

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: P583222

Luminaire Tested: **HC660D010-HM64560927-61WWW**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583222  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC660D010-HM64560927-61WWW  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4058.1 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

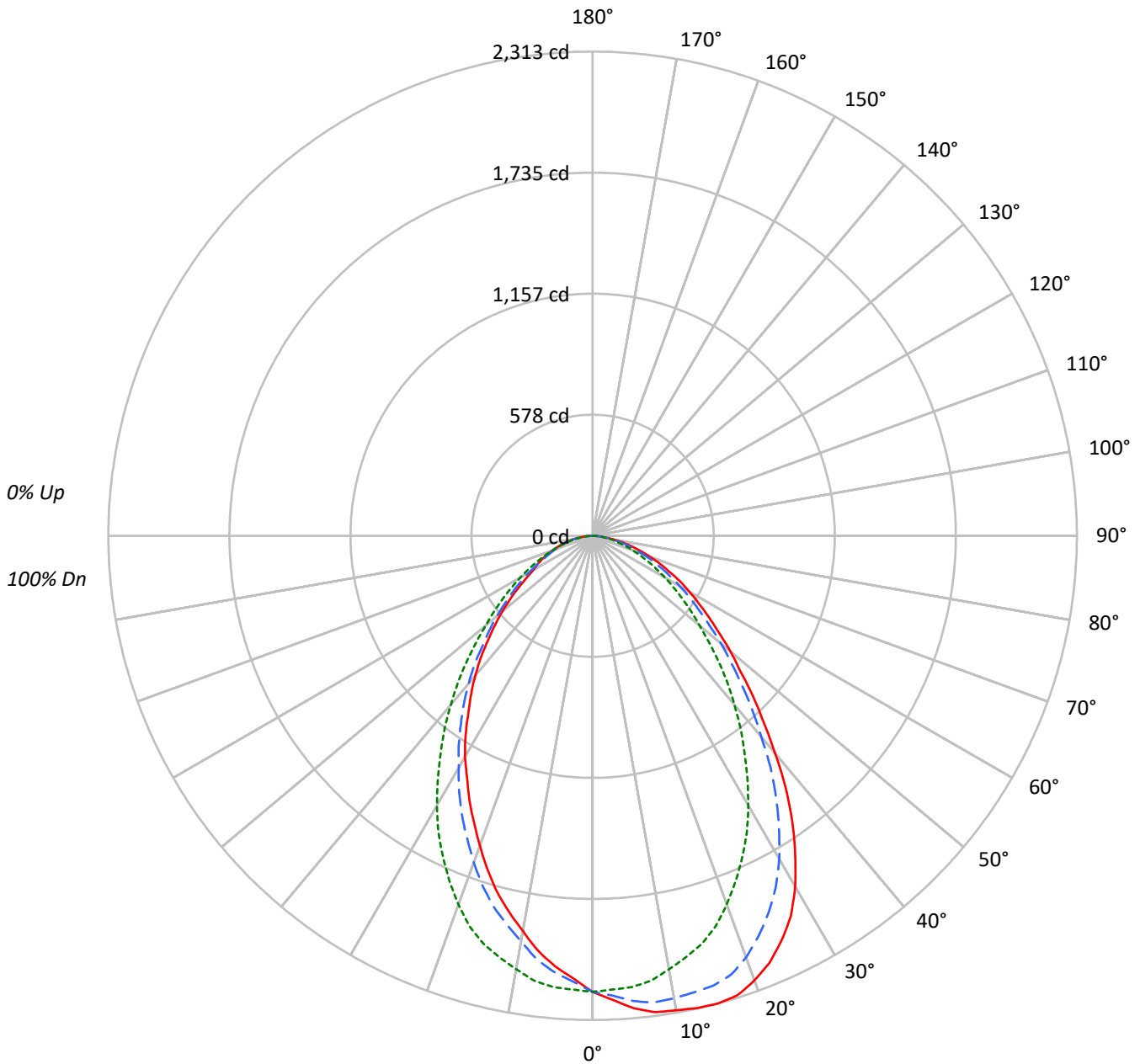
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					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	93	91	89	87								
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76								
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51								
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	119426	119426	119426
5°	124725	119078	113592
10°	128121	117026	106745
15°	131295	114490	100012
20°	131880	109297	91860
25°	129110	102333	84241
30°	122500	94097	77208
35°	111260	84571	69265
40°	96939	75327	62317
45°	83877	65922	54789
50°	73268	56766	48007
55°	64734	49881	41193
60°	58186	43725	35688
65°	52107	38033	34608
70°	46514	32425	32425
75°	40371	27323	30416
80°	32390	23141	27750
85°	22140	20316	23965



