

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: P584124

Luminaire Tested: **HC825D010-HM82555830-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584124
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: HC825D010-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: 2231.7 lumens
Efficiency: N/A
Efficacy: 83.3 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

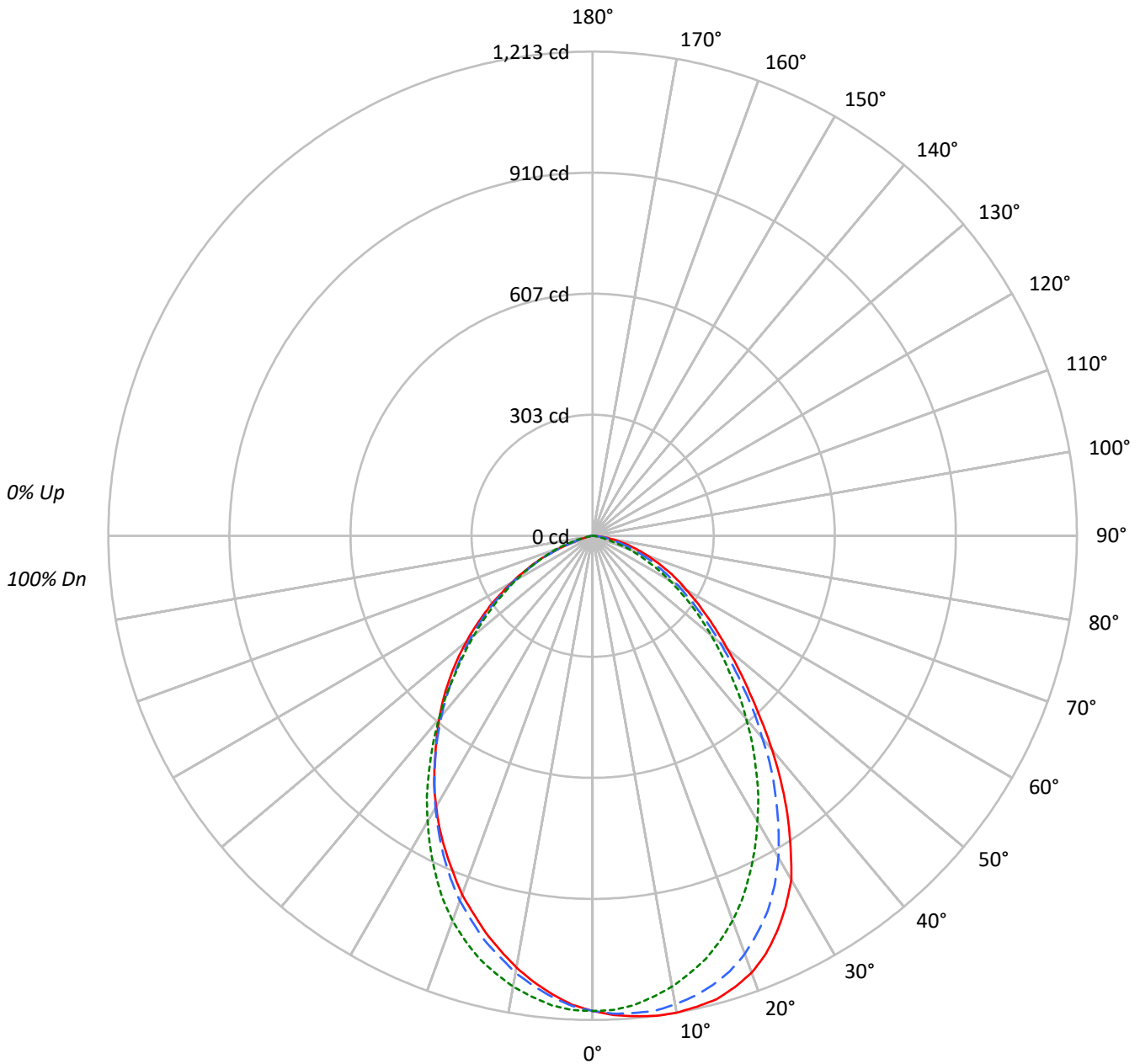
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	36711	36711	36711
5°	37399	36548	35702
10°	37985	35912	34396
15°	38363	35018	32904
20°	38220	33665	31391
25°	37209	31724	29638
30°	35439	29408	27916
35°	32001	26837	25929
40°	28117	24092	24024
45°	24268	21177	22088
50°	21127	18570	19808
55°	18730	16128	17257
60°	16713	13630	14327
65°	15067	11061	11295
70°	13380	8286	6690
75°	11533	4801	2883
80°	8879	1705	852
85°	5732	566	566



