

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: P580341

Luminaire Tested: **HCC4S30D010BZ-HM43040927-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580341  
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: HCC4S30D010BZ-HM43040927-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

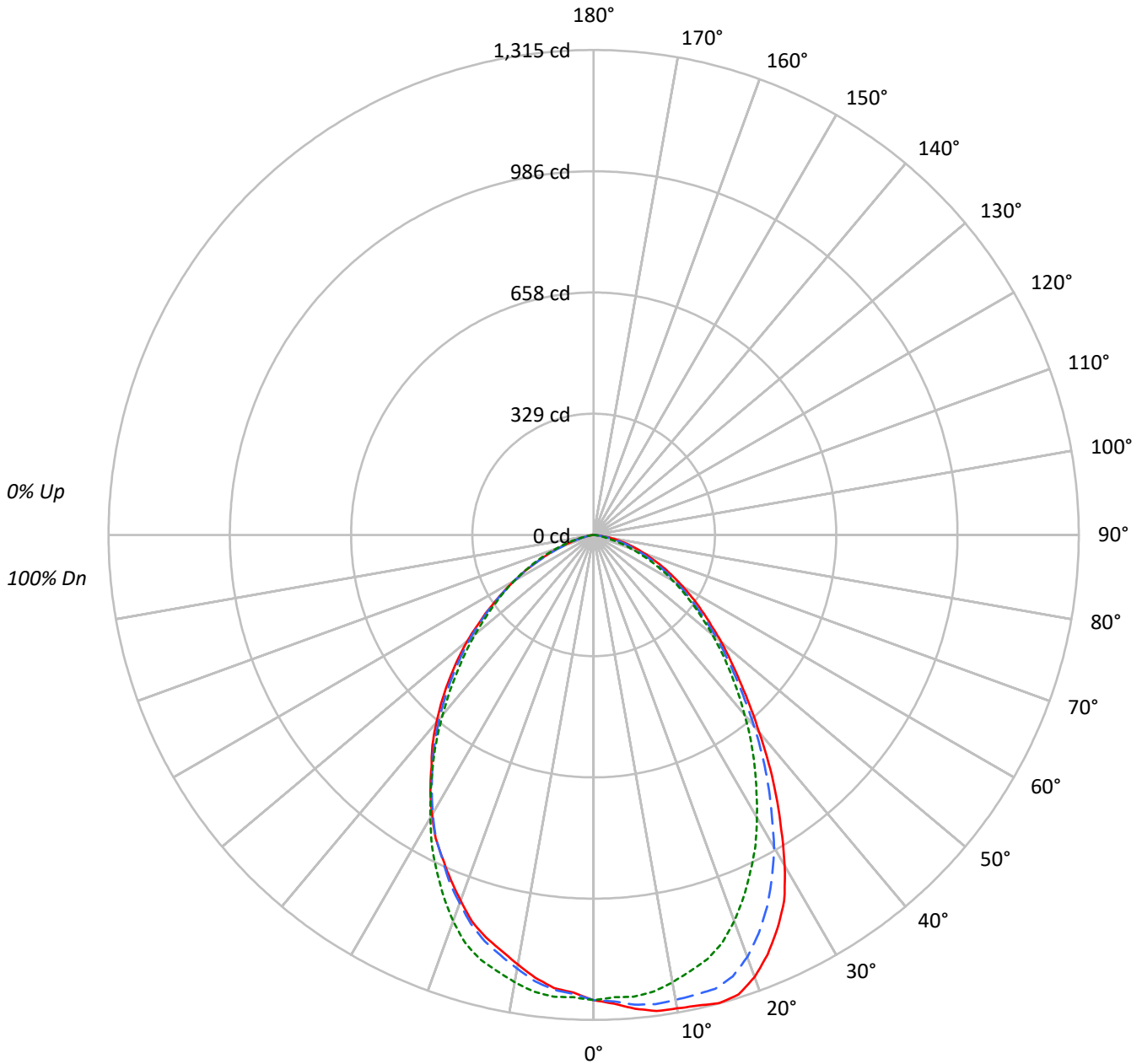
Lumens per Lamp: N/A  
Luminaire Lumens: 2404.1 lumens  
Efficiency: N/A  
Efficacy: 85.9 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
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	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°	155576	155576	155576
5°	159662	155588	152678
10°	163274	154256	148156
15°	167870	152061	144259
20°	167411	146226	138415
25°	160363	136913	131783
30°	147512	126091	124752
35°	129767	114424	115357
40°	112261	102439	106722
45°	97580	91021	96481
50°	86582	80288	85699
55°	76815	70428	73460
60°	68432	61081	61081
65°	60795	50755	47573
70°	52545	38444	33900
75°	44083	25354	20921
80°	33385	12289	11152
85°	17690	4529	4529



