

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: P580412

Luminaire Tested: **HC435D010-HM43040827-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580412
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-HM43040827-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3349.6 lumens
Efficiency: N/A
Efficacy: 99.4 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

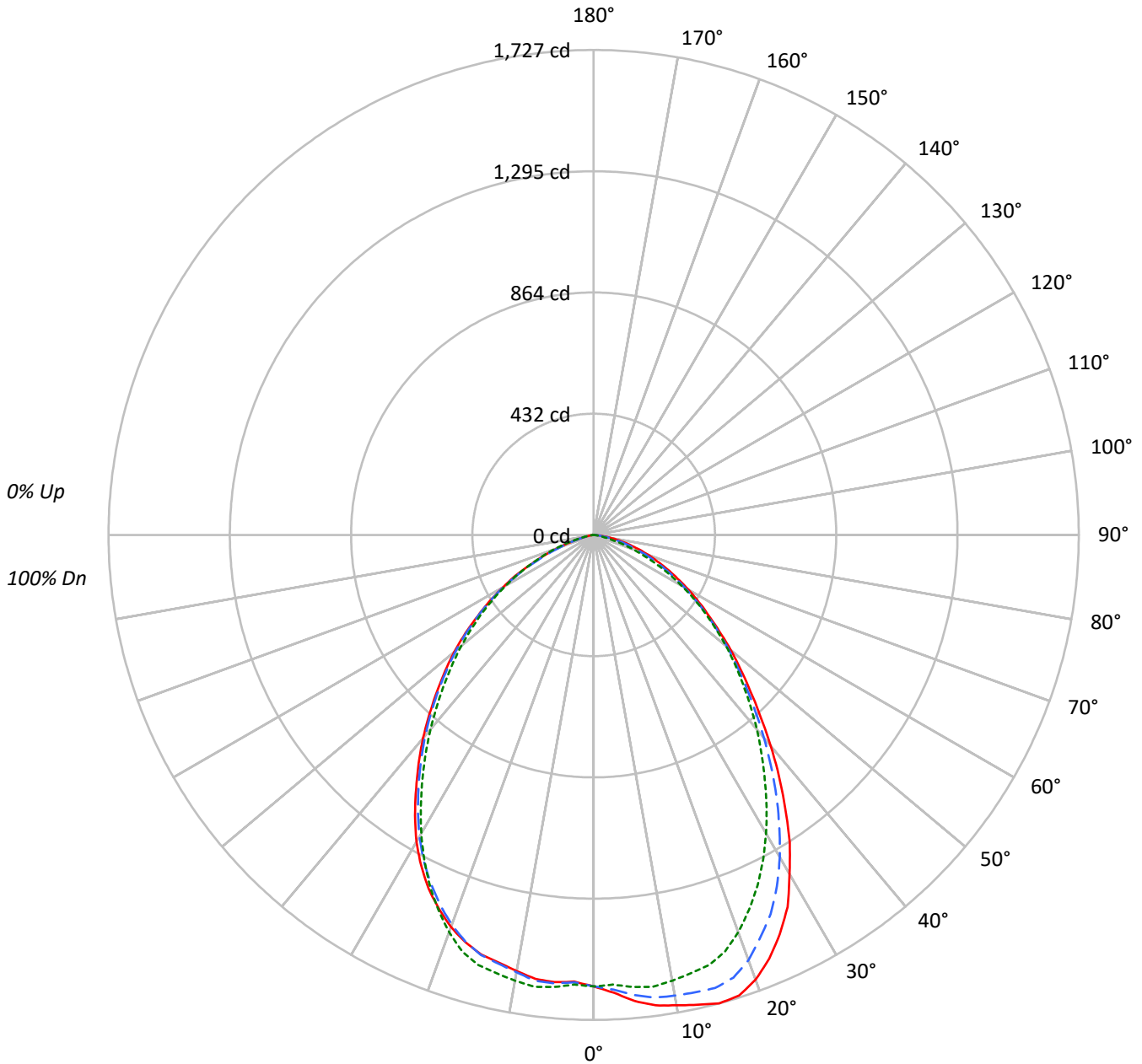
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	62	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°	198266	198266	198266
5°	206291	200100	197958
10°	213023	201863	197517
15°	220520	202489	197496
20°	221268	197601	195029
25°	213441	187732	189202
30°	198615	174801	179743
35°	178916	159943	165831
40°	157748	145494	152144
45°	137910	131107	137544
50°	122120	117956	124212
55°	107437	104169	108383
60°	95914	88957	91646
65°	84319	72265	70981
70°	73642	53266	48578
75°	61049	32073	25878
80°	46313	12360	7742
85°	21512	2972	2972



