

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: P581207

Luminaire Tested: **HC455D010-HM44560927-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581207
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560927-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" 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: 3884.2 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

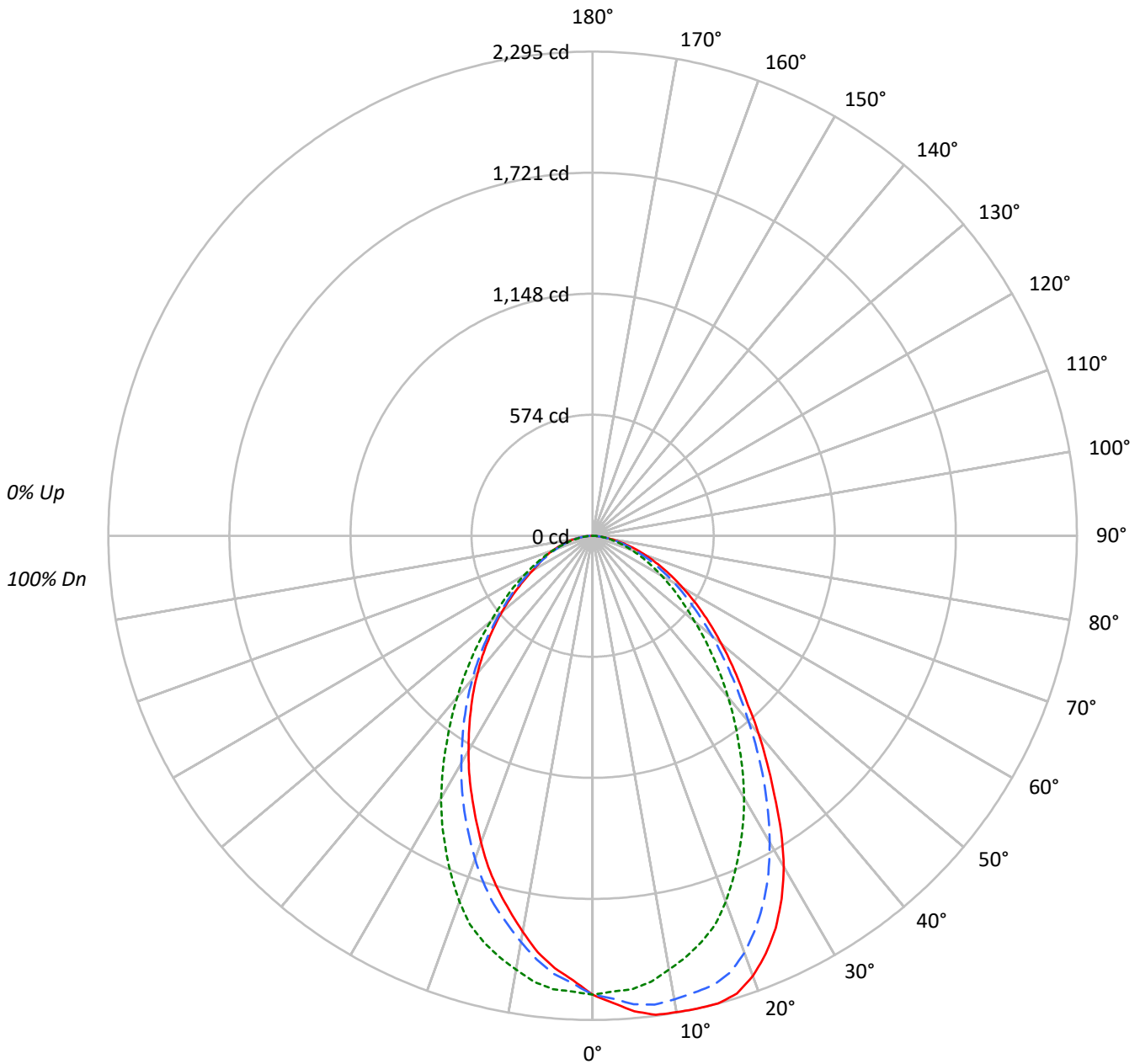
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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				100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	268289	268289	268289
5°	280074	267098	254741
10°	287170	261531	238774
15°	293102	254551	221554
20°	291545	242178	202878
25°	279298	223934	184575
30°	258035	204454	167281
35°	226182	181867	151420
40°	196955	160694	136381
45°	171402	140160	121862
50°	152707	120777	107536
55°	136469	106211	92986
60°	121841	92805	80175
65°	108280	81400	76176
70°	95064	70144	71046
75°	80493	59762	65862
80°	61798	50930	60022
85°	36088	39768	50665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.9	5.2
10°-20°	562.4	14.5
20°-30°	768.3	19.8
30°-40°	771.5	19.9
40°-50°	638.2	16.4
50°-60°	462.5	11.9
60°-70°	293.0	7.5
70°-80°	148.1	3.8
80°-90°	36.2	0.9
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°	1534.6	39.5
0°-40°	2306.1	59.4
0°-60°	3406.9	87.7
0°-90°	3884.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3884.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2175	2175	2175	2175	2175	
5°	2262	2229	2157	2086	2057	217
15°	2295	2206	1993	1809	1735	646
25°	2052	1917	1645	1438	1356	938
35°	1502	1413	1208	1059	1006	942
45°	983	926	804	724	699	764
55°	635	578	494	450	432	571
65°	371	330	279	251	261	369
75°	169	146	125	130	138	180
85°	26	26	28	33	36	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°	2175.1	2175.1	2175.1	2175.1	2175.1	2175.1	2175.1	2175.1	2175.1
2.5°	2216.0	2208.4	2195.5	2180.2	2162.2	2141.8	2123.9	2113.6	2108.6
5°	2262.0	2251.8	2228.8	2195.5	2157.2	2118.8	2085.5	2065.0	2057.4
7.5°	2290.3	2274.9	2241.6	2190.5	2131.5	2075.3	2026.7	1998.6	1990.8
