

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: P581135

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581135
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: HC455D010-HM44560827-41WWW
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: 4481.9 lumens
Efficiency: N/A
Efficacy: 86.2 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

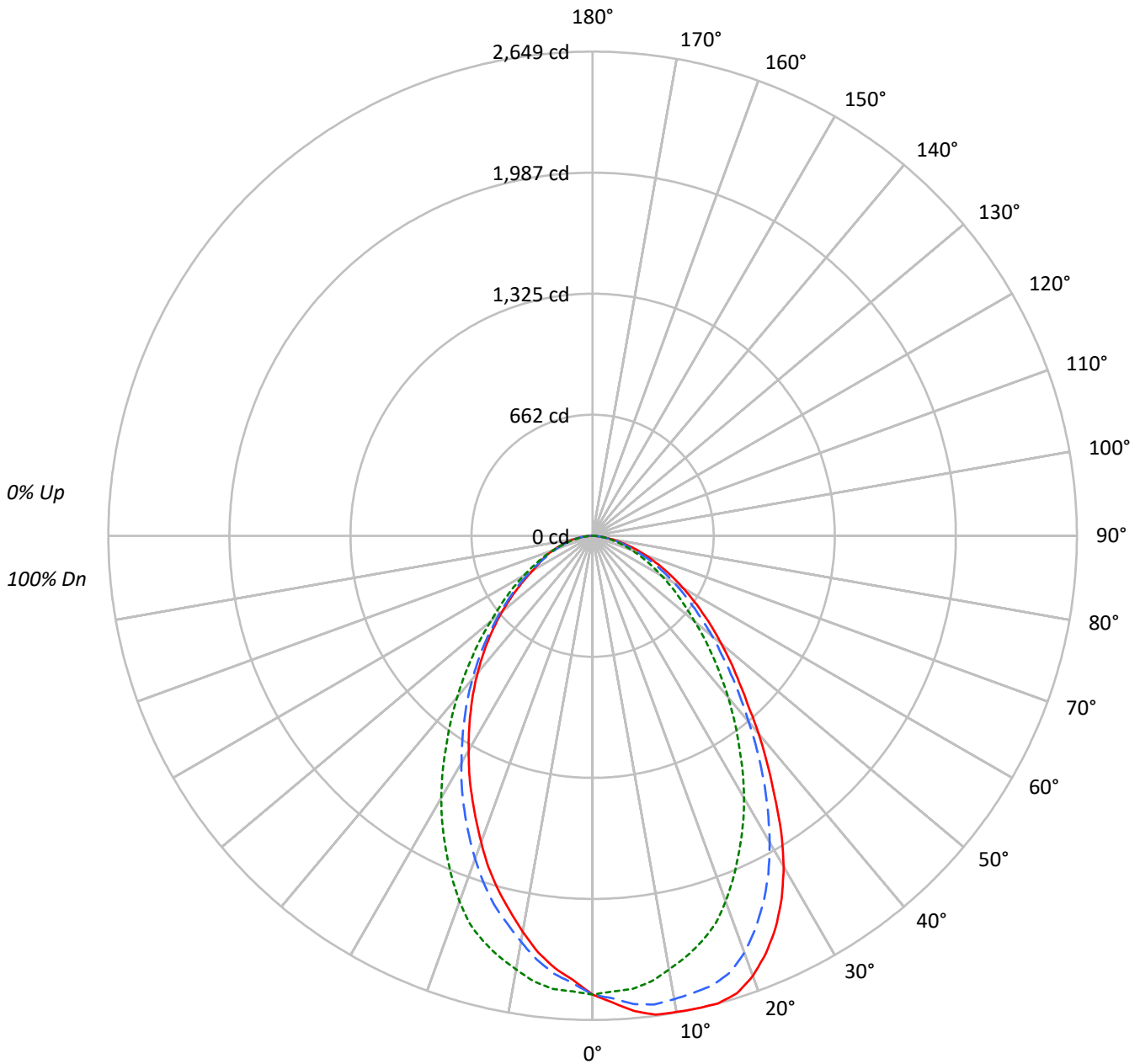
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	309573	309573	309573
5°	323174	308192	293941
10°	331345	301774	275509
15°	338218	293728	255636
20°	336411	279430	234092
25°	322277	258393	212978
30°	297744	235917	193032
35°	260980	209844	174730
40°	227258	185426	157361
45°	197777	161721	140614
50°	176195	139371	124077
55°	157479	122534	107308
60°	140565	107064	92509
65°	124975	93950	87908
70°	109670	80927	82009
75°	92836	68960	75965
80°	71316	58743	69185
85°	41749	45995	58449



