

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: P580592

Luminaire Tested: **HC440D010-HM43040835-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580592
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC440D010-HM43040835-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4203.5 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

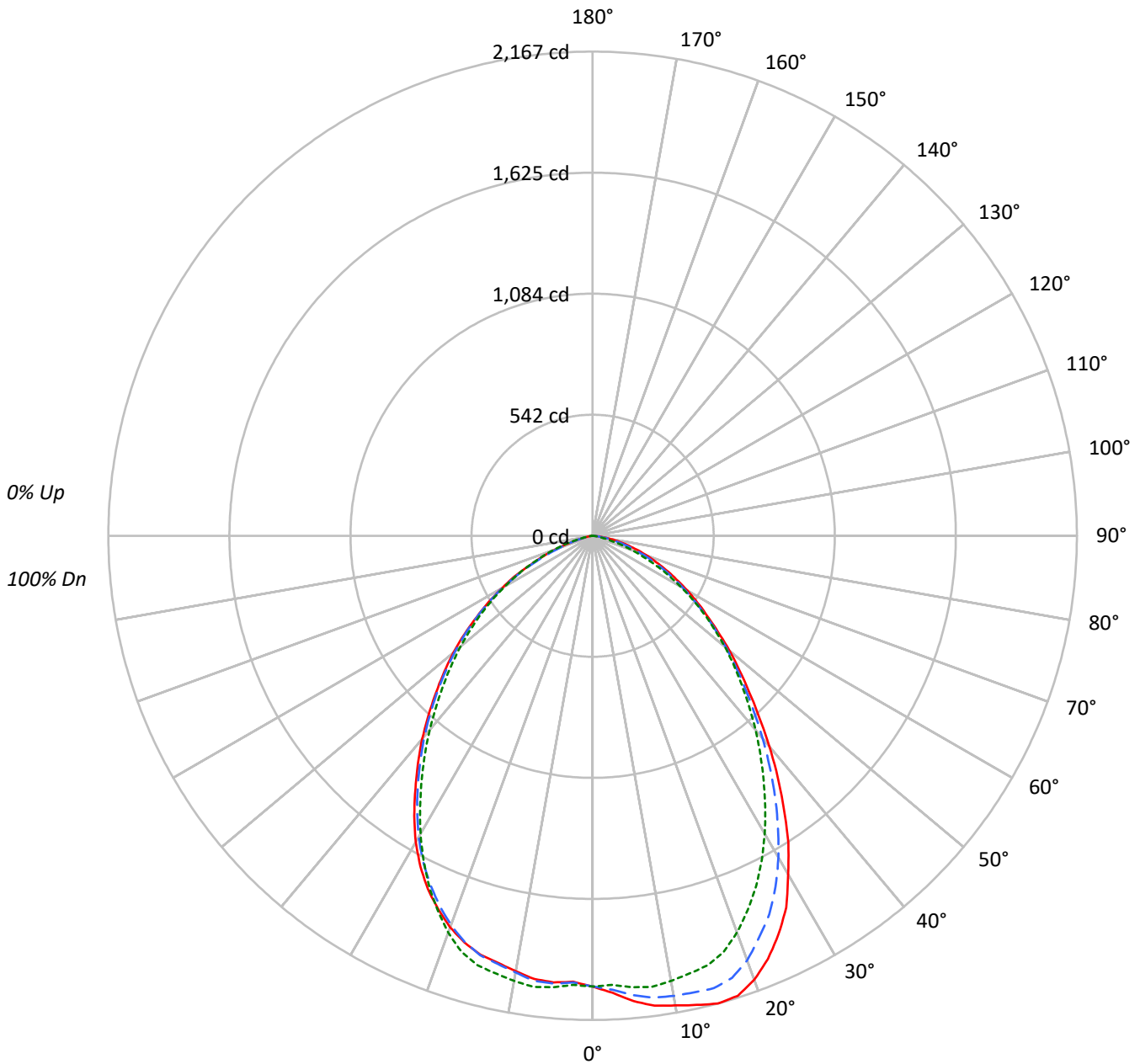
Input Watts (W): 41
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76				76				
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				67				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41				41				
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37				37				
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31				31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	248800	248800	248800
5°	258876	251113	248414
10°	267330	253327	247867
15°	276732	254104	247847
20°	277658	247966	244751
25°	267852	235570	237435
30°	249248	219352	225562
35°	224511	200719	208113
40°	197953	182592	190933
45°	173076	164529	172605
50°	153264	148044	155874
55°	134834	130727	136017
60°	120385	111628	114983
65°	105799	90681	89076
70°	92432	66862	60948
75°	76680	40270	32502
80°	58104	15556	9731
85°	27031	3821	3821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.5	4.6
10°-20°	567.8	13.5
20°-30°	822.3	19.6
30°-40°	867.5	20.6
40°-50°	750.8	17.9
50°-60°	556.2	13.2
60°-70°	320.6	7.6
70°-80°	112.0	2.7
80°-90°	11.8	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°	1584.6	37.7
0°-40°	2452.2	58.3
0°-60°	3759.2	89.4
0°-90°	4203.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4203.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2017	2017	2017	2017	2017	
5°	2091	2064	2028	2012	2006	201
15°	2167	2096	1990	1944	1941	610
25°	1968	1870	1731	1720	1745	901
35°	1491	1423	1333	1363	1382	931
45°	992	965	943	979	990	770
55°	627	613	608	630	632	565
65°	362	341	311	294	305	362
75°	161	136	84	68	68	173
85°	19	11	3	3	3	30
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°	2017.1	2017.1	2017.1	2017.1	2017.1	2017.1	2017.1	2017.1	2017.1
2.5°	2047.2	2041.7	2033.5	2022.6	2011.7	2003.6	2000.9	1998.1	1998.1
