

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: P580773

Luminaire Tested: **HC445D010-HM44560927-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580773
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC445D010-HM44560927-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3544.5 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

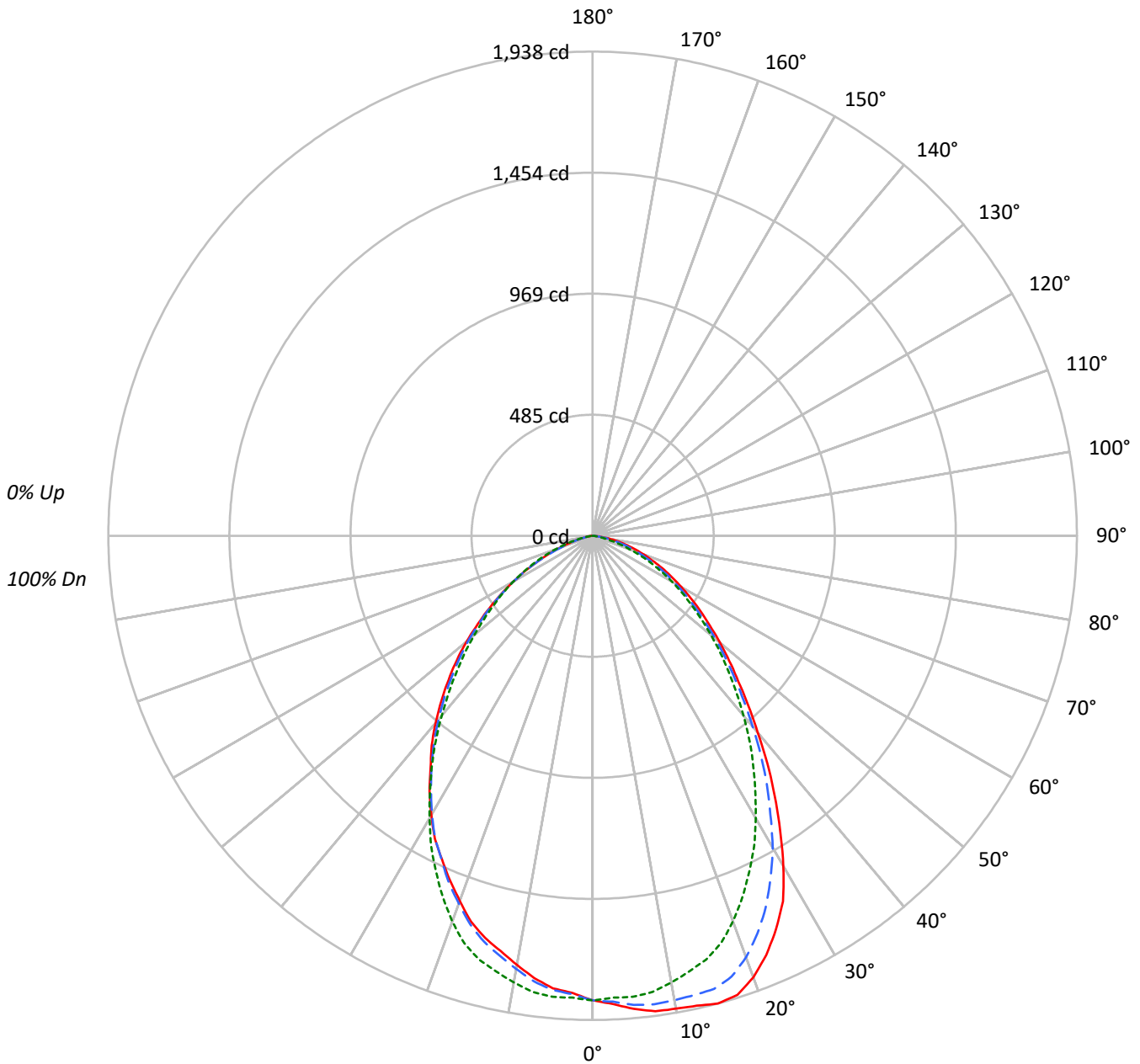
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77			77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67			67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47			47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35			35
10	58	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°	229374	229374	229374
5°	235400	229383	225111
10°	240727	227414	218446
15°	247489	224197	212692
20°	246824	215597	204059
25°	236427	201845	194292
30°	217472	185896	183916
35°	191323	168707	170092
40°	165525	151017	157329
45°	143858	134177	142253
50°	127666	118359	126342
55°	113265	103824	108297
60°	100872	90042	90042
65°	89660	74833	70105
70°	77501	56656	49984
75°	64957	37411	30786
80°	49225	18042	16408
85°	26182	6510	6510



