

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: P581082

Luminaire Tested: **HCC4S05D010MB-HM40525930-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581082  
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: HCC4S05D010MB-HM40525930-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

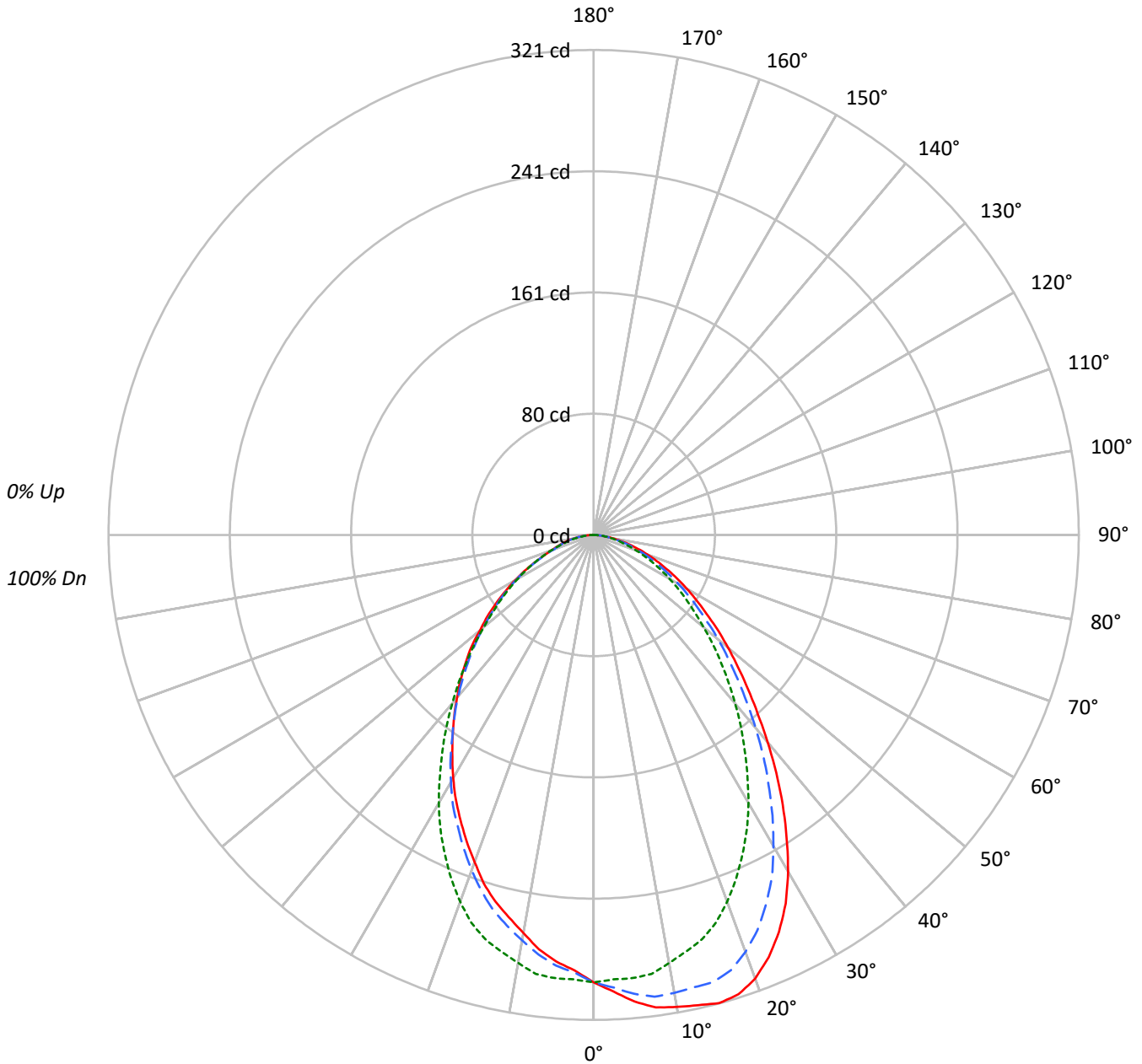
Lumens per Lamp: N/A  
Luminaire Lumens: 574.1 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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					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	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58					58			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51					51			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46					46			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41					41			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31					31			

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

	0°	90°	180°
0°	36523	36523	36523
5°	38396	36464	35102
10°	39741	36034	33504
15°	40965	35385	32077
20°	41019	33918	30230
25°	39468	31711	28349
30°	36647	29183	26463
35°	32841	26261	24484
40°	28822	23428	22639
45°	25189	20741	20880
50°	22240	18172	18825
55°	19634	16107	16924
60°	17540	14259	14801
65°	15527	12521	12521
70°	13596	10675	10675
75°	11581	9055	10151
80°	9163	8098	9163
85°	5944	7076	8633



