

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: P580289

Luminaire Tested: **HC430D010-HM43040830-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580289  
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-HM43040830-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2978.4 lumens  
Efficiency: N/A  
Efficacy: 106.4 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

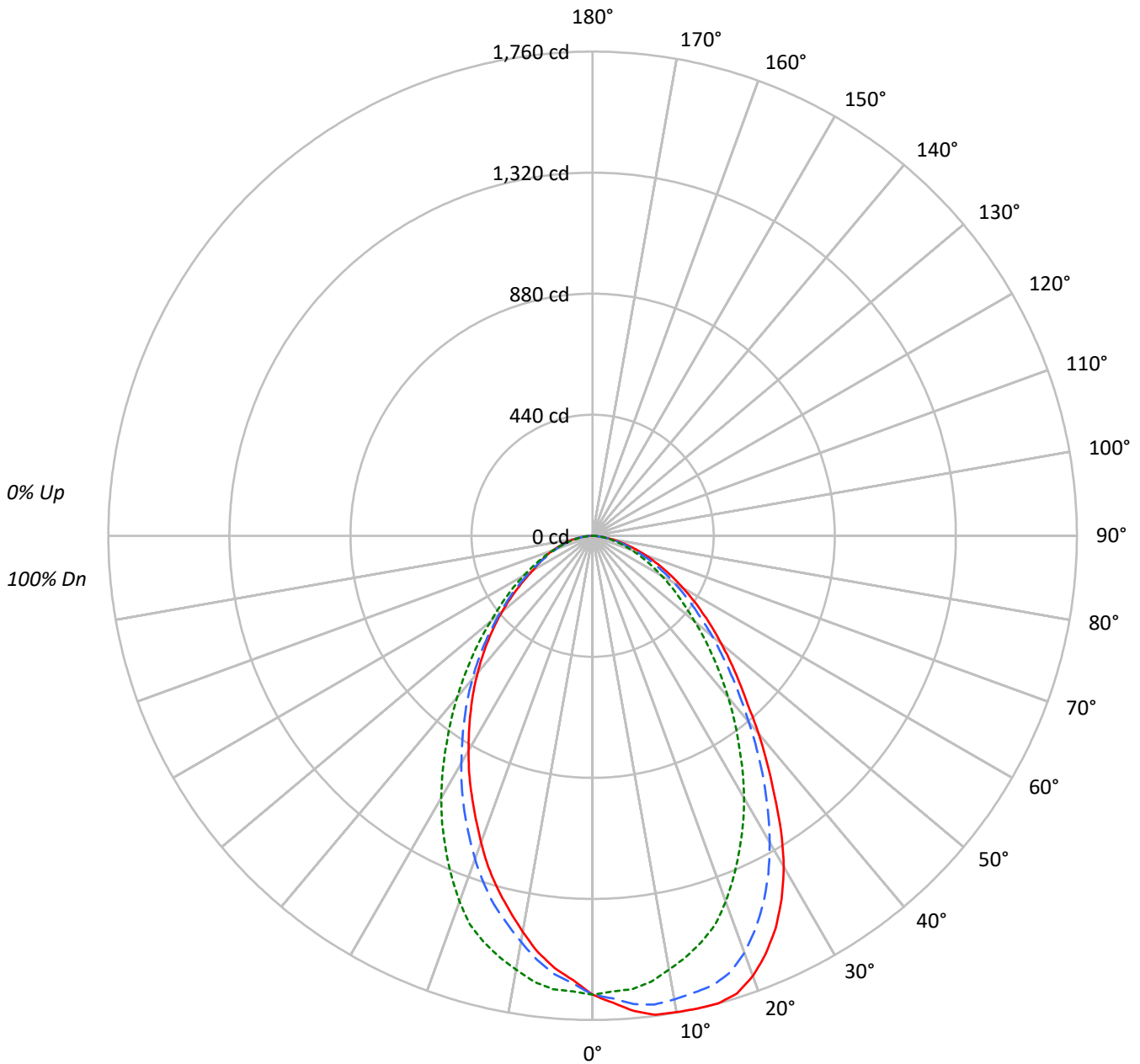
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P580289

CATALOG NUMBER: HC430D010-HM43040830-41WWW

### Luminous Intensity Polar Plot





TEST NUMBER: P580289

CATALOG NUMBER: HC430D010-HM43040830-41WWW

**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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	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	42	37	47	41	37	46	41	37	35				35				
10	59	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°	205728	205728	205728
5°	214773	204805	195333
10°	220199	200548	183101
15°	224759	195197	169888
20°	223565	185696	155571
25°	214176	171713	141541
30°	197860	156784	128284
35°	173435	139465	116110
40°	151017	123210	104580
45°	131438	107471	93446
50°	117092	92626	82475
55°	104642	81438	71309
60°	93422	71146	61475
65°	83034	62429	58401
70°	72885	53771	54456
75°	61716	45798	50469
80°	47378	38997	45958
85°	27739	30427	38919



