

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: P581262

Luminaire Tested: **HC455D010-HM44560940-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581262
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: HC455D010-HM44560940-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4337.5 lumens
Efficiency: N/A
Efficacy: 83.4 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

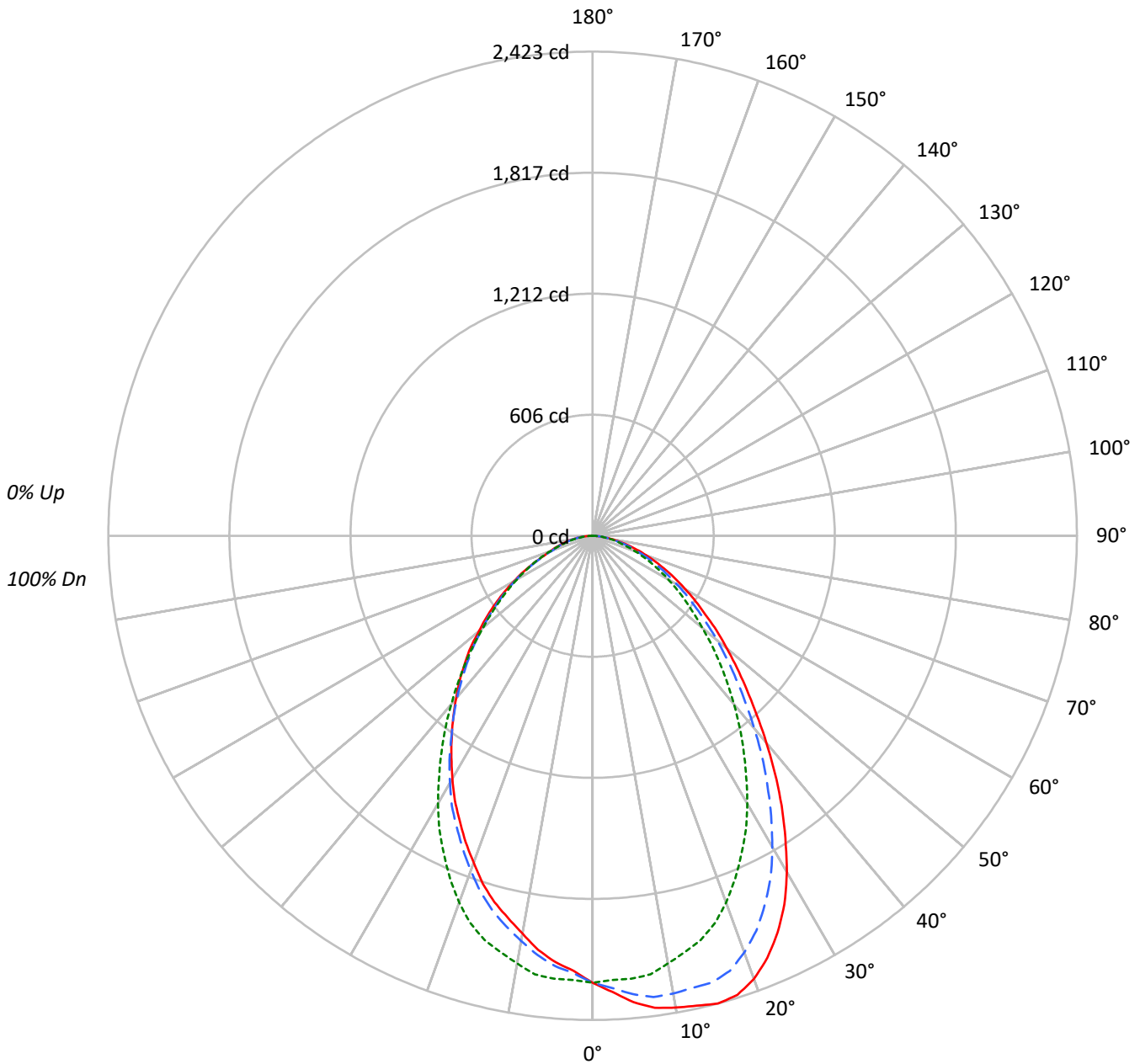
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	275875	275875	275875
5°	290078	275505	265191
10°	300271	272215	253165
15°	309422	267282	242343
20°	309778	256262	228382
25°	298134	239530	214121
30°	276836	220420	199968
35°	248151	198431	185029
40°	217726	177054	171048
45°	190311	156749	157761
50°	168040	137183	142134
55°	148189	121630	127802
60°	132424	107656	111899
65°	117328	94680	94680
70°	102530	80783	80783
75°	87546	68388	76633
80°	69327	61230	69327
85°	44721	52930	64959



