

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: P580524

Luminaire Tested: **HC435D010-HM43040935-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580524
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC435D010-HM43040935-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3175.0 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

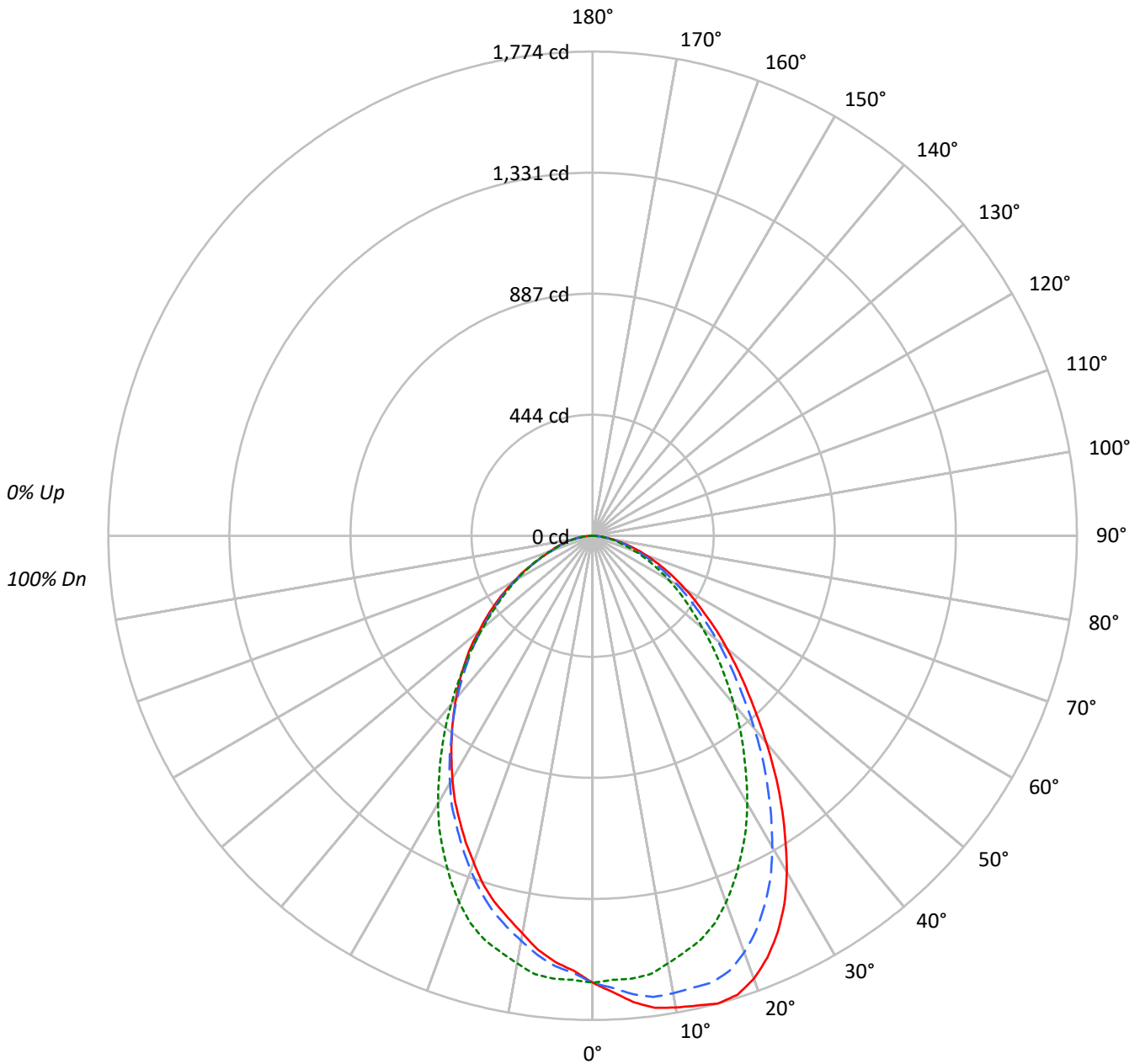
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	201929	201929	201929
5°	212333	201673	194120
10°	219798	199258	185305
15°	226509	195644	177396
20°	226755	187586	167175
25°	218231	175334	156743
30°	202646	161342	146372
35°	181641	145247	135444
40°	159390	129602	125206
45°	139305	114745	115477
50°	123003	100417	104044
55°	108448	89029	93545
60°	96950	78793	81901
65°	85895	69317	69317
70°	75049	59109	59109
75°	64099	50088	56092
80°	50788	44821	50788
85°	32833	38636	47552



