

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: P581152

Luminaire Tested: **HC455D010-HM44560830-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581152
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560830-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3980.1 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

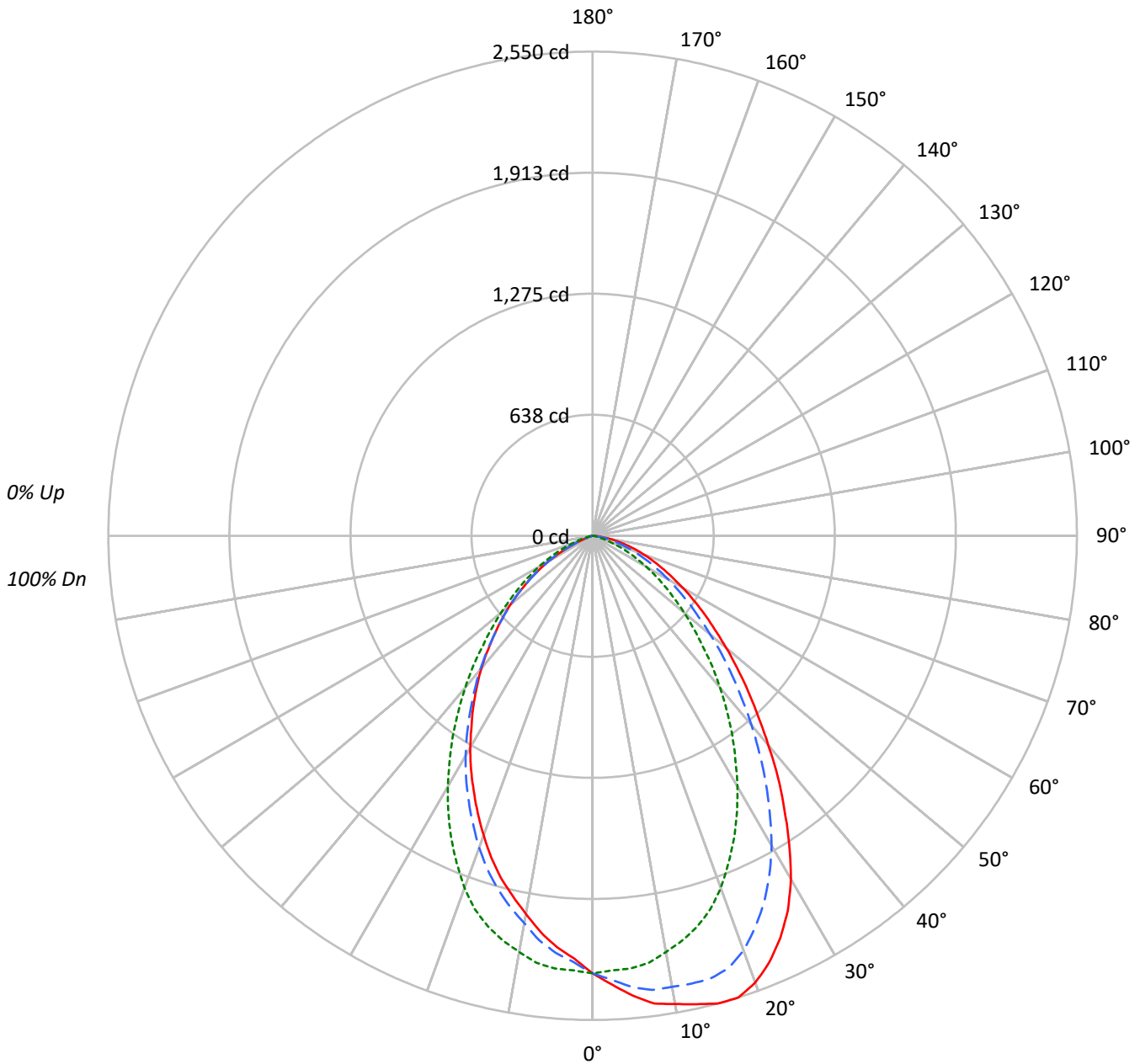
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	284213	284213	284213
5°	301122	283268	269079
10°	313635	278753	253290
15°	325627	272058	238155
20°	328692	258992	220283
25°	318058	239558	201627
30°	297374	217073	183461
35°	265046	192980	164837
40°	231686	167827	146718
45°	201841	142376	126920
50°	176118	120757	108803
55°	154382	100083	88105
60°	135039	80865	64682
65°	117678	60298	36337
70°	102854	38985	11793
75°	84353	20302	3098
80°	62863	9376	2344
85°	37079	4670	4670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.5	5.5
10°-20°	608.6	15.3
20°-30°	841.5	21.1
30°-40°	846.2	21.3
40°-50°	682.8	17.2
50°-60°	461.7	11.6
60°-70°	235.0	5.9
70°-80°	75.2	1.9
80°-90°	11.5	0.3
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°	1667.7	41.9
0°-40°	2513.9	63.2
0°-60°	3658.4	91.9
0°-90°	3980.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3980.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2304	2304	2304	2304	2304	
5°	2432	2386	2288	2206	2173	234
15°	2550	2412	2130	1927	1865	718
25°	2337	2134	1760	1544	1482	1069
35°	1760	1590	1282	1121	1095	1100
45°	1157	1036	816	728	728	897
55°	718	620	465	406	410	645
65°	403	328	207	134	124	404
75°	177	124	43	10	6	191
85°	26	13	3	3	3	35
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°	2304.2	2304.2	2304.2	2304.2	2304.2	2304.2	2304.2	2304.2	2304.2
2.5°	2366.5	2353.4	2340.3	2317.4	2291.2	2264.8	2248.5	2235.4	2228.8
5°	2432.0	2415.7	2386.1	2337.0	2287.8	2242.0	2205.9	2183.0	2173.2
7.5°	2484.6	2461.6	2412.5	2343.6	2268.2	2196.1	2150.2	2117.4	2104.3
10°	2504.1	2477.9	2412.5	2320.6	2225.6	2137.0	2071.6	2038.7	2022.3
