

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: P584923

Luminaire Tested: **HC855D010-HM82555827-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC855D010-HM82555827-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5025.3 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.16
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

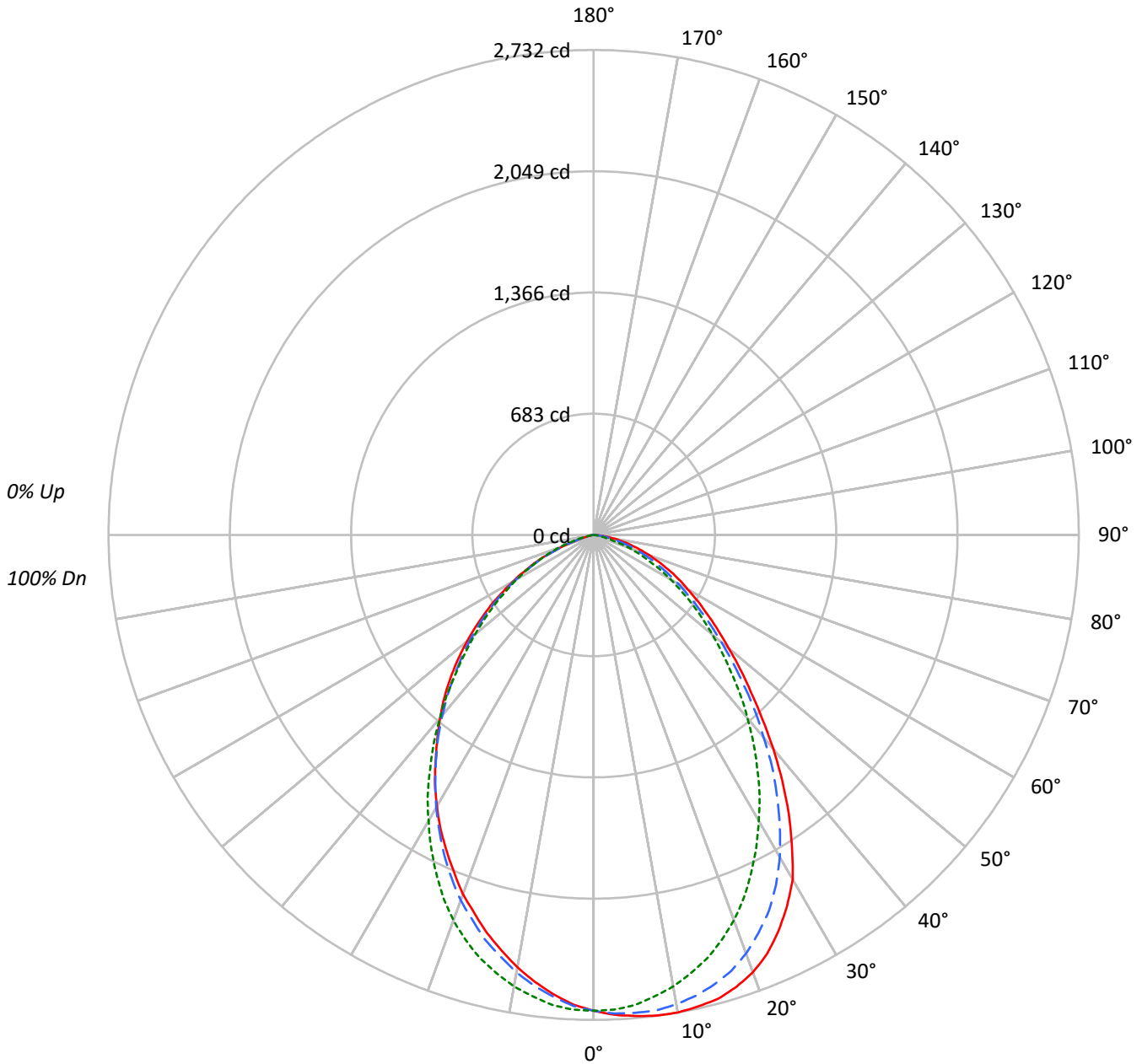
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	100	100
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88	88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77	77	77	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47	47	47	47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35	35	35	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	82660	82660	82660
5°	84214	82301	80388
10°	85529	80866	77453
15°	86387	78853	74096
20°	86058	75807	70681
25°	83791	71434	66738
30°	79798	66218	62857
35°	72059	60438	58386
40°	63311	54246	54097
45°	54647	47682	49741
50°	47570	41818	44610
55°	42176	36327	38859
60°	37639	30688	32261
65°	33921	24910	25443
70°	30122	18672	15066
75°	25973	10818	6493
80°	19995	3871	1936
85°	12843	1274	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.6	5.0
10°-20°	700.5	13.9
20°-30°	990.8	19.7
30°-40°	1044.1	20.8
40°-50°	887.3	17.7
50°-60°	638.9	12.7
60°-70°	368.6	7.3
70°-80°	126.1	2.5
80°-90°	17.3	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°	1943.0	38.7
0°-40°	2987.0	59.4
0°-60°	4513.3	89.8
0°-90°	5025.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5025.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2681	2681	2681	2681	2681	
5°	2721	2702	2659	2612	2597	260
15°	2706	2622	2470	2361	2321	762
25°	2463	2336	2100	1990	1962	1129
35°	1914	1802	1606	1547	1551	1192
45°	1253	1195	1093	1101	1141	974
55°	784	723	676	701	723	706
65°	465	400	341	334	349	462
75°	218	164	91	58	54	230
85°	36	22	4	4	4	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6
2.5°	2706.0	2709.7	2706.0	2706.0	2702.4	2698.8	2695.1	2691.5	2684.2	2677.0	2677.0
5°	2720.6	2727.8	2720.6	2720.6	2709.7	2702.4	2695.1	2684.2	2669.7	2658.8	2658.8
7.5°	2731.5	2731.5	2731.5	2720.6	2713.3	2702.4	2684.2	2666.1	2647.9	2629.7	2622.5
10°	2731.5	2731.5	2727.8	2713.3	2706.0	2684.2	2666.1	2640.6	2615.2	2589.8	2582.6
