

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: P580163

Luminaire Tested: **HCC4S25D010BZ-HM40525835-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580163  
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: HCC4S25D010BZ-HM40525835-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

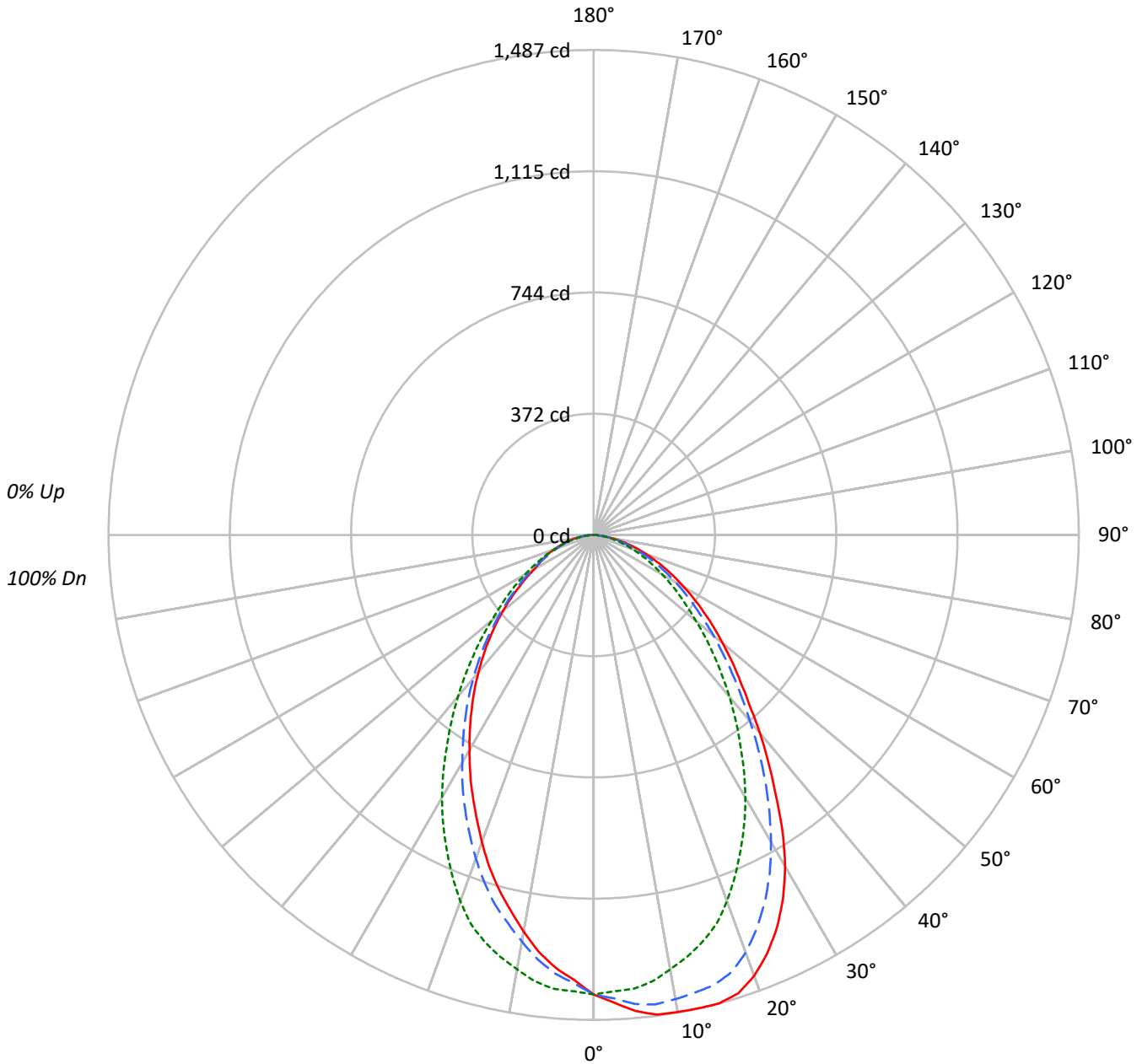
Lumens per Lamp: N/A  
Luminaire Lumens: 2516.0 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87								
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76								
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66								
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58								
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52								
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47								
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	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	42	37	47	41	37	46	41	37	35								
10	59	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°	173782	173782	173782
5°	181416	173009	165011
10°	186019	169399	154669
15°	189860	164882	143506
20°	188846	156858	131419
25°	180927	145052	119561
30°	167138	132429	108359
35°	146512	117812	98086
40°	127573	104097	88350
45°	111029	90794	78933
50°	98920	78253	69657
55°	88406	68815	60235
60°	78941	60094	51953
65°	70163	52710	49354
70°	61561	45440	46017
75°	52137	38698	42653
80°	39991	32959	38783
85°	23493	25757	32975