10°	2292.8	2274.9	2231.3	2162.2	2088.1	2013.9	1955.0	1914.1	1906.4
12.5°	2295.3	2272.3	2218.6	2136.7	2044.6	1952.4	1880.8	1832.2	1819.4
15°	2295.3	2272.3	2205.8	2108.6	1993.4	1888.4	1809.1	1752.9	1735.0
17.5°	2274.9	2249.3	2170.0	2057.4	1932.0	1814.3	1722.2	1663.3	1645.4
20°	2221.1	2193.0	2103.4	1980.6	1845.0	1722.2	1630.0	1568.6	1545.6
22.5°	2144.4	2111.1	2016.4	1883.4	1747.7	1622.4	1532.8	1468.8	1448.3
25°	2052.2	2019.0	1916.7	1786.2	1645.4	1527.6	1438.1	1379.2	1356.2
27.5°	1939.6	1903.8	1804.0	1673.6	1543.0	1425.3	1343.5	1289.7	1266.6
30°	1811.7	1773.3	1678.6	1553.3	1435.5	1323.0	1243.7	1200.1	1174.5
32.5°	1663.3	1630.0	1545.6	1433.0	1323.0	1215.4	1149.0	1110.6	1090.1
35°	1502.1	1484.2	1412.6	1315.2	1207.8	1118.2	1059.4	1023.5	1005.6
37.5°	1358.8	1340.9	1279.5	1197.6	1102.8	1021.0	972.3	941.6	926.3
40°	1223.2	1207.8	1149.0	1079.9	998.0	926.3	885.4	862.3	847.0
42.5°	1090.1	1082.5	1033.8	969.9	898.2	836.8	803.5	785.6	772.8
45°	982.6	972.3	926.3	864.9	803.5	752.3	724.2	711.3	698.6
47.5°	888.0	875.1	826.5	772.8	716.5	670.4	644.8	632.0	627.0
50°	795.8	783.0	739.6	685.8	629.4	596.2	575.8	562.9	560.4
52.5°	713.9	701.1	652.5	601.3	557.9	529.6	511.8	498.9	493.9
55°	634.6	619.3	578.4	529.6	493.9	468.3	450.3	437.6	432.4
57.5°	562.9	547.6	511.8	465.8	432.4	409.4	394.1	381.3	376.2
60°	493.9	481.0	447.9	404.3	376.2	355.7	340.3	330.1	325.0
62.5°	429.9	419.6	386.4	348.0	325.0	307.1	294.3	284.1	289.1
65°	371.0	360.8	330.1	296.9	278.9	261.0	250.8	250.8	261.0
67.5°	314.8	304.5	278.9	250.8	235.5	222.6	215.0	222.6	230.3
70°	263.6	253.4	230.3	207.2	194.5	184.3	184.3	191.9	197.0
72.5°	215.0	204.8	186.8	168.9	158.6	151.0	158.6	163.8	168.9
75°	168.9	161.2	145.9	133.1	125.4	122.8	130.5	135.7	138.2
77.5°	125.4	120.3	110.0	99.8	94.7	97.2	105.0	107.4	110.0
80°	87.0	84.5	76.7	71.7	71.7	74.2	79.3	81.9	84.5
82.5°	53.8	53.8	48.6	46.0	48.6	53.8	56.2	58.8	58.8
85°	25.5	28.1	25.5	25.5	28.1	33.3	33.3	35.8	35.8
87.5°	7.6	7.6	10.2	10.2	12.8	12.8	12.8	12.8	15.3
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)