

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: P581187

Luminaire Tested: **HC455D010-HM44560840-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581187
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560840-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5764.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

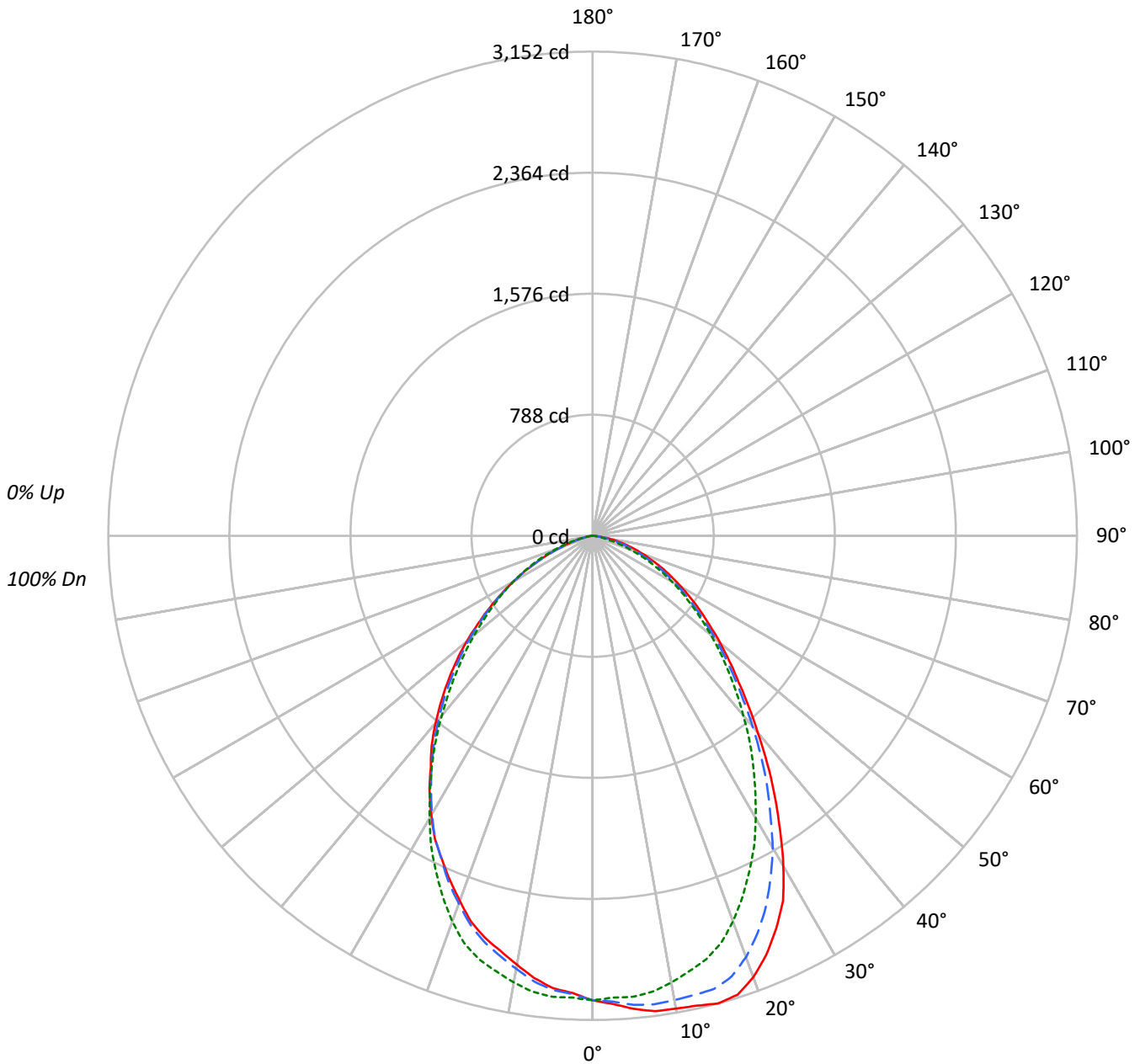
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	62	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	61	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	37	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°	373010	373010	373010
5°	382804	373048	366064
10°	391477	369834	355230
15°	402475	364574	345867
20°	401398	350600	331856
25°	384474	328238	315976
30°	353675	302302	299083
35°	311123	274337	276610
40°	269187	245582	255871
45°	233938	218221	231321
50°	207608	192467	205458
55°	184209	168833	176123
60°	164025	146436	146436
65°	145814	121706	114030
70°	126007	92143	81288
75°	105608	60858	50135
80°	80053	29336	26708
85°	42457	10614	10614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.4	5.0
10°-20°	811.9	14.1
20°-30°	1145.0	19.9
30°-40°	1182.9	20.5
40°-50°	1002.7	17.4
50°-60°	729.6	12.7
60°-70°	426.3	7.4
70°-80°	158.4	2.7
80°-90°	20.7	0.4
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°	2243.4	38.9
0°-40°	3426.3	59.4
0°-60°	5158.6	89.5
0°-90°	5764.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5764.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3024	3024	3024	3024	3024	
5°	3092	3065	3013	2968	2956	296
15°	3152	3054	2855	2735	2708	886
25°	2825	2667	2412	2325	2322	1292
35°	2066	1976	1822	1826	1837	1290
45°	1341	1304	1251	1296	1326	1044
55°	857	815	785	812	819	770
65°	500	458	417	391	391	496
75°	222	184	128	102	105	238
85°	30	19	8	8	8	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	3024.1	3024.1	3024.1	3024.1	3024.1	3024.1	3024.1	3024.1	3024.1
2.5°	3050.4	3042.9	3035.4	3024.1	3009.2	2997.8	2986.5	2979.0	2979.0
5°	3091.7	3080.5	3065.4	3039.2	3012.9	2990.4	2967.8	2956.5	2956.5
