85°	7.1	7.7	7.1	7.1	7.7	9.2	9.2	9.9	9.9
87.5°	2.2	2.2	2.8	2.8	3.5	3.5	3.5	3.5	4.2
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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