

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: P580181

Luminaire Tested: **HC425D010-HM40525840-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580181
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-HM40525840-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2585.5 lumens
Efficiency: N/A
Efficacy: 96.5 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

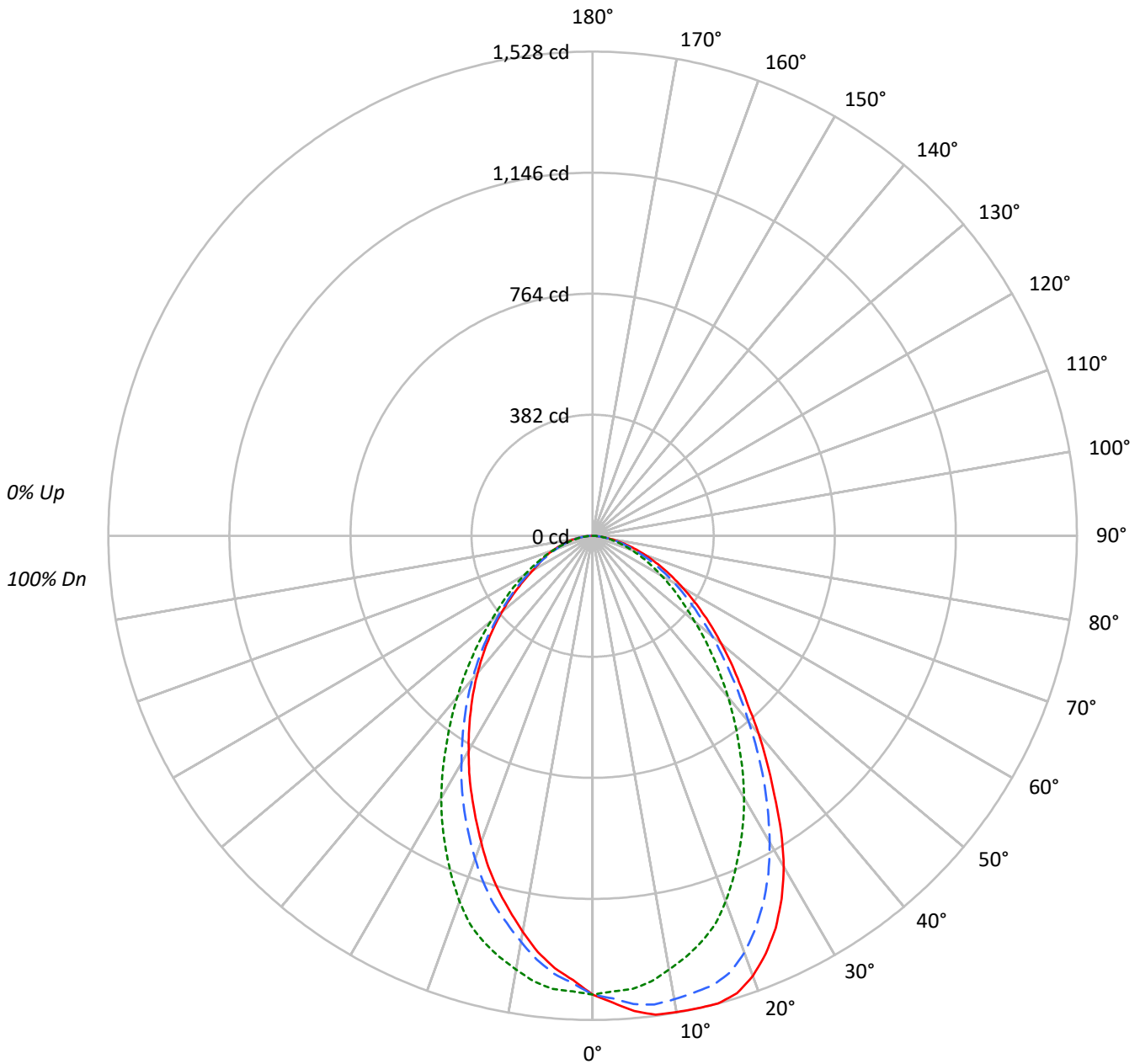
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	178580	178580	178580
5°	186431	177789	169567
10°	191154	174083	158940
15°	195108	169441	147477
20°	194057	161202	135029
25°	185922	149053	122855
30°	171753	136103	111350
35°	150547	121064	100796
40°	131099	106963	90781
45°	114082	93289	81113
50°	101645	80403	71576
55°	90857	70707	61912
60°	81112	61771	53359
65°	72090	54169	50725
70°	63256	46703	47316
75°	53567	39746	43845
80°	41127	33811	39920
85°	24059	26465	33683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.7	5.2
10°-20°	374.3	14.5
20°-30°	511.4	19.8
30°-40°	513.6	19.9
40°-50°	424.8	16.4
50°-60°	307.9	11.9
60°-70°	195.0	7.5
70°-80°	98.6	3.8
80°-90°	24.1	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°	1021.5	39.5
0°-40°	1535.0	59.4
0°-60°	2267.8	87.7
0°-90°	2585.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2585.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1448	1448	1448	1448	1448	
5°	1506	1484	1436	1388	1370	144
15°	1528	1468	1327	1204	1155	430
25°	1366	1276	1095	957	903	624
35°	1000	940	804	705	669	627
45°	654	616	535	482	465	509
55°	422	385	329	300	288	380
65°	247	220	186	167	174	246
75°	112	97	83	87	92	120
85°	17	17	19	22	24	24
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°	1447.8	1447.8	1447.8	1447.8	1447.8	1447.8	1447.8	1447.8	1447.8
2.5°	1475.0	1470.0	1461.5	1451.2	1439.2	1425.7	1413.7	1407.0	1403.6
5°	1505.7	1498.9	1483.6	1461.5	1435.9	1410.3	1388.2	1374.6	1369.5
7.5°	1524.5	1514.2	1492.1	1458.0	1418.8	1381.3	1349.0	1330.3	1325.2
