

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: P585025

Luminaire Tested: **HC855D010-HM82555935-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P585025
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-HM82555935-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4851.0 lumens
Efficiency: N/A
Efficacy: 93.3 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

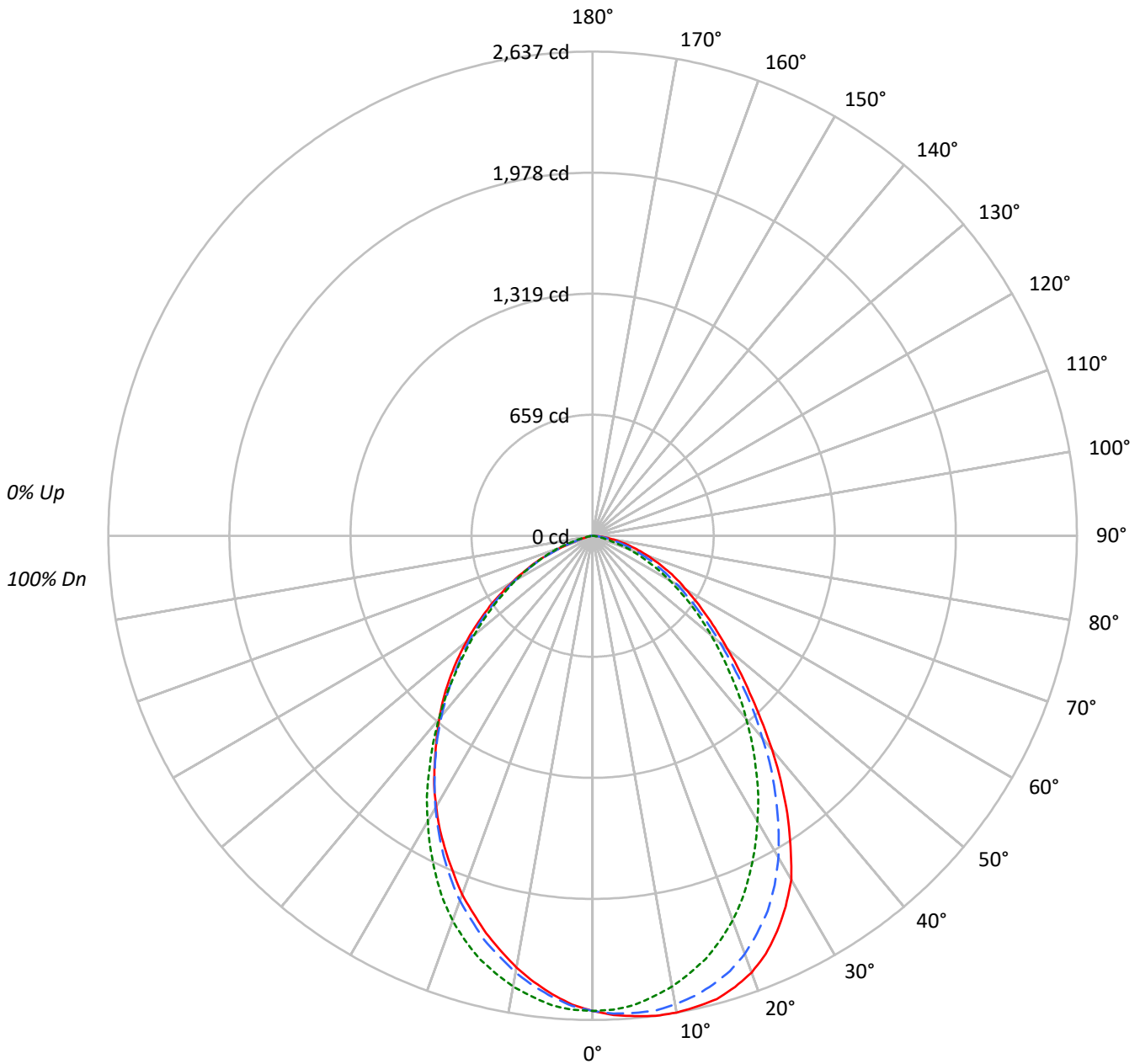
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P585025

CATALOG NUMBER: HC855D010-HM82555935-81RWWH

Luminous Intensity Polar Plot





TEST NUMBER: P585025

CATALOG NUMBER: HC855D010-HM82555935-81RWWH

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°	79795	79795	79795
5°	81292	79447	77602
10°	82564	78061	74767
15°	83392	76117	71526
20°	83072	73178	68230
25°	80886	68953	64421
30°	77032	63925	60677
35°	69559	58337	56361
40°	61114	52362	52221
45°	52750	46025	48014
50°	45920	40369	43060
55°	40714	35063	37515
60°	36325	29628	31139
65°	32747	24049	24560
70°	29076	18014	14543
75°	25068	10449	6267
80°	19285	3747	1865
85°	12383	1238	1238



