

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: P581352

Luminaire Tested: **HC460D010-HM44560927-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581352
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC460D010-HM44560927-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4022.5 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

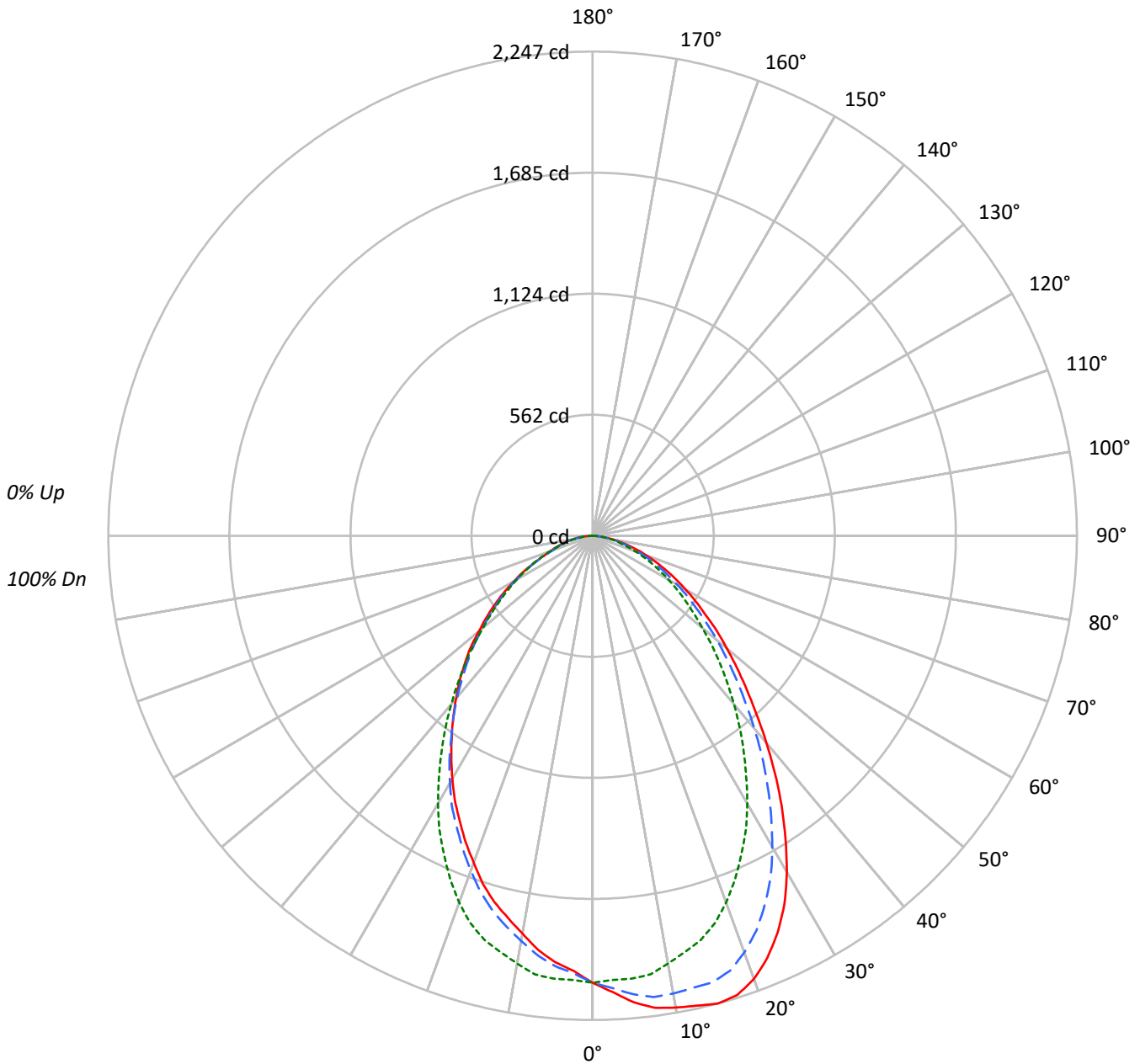
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46																			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	255844	255844	255844
5°	269004	255508	245937
10°	278465	252451	234778
15°	286960	247872	224746
20°	287292	237662	211791
25°	276481	222137	198579
30°	256725	204412	185455
35°	230127	184020	171598
40°	201931	164204	158633
45°	176495	145376	146300
50°	155816	127224	131830
55°	137415	112792	118512
60°	122828	99836	103783
65°	108806	87792	87792
70°	95064	74905	74905
75°	81208	63432	71057
80°	64355	56755	64355
85°	41466	48967	60289



