

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: P581205

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581205
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560927-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3925.2 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

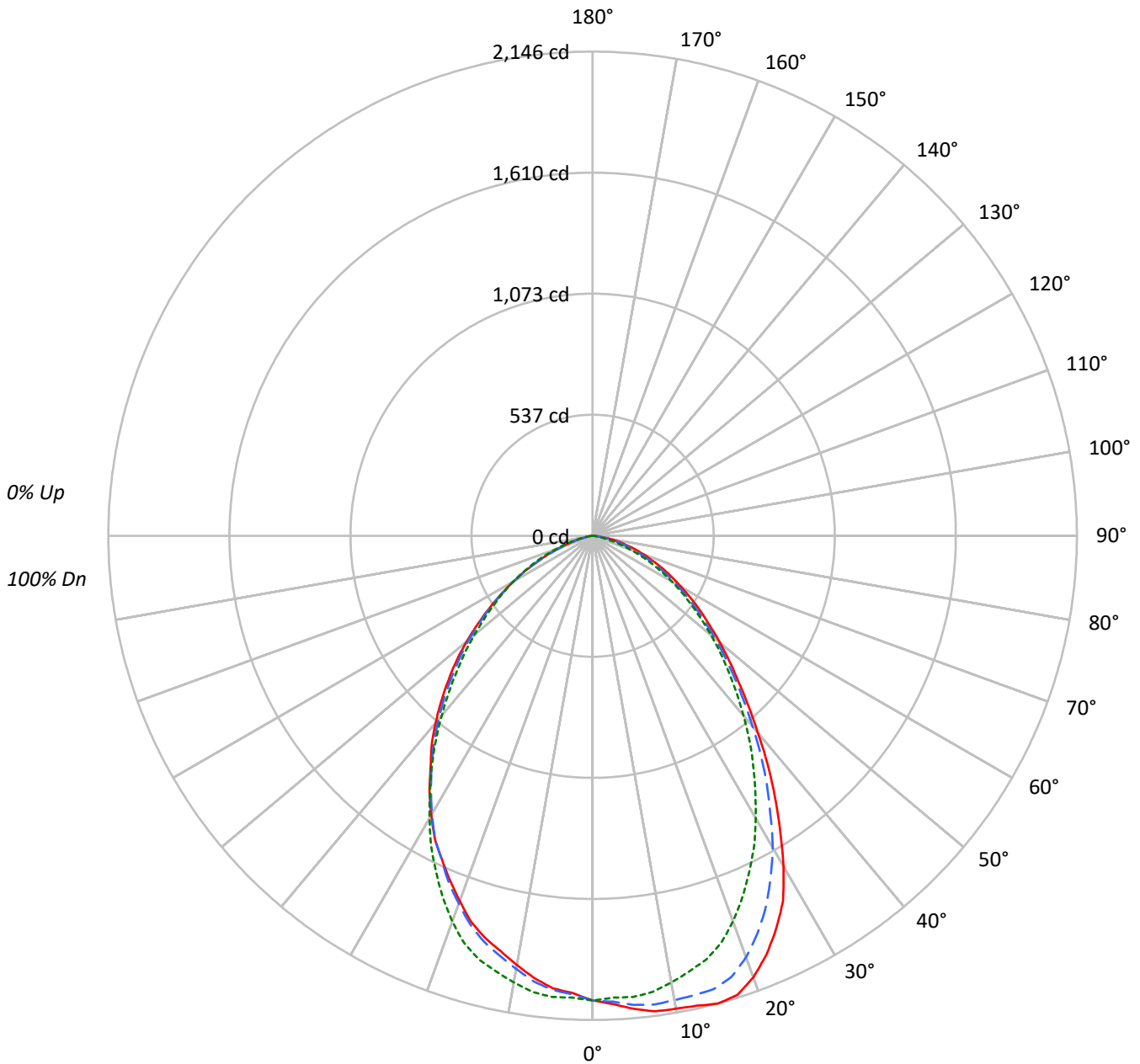
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																			
10	58	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°	254006	254006	254006
5°	260684	254035	249280
10°	266579	251837	241905
15°	274088	248268	235524
20°	273339	238752	225993
25°	261823	223525	215169
30°	240845	205864	203671
35°	211862	186836	188372
40°	183301	167232	174236
45°	159313	148585	157517
50°	141386	131062	139908
55°	125437	114985	119931
60°	111702	99713	99713
65°	99291	82888	77664
70°	85796	62715	55358
75°	71962	41462	34170
80°	54481	19960	18113
85°	29012	7218	7218



