

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: P580502

Luminaire Tested: **HC435D010-HM43040930-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580502
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-HM43040930-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3106.5 lumens
Efficiency: N/A
Efficacy: 92.2 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

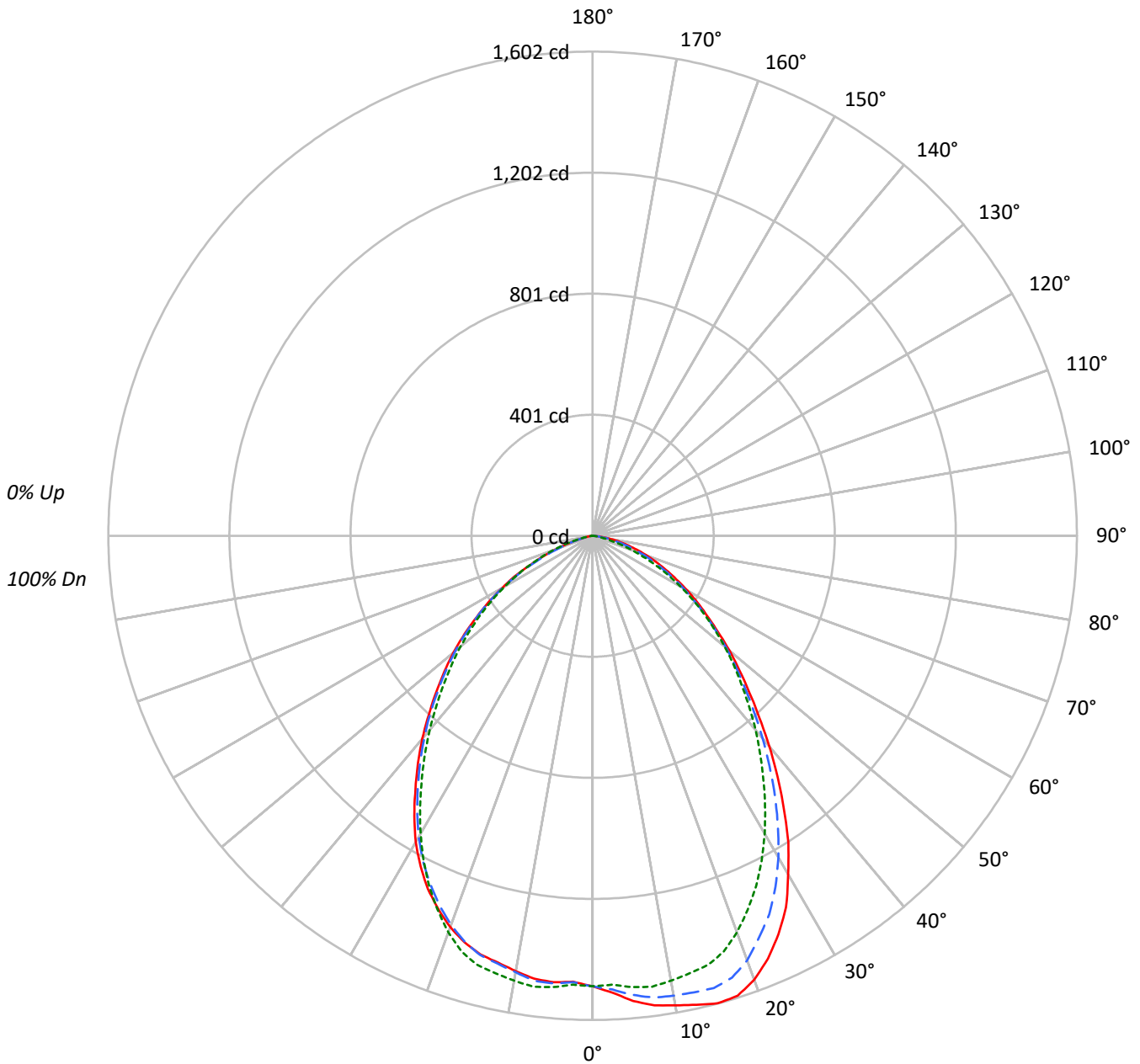
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	183884	183884	183884
5°	191322	185589	183583
10°	197567	187221	183176
15°	204519	187791	183156
20°	205201	183241	180865
25°	197953	174095	175470
30°	184201	162111	166697
35°	165936	148334	153800
40°	146283	134948	141099
45°	127915	121583	127566
50°	113254	109397	115193
55°	99631	96620	100513
60°	88957	82494	84985
65°	78219	67011	65844
70°	68305	49407	45044
75°	56617	29786	24019
80°	42974	11436	7174
85°	19813	2830	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.8	4.6
10°-20°	419.6	13.5
20°-30°	607.7	19.6
30°-40°	641.1	20.6
40°-50°	554.9	17.9
50°-60°	411.0	13.2
60°-70°	236.9	7.6
70°-80°	82.8	2.7
80°-90°	8.7	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°	1171.1	37.7
0°-40°	1812.2	58.3
0°-60°	2778.1	89.4
0°-90°	3106.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3106.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1491	1491	1491	1491	1491	
5°	1545	1525	1499	1487	1483	148
15°	1602	1549	1471	1436	1434	450
25°	1454	1382	1279	1271	1289	666
35°	1102	1052	985	1007	1021	688
45°	733	713	697	723	731	569
55°	463	453	449	465	467	418
65°	268	252	230	218	226	268
75°	119	101	62	50	50	128
85°	14	8	2	2	2	22
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°	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8
2.5°	1512.9	1508.9	1502.8	1494.8	1486.7	1480.6	1478.6	1476.6	1476.6
5°	1545.2	1537.1	1525.0	1508.9	1498.9	1492.8	1486.7	1482.7	1482.7
7.5°	1567.3	1559.2	1541.1	1519.0	1504.8	1492.8	1484.7	1478.6	1478.6
