

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: P592939

Luminaire Tested: **HC455D010-HM44560950-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592939  
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: HC455D010-HM44560950-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

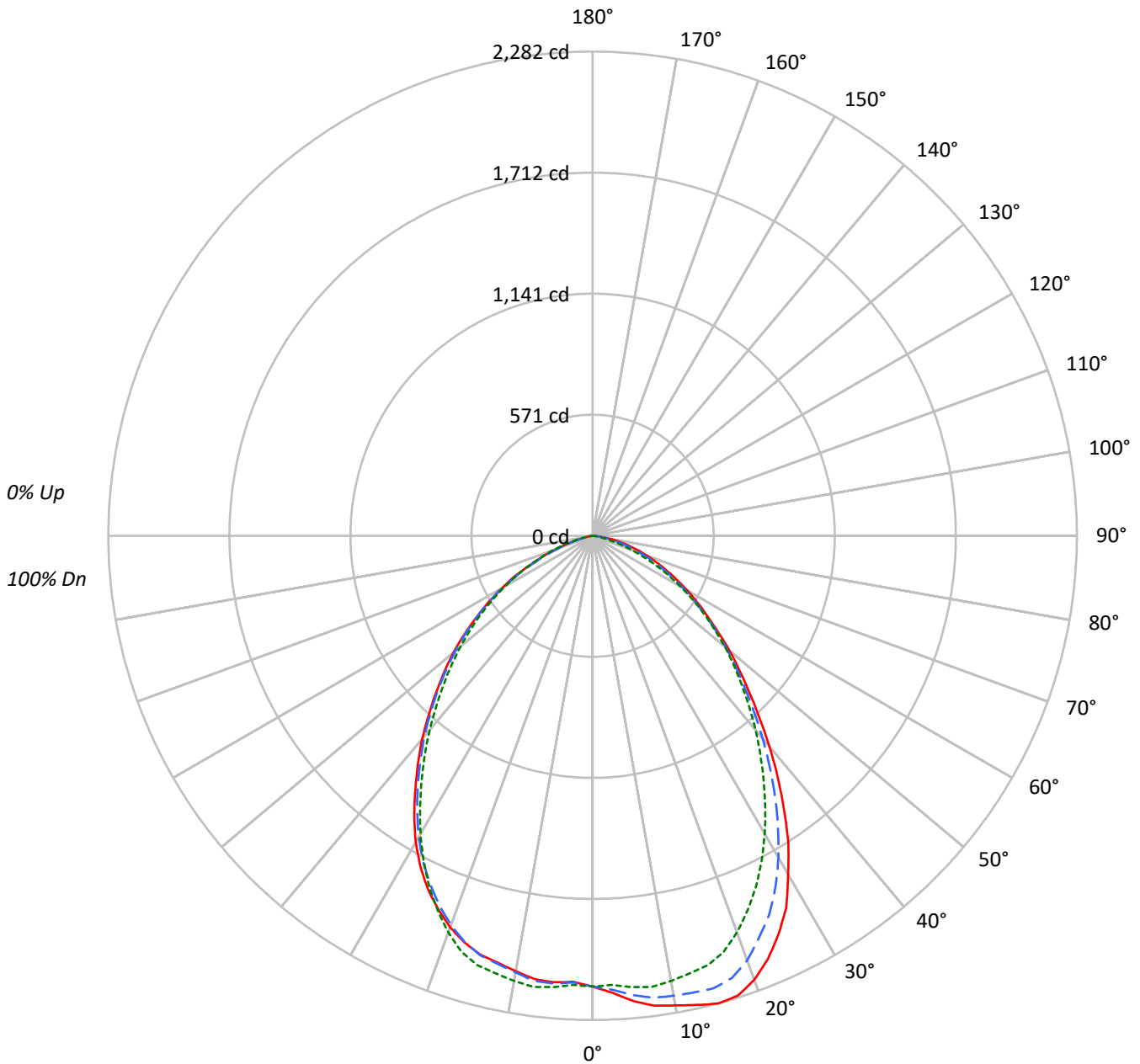
Lumens per Lamp: N/A  
Luminaire Lumens: 4426.5 lumens  
Efficiency: N/A  
Efficacy: 85.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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: P592939

CATALOG NUMBER: HC455D010-HM44560950-41RWWC

### Luminous Intensity Polar Plot





TEST NUMBER: P592939

CATALOG NUMBER: HC455D010-HM44560950-41RWWC

**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	100	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88	88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76	76	76	76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67	67	67	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46	46	46	46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41	41	41	41
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37	37	37	37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34	34	34	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31	31	31	31

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

	0°	90°	180°
0°	262011	262011	262011
5°	272595	264436	261575
10°	281508	266779	261018
15°	291417	267576	260987
20°	292385	261106	257732
25°	282061	248064	250024
30°	262479	230989	237540
35°	236436	211365	219135
40°	208452	192270	201045
45°	182269	173251	181763
50°	161381	155893	164144
55°	141995	137651	143221
60°	126750	117573	121076
65°	111432	95526	93833
70°	97300	70397	64194
75°	80683	42415	34218
80°	61158	16337	10229
85°	28446	4104	4104



