

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: P580340

Luminaire Tested: **HCC4S30D010BZ-HM43040927-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580340  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S30D010BZ-HM43040927-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

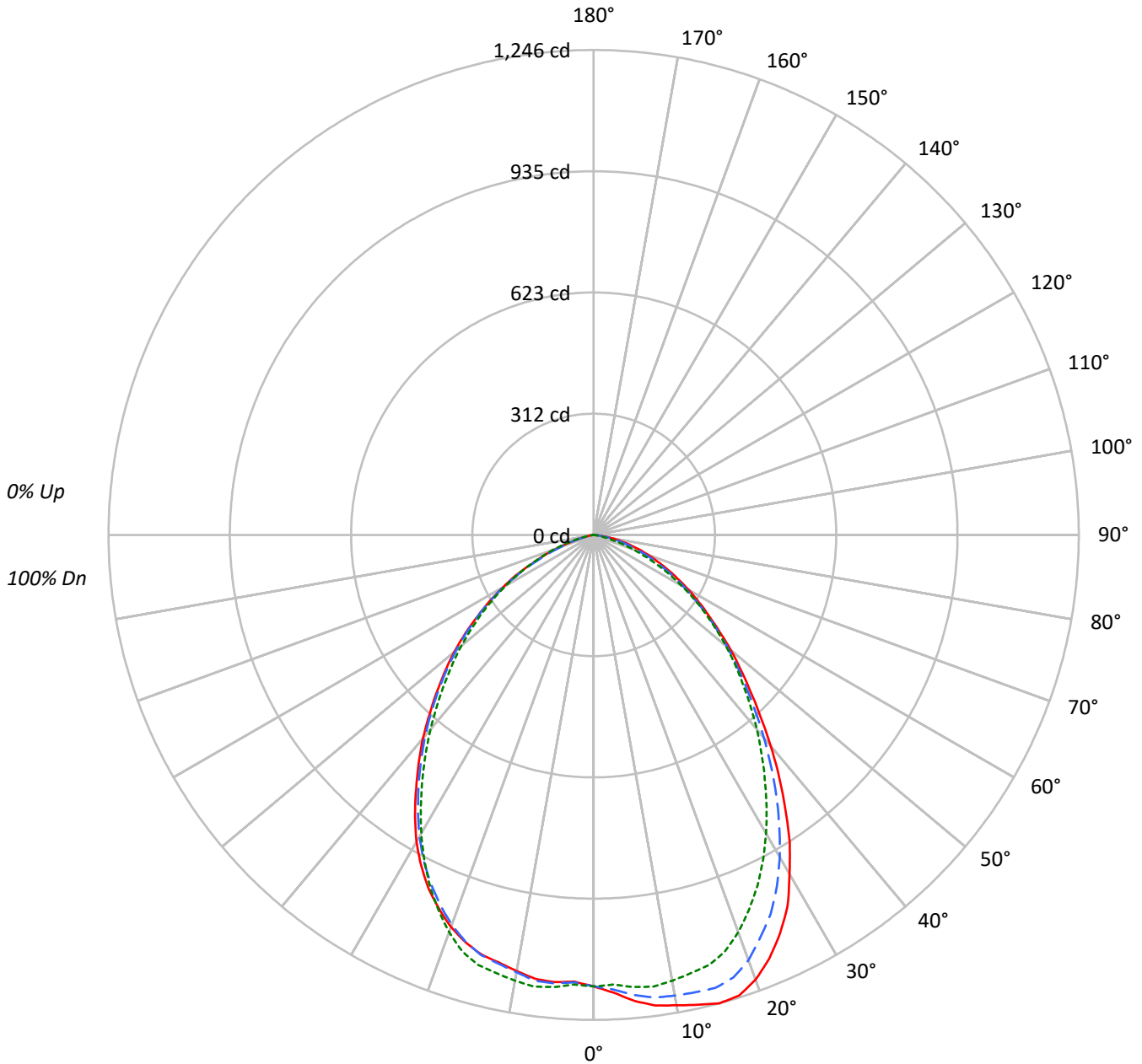
Lumens per Lamp: N/A  
Luminaire Lumens: 2416.7 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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										
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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76					76			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67					67			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58					58			
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52					52			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46					46			
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41					41			
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37					37			
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31					31			

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

	0°	90°	180°
0°	143044	143044	143044
5°	148828	144370	142810
10°	153680	145651	142495
15°	159097	146085	142484
20°	159627	142550	140699
25°	153994	135430	136505
30°	143296	126119	129680
35°	129090	115402	119649
40°	113806	104983	109781
45°	99499	94580	99237
50°	88117	85104	89613
55°	77503	75159	78191
60°	69197	64164	66113
65°	60853	52155	51222
70°	53122	38444	35018
75°	44083	23161	18634
80°	33385	8879	5540
85°	15426	2264	2264



