

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: P581060

Luminaire Tested: **HCC4S05D010BZ-HM40525927-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581060  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S05D010BZ-HM40525927-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

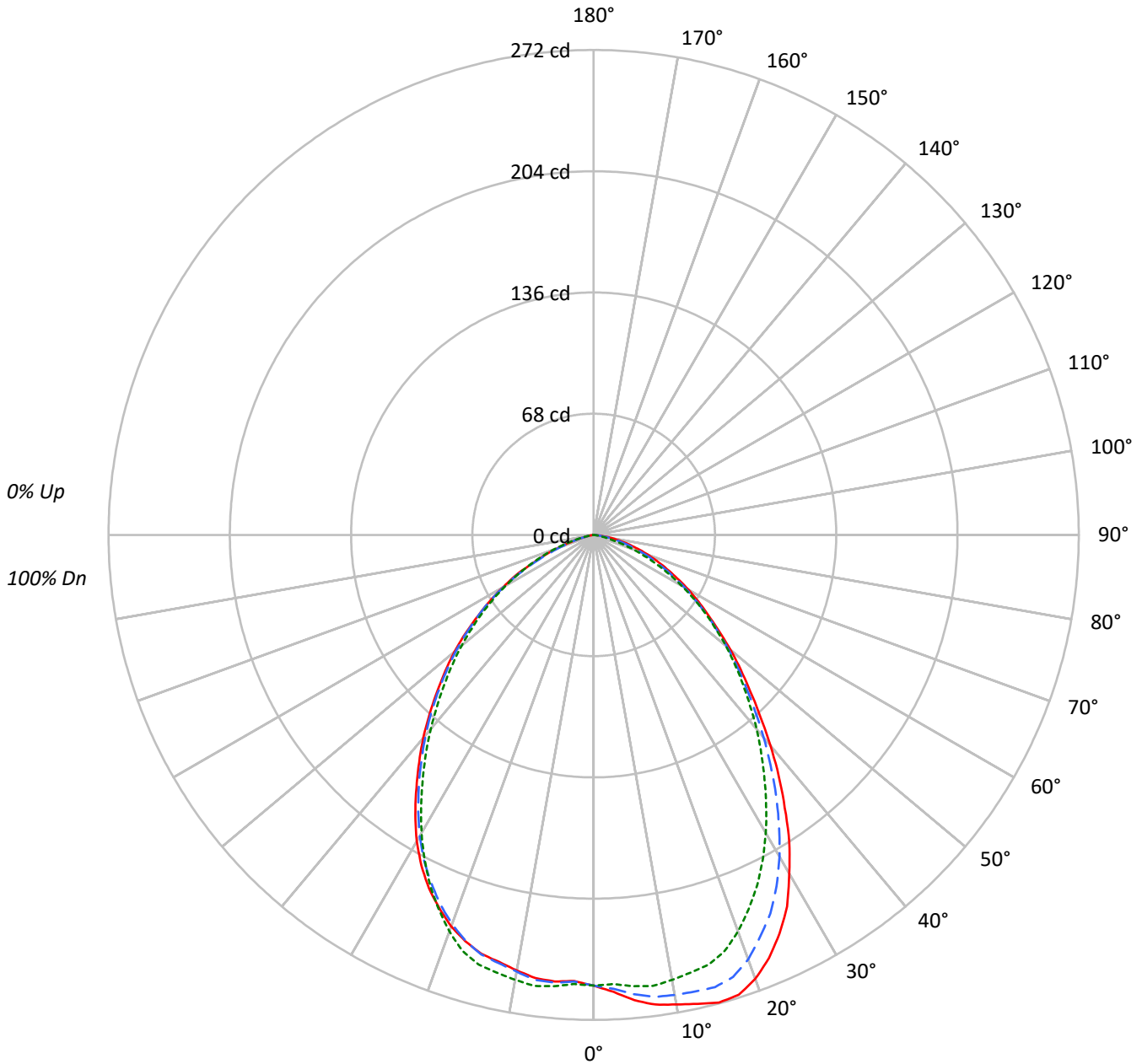
Lumens per Lamp: N/A  
Luminaire Lumens: 526.7 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76					76			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67					67			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58					58			
5	81	70	62	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52					52			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46					46			
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41					41			
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37					37			
9	62	49	42	36	60	49	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°	31182	31182	31182
5°	32440	31462	31128
10°	33491	31738	31062
15°	34670	31848	31056
20°	34784	31057	30663
25°	33561	29519	29751
30°	31234	27488	28258
35°	28128	25146	26080
40°	24797	22880	23927
45°	21683	20618	21613
50°	19208	18556	19535
55°	16881	16387	17032
60°	15098	14012	14431
65°	13250	11353	11149
70°	11576	8403	7646
75°	9627	5052	4051
80°	7245	1918	1208
85°	3397	425	425



