

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: P582521

Luminaire Tested: **HC640D010-HM63040930-61WWWB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582521
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC640D010-HM63040930-61WWWB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4082.0 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

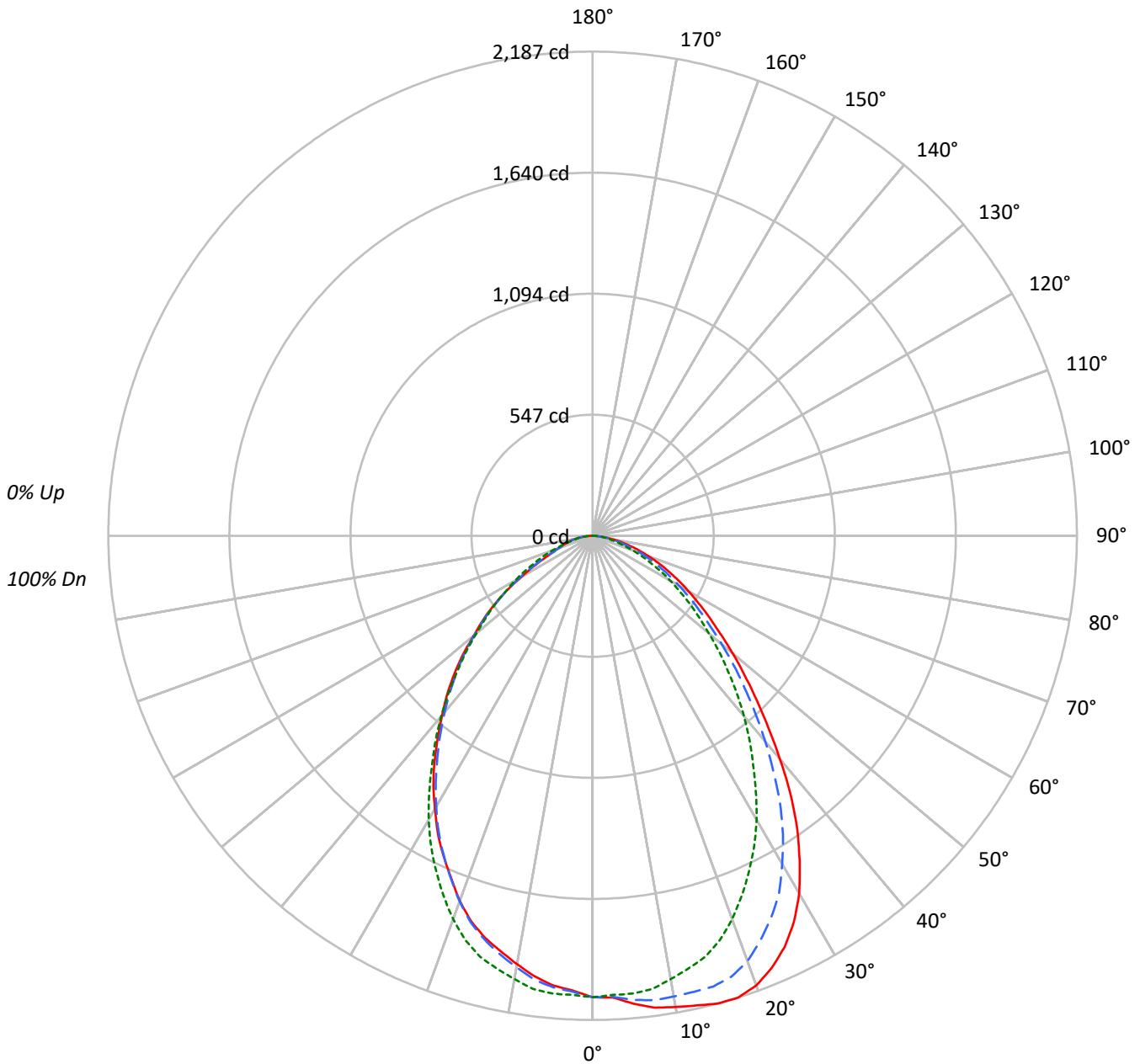
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58																			
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46																			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42																			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																			
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	114267	114267	114267
5°	116745	114230	112200
10°	120311	113174	109372
15°	124115	111675	106663
20°	126087	107483	102331
25°	124017	101111	96459
30°	118069	93730	90121
35°	107673	84611	83272
40°	94148	76014	75599
45°	81016	66891	68441
50°	70428	58284	59495
55°	61503	51171	51716
60°	54634	44339	40589
65°	48760	37293	31015
70°	42892	30566	26030
75°	36791	24146	24718
80°	29644	20710	24277
85°	19687	17926	21511



