

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: P582441

Luminaire Tested: **HC640D010-HM63040830-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC640D010-HM63040830-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4530.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

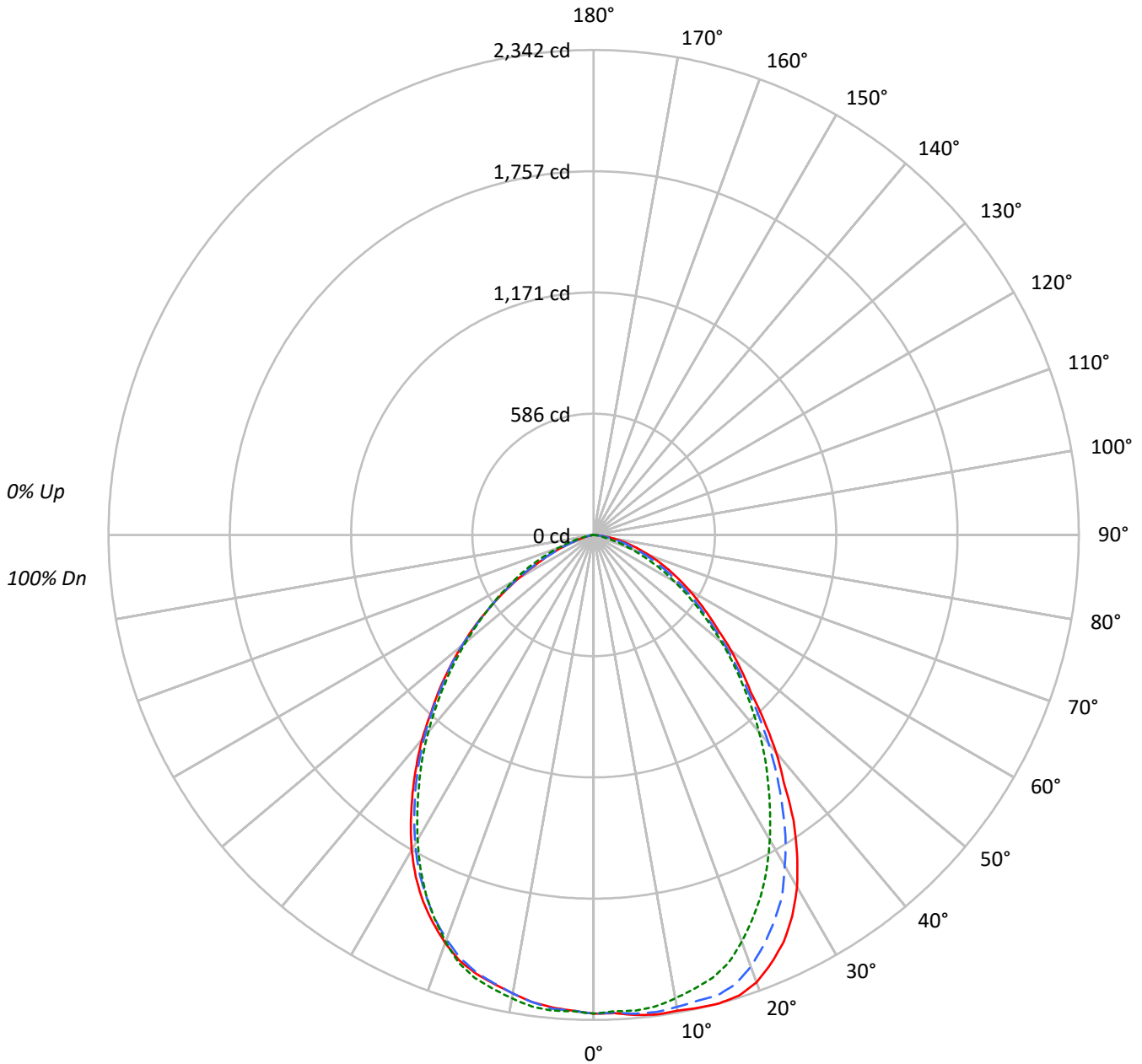
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	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°	126733	126733	126733
5°	128054	126882	126051
10°	129868	126501	125148
15°	132924	125704	124496
20°	134161	121962	122318
25°	131227	115827	118029
30°	124291	107599	111239
35°	112538	98343	101997
40°	98005	88895	92151
45°	83156	78690	81512
50°	73644	68731	70539
55°	64877	58779	58493
60°	58131	49503	45512
65°	51873	39693	32623
70°	45649	28643	20404
75°	38507	17326	11544
80°	29644	7671	4799
85°	17171	1887	1887