12.5°	2720.6	2724.2	2716.9	2702.4	2684.2	2658.8	2633.4	2600.7	2571.7	2542.7	2528.1
15°	2706.0	2702.4	2695.1	2677.0	2655.2	2622.5	2597.0	2560.8	2520.9	2484.5	2470.0
17.5°	2669.7	2669.7	2658.8	2640.6	2611.6	2575.4	2535.4	2495.4	2451.8	2411.9	2393.7
20°	2622.5	2622.5	2607.9	2586.1	2557.2	2510.0	2466.4	2419.1	2368.3	2328.3	2310.1
22.5°	2553.6	2557.2	2539.0	2513.6	2480.9	2426.4	2382.8	2324.7	2273.8	2226.6	2212.0
25°	2462.7	2470.0	2451.8	2426.4	2382.8	2335.6	2281.1	2226.6	2168.4	2121.2	2099.5
27.5°	2357.4	2361.0	2342.8	2317.4	2273.8	2222.9	2168.4	2110.4	2055.9	2005.1	1983.3
30°	2241.1	2226.6	2219.3	2186.6	2139.4	2095.9	2034.1	1986.9	1928.8	1885.2	1859.7
32.5°	2077.7	2085.0	2063.2	2037.8	2001.4	1950.6	1899.7	1845.2	1790.7	1758.0	1739.8
35°	1914.2	1921.5	1910.6	1885.2	1845.2	1801.6	1750.7	1710.8	1663.5	1623.7	1605.5
37.5°	1743.5	1743.5	1736.2	1721.7	1692.6	1652.6	1601.9	1561.9	1522.0	1489.3	1478.4
40°	1572.8	1565.6	1561.9	1551.0	1525.6	1489.3	1456.6	1423.9	1383.9	1362.1	1347.6
42.5°	1405.7	1405.7	1398.4	1387.5	1362.1	1343.9	1311.2	1274.9	1245.8	1224.0	1224.0
45°	1253.1	1256.7	1245.8	1238.6	1224.0	1195.0	1166.0	1140.6	1115.2	1100.6	1093.4
47.5°	1118.8	1118.8	1107.9	1100.6	1086.1	1060.7	1035.2	1013.4	995.3	984.4	980.7
50°	991.6	991.6	991.6	973.5	955.3	937.1	919.0	893.5	882.6	875.4	871.7
52.5°	882.6	879.0	879.0	864.5	846.3	824.5	806.3	784.5	773.6	766.4	770.0
55°	784.5	784.5	780.9	762.7	744.6	722.8	704.6	686.6	679.3	672.0	675.7
56°	744.6	744.6	740.9	726.4	704.6	686.6	664.8	646.6	635.7	639.3	639.3
57°	715.5	708.2	708.2	690.2	672.0	646.6	628.4	610.3	603.0	599.4	599.4
58°	679.3	675.7	672.0	653.9	635.7	613.9	595.7	577.6	566.7	566.7	563.0
59°	643.0	643.0	635.7	621.2	603.0	581.2	563.0	544.9	534.0	530.3	530.3
60°	610.3	613.9	603.0	588.5	573.9	548.5	526.7	512.2	501.3	497.6	497.6
61°	581.2	581.2	573.9	555.8	537.6	519.4	497.6	479.5	472.2	464.9	464.9
62°	555.8	548.5	544.9	526.7	508.5	486.7	468.6	450.4	439.5	432.2	435.9
63°	523.1	519.4	512.2	497.6	479.5	457.7	435.9	421.3	410.4	399.5	403.2
64°	497.6	494.0	483.1	468.6	450.4	428.6	406.8	392.3	385.0	374.1	370.5
65°	464.9	461.3	457.7	439.5	421.3	399.5	381.4	366.8	355.9	348.7	341.4
66°	435.9	439.5	432.2	417.7	395.9	377.7	352.3	337.8	330.5	319.6	312.3
67°	410.4	410.4	403.2	388.6	366.8	348.7	330.5	312.3	301.4	290.5	286.9
