

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: P581384

Luminaire Tested: **HC460D010-HM44560935-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581384
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: HC460D010-HM44560935-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4641.4 lumens
Efficiency: N/A
Efficacy: 84.4 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

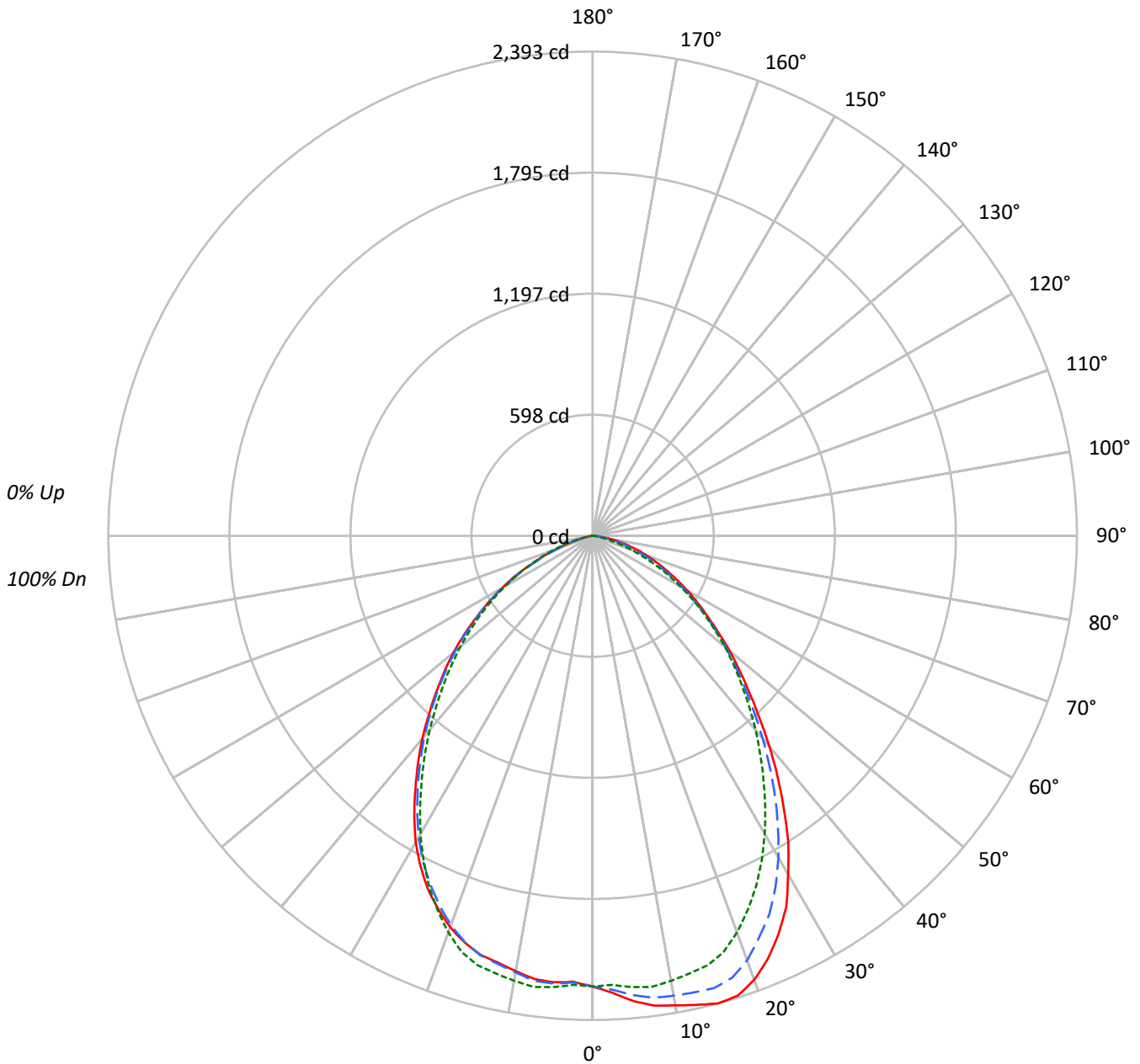
Input Watts (W): 55
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	274728	274728	274728
5°	285843	277275	274291
10°	295173	279717	273693
15°	305566	280575	273667
20°	306588	273799	270242
25°	295766	260122	262177
30°	275226	242212	249063
35°	247910	221620	229796
40°	218563	201608	210819
45°	191113	181676	190590
50°	169229	163473	172127
55°	148877	144339	150167
60°	132893	123272	126972
65°	116832	100137	98415
70°	102025	73787	67295
75°	84591	44464	35838
80°	64213	17048	10655
85°	29861	4246	4246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.8	4.6
10°-20°	626.9	13.5
20°-30°	908.0	19.6
30°-40°	957.9	20.6
40°-50°	829.0	17.9
50°-60°	614.2	13.2
60°-70°	354.0	7.6
70°-80°	123.6	2.7
80°-90°	13.0	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°	1749.7	37.7
0°-40°	2707.6	58.3
0°-60°	4150.8	89.4
0°-90°	4641.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4641.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2227	2227	2227	2227	2227	
5°	2309	2279	2239	2221	2215	222
15°	2393	2315	2197	2146	2143	673
25°	2173	2065	1911	1899	1926	995
35°	1646	1571	1472	1505	1526	1028
45°	1096	1066	1042	1080	1093	850
55°	692	677	671	695	698	624
65°	400	376	343	325	337	400
75°	178	150	93	75	75	191
85°	21	12	3	3	3	33
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°	2227.3	2227.3	2227.3	2227.3	2227.3	2227.3	2227.3	2227.3	2227.3
2.5°	2260.5	2254.4	2245.4	2233.3	2221.4	2212.3	2209.3	2206.3	2206.3
5°	2308.6	2296.6	2278.6	2254.4	2239.4	2230.4	2221.4	2215.3	2215.3
7.5°	2341.7	2329.7	2302.6	2269.5	2248.4	2230.4	2218.3	2209.3	2209.3