TEST NUMBER: P592939

CATALOG NUMBER: HC455D010-HM44560950-41RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.9	4.6
10°-20°	597.9	13.5
20°-30°	865.9	19.6
30°-40°	913.5	20.6
40°-50°	790.6	17.9
50°-60°	585.7	13.2
60°-70°	337.6	7.6
70°-80°	117.9	2.7
80°-90°	12.4	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°	1668.7	37.7
0°-40°	2582.2	58.3
0°-60°	3958.5	89.4
0°-90°	4426.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4426.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2124	2124	2124	2124	2124	
5°	2202	2173	2136	2118	2113	211
15°	2282	2207	2095	2047	2044	642
25°	2072	1969	1823	1811	1837	949
35°	1570	1498	1404	1435	1455	981
45°	1045	1016	993	1030	1042	811
55°	660	646	640	663	666	595
65°	382	359	327	310	322	381
75°	169	144	89	72	72	182
85°	20	12	3	3	3	31
90°	0	0	0	0	0	



TEST NUMBER: P592939

CATALOG NUMBER: HC455D010-HM44560950-41RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2124.2	2124.2	2124.2	2124.2	2124.2	2124.2	2124.2	2124.2	2124.2
2.5°	2155.7	2150.0	2141.4	2130.0	2118.4	2109.8	2106.9	2104.1	2104.1
5°	2201.6	2190.2	2172.9	2150.0	2135.7	2127.0	2118.4	2112.6	2112.6
7.5°	2233.2	2221.8	2195.9	2164.4	2144.2	2127.0	2115.6	2106.9	2106.9
10°	2247.6	2233.2	2201.6	2161.5	2130.0	2106.9	2089.7	2084.0	2084.0
12.5°	2264.8	2247.6	2204.5	2152.9	2112.6	2084.0	2066.7	2061.0	2061.0
15°	2282.1	2261.9	2207.4	2147.2	2095.4	2061.0	2046.7	2043.8	2043.8
17.5°	2273.4	2247.6	2184.4	2112.6	2055.3	2020.8	2006.4	2006.4	2009.4
20°	2227.5	2201.6	2130.0	2049.5	1989.2	1963.5	1952.0	1957.7	1963.5
22.5°	2158.6	2127.0	2049.5	1972.0	1908.9	1886.0	1886.0	1894.5	1903.2
25°	2072.5	2043.8	1969.2	1883.0	1822.7	1805.5	1811.2	1825.6	1837.1
27.5°	1974.9	1943.3	1865.8	1785.5	1725.2	1716.5	1730.9	1751.0	1756.8
30°	1842.9	1817.0	1751.0	1673.6	1621.8	1619.0	1639.0	1653.4	1667.8
32.5°	1716.5	1687.8	1624.7	1550.0	1512.8	1515.6	1538.6	1555.8	1564.4
35°	1570.2	1544.3	1498.4	1438.1	1403.7	1409.4	1435.3	1452.5	1455.3
37.5°	1432.4	1415.1	1369.2	1323.3	1297.5	1308.9	1331.9	1352.0	1352.0
40°	1294.6	1280.2	1245.8	1208.5	1194.1	1208.5	1231.4	1248.6	1248.6
42.5°	1162.6	1153.9	1125.2	1099.4	1090.8	1110.9	1131.0	1145.4	1142.4
45°	1044.9	1036.2	1016.2	996.1	993.2	1013.3	1030.5	1039.2	1042.0
47.5°	938.7	933.0	915.6	901.4	901.4	921.4	935.8	944.4	947.2
50°	841.0	835.3	820.9	809.4	812.4	832.5	844.0	852.5	855.4
52.5°	743.5	740.6	729.1	714.7	723.4	737.7	752.1	757.8	760.7
55°	660.3	660.3	645.9	634.4	640.1	654.5	663.1	666.0	666.0
57.5°	585.6	582.8	565.5	554.1	556.9	571.3	577.0	579.8	579.8
60°	513.8	511.0	493.8	476.6	476.6	485.1	488.0	490.8	490.8
62.5°	444.9	442.0	422.0	407.6	401.8	399.0	399.0	404.8	416.2
65°	381.8	378.9	358.8	335.8	327.3	318.6	310.0	315.8	321.5
67.5°	324.3	318.6	298.6	278.4	258.3	244.0	229.6	238.3	249.8
70°	269.8	264.0	241.1	218.1	195.2	172.2	160.8	172.2	178.0
72.5°	218.1	212.4	189.5	166.5	137.8	114.9	111.9	114.9	117.7
75°	169.3	166.5	143.5	117.7	89.0	71.8	71.8	71.8	71.8
77.5°	126.3	120.6	97.6	74.6	51.6	40.2	37.4	37.4	37.4
80°	86.1	80.3	60.3	43.1	23.0	17.2	17.2	14.4	14.4
82.5°	48.8	45.9	31.6	17.2	8.7	5.7	5.7	5.7	5.7
85°	20.1	17.2	11.5	5.7	2.9	2.9	2.9	2.9	2.9
87.5°	2.9	2.9	2.9	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



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)