

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: P580127

Luminaire Tested: **HC425D010-HM40525827-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580127
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-HM40525827-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2241.1 lumens
Efficiency: N/A
Efficacy: 83.6 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

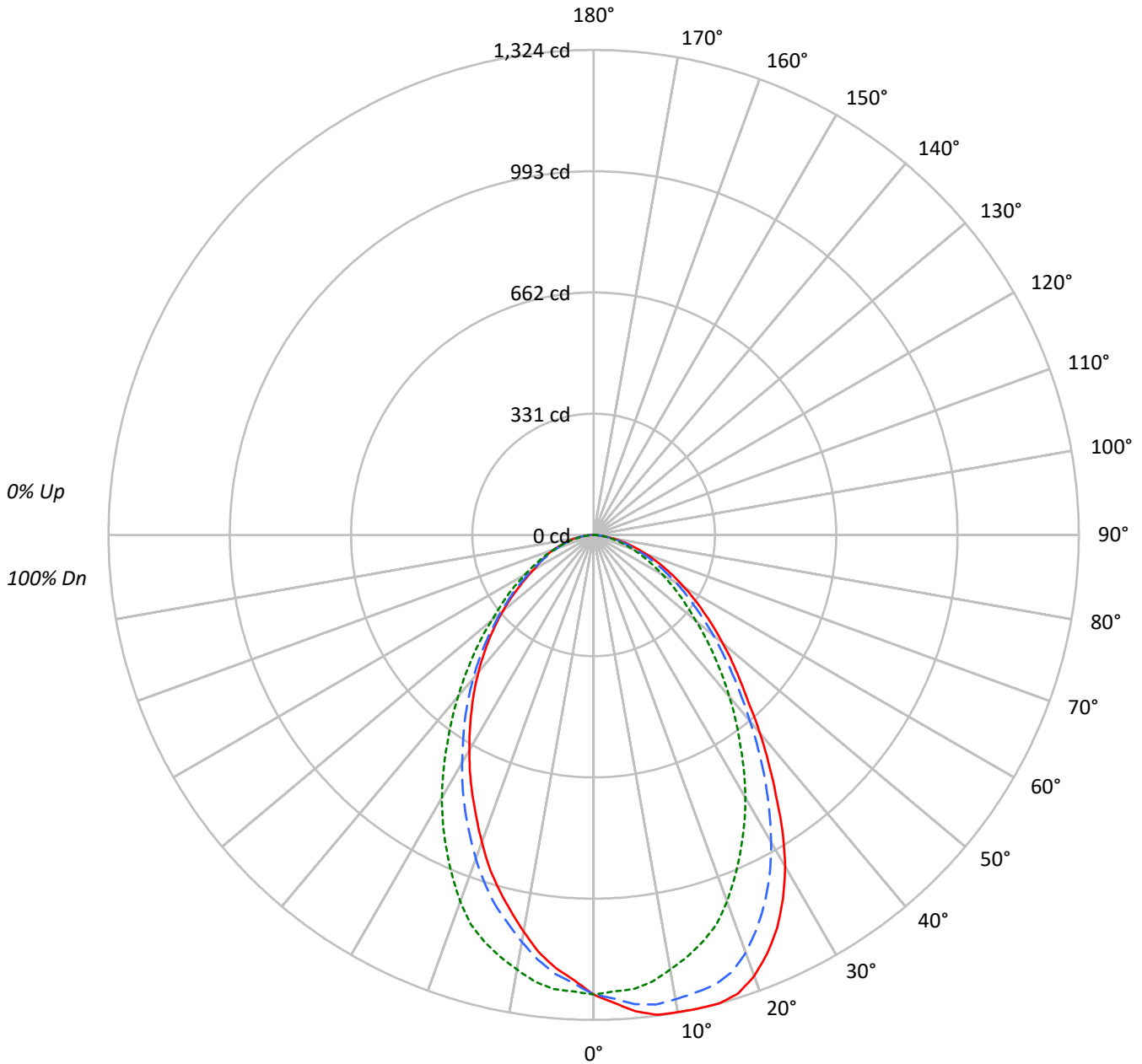
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	154786	154786	154786
5°	161593	154102	146971
10°	165679	150899	137761
15°	169109	146864	127824
20°	168212	139728	117059
25°	161152	129210	106496
30°	148879	117958	96509
35°	130490	104922	87365
40°	113629	92713	78673
45°	98906	80869	70316
50°	88117	69695	62039
55°	78729	61288	53654
60°	70307	53532	46255
65°	62487	46960	43954
70°	54853	40464	41005
75°	46418	34504	37983
80°	35658	29336	34664
85°	20945	23068	29295



