

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: P584940

Luminaire Tested: **HC855D010-HM82555830-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584940
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-HM82555830-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4907.3 lumens
Efficiency: N/A
Efficacy: 94.4 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

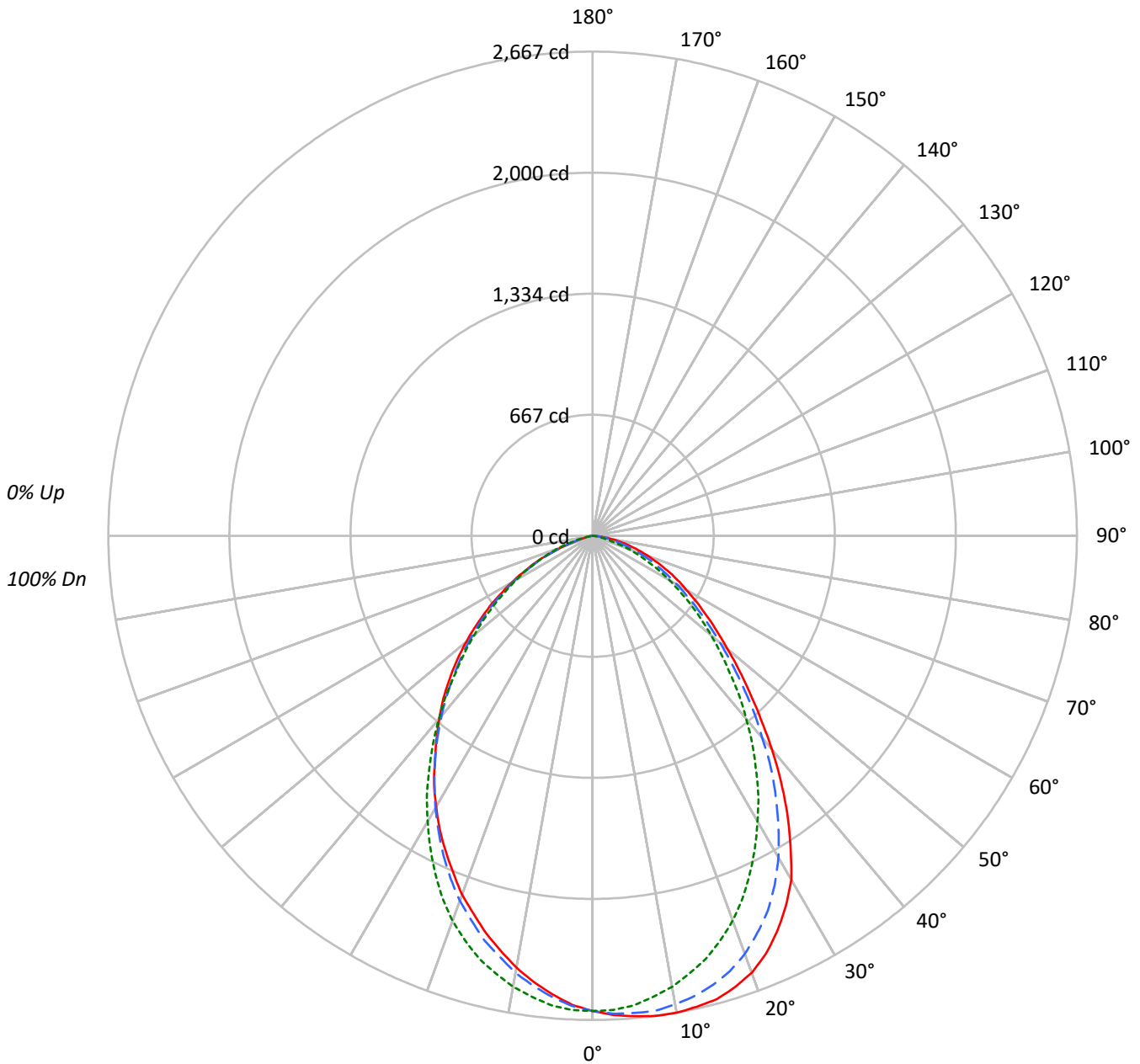
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	80720	80720	80720
5°	82236	80369	78503
10°	83522	78966	75634
15°	84359	77001	72356
20°	84037	74028	69024
25°	81821	69756	65170
30°	77925	64662	61379
35°	70365	59019	57016
40°	61822	52970	52829
45°	53364	46561	48572
50°	46452	40834	43564
55°	41187	35466	37950
60°	36745	29967	31502
65°	33126	24327	24845
70°	29419	18230	14705
75°	25353	10568	6338
80°	19516	3782	1900
85°	12560	1238	1238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.7	5.0
10°-20°	684.1	13.9
20°-30°	967.5	19.7
30°-40°	1019.5	20.8
40°-50°	866.5	17.7
50°-60°	623.9	12.7
60°-70°	359.9	7.3
70°-80°	123.1	2.5
80°-90°	16.9	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°	1897.4	38.7
0°-40°	2916.9	59.4
0°-60°	4407.3	89.8
0°-90°	4907.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4907.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2618	2618	2618	2618	2618	
5°	2657	2639	2596	2550	2536	254
15°	2642	2561	2412	2306	2266	744
25°	2405	2281	2050	1944	1915	1103
35°	1869	1759	1568	1511	1515	1164
45°	1224	1167	1068	1075	1114	951
55°	766	706	660	685	706	689
65°	454	390	333	326	340	452
75°	213	160	89	57	53	225
85°	36	21	4	4	4	48
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°	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7
2.5°	2642.5	2646.0	2642.5	2642.5	2639.0	2635.4	2631.8	2628.3	2621.2	2614.1	2614.1
5°	2656.7	2663.8	2656.7	2656.7	2646.0	2639.0	2631.8	2621.2	2607.0	2596.4	2596.4
7.5°	2667.4	2667.4	2667.4	2656.7	2649.5	2639.0	2621.2	2603.5	2585.8	2568.0	2560.9
10°	2667.4	2667.4	2663.8	2649.5	2642.5	2621.2	2603.5	2578.6	2553.8	2528.9	2521.9
12.5°	2656.7	2660.2	2653.2	2639.0	2621.2	2596.4	2571.6	2539.6	2511.2	2482.9	2468.7
15°	2642.5	2639.0	2631.8	2614.1	2592.8	2560.9	2536.1	2500.6	2461.6	2426.2	2412.0