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.8	4.6
10°-20°	326.4	13.5
20°-30°	472.7	19.6
30°-40°	498.8	20.6
40°-50°	431.6	17.9
50°-60°	319.8	13.2
60°-70°	184.3	7.6
70°-80°	64.4	2.7
80°-90°	6.8	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°	911.0	37.7
0°-40°	1409.8	58.3
0°-60°	2161.2	89.4
0°-90°	2416.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2416.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1160	1160	1160	1160	1160	
5°	1202	1186	1166	1156	1153	115
15°	1246	1205	1144	1117	1116	350
25°	1132	1075	995	989	1003	518
35°	857	818	766	784	795	535
45°	570	555	542	563	569	443
55°	360	353	350	362	364	325
65°	208	196	179	169	176	208
75°	92	78	49	39	39	99
85°	11	6	2	2	2	17
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°	1159.7	1159.7	1159.7	1159.7	1159.7	1159.7	1159.7	1159.7	1159.7
2.5°	1177.0	1173.8	1169.1	1162.9	1156.5	1151.8	1150.3	1148.8	1148.8
5°	1202.0	1195.7	1186.3	1173.8	1166.0	1161.3	1156.5	1153.4	1153.4
7.5°	1219.3	1212.9	1198.8	1181.6	1170.6	1161.3	1155.0	1150.3	1150.3
10°	1227.0	1219.3	1202.0	1180.1	1162.9	1150.3	1140.9	1137.7	1137.7
12.5°	1236.5	1227.0	1203.6	1175.4	1153.4	1137.7	1128.3	1125.2	1125.2
15°	1245.9	1234.9	1205.2	1172.2	1144.0	1125.2	1117.4	1115.8	1115.8
17.5°	1241.1	1227.0	1192.6	1153.4	1122.0	1103.3	1095.4	1095.4	1097.0
20°	1216.1	1202.0	1162.9	1119.0	1086.0	1071.9	1065.6	1068.8	1071.9
22.5°	1178.5	1161.3	1119.0	1076.7	1042.2	1029.6	1029.6	1034.3	1039.0
25°	1131.5	1115.8	1075.1	1028.1	995.1	985.8	988.9	996.7	1003.0
27.5°	1078.1	1061.0	1018.7	974.8	941.9	937.1	945.0	956.0	959.1
30°	1006.1	992.0	956.0	913.7	885.5	883.9	894.8	902.6	910.5
32.5°	937.1	921.5	887.1	846.2	825.9	827.5	840.0	849.4	854.1
35°	857.3	843.2	818.0	785.1	766.4	769.5	783.6	793.0	794.6
37.5°	782.0	772.6	747.5	722.5	708.4	714.6	727.1	738.2	738.2
40°	706.8	698.9	680.2	659.8	652.0	659.8	672.3	681.8	681.8
42.5°	634.7	630.0	614.3	600.2	595.5	606.5	617.5	625.3	623.7
45°	570.4	565.7	554.8	543.8	542.2	553.2	562.6	567.3	568.9
47.5°	512.5	509.3	499.9	492.0	492.0	503.1	510.9	515.6	517.2
50°	459.2	456.1	448.2	442.0	443.5	454.5	460.8	465.4	467.0
52.5°	405.9	404.3	398.1	390.2	394.9	402.8	410.6	413.8	415.3
55°	360.4	360.4	352.6	346.3	349.5	357.4	362.0	363.6	363.6
57.5°	319.7	318.1	308.7	302.4	304.0	311.9	315.1	316.5	316.5
60°	280.5	279.0	269.6	260.1	260.1	264.9	266.4	268.0	268.0
62.5°	242.9	241.4	230.3	222.6	219.4	217.8	217.8	221.0	227.3
65°	208.5	206.9	195.9	183.3	178.7	173.9	169.2	172.4	175.5
67.5°	177.1	173.9	163.0	152.1	141.0	133.2	125.3	130.1	136.4
70°	147.3	144.2	131.6	119.1	106.6	94.1	87.8	94.1	97.1
72.5°	119.1	116.0	103.4	90.9	75.2	62.7	61.1	62.7	64.3
75°	92.5	90.9	78.4	64.3	48.6	39.1	39.1	39.1	39.1
77.5°	68.9	65.9	53.2	40.7	28.2	22.0	20.4	20.4	20.4
80°	47.0	43.9	32.9	23.5	12.5	9.4	9.4	7.8	7.8
82.5°	26.6	25.0	17.3	9.4	4.7	3.2	3.2	3.2	3.2
85°	10.9	9.4	6.3	3.2	1.6	1.6	1.6	1.6	1.6
87.5°	1.6	1.6	1.6	0.0	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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