10°	2356.7	2341.7	2308.6	2266.5	2233.3	2209.3	2191.3	2185.2	2185.2
12.5°	2374.9	2356.7	2311.6	2257.5	2215.3	2185.2	2167.1	2161.1	2161.1
15°	2392.9	2371.8	2314.7	2251.4	2197.2	2161.1	2146.1	2143.1	2143.1
17.5°	2383.9	2356.7	2290.5	2215.3	2155.2	2118.9	2103.9	2103.9	2107.0
20°	2335.7	2308.6	2233.3	2149.1	2085.9	2058.8	2046.8	2052.7	2058.8
22.5°	2263.4	2230.4	2149.1	2067.8	2001.6	1977.5	1977.5	1986.5	1995.5
25°	2173.2	2143.1	2064.8	1974.6	1911.3	1893.2	1899.2	1914.3	1926.4
27.5°	2070.8	2037.7	1956.4	1872.1	1809.0	1799.9	1815.0	1836.0	1842.0
30°	1932.4	1905.3	1836.0	1754.8	1700.6	1697.6	1718.6	1733.7	1748.7
32.5°	1799.9	1769.8	1703.6	1625.3	1586.2	1589.2	1613.4	1631.4	1640.5
35°	1646.4	1619.4	1571.2	1508.0	1471.8	1477.9	1505.0	1523.0	1526.1
37.5°	1501.9	1483.9	1435.7	1387.6	1360.5	1372.6	1396.6	1417.7	1417.7
40°	1357.4	1342.4	1306.3	1267.2	1252.1	1267.2	1291.2	1309.3	1309.3
42.5°	1219.0	1210.0	1179.9	1152.8	1143.8	1164.9	1185.9	1201.0	1197.9
45°	1095.6	1086.6	1065.5	1044.4	1041.5	1062.5	1080.5	1089.6	1092.6
47.5°	984.3	978.2	960.2	945.2	945.2	966.1	981.2	990.3	993.3
50°	881.9	875.9	860.9	848.8	851.9	872.8	884.9	893.9	897.0
52.5°	779.6	776.5	764.6	749.4	758.5	773.6	788.6	794.7	797.6
55°	692.3	692.3	677.3	665.2	671.2	686.3	695.3	698.3	698.3
57.5°	614.0	611.0	593.0	580.9	584.0	599.0	604.9	608.0	608.0
60°	538.7	535.8	517.8	499.7	499.7	508.7	511.7	514.7	514.7
62.5°	466.5	463.5	442.5	427.4	421.4	418.4	418.4	424.4	436.4
65°	400.3	397.3	376.2	352.2	343.1	334.1	325.1	331.1	337.2
67.5°	340.1	334.1	313.0	291.9	270.9	255.8	240.8	249.9	261.8
70°	282.9	276.9	252.8	228.8	204.6	180.6	168.5	180.6	186.6
72.5°	228.8	222.8	198.6	174.6	144.5	120.4	117.4	120.4	123.4
75°	177.5	174.6	150.5	123.4	93.3	75.2	75.2	75.2	75.2
77.5°	132.4	126.4	102.3	78.3	54.1	42.2	39.1	39.1	39.1
80°	90.4	84.3	63.2	45.1	24.0	18.0	18.0	15.0	15.0
82.5°	51.2	48.2	33.2	18.0	9.0	6.0	6.0	6.0	6.0
85°	21.1	18.0	12.1	6.0	3.0	3.0	3.0	3.0	3.0
87.5°	3.0	3.0	3.0	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)