

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: P580360

Luminaire Tested: **HCC4S30D010MW-HM43040930-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580360  
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: HCC4S30D010MW-HM43040930-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

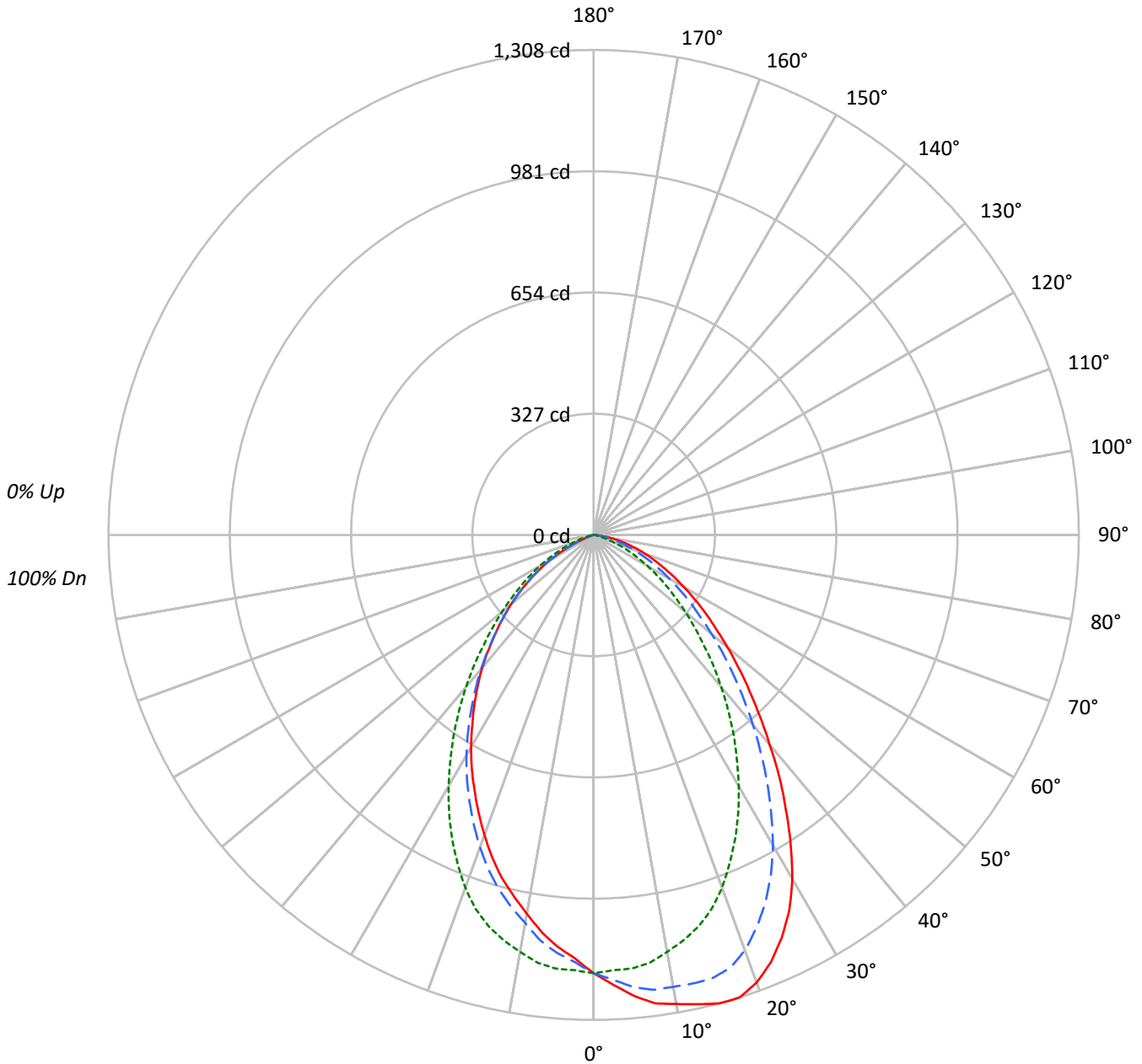
Lumens per Lamp: N/A  
Luminaire Lumens: 2042.0 lumens  
Efficiency: N/A  
Efficacy: 72.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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			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°	145807	145807	145807
5°	154486	145336	138043
10°	160907	143009	129945
15°	167066	139573	122180
20°	168632	132876	113016
25°	163180	122895	103434
30°	152554	111364	94130
35°	135971	99005	84564
40°	118862	86112	75259
45°	103546	73037	65117
50°	90343	61943	55821
55°	79202	51353	45181
60°	69296	41493	33205
65°	60386	30908	18621
70°	52761	20015	6059
75°	43273	10437	1620
80°	32320	4830	1208
85°	18964	2406	2406



