

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: P580308

Luminaire Tested: **HC430D010-HM43040835-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580308
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: HC430D010-HM43040835-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2973.3 lumens
Efficiency: N/A
Efficacy: 106.2 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

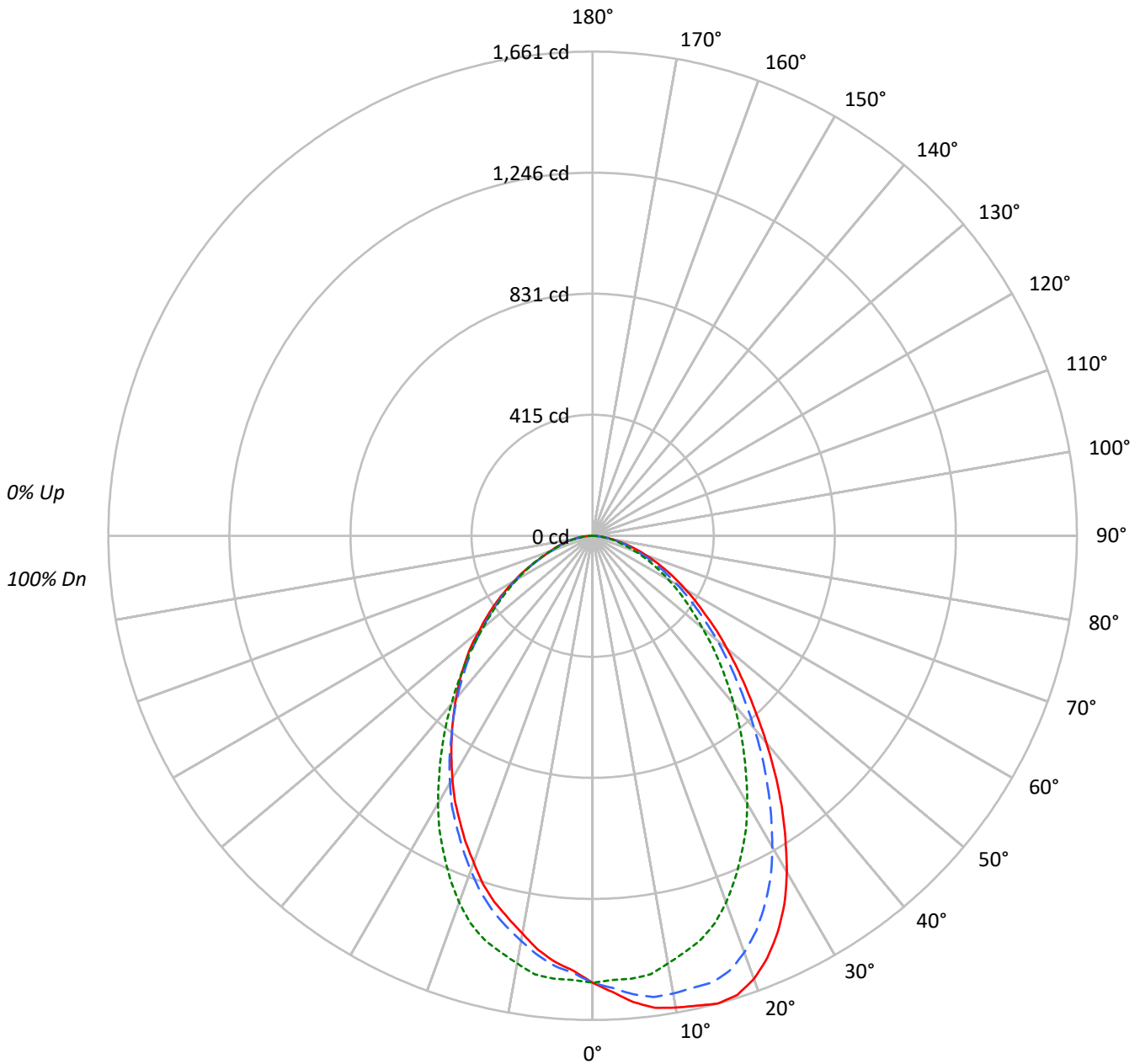
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
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°	189101	189101	189101
5°	198837	188858	181788
10°	205833	186608	173532
15°	212117	183207	166121
20°	212355	175667	156543
25°	204363	164187	146780
30°	189770	151087	137072
35°	170107	136016	126831
40°	149262	121358	117252
45°	130461	107453	108134
50°	115173	94027	97423
55°	101566	83374	87610
60°	90807	73785	76721
65°	80437	64910	64910
70°	70252	55358	55358
75°	60048	46895	52518
80°	47520	41909	47520
85°	30711	36230	44580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.3	4.9
10°-20°	409.1	13.8
20°-30°	573.1	19.3
30°-40°	590.4	19.9
40°-50°	502.7	16.9
50°-60°	372.4	12.5
60°-70°	233.7	7.9
70°-80°	116.1	3.9
80°-90°	30.5	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°	1127.4	37.9
0°-40°	1717.8	57.8
0°-60°	2592.9	87.2
0°-90°	2973.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2973.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1533	1533	1533	1533	1533	
5°	1606	1578	1525	1482	1468	154
15°	1661	1586	1435	1330	1301	467
25°	1502	1397	1206	1102	1078	687
35°	1130	1045	903	844	842	704
45°	748	697	616	604	620	580
55°	472	435	388	396	407	427
65°	276	248	222	218	222	275
75°	126	112	98	106	110	135
85°	22	22	26	30	32	28
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°	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1
2.5°	1566.6	1560.7	1552.8	1539.0	1525.3	1513.4	1501.6	1495.7	1493.8
5°	1605.9	1594.1	1578.4	1552.8	1525.3	1501.6	1482.0	1472.2	1468.2
7.5°	1633.5	1621.7	1596.1	1556.8	1517.4	1482.0	1450.5	1436.7	1432.8