67.5°	395.9	395.9	388.6	370.5	355.9	334.1	316.0	301.4	286.9	279.6	272.4
68°	381.4	381.4	377.7	363.2	345.0	323.2	305.1	286.9	272.4	261.5	257.8
69°	355.9	359.6	352.3	337.8	319.6	297.8	279.6	265.1	250.6	239.7	232.5
70°	334.1	330.5	323.2	308.7	290.5	276.0	257.8	239.7	225.3	210.7	207.1
71°	305.1	305.1	297.8	286.9	268.7	250.6	232.5	218.0	203.5	185.3	181.7
72°	283.3	283.3	276.0	261.5	246.9	228.9	210.7	192.6	181.7	163.5	156.2
72.5°	268.7	272.4	265.1	250.6	236.0	214.4	199.8	185.3	167.1	152.6	145.3
73°	261.5	257.8	254.2	239.7	221.6	207.1	188.9	174.4	156.2	141.7	134.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	163.5	163.5	159.9	145.3	130.8	116.3	101.7	87.2	72.7	58.1	50.9
80°	112.6	116.3	109.0	101.7	90.8	76.3	61.8	50.9	36.3	29.1	21.8
82.5°	72.7	72.7	69.0	61.8	54.5	43.6	36.3	25.4	18.2	14.5	10.9
85°	36.3	40.0	36.3	32.7	25.4	21.8	18.2	10.9	7.3	3.6	3.6
87.5°	14.5	14.5	14.5	10.9	10.9	7.3	3.6	3.6	3.6	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6	2680.6
2.5°	2669.7	2669.7	2662.4	2658.8	2655.2	2651.5	2647.9	2644.3	2644.3	2647.9
5°	2647.9	2640.6	2626.1	2622.5	2611.6	2607.9	2600.7	2597.0	2600.7	2597.0
7.5°	2615.2	2600.7	2582.6	2575.4	2560.8	2553.6	2542.7	2542.7	2535.4	2539.0
10°	2571.7	2549.9	2528.1	2513.6	2502.7	2491.8	2484.5	2477.3	2473.6	2473.6
12.5°	2517.2	2491.8	2470.0	2448.2	2430.0	2422.8	2408.2	2408.2	2401.0	2397.3
15°	2455.5	2422.8	2397.3	2375.5	2361.0	2346.5	2335.6	2328.3	2321.0	2321.0
17.5°	2375.5	2346.5	2321.0	2295.6	2273.8	2262.9	2252.0	2241.1	2241.1	2233.8
20°	2288.3	2255.6	2233.8	2208.4	2190.2	2172.1	2157.5	2157.5	2150.3	2153.9
22.5°	2190.2	2150.3	2128.5	2110.4	2092.3	2077.7	2063.2	2063.2	2059.6	2055.9
25°	2081.4	2048.7	2023.2	2001.4	1990.5	1976.0	1972.4	1965.1	1961.5	1961.5
27.5°	1965.1	1939.7	1907.0	1896.1	1881.5	1874.3	1874.3	1870.6	1863.4	1867.0
30°	1841.6	1812.5	1794.3	1787.1	1772.5	1772.5	1768.9	1761.6	1761.6	1765.3
32.5°	1721.7	1692.6	1678.1	1674.4	1659.9	1659.9	1656.3	1659.9	1659.9	1663.5
35°	1591.0	1565.6	1561.9	1551.0	1547.4	1547.4	1547.4	1554.7	1561.9	1551.0
37.5°	1467.5	1449.3	1438.4	1434.8	1438.4	1438.4	1442.0	1452.9	1449.3	1445.7
40°	1340.3	1325.8	1318.5	1318.5	1325.8	1333.0	1333.0	1343.9	1347.6	1343.9
42.5°	1213.1	1202.2	1202.2	1205.9	1213.1	1216.8	1227.7	1238.6	1242.2	1245.8
45°	1093.4	1093.4	1093.4	1097.0	1100.6	1107.9	1122.4	1133.3	1137.0	1140.6
