

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: P580358

Luminaire Tested: **HCC4S30D010MB-HM43040930-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580358  
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: HCC4S30D010MB-HM43040930-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

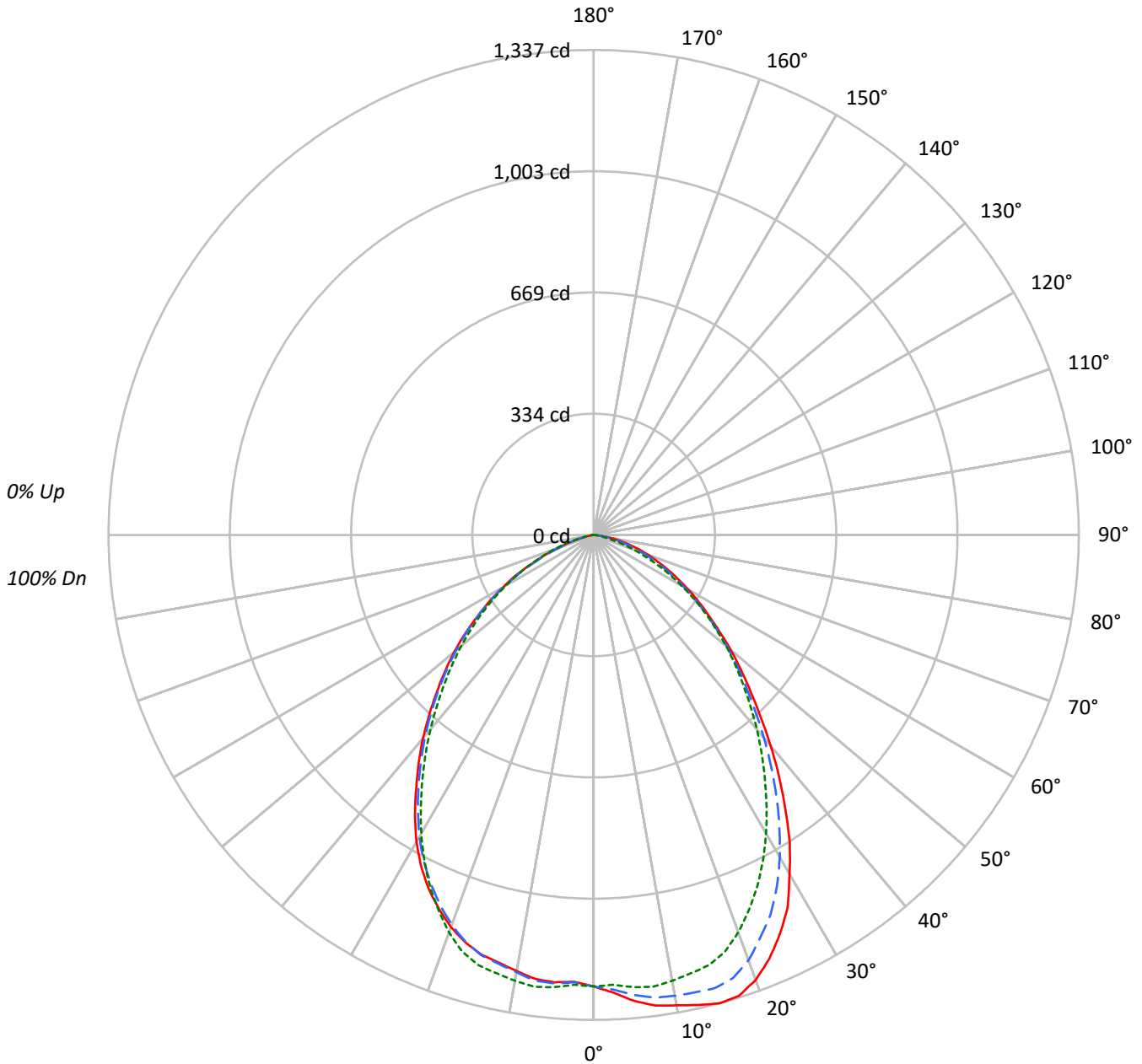
Lumens per Lamp: N/A  
Luminaire Lumens: 2593.6 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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

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

	0°	90°	180°
0°	153516	153516	153516
5°	159736	154944	153273
10°	164940	156310	152941
15°	170743	156786	152917
20°	171323	152999	151003
25°	165276	145351	146508
30°	153793	135349	139180
35°	138531	123835	128412
40°	122147	112663	117800
45°	106808	101505	106511
50°	94564	91340	96176
55°	83180	80664	83911
60°	74279	68876	70948
65°	65289	55979	54987
70°	57017	41257	37579
75°	47323	24829	20064
80°	35800	9518	6038
85°	16558	2406	2406