17.5°	2607.0	2607.0	2596.4	2578.6	2550.3	2514.8	2475.8	2436.8	2394.2	2355.3	2337.4
20°	2560.9	2560.9	2546.8	2525.4	2497.1	2451.0	2408.5	2362.3	2312.6	2273.6	2255.9
22.5°	2493.5	2497.1	2479.4	2454.5	2422.6	2369.4	2326.8	2270.0	2220.4	2174.3	2160.1
25°	2404.8	2412.0	2394.2	2369.4	2326.8	2280.7	2227.5	2174.3	2117.6	2071.4	2050.2
27.5°	2302.0	2305.6	2287.9	2263.0	2220.4	2170.8	2117.6	2060.8	2007.6	1957.9	1936.6
30°	2188.5	2174.3	2167.3	2135.3	2089.2	2046.7	1986.3	1940.2	1883.4	1840.9	1816.0
32.5°	2028.8	2036.0	2014.7	1989.8	1954.4	1904.7	1855.0	1801.8	1748.6	1716.7	1699.0
35°	1869.2	1876.4	1865.7	1840.9	1801.8	1759.3	1709.6	1670.7	1624.5	1585.5	1567.8
37.5°	1702.6	1702.6	1695.4	1681.2	1652.9	1613.8	1564.3	1525.2	1486.2	1454.2	1443.7
40°	1535.8	1528.8	1525.2	1514.6	1489.7	1454.2	1422.3	1390.5	1351.4	1330.1	1315.9
42.5°	1372.6	1372.6	1365.6	1354.9	1330.1	1312.4	1280.4	1245.0	1216.7	1195.3	1195.3
45°	1223.7	1227.2	1216.7	1209.5	1195.3	1167.0	1138.6	1113.8	1088.9	1074.7	1067.7
47.5°	1092.4	1092.4	1081.9	1074.7	1060.5	1035.7	1010.8	989.6	971.8	961.3	957.6
50°	968.3	968.3	968.3	950.6	932.9	915.1	897.4	872.6	861.9	854.9	851.2
52.5°	861.9	858.4	858.4	844.2	826.5	805.2	787.5	766.1	755.5	748.4	752.0
55°	766.1	766.1	762.6	744.9	727.1	705.9	688.1	670.4	663.2	656.2	659.7
56°	727.1	727.1	723.6	709.4	688.1	670.4	649.1	631.4	620.7	624.3	624.3
57°	698.7	691.7	691.7	673.9	656.2	631.4	613.7	595.8	588.8	585.3	585.3
58°	663.2	659.7	656.2	638.5	620.7	599.5	581.7	564.0	553.3	553.3	549.8
59°	627.8	627.8	620.7	606.5	588.8	567.5	549.8	532.1	521.4	517.9	517.9
60°	595.8	599.5	588.8	574.6	560.5	535.6	514.3	500.1	489.4	485.9	485.9
61°	567.5	567.5	560.5	542.6	524.9	507.2	485.9	468.2	461.1	454.0	454.0
62°	542.6	535.6	532.1	514.3	496.6	475.2	457.5	439.9	429.2	422.0	425.7
63°	510.8	507.2	500.1	485.9	468.2	446.9	425.7	411.5	400.8	390.2	393.7
64°	485.9	482.4	471.7	457.5	439.9	418.5	397.3	383.1	376.0	365.3	361.8
65°	454.0	450.5	446.9	429.2	411.5	390.2	372.5	358.3	347.6	340.5	333.4
66°	425.7	429.2	422.0	407.9	386.6	368.8	344.1	329.9	322.8	312.1	305.1
67°	400.8	400.8	393.7	379.5	358.3	340.5	322.8	305.1	294.4	283.7	280.2
67.5°	386.6	386.6	379.5	361.8	347.6	326.3	308.6	294.4	280.2	273.1	266.0
