

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: P581136

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581136
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-HM44560827-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4461.2 lumens
Efficiency: N/A
Efficacy: 85.8 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

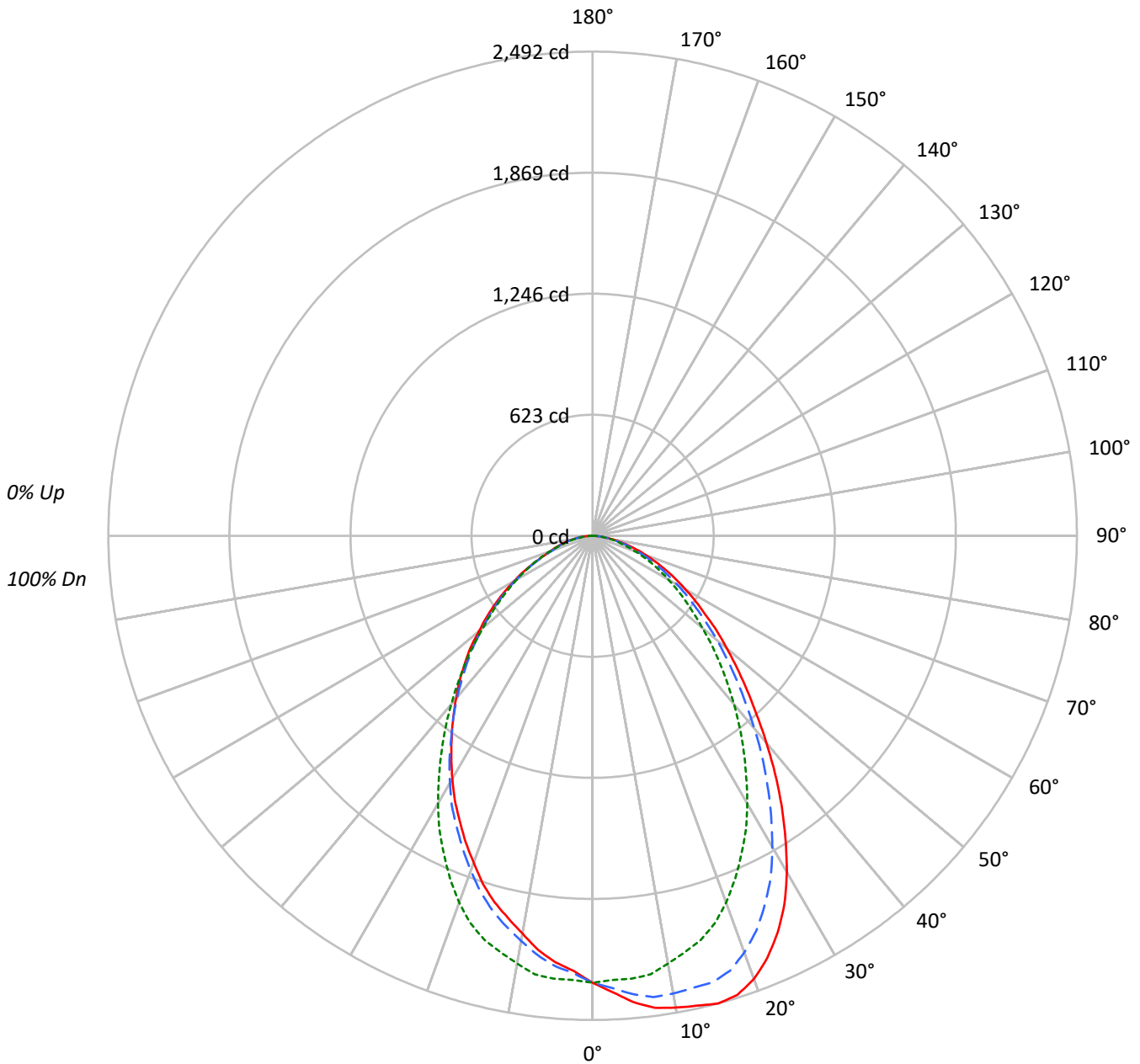
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	283744	283744	283744
5°	298349	283367	272768
10°	308838	279980	260379
15°	318259	274893	249264
20°	318625	263573	234893
25°	306653	246363	220232
30°	284741	226687	205665
35°	255228	204092	190315
40°	223941	182109	175926
45°	195753	161232	162261
50°	172837	141098	146183
55°	152425	125093	131458
60°	136248	110740	115081
65°	120655	97394	97394
70°	105451	83055	83055
75°	90072	70342	78825
80°	71316	62863	71316
85°	45995	54345	66799



