

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: P580538

Luminaire Tested: **HC435D010-HM43040940-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC435D010-HM43040940-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3237.8 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

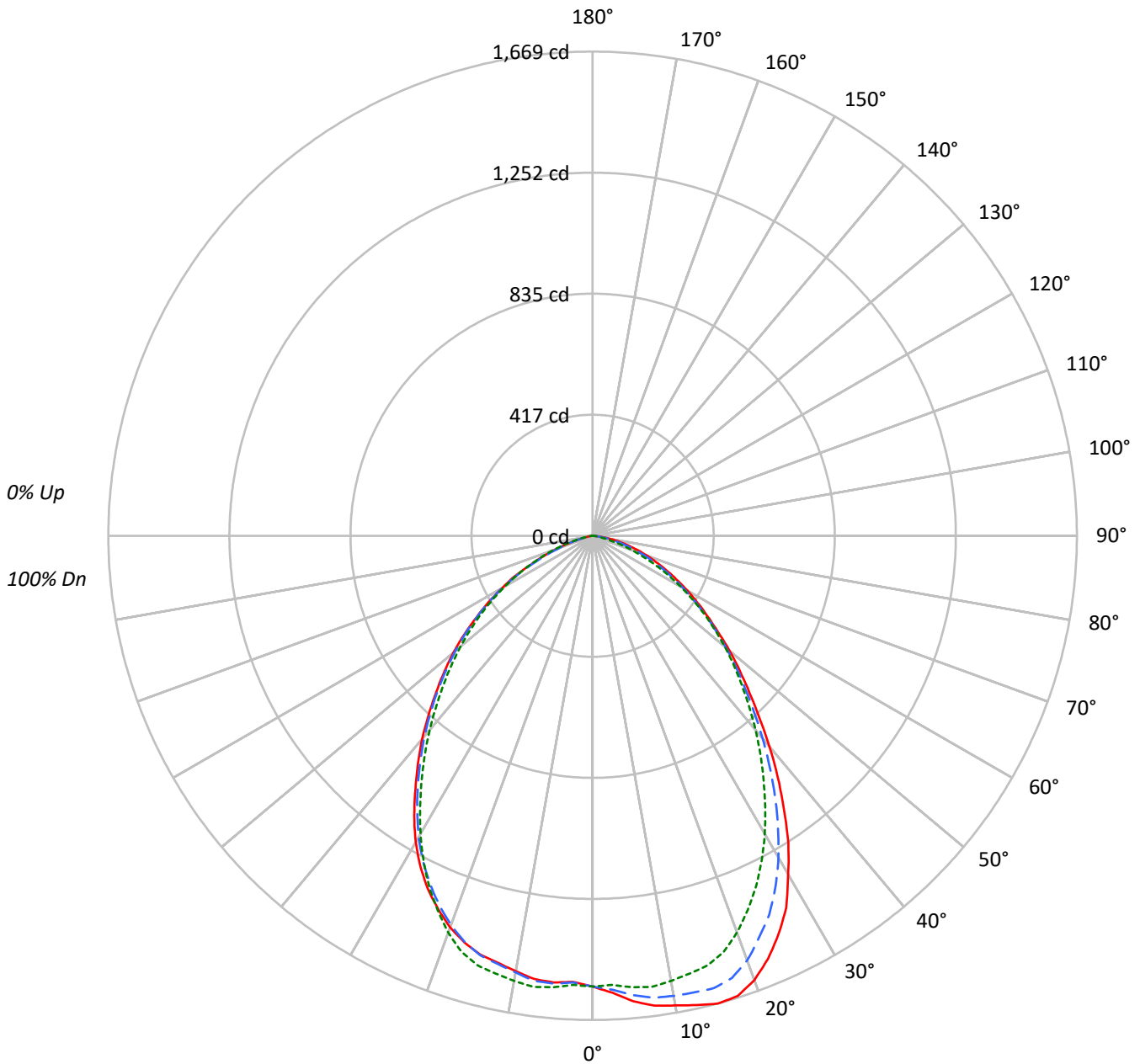
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76																			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46																			
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41																			
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37																			
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	191654	191654	191654
5°	199407	193414	191346
10°	205921	195137	190929
15°	213164	195734	190907
20°	213878	190999	188518
25°	206309	181458	182901
30°	191992	168976	173747
35°	172938	154613	160289
40°	152482	140648	147072
45°	133322	126711	132956
50°	118052	114041	120067
55°	103867	100706	104749
60°	92731	85997	88562
65°	81517	69871	68616
70°	71190	51463	46955
75°	59047	31025	25020
80°	44679	11862	7458
85°	20804	2972	2972