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.5	4.9
10°-20°	553.4	13.8
20°-30°	775.3	19.3
30°-40°	798.8	19.9
40°-50°	680.1	16.9
50°-60°	503.9	12.5
60°-70°	316.2	7.9
70°-80°	157.1	3.9
80°-90°	41.2	1.0
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°	1525.2	37.9
0°-40°	2324.0	57.8
0°-60°	3507.9	87.2
0°-90°	4022.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4022.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2074	2074	2074	2074	2074	
5°	2173	2135	2064	2005	1986	209
15°	2247	2146	1941	1800	1760	632
25°	2032	1890	1632	1491	1459	929
35°	1528	1414	1222	1142	1140	953
45°	1012	943	833	818	839	785
55°	639	588	524	535	551	578
65°	373	336	301	296	301	372
75°	170	152	133	144	149	182
85°	29	29	35	40	43	38
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°	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2
2.5°	2119.4	2111.4	2100.8	2082.2	2063.6	2047.5	2031.5	2023.5	2020.9
5°	2172.6	2156.7	2135.4	2100.8	2063.6	2031.5	2004.9	1991.6	1986.3
7.5°	2210.0	2194.0	2159.3	2106.1	2052.8	2004.9	1962.4	1943.7	1938.4
10°	2223.3	2204.7	2156.7	2084.8	2015.6	1957.0	1909.0	1885.1	1874.5
12.5°	2233.9	2210.0	2148.7	2063.6	1978.3	1906.4	1855.8	1823.9	1815.9
15°	2247.2	2220.6	2146.0	2042.2	1941.1	1855.8	1799.9	1770.6	1760.0
17.5°	2233.9	2204.7	2116.8	1999.6	1885.1	1791.9	1730.7	1704.1	1693.5
20°	2188.7	2156.7	2058.1	1933.1	1810.6	1714.7	1653.4	1626.8	1613.5
22.5°	2119.4	2084.8	1983.6	1850.5	1725.4	1632.2	1573.6	1546.9	1538.9
25°	2031.5	1996.9	1890.4	1754.6	1632.2	1541.6	1491.1	1467.1	1459.1
27.5°	1927.8	1893.1	1789.2	1656.1	1538.9	1453.8	1413.8	1389.9	1384.5
30°	1802.5	1767.9	1666.7	1544.3	1435.2	1355.3	1323.3	1304.6	1302.1
32.5°	1664.1	1634.8	1541.6	1429.9	1326.0	1259.4	1235.5	1222.1	1219.5
35°	1528.3	1496.4	1413.8	1312.7	1222.1	1163.5	1142.2	1139.6	1139.6
37.5°	1389.9	1357.9	1291.3	1198.2	1121.0	1067.7	1059.8	1062.4	1062.4
40°	1254.1	1224.8	1166.2	1089.0	1019.8	979.8	977.2	982.5	985.2
42.5°	1126.3	1102.3	1049.0	982.5	923.9	892.0	894.6	905.3	913.2
45°	1011.8	990.5	942.6	884.0	833.4	809.5	817.5	830.8	838.7
47.5°	907.9	889.3	844.1	790.8	748.2	732.2	742.9	758.8	769.5
50°	812.0	796.1	753.5	697.6	663.0	652.3	665.6	681.7	687.0
52.5°	726.9	710.9	665.6	617.7	591.1	585.8	599.1	612.4	620.4
55°	639.0	625.7	588.5	545.8	524.5	521.8	535.2	545.8	551.1
57.5°	567.2	553.8	519.2	481.9	463.3	460.7	474.0	481.9	484.6
60°	497.9	484.6	452.7	418.0	404.7	404.7	412.7	418.0	420.7
62.5°	434.1	420.7	391.4	362.1	351.5	351.5	351.5	354.1	362.1
65°	372.8	362.1	335.5	308.8	300.8	295.5	295.5	295.5	300.8
67.5°	316.9	306.3	284.9	260.9	252.9	245.0	242.3	247.6	247.6
70°	263.6	255.6	234.3	215.7	207.7	199.7	197.1	207.7	207.7
72.5°	215.7	207.7	194.4	175.7	167.7	165.0	170.4	175.7	178.4
75°	170.4	162.4	151.7	141.1	133.1	135.8	143.8	146.4	149.1
77.5°	127.8	125.1	114.5	106.5	106.5	109.2	114.5	119.8	122.5
80°	90.6	87.9	82.6	77.3	79.9	85.2	87.9	93.2	90.6
82.5°	55.9	55.9	53.2	53.2	55.9	61.3	64.0	66.6	69.3
85°	29.3	29.3	29.3	31.9	34.6	37.2	39.9	42.6	42.6
87.5°	8.0	10.6	10.6	13.3	16.0	16.0	18.6	18.6	18.6
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)