

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: P592759

Luminaire Tested: **HC430D010-HM43040950-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592759
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC430D010-HM43040950-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2703.3 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

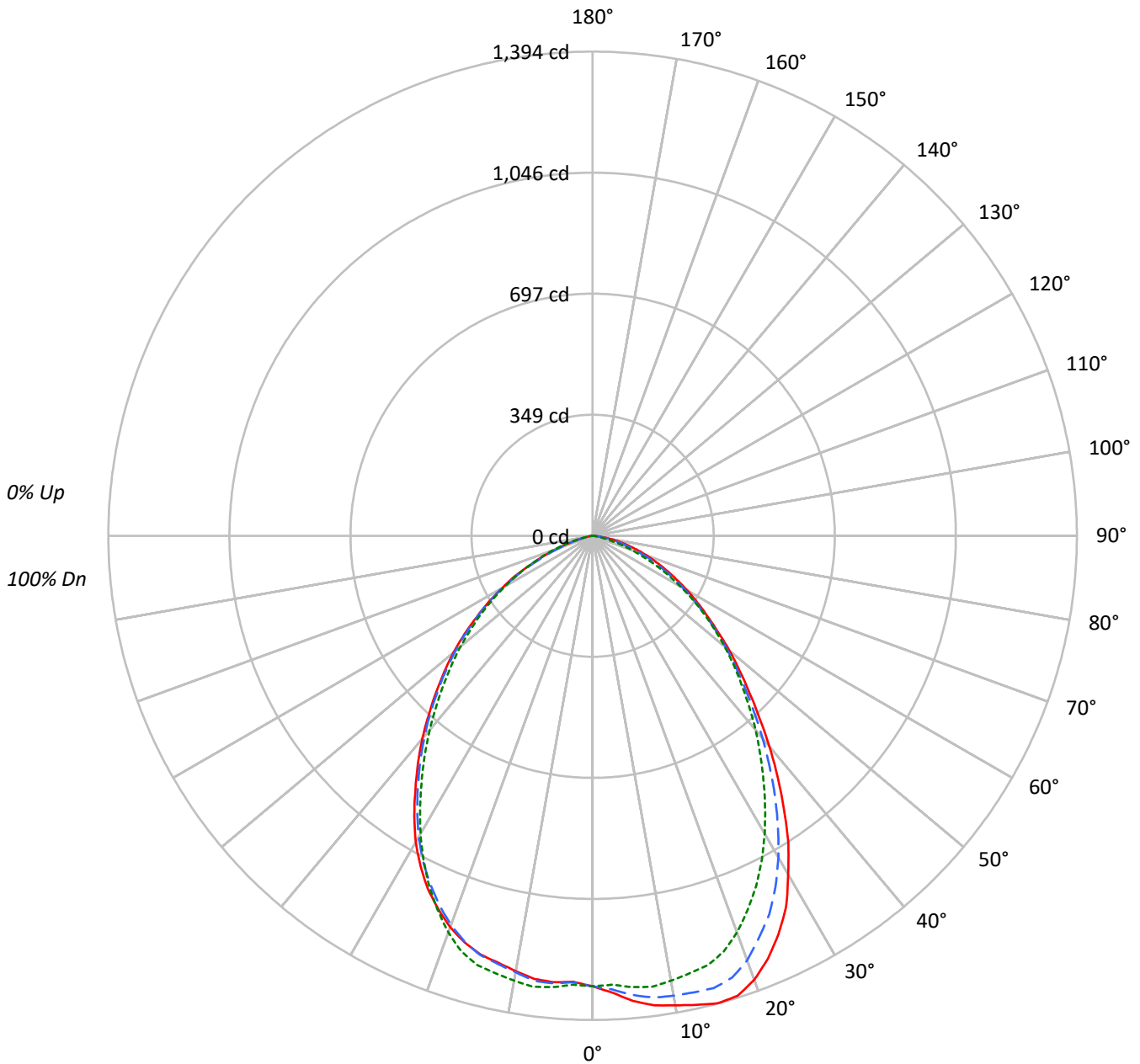
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76			76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67			67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46			46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41			41
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37			37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	160016	160016	160016
5°	166484	161494	159748
10°	171929	162923	159404
15°	177958	163414	159378
20°	178568	159470	157396
25°	172258	151503	152687
30°	160302	141074	145062
35°	144388	129090	133833
40°	127299	117429	122775
45°	111308	105796	110994
50°	98575	95197	100244
55°	86685	84083	87481
60°	77412	71787	73958
65°	68062	58343	57321
70°	59433	42988	39201
75°	49277	25925	20921
80°	37363	9944	6251
85°	17407	2547	2547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	4.6
10°-20°	365.1	13.5
20°-30°	528.8	19.6
30°-40°	557.9	20.6
40°-50°	482.8	17.9
50°-60°	357.7	13.2
60°-70°	206.2	7.6
70°-80°	72.0	2.7
80°-90°	7.6	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°	1019.1	37.7
0°-40°	1577.0	58.3
0°-60°	2417.5	89.4
0°-90°	2703.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2703.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1297	1297	1297	1297	1297	
5°	1345	1327	1304	1294	1290	129
15°	1394	1348	1280	1250	1248	392
25°	1266	1203	1113	1106	1122	579
35°	959	915	857	877	889	599
45°	638	621	606	629	636	495
55°	403	394	391	405	407	364
65°	233	219	200	189	196	233
75°	103	88	54	44	44	111
85°	12	7	2	2	2	19
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°	1297.3	1297.3	1297.3	1297.3	1297.3	1297.3	1297.3	1297.3	1297.3
2.5°	1316.6	1313.0	1307.8	1300.8	1293.7	1288.5	1286.7	1285.0	1285.0
