

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: P584957

Luminaire Tested: **HC855D010-HM82555835-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584957
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-HM82555835-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5201.8 lumens
Efficiency: N/A
Efficacy: 100.0 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

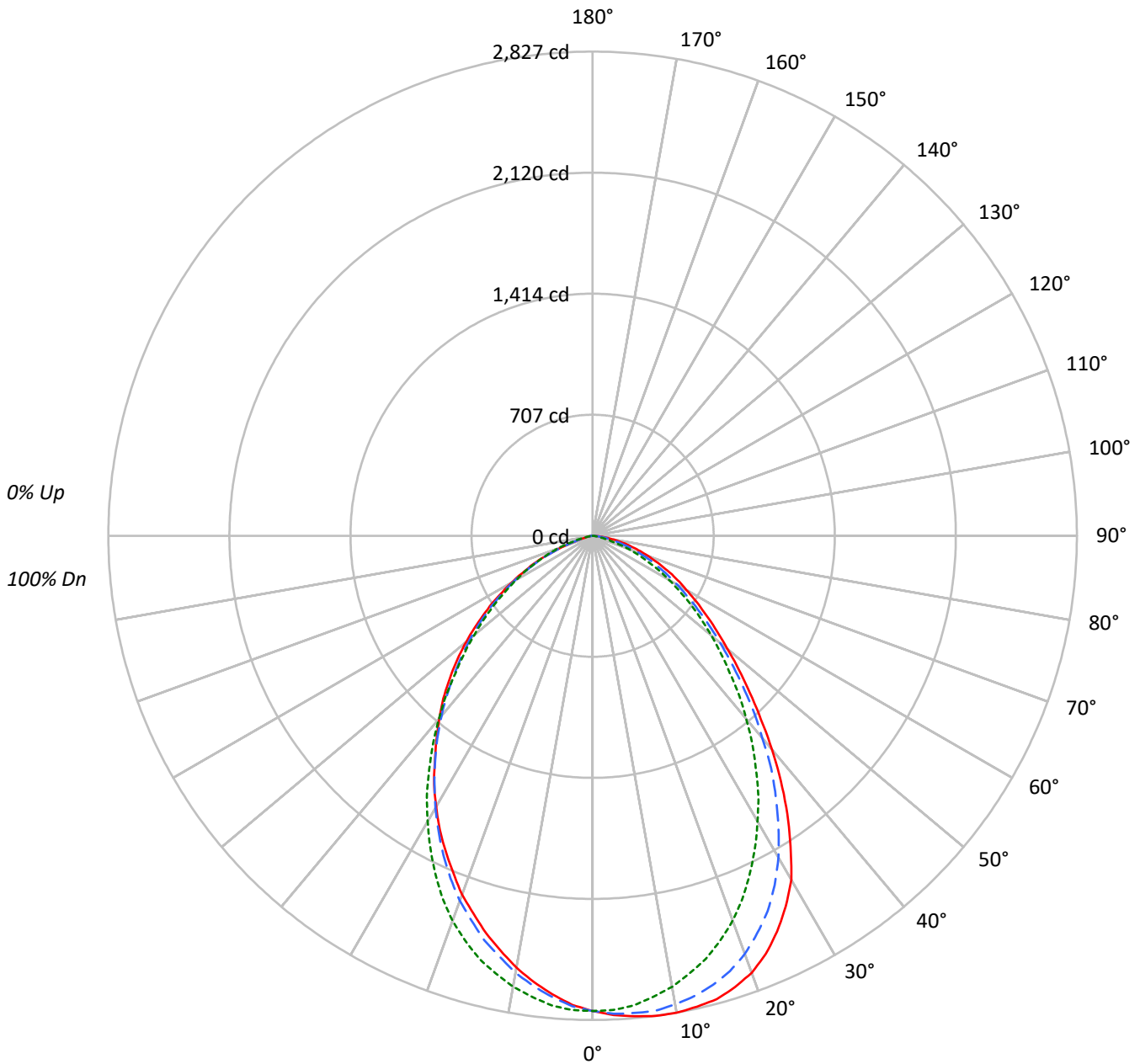
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	85565	85565	85565
5°	87170	85192	83214
10°	88532	83703	80174
15°	89423	81620	76701
20°	89080	78468	73165
25°	86734	73941	69083
30°	82604	68543	65064
35°	74592	62561	60434
40°	65533	56150	56001
45°	56570	49352	51485
50°	49239	43286	46179
55°	43660	37595	40224
60°	38959	31768	33396
65°	35111	25793	26340
70°	31186	19330	15598
75°	26879	11199	6720
80°	20706	3996	2007
85°	13303	1344	1344