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.4	4.8
10°-20°	630.7	13.9
20°-30°	911.7	20.1
30°-40°	959.3	21.2
40°-50°	806.4	17.8
50°-60°	566.0	12.5
60°-70°	311.4	6.9
70°-80°	110.6	2.4
80°-90°	14.5	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°	1761.8	38.9
0°-40°	2721.2	60.1
0°-60°	4093.6	90.4
0°-90°	4530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4530.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2312	2312	2312	2312	2312	
5°	2327	2321	2306	2297	2291	222
15°	2342	2303	2215	2188	2194	661
25°	2170	2060	1915	1918	1951	992
35°	1682	1585	1470	1500	1524	1042
45°	1073	1042	1015	1039	1051	841
55°	679	642	615	615	612	611
65°	400	358	306	252	252	398
75°	182	146	82	54	54	195
85°	27	15	3	3	3	37
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°	2311.8	2311.8	2311.8	2311.8	2311.8	2311.8	2311.8	2311.8	2311.8
2.5°	2311.8	2311.8	2308.8	2308.8	2302.7	2302.7	2299.7	2299.7	2299.7
5°	2327.0	2327.0	2320.9	2311.8	2305.7	2296.6	2296.6	2293.6	2290.6
7.5°	2336.1	2333.0	2323.9	2311.8	2296.6	2281.6	2275.5	2278.6	2275.5
10°	2333.0	2327.0	2314.8	2290.6	2272.5	2251.3	2248.2	2245.2	2248.2
12.5°	2339.1	2330.0	2305.7	2275.5	2245.2	2220.9	2217.9	2217.9	2220.9
15°	2342.1	2333.0	2302.7	2257.3	2214.9	2190.6	2187.6	2190.6	2193.6
17.5°	2333.0	2320.9	2275.5	2214.9	2166.5	2142.2	2142.2	2148.3	2154.3
20°	2299.7	2281.6	2217.9	2145.2	2090.6	2072.4	2078.5	2090.6	2096.7
22.5°	2239.1	2217.9	2145.2	2063.4	2005.8	1990.6	2005.8	2021.0	2027.0
25°	2169.5	2145.2	2060.4	1975.5	1914.9	1896.7	1918.0	1942.2	1951.3
27.5°	2075.4	2048.3	1969.4	1872.5	1811.9	1802.8	1827.1	1854.4	1860.3
30°	1963.5	1933.1	1845.3	1754.3	1699.8	1696.8	1724.1	1748.3	1757.3
32.5°	1827.1	1799.8	1724.1	1633.2	1584.6	1584.6	1611.9	1633.2	1642.3
35°	1681.6	1651.3	1584.6	1508.9	1469.5	1472.5	1499.8	1515.0	1524.1
37.5°	1508.9	1499.8	1448.3	1384.7	1357.4	1363.5	1384.7	1396.8	1405.9
40°	1369.5	1345.2	1312.0	1260.4	1242.2	1248.3	1269.5	1281.7	1287.7
42.5°	1218.1	1202.9	1175.6	1139.2	1127.1	1136.2	1154.4	1163.5	1160.5
45°	1072.6	1069.6	1042.3	1021.0	1015.0	1027.1	1039.2	1048.3	1051.4
47.5°	966.6	954.4	930.2	915.0	908.9	921.1	933.2	939.3	939.3
50°	863.5	851.4	827.1	812.0	805.9	818.0	827.1	833.2	827.1
52.5°	760.5	748.4	727.2	709.0	705.9	712.0	715.0	718.1	724.1
55°	678.8	666.6	642.4	621.1	615.0	618.1	615.0	615.0	612.0
57.5°	599.9	587.7	563.6	539.3	530.2	527.2	518.1	515.1	512.0
60°	530.2	515.1	490.8	463.6	451.5	439.4	424.2	415.1	415.1
62.5°	463.6	448.5	421.2	396.9	378.7	357.6	333.3	321.2	321.2
65°	399.9	387.8	357.6	330.3	306.0	278.7	251.5	245.5	251.5
67.5°	339.4	327.2	296.9	269.6	239.4	206.0	181.8	181.8	187.8
70°	284.8	272.6	245.5	212.1	178.7	145.5	127.3	127.3	127.3
72.5°	233.3	221.2	190.9	160.5	127.3	93.9	84.8	87.8	84.8
75°	181.8	172.7	145.5	112.1	81.8	57.5	54.5	51.6	54.5
77.5°	136.4	127.3	103.0	72.7	45.5	33.4	30.3	30.3	30.3
80°	93.9	84.8	66.6	42.5	24.3	15.2	15.2	15.2	15.2
82.5°	57.5	48.5	36.4	21.2	9.1	9.1	9.1	9.1	9.1
85°	27.3	21.2	15.2	6.1	3.0	3.0	3.0	3.0	3.0
87.5°	6.1	6.1	3.0	3.0	0.0	3.0	3.0	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)