

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: P581079

Luminaire Tested: **HCC4S05D010BZ-HM40525930-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581079  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S05D010BZ-HM40525930-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

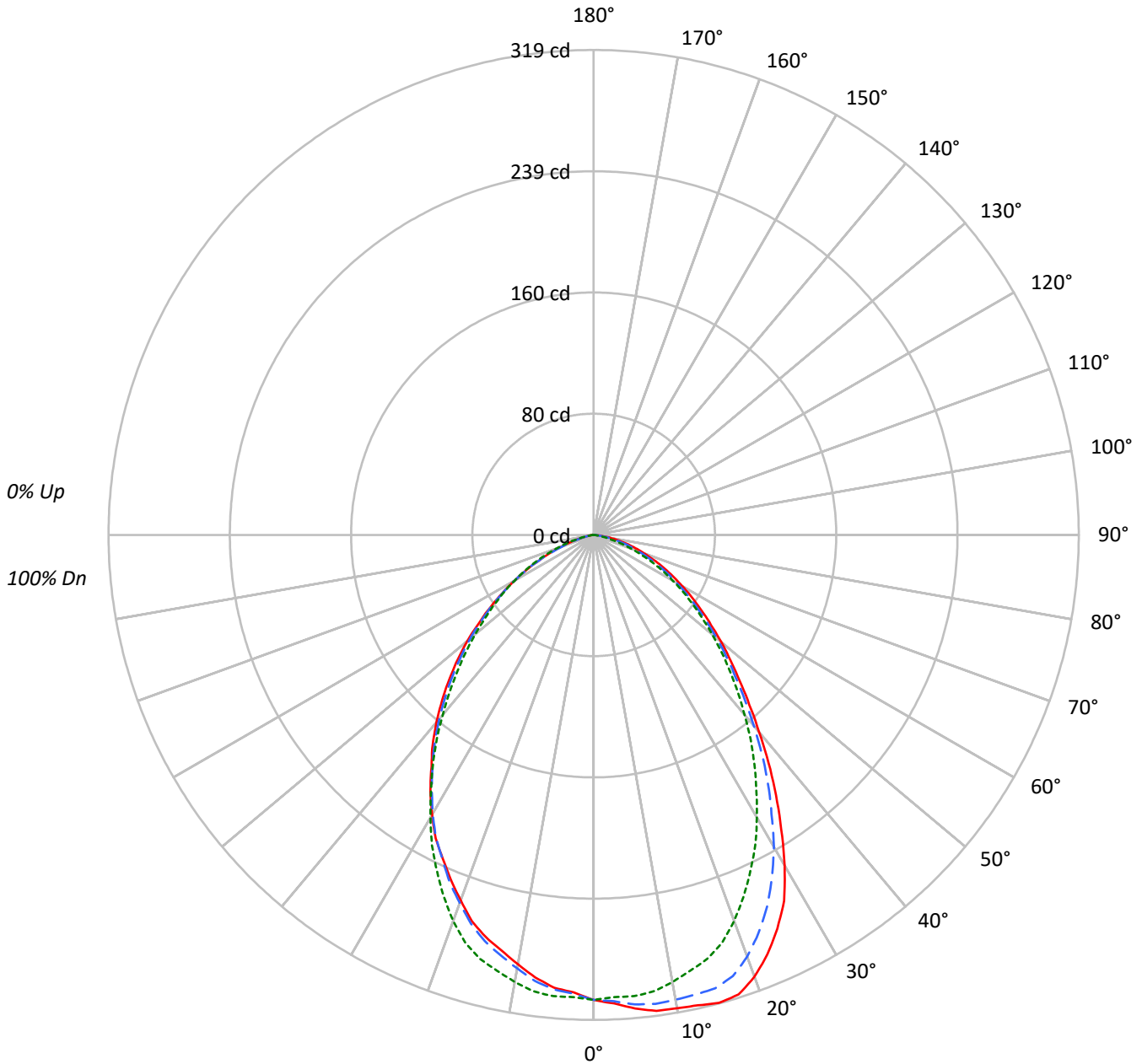
Lumens per Lamp: N/A  
Luminaire Lumens: 582.9 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77								
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67								
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59								
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52								
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47								
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	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	41	37	47	41	37	46	41	37	35								
10	58	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°	37731	37731	37731
5°	38718	37715	37021
10°	39591	37399	35921
15°	40697	36866	34976
20°	40599	35454	33564
25°	38883	33194	31956
30°	35778	30565	30252
35°	31471	27736	27977
40°	27228	24829	25875
45°	23654	22084	23409
50°	20993	19477	20782
55°	18623	17075	17827
60°	16578	14801	14801
65°	14739	12317	11528
70°	12731	9341	8223
75°	10675	6148	5099
80°	8098	2983	2628
85°	4387	1132	1132



