

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: P592727

Luminaire Tested: **HC425D010-HM40525950-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592727  
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: HC425D010-HM40525950-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2317.5 lumens  
Efficiency: N/A  
Efficacy: 86.5 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

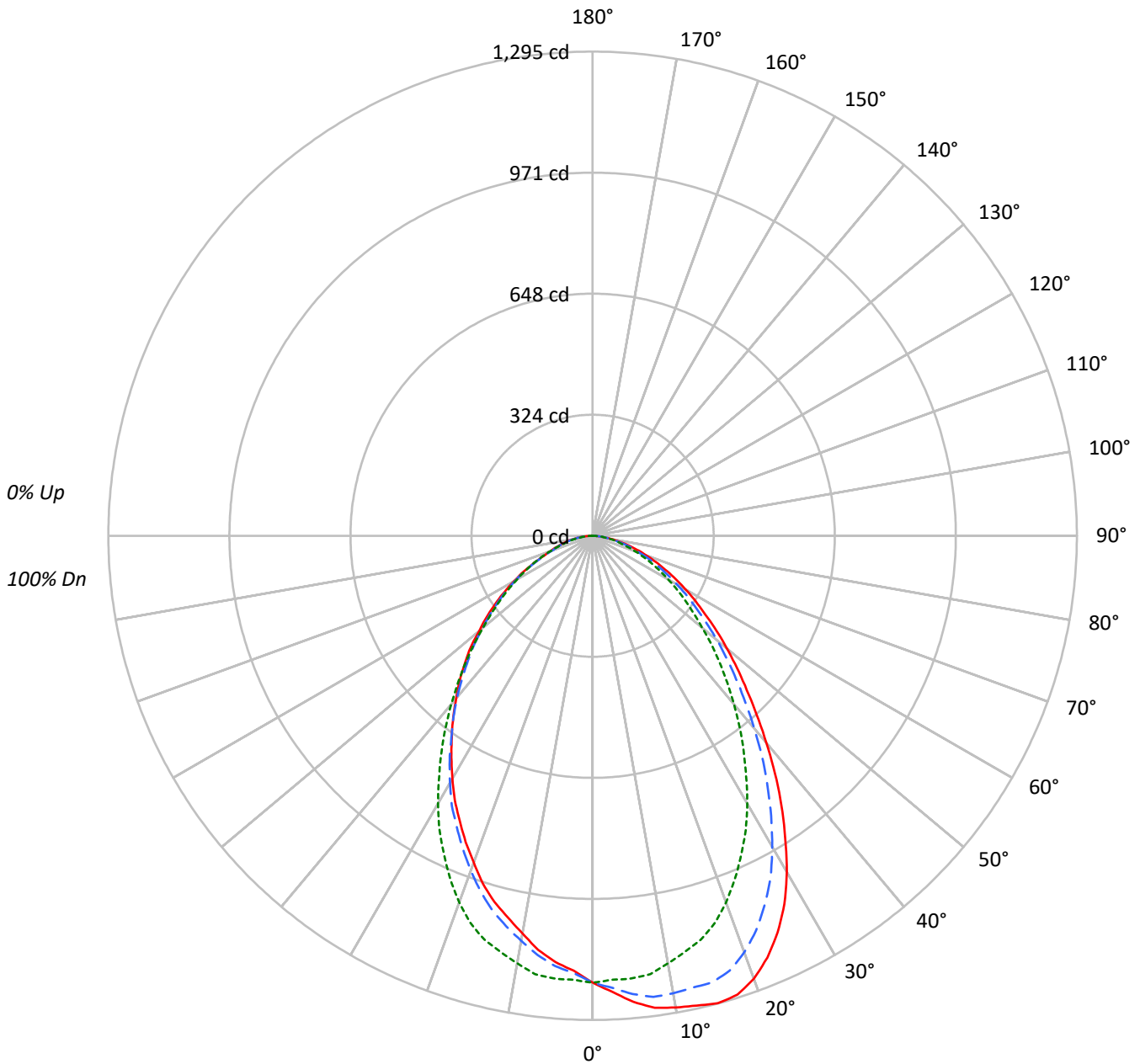
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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°	147398	147398	147398
5°	154981	147193	141696
10°	160443	145451	135268
15°	165329	142803	129485
20°	165521	136932	122021
25°	159288	127972	114417
30°	147925	117773	106835
35°	132583	106036	98854
40°	116350	94597	91377
45°	101679	83765	84288
50°	89786	73283	75951
55°	79180	64987	68299
60°	70776	57504	59798
65°	62662	50579	50579
70°	54781	43168	43168
75°	46799	36553	40937
80°	37079	32746	37079
85°	23776	28305	34673



