

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: P580378

Luminaire Tested: **HCC4S30D010MW-HM43040935-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580378  
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-HM43040935-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

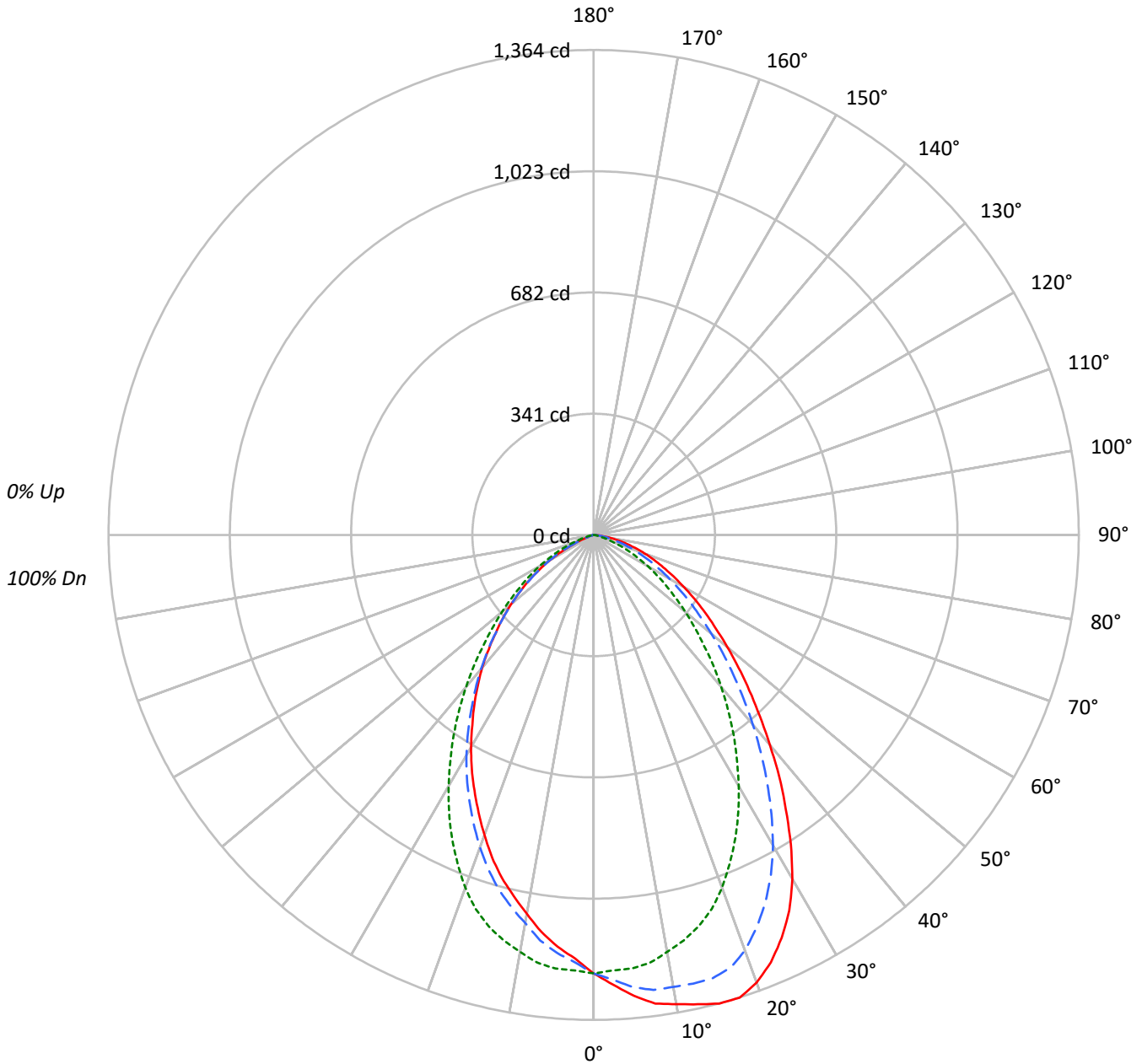
Lumens per Lamp: N/A  
Luminaire Lumens: 2129.8 lumens  
Efficiency: N/A  
Efficacy: 76.1 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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°	152085	152085	152085
5°	161135	151577	143987
10°	167833	149158	135544
15°	174242	145587	127429
20°	175891	138599	117873
25°	170189	128190	107898
30°	159134	116149	98175
35°	141829	103266	88208
40°	123983	89815	78512
45°	108011	76194	67926
50°	94238	64610	58220
55°	82599	53568	47160
60°	72256	43270	34611
65°	62984	32251	19467
70°	55033	20881	6311
75°	45179	10866	1668
80°	33669	4972	1279
85°	19813	2547	2547