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.9	4.9
10°-20°	596.7	13.8
20°-30°	836.0	19.3
30°-40°	861.3	19.9
40°-50°	733.3	16.9
50°-60°	543.3	12.5
60°-70°	341.0	7.9
70°-80°	169.4	3.9
80°-90°	44.5	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°	1644.7	37.9
0°-40°	2506.0	57.8
0°-60°	3782.6	87.2
0°-90°	4337.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4337.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2237	2237	2237	2237	2237	
5°	2343	2303	2225	2162	2142	225
15°	2423	2314	2093	1941	1898	681
25°	2191	2038	1760	1608	1573	1002
35°	1648	1524	1318	1232	1229	1028
45°	1091	1016	899	881	904	847
55°	689	634	566	577	594	623
65°	402	362	324	319	324	401
75°	184	164	144	155	161	196
85°	32	32	37	43	46	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°	2236.6	2236.6	2236.6	2236.6	2236.6	2236.6	2236.6	2236.6	2236.6
2.5°	2285.3	2276.8	2265.3	2245.2	2225.1	2207.8	2190.6	2182.0	2179.1
5°	2342.8	2325.6	2302.6	2265.3	2225.1	2190.6	2161.9	2147.5	2141.8
7.5°	2383.0	2365.8	2328.4	2271.0	2213.5	2161.9	2116.0	2095.9	2090.1
10°	2397.4	2377.2	2325.6	2248.1	2173.4	2110.3	2058.5	2032.8	2021.3
12.5°	2408.8	2383.0	2316.9	2225.1	2133.2	2055.7	2001.2	1966.7	1958.1
15°	2423.1	2394.5	2314.1	2202.1	2093.1	2001.2	1940.8	1909.2	1897.8
17.5°	2408.8	2377.2	2282.5	2156.2	2032.8	1932.2	1866.2	1837.5	1826.0
20°	2360.0	2325.6	2219.3	2084.4	1952.3	1848.9	1782.9	1754.2	1739.9
22.5°	2285.3	2248.1	2139.0	1995.4	1860.4	1760.0	1696.8	1668.0	1659.5
25°	2190.6	2153.2	2038.5	1892.0	1760.0	1662.3	1607.9	1582.0	1573.3
27.5°	2078.7	2041.3	1929.4	1785.8	1659.5	1567.6	1524.5	1498.7	1493.0
30°	1943.7	1906.4	1797.3	1665.2	1547.6	1461.4	1427.0	1406.8	1404.0
32.5°	1794.4	1762.9	1662.3	1541.8	1429.8	1358.0	1332.2	1317.8	1314.9
35°	1648.0	1613.6	1524.5	1415.5	1317.8	1254.7	1231.6	1228.8	1228.8
37.5°	1498.7	1464.3	1392.5	1292.0	1208.7	1151.3	1142.7	1145.6	1145.6
40°	1352.2	1320.8	1257.5	1174.3	1099.6	1056.6	1053.7	1059.4	1062.3
42.5°	1214.4	1188.7	1131.2	1059.4	996.3	961.8	964.7	976.2	984.8
45°	1091.0	1068.1	1016.3	953.2	898.6	872.8	881.4	895.7	904.4
47.5°	979.1	959.0	910.1	852.8	806.7	789.5	801.0	818.2	829.7
50°	875.7	858.5	812.5	752.2	714.9	703.5	717.8	735.0	740.7
52.5°	783.8	766.6	717.8	666.1	637.4	631.7	646.0	660.4	668.9
55°	689.1	674.7	634.5	588.6	565.6	562.7	577.1	588.6	594.3
57.5°	611.6	597.2	559.9	519.6	499.6	496.7	511.1	519.6	522.6
60°	536.8	522.6	488.1	450.8	436.4	436.4	445.0	450.8	453.6
62.5°	468.0	453.6	422.1	390.5	379.0	379.0	379.0	381.8	390.5
65°	402.0	390.5	361.8	333.0	324.4	318.7	318.7	318.7	324.4
67.5°	341.7	330.2	307.2	281.4	272.7	264.2	261.2	267.0	267.0
70°	284.3	275.6	252.7	232.5	224.0	215.3	212.5	224.0	224.0
72.5°	232.5	224.0	209.6	189.5	180.9	178.0	183.7	189.5	192.4
75°	183.7	175.2	163.7	152.2	143.5	146.5	155.0	158.0	160.8
77.5°	137.8	134.9	123.4	114.9	114.9	117.7	123.4	129.2	132.1
80°	97.6	94.7	89.0	83.2	86.2	91.9	94.7	100.5	97.6
82.5°	60.3	60.3	57.4	57.4	60.3	66.0	68.9	71.8	74.7
85°	31.6	31.6	31.6	34.4	37.4	40.2	43.1	45.9	45.9
87.5°	8.7	11.5	11.5	14.4	17.2	17.2	20.1	20.1	20.1
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)