

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: P580323

Luminaire Tested: **HCC4S30D010MW-HM43040840-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580323  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S30D010MW-HM43040840-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

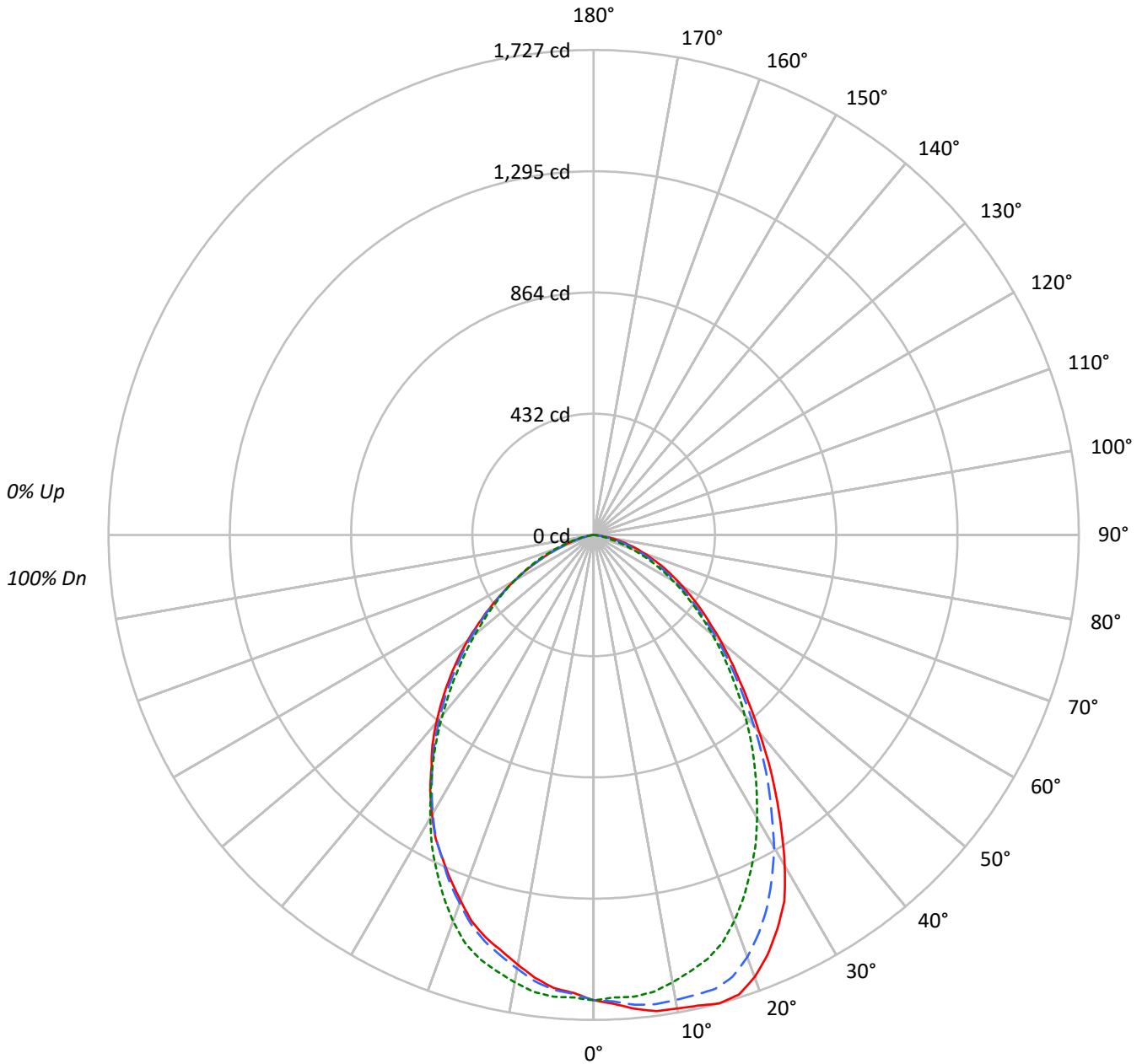
Lumens per Lamp: N/A  
Luminaire Lumens: 3158.2 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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			100
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77			77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67			67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47			47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35			35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

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

	0°	90°	180°
0°	204384	204384	204384
5°	209746	204397	200571
10°	214488	202639	194636
15°	220532	199756	189515
20°	219929	192101	181837
25°	210651	179852	173115
30°	193787	165643	163891
35°	170468	150321	151556
40°	147475	134561	140197
45°	128176	119577	126729
50°	113753	105464	112583
55°	100943	92513	96491
60°	89870	80224	80224
65°	79911	66690	62487
70°	69026	50489	44539
75°	57903	33312	27450
80°	43827	16124	14562
85°	23351	5802	5802