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.7	5.0
10°-20°	569.1	14.0
20°-30°	793.2	19.5
30°-40°	817.3	20.1
40°-50°	677.3	16.7
50°-60°	486.8	12.0
60°-70°	310.0	7.6
70°-80°	159.2	3.9
80°-90°	40.5	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°	1567.1	38.6
0°-40°	2384.3	58.8
0°-60°	3548.4	87.4
0°-90°	4058.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4058.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2178	2178	2178	2178	2178	
5°	2266	2231	2164	2094	2064	217
15°	2313	2225	2017	1832	1762	652
25°	2134	1988	1692	1475	1393	978
35°	1662	1528	1264	1097	1035	1033
45°	1082	1006	850	742	707	837
55°	677	622	522	463	431	610
65°	402	358	293	255	267	402
75°	191	164	129	135	144	203
85°	35	32	32	35	38	45
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°	2178.5	2178.5	2178.5	2178.5	2178.5	2178.5	2178.5	2178.5	2178.5
2.5°	2219.6	2210.8	2199.0	2187.3	2169.8	2149.2	2131.6	2125.7	2117.0
5°	2266.5	2254.7	2231.3	2201.9	2163.9	2125.7	2093.5	2072.9	2064.2
7.5°	2295.7	2281.1	2248.8	2199.0	2143.4	2087.6	2040.7	2011.4	1999.6
10°	2301.6	2287.0	2243.1	2175.5	2102.3	2026.0	1967.4	1932.2	1917.6
12.5°	2310.5	2290.0	2234.2	2155.0	2061.2	1973.2	1899.9	1856.0	1841.3
15°	2313.4	2290.0	2225.4	2128.6	2017.3	1911.7	1832.5	1779.7	1762.2
17.5°	2301.6	2275.2	2199.0	2081.7	1955.7	1844.3	1750.4	1694.8	1671.3
20°	2260.6	2231.3	2143.4	2011.4	1873.5	1756.3	1659.5	1601.0	1574.6
22.5°	2207.8	2169.8	2070.1	1929.3	1785.6	1662.5	1565.7	1507.0	1480.7
25°	2134.5	2099.3	1987.9	1838.4	1691.8	1562.8	1474.9	1413.2	1392.7
27.5°	2049.5	2008.4	1894.1	1744.6	1595.1	1466.0	1381.0	1325.3	1298.9
30°	1935.2	1897.1	1782.7	1633.1	1486.5	1366.3	1278.3	1231.4	1219.7
32.5°	1800.2	1768.1	1656.6	1515.9	1375.2	1263.7	1190.4	1140.6	1128.9
35°	1662.5	1624.4	1527.6	1395.7	1263.7	1164.0	1096.6	1052.6	1035.0
37.5°	1512.9	1477.7	1395.7	1278.3	1161.1	1067.3	1008.6	970.5	953.0
40°	1354.6	1328.2	1252.0	1158.1	1052.6	970.5	920.7	888.4	870.8
42.5°	1208.0	1181.6	1128.9	1040.9	953.0	879.7	835.6	806.4	791.6
45°	1081.9	1058.4	1005.6	929.5	850.3	788.7	741.8	721.3	706.7
47.5°	955.8	944.1	897.2	826.9	753.6	700.8	668.5	645.1	633.3
50°	859.1	844.4	800.5	727.2	665.6	624.5	595.2	574.7	562.9
52.5°	759.4	744.7	703.7	642.1	592.3	554.2	524.9	507.3	495.5
55°	677.3	665.6	621.6	565.9	521.9	489.6	463.2	442.7	431.0
57.5°	601.1	589.3	548.3	495.5	457.4	428.1	404.7	387.0	372.4
60°	530.7	521.9	480.9	431.0	398.8	369.4	348.9	334.3	325.5
62.5°	469.1	451.6	416.3	372.4	343.0	319.6	299.1	290.2	296.1
65°	401.7	392.9	357.8	319.6	293.2	269.7	255.1	260.9	266.8
67.5°	346.0	334.3	305.0	269.7	246.3	228.7	219.9	231.7	234.6
70°	290.2	278.6	252.2	222.8	202.3	190.6	190.6	199.4	202.3
72.5°	237.5	228.7	205.3	181.8	167.1	158.4	164.2	170.0	173.0
75°	190.6	181.8	164.2	143.6	129.0	129.0	134.9	140.7	143.6
77.5°	146.6	140.7	123.1	108.5	102.6	102.6	108.5	111.5	114.3
80°	102.6	96.7	87.9	79.2	73.3	79.2	85.1	85.1	87.9
82.5°	67.4	64.5	58.7	52.8	52.8	55.7	58.7	61.5	61.5
85°	35.2	35.2	32.3	29.3	32.3	35.2	35.2	38.1	38.1
87.5°	11.8	11.8	11.8	11.8	14.6	14.6	14.6	14.6	14.6
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)