

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: P580146

Luminaire Tested: **HCC4S25D010SL-HM40525830-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580146  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S25D010SL-HM40525830-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

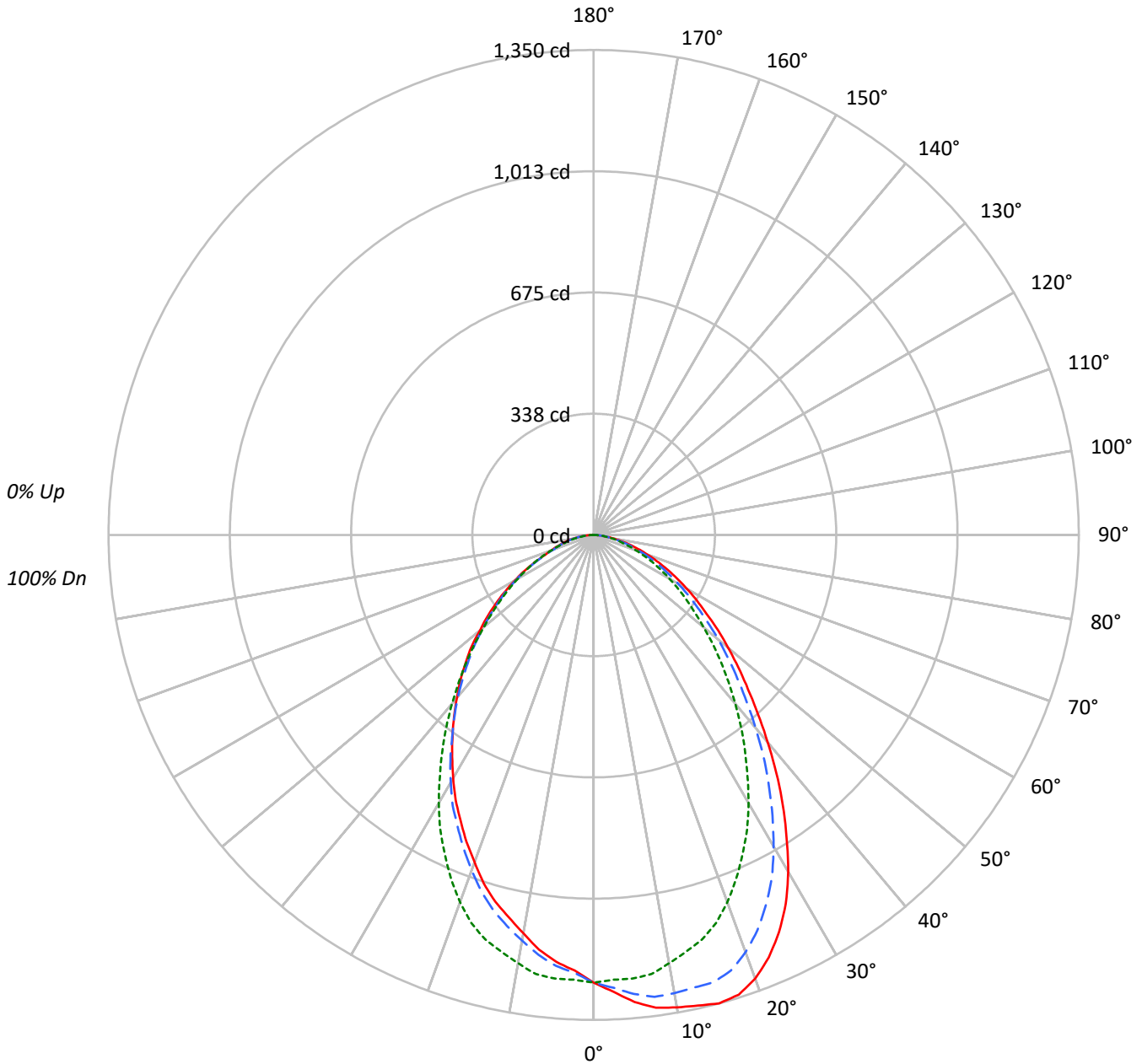
Lumens per Lamp: N/A  
Luminaire Lumens: 2416.1 lumens  
Efficiency: N/A  
Efficacy: 90.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

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

	0°	90°	180°
0°	153676	153676	153676
5°	161581	153459	147713
10°	167257	151626	141030
15°	172365	148882	134988
20°	172557	142760	127206
25°	166065	133416	119275
30°	154206	122772	111392
35°	138230	110539	103070
40°	121294	98622	95273
45°	106005	87323	87881
50°	93586	76411	79175
55°	82556	67761	71180
60°	73785	59971	62339
65°	65348	52768	52768
70°	57089	45008	45008
75°	48801	38078	42653
80°	38641	34095	38641
85°	24908	29437	36230



