

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: P580520

Luminaire Tested: **HC435D010-HM43040935-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580520
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-HM43040935-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3240.1 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

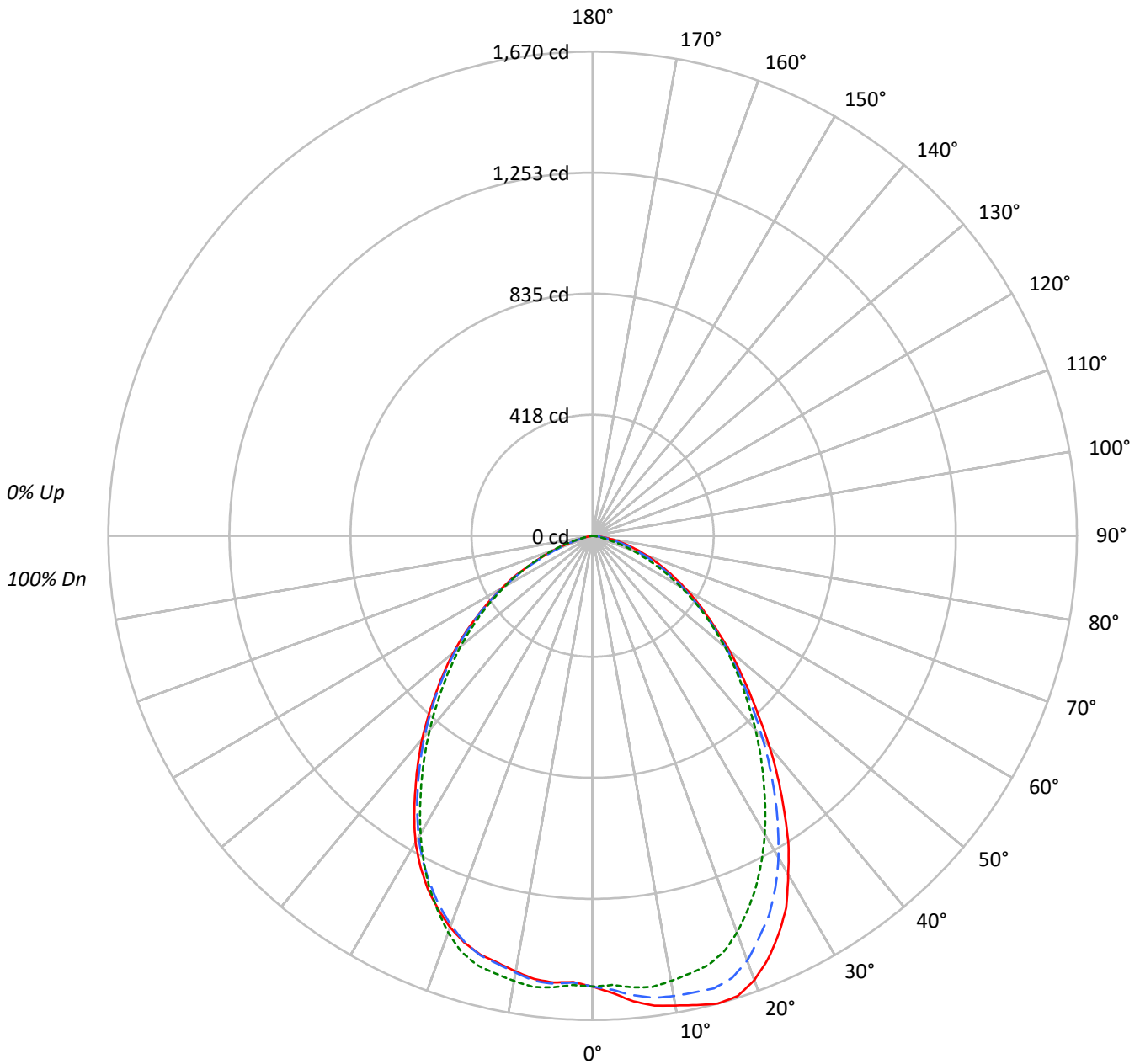
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	191778	191778	191778
5°	199543	193563	191483
10°	206059	195275	191066
15°	213317	195874	191034
20°	214022	191130	188662
25°	206473	181594	183023
30°	192120	169090	173875
35°	173073	154703	160410
40°	152579	140744	147169
45°	133427	126816	133043
50°	118129	114099	120163
55°	103932	100771	104835
60°	92781	86046	88636
65°	81546	69901	68704
70°	71226	51535	46991
75°	59095	31072	25020
80°	44821	12004	7458
85°	20804	2972	2972