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.1	5.2
10°-20°	364.3	14.5
20°-30°	497.7	19.8
30°-40°	499.8	19.9
40°-50°	413.4	16.4
50°-60°	299.6	11.9
60°-70°	189.8	7.5
70°-80°	95.9	3.8
80°-90°	23.5	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°	994.0	39.5
0°-40°	1493.8	59.4
0°-60°	2206.8	87.7
0°-90°	2516.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2516.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1409	1409	1409	1409	1409	
5°	1465	1444	1397	1351	1333	140
15°	1487	1429	1291	1172	1124	418
25°	1329	1241	1066	932	878	608
35°	973	915	782	686	651	610
45°	636	600	520	469	452	495
55°	411	375	320	292	280	370
65°	240	214	181	162	169	239
75°	109	94	81	85	90	117
85°	17	17	18	22	23	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°	1408.9	1408.9	1408.9	1408.9	1408.9	1408.9	1408.9	1408.9	1408.9
2.5°	1435.4	1430.4	1422.2	1412.3	1400.6	1387.3	1375.8	1369.1	1365.8
5°	1465.2	1458.7	1443.8	1422.2	1397.3	1372.4	1350.8	1337.6	1332.7
7.5°	1483.5	1473.6	1452.0	1418.8	1380.8	1344.3	1312.8	1294.5	1289.5
10°	1485.2	1473.6	1445.3	1400.6	1352.5	1304.4	1266.4	1239.9	1234.9
12.5°	1486.8	1471.9	1437.1	1384.0	1324.3	1264.7	1218.3	1186.8	1178.5
15°	1486.8	1471.9	1428.7	1365.8	1291.2	1223.3	1171.9	1135.4	1123.8
17.5°	1473.6	1457.0	1405.6	1332.7	1251.4	1175.2	1115.6	1077.4	1065.8
20°	1438.7	1420.5	1362.5	1282.9	1195.0	1115.6	1055.8	1016.1	1001.2
22.5°	1389.0	1367.4	1306.1	1220.0	1132.0	1050.9	992.8	951.4	938.2
25°	1329.4	1307.8	1241.4	1157.0	1065.8	989.6	931.5	893.4	878.5
27.5°	1256.5	1233.2	1168.5	1084.1	999.5	923.3	870.2	835.3	820.4
30°	1173.5	1148.6	1087.3	1006.2	929.8	856.9	805.5	777.4	760.8
32.5°	1077.4	1055.8	1001.2	928.3	856.9	787.4	744.2	719.4	706.1
35°	973.0	961.3	914.9	851.9	782.4	724.4	686.2	663.1	651.4
37.5°	880.2	868.5	828.8	775.7	714.4	661.4	629.9	610.0	600.1
40°	792.3	782.4	744.2	699.5	646.5	600.1	573.5	558.6	548.7
42.5°	706.1	701.1	669.6	628.2	581.8	542.0	520.5	508.8	500.6
45°	636.5	629.9	600.1	560.2	520.5	487.3	469.1	460.7	452.5
47.5°	575.1	566.9	535.4	500.6	464.1	434.3	417.7	409.4	406.1
50°	515.5	507.3	479.0	444.3	407.8	386.2	372.9	364.7	363.0
52.5°	462.4	454.2	422.7	389.5	361.4	343.1	331.5	323.2	320.0
55°	411.1	401.1	374.6	343.1	320.0	303.4	291.7	283.5	280.1
57.5°	364.7	354.7	331.5	301.7	280.1	265.2	255.3	247.0	243.6
60°	320.0	311.6	290.0	261.9	243.6	230.4	220.5	213.8	210.6
62.5°	278.4	271.9	250.3	225.5	210.6	198.9	190.6	184.0	187.3
65°	240.4	233.7	213.8	192.3	180.6	169.1	162.5	162.5	169.1
67.5°	203.9	197.2	180.6	162.5	152.5	144.2	139.2	144.2	149.1
70°	170.7	164.0	149.1	134.2	126.0	119.3	119.3	124.3	127.6
72.5°	139.2	132.7	121.0	109.4	102.7	97.8	102.7	106.1	109.4
75°	109.4	104.4	94.5	86.1	81.2	79.6	84.6	87.8	89.5
77.5°	81.2	77.9	71.2	64.7	61.3	63.0	68.0	69.7	71.2
80°	56.3	54.6	49.7	46.4	46.4	48.1	51.4	53.1	54.6
82.5°	34.8	34.8	31.5	29.8	31.5	34.8	36.5	38.2	38.2
85°	16.6	18.2	16.6	16.6	18.2	21.6	21.6	23.3	23.3
87.5°	5.0	5.0	6.7	6.7	8.2	8.2	8.2	8.2	9.9
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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