

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: P581134

Luminaire Tested: **HC455D010-HM44560827-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581134
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560827-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3584.3 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

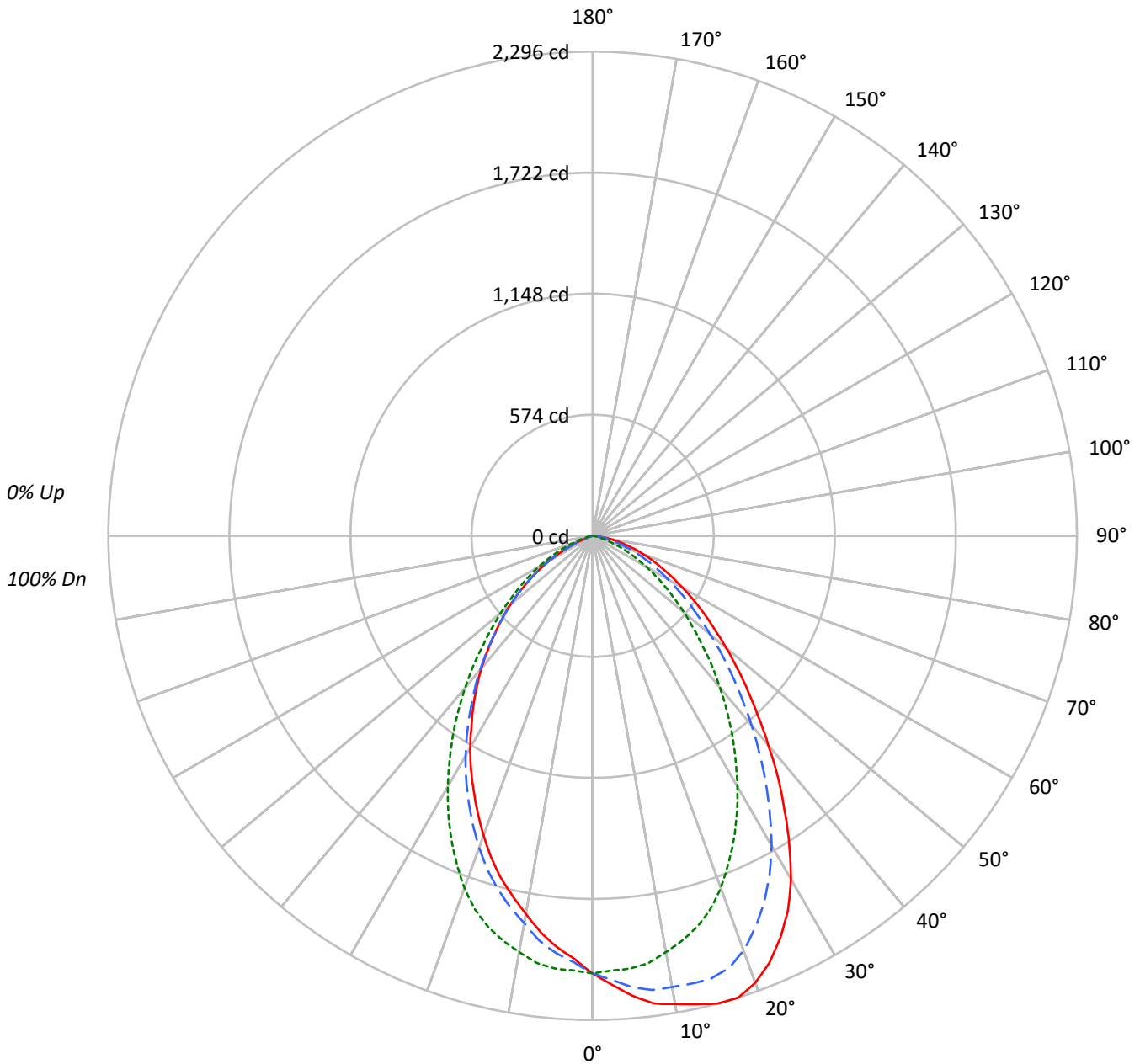
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	255955	255955	255955
5°	271196	255100	242309
10°	282460	251035	228115
15°	293256	245012	214467
20°	296021	233239	198376
25°	286429	215727	181580
30°	267806	195496	165230
35°	238680	173781	148469
40°	208661	151146	132130
45°	181763	128211	114309
50°	158599	108764	97980
55°	139006	90148	79352
60°	121619	72823	58244
65°	105945	54286	32747
70°	92612	35126	10639
75°	75965	18300	2812
80°	56541	8382	2060
85°	33399	4104	4104