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.1	4.9
10°-20°	79.0	13.8
20°-30°	110.7	19.3
30°-40°	114.0	19.9
40°-50°	97.1	16.9
50°-60°	71.9	12.5
60°-70°	45.1	7.9
70°-80°	22.4	3.9
80°-90°	5.9	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°	217.7	37.9
0°-40°	331.7	57.8
0°-60°	500.7	87.2
0°-90°	574.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	574.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	310	305	294	286	284	30
15°	321	306	277	257	251	90
25°	290	270	233	213	208	133
35°	218	202	174	163	163	136
45°	144	134	119	117	120	112
55°	91	84	75	76	79	82
65°	53	48	43	42	43	53
75°	24	22	19	20	21	26
85°	4	4	5	6	6	5
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°	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1
2.5°	302.5	301.3	299.9	297.3	294.5	292.3	290.0	288.9	288.5
5°	310.1	307.8	304.9	299.9	294.5	290.0	286.1	284.3	283.5
7.5°	315.4	313.1	308.3	300.7	293.1	286.1	280.1	277.4	276.7
10°	317.3	314.7	307.8	297.6	287.7	279.3	272.5	269.1	267.5
12.5°	318.8	315.4	306.7	294.5	282.4	272.2	264.9	260.4	259.2
15°	320.8	317.0	306.3	291.5	277.1	264.9	257.0	252.8	251.2
17.5°	318.8	314.7	302.1	285.5	269.1	255.8	247.1	243.2	241.8
20°	312.5	307.8	293.7	275.9	258.4	244.7	236.0	232.2	230.3
22.5°	302.5	297.6	283.2	264.1	246.3	233.0	224.6	220.9	219.6
25°	290.0	285.0	269.8	250.5	233.0	220.1	212.8	209.4	208.3
27.5°	275.1	270.2	255.4	236.4	219.6	207.5	201.8	198.4	197.6
30°	257.3	252.3	237.9	220.4	204.9	193.4	188.9	186.3	185.8
32.5°	237.6	233.4	220.1	204.1	189.3	179.8	176.4	174.4	174.1
35°	218.1	213.6	201.8	187.4	174.4	166.1	163.1	162.6	162.6
37.5°	198.4	193.9	184.3	171.0	160.0	152.4	151.3	151.6	151.6
40°	179.0	174.8	166.5	155.5	145.5	139.8	139.5	140.3	140.6
42.5°	160.7	157.3	149.7	140.3	131.9	127.3	127.7	129.3	130.4
45°	144.4	141.4	134.5	126.2	118.9	115.5	116.7	118.6	119.7
47.5°	129.6	126.9	120.4	112.9	106.8	104.5	106.0	108.3	109.9
50°	115.9	113.6	107.6	99.5	94.7	93.1	95.0	97.3	98.1
52.5°	103.7	101.5	95.0	88.2	84.3	83.6	85.5	87.4	88.5
55°	91.3	89.3	84.0	77.9	74.9	74.5	76.4	77.9	78.7
57.5°	80.9	79.0	74.1	68.8	66.2	65.7	67.6	68.8	69.1
60°	71.1	69.1	64.6	59.7	57.8	57.8	58.9	59.7	60.0
62.5°	62.0	60.0	55.8	51.6	50.2	50.2	50.2	50.5	51.6
65°	53.2	51.6	47.9	44.0	42.9	42.2	42.2	42.2	42.9
67.5°	45.2	43.7	40.6	37.2	36.1	35.0	34.6	35.3	35.3
70°	37.7	36.4	33.5	30.8	29.6	28.5	28.1	29.6	29.6
72.5°	30.8	29.6	27.7	25.1	23.9	23.6	24.3	25.1	25.4
75°	24.3	23.2	21.7	20.1	19.0	19.4	20.5	20.9	21.3
77.5°	18.3	17.8	16.3	15.2	15.2	15.5	16.3	17.1	17.5
80°	12.9	12.6	11.8	11.0	11.4	12.1	12.6	13.3	12.9
82.5°	7.9	7.9	7.6	7.6	7.9	8.7	9.1	9.5	9.9
85°	4.2	4.2	4.2	4.5	5.0	5.3	5.7	6.1	6.1
87.5°	1.1	1.5	1.5	1.9	2.3	2.3	2.6	2.6	2.6
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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