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.3	5.2
10°-20°	648.9	14.5
20°-30°	886.6	19.8
30°-40°	890.2	19.9
40°-50°	736.4	16.4
50°-60°	533.7	11.9
60°-70°	338.0	7.5
70°-80°	170.9	3.8
80°-90°	41.8	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°	1770.7	39.5
0°-40°	2661.0	59.4
0°-60°	3931.1	87.7
0°-90°	4481.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4481.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2510	2510	2510	2510	2510	
5°	2610	2572	2489	2406	2374	250
15°	2649	2545	2300	2088	2002	745
25°	2368	2212	1899	1659	1565	1082
35°	1733	1630	1394	1222	1160	1086
45°	1134	1069	927	836	806	882
55°	732	667	570	520	499	659
65°	428	381	322	289	301	426
75°	195	168	145	151	159	208
85°	30	30	32	38	41	41
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°	2509.8	2509.8	2509.8	2509.8	2509.8	2509.8	2509.8	2509.8	2509.8
2.5°	2557.0	2548.1	2533.4	2515.6	2495.0	2471.4	2450.7	2438.9	2433.0
5°	2610.1	2598.3	2571.8	2533.4	2489.1	2444.8	2406.4	2382.8	2374.0
7.5°	2642.6	2625.0	2586.5	2527.4	2459.6	2394.6	2338.5	2306.0	2297.1
10°	2645.5	2625.0	2574.7	2495.0	2409.4	2323.7	2255.8	2208.6	2199.7
12.5°	2648.6	2621.9	2559.9	2465.4	2359.1	2252.9	2170.2	2114.1	2099.4
15°	2648.6	2621.9	2545.2	2433.0	2300.2	2179.0	2087.5	2022.5	2001.9
17.5°	2625.0	2595.4	2503.8	2374.0	2229.3	2093.4	1987.1	1919.2	1898.6
20°	2562.9	2530.5	2427.1	2285.3	2128.8	1987.1	1880.9	1810.0	1783.4
22.5°	2474.3	2436.0	2326.7	2173.2	2016.7	1872.0	1768.6	1694.8	1671.2
25°	2368.0	2329.6	2211.5	2061.0	1898.6	1762.8	1659.4	1591.5	1564.9
27.5°	2238.1	2196.8	2081.6	1931.1	1780.4	1644.6	1550.1	1488.1	1461.6
30°	2090.5	2046.2	1936.9	1792.2	1656.4	1526.5	1434.9	1384.8	1355.3
32.5°	1919.2	1880.9	1783.4	1653.5	1526.5	1402.5	1325.7	1281.5	1257.9
35°	1733.2	1712.6	1629.9	1517.6	1393.6	1290.3	1222.4	1181.0	1160.4
37.5°	1567.9	1547.2	1476.3	1381.8	1272.6	1178.1	1122.0	1086.5	1068.9
40°	1411.4	1393.6	1325.7	1246.0	1151.6	1068.9	1021.6	995.1	977.3
42.5°	1257.9	1249.0	1192.8	1119.0	1036.4	965.5	927.1	906.4	891.7
45°	1133.8	1122.0	1068.9	998.0	927.1	868.0	835.6	820.8	806.1
47.5°	1024.5	1009.8	953.7	891.7	826.8	773.6	744.1	729.3	723.4
50°	918.2	903.5	853.3	791.3	726.3	687.9	664.3	649.6	646.6
52.5°	823.8	809.0	753.0	693.9	643.7	611.2	590.5	575.8	569.8
55°	732.3	714.5	667.4	611.2	569.8	540.3	519.6	504.9	499.0
57.5°	649.6	631.9	590.5	537.4	499.0	472.4	454.7	440.0	434.0
60°	569.8	555.1	516.7	466.5	434.0	410.4	392.7	380.9	375.0
62.5°	496.0	484.2	445.8	401.5	375.0	354.4	339.5	327.7	333.7
65°	428.2	416.4	380.9	342.6	321.9	301.2	289.3	289.3	301.2
67.5°	363.2	351.3	321.9	289.3	271.7	256.8	248.1	256.8	265.7
70°	304.1	292.3	265.7	239.2	224.4	212.6	212.6	221.4	227.4
72.5°	248.1	236.2	215.6	194.8	183.0	174.3	183.0	189.0	194.8
75°	194.8	186.0	168.3	153.6	144.7	141.8	150.6	156.5	159.4
77.5°	144.7	138.8	127.0	115.2	109.2	112.2	121.0	124.0	127.0
80°	100.4	97.4	88.5	82.7	82.7	85.6	91.6	94.5	97.4
82.5°	62.0	62.0	56.1	53.1	56.1	62.0	64.9	68.0	68.0
85°	29.5	32.5	29.5	29.5	32.5	38.4	38.4	41.3	41.3
87.5°	8.9	8.9	11.8	11.8	14.7	14.7	14.7	14.7	17.7
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)