TEST NUMBER: P584957

CATALOG NUMBER: HC855D010-HM82555835-81RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.5	5.0
10°-20°	725.1	13.9
20°-30°	1025.6	19.7
30°-40°	1080.7	20.8
40°-50°	918.5	17.7
50°-60°	661.4	12.7
60°-70°	381.5	7.3
70°-80°	130.6	2.5
80°-90°	18.0	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°	2011.2	38.7
0°-40°	3092.0	59.4
0°-60°	4671.8	89.8
0°-90°	5201.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5201.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2775	2775	2775	2775	2775	
5°	2816	2797	2752	2703	2688	269
15°	2801	2715	2557	2444	2403	789
25°	2549	2418	2173	2060	2030	1169
35°	1982	1865	1662	1602	1605	1234
45°	1297	1237	1132	1139	1181	1008
55°	812	748	699	726	748	731
65°	481	414	354	346	361	479
75°	226	169	94	60	56	238
85°	38	22	4	4	4	51
90°	0	0	0	0	0	



TEST NUMBER: P584957

CATALOG NUMBER: HC855D010-HM82555835-81RWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8
2.5°	2801.1	2804.8	2801.1	2801.1	2797.3	2793.6	2789.8	2786.1	2778.6	2771.1	2771.1
5°	2816.1	2823.7	2816.1	2816.1	2804.8	2797.3	2789.8	2778.6	2763.5	2752.2	2752.2
7.5°	2827.4	2827.4	2827.4	2816.1	2808.6	2797.3	2778.6	2759.7	2741.0	2722.1	2714.6
10°	2827.4	2827.4	2823.7	2808.6	2801.1	2778.6	2759.7	2733.5	2707.1	2680.8	2673.2
12.5°	2816.1	2819.9	2812.3	2797.3	2778.6	2752.2	2726.0	2692.1	2662.0	2632.0	2616.8
15°	2801.1	2797.3	2789.8	2771.1	2748.5	2714.6	2688.3	2650.7	2609.3	2571.7	2556.7
17.5°	2763.5	2763.5	2752.2	2733.5	2703.3	2665.7	2624.3	2583.0	2538.0	2496.6	2477.7
20°	2714.6	2714.6	2699.6	2677.1	2647.0	2598.1	2553.0	2504.1	2451.5	2410.1	2391.2
22.5°	2643.2	2647.0	2628.1	2601.8	2568.0	2511.6	2466.5	2406.4	2353.7	2304.9	2289.7
25°	2549.2	2556.7	2538.0	2511.6	2466.5	2417.6	2361.2	2304.9	2244.6	2195.7	2173.2
27.5°	2440.1	2444.0	2425.1	2398.8	2353.7	2301.0	2244.6	2184.5	2128.1	2075.5	2052.9
30°	2319.9	2304.9	2297.2	2263.5	2214.6	2169.5	2105.5	2056.6	1996.5	1951.4	1925.0
32.5°	2150.6	2158.1	2135.6	2109.2	2071.7	2019.0	1966.4	1910.0	1853.6	1819.8	1801.0
35°	1981.5	1989.0	1977.6	1951.4	1910.0	1864.9	1812.3	1770.9	1722.0	1680.6	1661.9
37.5°	1804.8	1804.8	1797.3	1782.1	1752.1	1710.8	1658.1	1616.8	1575.4	1541.5	1530.3
40°	1628.0	1620.5	1616.8	1605.4	1579.2	1541.5	1507.7	1473.9	1432.5	1409.9	1394.9
42.5°	1455.0	1455.0	1447.5	1436.3	1409.9	1391.2	1357.3	1319.7	1289.7	1267.0	1267.0
45°	1297.2	1300.9	1289.7	1282.2	1267.0	1237.0	1206.9	1180.6	1154.3	1139.2	1131.7
47.5°	1158.1	1158.1	1146.8	1139.2	1124.2	1097.9	1071.6	1049.1	1030.2	1018.9	1015.2
50°	1026.4	1026.4	1026.4	1007.7	988.8	970.1	951.2	924.9	913.7	906.1	902.3
52.5°	913.7	909.9	909.9	894.8	876.1	853.5	834.7	812.1	800.8	793.3	797.1
55°	812.1	812.1	808.3	789.6	770.8	748.2	729.5	710.6	703.1	695.6	699.3