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.0	4.9
10°-20°	332.4	13.8
20°-30°	465.7	19.3
30°-40°	479.8	19.9
40°-50°	408.5	16.9
50°-60°	302.6	12.5
60°-70°	189.9	7.9
70°-80°	94.4	3.9
80°-90°	24.8	1.0
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°	916.1	37.9
0°-40°	1395.9	57.8
0°-60°	2107.0	87.2
0°-90°	2416.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2416.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1246	1246	1246	1246	1246	
5°	1305	1283	1239	1204	1193	125
15°	1350	1289	1166	1081	1057	380
25°	1220	1136	980	896	876	558
35°	918	849	734	686	684	572
45°	608	566	501	491	504	472
55°	384	354	315	321	331	347
65°	224	202	181	178	181	223
75°	102	91	80	86	90	109
85°	18	18	21	24	26	23
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°	1245.9	1245.9	1245.9	1245.9	1245.9	1245.9	1245.9	1245.9	1245.9
2.5°	1273.1	1268.2	1261.9	1250.6	1239.4	1229.8	1220.2	1215.5	1213.9
5°	1305.0	1295.4	1282.7	1261.9	1239.4	1220.2	1204.3	1196.3	1193.0
7.5°	1327.4	1317.8	1297.0	1265.0	1233.1	1204.3	1178.7	1167.5	1164.3
10°	1335.4	1324.2	1295.4	1252.3	1210.6	1175.5	1146.7	1132.3	1126.0
12.5°	1341.8	1327.4	1290.7	1239.4	1188.3	1145.1	1114.7	1095.5	1090.7
15°	1349.8	1333.8	1289.0	1226.7	1165.9	1114.7	1081.1	1063.5	1057.1
17.5°	1341.8	1324.2	1271.5	1201.0	1132.3	1076.3	1039.6	1023.6	1017.1
20°	1314.6	1295.4	1236.3	1161.1	1087.6	1030.0	993.2	977.1	969.1
22.5°	1273.1	1252.3	1191.4	1111.5	1036.3	980.3	945.2	929.2	924.4
25°	1220.2	1199.4	1135.5	1053.9	980.3	926.0	895.6	881.2	876.4
27.5°	1157.9	1137.1	1074.7	994.8	924.4	873.2	849.2	834.8	831.6
30°	1082.7	1061.9	1001.2	927.6	862.0	814.0	794.8	783.6	782.1
32.5°	999.5	982.0	926.0	858.8	796.4	756.4	742.1	734.1	732.5
35°	918.0	898.8	849.2	788.5	734.1	698.9	686.1	684.5	684.5
37.5°	834.8	815.6	775.6	719.6	673.3	641.3	636.5	638.1	638.1
40°	753.3	735.7	700.5	654.1	612.5	588.5	587.0	590.1	591.7
42.5°	676.5	662.2	630.1	590.1	554.9	535.7	537.4	543.7	548.6
45°	607.7	595.0	566.2	531.0	500.6	486.1	491.0	499.0	503.8
47.5°	545.3	534.1	506.9	475.0	449.5	439.9	446.2	455.8	462.2
50°	487.7	478.1	452.6	419.0	398.2	391.9	399.8	409.4	412.6
52.5°	436.6	427.0	399.8	371.0	355.1	351.8	359.8	367.8	372.7
55°	383.9	375.8	353.5	327.9	315.1	313.4	321.4	327.9	331.0
57.5°	340.6	332.6	311.8	289.5	278.3	276.7	284.6	289.5	291.1
60°	299.1	291.1	271.9	251.1	243.1	243.1	247.9	251.1	252.7
62.5°	260.7	252.7	235.1	217.6	211.1	211.1	211.1	212.7	217.6
65°	223.9	217.6	201.5	185.5	180.8	177.5	177.5	177.5	180.8
67.5°	190.3	183.9	171.2	156.7	152.0	147.1	145.5	148.7	148.7
70°	158.3	153.5	140.8	129.5	124.8	119.9	118.3	124.8	124.8
72.5°	129.5	124.8	116.7	105.6	100.7	99.1	102.4	105.6	107.1
75°	102.4	97.5	91.1	84.8	79.9	81.5	86.4	87.9	89.5
77.5°	76.8	75.2	68.8	64.0	64.0	65.6	68.8	71.9	73.6
80°	54.4	52.7	49.6	46.4	48.0	51.1	52.7	56.0	54.4
82.5°	33.5	33.5	32.0	32.0	33.5	36.8	38.4	40.0	41.5
85°	17.6	17.6	17.6	19.2	20.8	22.4	23.9	25.6	25.6
87.5°	4.7	6.4	6.4	8.0	9.6	9.6	11.2	11.2	11.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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— 0°-180°    - - 45°-225°    - - - - 90°-270°

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