

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: P580290

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580290  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S30D010MW-HM43040830-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

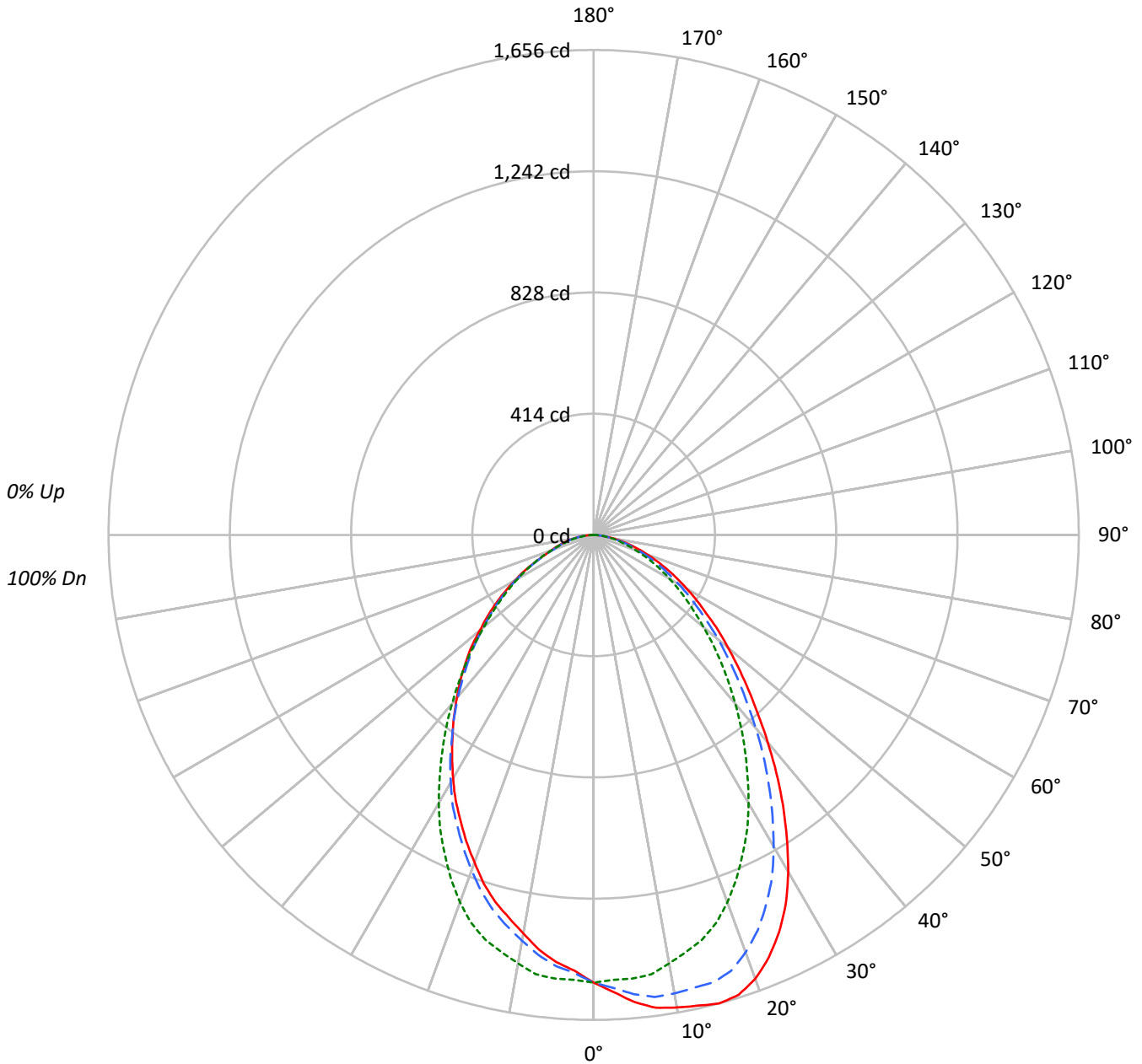
Lumens per Lamp: N/A  
Luminaire Lumens: 2964.7 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58					58			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51					51			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46					46			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41					41			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	45	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°	188571	188571	188571
5°	198268	188313	181268
10°	205232	186069	173043
15°	211517	182683	165648
20°	211751	175156	156110
25°	203778	163725	146359
30°	189229	150645	136673
35°	169610	135625	126470
40°	148827	121020	116914
45°	130078	107139	107820
50°	114847	93758	97174
55°	101265	83137	87352
60°	90511	73563	76499
65°	80203	64735	64735
70°	70036	55214	55214
75°	59810	46752	52375
80°	47449	41838	47449
85°	30427	36088	44438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.8	4.9
10°-20°	407.9	13.8
20°-30°	571.4	19.3
30°-40°	588.7	19.9
40°-50°	501.2	16.9
50°-60°	371.4	12.5
60°-70°	233.1	7.9
70°-80°	115.8	3.9
80°-90°	30.4	1.0
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°	1124.2	37.9
0°-40°	1712.9	57.8
0°-60°	2585.5	87.2
0°-90°	2964.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2964.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1529	1529	1529	1529	1529	
5°	1601	1574	1521	1478	1464	154
15°	1656	1582	1431	1327	1297	466
25°	1497	1393	1203	1099	1075	685
35°	1126	1042	901	842	840	702
45°	746	695	614	602	618	579
55°	471	434	387	394	406	426
65°	275	247	222	218	222	274
75°	126	112	98	106	110	134
85°	22	22	26	29	31	28
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°	1528.8	1528.8	1528.8	1528.8	1528.8	1528.8	1528.8	1528.8	1528.8
2.5°	1562.1	1556.2	1548.4	1534.6	1520.9	1509.2	1497.3	1491.4	1489.5
5°	1601.3	1589.6	1573.9	1548.4	1520.9	1497.3	1477.7	1467.9	1464.0