56°	770.8	770.8	767.0	752.0	729.5	710.6	688.1	669.2	658.0	661.7	661.7
57°	740.7	733.2	733.2	714.3	695.6	669.2	650.5	631.7	624.1	620.3	620.3
58°	703.1	699.3	695.6	676.8	658.0	635.5	616.6	597.8	586.6	586.6	582.8
59°	665.5	665.5	658.0	643.0	624.1	601.6	582.8	564.0	552.7	549.0	549.0
60°	631.7	635.5	624.1	609.1	594.1	567.7	545.2	530.1	518.8	515.1	515.1
61°	601.6	601.6	594.1	575.2	556.5	537.7	515.1	496.3	488.8	481.2	481.2
62°	575.2	567.7	564.0	545.2	526.3	503.8	485.0	466.2	455.0	447.5	451.2
63°	541.5	537.7	530.1	515.1	496.3	473.7	451.2	436.1	424.8	413.6	417.3
64°	515.1	511.3	500.1	485.0	466.2	443.7	421.1	406.1	398.6	387.2	383.5
65°	481.2	477.5	473.7	455.0	436.1	413.6	394.7	379.7	368.5	361.0	353.5
66°	451.2	455.0	447.5	432.4	409.8	391.0	364.7	349.7	342.1	330.9	323.4
67°	424.8	424.8	417.3	402.3	379.7	361.0	342.1	323.4	312.1	300.7	297.0
67.5°	409.8	409.8	402.3	383.5	368.5	345.9	327.1	312.1	297.0	289.5	282.0
68°	394.7	394.7	391.0	376.0	357.2	334.6	315.9	297.0	282.0	270.7	267.0
69°	368.5	372.2	364.7	349.7	330.9	308.4	289.5	274.5	259.5	248.1	240.6
70°	345.9	342.1	334.6	319.6	300.7	285.7	267.0	248.1	233.1	218.1	214.4
71°	315.9	315.9	308.4	297.0	278.2	259.5	240.6	225.6	210.6	191.7	188.0
72°	293.2	293.2	285.7	270.7	255.6	236.9	218.1	199.2	188.0	169.2	161.6
72.5°	278.2	282.0	274.5	259.5	244.4	221.9	206.7	191.7	173.0	157.9	150.4
73°	270.7	267.0	263.2	248.1	229.4	214.4	195.5	180.5	161.6	146.6	139.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	169.2	169.2	165.5	150.4	135.4	120.4	105.2	90.2	75.2	60.1	52.6
80°	116.6	120.4	112.7	105.2	94.0	79.0	63.9	52.6	37.6	30.1	22.5
82.5°	75.2	75.2	71.5	63.9	56.4	45.1	37.6	26.4	18.8	15.0	11.3
85°	37.6	41.4	37.6	33.9	26.4	22.5	18.8	11.3	7.5	3.8	3.8
87.5°	15.0	15.0	15.0	11.3	11.3	7.5	3.8	3.8	3.8	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°	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8	2774.8
2.5°	2763.5	2763.5	2756.0	2752.2	2748.5	2744.7	2741.0	2737.2	2737.2	2741.0
5°	2741.0	2733.5	2718.3	2714.6	2703.3	2699.6	2692.1	2688.3	2692.1	2688.3
7.5°	2707.1	2692.1	2673.2	2665.7	2650.7	2643.2	2632.0	2632.0	2624.3	2628.1
10°	2662.0	2639.5	2616.8	2601.8	2590.6	2579.2	2571.7	2564.2	2560.5	2560.5
12.5°	2605.6	2579.2	2556.7	2534.1	2515.3	2507.8	2492.8	2492.8	2485.2	2481.5
15°	2541.7	2507.8	2481.5	2459.0	2444.0	2428.9	2417.6	2410.1	2402.6	2402.6
17.5°	2459.0	2428.9	2402.6	2376.2	2353.7	2342.4	2331.1	2319.9	2319.9	2312.4
20°	2368.7	2334.9	2312.4	2286.0	2267.2	2248.4	2233.4	2233.4	2225.9	2229.6
22.5°	2267.2	2225.9	2203.2	2184.5	2165.7	2150.6	2135.6	2135.6	2131.9	2128.1
25°	2154.4	2120.6	2094.2	2071.7	2060.4	2045.4	2041.6	2034.1	2030.4	2030.4
