

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: P593336

Luminaire Tested: **HC645D010-HM64560950-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560950-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" 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: 4729.3 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

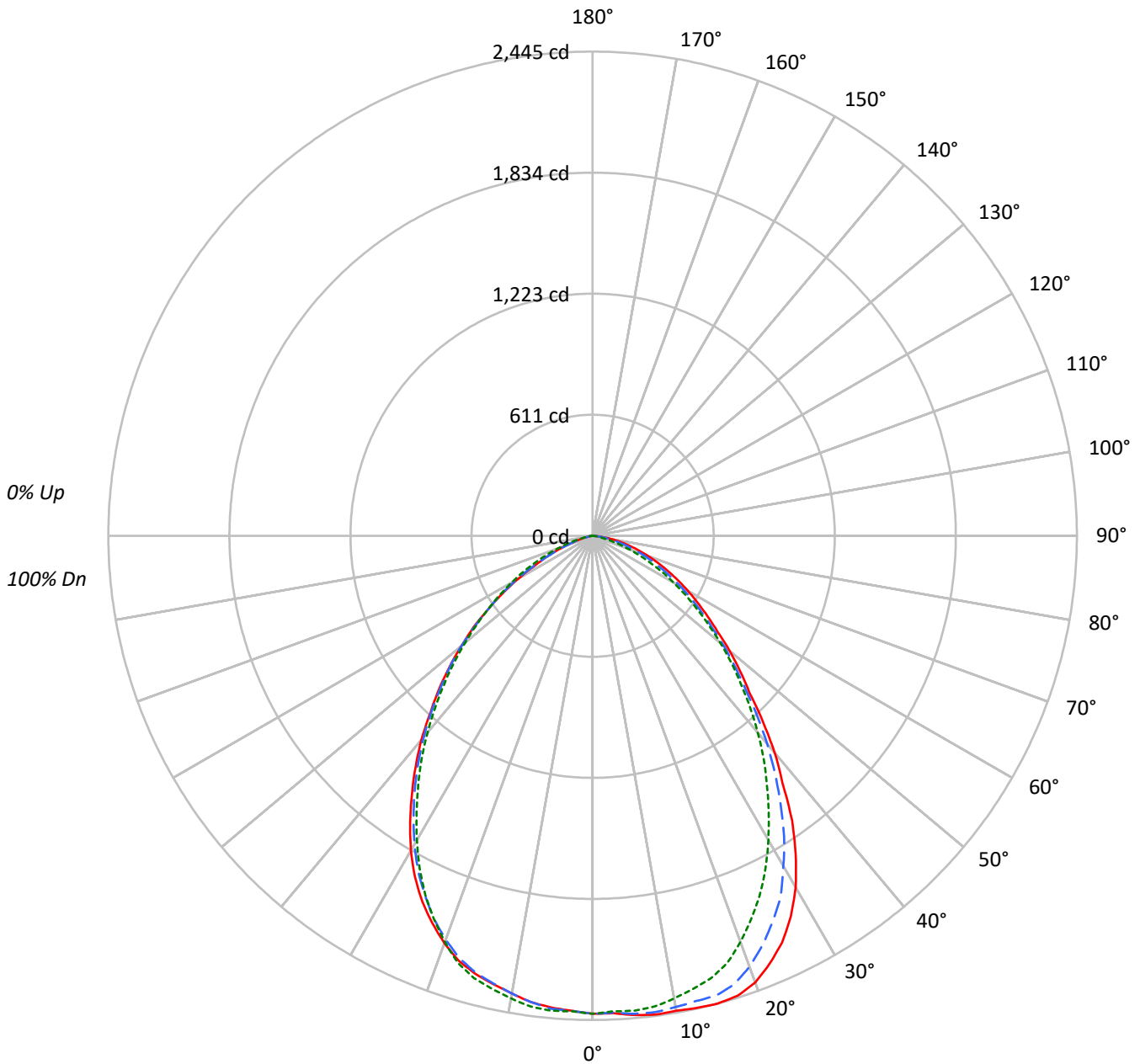
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77																			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	132314	132314	132314
5°	133689	132467	131598
10°	135580	132062	130653
15°	138769	131232	129978
20°	140065	127329	127697
25°	136992	120920	123219
30°	129754	112327	116138
35°	117490	102673	106481
40°	102320	92810	96209
45°	86807	82156	85094
50°	76893	71759	73652
55°	67725	61369	61064
60°	60686	51673	47507
65°	54169	41444	34050
70°	47668	29909	21302
75°	40201	18088	12052
80°	30970	7987	4988
85°	17926	2013	2013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.1	4.8
10°-20°	658.4	13.9
20°-30°	951.8	20.1
30°-40°	1001.5	21.2
40°-50°	841.9	17.8
50°-60°	590.9	12.5
60°-70°	325.0	6.9
70°-80°	115.4	2.4
80°-90°	15.1	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°	1839.3	38.9
0°-40°	2840.9	60.1
0°-60°	4273.7	90.4
0°-90°	4729.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4729.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2414	2414	2414	2414	2414	
5°	2429	2423	2407	2398	2391	232
15°	2445	2404	2312	2284	2290	690
25°	2265	2151	1999	2002	2037	1036
35°	1756	1654	1534	1566	1591	1088
45°	1120	1088	1060	1085	1098	878
55°	709	671	642	642	639	638
65°	418	373	320	262	262	416
75°	190	152	85	57	57	204
85°	28	16	3	3	3	39
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°	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6
2.5°	2413.6	2413.6	2410.4	2410.4	2404.1	2404.1	2400.9	2400.9	2400.9
5°	2429.4	2429.4	2423.1	2413.6	2407.2	2397.7	2397.7	2394.6	2391.4
7.5°	2438.8	2435.6	2426.2	2413.6	2397.7	2381.9	2375.6	2378.7	2375.6
