

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: P580630

Luminaire Tested: **HC440D010-HM43040927-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580630
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC440D010-HM43040927-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2635.7 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

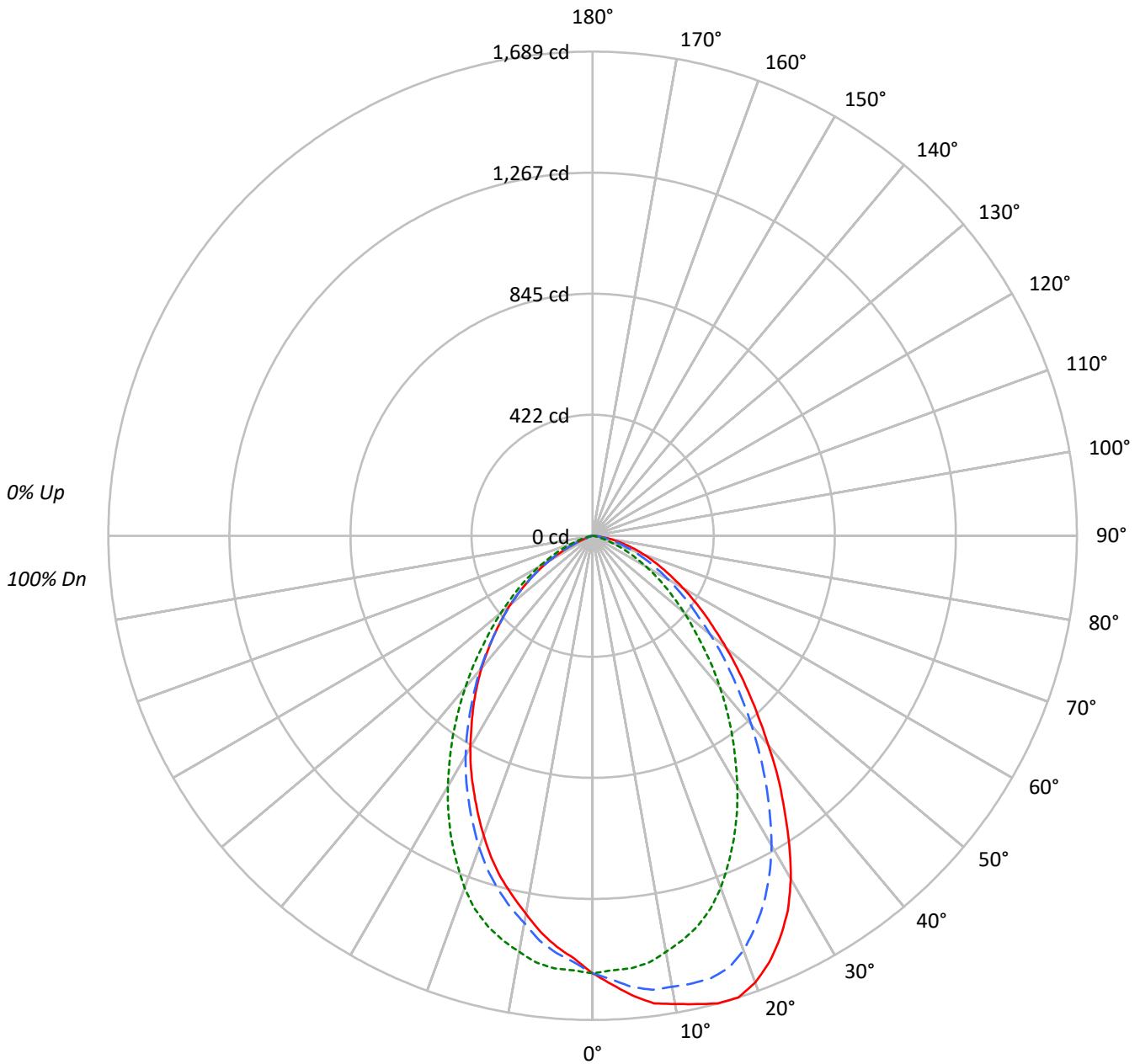
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89				89				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78				78				
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69				69				
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61				61				
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55				55				
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49				49				
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44				44				
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40				40				
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37				37				
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34				34				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	188213	188213	188213
5°	199407	187582	178185
10°	207699	184591	167745
15°	215642	180167	157718
20°	217671	171520	145884
25°	210637	158634	133525
30°	196920	143752	121505
35°	175513	127795	109168
40°	153416	111133	97157
45°	133654	94266	84061
50°	116632	79980	72055
55°	102212	66299	58342
60°	89426	53532	42826
65°	77927	39927	24079
70°	68125	25822	7826
75°	55902	13439	2097
80°	41625	6109	1492
85°	24625	2972	2972