TEST NUMBER: P585025

CATALOG NUMBER: HC855D010-HM82555935-81RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.9	5.0
10°-20°	676.2	13.9
20°-30°	956.4	19.7
30°-40°	1007.8	20.8
40°-50°	856.5	17.7
50°-60°	616.8	12.7
60°-70°	355.8	7.3
70°-80°	121.7	2.5
80°-90°	16.7	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°	1875.6	38.7
0°-40°	2883.4	59.4
0°-60°	4356.7	89.8
0°-90°	4851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4851.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2588	2588	2588	2588	2588	
5°	2626	2609	2567	2521	2507	251
15°	2612	2532	2384	2279	2240	736
25°	2377	2255	2027	1922	1893	1090
35°	1848	1739	1550	1494	1497	1151
45°	1210	1154	1055	1062	1101	940
55°	757	698	652	677	698	682
65°	449	386	330	322	337	446
75°	210	158	88	56	53	222
85°	35	21	4	4	4	47
90°	0	0	0	0	0	



TEST NUMBER: P585025

CATALOG NUMBER: HC855D010-HM82555935-81RWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7
2.5°	2612.2	2615.7	2612.2	2612.2	2608.6	2605.1	2601.7	2598.2	2591.2	2584.1	2584.1
5°	2626.2	2633.2	2626.2	2626.2	2615.7	2608.6	2601.7	2591.2	2577.1	2566.6	2566.6
7.5°	2636.8	2636.8	2636.8	2626.2	2619.2	2608.6	2591.2	2573.6	2556.1	2538.6	2531.5
10°	2636.8	2636.8	2633.2	2619.2	2612.2	2591.2	2573.6	2549.1	2524.5	2500.0	2493.0
12.5°	2626.2	2629.7	2622.7	2608.6	2591.2	2566.6	2542.1	2510.5	2482.4	2454.4	2440.3
15°	2612.2	2608.6	2601.7	2584.1	2563.0	2531.5	2507.0	2472.0	2433.3	2398.3	2384.3
17.5°	2577.1	2577.1	2566.6	2549.1	2521.0	2485.9	2447.4	2408.8	2366.7	2328.2	2310.6
20°	2531.5	2531.5	2517.5	2496.5	2468.5	2422.9	2380.8	2335.2	2286.1	2247.5	2230.0
22.5°	2465.0	2468.5	2450.9	2426.4	2394.7	2342.2	2300.2	2244.0	2194.9	2149.3	2135.4
25°	2377.3	2384.3	2366.7	2342.2	2300.2	2254.6	2202.0	2149.3	2093.3	2047.7	2026.6
27.5°	2275.6	2279.1	2261.6	2237.0	2194.9	2145.8	2093.3	2037.2	1984.5	1935.4	1914.5
30°	2163.4	2149.3	2142.3	2110.8	2065.2	2023.1	1963.6	1918.0	1861.8	1819.8	1795.3
32.5°	2005.6	2012.6	1991.6	1967.1	1931.9	1882.8	1833.8	1781.2	1728.6	1697.1	1679.5
35°	1847.8	1854.8	1844.3	1819.8	1781.2	1739.1	1690.0	1651.5	1605.9	1567.3	1549.7