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.0	5.0
10°-20°	82.1	14.1
20°-30°	115.8	19.9
30°-40°	119.6	20.5
40°-50°	101.4	17.4
50°-60°	73.8	12.7
60°-70°	43.1	7.4
70°-80°	16.0	2.7
80°-90°	2.1	0.4
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°	226.9	38.9
0°-40°	346.5	59.4
0°-60°	521.7	89.5
0°-90°	582.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	582.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	306	306	306	306	306	
5°	313	310	305	300	299	30
15°	319	309	289	277	274	90
25°	286	270	244	235	235	131
35°	209	200	184	185	186	131
45°	136	132	127	131	134	106
55°	87	82	79	82	83	78
65°	50	46	42	40	40	50
75°	22	19	13	10	11	24
85°	3	2	1	1	1	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°	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9
2.5°	308.5	307.7	307.0	305.9	304.3	303.2	302.0	301.2	301.2
5°	312.7	311.6	310.0	307.4	304.6	302.4	300.1	299.0	299.0
7.5°	315.8	314.2	311.1	307.4	302.8	299.4	296.0	294.4	293.6
10°	316.1	314.6	310.4	304.6	298.6	293.3	289.5	287.3	286.8
12.5°	316.9	315.0	309.6	301.7	293.6	287.3	283.1	280.8	280.0
15°	318.7	316.1	308.8	298.6	288.7	281.1	276.6	274.7	273.9
17.5°	316.9	313.0	304.3	292.1	281.1	272.7	268.2	266.3	266.3
20°	309.3	305.4	295.2	281.9	270.1	262.2	257.5	256.4	255.7
22.5°	298.6	294.4	283.4	269.3	257.5	250.4	247.3	245.8	245.4
25°	285.7	281.5	269.8	255.3	243.9	237.8	235.2	235.2	234.8
27.5°	271.3	265.9	253.8	241.3	230.2	225.6	224.5	224.5	225.0
30°	251.2	247.3	237.1	225.0	214.6	211.6	211.6	212.4	212.4
32.5°	229.5	226.8	217.7	207.0	199.1	197.1	197.9	199.4	199.9
35°	209.0	205.9	199.9	190.3	184.2	183.5	184.7	185.8	185.8
37.5°	188.9	185.8	181.6	174.0	169.5	169.8	171.4	172.9	174.0
40°	169.1	166.7	163.8	157.7	154.2	155.7	157.7	159.1	160.7
42.5°	151.6	149.3	147.0	142.4	140.2	142.1	144.4	145.8	147.4
45°	135.6	134.2	131.8	128.0	126.6	128.4	131.1	132.6	134.2
47.5°	121.9	121.2	118.2	114.7	114.0	115.9	118.2	120.1	121.2
50°	109.4	108.3	105.7	102.2	101.5	104.4	106.0	107.1	108.3
52.5°	97.3	96.1	93.1	90.0	90.0	92.3	93.4	93.9	95.0
55°	86.6	85.5	82.4	80.1	79.4	81.3	82.1	82.1	82.9
57.5°	76.7	75.6	72.5	69.9	69.6	70.7	70.7	70.7	71.1
60°	67.2	66.1	63.1	60.8	60.0	60.4	60.0	59.7	60.0
62.5°	58.5	57.3	54.4	51.6	51.0	51.0	49.7	49.4	49.7
65°	50.5	48.6	46.3	43.7	42.2	41.1	39.5	39.5	39.5
67.5°	42.6	41.1	38.4	35.8	33.8	31.9	29.6	30.4	30.8
70°	35.3	34.2	31.1	28.5	25.9	23.6	21.7	22.4	22.8
72.5°	28.8	27.4	24.7	21.7	19.4	16.3	15.2	16.0	16.0
75°	22.4	20.9	18.6	15.5	12.9	10.2	10.2	10.7	10.7
77.5°	16.7	15.2	12.9	10.2	7.9	6.1	6.5	6.5	6.5
80°	11.4	10.2	8.4	6.1	4.2	3.4	3.4	3.4	3.7
82.5°	6.5	5.7	4.5	3.1	1.9	1.9	1.9	1.9	1.9
85°	3.1	2.3	1.9	1.1	0.8	0.8	0.8	0.8	0.8
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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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