

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: P592976

Luminaire Tested: **HC460D010-HM44560950-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592976
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC460D010-HM44560950-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4581.4 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

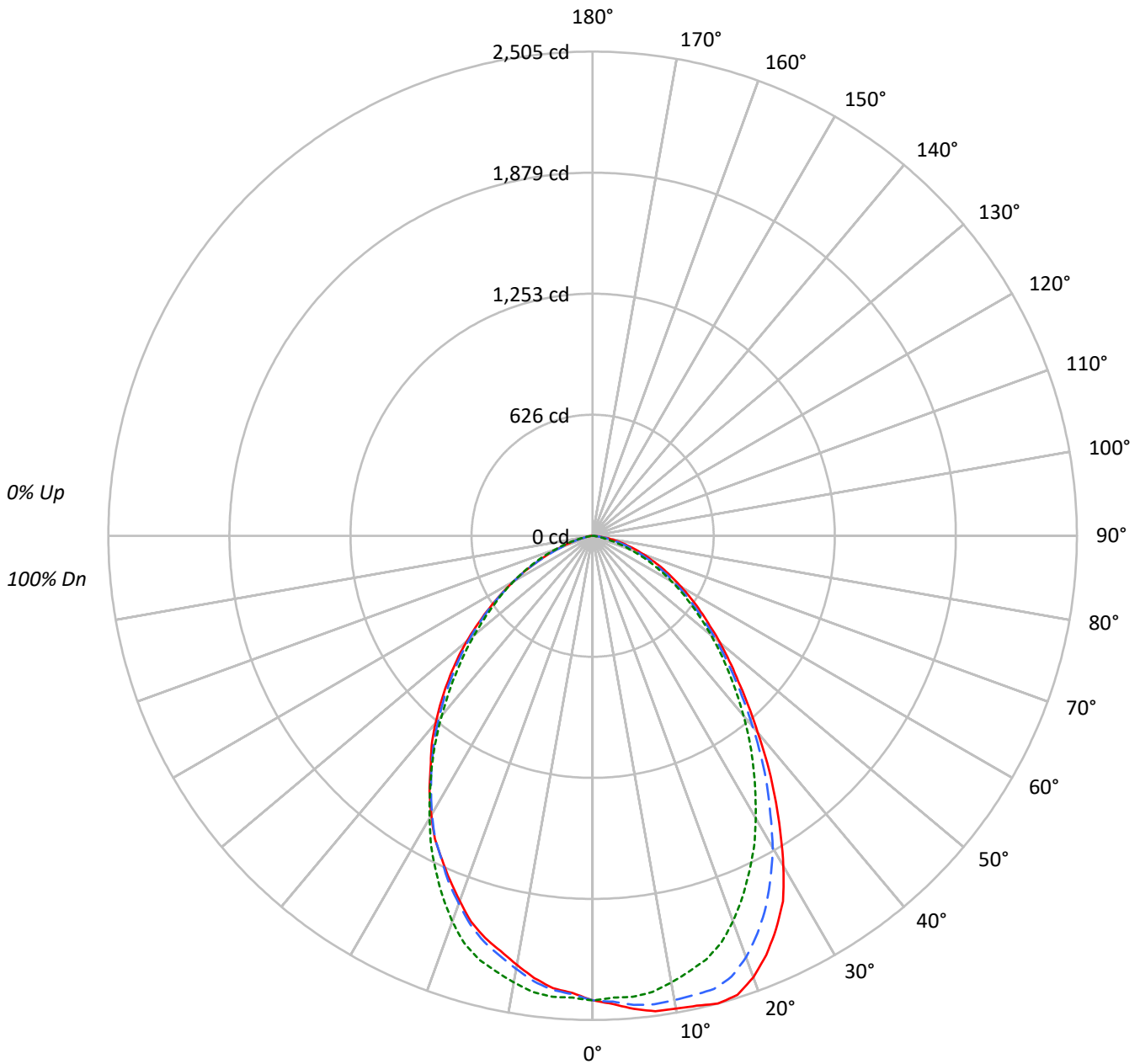
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				100															
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88															
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77															
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67															
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59															
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52															
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47															
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	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	41	37	47	41	37	46	41	37	35				35															
10	58	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°	296486	296486	296486
5°	304255	296492	290945
10°	311142	293946	282348
15°	319906	289782	274906
20°	319032	278669	263770
25°	305592	260884	251140
30°	281109	240275	237725
35°	247293	218051	219858
40°	213942	195200	203364
45°	185950	173443	183857
50°	165027	152995	163300
55°	146382	134189	139995
60°	130376	116364	116364
65°	115927	96723	90623
70°	100149	73210	64590
75°	83972	48372	39841
80°	63645	23298	21239
85°	33824	8491	8491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.6	5.0
10°-20°	645.3	14.1
20°-30°	910.1	19.9
30°-40°	940.2	20.5
40°-50°	797.0	17.4
50°-60°	579.9	12.7
60°-70°	338.8	7.4
70°-80°	125.9	2.7
80°-90°	16.5	0.4
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°	1783.1	38.9
0°-40°	2723.3	59.4
0°-60°	4100.1	89.5
0°-90°	4581.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4581.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2404	2404	2404	2404	2404	
5°	2457	2436	2395	2359	2350	235
15°	2505	2428	2269	2174	2153	704
25°	2245	2120	1917	1848	1845	1027
35°	1642	1571	1448	1451	1460	1026
45°	1066	1036	994	1030	1054	830
55°	681	648	624	645	651	612
65°	397	364	331	310	310	394
75°	176	146	102	81	84	189
85°	24	15	6	6	6	33