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	5.0
10°-20°	311.1	13.9
20°-30°	440.0	19.7
30°-40°	463.7	20.8
40°-50°	394.1	17.7
50°-60°	283.7	12.7
60°-70°	163.7	7.3
70°-80°	56.0	2.5
80°-90°	7.7	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°	862.9	38.7
0°-40°	1326.5	59.4
0°-60°	2004.3	89.8
0°-90°	2231.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2231.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1190	1190	1190	1190	1190	
5°	1208	1200	1181	1160	1153	115
15°	1202	1165	1097	1048	1031	338
25°	1094	1037	932	884	871	502
35°	850	800	713	687	689	529
45°	556	531	486	489	506	432
55°	348	321	300	311	321	314
65°	206	177	152	148	155	205
75°	97	72	40	26	24	102
85°	16	10	2	2	2	22
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°	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5
2.5°	1201.7	1203.3	1201.7	1201.7	1200.1	1198.5	1196.9	1195.3	1192.1	1188.9	1188.9
5°	1208.2	1211.5	1208.2	1208.2	1203.3	1200.1	1196.9	1192.1	1185.7	1180.7	1180.7
7.5°	1213.1	1213.1	1213.1	1208.2	1204.9	1200.1	1192.1	1184.0	1175.9	1167.9	1164.7
10°	1213.1	1213.1	1211.5	1204.9	1201.7	1192.1	1184.0	1172.7	1161.4	1150.1	1146.9
12.5°	1208.2	1209.8	1206.6	1200.1	1192.1	1180.7	1169.5	1155.0	1142.1	1129.2	1122.8
15°	1201.7	1200.1	1196.9	1188.9	1179.1	1164.7	1153.4	1137.2	1119.4	1103.4	1096.9
17.5°	1185.7	1185.7	1180.7	1172.7	1159.8	1143.7	1126.0	1108.2	1088.8	1071.1	1063.0
20°	1164.7	1164.7	1158.2	1148.5	1135.6	1114.6	1095.3	1074.3	1051.7	1033.9	1025.9
22.5°	1134.0	1135.6	1127.6	1116.2	1101.8	1077.5	1058.2	1032.3	1009.8	988.8	982.4
25°	1093.6	1096.9	1088.8	1077.5	1058.2	1037.3	1013.0	988.8	963.0	942.0	932.4
27.5°	1046.9	1048.5	1040.5	1029.1	1009.8	987.2	963.0	937.2	913.0	890.5	880.7
30°	995.3	988.8	985.6	971.0	950.2	930.8	903.3	882.3	856.5	837.2	825.9
32.5°	922.7	925.9	916.2	904.9	888.8	866.3	843.7	819.4	795.2	780.8	772.6
35°	850.1	853.3	848.5	837.2	819.4	800.0	777.5	759.8	738.8	721.1	712.9
37.5°	774.3	774.3	771.0	764.6	751.7	733.9	711.3	693.6	675.9	661.4	656.6
40°	698.5	695.3	693.6	688.8	677.5	661.4	646.8	632.4	614.6	604.9	598.5
42.5°	624.2	624.2	621.0	616.2	604.9	596.8	582.3	566.2	553.3	543.6	543.6
45°	556.5	558.1	553.3	550.1	543.6	530.7	517.8	506.5	495.2	488.8	485.6
47.5°	496.8	496.8	492.0	488.8	482.4	471.0	459.8	450.0	442.0	437.1	435.5
50°	440.4	440.4	440.4	432.3	424.3	416.1	408.1	396.9	391.9	388.7	387.1
52.5°	391.9	390.3	390.3	383.9	375.9	366.2	358.1	348.4	343.6	340.4	342.0
55°	348.4	348.4	346.8	338.8	330.6	321.0	313.0	304.8	301.6	298.4	300.0