5°	2090.8	2079.9	2063.5	2041.7	2028.1	2019.9	2011.7	2006.3	2006.3
7.5°	2120.8	2109.8	2085.3	2055.4	2036.3	2019.9	2009.1	2000.9	2000.9
10°	2134.4	2120.8	2090.8	2052.7	2022.6	2000.9	1984.5	1979.0	1979.0
12.5°	2150.8	2134.4	2093.5	2044.5	2006.3	1979.0	1962.6	1957.3	1957.3
15°	2167.1	2148.1	2096.3	2039.0	1989.9	1957.3	1943.6	1940.9	1940.9
17.5°	2158.9	2134.4	2074.4	2006.3	1951.8	1919.0	1905.4	1905.4	1908.2
20°	2115.3	2090.8	2022.6	1946.3	1889.1	1864.6	1853.6	1859.1	1864.6
22.5°	2049.9	2019.9	1946.3	1872.7	1812.8	1790.9	1790.9	1799.1	1807.3
25°	1968.1	1940.9	1869.9	1788.2	1730.9	1714.6	1720.1	1733.7	1744.6
27.5°	1875.4	1845.5	1771.9	1695.5	1638.2	1630.0	1643.7	1662.8	1668.3
30°	1750.0	1725.6	1662.8	1589.2	1540.1	1537.5	1556.5	1570.2	1583.7
32.5°	1630.0	1602.8	1542.8	1472.0	1436.6	1439.3	1461.1	1477.5	1485.7
35°	1491.0	1466.5	1422.9	1365.7	1333.0	1338.5	1362.9	1379.3	1382.1
37.5°	1360.2	1343.9	1300.2	1256.6	1232.1	1243.0	1264.8	1283.9	1283.9
40°	1229.4	1215.7	1183.1	1147.6	1134.0	1147.6	1169.4	1185.8	1185.8
42.5°	1104.0	1095.8	1068.5	1044.0	1035.8	1055.0	1074.0	1087.6	1084.9
45°	992.2	984.0	965.0	945.9	943.2	962.3	978.6	986.8	989.5
47.5°	891.4	885.9	869.6	855.9	855.9	875.1	888.6	896.8	899.6
50°	798.7	793.2	779.7	768.7	771.5	790.5	801.4	809.6	812.3
52.5°	706.0	703.3	692.3	678.8	686.9	700.5	714.2	719.7	722.4
55°	627.0	627.0	613.3	602.4	607.9	621.5	629.7	632.5	632.5
57.5°	556.1	553.3	537.0	526.1	528.8	542.5	547.9	550.6	550.6
60°	488.0	485.2	468.9	452.5	452.5	460.7	463.4	466.1	466.1
62.5°	422.5	419.8	400.8	387.1	381.6	378.9	378.9	384.4	395.3
65°	362.5	359.8	340.8	318.9	310.7	302.6	294.4	299.9	305.2
67.5°	308.1	302.6	283.5	264.4	245.4	231.7	218.0	226.2	237.2
70°	256.3	250.8	229.0	207.2	185.4	163.6	152.7	163.6	169.0
72.5°	207.2	201.7	179.9	158.1	130.8	109.1	106.3	109.1	111.8
75°	160.9	158.1	136.3	111.8	84.5	68.2	68.2	68.2	68.2
77.5°	119.9	114.5	92.7	70.8	49.1	38.1	35.4	35.4	35.4
80°	81.8	76.3	57.3	40.9	21.9	16.4	16.4	13.7	13.7
82.5°	46.3	43.6	29.9	16.4	8.2	5.5	5.5	5.5	5.5
85°	19.1	16.4	10.9	5.5	2.7	2.7	2.7	2.7	2.7
87.5°	2.7	2.7	2.7	0.0	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)