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.9	5.0
10°-20°	444.9	14.1
20°-30°	627.4	19.9
30°-40°	648.1	20.5
40°-50°	549.4	17.4
50°-60°	399.8	12.7
60°-70°	233.6	7.4
70°-80°	86.8	2.7
80°-90°	11.3	0.4
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°	1229.2	38.9
0°-40°	1877.3	59.4
0°-60°	2826.5	89.5
0°-90°	3158.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3158.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1657	1657	1657	1657	1657	
5°	1694	1680	1651	1626	1620	162
15°	1727	1673	1564	1498	1484	485
25°	1548	1461	1322	1274	1272	708
35°	1132	1083	998	1000	1006	707
45°	735	714	686	710	726	572
55°	469	447	430	445	449	422
65°	274	251	228	214	214	272
75°	122	101	70	56	58	130
85°	16	10	4	4	4	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°	1657.0	1657.0	1657.0	1657.0	1657.0	1657.0	1657.0	1657.0	1657.0
2.5°	1671.4	1667.3	1663.1	1657.0	1648.8	1642.6	1636.4	1632.3	1632.3
5°	1694.0	1687.8	1679.6	1665.3	1650.8	1638.4	1626.1	1619.9	1619.9
7.5°	1710.5	1702.3	1685.8	1665.3	1640.6	1622.0	1603.5	1595.2	1591.2
10°	1712.5	1704.3	1681.6	1650.8	1617.9	1589.0	1568.5	1556.1	1554.0
12.5°	1716.7	1706.3	1677.6	1634.4	1591.2	1556.1	1533.5	1521.1	1517.0
15°	1727.0	1712.5	1673.4	1617.9	1564.3	1523.1	1498.4	1488.2	1484.1
17.5°	1716.7	1696.1	1648.8	1582.9	1523.1	1477.9	1453.2	1442.9	1442.9
20°	1675.5	1654.9	1599.4	1527.3	1463.5	1420.3	1395.6	1389.4	1385.3
22.5°	1617.9	1595.2	1535.5	1459.4	1395.6	1356.4	1340.0	1331.7	1329.7
25°	1547.8	1525.3	1461.4	1383.3	1321.5	1288.5	1274.1	1274.1	1272.0
27.5°	1469.7	1440.8	1375.0	1307.0	1247.3	1222.6	1216.4	1216.4	1218.6
30°	1360.6	1340.0	1284.5	1218.6	1163.0	1146.5	1146.5	1150.7	1150.7
32.5°	1243.3	1228.8	1179.4	1121.8	1078.6	1068.3	1072.4	1080.6	1082.7
35°	1132.1	1115.6	1082.7	1031.2	998.3	994.2	1000.3	1006.5	1006.5
37.5°	1023.0	1006.5	983.8	942.8	918.1	920.1	928.3	936.6	942.8
40°	915.9	903.6	887.2	854.2	835.7	844.0	854.2	862.5	870.7
42.5°	821.3	808.9	796.6	771.9	759.5	769.9	782.2	790.4	798.6
45°	734.8	726.5	714.2	693.7	685.5	695.8	710.2	718.3	726.5
47.5°	660.8	656.6	640.1	621.6	617.5	627.8	640.1	650.4	656.6
50°	592.8	586.7	572.2	553.7	549.6	566.0	574.3	580.5	586.7
52.5°	526.9	520.8	504.3	487.9	487.9	500.2	506.4	508.4	514.6
55°	469.4	463.2	446.7	434.3	430.2	440.5	444.7	444.7	448.7
57.5°	415.8	409.6	393.1	378.8	376.6	382.8	382.8	382.8	384.9
60°	364.3	358.1	341.7	329.4	325.2	327.2	325.2	323.2	325.2
62.5°	317.0	310.8	294.3	280.0	275.8	275.8	269.6	267.6	269.6
65°	273.8	263.5	251.1	236.8	228.5	222.3	214.1	214.1	214.1
67.5°	230.6	222.3	207.9	193.5	183.2	172.9	160.5	164.7	166.7
70°	191.4	185.2	168.7	154.4	140.0	127.6	117.3	121.5	123.5
72.5°	156.5	148.2	133.8	117.3	105.0	88.5	82.3	86.4	86.4
75°	121.5	113.3	100.8	84.4	69.9	55.6	55.6	57.6	57.6
77.5°	90.6	82.3	69.9	55.6	43.2	32.9	35.0	35.0	35.0
80°	61.7	55.6	45.2	32.9	22.7	18.5	18.5	18.5	20.5
82.5°	35.0	30.9	24.7	16.5	10.3	10.3	10.3	10.3	10.3
85°	16.5	12.3	10.3	6.2	4.1	4.1	4.1	4.1	4.1
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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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Scaled Data Report



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

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