

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: P580199

Luminaire Tested: **HC425D010-HM40525927-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580199  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC425D010-HM40525927-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1917.3 lumens  
Efficiency: N/A  
Efficacy: 71.5 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

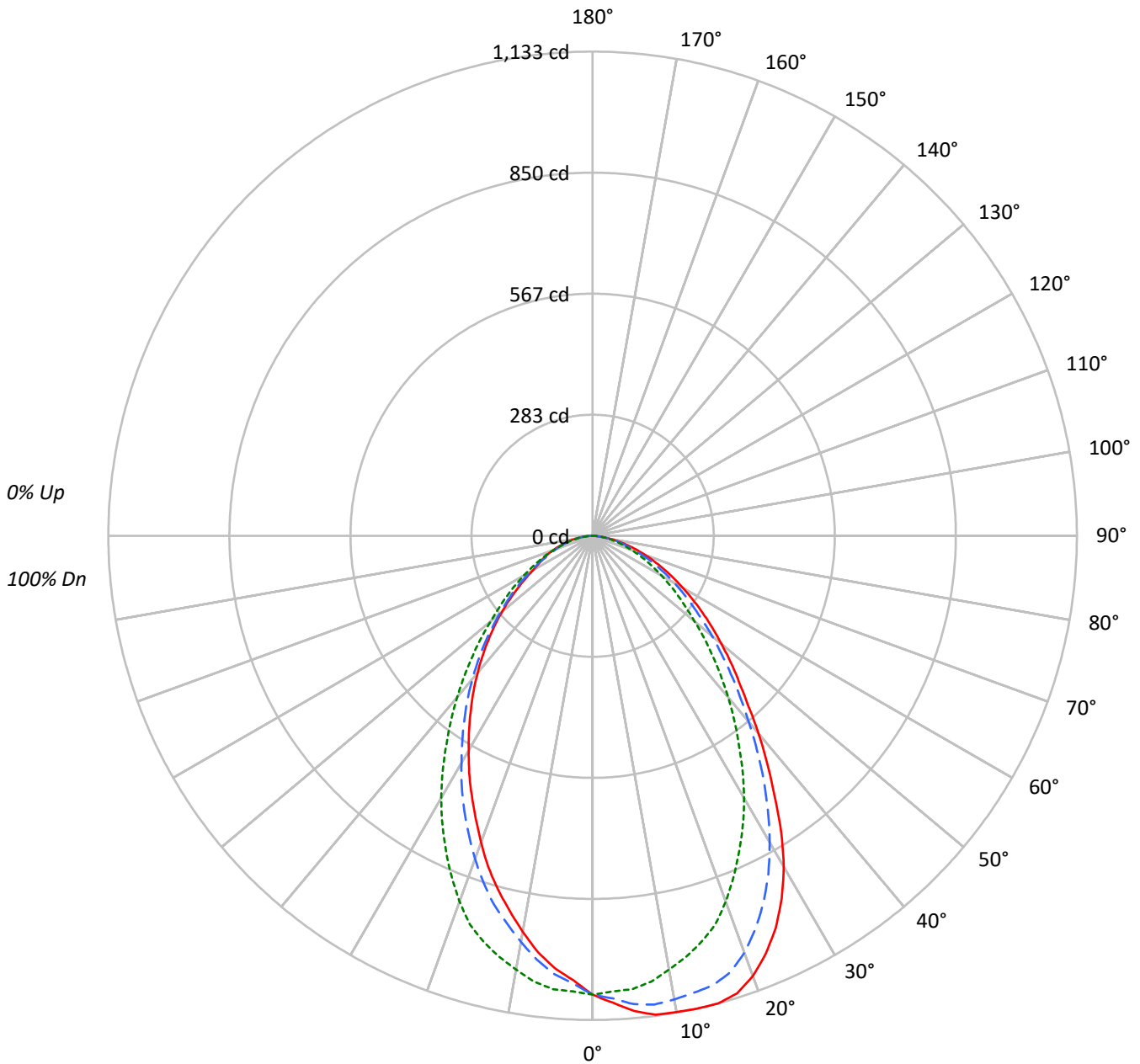
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47	47	47	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	35	35	35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	132436	132436	132436
5°	138254	131840	125736
10°	141744	129094	117859
15°	144693	125641	109347
20°	143915	119540	100140
25°	137880	110538	91117
30°	127373	100924	82565
35°	111638	89774	74747
40°	97222	79317	67321
45°	84602	69182	60146
50°	75375	59621	53077
55°	67374	52428	45912
60°	60143	45811	39569
65°	53440	40160	37592
70°	46919	34621	35054
75°	39698	29500	32502
80°	30473	25074	29620
85°	17832	19672	25050