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.4	4.6
10°-20°	71.1	13.5
20°-30°	103.0	19.6
30°-40°	108.7	20.6
40°-50°	94.1	17.9
50°-60°	69.7	13.2
60°-70°	40.2	7.6
70°-80°	14.0	2.7
80°-90°	1.5	0.3
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°	198.5	37.7
0°-40°	307.2	58.3
0°-60°	471.0	89.4
0°-90°	526.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	526.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	253	253	253	253	253	
5°	262	259	254	252	251	25
15°	272	263	249	244	243	76
25°	247	234	217	216	219	113
35°	187	178	167	171	173	117
45°	124	121	118	123	124	97
55°	78	77	76	79	79	71
65°	45	43	39	37	38	45
75°	20	17	11	8	8	22
85°	2	1	0	0	0	4
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°	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8
2.5°	256.5	255.8	254.8	253.4	252.1	251.1	250.7	250.4	250.4
5°	262.0	260.6	258.6	255.8	254.1	253.1	252.1	251.4	251.4
7.5°	265.7	264.3	261.3	257.5	255.1	253.1	251.7	250.7	250.7
10°	267.4	265.7	262.0	257.2	253.4	250.7	248.7	248.0	248.0
12.5°	269.4	267.4	262.3	256.2	251.4	248.0	246.0	245.3	245.3
15°	271.5	269.1	262.6	255.5	249.4	245.3	243.6	243.2	243.2
17.5°	270.5	267.4	259.9	251.4	244.6	240.4	238.7	238.7	239.0
20°	265.0	262.0	253.4	243.9	236.6	233.6	232.2	232.9	233.6
22.5°	256.9	253.1	243.9	234.6	227.1	224.4	224.4	225.4	226.4
25°	246.6	243.2	234.3	224.0	216.9	214.9	215.5	217.2	218.6
27.5°	234.9	231.2	222.0	212.5	205.3	204.2	206.0	208.4	209.1
30°	219.3	216.2	208.4	199.1	193.0	192.6	195.0	196.7	198.4
32.5°	204.2	200.8	193.3	184.4	180.0	180.4	183.1	185.1	186.1
35°	186.8	183.8	178.3	171.2	167.0	167.6	170.8	172.9	173.2
37.5°	170.5	168.4	162.9	157.4	154.4	155.7	158.4	160.8	160.8
40°	154.0	152.3	148.2	143.8	142.1	143.8	146.5	148.6	148.6
42.5°	138.4	137.3	133.9	130.9	129.7	132.2	134.6	136.3	136.0
45°	124.3	123.3	120.9	118.5	118.2	120.5	122.6	123.6	123.9
47.5°	111.7	111.0	109.0	107.3	107.3	109.6	111.3	112.4	112.7
50°	100.1	99.4	97.7	96.4	96.7	99.1	100.4	101.5	101.8
52.5°	88.4	88.1	86.7	85.0	86.0	87.7	89.4	90.1	90.5
55°	78.5	78.5	76.8	75.5	76.2	77.9	78.9	79.2	79.2
57.5°	69.7	69.3	67.3	65.9	66.3	68.0	68.7	69.0	69.0
60°	61.2	60.8	58.8	56.8	56.8	57.8	58.1	58.5	58.5
62.5°	52.9	52.6	50.2	48.5	47.8	47.4	47.4	48.1	49.5
65°	45.4	45.1	42.7	40.0	38.9	37.9	36.9	37.6	38.2
67.5°	38.6	37.9	35.5	33.1	30.8	29.1	27.4	28.4	29.7
70°	32.1	31.4	28.7	26.0	23.3	20.5	19.2	20.5	21.2
72.5°	26.0	25.3	22.6	19.9	16.3	13.6	13.3	13.6	14.0
75°	20.2	19.9	17.0	14.0	10.6	8.5	8.5	8.5	8.5
77.5°	15.0	14.3	11.6	8.9	6.1	4.8	4.4	4.4	4.4
80°	10.2	9.5	7.2	5.1	2.7	2.0	2.0	1.7	1.7
82.5°	5.8	5.4	3.7	2.0	1.0	0.7	0.7	0.7	0.7
85°	2.4	2.0	1.4	0.7	0.3	0.3	0.3	0.3	0.3
87.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
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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