37.5°	1683.0	1683.0	1676.0	1662.0	1633.9	1595.3	1546.2	1507.7	1469.1	1437.6	1427.0
40°	1518.2	1511.2	1507.7	1497.2	1472.6	1437.6	1406.0	1374.5	1335.8	1314.9	1300.8
42.5°	1356.9	1356.9	1349.9	1339.4	1314.9	1297.3	1265.8	1230.7	1202.7	1181.6	1181.6
45°	1209.6	1213.1	1202.7	1195.7	1181.6	1153.6	1125.5	1101.0	1076.5	1062.4	1055.4
47.5°	1079.9	1079.9	1069.4	1062.4	1048.4	1023.9	999.2	978.3	960.7	950.3	946.7
50°	957.2	957.2	957.2	939.7	922.1	904.7	887.1	862.6	852.0	845.0	841.5
52.5°	852.0	848.5	848.5	834.5	817.0	795.9	778.4	757.3	746.8	739.9	743.3
55°	757.3	757.3	753.8	736.4	718.8	697.8	680.2	662.6	655.7	648.7	652.2
56°	718.8	718.8	715.3	701.2	680.2	662.6	641.7	624.1	613.5	617.1	617.1
57°	690.8	683.7	683.7	666.2	648.7	624.1	606.6	589.0	582.0	578.5	578.5
58°	655.7	652.2	648.7	631.1	613.5	592.6	575.0	557.5	547.0	547.0	543.5
59°	620.6	620.6	613.5	599.6	582.0	561.0	543.5	526.0	515.4	511.9	511.9
60°	589.0	592.6	582.0	568.1	554.0	529.4	508.4	494.3	483.9	480.4	480.4
61°	561.0	561.0	554.0	536.4	519.0	501.4	480.4	462.8	455.8	448.8	448.8
62°	536.4	529.4	526.0	508.4	490.8	469.9	452.3	434.8	424.3	417.2	420.7
63°	504.9	501.4	494.3	480.4	462.8	441.8	420.7	406.7	396.3	385.7	389.2
64°	480.4	476.9	466.3	452.3	434.8	413.7	392.7	378.7	371.6	361.1	357.7
65°	448.8	445.2	441.8	424.3	406.7	385.7	368.1	354.2	343.6	336.6	329.6
66°	420.7	424.3	417.2	403.2	382.2	364.6	340.1	326.1	319.0	308.6	301.6
67°	396.3	396.3	389.2	375.2	354.2	336.6	319.0	301.6	291.0	280.5	276.9
67.5°	382.2	382.2	375.2	357.7	343.6	322.5	305.1	291.0	276.9	270.0	263.0
68°	368.1	368.1	364.6	350.7	333.1	312.1	294.5	276.9	263.0	252.4	248.9
69°	343.6	347.1	340.1	326.1	308.6	287.5	270.0	256.0	241.9	231.5	224.4
70°	322.5	319.0	312.1	298.0	280.5	266.5	248.9	231.5	217.4	203.3	199.8
71°	294.5	294.5	287.5	276.9	259.5	241.9	224.4	210.4	196.3	178.8	175.3
72°	273.5	273.5	266.5	252.4	238.4	220.9	203.3	185.9	175.3	157.8	150.7
72.5°	259.5	263.0	256.0	241.9	228.0	206.9	192.8	178.8	161.3	147.3	140.3
73°	252.4	248.9	245.4	231.5	213.9	199.8	182.4	168.3	150.7	136.8	129.7