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.0	4.6
10°-20°	437.7	13.5
20°-30°	633.8	19.6
30°-40°	668.7	20.6
40°-50°	578.7	17.9
50°-60°	428.7	13.2
60°-70°	247.1	7.6
70°-80°	86.3	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°	1221.5	37.7
0°-40°	1890.2	58.3
0°-60°	2897.6	89.4
0°-90°	3240.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3240.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1555	1555	1555	1555	1555	
5°	1612	1591	1563	1551	1546	155
15°	1670	1616	1534	1498	1496	470
25°	1517	1441	1334	1326	1345	694
35°	1149	1097	1027	1051	1065	718
45°	765	744	727	754	763	594
55°	483	473	469	485	488	436
65°	279	263	240	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°	1554.8	1554.8	1554.8	1554.8	1554.8	1554.8	1554.8	1554.8	1554.8
2.5°	1578.0	1573.8	1567.5	1559.1	1550.7	1544.4	1542.2	1540.2	1540.2
5°	1611.6	1603.2	1590.6	1573.8	1563.3	1557.0	1550.7	1546.5	1546.5
7.5°	1634.7	1626.3	1607.4	1584.3	1569.6	1557.0	1548.5	1542.2	1542.2
10°	1645.2	1634.7	1611.6	1582.3	1559.1	1542.2	1529.7	1525.5	1525.5
12.5°	1657.8	1645.2	1613.7	1575.8	1546.5	1525.5	1512.9	1508.6	1508.6
15°	1670.5	1655.8	1615.9	1571.7	1533.9	1508.6	1498.2	1496.0	1496.0
17.5°	1664.2	1645.2	1599.0	1546.5	1504.5	1479.3	1468.7	1468.7	1470.9
20°	1630.5	1611.6	1559.1	1500.2	1456.1	1437.3	1428.8	1433.0	1437.3
22.5°	1580.1	1557.0	1500.2	1443.6	1397.2	1380.5	1380.5	1386.8	1393.1
25°	1517.1	1496.0	1441.4	1378.4	1334.3	1321.6	1325.9	1336.3	1344.8
27.5°	1445.6	1422.5	1365.8	1307.0	1262.8	1256.5	1267.0	1281.7	1286.0
30°	1348.9	1330.0	1281.7	1225.0	1187.2	1185.0	1199.8	1210.3	1220.8
32.5°	1256.5	1235.5	1189.3	1134.7	1107.4	1109.4	1126.2	1138.8	1145.1
35°	1149.4	1130.4	1096.8	1052.7	1027.4	1031.7	1050.6	1063.2	1065.3
37.5°	1048.5	1035.9	1002.3	968.7	949.8	958.1	975.0	989.7	989.7
40°	947.6	937.1	911.9	884.6	874.1	884.6	901.4	914.0	914.0
42.5°	851.0	844.7	823.7	804.8	798.5	813.2	827.8	838.4	836.3
45°	764.9	758.5	743.9	729.1	727.0	741.7	754.3	760.6	762.7
47.5°	687.1	682.9	670.2	659.8	659.8	674.5	685.0	691.3	693.4
50°	615.6	611.5	600.9	592.6	594.6	609.3	617.8	624.0	626.2
52.5°	544.2	542.1	533.7	523.2	529.5	540.0	550.5	554.7	556.8
55°	483.3	483.3	472.8	464.3	468.6	479.0	485.3	487.5	487.5
57.5°	428.7	426.6	414.0	405.5	407.7	418.1	422.3	424.4	424.4
60°	376.1	374.1	361.4	348.8	348.8	355.1	357.2	359.3	359.3
62.5°	325.7	323.6	308.9	298.4	294.2	292.0	292.0	296.3	304.7
65°	279.4	277.4	262.7	245.8	239.5	233.2	226.9	231.1	235.4
67.5°	237.4	233.2	218.5	203.8	189.1	178.6	168.2	174.4	182.8
70°	197.5	193.3	176.5	159.7	142.9	126.1	117.7	126.1	130.3
72.5°	159.7	155.4	138.7	121.8	100.8	84.1	81.9	84.1	86.1
75°	124.0	121.8	105.1	86.1	65.2	52.5	52.5	52.5	52.5
77.5°	92.5	88.2	71.5	54.6	37.8	29.4	27.3	27.3	27.3
80°	63.1	58.8	44.2	31.5	16.9	12.6	12.6	10.5	10.5
82.5°	35.7	33.6	23.2	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)