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	4.9
10°-20°	318.8	13.8
20°-30°	446.7	19.3
30°-40°	460.2	19.9
40°-50°	391.8	16.9
50°-60°	290.3	12.5
60°-70°	182.2	7.9
70°-80°	90.5	3.9
80°-90°	23.8	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°	878.8	37.9
0°-40°	1339.0	57.8
0°-60°	2021.1	87.2
0°-90°	2317.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2317.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1195	1195	1195	1195	1195	
5°	1252	1230	1189	1155	1144	120
15°	1295	1236	1118	1037	1014	364
25°	1170	1089	940	859	841	535
35°	880	815	704	658	656	549
45°	583	543	480	471	483	452
55°	368	339	302	308	318	333
65°	215	193	173	170	173	214
75°	98	87	77	83	86	105
85°	17	17	20	23	24	22
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°	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0	1195.0
2.5°	1221.1	1216.5	1210.4	1199.6	1188.8	1179.7	1170.4	1165.9	1164.3
5°	1251.7	1242.6	1230.3	1210.4	1188.8	1170.4	1155.1	1147.4	1144.4
7.5°	1273.3	1264.0	1244.0	1213.4	1182.7	1155.1	1130.6	1119.9	1116.8
10°	1281.0	1270.1	1242.6	1201.1	1161.3	1127.5	1099.9	1086.1	1080.0
12.5°	1287.1	1273.3	1237.9	1188.8	1139.8	1098.4	1069.3	1050.8	1046.2
15°	1294.7	1279.4	1236.5	1176.6	1118.3	1069.3	1037.0	1020.2	1014.0
17.5°	1287.1	1270.1	1219.5	1152.0	1086.1	1032.4	997.1	981.8	975.7
20°	1261.0	1242.6	1185.8	1113.8	1043.2	987.9	952.7	937.3	929.6
22.5°	1221.1	1201.1	1142.9	1066.1	994.1	940.3	906.6	891.2	886.7
25°	1170.4	1150.6	1089.1	1010.9	940.3	888.2	859.1	845.3	840.7
27.5°	1110.6	1090.7	1030.9	954.1	886.7	837.6	814.6	800.8	797.8
30°	1038.6	1018.6	960.3	889.8	826.9	780.8	762.4	751.7	750.1
32.5°	958.7	941.9	888.2	823.8	764.0	725.6	711.8	704.2	702.6
35°	880.5	862.1	814.6	756.3	704.2	670.4	658.1	656.5	656.5
37.5°	800.8	782.4	744.0	690.3	645.8	615.2	610.6	612.0	612.0
40°	722.6	705.6	671.9	627.4	587.5	564.5	563.0	566.1	567.5
42.5°	648.9	635.1	604.4	566.1	532.3	513.9	515.4	521.6	526.2
45°	582.9	570.7	543.0	509.3	480.2	466.4	470.9	478.6	483.2
47.5°	523.1	512.3	486.3	455.6	431.1	421.9	428.0	437.1	443.4
50°	467.9	458.7	434.1	401.9	381.9	375.8	383.5	392.7	395.8
52.5°	418.7	409.6	383.5	355.9	340.5	337.5	345.1	352.8	357.4
55°	368.2	360.5	339.0	314.4	302.2	300.7	308.3	314.4	317.6
57.5°	326.7	319.1	299.2	277.6	266.9	265.4	273.1	277.6	279.2
60°	286.9	279.2	260.8	240.8	233.1	233.1	237.8	240.8	242.4
62.5°	250.1	242.4	225.5	208.6	202.5	202.5	202.5	204.0	208.6
65°	214.7	208.6	193.3	177.9	173.3	170.3	170.3	170.3	173.3
67.5°	182.6	176.5	164.2	150.4	145.8	141.1	139.5	142.7	142.7
70°	151.9	147.2	135.0	124.3	119.7	115.0	113.5	119.7	119.7
72.5°	124.3	119.7	112.0	101.3	96.6	95.1	98.2	101.3	102.7
75°	98.2	93.6	87.4	81.3	76.7	78.2	82.9	84.3	85.9
77.5°	73.6	72.1	65.9	61.4	61.4	62.9	65.9	69.0	70.6
80°	52.2	50.6	47.5	44.5	46.1	49.1	50.6	53.7	52.2
82.5°	32.2	32.2	30.7	30.7	32.2	35.3	36.8	38.4	39.9
85°	16.8	16.8	16.8	18.4	20.0	21.5	23.0	24.5	24.5
87.5°	4.6	6.1	6.1	7.7	9.3	9.3	10.7	10.7	10.7
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)