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.4	5.5
10°-20°	325.7	15.3
20°-30°	450.3	21.1
30°-40°	452.8	21.3
40°-50°	365.4	17.2
50°-60°	247.1	11.6
60°-70°	125.7	5.9
70°-80°	40.3	1.9
80°-90°	6.2	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°	892.4	41.9
0°-40°	1345.2	63.2
0°-60°	1957.6	91.9
0°-90°	2129.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2129.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1233	1233	1233	1233	1233	
5°	1301	1277	1224	1180	1163	125
15°	1364	1291	1140	1031	998	384
25°	1250	1142	942	826	793	572
35°	942	851	686	600	586	589
45°	619	554	437	389	389	480
55°	384	332	249	218	219	345
65°	216	175	110	72	67	216
75°	95	67	23	5	4	102
85°	14	7	2	2	2	19
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°	1233.0	1233.0	1233.0	1233.0	1233.0	1233.0	1233.0	1233.0	1233.0
2.5°	1266.3	1259.3	1252.3	1240.0	1226.0	1211.9	1203.2	1196.1	1192.6
5°	1301.4	1292.7	1276.9	1250.5	1224.2	1199.7	1180.5	1168.2	1162.9
7.5°	1329.5	1317.2	1290.9	1254.1	1213.7	1175.2	1150.6	1133.1	1126.0
10°	1340.0	1326.0	1290.9	1241.8	1190.9	1143.6	1108.5	1091.0	1082.2
12.5°	1352.2	1336.5	1292.7	1231.2	1168.2	1112.0	1071.6	1048.8	1040.1
15°	1364.5	1343.6	1290.9	1215.4	1140.1	1075.2	1031.3	1008.5	997.9
17.5°	1364.5	1340.0	1276.9	1189.1	1103.2	1034.8	985.8	959.4	950.7
20°	1340.0	1312.0	1243.5	1147.1	1055.9	982.1	934.9	908.5	898.0
22.5°	1301.4	1269.9	1196.1	1096.2	999.7	927.8	880.5	855.9	845.4
25°	1250.5	1219.0	1141.8	1038.3	941.9	869.9	826.1	803.2	792.8
27.5°	1190.9	1155.9	1078.7	975.2	880.5	812.0	771.8	750.7	741.9
30°	1117.3	1083.9	1008.5	906.8	815.5	752.5	715.6	696.3	689.3
32.5°	1031.3	1003.2	929.6	834.8	748.9	691.0	657.7	641.9	635.0
35°	941.9	915.6	850.6	763.0	685.8	631.5	599.9	589.3	585.8
37.5°	857.6	834.8	771.8	691.0	620.9	573.6	545.5	538.5	534.9
40°	770.0	754.2	696.3	622.7	557.8	515.6	492.8	487.6	487.6
42.5°	691.0	673.5	622.7	556.0	498.1	456.1	440.3	435.0	436.8
45°	619.2	601.6	554.2	492.8	436.8	401.7	389.4	389.4	389.4
47.5°	552.5	536.7	492.8	429.8	384.1	356.0	343.8	343.8	345.5
50°	491.1	480.5	431.5	377.1	336.7	310.4	301.6	299.9	303.4
52.5°	433.3	421.0	377.1	328.0	289.4	268.4	259.6	257.9	259.6
55°	384.1	370.1	331.5	284.1	249.1	228.0	217.5	215.8	219.3
57.5°	336.7	326.2	285.8	243.8	210.5	189.4	180.7	177.1	178.9
60°	292.9	282.3	245.6	205.2	175.4	154.3	142.0	138.5	140.3
62.5°	252.6	243.8	208.7	170.1	140.3	121.0	108.7	99.9	103.4
65°	215.8	207.0	175.4	136.8	110.5	89.5	72.0	64.9	66.7
67.5°	184.2	173.6	143.8	108.7	82.5	59.7	40.4	36.9	36.9
70°	152.6	142.0	115.7	84.1	57.9	31.6	17.5	17.5	17.5
72.5°	122.7	114.0	89.5	63.2	36.9	14.0	7.0	7.0	7.0
75°	94.8	87.6	66.7	43.9	22.8	7.0	5.3	3.5	3.5
77.5°	70.2	63.2	47.4	29.8	14.0	3.5	3.5	3.5	3.5
80°	47.4	42.1	31.6	17.5	7.0	1.8	1.8	1.8	1.8
82.5°	28.1	24.6	17.5	8.8	3.5	1.8	1.8	1.8	1.8
85°	14.0	10.5	7.0	3.5	1.8	1.8	1.8	1.8	1.8
87.5°	3.5	1.8	1.8	1.8	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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