68°	372.5	372.5	368.8	354.6	337.0	315.7	297.9	280.2	266.0	255.4	251.9
69°	347.6	351.1	344.1	329.9	312.1	290.9	273.1	258.9	244.7	234.0	227.0
70°	326.3	322.8	315.7	301.4	283.7	269.6	251.9	234.0	219.9	205.7	202.2
71°	297.9	297.9	290.9	280.2	262.5	244.7	227.0	212.8	198.7	180.8	177.3
72°	276.7	276.7	269.6	255.4	241.2	223.5	205.7	188.0	177.3	159.6	152.5
72.5°	262.5	266.0	258.9	244.7	230.5	209.3	195.1	180.8	163.1	149.0	141.9
73°	255.4	251.9	248.3	234.0	216.4	202.2	184.5	170.3	152.5	138.3	131.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	159.6	159.6	156.1	141.9	127.7	113.4	99.3	85.1	70.9	56.7	49.7
80°	109.9	113.4	106.4	99.3	88.7	74.5	60.2	49.7	35.5	28.4	21.3
82.5°	70.9	70.9	67.4	60.2	53.2	42.5	35.5	24.8	17.7	14.2	10.7
85°	35.5	39.0	35.5	31.9	24.8	21.3	17.7	10.7	7.1	3.5	3.5
87.5°	14.2	14.2	14.2	10.7	10.7	7.1	3.5	3.5	3.5	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°	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7	2617.7
2.5°	2607.0	2607.0	2600.0	2596.4	2592.8	2589.3	2585.8	2582.2	2582.2	2585.8
5°	2585.8	2578.6	2564.5	2560.9	2550.3	2546.8	2539.6	2536.1	2539.6	2536.1
7.5°	2553.8	2539.6	2521.9	2514.8	2500.6	2493.5	2482.9	2482.9	2475.8	2479.4
10°	2511.2	2490.0	2468.7	2454.5	2443.9	2433.2	2426.2	2419.0	2415.5	2415.5
12.5°	2458.0	2433.2	2412.0	2390.6	2372.9	2365.8	2351.6	2351.6	2344.6	2341.0
15°	2397.8	2365.8	2341.0	2319.7	2305.6	2291.4	2280.7	2273.6	2266.5	2266.5
17.5°	2319.7	2291.4	2266.5	2241.7	2220.4	2209.8	2199.1	2188.5	2188.5	2181.4
20°	2234.7	2202.7	2181.4	2156.6	2138.8	2121.1	2106.9	2106.9	2099.9	2103.4
22.5°	2138.8	2099.9	2078.5	2060.8	2043.0	2028.8	2014.7	2014.7	2011.2	2007.6
25°	2032.4	2000.5	1975.6	1954.4	1943.8	1929.6	1926.1	1918.9	1915.4	1915.4
27.5°	1918.9	1894.1	1862.2	1851.5	1837.3	1830.2	1830.2	1826.7	1819.6	1823.2
30°	1798.3	1770.0	1752.3	1745.1	1730.9	1730.9	1727.4	1720.3	1720.3	1723.8
32.5°	1681.2	1652.9	1638.7	1635.2	1621.0	1621.0	1617.5	1621.0	1621.0	1624.5
35°	1553.6	1528.8	1525.2	1514.6	1511.1	1511.1	1511.1	1518.1	1525.2	1514.6
37.5°	1433.0	1415.2	1404.6	1401.0	1404.6	1404.6	1408.2	1418.8	1415.2	1411.7
40°	1308.9	1294.6	1287.6	1287.6	1294.6	1301.7	1301.7	1312.4	1315.9	1312.4
42.5°	1184.7	1174.1	1174.1	1177.6	1184.7	1188.3	1198.8	1209.5	1213.0	1216.7