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.6	5.5
10°-20°	312.3	15.3
20°-30°	431.7	21.1
30°-40°	434.1	21.3
40°-50°	350.3	17.2
50°-60°	236.9	11.6
60°-70°	120.6	5.9
70°-80°	38.6	1.9
80°-90°	5.9	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°	855.6	41.9
0°-40°	1289.7	63.2
0°-60°	1876.9	91.9
0°-90°	2042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1182	1182	1182	1182	1182	
5°	1248	1224	1174	1132	1115	120
15°	1308	1238	1093	989	957	368
25°	1199	1095	903	792	760	549
35°	903	816	658	575	562	564
45°	594	531	419	373	373	460
55°	368	318	239	209	210	331
65°	207	168	106	69	64	207
75°	91	64	22	5	3	98
85°	13	7	2	2	2	18
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°	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1	1182.1
2.5°	1214.1	1207.4	1200.6	1188.9	1175.4	1162.0	1153.6	1146.8	1143.5
5°	1247.7	1239.3	1224.2	1199.0	1173.8	1150.2	1131.7	1119.9	1114.9
7.5°	1274.6	1262.9	1237.6	1202.3	1163.6	1126.6	1103.1	1086.3	1079.6
10°	1284.7	1271.3	1237.6	1190.6	1141.8	1096.4	1062.8	1046.0	1037.5
12.5°	1296.5	1281.4	1239.3	1180.5	1119.9	1066.1	1027.5	1005.6	997.2
15°	1308.3	1288.1	1237.6	1165.3	1093.0	1030.8	988.8	966.9	956.8
17.5°	1308.3	1284.7	1224.2	1140.1	1057.7	992.1	945.0	919.8	911.4
20°	1284.7	1257.8	1192.3	1099.8	1012.3	941.7	896.3	871.0	861.0
22.5°	1247.7	1217.5	1146.8	1051.0	958.5	889.5	844.2	820.6	810.5
25°	1199.0	1168.7	1094.7	995.5	903.0	834.0	792.0	770.2	760.0
27.5°	1141.8	1108.1	1034.2	935.0	844.2	778.5	739.9	719.7	711.3
30°	1071.1	1039.2	966.9	869.3	781.9	721.4	686.0	667.6	660.9
32.5°	988.8	961.8	891.2	800.4	718.1	662.6	630.6	615.4	608.8
35°	903.0	877.8	815.5	731.5	657.5	605.4	575.1	565.0	561.6
37.5°	822.3	800.4	739.9	662.6	595.2	549.9	522.9	516.3	512.9
40°	738.2	723.0	667.6	596.9	534.8	494.4	472.5	467.4	467.4
42.5°	662.6	645.8	596.9	533.1	477.6	437.2	422.1	417.0	418.7
45°	593.6	576.7	531.4	472.5	418.7	385.1	373.3	373.3	373.3
47.5°	529.7	514.6	472.5	411.9	368.3	341.3	329.6	329.6	331.3
50°	470.8	460.8	413.6	361.5	322.8	297.7	289.2	287.5	290.9
52.5°	415.3	403.6	361.5	314.5	277.5	257.3	248.8	247.1	248.8
55°	368.3	354.9	317.9	272.4	238.8	218.6	208.6	206.9	210.1
57.5°	322.8	312.8	274.1	233.7	201.8	181.6	173.1	169.9	171.6
60°	280.9	270.7	235.4	196.7	168.2	148.0	136.3	132.9	134.6
62.5°	242.2	233.7	200.1	163.1	134.6	116.1	104.2	95.9	99.3
65°	206.9	198.4	168.2	131.2	105.9	85.7	68.9	62.3	63.8
67.5°	176.5	166.5	137.8	104.2	79.1	57.2	38.7	35.3	35.3
70°	146.3	136.3	111.0	80.8	55.5	30.2	16.8	16.8	16.8
72.5°	117.8	109.3	85.7	60.6	35.3	13.4	6.8	6.8	6.8
75°	90.8	84.0	63.8	42.1	21.9	6.8	5.1	3.4	3.4
77.5°	67.2	60.6	45.5	28.5	13.4	3.4	3.4	3.4	3.4
80°	45.5	40.4	30.2	16.8	6.8	1.7	1.7	1.7	1.7
82.5°	27.0	23.6	16.8	8.5	3.4	1.7	1.7	1.7	1.7
85°	13.4	10.0	6.8	3.4	1.7	1.7	1.7	1.7	1.7
87.5°	3.4	1.7	1.7	1.7	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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