TEST NUMBER: P585025

CATALOG NUMBER: HC855D010-HM82555935-81RWWH

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	157.8	157.8	154.2	140.3	126.2	112.2	98.2	84.1	70.1	56.1	49.1
80°	108.6	112.2	105.2	98.2	87.7	73.6	59.7	49.1	35.0	28.0	21.1
82.5°	70.1	70.1	66.6	59.7	52.6	42.1	35.0	24.5	17.6	14.1	10.5
85°	35.0	38.6	35.0	31.5	24.5	21.1	17.6	10.5	7.0	3.5	3.5
87.5°	14.1	14.1	14.1	10.5	10.5	7.0	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



TEST NUMBER: P585025

CATALOG NUMBER: HC855D010-HM82555935-81RWWH

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7	2587.7
2.5°	2577.1	2577.1	2570.1	2566.6	2563.0	2559.5	2556.1	2552.6	2552.6	2556.1
5°	2556.1	2549.1	2535.0	2531.5	2521.0	2517.5	2510.5	2507.0	2510.5	2507.0
7.5°	2524.5	2510.5	2493.0	2485.9	2472.0	2465.0	2454.4	2454.4	2447.4	2450.9
10°	2482.4	2461.4	2440.3	2426.4	2415.8	2405.3	2398.3	2391.2	2387.8	2387.8
12.5°	2429.9	2405.3	2384.3	2363.2	2345.8	2338.7	2324.7	2324.7	2317.6	2314.1
15°	2370.3	2338.7	2314.1	2293.1	2279.1	2265.0	2254.6	2247.5	2240.5	2240.5
17.5°	2293.1	2265.0	2240.5	2216.0	2194.9	2184.4	2173.9	2163.4	2163.4	2156.4
20°	2209.0	2177.5	2156.4	2131.9	2114.3	2096.7	2082.8	2082.8	2075.7	2079.2
22.5°	2114.3	2075.7	2054.6	2037.2	2019.6	2005.6	1991.6	1991.6	1988.1	1984.5
25°	2009.2	1977.5	1953.0	1931.9	1921.5	1907.4	1903.9	1896.9	1893.4	1893.4
27.5°	1896.9	1872.4	1840.7	1830.3	1816.2	1809.2	1809.2	1805.7	1798.7	1802.2
30°	1777.7	1749.7	1732.1	1725.1	1711.1	1711.1	1707.6	1700.6	1700.6	1704.1
32.5°	1662.0	1633.9	1619.9	1616.4	1602.4	1602.4	1598.8	1602.4	1602.4	1605.9
35°	1535.8	1511.2	1507.7	1497.2	1493.7	1493.7	1493.7	1500.7	1507.7	1497.2
37.5°	1416.6	1399.0	1388.5	1385.0	1388.5	1388.5	1392.0	1402.5	1399.0	1395.5
40°	1293.8	1279.8	1272.8	1272.8	1279.8	1286.9	1286.9	1297.3	1300.8	1297.3
42.5°	1171.1	1160.6	1160.6	1164.0	1171.1	1174.6	1185.1	1195.7	1199.2	1202.7
45°	1055.4	1055.4	1055.4	1058.9	1062.4	1069.4	1083.4	1093.9	1097.5	1101.0
47.5°	943.2	939.7	950.3	953.7	964.2	967.7	978.3	992.3	995.7	999.2
50°	838.0	845.0	848.5	859.1	866.1	866.1	880.1	887.1	897.6	897.6
52.5°	739.9	750.3	753.8	764.4	767.9	771.4	778.4	788.9	795.9	795.9
55°	652.2	655.7	662.6	666.2	676.7	680.2	687.3	690.8	701.2	697.8
56°	613.5	620.6	624.1	631.1	638.2	641.7	648.7	652.2	659.1	662.6
57°	578.5	582.0	592.6	596.1	603.1	603.1	606.6	617.1	617.1	620.6
58°	543.5	550.5	554.0	557.5	564.6	568.1	575.0	578.5	582.0	578.5
59°	511.9	515.4	519.0	519.0	526.0	526.0	536.4	543.5	547.0	547.0
60°	480.4	480.4	483.9	487.3	494.3	497.9	497.9	504.9	504.9	504.9
61°	448.8	448.8	452.3	455.8	459.3	459.3	466.3	466.3	469.9	473.4
62°	420.7	417.2	417.2	420.7	420.7	427.8	431.3	434.8	438.3	434.8
63°	389.2	385.7	385.7	385.7	385.7	392.7	392.7	396.3	403.2	399.8
64°	354.2	354.2	354.2	354.2	357.7	357.7	364.6	368.1	371.6	375.2
65°	329.6	322.5	319.0	319.0	322.5	326.1	329.6	333.1	336.6	336.6
66°	301.6	294.5	291.0	291.0	291.0	291.0	298.0	298.0	305.1	305.1
67°	270.0	263.0	259.5	256.0	256.0	256.0	266.5	263.0	263.0	263.0
67.5°	259.5	248.9	245.4	241.9	238.4	245.4	241.9	245.4	245.4	241.9
68°	245.4	238.4	231.5	224.4	224.4	224.4	228.0	231.5	228.0	224.4
69°	217.4	213.9	203.3	196.3	192.8	196.3	192.8	196.3	192.8	196.3
70°	192.8	182.4	171.8	168.3	164.8	164.8	164.8	161.3	164.8	161.3
71°	168.3	157.8	147.3	140.3	136.8	136.8	133.3	136.8	133.3	136.8
72°	143.8	133.3	119.2	112.2	112.2	112.2	112.2	108.6	112.2	108.6
72.5°	133.3	119.2	108.6	101.7	98.2	98.2	98.2	98.2	94.7	98.2
73°	122.7	108.6	94.7	91.2	91.2	91.2	87.7	84.1	87.7	87.7



TEST NUMBER: P585025

CATALOG NUMBER: HC855D010-HM82555935-81RWWH

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	42.1	31.5	28.0	28.0	28.0	28.0	28.0	28.0	24.5	24.5
80°	17.6	14.1	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
82.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
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°	228.0	228.0	220.9	210.4	192.8	175.3	161.3	147.3	129.7	112.2	105.2
75°	210.4	206.9	199.8	189.4	175.3	157.8	143.8	126.2	112.2	94.7	87.7





74°	101.7	84.1	77.1	70.1	70.1	70.1	66.6	66.6	66.6	70.1
75°	80.6	66.6	59.7	52.6	56.1	52.6	56.1	52.6	52.6	52.6



(END OF REPORT)