10°	1643.4	1629.5	1594.1	1541.0	1489.9	1446.5	1411.1	1393.4	1385.5
12.5°	1651.2	1633.5	1588.2	1525.3	1462.2	1409.1	1371.8	1348.1	1342.2
15°	1661.1	1641.4	1586.3	1509.5	1434.7	1371.8	1330.4	1308.7	1300.9
17.5°	1651.2	1629.5	1564.6	1478.0	1393.4	1324.5	1279.3	1259.5	1251.7
20°	1617.8	1594.1	1521.3	1428.8	1338.3	1267.4	1222.2	1202.4	1192.6
22.5°	1566.6	1541.0	1466.2	1367.8	1275.3	1206.4	1163.1	1143.5	1137.6
25°	1501.6	1476.1	1397.4	1297.0	1206.4	1139.5	1102.2	1084.3	1078.5
27.5°	1424.9	1399.3	1322.6	1224.1	1137.6	1074.5	1045.1	1027.4	1023.4
30°	1332.4	1306.8	1232.0	1141.4	1060.8	1001.8	978.1	964.3	962.4
32.5°	1230.1	1208.4	1139.5	1056.8	980.1	930.9	913.2	903.3	901.4
35°	1129.7	1106.0	1045.1	970.3	903.3	860.0	844.3	842.3	842.3
37.5°	1027.4	1003.7	954.5	885.6	828.5	789.1	783.3	785.2	785.2
40°	927.0	905.3	862.0	804.9	753.7	724.3	722.3	726.2	728.2
42.5°	832.5	814.8	775.4	726.2	682.9	659.3	661.2	669.1	675.0
45°	747.9	732.1	696.7	653.5	616.0	598.3	604.2	614.1	619.9
47.5°	671.2	657.3	623.9	584.5	553.1	541.2	549.1	560.8	568.7
50°	600.2	588.5	557.0	515.6	490.0	482.2	492.0	503.9	507.7
52.5°	537.3	525.4	492.0	456.6	436.9	432.9	442.9	452.7	458.5
55°	472.3	462.5	435.0	403.5	387.7	385.8	395.6	403.5	407.4
57.5°	419.2	409.4	383.7	356.2	342.5	340.4	350.4	356.2	358.1
60°	368.1	358.1	334.6	309.0	299.1	299.1	305.0	309.0	311.0
62.5°	320.8	311.0	289.3	267.7	259.8	259.8	259.8	261.7	267.7
65°	275.6	267.7	247.9	228.3	222.4	218.5	218.5	218.5	222.4
67.5°	234.2	226.3	210.6	192.9	186.9	181.0	179.1	183.1	183.1
70°	194.8	188.9	173.1	159.4	153.5	147.7	145.6	153.5	153.5
72.5°	159.4	153.5	143.7	129.9	124.0	122.0	126.0	129.9	131.9
75°	126.0	120.0	112.1	104.3	98.4	100.4	106.3	108.3	110.2
77.5°	94.4	92.5	84.6	78.7	78.7	80.7	84.6	88.5	90.6
80°	66.9	65.0	61.0	57.1	59.0	62.9	65.0	68.9	66.9
82.5°	41.3	41.3	39.4	39.4	41.3	45.2	47.3	49.2	51.2
85°	21.7	21.7	21.7	23.6	25.6	27.5	29.6	31.5	31.5
87.5°	5.9	7.9	7.9	9.8	11.8	11.8	13.8	13.8	13.8
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)