56°	330.6	330.6	329.0	322.6	313.0	304.8	295.2	287.1	282.3	283.9	283.9
57°	317.8	314.6	314.6	306.4	298.4	287.1	279.1	271.0	267.8	266.1	266.1
58°	301.6	300.0	298.4	290.4	282.3	272.6	264.5	256.5	251.7	251.7	250.1
59°	285.5	285.5	282.3	275.8	267.8	258.1	250.1	241.9	237.1	235.5	235.5
60°	271.0	272.6	267.8	261.3	254.9	243.5	233.9	227.5	222.6	221.0	221.0
61°	258.1	258.1	254.9	246.8	238.7	230.7	221.0	212.9	209.7	206.5	206.5
62°	246.8	243.5	241.9	233.9	225.9	216.1	208.1	200.0	195.2	192.0	193.6
63°	232.3	230.7	227.5	221.0	212.9	203.3	193.6	187.1	182.3	177.4	179.0
64°	221.0	219.4	214.5	208.1	200.0	190.4	180.6	174.2	171.0	166.2	164.6
65°	206.5	204.9	203.3	195.2	187.1	177.4	169.4	163.0	158.0	154.8	151.6
66°	193.6	195.2	192.0	185.5	175.8	167.8	156.4	150.0	146.8	142.0	138.7
67°	182.3	182.3	179.0	172.6	163.0	154.8	146.8	138.7	133.9	129.0	127.4
67.5°	175.8	175.8	172.6	164.6	158.0	148.4	140.4	133.9	127.4	124.2	121.0
68°	169.4	169.4	167.8	161.4	153.2	143.6	135.5	127.4	121.0	116.1	114.5
69°	158.0	159.6	156.4	150.0	142.0	132.3	124.2	117.8	111.3	106.5	103.3
70°	148.4	146.8	143.6	137.1	129.0	122.6	114.5	106.5	100.0	93.5	91.9
71°	135.5	135.5	132.3	127.4	119.4	111.3	103.3	96.8	90.3	82.3	80.7
72°	125.8	125.8	122.6	116.1	109.7	101.6	93.5	85.5	80.7	72.5	69.3
72.5°	119.4	121.0	117.8	111.3	104.9	95.1	88.7	82.3	74.2	67.7	64.5
73°	116.1	114.5	112.9	106.5	98.4	91.9	83.9	77.5	69.3	62.9	59.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	72.5	72.5	70.9	64.5	58.1	51.6	45.2	38.7	32.3	25.8	22.6
80°	50.0	51.6	48.4	45.2	40.3	33.9	27.4	22.6	16.2	12.9	9.6
82.5°	32.3	32.3	30.6	27.4	24.2	19.4	16.2	11.3	8.0	6.4	4.8
85°	16.2	17.8	16.2	14.6	11.3	9.6	8.0	4.8	3.2	1.6	1.6
87.5°	6.4	6.4	6.4	4.8	4.8	3.2	1.6	1.6	1.6	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°	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5	1190.5
2.5°	1185.7	1185.7	1182.4	1180.7	1179.1	1177.5	1175.9	1174.3	1174.3	1175.9
5°	1175.9	1172.7	1166.3	1164.7	1159.8	1158.2	1155.0	1153.4	1155.0	1153.4
7.5°	1161.4	1155.0	1146.9	1143.7	1137.2	1134.0	1129.2	1129.2	1126.0	1127.6
10°	1142.1	1132.4	1122.8	1116.2	1111.4	1106.6	1103.4	1100.2	1098.5	1098.5
12.5°	1117.8	1106.6	1096.9	1087.2	1079.2	1075.9	1069.5	1069.5	1066.3	1064.6
15°	1090.4	1075.9	1064.6	1054.9	1048.5	1042.1	1037.3	1033.9	1030.7	1030.7
17.5°	1054.9	1042.1	1030.7	1019.5	1009.8	1004.9	1000.1	995.3	995.3	992.0
20°	1016.3	1001.7	992.0	980.8	972.7	964.6	958.2	958.2	955.0	956.6
22.5°	972.7	955.0	945.2	937.2	929.2	922.7	916.2	916.2	914.6	913.0