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.0	5.0
10°-20°	552.9	14.1
20°-30°	779.7	19.9
30°-40°	805.5	20.5
40°-50°	682.8	17.4
50°-60°	496.8	12.7
60°-70°	290.3	7.4
70°-80°	107.9	2.7
80°-90°	14.1	0.4
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°	1527.7	38.9
0°-40°	2333.2	59.4
0°-60°	3512.9	89.5
0°-90°	3925.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3925.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2059	2059	2059	2059	2059	
5°	2105	2088	2052	2021	2013	202
15°	2146	2080	1944	1862	1844	603
25°	1924	1816	1642	1584	1581	880
35°	1407	1346	1241	1243	1251	879
45°	913	888	852	883	903	711
55°	583	555	535	553	558	525
65°	340	312	284	266	266	338
75°	151	125	87	69	72	162
85°	20	13	5	5	5	29
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°	2059.3	2059.3	2059.3	2059.3	2059.3	2059.3	2059.3	2059.3	2059.3
2.5°	2077.3	2072.1	2067.1	2059.3	2049.1	2041.4	2033.8	2028.7	2028.7
5°	2105.4	2097.8	2087.5	2069.5	2051.7	2036.4	2021.0	2013.3	2013.3
7.5°	2125.9	2115.7	2095.2	2069.5	2039.0	2015.9	1992.8	1982.6	1977.5
10°	2128.4	2118.2	2090.0	2051.7	2010.7	1974.9	1949.4	1934.0	1931.4
12.5°	2133.6	2120.7	2085.0	2031.2	1977.5	1934.0	1905.9	1890.6	1885.4
15°	2146.4	2128.4	2079.8	2010.7	1944.2	1893.0	1862.3	1849.6	1844.4
17.5°	2133.6	2108.0	2049.1	1967.3	1893.0	1836.8	1806.1	1793.4	1793.4
20°	2082.4	2056.8	1987.8	1898.2	1818.9	1765.1	1734.5	1726.8	1721.7
22.5°	2010.7	1982.6	1908.4	1813.7	1734.5	1685.8	1665.4	1655.2	1652.6
25°	1923.8	1895.6	1816.3	1719.1	1642.4	1601.4	1583.6	1583.6	1581.0
27.5°	1826.6	1790.8	1708.9	1624.5	1550.2	1519.5	1511.9	1511.9	1514.5
30°	1691.0	1665.4	1596.4	1514.5	1445.4	1424.9	1424.9	1430.0	1430.0
32.5°	1545.2	1527.3	1465.9	1394.2	1340.6	1327.7	1332.8	1343.0	1345.6
35°	1407.0	1386.6	1345.6	1281.7	1240.8	1235.6	1243.2	1251.0	1251.0
37.5°	1271.5	1251.0	1222.9	1171.7	1141.0	1143.6	1153.8	1164.0	1171.7
40°	1138.4	1123.1	1102.6	1061.7	1038.6	1048.8	1061.7	1071.9	1082.1
42.5°	1020.7	1005.4	990.0	959.3	944.0	956.8	972.1	982.4	992.6
45°	913.3	903.0	887.7	862.1	851.8	864.7	882.6	892.8	903.0
47.5°	821.1	816.1	795.6	772.5	767.5	780.3	795.6	808.4	816.1
50°	736.8	729.1	711.2	688.2	683.0	703.5	713.7	721.5	729.1
52.5°	654.9	647.2	626.7	606.3	606.3	621.7	629.3	631.9	639.6
55°	583.3	575.6	555.2	539.8	534.7	547.4	552.6	552.6	557.7
57.5°	516.7	509.1	488.6	470.7	468.1	475.9	475.9	475.9	478.4
60°	452.8	445.2	424.7	409.3	404.2	406.8	404.2	401.6	404.2
62.5°	394.0	386.3	365.8	348.0	342.8	342.8	335.1	332.6	335.1
65°	340.2	327.5	312.1	294.2	284.0	276.3	266.1	266.1	266.1
67.5°	286.5	276.3	258.4	240.5	227.7	214.9	199.6	204.6	207.2
70°	237.9	230.3	209.8	191.8	173.9	158.6	145.8	151.0	153.5
72.5°	194.4	184.2	166.3	145.8	130.5	110.0	102.4	107.4	107.4
75°	151.0	140.7	125.3	104.8	87.0	69.1	69.1	71.7	71.7
77.5°	112.6	102.4	87.0	69.1	53.8	40.9	43.5	43.5	43.5
80°	76.7	69.1	56.2	40.9	28.1	23.1	23.1	23.1	25.5
82.5°	43.5	38.4	30.7	20.5	12.8	12.8	12.8	12.8	12.8
85°	20.5	15.3	12.8	7.6	5.1	5.1	5.1	5.1	5.1
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)