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	4.6
10°-20°	437.4	13.5
20°-30°	633.4	19.6
30°-40°	668.2	20.6
40°-50°	578.3	17.9
50°-60°	428.4	13.2
60°-70°	247.0	7.6
70°-80°	86.2	2.7
80°-90°	9.1	0.3
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°	1220.6	37.7
0°-40°	1888.8	58.3
0°-60°	2895.6	89.4
0°-90°	3237.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3237.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1554	1554	1554	1554	1554	
5°	1610	1589	1562	1550	1545	155
15°	1669	1615	1533	1497	1495	469
25°	1516	1440	1333	1325	1344	694
35°	1148	1096	1027	1050	1064	717
45°	764	743	726	754	762	593
55°	483	472	468	485	487	436
65°	279	262	239	227	235	279
75°	124	105	65	52	52	133
85°	15	8	2	2	2	23
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°	1553.8	1553.8	1553.8	1553.8	1553.8	1553.8	1553.8	1553.8	1553.8
2.5°	1576.9	1572.7	1566.4	1558.0	1549.5	1543.3	1541.2	1539.1	1539.1
5°	1610.5	1602.0	1589.4	1572.7	1562.1	1555.8	1549.5	1545.4	1545.4
7.5°	1633.6	1625.2	1606.3	1583.2	1568.4	1555.8	1547.5	1541.2	1541.2
10°	1644.1	1633.6	1610.5	1581.0	1558.0	1541.2	1528.5	1524.4	1524.4
12.5°	1656.7	1644.1	1612.6	1574.7	1545.4	1524.4	1511.8	1507.6	1507.6
15°	1669.3	1654.5	1614.6	1570.6	1532.8	1507.6	1497.1	1495.0	1495.0
17.5°	1663.0	1644.1	1597.9	1545.4	1503.4	1478.2	1467.7	1467.7	1469.7
20°	1629.4	1610.5	1558.0	1499.2	1455.1	1436.2	1427.8	1432.0	1436.2
22.5°	1579.0	1555.8	1499.2	1442.5	1396.3	1379.5	1379.5	1385.8	1392.1
25°	1515.9	1495.0	1440.4	1377.3	1333.3	1320.7	1324.9	1335.4	1343.9
27.5°	1444.6	1421.5	1364.8	1306.0	1261.9	1255.6	1266.1	1280.8	1285.1
30°	1348.0	1329.1	1280.8	1224.1	1186.4	1184.2	1199.0	1209.4	1219.9
32.5°	1255.6	1234.6	1188.4	1133.9	1106.6	1108.6	1125.5	1138.1	1144.3
35°	1148.5	1129.6	1096.0	1052.0	1026.8	1030.9	1049.8	1062.4	1064.5
37.5°	1047.8	1035.2	1001.6	968.0	949.1	957.4	974.3	989.0	989.0
40°	947.0	936.5	911.2	884.0	873.5	884.0	900.8	913.4	913.4
42.5°	850.4	844.1	823.1	804.2	797.9	812.5	827.3	837.8	835.7
45°	764.3	758.0	743.3	728.6	726.4	741.2	753.8	760.0	762.2
47.5°	686.7	682.4	669.8	659.3	659.3	674.0	684.5	690.8	692.9
50°	615.2	611.0	600.6	592.1	594.3	608.9	617.3	623.6	625.7
52.5°	543.8	541.8	533.3	522.8	529.2	539.6	550.1	554.4	556.4
55°	483.0	483.0	472.4	464.0	468.3	478.7	485.0	487.1	487.1
57.5°	428.4	426.2	413.6	405.2	407.3	417.8	422.1	424.1	424.1
60°	375.9	373.7	361.1	348.6	348.6	354.8	357.0	359.0	359.0
62.5°	325.4	323.4	308.7	298.2	293.9	291.9	291.9	296.1	304.5
65°	279.3	277.2	262.5	245.7	239.4	233.1	226.8	231.0	235.1
67.5°	237.3	233.1	218.4	203.7	188.9	178.5	167.9	174.2	182.6
70°	197.4	193.2	176.4	159.6	142.7	126.0	117.6	126.0	130.2
72.5°	159.6	155.3	138.6	121.7	100.8	84.0	81.9	84.0	86.1
75°	123.9	121.7	105.0	86.1	65.1	52.5	52.5	52.5	52.5
77.5°	92.4	88.2	71.4	54.6	37.8	29.4	27.3	27.3	27.3
80°	62.9	58.8	44.1	31.5	16.7	12.6	12.6	10.5	10.5
82.5°	35.7	33.6	23.0	12.6	6.3	4.2	4.2	4.2	4.2
85°	14.7	12.6	8.4	4.2	2.1	2.1	2.1	2.1	2.1
87.5°	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
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)