25°	924.3	909.8	898.5	888.8	883.9	877.5	875.9	872.7	871.1	871.1
27.5°	872.7	861.4	846.9	842.0	835.6	832.4	832.4	830.7	827.5	829.1
30°	817.8	805.0	796.8	793.6	787.2	787.2	785.6	782.4	782.4	784.0
32.5°	764.6	751.7	745.3	743.7	737.2	737.2	735.5	737.2	737.2	738.8
35°	706.5	695.3	693.6	688.8	687.2	687.2	687.2	690.4	693.6	688.8
37.5°	651.7	643.6	638.8	637.2	638.8	638.8	640.4	645.2	643.6	642.0
40°	595.2	588.8	585.5	585.5	588.8	592.0	592.0	596.8	598.5	596.8
42.5°	538.7	533.9	533.9	535.5	538.7	540.4	545.3	550.1	551.7	553.3
45°	485.6	485.6	485.6	487.2	488.8	492.0	498.4	503.3	504.9	506.5
47.5°	433.9	432.3	437.1	438.8	443.6	445.2	450.0	456.5	458.1	459.8
50°	385.5	388.7	390.3	395.3	398.5	398.5	404.9	408.1	412.9	412.9
52.5°	340.4	345.2	346.8	351.6	353.3	354.9	358.1	362.9	366.2	366.2
55°	300.0	301.6	304.8	306.4	311.4	313.0	316.2	317.8	322.6	321.0
56°	282.3	285.5	287.1	290.4	293.6	295.2	298.4	300.0	303.2	304.8
57°	266.1	267.8	272.6	274.2	277.5	277.5	279.1	283.9	283.9	285.5
58°	250.1	253.3	254.9	256.5	259.7	261.3	264.5	266.1	267.8	266.1
59°	235.5	237.1	238.7	238.7	241.9	241.9	246.8	250.1	251.7	251.7
60°	221.0	221.0	222.6	224.3	227.5	229.1	229.1	232.3	232.3	232.3
61°	206.5	206.5	208.1	209.7	211.3	211.3	214.5	214.5	216.1	217.7
62°	193.6	192.0	192.0	193.6	193.6	196.8	198.4	200.0	201.6	200.0
63°	179.0	177.4	177.4	177.4	177.4	180.6	180.6	182.3	185.5	183.9
64°	163.0	163.0	163.0	163.0	164.6	164.6	167.8	169.4	171.0	172.6
65°	151.6	148.4	146.8	146.8	148.4	150.0	151.6	153.2	154.8	154.8
66°	138.7	135.5	133.9	133.9	133.9	133.9	137.1	137.1	140.4	140.4
67°	124.2	121.0	119.4	117.8	117.8	117.8	122.6	121.0	121.0	121.0
67.5°	119.4	114.5	112.9	111.3	109.7	112.9	111.3	112.9	112.9	111.3
68°	112.9	109.7	106.5	103.3	103.3	103.3	104.9	106.5	104.9	103.3
69°	100.0	98.4	93.5	90.3	88.7	90.3	88.7	90.3	88.7	90.3
70°	88.7	83.9	79.1	77.5	75.9	75.9	75.9	74.2	75.9	74.2
71°	77.5	72.5	67.7	64.5	62.9	62.9	61.3	62.9	61.3	62.9
72°	66.1	61.3	54.9	51.6	51.6	51.6	51.6	50.0	51.6	50.0
72.5°	61.3	54.9	50.0	46.8	45.2	45.2	45.2	45.2	43.5	45.2
73°	56.5	50.0	43.5	41.9	41.9	41.9	40.3	38.7	40.3	40.3



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	19.4	14.6	12.9	12.9	12.9	12.9	12.9	12.9	11.3	11.3
80°	8.0	6.4	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	104.9	104.9	101.6	96.8	88.7	80.7	74.2	67.7	59.7	51.6	48.4
75°	96.8	95.1	91.9	87.1	80.7	72.5	66.1	58.1	51.6	43.5	40.3





74°	46.8	38.7	35.5	32.3	32.3	32.3	30.6	30.6	30.6	32.3
75°	37.1	30.6	27.4	24.2	25.8	24.2	25.8	24.2	24.2	24.2



(END OF REPORT)