

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: P581132

Luminaire Tested: **HC455D010-HM44560827-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581132
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: HC455D010-HM44560827-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4552.7 lumens
Efficiency: N/A
Efficacy: 87.6 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

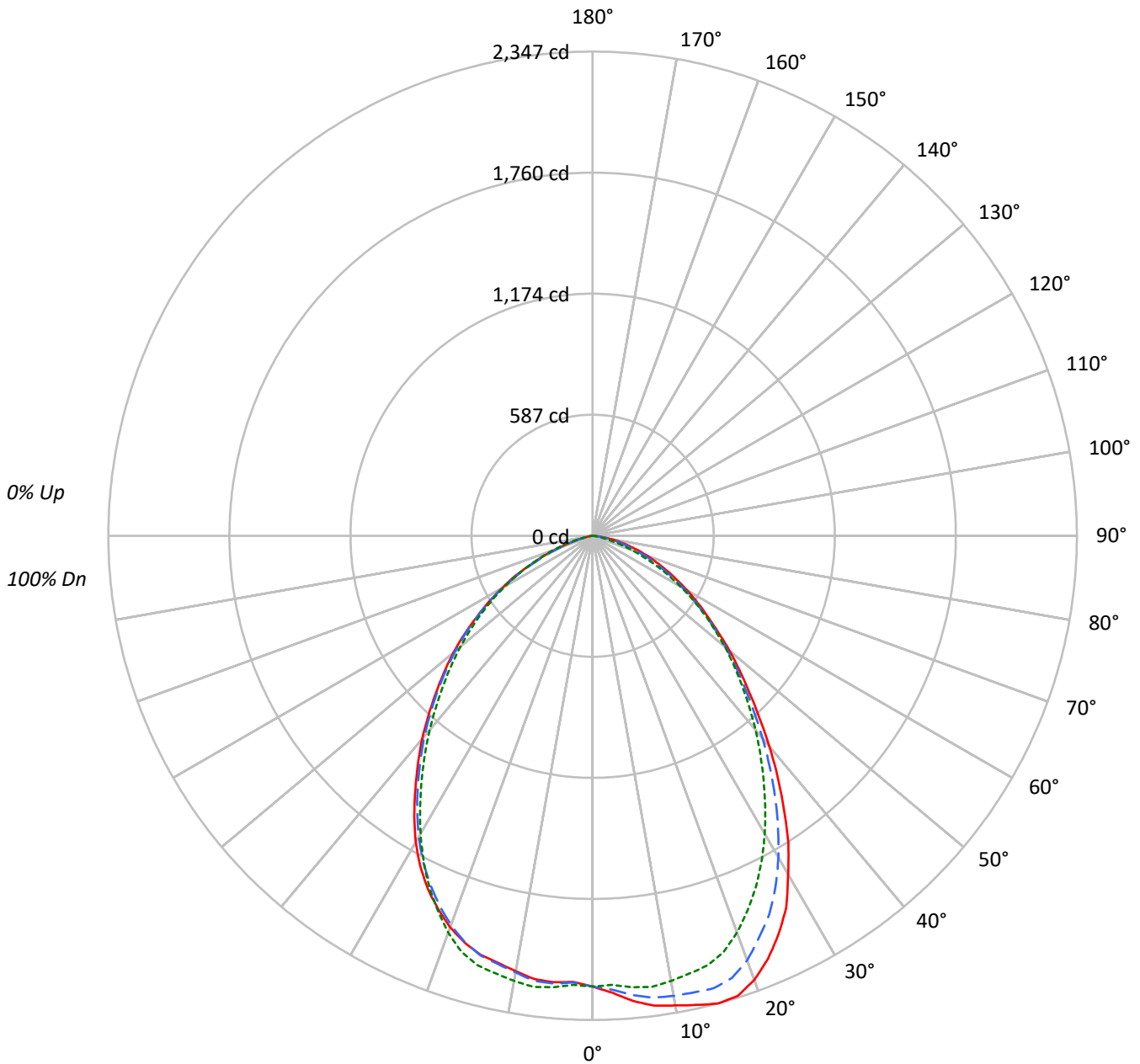
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
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	62	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°	269486	269486	269486
5°	280383	271976	269041
10°	289549	274382	268470
15°	299730	275225	268444
20°	300734	268561	265083
25°	290104	255154	257169
30°	269957	237597	244320
35°	243167	217388	225399
40°	214409	197760	206793
45°	187468	178187	186944
50°	165986	160326	168846
55°	146038	141587	147307
60°	130376	120879	124554
65°	114584	98240	96489
70°	100077	72416	65997
75°	83019	43654	35171
80°	62863	16764	10442
85°	29295	4104	4104