7.5°	1628.8	1617.1	1591.5	1552.2	1513.1	1477.7	1446.3	1432.6	1428.6
10°	1638.6	1624.9	1589.6	1536.6	1485.6	1442.4	1407.1	1389.4	1381.6
12.5°	1646.5	1628.8	1583.7	1520.9	1458.1	1405.1	1367.8	1344.2	1338.4
15°	1656.4	1636.7	1581.7	1505.2	1430.6	1367.8	1326.6	1305.0	1297.2
17.5°	1646.5	1624.9	1560.1	1473.8	1389.4	1320.8	1275.5	1255.9	1248.1
20°	1613.2	1589.6	1516.9	1424.8	1334.4	1263.8	1218.7	1199.1	1189.3
22.5°	1562.1	1536.6	1462.0	1363.9	1271.7	1203.0	1159.8	1140.2	1134.3
25°	1497.3	1471.8	1393.3	1293.3	1203.0	1136.2	1099.0	1081.3	1075.4
27.5°	1420.8	1395.3	1318.7	1220.6	1134.3	1071.5	1042.0	1024.4	1020.5
30°	1328.6	1303.1	1228.5	1138.3	1057.7	998.8	975.4	961.6	959.6
32.5°	1226.5	1204.9	1136.2	1053.8	977.3	928.2	910.5	900.7	898.8
35°	1126.4	1102.8	1042.0	967.5	900.7	857.6	841.9	839.9	839.9
37.5°	1024.4	1000.9	951.8	883.1	826.1	786.9	781.0	783.1	783.1
40°	924.3	902.7	859.5	802.7	751.6	722.1	720.2	724.2	726.1
42.5°	830.1	812.5	773.2	724.2	681.0	657.4	659.4	667.2	673.1
45°	745.7	730.0	694.7	651.5	614.2	596.6	602.5	612.3	618.1
47.5°	669.2	655.5	622.1	582.8	551.5	539.6	547.5	559.3	567.2
50°	598.5	586.8	555.4	514.1	488.6	480.8	490.6	502.4	506.4
52.5°	535.8	524.0	490.6	455.3	435.6	431.7	441.5	451.3	457.3
55°	470.9	461.1	433.7	402.4	386.6	384.6	394.5	402.4	406.2
57.5°	418.0	408.2	382.7	355.2	341.4	339.5	349.3	355.2	357.1
60°	366.9	357.1	333.7	308.1	298.2	298.2	304.2	308.1	310.1
62.5°	319.9	310.1	288.4	266.9	259.0	259.0	259.0	261.0	266.9
65°	274.8	266.9	247.3	227.6	221.8	217.8	217.8	217.8	221.8
67.5°	233.5	225.7	210.0	192.3	186.5	180.6	178.6	182.5	182.5
70°	194.2	188.4	172.7	158.9	153.1	147.2	145.2	153.1	153.1
72.5°	158.9	153.1	143.3	129.5	123.6	121.7	125.5	129.5	131.5
75°	125.5	119.7	111.9	104.0	98.1	100.1	105.9	107.9	109.9
77.5°	94.2	92.3	84.4	78.5	78.5	80.4	84.4	88.3	90.2
80°	66.8	64.7	60.8	57.0	58.9	62.8	64.7	68.7	66.8
82.5°	41.2	41.2	39.3	39.3	41.2	45.1	47.2	49.1	51.0
85°	21.5	21.5	21.5	23.6	25.5	27.5	29.4	31.4	31.4
87.5°	5.9	7.9	7.9	9.8	11.7	11.7	13.8	13.8	13.8
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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