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.0	4.9
10°-20°	613.8	13.8
20°-30°	859.9	19.3
30°-40°	885.9	19.9
40°-50°	754.2	16.9
50°-60°	558.8	12.5
60°-70°	350.7	7.9
70°-80°	174.2	3.9
80°-90°	45.7	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°	1691.6	37.9
0°-40°	2577.5	57.8
0°-60°	3890.6	87.2
0°-90°	4461.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4461.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2300	2300	2300	2300	2300	
5°	2410	2368	2289	2224	2203	232
15°	2492	2380	2153	1996	1952	701
25°	2253	2097	1810	1654	1618	1030
35°	1695	1568	1355	1267	1264	1057
45°	1122	1045	924	906	930	871
55°	709	653	582	594	611	641
65°	413	372	334	328	334	412
75°	189	168	148	159	165	202
85°	32	32	38	44	47	42
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°	2300.4	2300.4	2300.4	2300.4	2300.4	2300.4	2300.4	2300.4	2300.4
2.5°	2350.6	2341.7	2329.9	2309.3	2288.6	2270.8	2253.2	2244.3	2241.3
5°	2409.6	2392.0	2368.4	2329.9	2288.6	2253.2	2223.6	2208.8	2203.0
7.5°	2451.0	2433.3	2394.9	2335.8	2276.8	2223.6	2176.3	2155.7	2149.8
10°	2465.8	2445.1	2392.0	2312.2	2235.4	2170.5	2117.4	2090.7	2078.9
12.5°	2477.6	2451.0	2383.1	2288.6	2194.1	2114.3	2058.3	2022.9	2014.0
15°	2492.3	2462.8	2380.2	2265.0	2152.7	2058.3	1996.2	1963.8	1952.0
17.5°	2477.6	2445.1	2347.6	2217.7	2090.7	1987.4	1919.5	1889.9	1878.1
20°	2427.4	2392.0	2282.6	2143.9	2008.0	1901.7	1833.9	1804.3	1789.5
22.5°	2350.6	2312.2	2199.9	2052.3	1913.5	1810.2	1745.2	1715.7	1706.8
25°	2253.2	2214.8	2096.7	1946.0	1810.2	1709.8	1653.6	1627.1	1618.2
27.5°	2138.0	2099.6	1984.4	1836.8	1706.8	1612.4	1568.0	1541.5	1535.5
30°	1999.2	1960.8	1848.6	1712.7	1591.6	1503.1	1467.7	1447.0	1444.0
32.5°	1845.7	1813.2	1709.8	1585.8	1470.6	1396.8	1370.2	1355.4	1352.5
35°	1695.0	1659.6	1568.0	1455.9	1355.4	1290.5	1266.9	1263.9	1263.9
37.5°	1541.5	1506.0	1432.2	1328.9	1243.2	1184.2	1175.3	1178.2	1178.2
40°	1390.8	1358.4	1293.4	1207.8	1131.0	1086.8	1083.7	1089.7	1092.6
42.5°	1249.1	1222.5	1163.5	1089.7	1024.6	989.2	992.2	1004.1	1012.8
45°	1122.2	1098.6	1045.4	980.4	924.3	897.8	906.5	921.4	930.2
47.5°	1007.0	986.3	936.1	877.0	829.8	812.0	823.8	841.6	853.4
50°	900.7	882.9	835.6	773.7	735.3	723.5	738.2	756.0	761.8
52.5°	806.2	788.4	738.2	685.1	655.5	649.7	664.4	679.2	688.1
55°	708.8	694.0	652.6	605.4	581.7	578.8	593.6	605.4	611.3
57.5°	629.0	614.2	575.9	534.5	513.8	510.9	525.6	534.5	537.4
60°	552.3	537.4	502.0	463.6	448.9	448.9	457.8	463.6	466.5
62.5°	481.4	466.5	434.1	401.6	389.8	389.8	389.8	392.7	401.6
65°	413.4	401.6	372.0	342.6	333.7	327.8	327.8	327.8	333.7
67.5°	351.4	339.6	316.0	289.3	280.6	271.7	268.8	274.6	274.6
70°	292.4	283.5	259.9	239.2	230.3	221.5	218.5	230.3	230.3
72.5°	239.2	230.3	215.6	194.8	186.1	183.0	189.0	194.8	197.9
75°	189.0	180.1	168.3	156.5	147.6	150.6	159.4	162.5	165.4
77.5°	141.8	138.8	127.0	118.1	118.1	121.0	127.0	132.9	135.8
80°	100.4	97.4	91.6	85.6	88.5	94.5	97.4	103.4	100.4
82.5°	62.0	62.0	59.1	59.1	62.0	68.0	70.9	73.8	76.7
85°	32.5	32.5	32.5	35.4	38.4	41.3	44.3	47.2	47.2
87.5°	8.9	11.8	11.8	14.7	17.7	17.7	20.7	20.7	20.7
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)