10°	1526.2	1514.2	1485.3	1439.2	1389.9	1340.5	1301.3	1274.1	1269.0
12.5°	1527.9	1512.5	1476.7	1422.3	1360.9	1299.6	1251.9	1219.5	1211.1
15°	1527.9	1512.5	1468.3	1403.6	1326.9	1257.0	1204.2	1166.7	1154.9
17.5°	1514.2	1497.2	1444.4	1369.5	1286.0	1207.7	1146.3	1107.1	1095.2
20°	1478.4	1459.7	1400.1	1318.3	1228.1	1146.3	1085.0	1044.1	1028.7
22.5°	1427.4	1405.3	1342.2	1253.6	1163.3	1079.9	1020.3	977.7	964.1
25°	1366.1	1344.0	1275.8	1188.9	1095.2	1016.9	957.3	918.1	902.7
27.5°	1291.1	1267.3	1200.8	1114.0	1027.1	948.7	894.3	858.5	843.1
30°	1205.9	1180.4	1117.4	1033.9	955.6	880.6	827.8	798.9	781.8
32.5°	1107.1	1085.0	1028.7	953.9	880.6	809.0	764.8	739.3	725.6
35°	999.8	987.9	940.2	875.5	804.0	744.3	705.2	681.4	669.4
37.5°	904.4	892.6	851.6	797.2	734.1	679.7	647.3	626.8	616.5
40°	814.2	804.0	764.8	718.8	664.3	616.5	589.3	574.0	563.8
42.5°	725.6	720.5	688.1	645.6	597.8	556.9	534.8	523.0	514.4
45°	654.0	647.3	616.5	575.7	534.8	500.8	482.1	473.5	465.0
47.5°	591.0	582.6	550.2	514.4	476.9	446.3	429.2	420.7	417.3
50°	529.7	521.3	492.2	456.5	419.0	396.8	383.3	374.7	373.0
52.5°	475.2	466.7	434.3	400.2	371.3	352.6	340.6	332.2	328.8
55°	422.5	412.2	385.0	352.6	328.8	311.7	299.7	291.3	287.9
57.5°	374.7	364.6	340.6	310.0	287.9	272.5	262.3	253.8	250.4
60°	328.8	320.2	298.1	269.2	250.4	236.8	226.6	219.7	216.3
62.5°	286.2	279.3	257.2	231.7	216.3	204.3	195.9	189.1	192.5
65°	247.0	240.1	219.7	197.6	185.6	173.8	167.0	167.0	173.8
67.5°	209.5	202.7	185.6	167.0	156.7	148.2	143.0	148.2	153.3
70°	175.4	168.7	153.3	138.0	129.5	122.6	122.6	127.8	131.2
72.5°	143.0	136.3	124.3	112.4	105.6	100.5	105.6	109.1	112.4
75°	112.4	107.3	97.1	88.6	83.4	81.7	86.8	90.3	92.0
77.5°	83.4	80.0	73.3	66.4	63.0	64.7	69.9	71.6	73.3
80°	57.9	56.2	51.1	47.6	47.6	49.5	52.8	54.5	56.2
82.5°	35.8	35.8	32.4	30.7	32.4	35.8	37.5	39.2	39.2
85°	17.0	18.7	17.0	17.0	18.7	22.1	22.1	23.8	23.8
87.5°	5.1	5.1	6.8	6.8	8.5	8.5	8.5	8.5	10.3
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)