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.7	4.6
10°-20°	615.0	13.5
20°-30°	890.6	19.6
30°-40°	939.6	20.6
40°-50°	813.2	17.9
50°-60°	602.4	13.2
60°-70°	347.2	7.6
70°-80°	121.3	2.7
80°-90°	12.7	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°	1716.3	37.7
0°-40°	2655.9	58.3
0°-60°	4071.5	89.4
0°-90°	4552.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4552.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2185	2185	2185	2185	2185	
5°	2264	2235	2197	2179	2173	218
15°	2347	2270	2155	2105	2102	660
25°	2132	2025	1875	1863	1890	976
35°	1615	1541	1444	1476	1497	1009
45°	1075	1045	1022	1060	1072	834
55°	679	664	658	682	685	612
65°	393	369	337	319	331	392
75°	174	148	92	74	74	187
85°	21	12	3	3	3	32
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°	2184.8	2184.8	2184.8	2184.8	2184.8	2184.8	2184.8	2184.8	2184.8
2.5°	2217.3	2211.4	2202.5	2190.7	2178.9	2170.0	2167.1	2164.2	2164.2
5°	2264.5	2252.7	2234.9	2211.4	2196.6	2187.8	2178.9	2172.9	2172.9
7.5°	2297.0	2285.2	2258.5	2226.2	2205.5	2187.8	2176.0	2167.1	2167.1
10°	2311.8	2297.0	2264.5	2223.2	2190.7	2167.1	2149.3	2143.5	2143.5
12.5°	2329.4	2311.8	2267.4	2214.3	2172.9	2143.5	2125.7	2119.8	2119.8
15°	2347.2	2326.5	2270.4	2208.4	2155.3	2119.8	2105.1	2102.2	2102.2
17.5°	2338.3	2311.8	2246.7	2172.9	2113.9	2078.5	2063.7	2063.7	2066.7
20°	2291.1	2264.5	2190.7	2108.0	2046.0	2019.5	2007.7	2013.5	2019.5
22.5°	2220.2	2187.8	2108.0	2028.3	1963.4	1939.7	1939.7	1948.6	1957.5
25°	2131.6	2102.2	2025.3	1936.8	1874.8	1857.0	1863.0	1877.7	1889.6
27.5°	2031.3	1998.8	1919.0	1836.4	1774.4	1765.6	1780.3	1801.0	1806.9
30°	1895.4	1868.8	1801.0	1721.2	1668.2	1665.1	1685.8	1700.6	1715.4
32.5°	1765.6	1736.0	1671.1	1594.4	1555.9	1558.9	1582.5	1600.2	1609.1
35°	1614.9	1588.4	1541.1	1479.1	1443.7	1449.7	1476.2	1493.9	1496.9
37.5°	1473.3	1455.5	1408.3	1361.0	1334.5	1346.3	1369.9	1390.6	1390.6
40°	1331.6	1316.8	1281.4	1243.0	1228.2	1243.0	1266.6	1284.3	1284.3
42.5°	1195.8	1186.9	1157.4	1130.7	1122.0	1142.6	1163.2	1178.0	1175.1
45°	1074.7	1065.8	1045.1	1024.5	1021.5	1042.2	1059.9	1068.8	1071.7
47.5°	965.5	959.5	941.8	927.1	927.1	947.7	962.4	971.3	974.2
50°	865.0	859.2	844.4	832.6	835.5	856.2	868.0	876.8	879.9
52.5°	764.7	761.7	749.9	735.2	744.0	758.8	773.6	779.4	782.4
55°	679.1	679.1	664.3	652.5	658.4	673.2	682.0	685.0	685.0
57.5°	602.3	599.3	581.6	569.8	572.7	587.5	593.4	596.4	596.4
60°	528.5	525.5	507.8	490.0	490.0	498.9	501.9	504.9	504.9
62.5°	457.6	454.7	434.0	419.3	413.3	410.4	410.4	416.2	428.1
65°	392.6	389.7	369.0	345.5	336.6	327.7	318.8	324.8	330.6
67.5°	333.7	327.7	307.0	286.4	265.7	251.0	236.1	245.0	256.8
70°	277.5	271.6	248.0	224.4	200.8	177.2	165.4	177.2	183.0
72.5°	224.4	218.5	194.8	171.2	141.8	118.1	115.2	118.1	121.0
75°	174.2	171.2	147.6	121.0	91.6	73.8	73.8	73.8	73.8
77.5°	129.9	124.0	100.4	76.7	53.1	41.3	38.4	38.4	38.4
80°	88.5	82.7	62.0	44.3	23.6	17.7	17.7	14.7	14.7
82.5°	50.2	47.2	32.5	17.7	8.9	5.9	5.9	5.9	5.9
85°	20.7	17.7	11.8	5.9	2.9	2.9	2.9	2.9	2.9
87.5°	2.9	2.9	2.9	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)