7.5°	3121.8	3106.8	3076.8	3039.2	2994.1	2960.2	2926.5	2911.4	2904.0
10°	3125.6	3110.5	3069.2	3012.9	2952.8	2900.1	2862.6	2840.1	2836.2
12.5°	3133.0	3114.3	3061.7	2982.8	2904.0	2840.1	2798.8	2776.2	2768.6
15°	3151.8	3125.6	3054.2	2952.8	2855.0	2780.0	2734.9	2716.1	2708.5
17.5°	3133.0	3095.5	3009.2	2888.9	2780.0	2697.3	2652.2	2633.4	2633.4
20°	3058.0	3020.4	2918.9	2787.4	2671.0	2592.1	2547.0	2535.8	2528.2
22.5°	2952.8	2911.4	2802.5	2663.4	2547.0	2475.7	2445.6	2430.6	2426.8
25°	2825.0	2783.7	2667.3	2524.5	2411.8	2351.7	2325.4	2325.4	2321.7
27.5°	2682.2	2629.7	2509.4	2385.5	2276.5	2231.4	2220.2	2220.2	2223.9
30°	2483.2	2445.6	2344.2	2223.9	2122.5	2092.5	2092.5	2099.9	2099.9
32.5°	2269.0	2242.7	2152.6	2047.4	1968.5	1949.7	1957.3	1972.2	1976.1
35°	2066.2	2036.1	1976.1	1882.1	1821.9	1814.5	1825.8	1837.0	1837.0
37.5°	1867.0	1837.0	1795.7	1720.6	1675.5	1679.3	1694.2	1709.3	1720.6
40°	1671.8	1649.1	1619.1	1559.0	1525.2	1540.2	1559.0	1574.1	1589.1
42.5°	1499.0	1476.3	1453.8	1408.7	1386.2	1405.0	1427.5	1442.6	1457.6
45°	1341.1	1326.1	1303.5	1266.0	1251.0	1269.8	1296.0	1311.1	1326.1
47.5°	1205.9	1198.4	1168.3	1134.6	1127.0	1145.8	1168.3	1187.1	1198.4
50°	1081.9	1070.7	1044.3	1010.6	1003.0	1033.1	1048.2	1059.4	1070.7
52.5°	961.8	950.4	920.4	890.3	890.3	912.8	924.2	927.9	939.2
55°	856.6	845.2	815.2	792.7	785.1	803.9	811.5	811.5	819.0
57.5°	758.8	747.6	717.5	691.2	687.5	698.7	698.7	698.7	702.4
60°	664.9	653.6	623.6	601.1	593.6	597.3	593.6	589.8	593.6
62.5°	578.5	567.2	537.2	510.9	503.4	503.4	492.1	488.4	492.1
65°	499.6	480.8	458.3	432.0	417.0	405.7	390.7	390.7	390.7
67.5°	420.8	405.7	379.5	353.1	334.3	315.6	293.1	300.5	304.3
70°	349.4	338.1	308.0	281.7	255.5	232.9	214.1	221.6	225.4
72.5°	285.5	270.4	244.2	214.1	191.6	161.5	150.3	157.7	157.7
75°	221.6	206.7	184.0	154.0	127.7	101.5	101.5	105.2	105.2
77.5°	165.3	150.3	127.7	101.5	78.9	60.1	63.9	63.9	63.9
80°	112.7	101.5	82.7	60.1	41.3	33.9	33.9	33.9	37.6
82.5°	63.9	56.4	45.1	30.0	18.8	18.8	18.8	18.8	18.8
85°	30.0	22.5	18.8	11.2	7.5	7.5	7.5	7.5	7.5
87.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)