

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: P592726

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592726
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-HM40525950-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2328.3 lumens
Efficiency: N/A
Efficacy: 86.9 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

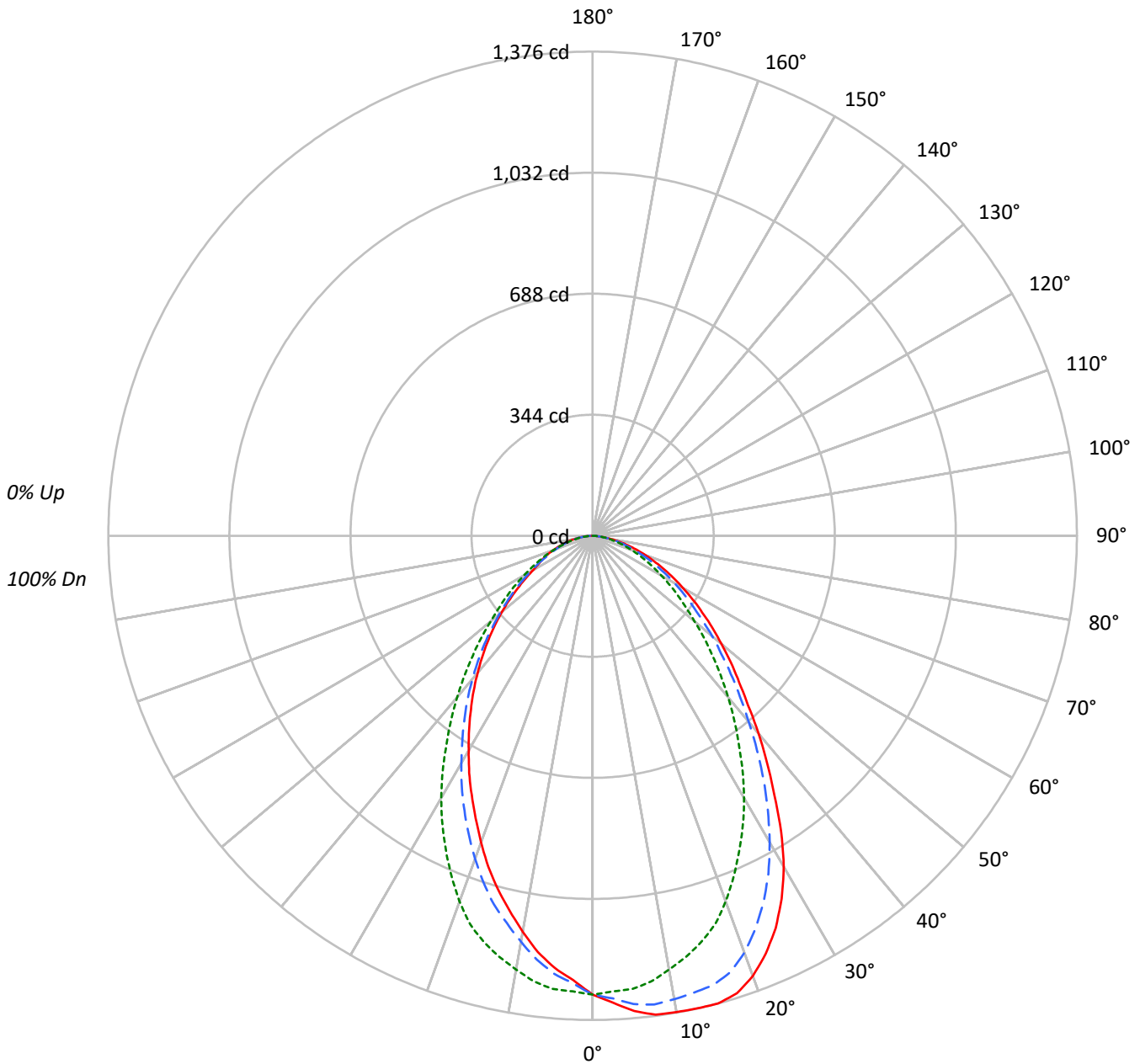
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P592726

CATALOG NUMBER: HC425D010-HM40525950-41WWW

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	160818	160818	160818
5°	167883	160095	152691
10°	172129	156761	143134
15°	175698	152572	132792
20°	174762	145162	121614
25°	167426	134232	110647
30°	154676	122559	100269
35°	135580	109018	90768
40°	118057	96336	81748
45°	102743	84009	73037
50°	91532	72401	64456
55°	81804	63654	55740
60°	73021	55629	48055
65°	64910	48799	45676
70°	56945	42050	42591
75°	48277	35838	39508
80°	37079	30473	35942
85°	21795	23776	30427