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.4	4.8
10°-20°	561.8	13.8
20°-30°	802.0	19.6
30°-40°	840.1	20.6
40°-50°	707.3	17.3
50°-60°	503.4	12.3
60°-70°	294.6	7.2
70°-80°	139.4	3.4
80°-90°	35.9	0.9
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°	1561.2	38.2
0°-40°	2401.3	58.8
0°-60°	3612.1	88.5
0°-90°	4082.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4082.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2084	2084	2084	2084	2084	
5°	2122	2104	2076	2047	2039	204
15°	2187	2107	1968	1888	1879	617
25°	2050	1905	1672	1592	1595	938
35°	1609	1475	1264	1222	1244	999
45°	1045	968	863	866	883	811
55°	644	590	535	535	541	580
65°	376	333	288	242	239	375
75°	174	145	114	111	117	186
85°	31	26	28	34	34	41
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°	2084.4	2084.4	2084.4	2084.4	2084.4	2084.4	2084.4	2084.4	2084.4
2.5°	2087.3	2087.3	2084.4	2081.5	2075.8	2067.3	2061.6	2055.9	2055.9
5°	2121.5	2115.7	2104.3	2090.1	2075.8	2058.8	2047.4	2038.9	2038.9
7.5°	2150.0	2138.5	2115.7	2090.1	2064.5	2041.7	2021.8	2010.4	2007.5
10°	2161.3	2147.1	2112.9	2073.1	2033.1	2001.8	1979.0	1964.8	1964.8
12.5°	2172.7	2155.6	2110.0	2053.2	2001.8	1959.1	1936.3	1924.9	1922.0
15°	2186.9	2164.1	2107.2	2036.0	1967.7	1919.3	1887.9	1879.4	1879.4
17.5°	2186.9	2158.4	2087.3	1998.9	1913.6	1859.4	1831.0	1822.5	1825.2
20°	2161.3	2129.9	2044.6	1936.3	1842.4	1785.4	1756.9	1751.2	1754.1
22.5°	2112.9	2075.8	1979.0	1862.3	1759.8	1699.9	1674.3	1674.3	1671.6
25°	2050.3	2010.4	1905.0	1782.6	1671.6	1611.7	1591.8	1594.7	1594.7
27.5°	1967.7	1927.9	1822.5	1691.5	1580.4	1520.5	1506.3	1512.1	1514.9
30°	1865.2	1822.5	1711.4	1583.2	1480.7	1421.0	1412.4	1421.0	1423.7
32.5°	1739.9	1708.5	1600.3	1469.4	1372.6	1321.2	1318.5	1326.9	1338.4
35°	1608.9	1574.8	1475.0	1355.4	1264.3	1221.7	1221.7	1235.9	1244.3
37.5°	1466.5	1432.3	1341.2	1241.6	1164.7	1124.8	1130.5	1144.8	1147.5
40°	1315.6	1290.0	1213.1	1127.6	1062.2	1030.8	1039.4	1053.6	1056.4
42.5°	1173.3	1150.4	1087.8	1010.9	962.5	939.7	951.1	968.1	973.8
45°	1045.0	1019.5	968.1	902.7	862.8	851.4	865.7	877.0	882.8
47.5°	928.3	905.5	862.8	803.0	774.5	768.8	783.1	788.8	794.4
50°	825.8	803.0	760.3	706.2	683.4	683.4	694.8	700.5	697.6
52.5°	726.1	706.2	666.4	620.7	606.5	606.5	615.0	618.0	623.6
55°	643.5	623.6	589.5	546.7	535.4	529.7	535.4	535.4	541.1
57.5°	566.6	549.6	518.2	478.4	464.2	458.5	455.6	452.8	458.5
60°	498.3	484.1	449.9	415.7	404.4	390.2	378.7	367.3	370.2
62.5°	435.7	421.4	390.2	356.0	344.5	324.6	310.4	296.1	301.8
65°	375.9	361.7	333.2	304.7	287.5	264.9	242.0	233.5	239.1
67.5°	321.8	310.4	281.9	253.4	239.1	213.5	190.7	190.7	193.6
70°	267.6	256.3	233.5	207.9	190.7	168.0	159.5	162.4	162.4
72.5°	219.2	210.8	188.0	165.1	148.1	133.9	133.9	136.6	139.6
75°	173.7	168.0	145.2	125.3	114.0	105.4	111.1	114.0	116.7
77.5°	133.9	125.3	108.2	93.9	85.5	88.2	93.9	96.8	99.7
80°	93.9	91.1	76.9	68.3	65.6	68.3	74.0	76.9	76.9
82.5°	59.8	57.0	48.4	45.5	45.5	48.4	54.1	54.1	54.1
85°	31.3	28.5	25.6	25.6	28.5	31.3	34.2	34.2	34.2
87.5°	11.3	8.6	11.3	11.3	14.2	14.2	14.2	14.2	14.2
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)