12.5°	2527.1	2497.6	2415.7	2301.0	2183.0	2078.1	2002.7	1960.1	1943.7
15°	2550.0	2510.8	2412.5	2271.5	2130.5	2009.2	1927.4	1884.7	1865.0
17.5°	2550.0	2504.1	2386.1	2222.3	2061.7	1933.9	1842.1	1792.9	1776.5
20°	2504.1	2451.7	2323.9	2143.6	1973.1	1835.6	1747.0	1697.8	1678.2
22.5°	2432.0	2373.1	2235.4	2048.6	1868.3	1734.0	1645.4	1599.5	1579.8
25°	2337.0	2278.0	2133.8	1940.4	1760.2	1625.7	1543.8	1501.2	1481.5
27.5°	2225.6	2160.0	2015.8	1822.4	1645.4	1517.6	1442.2	1402.9	1386.4
30°	2087.9	2025.7	1884.7	1694.6	1524.1	1406.1	1337.3	1301.3	1288.1
32.5°	1927.4	1874.8	1737.2	1560.1	1399.6	1291.4	1229.2	1199.7	1186.5
35°	1760.2	1711.0	1589.7	1425.8	1281.6	1180.0	1121.0	1101.3	1094.7
37.5°	1602.8	1560.1	1442.2	1291.4	1160.3	1071.8	1019.4	1006.3	999.7
40°	1438.9	1409.4	1301.3	1163.6	1042.3	963.7	921.0	911.2	911.2
42.5°	1291.4	1258.6	1163.6	1039.0	930.8	852.2	822.7	812.9	816.2
45°	1157.1	1124.2	1035.8	921.0	816.2	750.6	727.6	727.6	727.6
47.5°	1032.5	1002.9	921.0	803.0	717.9	665.3	642.5	642.5	645.8
50°	917.8	898.1	806.3	704.7	629.3	580.2	563.7	560.5	567.0
52.5°	809.6	786.6	704.7	612.9	540.8	501.5	485.1	481.8	485.1
55°	717.9	691.6	619.5	531.0	465.4	426.2	406.5	403.2	409.7
57.5°	629.3	609.6	534.3	455.6	393.3	354.0	337.6	331.1	334.3
60°	547.4	527.7	458.9	383.5	327.8	288.4	265.5	259.0	262.2
62.5°	471.9	455.6	390.0	317.9	262.2	226.1	203.2	186.9	193.4
65°	403.2	386.8	327.8	255.7	206.6	167.2	134.4	121.3	124.5
67.5°	344.1	324.4	268.8	203.2	154.0	111.5	75.4	68.9	68.9
70°	285.2	265.5	216.3	157.3	108.1	59.0	32.7	32.7	32.7
72.5°	229.4	213.1	167.2	118.0	68.9	26.2	13.2	13.2	13.2
75°	177.0	163.9	124.5	81.9	42.6	13.2	9.8	6.5	6.5
77.5°	131.1	118.0	88.5	55.7	26.2	6.5	6.5	6.5	6.5
80°	88.5	78.6	59.0	32.7	13.2	3.3	3.3	3.3	3.3
82.5°	52.4	45.9	32.7	16.4	6.5	3.3	3.3	3.3	3.3
85°	26.2	19.7	13.2	6.5	3.3	3.3	3.3	3.3	3.3
87.5°	6.5	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0
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)