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.6	5.2
10°-20°	324.5	14.5
20°-30°	443.3	19.8
30°-40°	445.1	19.9
40°-50°	368.2	16.4
50°-60°	266.9	11.9
60°-70°	169.0	7.5
70°-80°	85.5	3.8
80°-90°	20.9	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°	885.4	39.5
0°-40°	1330.5	59.4
0°-60°	1965.6	87.7
0°-90°	2241.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2241.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1255	1255	1255	1255	1255	
5°	1305	1286	1245	1203	1187	125
15°	1324	1273	1150	1044	1001	372
25°	1184	1106	949	830	782	541
35°	867	815	697	611	580	543
45°	567	534	464	418	403	441
55°	366	334	285	260	250	329
65°	214	190	161	145	151	213
75°	97	84	72	75	80	104
85°	15	15	16	19	21	20
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°	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9
2.5°	1278.6	1274.1	1266.7	1257.9	1247.5	1235.7	1225.4	1219.5	1216.5
5°	1305.1	1299.3	1285.9	1266.7	1244.6	1222.5	1203.3	1191.4	1187.0
7.5°	1321.4	1312.5	1293.3	1263.8	1229.8	1197.3	1169.3	1153.0	1148.6
10°	1322.8	1312.5	1287.4	1247.5	1204.8	1162.0	1128.0	1104.4	1099.9
12.5°	1324.3	1311.0	1280.1	1232.8	1179.7	1126.5	1085.2	1057.1	1049.7
15°	1324.3	1311.0	1272.6	1216.5	1150.1	1089.6	1043.8	1011.4	1001.0
17.5°	1312.5	1297.8	1251.9	1187.0	1114.7	1046.8	993.6	959.6	949.4
20°	1281.5	1265.3	1213.6	1142.8	1064.5	993.6	940.5	905.0	891.8
22.5°	1237.3	1218.1	1163.4	1086.7	1008.4	936.1	884.3	847.4	835.7
25°	1184.1	1164.9	1105.9	1030.6	949.4	881.4	829.7	795.8	782.5
27.5°	1119.1	1098.4	1040.8	965.5	890.2	822.4	775.1	744.1	730.8
30°	1045.3	1023.1	968.6	896.2	828.2	763.3	717.5	692.4	677.6
32.5°	959.6	940.5	891.8	826.8	763.3	701.3	662.9	640.7	629.0
35°	866.6	856.3	815.0	758.9	696.8	645.2	611.2	590.6	580.2
37.5°	784.0	773.6	738.1	690.9	636.3	589.1	561.0	543.3	534.5
40°	705.7	696.8	662.9	623.0	575.8	534.5	510.9	497.6	488.6
42.5°	629.0	624.6	596.5	559.5	518.2	482.8	463.6	453.3	445.8
45°	567.0	561.0	534.5	499.0	463.6	434.1	417.8	410.4	403.1
47.5°	512.3	504.9	476.9	445.8	413.4	386.8	372.0	364.7	361.7
50°	459.2	451.8	426.6	395.7	363.2	344.0	332.2	324.8	323.3
52.5°	411.9	404.5	376.5	346.9	321.9	305.6	295.2	287.9	285.0
55°	366.1	357.3	333.6	305.6	285.0	270.2	259.9	252.4	249.5
57.5°	324.8	315.9	295.2	268.7	249.5	236.2	227.4	219.9	217.0
60°	285.0	277.5	258.3	233.3	217.0	205.3	196.3	190.5	187.5
62.5°	248.0	242.2	223.0	200.7	187.5	177.1	169.8	163.9	166.9
65°	214.1	208.2	190.5	171.3	160.9	150.6	144.7	144.7	150.6
67.5°	181.5	175.7	160.9	144.7	135.8	128.5	124.0	128.5	132.9
70°	152.1	146.2	132.9	119.6	112.2	106.4	106.4	110.8	113.7
72.5°	124.0	118.1	107.8	97.4	91.6	87.2	91.6	94.5	97.4
75°	97.4	93.0	84.1	76.8	72.4	70.9	75.3	78.2	79.7
77.5°	72.4	69.4	63.4	57.6	54.6	56.1	60.5	62.0	63.4
80°	50.2	48.8	44.3	41.3	41.3	42.8	45.7	47.2	48.8
82.5°	31.0	31.0	28.0	26.5	28.0	31.0	32.5	34.0	34.0
85°	14.8	16.3	14.8	14.8	16.3	19.2	19.2	20.7	20.7
87.5°	4.4	4.4	5.9	5.9	7.3	7.3	7.3	7.3	8.8
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)