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.1	5.0
10°-20°	499.3	14.1
20°-30°	704.1	19.9
30°-40°	727.4	20.5
40°-50°	616.6	17.4
50°-60°	448.6	12.7
60°-70°	262.1	7.4
70°-80°	97.4	2.7
80°-90°	12.8	0.4
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°	1379.5	38.9
0°-40°	2106.9	59.4
0°-60°	3172.2	89.5
0°-90°	3544.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3544.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1860	1860	1860	1860	1860	
5°	1901	1885	1853	1825	1818	182
15°	1938	1878	1756	1682	1666	545
25°	1737	1640	1483	1430	1428	794
35°	1271	1215	1120	1123	1130	794
45°	825	802	769	797	816	642
55°	527	501	483	499	504	474
65°	307	282	256	240	240	305
75°	136	113	78	62	65	146
85°	18	12	5	5	5	26
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°	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6
2.5°	1875.8	1871.2	1866.6	1859.6	1850.4	1843.4	1836.5	1831.9	1831.9
5°	1901.2	1894.3	1885.1	1868.9	1852.6	1838.8	1824.9	1818.1	1818.1
7.5°	1919.7	1910.4	1891.9	1868.9	1841.1	1820.3	1799.6	1790.4	1785.7
10°	1922.0	1912.8	1887.3	1852.6	1815.7	1783.4	1760.3	1746.4	1744.1
12.5°	1926.6	1915.0	1882.7	1834.2	1785.7	1746.4	1721.0	1707.1	1702.5
15°	1938.1	1922.0	1878.1	1815.7	1755.7	1709.5	1681.8	1670.2	1665.6
17.5°	1926.6	1903.5	1850.4	1776.5	1709.5	1658.7	1630.9	1619.4	1619.4
20°	1880.4	1857.4	1795.0	1714.1	1642.5	1593.9	1566.2	1559.4	1554.6
22.5°	1815.7	1790.4	1723.3	1637.9	1566.2	1522.3	1503.8	1494.6	1492.4
25°	1737.2	1711.7	1640.1	1552.4	1483.1	1446.1	1430.0	1430.0	1427.6
27.5°	1649.5	1617.0	1543.1	1466.9	1399.9	1372.2	1365.2	1365.2	1367.6
30°	1526.9	1503.8	1441.5	1367.6	1305.2	1286.7	1286.7	1291.3	1291.3
32.5°	1395.3	1379.2	1323.7	1259.0	1210.5	1199.0	1203.6	1212.8	1215.1
35°	1270.6	1252.0	1215.1	1157.3	1120.4	1115.8	1122.7	1129.6	1129.6
37.5°	1148.1	1129.6	1104.3	1058.0	1030.3	1032.6	1041.9	1051.1	1058.0
40°	1028.0	1014.2	995.7	958.6	937.9	947.2	958.6	967.9	977.1
42.5°	921.7	907.8	894.0	866.3	852.4	863.9	877.9	887.1	896.4
45°	824.7	815.5	801.6	778.6	769.2	780.8	797.0	806.3	815.5
47.5°	741.5	736.9	718.4	697.7	693.1	704.6	718.4	730.0	736.9
50°	665.3	658.4	642.2	621.4	616.8	635.3	644.5	651.4	658.4
52.5°	591.4	584.4	565.9	547.5	547.5	561.3	568.3	570.5	577.5
55°	526.7	519.8	501.3	487.4	482.8	494.4	499.0	499.0	503.6
57.5°	466.6	459.7	441.3	425.0	422.8	429.7	429.7	429.7	432.0
60°	408.9	401.9	383.5	369.6	365.0	367.3	365.0	362.6	365.0
62.5°	355.8	348.8	330.3	314.2	309.6	309.6	302.6	300.4	302.6
65°	307.2	295.6	281.8	265.7	256.4	249.5	240.2	240.2	240.2
67.5°	258.7	249.5	233.3	217.1	205.6	194.0	180.2	184.8	187.1
70°	214.9	207.9	189.4	173.2	157.1	143.3	131.7	136.3	138.6
72.5°	175.6	166.3	150.1	131.7	117.8	99.3	92.5	97.1	97.1
75°	136.3	127.0	113.2	94.7	78.5	62.4	62.4	64.6	64.6
77.5°	101.7	92.5	78.5	62.4	48.5	36.9	39.3	39.3	39.3
80°	69.3	62.4	50.8	36.9	25.4	20.8	20.8	20.8	23.1
82.5°	39.3	34.7	27.7	18.5	11.6	11.6	11.6	11.6	11.6
85°	18.5	13.9	11.6	7.0	4.6	4.6	4.6	4.6	4.6
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)