

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: P580379

Luminaire Tested: **HCC4S30D010BZ-HM43040935-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580379  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S30D010BZ-HM43040935-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

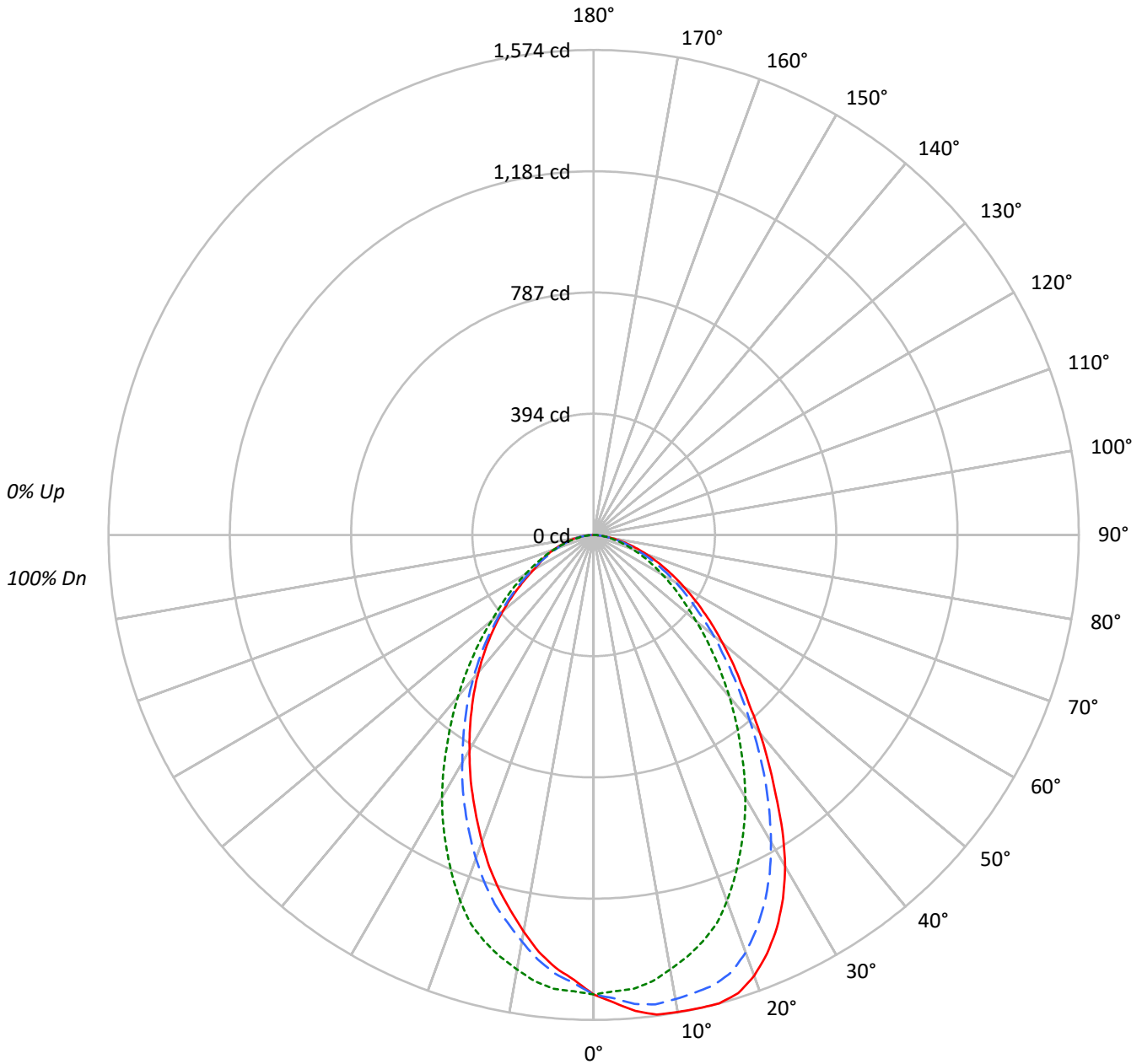
Lumens per Lamp: N/A  
Luminaire Lumens: 2663.2 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87					87			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76					76			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66					66			
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	69	61	56	67	60	55	65	59	54	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47					47			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35					35			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