10°	2435.6	2429.4	2416.7	2391.4	2372.4	2350.2	2347.1	2343.9	2347.1
12.5°	2442.0	2432.6	2407.2	2375.6	2343.9	2318.7	2315.5	2315.5	2318.7
15°	2445.1	2435.6	2404.1	2356.6	2312.3	2287.0	2283.8	2287.0	2290.2
17.5°	2435.6	2423.1	2375.6	2312.3	2261.7	2236.4	2236.4	2242.8	2249.0
20°	2400.9	2381.9	2315.5	2239.6	2182.6	2163.6	2169.9	2182.6	2188.9
22.5°	2337.7	2315.5	2239.6	2154.1	2094.0	2078.2	2094.0	2109.9	2116.2
25°	2264.8	2239.6	2150.9	2062.4	1999.1	1980.1	2002.3	2027.6	2037.1
27.5°	2166.8	2138.4	2056.0	1954.9	1891.6	1882.1	1907.4	1935.9	1942.3
30°	2049.8	2018.1	1926.4	1831.5	1774.5	1771.3	1799.9	1825.2	1834.7
32.5°	1907.4	1878.9	1799.9	1705.0	1654.4	1654.4	1682.8	1705.0	1714.5
35°	1755.6	1724.0	1654.4	1575.2	1534.2	1537.3	1565.8	1581.6	1591.1
37.5°	1575.2	1565.8	1512.0	1445.6	1417.1	1423.4	1445.6	1458.3	1467.8
40°	1429.8	1404.4	1369.7	1315.9	1296.9	1303.2	1325.4	1338.0	1344.4
42.5°	1271.6	1255.8	1227.3	1189.4	1176.8	1186.3	1205.1	1214.6	1211.5
45°	1119.7	1116.6	1088.2	1066.0	1059.7	1072.4	1085.0	1094.5	1097.6
47.5°	1009.0	996.5	971.1	955.3	949.0	961.6	974.3	980.6	980.6
50°	901.6	888.9	863.6	847.7	841.4	854.1	863.6	869.9	863.6
52.5°	794.0	781.3	759.2	740.2	737.0	743.3	746.5	749.7	756.0
55°	708.6	695.9	670.6	648.4	642.1	645.3	642.1	642.1	638.9
57.5°	626.3	613.7	588.4	563.0	553.5	550.4	540.9	537.7	534.5
60°	553.5	537.7	512.5	484.0	471.3	458.6	442.8	433.3	433.3
62.5°	484.0	468.1	439.6	414.4	395.4	373.2	347.9	335.2	335.2
65°	417.6	404.9	373.2	344.7	319.5	291.0	262.5	256.2	262.5
67.5°	354.2	341.6	310.0	281.5	249.8	215.1	189.8	189.8	196.1
70°	297.4	284.7	256.2	221.5	186.6	151.8	132.9	132.9	132.9
72.5°	243.5	231.0	199.3	167.6	132.9	98.1	88.6	91.7	88.6
75°	189.8	180.3	151.8	117.1	85.4	60.1	56.9	53.7	56.9
77.5°	142.4	132.9	107.6	75.9	47.5	34.8	31.7	31.7	31.7
80°	98.1	88.6	69.6	44.3	25.3	15.8	15.8	15.8	15.8
82.5°	60.1	50.6	38.0	22.2	9.5	9.5	9.5	9.5	9.5
85°	28.5	22.2	15.8	6.3	3.2	3.2	3.2	3.2	3.2
87.5°	6.3	6.3	3.2	3.2	0.0	3.2	3.2	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)