45°	1067.7	1067.7	1067.7	1071.2	1074.7	1081.9	1096.1	1106.6	1110.2	1113.8
47.5°	954.1	950.6	961.3	964.8	975.5	979.0	989.6	1003.8	1007.3	1010.8
50°	847.7	854.9	858.4	869.0	876.1	876.1	890.3	897.4	908.1	908.1
52.5°	748.4	759.1	762.6	773.3	776.8	780.3	787.5	798.0	805.2	805.2
55°	659.7	663.2	670.4	673.9	684.6	688.1	695.2	698.7	709.4	705.9
56°	620.7	627.8	631.4	638.5	645.5	649.1	656.2	659.7	666.9	670.4
57°	585.3	588.8	599.5	603.0	610.0	610.0	613.7	624.3	624.3	627.8
58°	549.8	556.9	560.5	564.0	571.1	574.6	581.7	585.3	588.8	585.3
59°	517.9	521.4	524.9	524.9	532.1	532.1	542.6	549.8	553.3	553.3
60°	485.9	485.9	489.4	493.1	500.1	503.7	503.7	510.8	510.8	510.8
61°	454.0	454.0	457.5	461.1	464.7	464.7	471.7	471.7	475.2	478.9
62°	425.7	422.0	422.0	425.7	425.7	432.7	436.3	439.9	443.4	439.9
63°	393.7	390.2	390.2	390.2	390.2	397.3	397.3	400.8	407.9	404.3
64°	358.3	358.3	358.3	358.3	361.8	361.8	368.8	372.5	376.0	379.5
65°	333.4	326.3	322.8	322.8	326.3	329.9	333.4	337.0	340.5	340.5
66°	305.1	297.9	294.4	294.4	294.4	294.4	301.4	301.4	308.6	308.6
67°	273.1	266.0	262.5	258.9	258.9	258.9	269.6	266.0	266.0	266.0
67.5°	262.5	251.9	248.3	244.7	241.2	248.3	244.7	248.3	248.3	244.7
68°	248.3	241.2	234.0	227.0	227.0	227.0	230.5	234.0	230.5	227.0
69°	219.9	216.4	205.7	198.7	195.1	198.7	195.1	198.7	195.1	198.7
70°	195.1	184.5	173.8	170.3	166.7	166.7	166.7	163.1	166.7	163.1
71°	170.3	159.6	149.0	141.9	138.3	138.3	134.8	138.3	134.8	138.3
72°	145.4	134.8	120.6	113.4	113.4	113.4	113.4	109.9	113.4	109.9
72.5°	134.8	120.6	109.9	102.9	99.3	99.3	99.3	99.3	95.8	99.3
73°	124.1	109.9	95.8	92.2	92.2	92.2	88.7	85.1	88.7	88.7



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	42.5	31.9	28.4	28.4	28.4	28.4	28.4	28.4	24.8	24.8
80°	17.7	14.2	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
82.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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°	230.5	230.5	223.5	212.8	195.1	177.3	163.1	149.0	131.3	113.4	106.4
75°	212.8	209.3	202.2	191.5	177.3	159.6	145.4	127.7	113.4	95.8	88.7





74°	102.9	85.1	78.1	70.9	70.9	70.9	67.4	67.4	67.4	70.9
75°	81.6	67.4	60.2	53.2	56.7	53.2	56.7	53.2	53.2	53.2



(END OF REPORT)