47.5°	977.1	973.5	984.4	988.0	998.9	1002.5	1013.4	1028.0	1031.6	1035.2
50°	868.1	875.4	879.0	889.9	897.2	897.2	911.7	919.0	929.9	929.9
52.5°	766.4	777.3	780.9	791.8	795.4	799.1	806.3	817.2	824.5	824.5
55°	675.7	679.3	686.6	690.2	701.1	704.6	711.9	715.5	726.4	722.8
56°	635.7	643.0	646.6	653.9	661.1	664.8	672.0	675.7	682.9	686.6
57°	599.4	603.0	613.9	617.5	624.8	624.8	628.4	639.3	639.3	643.0
58°	563.0	570.3	573.9	577.6	584.8	588.5	595.7	599.4	603.0	599.4
59°	530.3	534.0	537.6	537.6	544.9	544.9	555.8	563.0	566.7	566.7
60°	497.6	497.6	501.3	504.9	512.2	515.8	515.8	523.1	523.1	523.1
61°	464.9	464.9	468.6	472.2	475.8	475.8	483.1	483.1	486.7	490.4
62°	435.9	432.2	432.2	435.9	435.9	443.1	446.8	450.4	454.0	450.4
63°	403.2	399.5	399.5	399.5	399.5	406.8	406.8	410.4	417.7	414.1
64°	366.8	366.8	366.8	366.8	370.5	370.5	377.7	381.4	385.0	388.6
65°	341.4	334.1	330.5	330.5	334.1	337.8	341.4	345.0	348.7	348.7
66°	312.3	305.1	301.4	301.4	301.4	301.4	308.7	308.7	316.0	316.0
67°	279.6	272.4	268.7	265.1	265.1	265.1	276.0	272.4	272.4	272.4
67.5°	268.7	257.8	254.2	250.6	246.9	254.2	250.6	254.2	254.2	250.6
68°	254.2	246.9	239.7	232.5	232.5	232.5	236.0	239.7	236.0	232.5
69°	225.3	221.6	210.7	203.5	199.8	203.5	199.8	203.5	199.8	203.5
70°	199.8	188.9	178.0	174.4	170.8	170.8	170.8	167.1	170.8	167.1
71°	174.4	163.5	152.6	145.3	141.7	141.7	138.1	141.7	138.1	141.7
72°	149.0	138.1	123.5	116.3	116.3	116.3	116.3	112.6	116.3	112.6
72.5°	138.1	123.5	112.6	105.4	101.7	101.7	101.7	101.7	98.1	101.7
73°	127.2	112.6	98.1	94.5	94.5	94.5	90.8	87.2	90.8	90.8



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	43.6	32.7	29.1	29.1	29.1	29.1	29.1	29.1	25.4	25.4
80°	18.2	14.5	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
82.5°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
85°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
87.5°	0.0	0.0	0.0	0.0	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	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270°







74°	236.0	236.0	228.9	218.0	199.8	181.7	167.1	152.6	134.4	116.3	109.0
75°	218.0	214.4	207.1	196.2	181.7	163.5	149.0	130.8	116.3	98.1	90.8





74°	105.4	87.2	79.9	72.7	72.7	72.7	69.0	69.0	69.0	72.7
75°	83.6	69.0	61.8	54.5	58.1	54.5	58.1	54.5	54.5	54.5



(END OF REPORT)