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.5	5.0
10°-20°	338.6	14.1
20°-30°	477.6	19.9
30°-40°	493.4	20.5
40°-50°	418.2	17.4
50°-60°	304.3	12.7
60°-70°	177.8	7.4
70°-80°	66.1	2.7
80°-90°	8.7	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°	935.7	38.9
0°-40°	1429.0	59.4
0°-60°	2151.6	89.5
0°-90°	2404.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2404.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1261	1261	1261	1261	1261	
5°	1290	1279	1257	1238	1233	124
15°	1315	1274	1191	1141	1130	370
25°	1178	1112	1006	970	968	539
35°	862	824	760	762	766	538
45°	559	544	522	540	553	435
55°	357	340	328	338	342	321
65°	208	191	174	163	163	207
75°	92	77	53	42	44	99
85°	12	8	3	3	3	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°	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3
2.5°	1272.3	1269.1	1266.1	1261.3	1255.0	1250.4	1245.7	1242.5	1242.5
5°	1289.5	1284.8	1278.6	1267.5	1256.6	1247.2	1237.8	1233.1	1233.1
7.5°	1302.1	1295.7	1283.2	1267.5	1248.8	1234.7	1220.6	1214.3	1211.1
10°	1303.6	1297.3	1280.2	1256.6	1231.6	1209.6	1194.0	1184.5	1182.9
12.5°	1306.8	1298.9	1277.0	1244.1	1211.1	1184.5	1167.3	1157.9	1154.7
15°	1314.6	1303.6	1273.9	1231.6	1190.8	1159.5	1140.6	1132.9	1129.7
17.5°	1306.8	1291.1	1255.0	1204.9	1159.5	1125.0	1106.2	1098.3	1098.3
20°	1275.4	1259.8	1217.5	1162.6	1114.0	1081.1	1062.4	1057.6	1054.5
22.5°	1231.6	1214.3	1168.8	1110.9	1062.4	1032.6	1020.1	1013.7	1012.2
25°	1178.3	1161.1	1112.4	1052.9	1006.0	980.8	969.9	969.9	968.3
27.5°	1118.8	1096.8	1046.7	994.9	949.6	930.7	926.0	926.0	927.6
30°	1035.7	1020.1	977.8	927.6	885.3	872.7	872.7	875.9	875.9
32.5°	946.4	935.5	897.8	853.9	821.1	813.2	816.3	822.7	824.1
35°	861.8	849.3	824.1	785.0	759.9	756.8	761.5	766.1	766.1
37.5°	778.8	766.1	749.0	717.6	698.8	700.4	706.7	712.9	717.6
40°	697.2	687.9	675.3	650.3	636.2	642.4	650.3	656.5	662.8
42.5°	625.1	615.8	606.4	587.6	578.2	586.0	595.4	601.7	608.0
45°	559.4	553.1	543.7	528.0	521.8	529.6	540.5	546.9	553.1
47.5°	503.0	499.8	487.3	473.2	470.0	477.9	487.3	495.1	499.8
50°	451.2	446.6	435.6	421.5	418.4	430.9	437.1	441.8	446.6
52.5°	401.1	396.4	383.9	371.3	371.3	380.7	385.4	387.0	391.8
55°	357.2	352.5	340.0	330.6	327.5	335.4	338.4	338.4	341.6
57.5°	316.5	311.8	299.3	288.3	286.7	291.5	291.5	291.5	293.1
60°	277.4	272.6	260.1	250.6	247.6	249.2	247.6	246.0	247.6
62.5°	241.3	236.5	224.0	213.1	209.9	209.9	205.3	203.7	205.3
65°	208.3	200.6	191.2	180.1	173.9	169.2	163.0	163.0	163.0
67.5°	175.5	169.2	158.3	147.3	139.4	131.6	122.2	125.3	126.9
70°	145.7	141.0	128.5	117.5	106.6	97.1	89.3	92.5	94.0
72.5°	119.1	112.8	101.9	89.3	79.9	67.3	62.7	65.8	65.8
75°	92.5	86.2	76.8	64.3	53.2	42.3	42.3	43.9	43.9
77.5°	68.9	62.7	53.2	42.3	32.9	25.0	26.6	26.6	26.6
80°	47.0	42.3	34.5	25.0	17.3	14.1	14.1	14.1	15.7
82.5°	26.6	23.5	18.8	12.5	7.8	7.8	7.8	7.8	7.8
85°	12.5	9.4	7.8	4.7	3.2	3.2	3.2	3.2	3.2
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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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