

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: P580271

Luminaire Tested: **HC430D010-HM43040827-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580271  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC430D010-HM43040827-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2753.1 lumens  
Efficiency: N/A  
Efficacy: 98.3 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

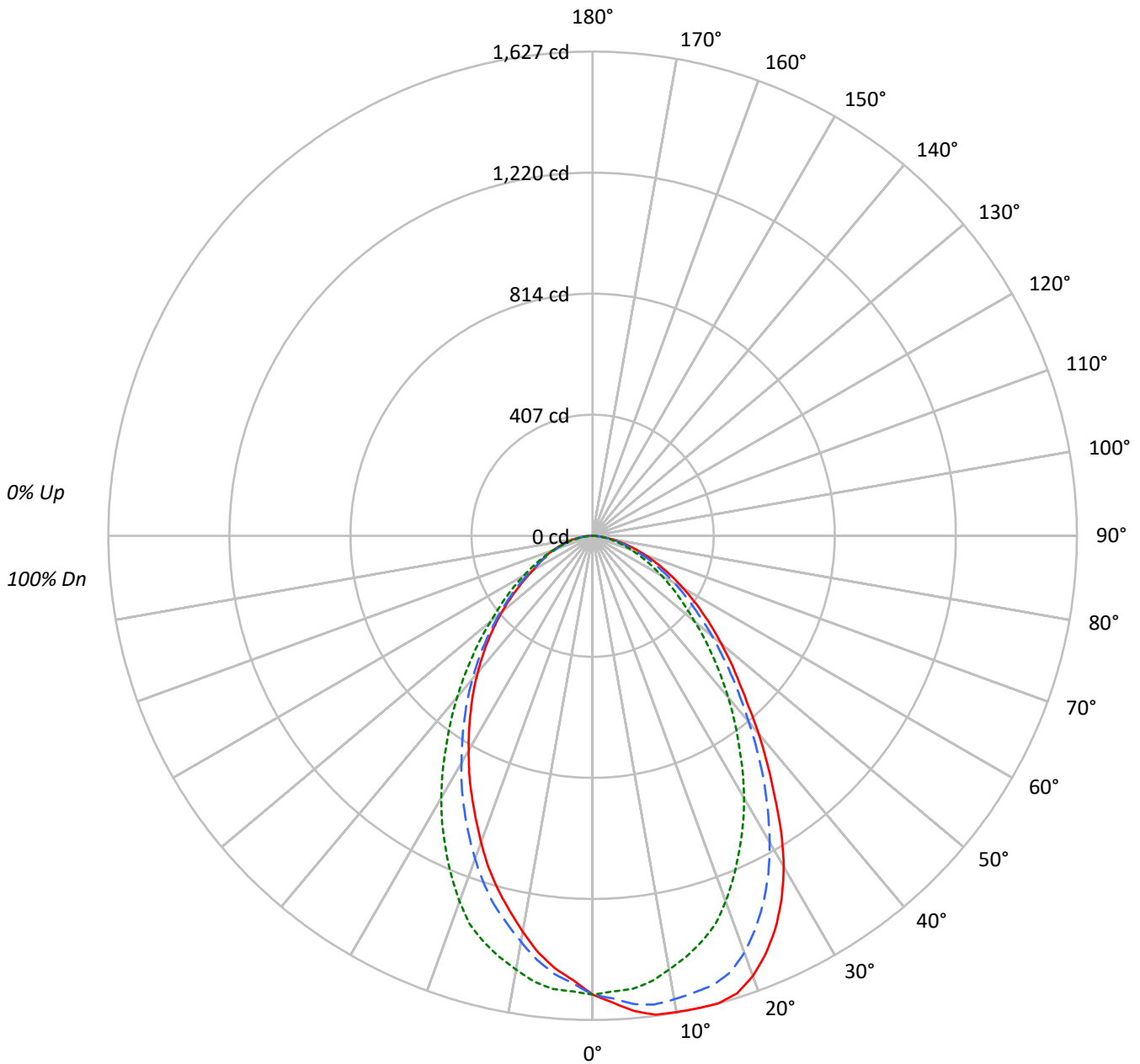
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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									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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
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	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	190150	190150	190150
5°	198515	189316	180562
10°	203541	185368	169236
15°	207750	180423	157029
20°	206645	171651	143797
25°	197966	158716	130830
30°	182891	144920	118571
35°	160304	128894	107331
40°	139601	113903	96658
45°	121478	99342	86381
50°	108246	85603	76219
55°	96728	75266	65912
60°	86342	65793	56813
65°	76730	57701	53994
70°	67367	49696	50345
75°	57046	42367	46656
80°	43827	36084	42548
85°	25757	28305	35947