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.0	4.6
10°-20°	350.3	13.5
20°-30°	507.4	19.6
30°-40°	535.3	20.6
40°-50°	463.3	17.9
50°-60°	343.2	13.2
60°-70°	197.8	7.6
70°-80°	69.1	2.7
80°-90°	7.3	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°	977.7	37.7
0°-40°	1513.0	58.3
0°-60°	2319.4	89.4
0°-90°	2593.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2593.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1245	1245	1245	1245	1245	
5°	1290	1273	1251	1241	1238	124
15°	1337	1293	1228	1199	1198	376
25°	1214	1154	1068	1061	1076	556
35°	920	878	822	841	853	575
45°	612	595	582	604	611	475
55°	387	378	375	388	390	349
65°	224	210	192	182	188	223
75°	99	84	52	42	42	107
85°	12	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°	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6	1244.6
2.5°	1263.1	1259.8	1254.7	1248.0	1241.3	1236.2	1234.6	1232.9	1232.9
5°	1290.1	1283.3	1273.2	1259.8	1251.4	1246.3	1241.3	1237.9	1237.9
7.5°	1308.6	1301.8	1286.7	1268.2	1256.4	1246.3	1239.6	1234.6	1234.6
10°	1316.9	1308.6	1290.1	1266.5	1248.0	1234.6	1224.4	1221.1	1221.1
12.5°	1327.1	1316.9	1291.7	1261.4	1237.9	1221.1	1211.0	1207.6	1207.6
15°	1337.1	1325.4	1293.4	1258.1	1227.8	1207.6	1199.2	1197.5	1197.5
17.5°	1332.1	1316.9	1279.9	1237.9	1204.3	1184.1	1175.7	1175.7	1177.4
20°	1305.2	1290.1	1248.0	1200.9	1165.6	1150.4	1143.7	1147.1	1150.4
22.5°	1264.8	1246.3	1200.9	1155.5	1118.5	1105.0	1105.0	1110.1	1115.1
25°	1214.4	1197.5	1153.8	1103.3	1068.0	1058.0	1061.3	1069.7	1076.5
27.5°	1157.2	1138.7	1093.3	1046.2	1010.8	1005.8	1014.2	1026.0	1029.3
30°	1079.8	1064.7	1026.0	980.6	950.3	948.6	960.4	968.8	977.2
32.5°	1005.8	989.0	952.0	908.3	886.4	888.1	901.5	911.6	916.6
35°	920.0	904.9	877.9	842.6	822.4	825.8	840.9	851.1	852.8
37.5°	839.2	829.2	802.2	775.4	760.3	766.9	780.5	792.2	792.2
40°	758.6	750.1	729.9	708.0	699.7	708.0	721.6	731.6	731.6
42.5°	681.2	676.1	659.3	644.2	639.1	650.9	662.7	671.0	669.4
45°	612.3	607.2	595.4	583.6	581.9	593.8	603.8	608.9	610.6
47.5°	550.0	546.6	536.6	528.1	528.1	539.9	548.3	553.4	555.1
50°	492.8	489.4	481.0	474.3	476.0	487.7	494.5	499.6	501.2
52.5°	435.6	433.9	427.2	418.8	423.9	432.2	440.7	444.0	445.7
55°	386.8	386.8	378.4	371.7	375.1	383.5	388.5	390.2	390.2
57.5°	343.1	341.4	331.3	324.6	326.3	334.7	338.1	339.8	339.8
60°	301.1	299.4	289.3	279.2	279.2	284.3	285.9	287.6	287.6
62.5°	260.7	259.0	247.3	238.8	235.5	233.8	233.8	237.1	243.9
65°	223.7	222.0	210.3	196.8	191.8	186.7	181.6	185.0	188.4
67.5°	190.1	186.7	175.0	163.1	151.4	142.9	134.6	139.6	146.3
70°	158.1	154.8	141.3	127.8	114.4	101.0	94.2	101.0	104.2
72.5°	127.8	124.4	111.0	97.6	80.8	67.2	65.6	67.2	68.9
75°	99.3	97.6	84.1	68.9	52.1	42.1	42.1	42.1	42.1
77.5°	74.0	70.6	57.2	43.8	30.2	23.6	21.9	21.9	21.9
80°	50.4	47.2	35.3	25.3	13.4	10.0	10.0	8.5	8.5
82.5°	28.5	27.0	18.5	10.0	5.1	3.4	3.4	3.4	3.4
85°	11.7	10.0	6.8	3.4	1.7	1.7	1.7	1.7	1.7
87.5°	1.7	1.7	1.7	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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