

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: P580144

Luminaire Tested: **HCC4S25D010BZ-HM40525830-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580144  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S25D010BZ-HM40525830-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

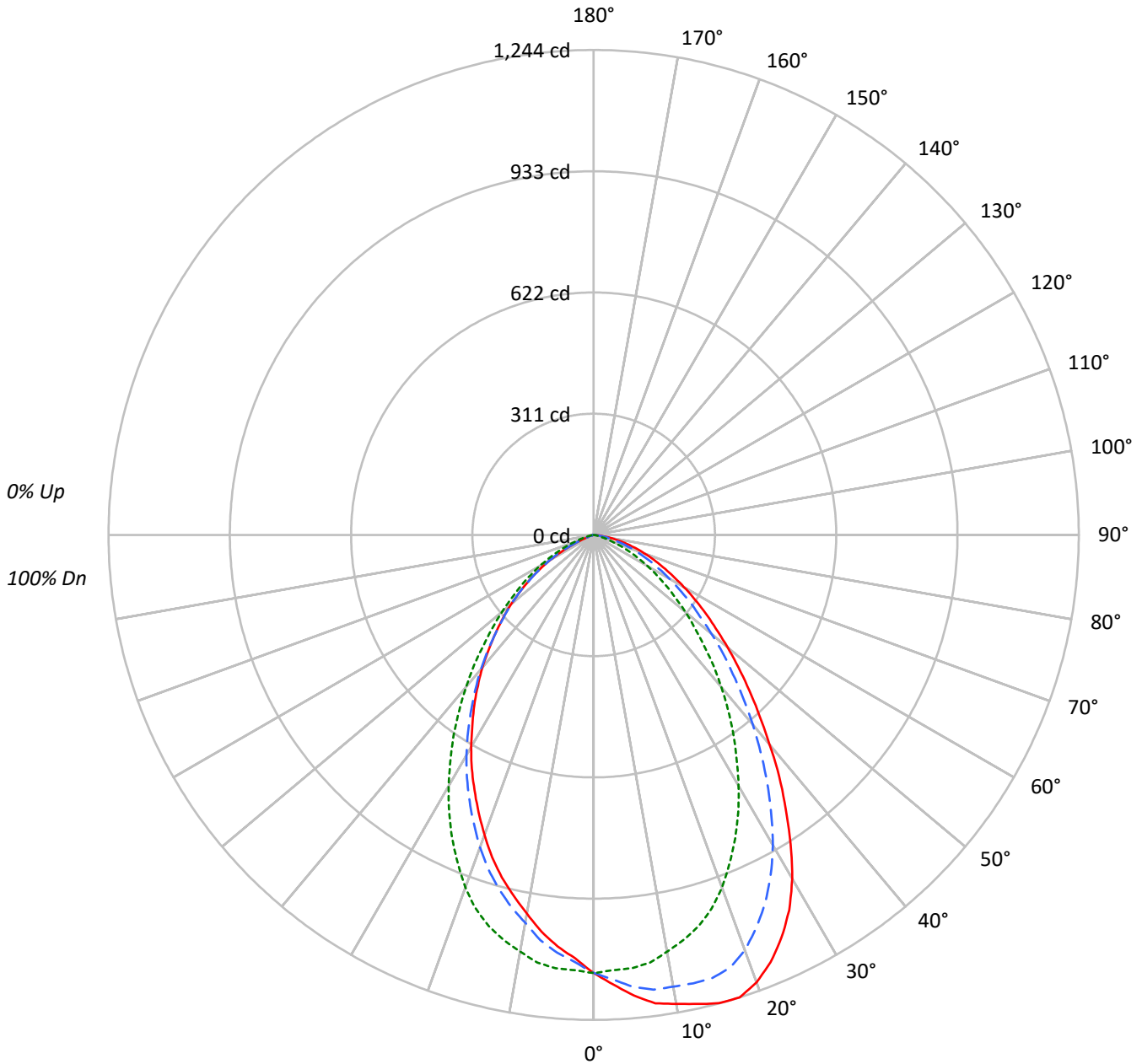
Lumens per Lamp: N/A  
Luminaire Lumens: 1941.2 lumens  
Efficiency: N/A  
Efficacy: 72.4 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.8  
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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89					89			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78					78			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61					61			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55					55			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49					49			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44					44			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40					40			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34					34			

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

	0°	90°	180°
0°	138616	138616	138616
5°	146859	138155	131233
10°	152978	135945	123545
15°	158816	132690	116153
20°	160323	126326	107438
25°	155123	116839	98344
30°	145048	105866	89487
35°	129271	94111	80393
40°	113001	81861	71556
45°	98435	69443	61890
50°	85891	58911	53077
55°	75288	48816	42966
60°	65867	39446	31552
65°	57409	29390	17716
70°	50165	19006	5770
75°	41176	9913	1525
80°	30615	4546	1137
85°	18115	2264	2264