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.2	5.2
10°-20°	337.1	14.5
20°-30°	460.6	19.8
30°-40°	462.5	19.9
40°-50°	382.6	16.4
50°-60°	277.2	11.9
60°-70°	175.6	7.5
70°-80°	88.8	3.8
80°-90°	21.7	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°	919.9	39.5
0°-40°	1382.3	59.4
0°-60°	2042.1	87.7
0°-90°	2328.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2328.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1304	1304	1304	1304	1304	
5°	1356	1336	1293	1250	1233	130
15°	1376	1322	1195	1084	1040	387
25°	1230	1149	986	862	813	562
35°	900	847	724	635	603	564
45°	589	555	482	434	419	458
55°	380	347	296	270	259	342
65°	222	198	167	150	156	221
75°	101	87	75	78	83	108
85°	15	15	17	20	22	21
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°	1303.8	1303.8	1303.8	1303.8	1303.8	1303.8	1303.8	1303.8	1303.8
2.5°	1328.3	1323.8	1316.1	1306.8	1296.1	1283.8	1273.1	1267.0	1263.9
5°	1355.9	1349.8	1335.9	1316.1	1293.0	1270.0	1250.1	1237.8	1233.2
7.5°	1372.8	1363.6	1343.6	1313.0	1277.7	1243.9	1214.8	1198.0	1193.4
10°	1374.3	1363.6	1337.5	1296.1	1251.6	1207.1	1171.9	1147.3	1142.8
12.5°	1375.9	1362.0	1329.8	1280.7	1225.5	1170.3	1127.4	1098.3	1090.6
15°	1375.9	1362.0	1322.2	1263.9	1194.8	1131.9	1084.4	1050.6	1039.9
17.5°	1363.6	1348.3	1300.7	1233.2	1158.0	1087.5	1032.2	997.0	986.3
20°	1331.4	1314.5	1260.9	1187.3	1105.9	1032.2	977.0	940.2	926.5
22.5°	1285.4	1265.4	1208.7	1128.9	1047.6	972.4	918.8	880.4	868.2
25°	1230.2	1210.2	1148.9	1070.6	986.3	915.7	862.0	826.8	813.0
27.5°	1162.6	1141.2	1081.4	1003.1	924.9	854.3	805.3	773.0	759.3
30°	1086.0	1063.0	1006.2	931.1	860.5	793.0	745.5	719.4	704.0
32.5°	997.0	977.0	926.5	858.9	793.0	728.5	688.7	665.7	653.5
35°	900.4	889.7	846.6	788.4	724.0	670.3	635.1	613.5	602.8
37.5°	814.5	803.7	766.9	717.8	661.1	612.0	582.9	564.5	555.2
40°	733.2	724.0	688.7	647.3	598.3	555.2	530.7	516.9	507.7
42.5°	653.5	648.8	619.7	581.3	538.4	501.6	481.6	470.9	463.2
45°	589.0	582.9	555.2	518.4	481.6	450.9	434.1	426.4	418.7
47.5°	532.2	524.5	495.4	463.2	429.5	401.9	386.6	378.9	375.8
50°	477.0	469.3	443.2	411.1	377.3	357.4	345.1	337.5	335.9
52.5°	427.9	420.3	391.1	360.5	334.4	317.5	306.7	299.1	296.0
55°	380.4	371.2	346.6	317.5	296.0	280.7	269.9	262.3	259.2
57.5°	337.5	328.2	306.7	279.2	259.2	245.4	236.2	228.5	225.5
60°	296.0	288.3	268.5	242.4	225.5	213.2	204.0	197.9	194.8
62.5°	257.6	251.5	231.6	208.6	194.8	184.0	176.3	170.3	173.3
65°	222.4	216.3	197.9	177.9	167.2	156.5	150.3	150.3	156.5
67.5°	188.7	182.6	167.2	150.3	141.1	133.4	128.8	133.4	138.1
70°	157.9	151.9	138.1	124.2	116.6	110.4	110.4	115.0	118.1
72.5°	128.8	122.7	112.0	101.3	95.1	90.5	95.1	98.1	101.3
75°	101.3	96.6	87.4	79.7	75.2	73.6	78.2	81.3	82.9
77.5°	75.2	72.1	65.9	59.8	56.8	58.3	62.9	64.5	65.9
80°	52.2	50.6	46.1	42.9	42.9	44.5	47.5	49.1	50.6
82.5°	32.2	32.2	29.1	27.7	29.1	32.2	33.8	35.2	35.2
85°	15.4	16.8	15.4	15.4	16.8	20.0	20.0	21.5	21.5
87.5°	4.6	4.6	6.1	6.1	7.7	7.7	7.7	7.7	9.3
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)