TEST NUMBER: P580289

CATALOG NUMBER: HC430D010-HM43040830-41WWW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.3	5.2
10°-20°	431.2	14.5
20°-30°	589.2	19.8
30°-40°	591.6	19.9
40°-50°	489.4	16.4
50°-60°	354.7	11.9
60°-70°	224.6	7.5
70°-80°	113.6	3.8
80°-90°	27.8	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°	1176.8	39.5
0°-40°	1768.4	59.4
0°-60°	2612.4	87.7
0°-90°	2978.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2978.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1668	1668	1668	1668	1668	
5°	1735	1709	1654	1599	1578	166
15°	1760	1691	1529	1387	1330	495
25°	1574	1470	1262	1103	1040	719
35°	1152	1083	926	812	771	722
45°	754	710	616	555	536	586
55°	487	443	379	345	332	438
65°	284	253	214	192	200	283
75°	130	112	96	100	106	138
85°	20	20	22	26	28	27
90°	0	0	0	0	0	



TEST NUMBER: P580289

CATALOG NUMBER: HC430D010-HM43040830-41WWW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9
2.5°	1699.3	1693.4	1683.5	1671.8	1658.0	1642.4	1628.6	1620.8	1616.9
5°	1734.6	1726.7	1709.0	1683.5	1654.1	1624.7	1599.2	1583.5	1577.6
7.5°	1756.2	1744.5	1718.8	1679.7	1634.5	1591.4	1554.0	1532.5	1526.6
10°	1758.1	1744.5	1711.1	1658.0	1601.2	1544.2	1499.1	1467.8	1461.9
12.5°	1760.1	1742.4	1701.2	1638.4	1567.8	1497.2	1442.3	1404.9	1395.1
15°	1760.1	1742.4	1691.4	1616.9	1528.6	1448.1	1387.3	1344.1	1330.4
17.5°	1744.5	1724.8	1663.9	1577.6	1481.5	1391.2	1320.5	1275.4	1261.7
20°	1703.2	1681.6	1612.9	1518.7	1414.7	1320.5	1249.9	1202.8	1185.2
22.5°	1644.3	1618.8	1546.3	1444.2	1340.2	1244.1	1175.4	1126.3	1110.6
25°	1573.7	1548.2	1469.7	1369.6	1261.7	1171.4	1102.7	1057.6	1040.0
27.5°	1487.4	1459.9	1383.4	1283.3	1183.2	1092.9	1030.2	988.9	971.3
30°	1389.2	1359.8	1287.2	1191.1	1100.8	1014.4	953.6	920.2	900.7
32.5°	1275.4	1249.9	1185.2	1098.8	1014.4	932.1	881.1	851.6	835.8
35°	1151.8	1138.0	1083.1	1008.5	926.2	857.5	812.4	784.9	771.1
37.5°	1041.9	1028.2	981.1	918.3	845.7	782.9	745.6	722.1	710.3
40°	937.9	926.2	881.1	828.1	765.2	710.3	678.9	661.2	649.5
42.5°	835.8	830.0	792.8	743.7	688.8	641.6	616.1	602.4	592.5
45°	753.5	745.6	710.3	663.3	616.1	576.9	555.3	545.5	535.7
47.5°	680.9	671.0	633.8	592.5	549.4	514.1	494.5	484.7	480.8
50°	610.2	600.4	567.0	525.9	482.7	457.2	441.5	431.7	429.8
52.5°	547.4	537.6	500.4	461.1	427.7	406.2	392.4	382.6	378.7
55°	486.6	474.9	443.4	406.2	378.7	359.0	345.4	335.6	331.6
57.5°	431.7	420.0	392.4	357.1	331.6	313.9	302.2	292.4	288.4
60°	378.7	368.9	343.4	310.0	288.4	272.8	261.0	253.1	249.2
62.5°	329.6	321.8	296.3	266.9	249.2	235.4	225.6	217.8	221.8
65°	284.5	276.7	253.1	227.6	213.9	200.1	192.3	192.3	200.1
67.5°	241.4	233.5	213.9	192.3	180.5	170.7	164.8	170.7	176.6
70°	202.1	194.2	176.6	158.9	149.1	141.2	141.2	147.2	151.0
72.5°	164.8	157.0	143.3	129.5	121.7	115.7	121.7	125.5	129.5
75°	129.5	123.6	111.9	102.1	96.1	94.2	100.1	104.0	105.9
77.5°	96.1	92.3	84.4	76.5	72.6	74.6	80.4	82.5	84.4
80°	66.7	64.7	58.9	54.9	54.9	56.9	60.8	62.8	64.7
82.5°	41.2	41.2	37.3	35.3	37.3	41.2	43.2	45.1	45.1
85°	19.6	21.5	19.6	19.6	21.5	25.5	25.5	27.5	27.5
87.5°	5.9	5.9	7.9	7.9	9.8	9.8	9.8	9.8	11.7
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)