

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: P580286

Luminaire Tested: **HCC4S30D010MW-HM43040830-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580286  
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: HCC4S30D010MW-HM43040830-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

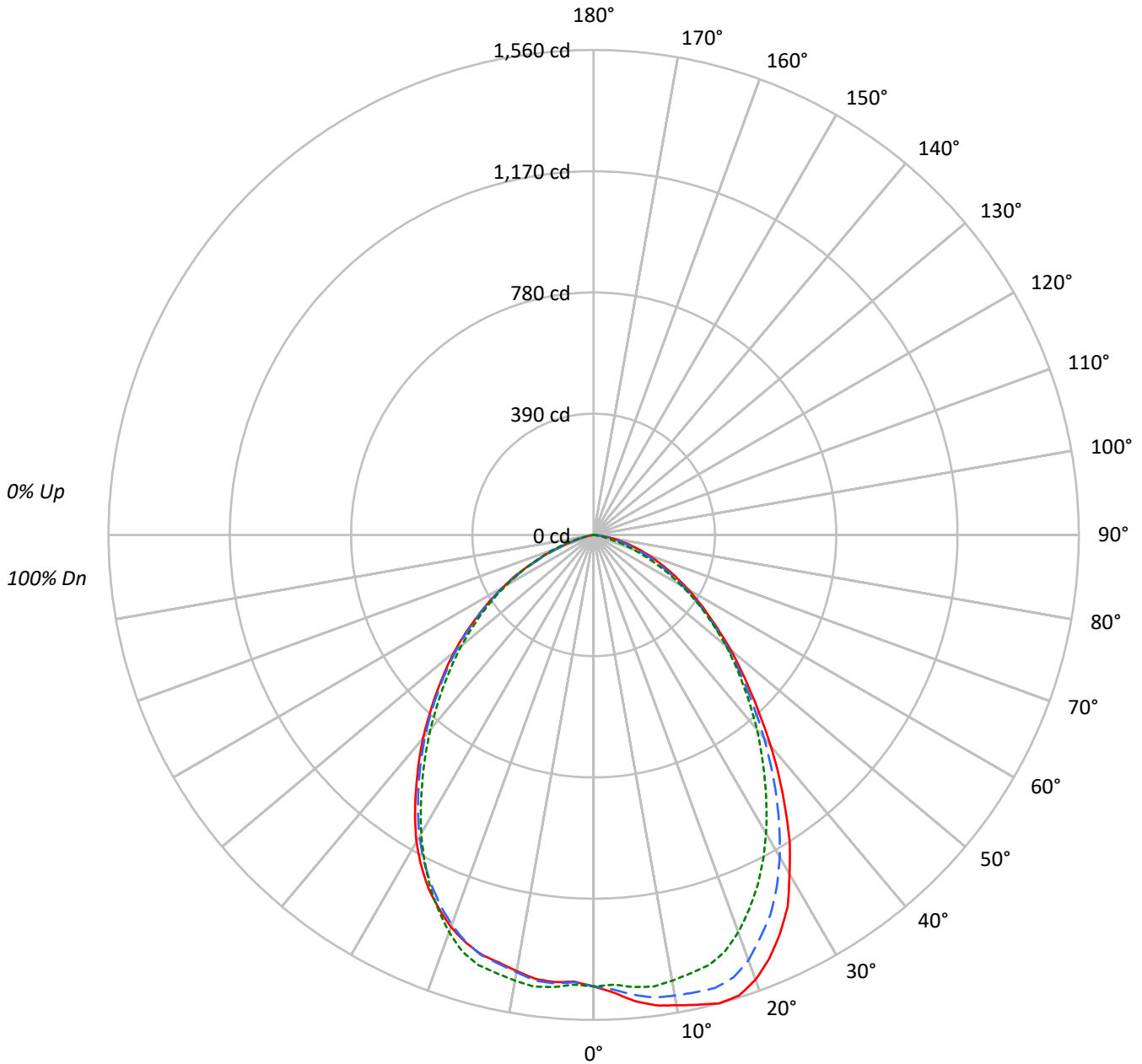
Lumens per Lamp: N/A  
Luminaire Lumens: 3025.6 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	62	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°	179098	179098	179098
5°	186332	180735	178804
10°	192419	182337	178404
15°	199181	182900	178392
20°	199859	178476	176166
25°	192808	169563	170897
30°	179401	157895	162367
35°	161615	144479	149794
40°	142483	131421	137411
45°	124566	118408	124234
50°	110299	106557	112180
55°	97051	94104	97868
60°	86663	80347	82765
65°	76146	65289	64122
70°	66502	48109	43854
75°	55139	28976	23400
80°	41838	11152	6961
85°	19530	2689	2689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.0	4.6
10°-20°	408.7	13.5
20°-30°	591.9	19.6
30°-40°	624.4	20.6
40°-50°	540.4	17.9
50°-60°	400.3	13.2
60°-70°	230.8	7.6
70°-80°	80.6	2.7
80°-90°	8.5	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°	1140.6	37.7
0°-40°	1765.0	58.3
0°-60°	2705.8	89.4
0°-90°	3025.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3025.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1452	1452	1452	1452	1452	
5°	1505	1485	1460	1448	1444	145
15°	1560	1509	1432	1399	1397	439
25°	1417	1346	1246	1238	1256	648
35°	1073	1024	960	981	995	670
45°	714	695	679	704	712	554
55°	451	442	438	453	455	407
65°	261	245	224	212	220	261
75°	116	98	61	49	49	125
85°	14	8	2	2	2	21
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°	1452.0	1452.0	1452.0	1452.0	1452.0	1452.0	1452.0	1452.0	1452.0
2.5°	1473.5	1469.6	1463.7	1455.8	1448.0	1442.1	1440.1	1438.2	1438.2
5°	1504.9	1497.1	1485.2	1469.6	1459.7	1453.9	1448.0	1444.1	1444.1
7.5°	1526.5	1518.6	1500.9	1479.4	1465.6	1453.9	1446.0	1440.1	1440.1