5°	1344.6	1337.6	1327.1	1313.0	1304.3	1299.0	1293.7	1290.2	1290.2
7.5°	1363.9	1356.9	1341.1	1321.8	1309.5	1299.0	1292.0	1286.7	1286.7
10°	1372.7	1363.9	1344.6	1320.1	1300.8	1286.7	1276.2	1272.7	1272.7
12.5°	1383.2	1372.7	1346.4	1314.8	1290.2	1272.7	1262.2	1258.7	1258.7
15°	1393.6	1381.5	1348.1	1311.3	1279.7	1258.7	1249.9	1248.1	1248.1
17.5°	1388.5	1372.7	1334.1	1290.2	1255.2	1234.1	1225.3	1225.3	1227.2
20°	1360.4	1344.6	1300.8	1251.6	1214.9	1199.1	1192.1	1195.6	1199.1
22.5°	1318.3	1299.0	1251.6	1204.4	1165.8	1151.8	1151.8	1157.0	1162.3
25°	1265.7	1248.1	1202.6	1150.0	1113.2	1102.6	1106.2	1114.9	1121.9
27.5°	1206.1	1186.8	1139.5	1090.4	1053.6	1048.4	1057.0	1069.3	1072.8
30°	1125.5	1109.7	1069.3	1022.1	990.5	988.7	1001.0	1009.8	1018.5
32.5°	1048.4	1030.8	992.2	946.6	923.8	925.6	939.6	950.1	955.4
35°	958.9	943.1	915.1	878.3	857.3	860.8	876.6	887.1	888.8
37.5°	874.8	864.3	836.2	808.2	792.4	799.4	813.4	825.7	825.7
40°	790.6	781.8	760.8	738.1	729.3	738.1	752.0	762.5	762.5
42.5°	710.0	704.8	687.2	671.4	666.2	678.4	690.7	699.5	697.7
45°	638.1	632.8	620.6	608.3	606.5	618.8	629.3	634.6	636.3
47.5°	573.2	569.8	559.3	550.5	550.5	562.8	571.4	576.7	578.6
50°	513.7	510.2	501.4	494.4	496.1	508.4	515.4	520.7	522.4
52.5°	454.0	452.3	445.2	436.5	441.7	450.5	459.3	462.8	464.5
55°	403.1	403.1	394.5	387.5	391.0	399.7	405.0	406.8	406.8
57.5°	357.6	355.9	345.4	338.3	340.1	348.9	352.4	354.1	354.1
60°	313.8	312.0	301.5	291.0	291.0	296.2	298.0	299.8	299.8
62.5°	271.7	269.9	257.7	248.9	245.5	243.6	243.6	247.1	254.1
65°	233.2	231.4	219.2	205.1	199.9	194.6	189.3	192.9	196.4
67.5°	198.1	194.6	182.3	170.1	157.8	149.0	140.2	145.5	152.5
70°	164.8	161.3	147.2	133.2	119.2	105.1	98.1	105.1	108.7
72.5°	133.2	129.7	115.7	101.6	84.1	70.2	68.4	70.2	71.9
75°	103.4	101.6	87.6	71.9	54.4	43.9	43.9	43.9	43.9
77.5°	77.2	73.7	59.6	45.6	31.6	24.6	22.8	22.8	22.8
80°	52.6	49.1	36.8	26.3	14.0	10.5	10.5	8.8	8.8
82.5°	29.8	28.1	19.3	10.5	5.3	3.5	3.5	3.5	3.5
85°	12.3	10.5	7.0	3.5	1.8	1.8	1.8	1.8	1.8
87.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	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)