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.5	5.2
10°-20°	398.6	14.5
20°-30°	544.6	19.8
30°-40°	546.8	19.9
40°-50°	452.4	16.4
50°-60°	327.8	11.9
60°-70°	207.7	7.5
70°-80°	105.0	3.8
80°-90°	25.7	0.9
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°	1087.7	39.5
0°-40°	1634.6	59.4
0°-60°	2414.8	87.7
0°-90°	2753.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2753.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1542	1542	1542	1542	1542	
5°	1603	1580	1529	1478	1458	154
15°	1627	1563	1413	1282	1230	458
25°	1455	1358	1166	1019	961	665
35°	1065	1001	856	751	713	667
45°	696	657	570	513	495	542
55°	450	410	350	319	306	405
65°	263	234	198	178	185	262
75°	120	103	89	92	98	128
85°	18	18	20	24	25	25
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°	1541.6	1541.6	1541.6	1541.6	1541.6	1541.6	1541.6	1541.6	1541.6
2.5°	1570.6	1565.2	1556.2	1545.2	1532.6	1518.1	1505.4	1498.1	1494.5
5°	1603.3	1596.1	1579.8	1556.2	1529.0	1501.7	1478.1	1463.7	1458.3
7.5°	1623.3	1612.4	1588.8	1552.6	1510.8	1470.9	1436.5	1416.5	1411.1
10°	1625.1	1612.4	1581.6	1532.6	1480.0	1427.4	1385.6	1356.6	1351.2
12.5°	1626.9	1610.6	1572.5	1514.5	1449.1	1383.8	1333.1	1298.7	1289.5
15°	1626.9	1610.6	1563.4	1494.5	1412.9	1338.5	1282.3	1242.4	1229.7
17.5°	1612.4	1594.3	1538.0	1458.3	1369.4	1285.9	1220.6	1178.9	1166.2
20°	1574.3	1554.4	1490.9	1403.8	1307.7	1220.6	1155.3	1111.8	1095.5
22.5°	1519.9	1496.3	1429.2	1334.9	1238.8	1149.9	1086.4	1041.0	1026.6
25°	1454.6	1431.0	1358.5	1266.0	1166.2	1082.8	1019.3	977.6	961.3
27.5°	1374.8	1349.4	1278.7	1186.2	1093.7	1010.2	952.3	914.1	897.8
30°	1284.1	1256.9	1189.8	1100.9	1017.5	937.7	881.4	850.6	832.5
32.5°	1178.9	1155.3	1095.5	1015.7	937.7	861.6	814.4	787.1	772.7
35°	1064.6	1052.0	1001.2	932.3	856.0	792.6	750.9	725.5	712.8
37.5°	963.1	950.3	906.9	848.8	781.7	723.7	689.2	667.4	656.6
40°	867.0	856.0	814.4	765.3	707.4	656.6	627.5	611.3	600.3
42.5°	772.7	767.2	732.7	687.4	636.6	593.1	569.5	556.8	547.8
45°	696.4	689.2	656.6	613.1	569.5	533.2	513.2	504.2	495.2
47.5°	629.3	620.3	585.9	547.8	507.8	475.2	457.1	448.0	444.3
50°	564.1	555.0	524.2	486.1	446.1	422.5	408.1	399.0	397.2
52.5°	506.0	497.0	462.5	426.3	395.4	375.4	362.8	353.6	350.0
55°	449.8	438.9	409.9	375.4	350.0	331.9	319.2	310.2	306.5
57.5°	399.0	388.1	362.8	330.1	306.5	290.2	279.3	270.3	266.7
60°	350.0	341.0	317.4	286.5	266.7	252.1	241.3	233.9	230.3
62.5°	304.7	297.5	273.9	246.7	230.3	217.6	208.6	201.3	205.0
65°	262.9	255.7	233.9	210.4	197.7	185.0	177.8	177.8	185.0
67.5°	223.1	215.8	197.7	177.8	166.8	157.8	152.4	157.8	163.2
70°	186.8	179.6	163.2	146.9	137.8	130.6	130.6	136.0	139.6
72.5°	152.4	145.1	132.4	119.7	112.5	107.0	112.5	116.1	119.7
75°	119.7	114.3	103.4	94.3	88.9	87.1	92.5	96.1	97.9
77.5°	88.9	85.3	77.9	70.7	67.1	68.9	74.3	76.1	77.9
80°	61.7	59.9	54.4	50.8	50.8	52.6	56.2	58.1	59.9
82.5°	38.1	38.1	34.5	32.6	34.5	38.1	39.9	41.7	41.7
85°	18.2	20.0	18.2	18.2	20.0	23.6	23.6	25.4	25.4
87.5°	5.4	5.4	7.2	7.2	9.0	9.0	9.0	9.0	10.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)