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.0	4.6
10°-20°	452.5	13.5
20°-30°	655.3	19.6
30°-40°	691.3	20.6
40°-50°	598.3	17.9
50°-60°	443.2	13.2
60°-70°	255.5	7.6
70°-80°	89.2	2.7
80°-90°	9.4	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°	1262.7	37.7
0°-40°	1954.0	58.3
0°-60°	2995.5	89.4
0°-90°	3349.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3349.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1607	1607	1607	1607	1607	
5°	1666	1644	1616	1603	1599	160
15°	1727	1670	1586	1549	1547	486
25°	1568	1490	1379	1371	1390	718
35°	1188	1134	1062	1086	1101	742
45°	791	769	752	780	788	614
55°	500	489	484	502	504	450
65°	289	272	248	235	243	289
75°	128	109	67	54	54	138
85°	15	9	2	2	2	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°	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4
2.5°	1631.3	1627.0	1620.5	1611.7	1603.0	1596.5	1594.4	1592.3	1592.3
5°	1666.1	1657.3	1644.3	1627.0	1616.1	1609.6	1603.0	1598.8	1598.8
7.5°	1689.9	1681.3	1661.7	1637.8	1622.6	1609.6	1600.9	1594.4	1594.4
10°	1700.8	1689.9	1666.1	1635.6	1611.7	1594.4	1581.4	1577.0	1577.0
12.5°	1713.9	1700.8	1668.2	1629.1	1598.8	1577.0	1563.9	1559.7	1559.7
15°	1726.9	1711.6	1670.4	1624.7	1585.7	1559.7	1548.8	1546.6	1546.6
17.5°	1720.4	1700.8	1653.1	1598.8	1555.3	1529.2	1518.3	1518.3	1520.5
20°	1685.7	1666.1	1611.7	1550.9	1505.4	1485.8	1477.0	1481.4	1485.8
22.5°	1633.5	1609.6	1550.9	1492.3	1444.5	1427.1	1427.1	1433.7	1440.2
25°	1568.3	1546.6	1490.1	1424.9	1379.4	1366.3	1370.6	1381.5	1390.2
27.5°	1494.5	1470.5	1412.0	1351.0	1305.5	1299.0	1309.8	1325.1	1329.4
30°	1394.5	1375.0	1325.1	1266.4	1227.3	1225.2	1240.3	1251.1	1262.0
32.5°	1299.0	1277.2	1229.4	1173.0	1144.8	1146.9	1164.2	1177.3	1183.8
35°	1188.2	1168.6	1133.9	1088.3	1062.2	1066.6	1086.1	1099.2	1101.3
37.5°	1083.9	1070.8	1036.1	1001.4	981.8	990.5	1007.9	1023.1	1023.1
40°	979.7	968.8	942.7	914.5	903.6	914.5	931.9	944.9	944.9
42.5°	879.8	873.2	851.5	832.0	825.5	840.6	855.8	866.7	864.6
45°	790.6	784.1	768.9	753.8	751.6	766.8	779.8	786.4	788.5
47.5°	710.3	706.0	692.9	682.0	682.0	697.2	708.1	714.6	716.8
50°	636.4	632.1	621.2	612.6	614.7	629.9	638.7	645.2	647.3
52.5°	562.6	560.4	551.8	540.9	547.4	558.3	569.1	573.5	575.6
55°	499.6	499.6	488.7	480.1	484.4	495.2	501.8	504.0	504.0
57.5°	443.1	440.9	427.9	419.3	421.4	432.3	436.6	438.8	438.8
60°	388.8	386.7	373.6	360.6	360.6	367.1	369.2	371.5	371.5
62.5°	336.6	334.5	319.3	308.4	304.2	301.9	301.9	306.3	314.9
65°	288.9	286.7	271.6	254.1	247.6	241.1	234.6	239.0	243.2
67.5°	245.5	241.1	225.9	210.8	195.5	184.7	173.8	180.3	188.9
70°	204.2	199.8	182.4	165.1	147.7	130.4	121.6	130.4	134.7
72.5°	165.1	160.7	143.3	126.0	104.3	86.9	84.7	86.9	89.0
75°	128.1	126.0	108.6	89.0	67.3	54.3	54.3	54.3	54.3
77.5°	95.5	91.3	73.8	56.4	39.1	30.5	28.2	28.2	28.2
80°	65.2	60.8	45.6	32.6	17.4	13.0	13.0	10.9	10.9
82.5°	37.0	34.7	23.9	13.0	6.5	4.4	4.4	4.4	4.4
85°	15.2	13.0	8.7	4.4	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)