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	5.5
10°-20°	403.1	15.3
20°-30°	557.3	21.1
30°-40°	560.4	21.3
40°-50°	452.2	17.2
50°-60°	305.8	11.6
60°-70°	155.6	5.9
70°-80°	49.8	1.9
80°-90°	7.6	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°	1104.4	41.9
0°-40°	1664.7	63.2
0°-60°	2422.7	91.9
0°-90°	2635.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2635.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1526	1526	1526	1526	1526	
5°	1610	1580	1515	1461	1439	155
15°	1689	1598	1411	1276	1235	476
25°	1548	1413	1166	1022	981	708
35°	1166	1053	849	742	725	728
45°	766	686	540	482	482	594
55°	475	410	308	269	271	427
65°	267	217	137	89	82	268
75°	117	82	28	6	4	126
85°	17	9	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°	1525.9	1525.9	1525.9	1525.9	1525.9	1525.9	1525.9	1525.9	1525.9
2.5°	1567.2	1558.5	1549.8	1534.6	1517.3	1499.9	1489.0	1480.4	1476.0
5°	1610.5	1599.8	1580.2	1547.7	1515.0	1484.7	1460.8	1445.6	1439.1
7.5°	1645.3	1630.2	1597.5	1552.0	1502.0	1454.3	1423.9	1402.3	1393.5
10°	1658.3	1640.9	1597.5	1536.8	1473.8	1415.3	1371.8	1350.1	1339.3
12.5°	1673.5	1654.0	1599.8	1523.8	1445.6	1376.1	1326.3	1298.0	1287.1
15°	1688.7	1662.7	1597.5	1504.3	1410.9	1330.6	1276.3	1248.1	1235.1
17.5°	1688.7	1658.3	1580.2	1471.6	1365.3	1280.6	1219.9	1187.4	1176.5
20°	1658.3	1623.7	1538.9	1419.5	1306.7	1215.5	1156.9	1124.4	1111.4
22.5°	1610.5	1571.5	1480.4	1356.6	1237.2	1148.2	1089.6	1059.2	1046.2
25°	1547.7	1508.5	1413.0	1285.0	1165.6	1076.6	1022.4	994.1	981.1
27.5°	1473.8	1430.4	1334.9	1206.9	1089.6	1005.0	955.1	929.0	918.2
30°	1382.6	1341.4	1248.1	1122.2	1009.3	931.2	885.6	861.7	853.1
32.5°	1276.3	1241.6	1150.4	1033.2	926.8	855.2	814.0	794.5	785.7
35°	1165.6	1133.0	1052.7	944.2	848.7	781.4	742.3	729.3	725.0
37.5°	1061.5	1033.2	955.1	855.2	768.4	709.8	675.1	666.3	662.1
40°	952.8	933.3	861.7	770.6	690.2	638.2	609.9	603.4	603.4
42.5°	855.2	833.5	770.6	688.1	616.4	564.3	544.8	538.3	540.4
45°	766.2	744.6	685.9	609.9	540.4	497.1	481.9	481.9	481.9
47.5°	683.7	664.2	609.9	531.8	475.3	440.7	425.4	425.4	427.7
50°	607.8	594.7	533.9	466.7	416.8	384.2	373.3	371.2	375.5
52.5°	536.2	520.9	466.7	405.9	358.2	332.2	321.3	319.0	321.3
55°	475.3	458.0	410.3	351.7	308.3	282.2	269.2	267.0	271.3
57.5°	416.8	403.8	353.8	301.7	260.5	234.4	223.5	219.3	221.4
60°	362.5	349.4	303.9	253.9	217.0	191.0	175.8	171.5	173.6
62.5°	312.5	301.7	258.3	210.5	173.6	149.8	134.6	123.8	128.0
65°	267.0	256.1	217.0	169.3	136.8	110.8	89.0	80.3	82.5
67.5°	227.9	214.9	178.0	134.6	102.0	73.8	49.9	45.6	45.6
70°	188.9	175.8	143.3	104.1	71.6	39.1	21.7	21.7	21.7
72.5°	151.9	141.1	110.8	78.1	45.6	17.4	8.6	8.6	8.6
75°	117.3	108.5	82.5	54.3	28.2	8.6	6.5	4.4	4.4
77.5°	86.9	78.1	58.6	36.9	17.4	4.4	4.4	4.4	4.4
80°	58.6	52.1	39.1	21.7	8.6	2.1	2.1	2.1	2.1
82.5°	34.8	30.4	21.7	10.9	4.4	2.1	2.1	2.1	2.1
85°	17.4	13.0	8.6	4.4	2.1	2.1	2.1	2.1	2.1
87.5°	4.4	2.1	2.1	2.1	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)