10°	1577.4	1567.3	1545.2	1517.0	1494.8	1478.6	1466.6	1462.5	1462.5
12.5°	1589.4	1577.4	1547.2	1510.9	1482.7	1462.5	1450.4	1446.5	1446.5
15°	1601.6	1587.4	1549.2	1506.8	1470.6	1446.5	1436.4	1434.3	1434.3
17.5°	1595.5	1577.4	1533.0	1482.7	1442.4	1418.3	1408.1	1408.1	1410.2
20°	1563.3	1545.2	1494.8	1438.4	1396.0	1377.9	1369.8	1373.9	1377.9
22.5°	1514.9	1492.8	1438.4	1384.0	1339.7	1323.5	1323.5	1329.6	1335.6
25°	1454.5	1434.3	1382.0	1321.5	1279.2	1267.1	1271.1	1281.2	1289.3
27.5°	1386.0	1363.9	1309.5	1253.0	1210.8	1204.7	1214.7	1228.9	1232.9
30°	1293.3	1275.2	1228.9	1174.5	1138.2	1136.1	1150.3	1160.4	1170.4
32.5°	1204.7	1184.6	1140.2	1087.8	1061.6	1063.6	1079.8	1091.9	1097.9
35°	1102.0	1083.8	1051.6	1009.2	985.1	989.1	1007.2	1019.4	1021.4
37.5°	1005.2	993.2	960.9	928.6	910.6	918.6	934.7	948.9	948.9
40°	908.5	898.5	874.2	848.1	838.1	848.1	864.2	876.3	876.3
42.5°	815.9	809.8	789.7	771.5	765.6	779.6	793.8	803.8	801.7
45°	733.3	727.2	713.2	699.0	697.0	711.2	723.2	729.3	731.3
47.5°	658.8	654.7	642.6	632.6	632.6	646.6	656.8	662.8	664.8
50°	590.2	586.3	576.2	568.1	570.1	584.3	592.2	598.3	600.3
52.5°	521.8	519.7	511.6	501.6	507.7	517.7	527.8	531.9	533.9
55°	463.3	463.3	453.3	445.2	449.3	459.3	465.3	467.4	467.4
57.5°	410.9	408.9	396.9	388.8	390.8	400.9	404.9	406.9	406.9
60°	360.6	358.6	346.5	334.4	334.4	340.5	342.5	344.5	344.5
62.5°	312.2	310.2	296.2	286.1	282.0	280.0	280.0	284.0	292.1
65°	268.0	265.9	251.8	235.7	229.6	223.6	217.6	221.7	225.6
67.5°	227.6	223.6	209.5	195.5	181.3	171.2	161.2	167.3	175.2
70°	189.4	185.3	169.3	153.1	137.0	120.8	112.8	120.8	124.9
72.5°	153.1	149.0	133.0	116.9	96.7	80.6	78.6	80.6	82.6
75°	118.8	116.9	100.7	82.6	62.5	50.4	50.4	50.4	50.4
77.5°	88.7	84.6	68.5	52.4	36.3	28.2	26.2	26.2	26.2
80°	60.5	56.4	42.3	30.2	16.1	12.1	12.1	10.1	10.1
82.5°	34.3	32.3	22.1	12.1	6.1	4.0	4.0	4.0	4.0
85°	14.0	12.1	8.1	4.0	2.0	2.0	2.0	2.0	2.0
87.5°	2.0	2.0	2.0	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)