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.1	5.5
10°-20°	296.9	15.3
20°-30°	410.4	21.1
30°-40°	412.7	21.3
40°-50°	333.0	17.2
50°-60°	225.2	11.6
60°-70°	114.6	5.9
70°-80°	36.7	1.9
80°-90°	5.6	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°	813.4	41.9
0°-40°	1226.1	63.2
0°-60°	1784.3	91.9
0°-90°	1941.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1941.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1124	1124	1124	1124	1124	
5°	1186	1164	1116	1076	1060	114
15°	1244	1177	1039	940	910	350
25°	1140	1041	858	753	723	522
35°	858	775	625	547	534	536
45°	564	505	398	355	355	437
55°	350	302	227	198	200	315
65°	197	160	101	66	61	197
75°	86	61	21	5	3	93
85°	13	6	2	2	2	17
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°	1123.8	1123.8	1123.8	1123.8	1123.8	1123.8	1123.8	1123.8	1123.8
2.5°	1154.2	1147.9	1141.4	1130.2	1117.5	1104.6	1096.7	1090.3	1087.1
5°	1186.1	1178.2	1163.8	1139.8	1115.8	1093.4	1075.8	1064.6	1059.9
7.5°	1211.8	1200.6	1176.6	1143.0	1106.3	1071.1	1048.7	1032.7	1026.4
10°	1221.4	1208.6	1176.6	1131.8	1085.4	1042.3	1010.3	994.3	986.4
12.5°	1232.5	1218.2	1178.2	1122.2	1064.6	1013.5	976.8	955.9	948.0
15°	1243.7	1224.5	1176.6	1107.9	1039.1	980.0	940.0	919.2	909.6
17.5°	1243.7	1221.4	1163.8	1083.8	1005.5	943.2	898.5	874.4	866.5
20°	1221.4	1195.7	1133.4	1045.5	962.4	895.2	852.1	828.1	818.5
22.5°	1186.1	1157.5	1090.3	999.2	911.2	845.6	802.5	780.1	770.5
25°	1139.8	1111.0	1040.7	946.4	858.5	792.9	752.9	732.2	722.6
27.5°	1085.4	1053.5	983.1	888.9	802.5	740.2	703.4	684.2	676.3
30°	1018.4	988.0	919.2	826.5	743.3	685.9	652.2	634.6	628.3
32.5°	940.0	914.4	847.3	760.9	682.6	629.9	599.5	585.0	578.7
35°	858.5	834.4	775.3	695.4	625.0	575.5	546.8	537.2	533.9
37.5°	781.7	760.9	703.4	629.9	566.0	522.7	497.2	490.8	487.6
40°	701.8	687.4	634.6	567.5	508.4	470.0	449.2	444.4	444.4
42.5°	629.9	613.8	567.5	506.8	454.0	415.7	401.2	396.5	398.1
45°	564.3	548.4	505.1	449.2	398.1	366.1	354.8	354.8	354.8
47.5°	503.5	489.2	449.2	391.7	350.1	324.5	313.3	313.3	314.9
50°	447.6	438.1	393.2	343.7	307.0	282.9	274.9	273.3	276.6
52.5°	394.8	383.6	343.7	299.0	263.7	244.5	236.6	234.9	236.6
55°	350.1	337.3	302.1	259.0	227.0	207.8	198.3	196.7	199.8
57.5°	307.0	297.4	260.6	222.2	191.8	172.6	164.6	161.4	163.0
60°	267.0	257.4	223.8	187.1	159.9	140.7	129.5	126.3	127.9
62.5°	230.2	222.2	190.2	155.0	127.9	110.3	99.1	91.1	94.3
65°	196.7	188.7	159.9	124.6	100.7	81.5	65.6	59.2	60.7
67.5°	167.9	158.3	131.1	99.1	75.2	54.3	36.8	33.5	33.5
70°	139.1	129.5	105.6	76.8	52.7	28.8	16.0	16.0	16.0
72.5°	111.9	103.9	81.5	57.6	33.5	12.8	6.4	6.4	6.4
75°	86.4	79.9	60.7	40.0	20.8	6.4	4.7	3.2	3.2
77.5°	63.9	57.6	43.1	27.2	12.8	3.2	3.2	3.2	3.2
80°	43.1	38.4	28.8	16.0	6.4	1.6	1.6	1.6	1.6
82.5°	25.6	22.4	16.0	8.0	3.2	1.6	1.6	1.6	1.6
85°	12.8	9.6	6.4	3.2	1.6	1.6	1.6	1.6	1.6
87.5°	3.2	1.6	1.6	1.6	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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