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°	2403.7	2403.7	2403.7	2403.7	2403.7	2403.7	2403.7	2403.7	2403.7
2.5°	2424.5	2418.5	2412.6	2403.7	2391.7	2382.7	2373.8	2367.8	2367.8
5°	2457.3	2448.4	2436.5	2415.6	2394.6	2376.8	2358.9	2349.8	2349.8
7.5°	2481.3	2469.3	2445.4	2415.6	2379.7	2352.9	2326.0	2314.1	2308.1
10°	2484.2	2472.4	2439.4	2394.6	2346.9	2305.1	2275.3	2257.4	2254.3
12.5°	2490.2	2475.3	2433.4	2370.8	2308.1	2257.4	2224.5	2206.6	2200.6
15°	2505.2	2484.2	2427.6	2346.9	2269.3	2209.5	2173.8	2158.8	2152.8
17.5°	2490.2	2460.4	2391.7	2296.2	2209.5	2143.9	2108.0	2093.1	2093.1
20°	2430.5	2400.6	2320.1	2215.5	2123.0	2060.3	2024.4	2015.5	2009.5
22.5°	2346.9	2314.1	2227.5	2117.0	2024.4	1967.7	1943.8	1931.8	1928.9
25°	2245.4	2212.6	2120.0	2006.5	1916.9	1869.2	1848.2	1848.2	1845.3
27.5°	2131.9	2090.1	1994.5	1896.1	1809.4	1773.7	1764.6	1764.6	1767.7
30°	1973.7	1943.8	1863.2	1767.7	1687.0	1663.1	1663.1	1669.1	1669.1
32.5°	1803.4	1782.6	1711.0	1627.3	1564.6	1549.6	1555.6	1567.6	1570.6
35°	1642.3	1618.3	1570.6	1496.0	1448.1	1442.1	1451.2	1460.1	1460.1
37.5°	1484.0	1460.1	1427.3	1367.6	1331.7	1334.6	1346.6	1358.6	1367.6
40°	1328.7	1310.8	1286.9	1239.1	1212.3	1224.2	1239.1	1251.1	1263.0
42.5°	1191.4	1173.5	1155.5	1119.7	1101.8	1116.7	1134.7	1146.6	1158.6
45°	1066.0	1054.0	1036.1	1006.3	994.3	1009.2	1030.1	1042.0	1054.0
47.5°	958.5	952.5	928.6	901.7	895.7	910.7	928.6	943.6	952.5
50°	860.0	851.0	830.1	803.2	797.3	821.1	833.0	842.1	851.0
52.5°	764.3	755.4	731.5	707.7	707.7	725.5	734.6	737.5	746.5
55°	680.7	671.8	647.9	630.0	624.0	639.0	645.0	645.0	651.0
57.5°	603.1	594.2	570.3	549.4	546.4	555.4	555.4	555.4	558.4
60°	528.5	519.6	495.6	477.7	471.7	474.8	471.7	468.8	471.7
62.5°	459.8	450.9	426.9	406.1	400.1	400.1	391.2	388.1	391.2
65°	397.2	382.2	364.2	343.4	331.4	322.5	310.5	310.5	310.5
67.5°	334.5	322.5	301.6	280.6	265.8	250.9	232.9	238.9	241.8
70°	277.7	268.7	244.9	223.9	203.0	185.1	170.2	176.2	179.1
72.5°	227.0	215.0	194.1	170.2	152.3	128.4	119.5	125.4	125.4
75°	176.2	164.2	146.3	122.4	101.5	80.7	80.7	83.6	83.6
77.5°	131.4	119.5	101.5	80.7	62.7	47.8	50.8	50.8	50.8
80°	89.6	80.7	65.6	47.8	32.8	26.8	26.8	26.8	29.9
82.5°	50.8	44.8	35.9	23.9	14.9	14.9	14.9	14.9	14.9
85°	23.9	17.9	14.9	8.9	6.0	6.0	6.0	6.0	6.0
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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)