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.9	5.5
10°-20°	548.1	15.3
20°-30°	757.9	21.1
30°-40°	762.0	21.3
40°-50°	614.9	17.2
50°-60°	415.8	11.6
60°-70°	211.6	5.9
70°-80°	67.7	1.9
80°-90°	10.4	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°	1501.8	41.9
0°-40°	2263.9	63.2
0°-60°	3294.6	91.9
0°-90°	3584.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3584.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2075	2075	2075	2075	2075	
5°	2190	2149	2060	1986	1957	211
15°	2296	2172	1919	1736	1680	647
25°	2105	1922	1585	1390	1334	963
35°	1585	1432	1154	1010	986	990
45°	1042	933	735	655	655	807
55°	646	558	419	366	369	581
65°	363	295	186	121	112	364
75°	159	112	38	9	6	172
85°	24	12	3	3	3	32
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°	2075.1	2075.1	2075.1	2075.1	2075.1	2075.1	2075.1	2075.1	2075.1
2.5°	2131.2	2119.4	2107.6	2086.9	2063.2	2039.7	2024.9	2013.1	2007.2
5°	2190.3	2175.4	2148.9	2104.6	2060.3	2019.0	1986.5	1965.9	1957.0
7.5°	2237.4	2216.8	2172.5	2110.5	2042.7	1977.8	1936.4	1906.9	1895.1
10°	2255.2	2231.5	2172.5	2089.9	2004.3	1924.5	1865.5	1836.0	1821.3
12.5°	2275.9	2249.2	2175.4	2072.1	1965.9	1871.4	1803.5	1765.1	1750.4
15°	2296.5	2261.0	2172.5	2045.6	1918.7	1809.4	1735.6	1697.3	1679.5
17.5°	2296.5	2255.2	2148.9	2001.3	1856.7	1741.5	1658.9	1614.6	1599.9
20°	2255.2	2207.9	2092.8	1930.5	1776.9	1653.0	1573.3	1529.0	1511.3
22.5°	2190.3	2137.0	2013.1	1844.9	1682.6	1561.5	1481.9	1440.4	1422.8
25°	2104.6	2051.4	1921.6	1747.5	1585.1	1464.1	1390.3	1351.9	1334.2
27.5°	2004.3	1945.2	1815.3	1641.2	1481.9	1366.6	1298.8	1263.4	1248.6
30°	1880.3	1824.2	1697.3	1526.1	1372.6	1266.3	1204.3	1171.9	1160.1
32.5°	1735.6	1688.4	1564.4	1405.0	1260.4	1163.0	1106.9	1080.3	1068.5
35°	1585.1	1540.8	1431.6	1284.1	1154.1	1062.7	1009.5	991.8	986.0
37.5°	1443.4	1405.0	1298.8	1163.0	1044.9	965.2	918.0	906.2	900.3
40°	1295.9	1269.2	1171.9	1047.9	938.7	867.8	829.5	820.6	820.6
42.5°	1163.0	1133.4	1047.9	935.7	838.4	767.5	740.9	732.0	735.0
45°	1042.0	1012.5	932.7	829.5	735.0	676.0	655.3	655.3	655.3
47.5°	929.8	903.3	829.5	723.2	646.4	599.2	578.6	578.6	581.5
50°	826.5	808.8	726.2	634.6	566.8	522.4	507.7	504.8	510.6
52.5°	729.1	708.4	634.6	552.0	487.0	451.6	436.8	433.9	436.8
55°	646.4	622.8	557.9	478.2	419.2	383.7	366.1	363.0	369.0
57.5°	566.8	549.0	481.2	410.3	354.3	318.8	304.1	298.1	301.0
60°	493.0	475.2	413.2	345.4	295.2	259.8	239.1	233.2	236.1
62.5°	425.0	410.3	351.2	286.3	236.1	203.6	183.0	168.3	174.2
65°	363.0	348.3	295.2	230.3	186.0	150.5	121.0	109.2	112.2
67.5°	309.9	292.3	242.1	183.0	138.7	100.4	67.8	62.0	62.0
70°	256.8	239.1	194.8	141.6	97.4	53.1	29.5	29.5	29.5
72.5°	206.7	191.8	150.5	106.3	62.0	23.6	11.8	11.8	11.8
75°	159.4	147.6	112.2	73.8	38.4	11.8	8.9	5.9	5.9
77.5°	118.1	106.3	79.6	50.2	23.6	5.9	5.9	5.9	5.9
80°	79.6	70.9	53.1	29.5	11.8	2.9	2.9	2.9	2.9
82.5°	47.2	41.3	29.5	14.7	5.9	2.9	2.9	2.9	2.9
85°	23.6	17.7	11.8	5.9	2.9	2.9	2.9	2.9	2.9
87.5°	5.9	2.9	2.9	2.9	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



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







(END OF REPORT)