10°	1536.3	1526.5	1504.9	1477.5	1455.8	1440.1	1428.4	1424.4	1424.4
12.5°	1548.1	1536.3	1506.9	1471.6	1444.1	1424.4	1412.7	1408.8	1408.8
15°	1559.8	1546.1	1508.8	1467.6	1432.3	1408.8	1398.9	1397.0	1397.0
17.5°	1553.9	1536.3	1493.1	1444.1	1404.8	1381.2	1371.4	1371.4	1373.5
20°	1522.6	1504.9	1455.8	1400.9	1359.7	1342.1	1334.2	1338.1	1342.1
22.5°	1475.4	1453.9	1400.9	1348.0	1304.8	1289.1	1289.1	1294.9	1300.8
25°	1416.7	1397.0	1345.9	1287.2	1245.9	1234.1	1238.1	1247.9	1255.7
27.5°	1349.9	1328.3	1275.3	1220.4	1179.2	1173.3	1183.2	1196.8	1200.8
30°	1259.6	1241.9	1196.8	1143.9	1108.6	1106.6	1120.3	1130.1	1140.0
32.5°	1173.3	1153.7	1110.5	1059.5	1034.0	1036.0	1051.6	1063.5	1069.3
35°	1073.3	1055.6	1024.2	982.9	959.5	963.3	981.0	992.8	994.8
37.5°	979.1	967.3	935.9	904.5	886.8	894.7	910.4	924.2	924.2
40°	884.9	875.1	851.5	826.0	816.2	826.0	841.7	853.4	853.4
42.5°	794.7	788.7	769.1	751.5	745.6	759.4	773.0	782.8	780.9
45°	714.1	708.3	694.6	680.9	678.8	692.6	704.3	710.3	712.2
47.5°	641.6	637.7	625.9	616.1	616.1	629.9	639.6	645.6	647.5
50°	574.8	571.0	561.2	553.3	555.3	569.0	576.9	582.7	584.6
52.5°	508.2	506.2	498.4	488.5	494.4	504.2	514.0	518.0	519.9
55°	451.3	451.3	441.5	433.6	437.6	447.4	453.2	455.1	455.1
57.5°	400.2	398.3	386.6	378.7	380.6	390.4	394.3	396.4	396.4
60°	351.3	349.2	337.5	325.7	325.7	331.6	333.5	335.5	335.5
62.5°	304.1	302.2	288.4	278.6	274.7	272.8	272.8	276.7	284.5
65°	260.9	259.0	245.2	229.5	223.7	217.8	212.0	215.8	219.7
67.5°	221.8	217.8	204.1	190.3	176.5	166.7	157.0	162.9	170.7
70°	184.4	180.5	164.8	149.1	133.4	117.8	109.9	117.8	121.6
72.5°	149.1	145.2	129.5	113.8	94.2	78.5	76.5	78.5	80.4
75°	115.7	113.8	98.1	80.4	60.8	49.1	49.1	49.1	49.1
77.5°	86.3	82.5	66.7	51.0	35.3	27.5	25.5	25.5	25.5
80°	58.9	54.9	41.2	29.4	15.7	11.7	11.7	9.8	9.8
82.5°	33.4	31.4	21.5	11.7	5.9	3.9	3.9	3.9	3.9
85°	13.8	11.7	7.9	3.9	1.9	1.9	1.9	1.9	1.9
87.5°	1.9	1.9	1.9	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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