27.5°	2034.1	2007.8	1973.9	1962.6	1947.6	1940.1	1940.1	1936.4	1928.8	1932.6
30°	1906.3	1876.1	1857.4	1849.9	1834.8	1834.8	1831.0	1823.5	1823.5	1827.3
32.5°	1782.1	1752.1	1737.0	1733.3	1718.3	1718.3	1714.5	1718.3	1718.3	1722.0
35°	1646.8	1620.5	1616.8	1605.4	1601.7	1601.7	1601.7	1609.3	1616.8	1605.4
37.5°	1519.0	1500.2	1488.9	1485.2	1488.9	1488.9	1492.7	1503.9	1500.2	1496.4
40°	1387.4	1372.3	1364.8	1364.8	1372.3	1379.9	1379.9	1391.2	1394.9	1391.2
42.5°	1255.8	1244.5	1244.5	1248.3	1255.8	1259.5	1270.8	1282.2	1285.9	1289.7
45°	1131.7	1131.7	1131.7	1135.4	1139.2	1146.8	1161.8	1173.1	1176.8	1180.6
47.5°	1011.4	1007.7	1018.9	1022.7	1033.9	1037.7	1049.1	1064.1	1067.8	1071.6
50°	898.6	906.1	909.9	921.2	928.7	928.7	943.7	951.2	962.6	962.6
52.5°	793.3	804.6	808.3	819.7	823.4	827.2	834.7	845.9	853.5	853.5
55°	699.3	703.1	710.6	714.3	725.7	729.5	737.0	740.7	752.0	748.2
56°	658.0	665.5	669.2	676.8	684.3	688.1	695.6	699.3	706.8	710.6
57°	620.3	624.1	635.5	639.2	646.7	646.7	650.5	661.7	661.7	665.5
58°	582.8	590.3	594.1	597.8	605.3	609.1	616.6	620.3	624.1	620.3
59°	549.0	552.7	556.5	556.5	564.0	564.0	575.2	582.8	586.6	586.6
60°	515.1	515.1	518.8	522.6	530.1	533.8	533.8	541.5	541.5	541.5
61°	481.2	481.2	485.0	488.8	492.6	492.6	500.1	500.1	503.8	507.6
62°	451.2	447.5	447.5	451.2	451.2	458.7	462.5	466.2	470.0	466.2
63°	417.3	413.6	413.6	413.6	413.6	421.1	421.1	424.8	432.4	428.6
64°	379.7	379.7	379.7	379.7	383.5	383.5	391.0	394.7	398.6	402.3
65°	353.5	345.9	342.1	342.1	345.9	349.7	353.5	357.2	361.0	361.0
66°	323.4	315.9	312.1	312.1	312.1	312.1	319.6	319.6	327.1	327.1
67°	289.5	282.0	278.2	274.5	274.5	274.5	285.7	282.0	282.0	282.0
67.5°	278.2	267.0	263.2	259.5	255.6	263.2	259.5	263.2	263.2	259.5
68°	263.2	255.6	248.1	240.6	240.6	240.6	244.4	248.1	244.4	240.6
69°	233.1	229.4	218.1	210.6	206.7	210.6	206.7	210.6	206.7	210.6
70°	206.7	195.5	184.2	180.5	176.7	176.7	176.7	173.0	176.7	173.0
71°	180.5	169.2	157.9	150.4	146.6	146.6	142.9	146.6	142.9	146.6
72°	154.1	142.9	127.9	120.4	120.4	120.4	120.4	116.6	120.4	116.6
72.5°	142.9	127.9	116.6	109.0	105.2	105.2	105.2	105.2	101.5	105.2
73°	131.6	116.6	101.5	97.7	97.7	97.7	94.0	90.2	94.0	94.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	45.1	33.9	30.1	30.1	30.1	30.1	30.1	30.1	26.4	26.4
80°	18.8	15.0	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
82.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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°	244.4	244.4	236.9	225.6	206.7	188.0	173.0	157.9	139.1	120.4	112.7
75°	225.6	221.9	214.4	203.0	188.0	169.2	154.1	135.4	120.4	101.5	94.0





74°	109.0	90.2	82.7	75.2	75.2	75.2	71.5	71.5	71.5	75.2
75°	86.5	71.5	63.9	56.4	60.1	56.4	60.1	56.4	56.4	56.4



(END OF REPORT)