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

	0°	90°	180°
0°	183945	183945	183945
5°	192027	183125	174656
10°	196891	179318	163700
15°	200969	174523	151895
20°	199898	166033	139085
25°	191502	153531	126543
30°	176923	140191	114697
35°	155079	124693	103823
40°	135044	110167	93502
45°	117536	96097	83538
50°	104696	82820	73725
55°	93567	72815	63783
60°	83530	63622	54963
65°	74249	55804	52214
70°	65167	48073	48722
75°	55187	40985	45179
80°	42406	34948	41127
85°	24908	27314	34815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.8	5.2
10°-20°	385.6	14.5
20°-30°	526.8	19.8
30°-40°	529.0	19.9
40°-50°	437.6	16.4
50°-60°	317.1	11.9
60°-70°	200.9	7.5
70°-80°	101.6	3.8
80°-90°	24.9	0.9
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°	1052.2	39.5
0°-40°	1581.1	59.4
0°-60°	2335.9	87.7
0°-90°	2663.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2663.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1491	1491	1491	1491	1491	
5°	1551	1528	1479	1430	1411	149
15°	1574	1512	1367	1240	1190	443
25°	1407	1314	1128	986	930	643
35°	1030	968	828	726	690	646
45°	674	635	551	496	479	524
55°	435	396	339	309	297	391
65°	254	226	191	172	179	253
75°	116	100	86	90	95	124
85°	18	18	19	23	25	24
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°	1491.3	1491.3	1491.3	1491.3	1491.3	1491.3	1491.3	1491.3	1491.3
2.5°	1519.3	1514.1	1505.3	1494.8	1482.5	1468.4	1456.2	1449.1	1445.6
5°	1550.9	1543.9	1528.1	1505.3	1479.0	1452.6	1429.9	1415.9	1410.6
7.5°	1570.3	1559.7	1536.9	1501.8	1461.4	1422.9	1389.5	1370.2	1365.0
10°	1572.0	1559.7	1529.9	1482.5	1431.7	1380.8	1340.4	1312.3	1307.0
12.5°	1573.8	1558.0	1521.1	1464.9	1401.8	1338.6	1289.5	1256.1	1247.5
15°	1573.8	1558.0	1512.3	1445.6	1366.7	1294.8	1240.3	1201.8	1189.5
17.5°	1559.7	1542.2	1487.7	1410.6	1324.6	1244.0	1180.8	1140.4	1128.1
20°	1522.9	1503.5	1442.1	1358.0	1264.9	1180.8	1117.6	1075.4	1059.6
22.5°	1470.2	1447.4	1382.5	1291.2	1198.3	1112.3	1051.0	1007.1	993.0
25°	1407.1	1384.3	1314.1	1224.6	1128.1	1047.5	986.0	945.6	929.8
27.5°	1329.9	1305.3	1236.9	1147.4	1058.0	977.2	921.1	884.2	868.4
30°	1242.2	1215.9	1150.9	1064.9	984.3	907.0	852.7	822.9	805.3
32.5°	1140.4	1117.6	1059.6	982.5	907.0	833.4	787.8	761.4	747.4
35°	1029.9	1017.6	968.5	901.8	828.1	766.7	726.3	701.7	689.5
37.5°	931.6	919.3	877.2	821.1	756.2	700.0	666.6	645.7	635.1
40°	838.7	828.1	787.8	740.4	684.2	635.1	607.1	591.3	580.7
42.5°	747.4	742.1	708.8	665.0	615.8	573.7	550.9	538.6	529.8
45°	673.8	666.6	635.1	593.0	550.9	515.8	496.5	487.7	478.9
47.5°	608.8	600.0	566.7	529.8	491.2	459.7	442.2	433.4	429.9
50°	545.6	536.8	507.0	470.2	431.6	408.8	394.8	386.0	384.2
52.5°	489.4	480.8	447.4	412.3	382.5	363.2	350.9	342.1	338.6
55°	435.1	424.6	396.5	363.2	338.6	321.0	308.7	300.0	296.6
57.5°	386.0	375.4	350.9	319.3	296.6	280.8	270.2	261.4	257.9
60°	338.6	329.8	307.0	277.1	257.9	243.9	233.4	226.3	222.8
62.5°	294.7	287.8	265.0	238.6	222.8	210.5	201.8	194.7	198.3
65°	254.4	247.4	226.3	203.5	191.2	178.9	171.9	171.9	178.9
67.5°	215.8	208.8	191.2	171.9	161.4	152.6	147.4	152.6	157.9
70°	180.7	173.7	157.9	142.1	133.3	126.3	126.3	131.6	135.1
72.5°	147.4	140.3	128.0	115.8	108.7	103.6	108.7	112.2	115.8
75°	115.8	110.5	100.1	91.3	86.0	84.3	89.5	92.9	94.8
77.5°	86.0	82.5	75.5	68.5	64.9	66.7	72.0	73.7	75.5
80°	59.7	57.9	52.7	49.2	49.2	50.9	54.4	56.2	57.9
82.5°	36.9	36.9	33.4	31.6	33.4	36.9	38.6	40.4	40.4
85°	17.6	19.3	17.6	17.6	19.3	22.8	22.8	24.6	24.6
87.5°	5.3	5.3	7.0	7.0	8.8	8.8	8.8	8.8	10.5
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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