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.1	4.9
10°-20°	436.8	13.8
20°-30°	612.0	19.3
30°-40°	630.5	19.9
40°-50°	536.8	16.9
50°-60°	397.7	12.5
60°-70°	249.6	7.9
70°-80°	124.0	3.9
80°-90°	32.6	1.0
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°	1203.9	37.9
0°-40°	1834.4	57.8
0°-60°	2768.8	87.2
0°-90°	3175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3175.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1637	1637	1637	1637	1637	
5°	1715	1686	1629	1582	1568	165
15°	1774	1694	1532	1421	1389	499
25°	1604	1492	1288	1177	1152	733
35°	1206	1116	965	902	900	752
45°	799	744	658	645	662	620
55°	504	464	414	422	435	456
65°	294	265	238	233	238	294
75°	134	120	105	114	118	144
85°	23	23	27	32	34	30
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°	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1
2.5°	1672.8	1666.6	1658.1	1643.5	1628.8	1616.1	1603.5	1597.2	1595.2
5°	1714.9	1702.3	1685.6	1658.1	1628.8	1603.5	1582.5	1572.0	1567.8
7.5°	1744.3	1731.7	1704.4	1662.4	1620.4	1582.5	1548.9	1534.1	1530.0
10°	1754.9	1740.2	1702.3	1645.5	1590.9	1544.7	1506.8	1488.0	1479.5
12.5°	1763.2	1744.3	1696.0	1628.8	1561.5	1504.8	1464.8	1439.6	1433.3
15°	1773.8	1752.8	1693.9	1611.9	1532.1	1464.8	1420.7	1397.6	1389.2
17.5°	1763.2	1740.2	1670.8	1578.3	1488.0	1414.4	1366.0	1345.0	1336.7
20°	1727.5	1702.3	1624.5	1525.7	1429.1	1353.4	1305.1	1284.1	1273.6
22.5°	1672.8	1645.5	1565.7	1460.6	1361.8	1288.3	1242.0	1221.0	1214.7
25°	1603.5	1576.2	1492.1	1385.0	1288.3	1216.8	1176.9	1157.9	1151.7
27.5°	1521.6	1494.2	1412.3	1307.2	1214.7	1147.5	1115.9	1097.0	1092.9
30°	1422.8	1395.4	1315.6	1219.0	1132.8	1069.7	1044.5	1029.8	1027.7
32.5°	1313.5	1290.4	1216.8	1128.6	1046.6	994.1	975.2	964.6	962.6
35°	1206.3	1181.1	1115.9	1036.1	964.6	918.4	901.6	899.5	899.5
37.5°	1097.0	1071.8	1019.2	945.7	884.8	842.8	836.5	838.5	838.5
40°	989.9	966.8	920.6	859.5	804.9	773.4	771.3	775.4	777.6
42.5°	889.0	870.1	828.1	775.4	729.3	704.1	706.1	714.5	720.8
45°	798.6	781.9	744.0	697.8	657.8	638.9	645.2	655.7	662.0
47.5°	716.7	701.9	666.2	624.2	590.5	578.0	586.4	599.0	607.4
50°	641.0	628.4	594.7	550.6	523.3	514.9	525.4	538.1	542.2
52.5°	573.7	561.1	525.4	487.6	466.6	462.3	472.9	483.3	489.7
55°	504.3	493.9	464.4	430.8	414.0	411.9	422.4	430.8	435.0
57.5°	447.7	437.1	409.8	380.4	365.6	363.6	374.1	380.4	382.5
60°	393.0	382.5	357.3	330.0	319.4	319.4	325.7	330.0	332.0
62.5°	342.6	332.0	309.0	285.8	277.4	277.4	277.4	279.5	285.8
65°	294.3	285.8	264.8	243.8	237.5	233.2	233.2	233.2	237.5
67.5°	250.1	241.7	224.9	205.9	199.6	193.3	191.2	195.5	195.5
70°	208.1	201.8	184.9	170.3	163.9	157.6	155.6	163.9	163.9
72.5°	170.3	163.9	153.4	138.7	132.4	130.3	134.5	138.7	140.8
75°	134.5	128.2	119.8	111.4	105.1	107.2	113.5	115.5	117.7
77.5°	100.8	98.8	90.4	84.1	84.1	86.2	90.4	94.5	96.7
80°	71.5	69.4	65.2	60.9	63.1	67.2	69.4	73.5	71.5
82.5°	44.2	44.2	42.0	42.0	44.2	48.3	50.5	52.5	54.6
85°	23.2	23.2	23.2	25.2	27.3	29.4	31.5	33.6	33.6
87.5°	6.3	8.4	8.4	10.5	12.6	12.6	14.7	14.7	14.7
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)