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.6	5.2
10°-20°	277.6	14.5
20°-30°	379.3	19.8
30°-40°	380.8	19.9
40°-50°	315.0	16.4
50°-60°	228.3	11.9
60°-70°	144.6	7.5
70°-80°	73.1	3.8
80°-90°	17.9	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°	757.5	39.5
0°-40°	1138.3	59.4
0°-60°	1681.7	87.7
0°-90°	1917.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1917.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1074	1074	1074	1074	1074	
5°	1117	1100	1065	1029	1016	107
15°	1133	1089	984	893	856	319
25°	1013	946	812	710	670	463
35°	741	697	596	523	496	465
45°	485	457	397	357	345	377
55°	313	285	244	222	214	282
65°	183	163	138	124	129	182
75°	83	72	62	64	68	89
85°	13	13	14	16	18	17
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°	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7
2.5°	1093.9	1090.0	1083.7	1076.2	1067.4	1057.2	1048.4	1043.3	1040.8
5°	1116.6	1111.5	1100.2	1083.7	1064.8	1045.9	1029.4	1019.4	1015.5
7.5°	1130.5	1122.9	1106.5	1081.2	1052.2	1024.3	1000.4	986.5	982.7
10°	1131.7	1122.9	1101.5	1067.4	1030.7	994.1	965.1	944.9	941.0
12.5°	1133.1	1121.7	1095.1	1054.7	1009.2	963.7	928.4	904.4	898.1
15°	1133.1	1121.7	1088.8	1040.8	983.9	932.2	893.0	865.3	856.3
17.5°	1122.9	1110.3	1071.1	1015.5	953.7	895.5	850.0	821.0	812.2
20°	1096.4	1082.5	1038.2	977.6	910.7	850.0	804.6	774.3	762.9
22.5°	1058.4	1042.1	995.3	929.6	862.7	800.8	756.7	725.0	714.9
25°	1013.1	996.6	946.1	881.6	812.2	754.1	709.9	680.8	669.5
27.5°	957.4	939.8	890.4	826.1	761.6	703.6	663.2	636.6	625.2
30°	894.3	875.3	828.6	766.7	708.6	653.0	613.8	592.4	579.7
32.5°	821.0	804.6	762.9	707.3	653.0	600.0	567.1	548.2	538.1
35°	741.4	732.6	697.3	649.3	596.2	552.0	523.0	505.2	496.4
37.5°	670.7	661.8	631.6	591.1	544.4	504.0	479.9	464.8	457.2
40°	603.8	596.2	567.1	533.0	492.6	457.2	437.0	425.6	418.1
42.5°	538.1	534.2	510.3	478.7	443.4	413.0	396.6	387.8	381.5
45°	485.0	479.9	457.2	427.0	396.6	371.3	357.4	351.1	344.8
47.5°	438.3	432.0	408.0	381.5	353.7	330.9	318.3	311.9	309.5
50°	392.8	386.5	365.0	338.5	310.7	294.3	284.2	277.8	276.6
52.5°	352.4	346.0	322.1	296.8	275.4	261.5	252.7	246.3	243.8
55°	313.3	305.6	285.4	261.5	243.8	231.1	222.3	216.0	213.5
57.5°	277.8	270.3	252.7	229.9	213.5	202.1	194.5	188.2	185.7
60°	243.8	237.4	221.1	199.6	185.7	175.6	168.0	162.9	160.4
62.5°	212.3	207.2	190.7	171.8	160.4	151.6	145.3	140.2	142.7
65°	183.1	178.0	162.9	146.5	137.6	128.8	123.7	123.7	128.8
67.5°	155.4	150.3	137.6	123.7	116.2	109.9	106.1	109.9	113.7
70°	130.1	125.1	113.7	102.3	96.0	91.0	91.0	94.7	97.2
72.5°	106.1	101.0	92.2	83.3	78.4	74.5	78.4	80.8	83.3
75°	83.3	79.6	72.0	65.7	61.9	60.6	64.5	66.9	68.2
77.5°	61.9	59.4	54.3	49.2	46.7	48.0	51.8	53.1	54.3
80°	42.9	41.7	37.9	35.3	35.3	36.6	39.2	40.4	41.7
82.5°	26.5	26.5	24.0	22.7	24.0	26.5	27.8	29.0	29.0
85°	12.6	13.9	12.6	12.6	13.9	16.4	16.4	17.7	17.7
87.5°	3.8	3.8	5.1	5.1	6.3	6.3	6.3	6.3	7.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)