

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: P580988

Luminaire Tested: **HC405D010-HM40525827-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580988
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525827-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 615.6 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

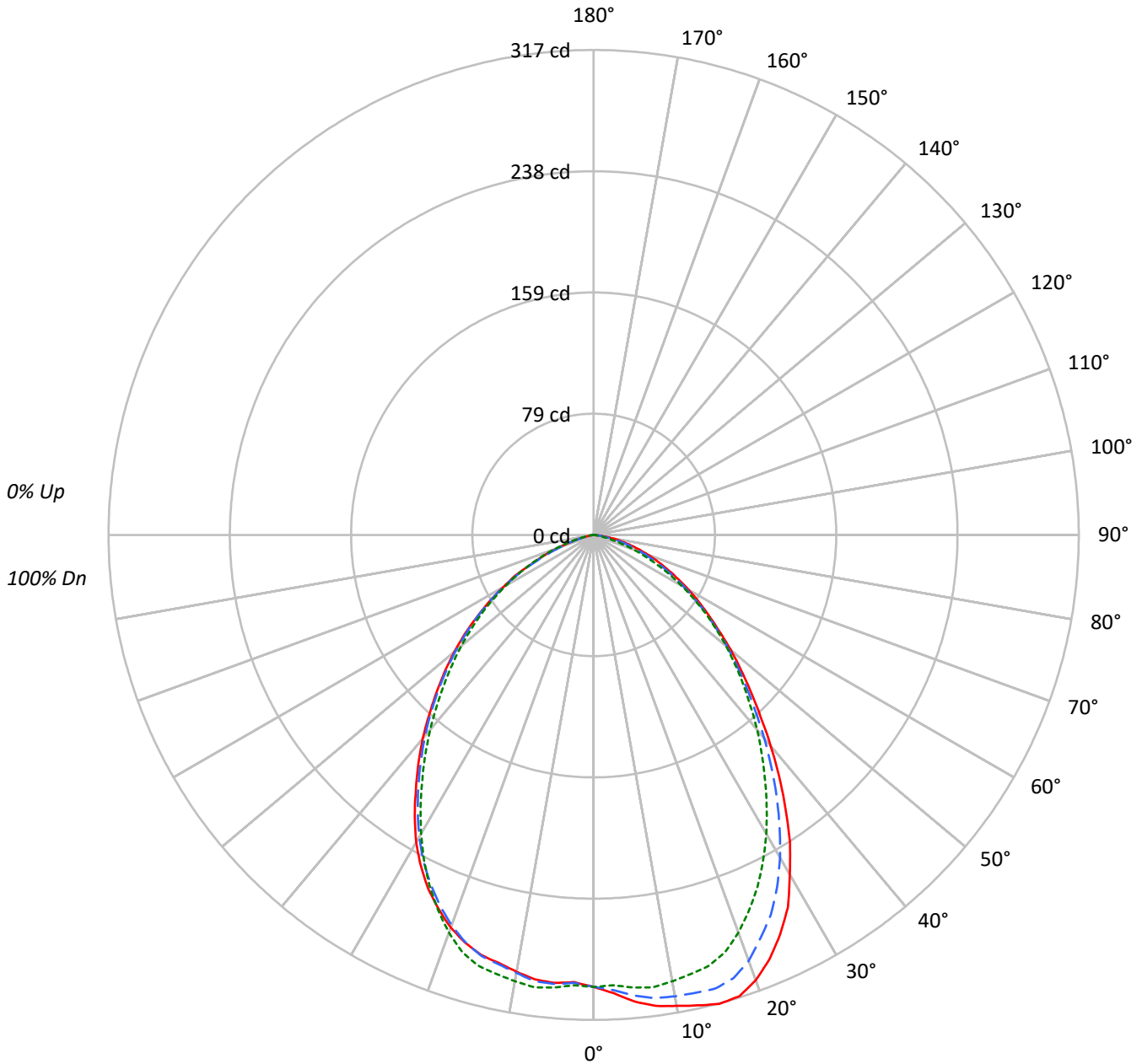
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76				76				
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				67				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41				41				
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37				37				
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31				31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	36436	36436	36436
5°	37913	36774	36390
10°	39153	37099	36310
15°	40518	37224	36291
20°	40652	36307	35848
25°	39223	34487	34773
30°	36504	32117	33043
35°	32886	29393	30477
40°	28983	26745	27969
45°	25346	24090	25276
50°	22451	21665	22816
55°	19741	19139	19913
60°	17638	16356	16824
65°	15498	13280	13046
70°	13560	9773	8908
75°	11247	5909	4766
80°	8524	2273	1421
85°	3963	708	708



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.5	4.6
10°-20°	83.2	13.5
20°-30°	120.4	19.6
30°-40°	127.1	20.6
40°-50°	110.0	17.9
50°-60°	81.4	13.2
60°-70°	46.9	7.6
70°-80°	16.4	2.7
80°-90°	1.8	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°	232.1	37.7
0°-40°	359.1	58.3
0°-60°	550.5	89.4
0°-90°	615.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	615.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	295	295	295	295	295	
5°	306	302	297	295	294	29
15°	317	307	292	285	284	89
25°	288	274	253	252	256	132
35°	218	208	195	200	202	136
45°	145	141	138	143	145	113
55°	92	90	89	92	93	83
65°	53	50	46	43	45	53
75°	24	20	12	10	10	25
85°	3	2	0	0	0	4
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°	295.4	295.4	295.4	295.4	295.4	295.4	295.4	295.4	295.4
2.5°	299.8	299.0	297.8	296.2	294.6	293.4	293.1	292.6	292.6
5°	306.2	304.6	302.3	299.0	297.0	295.8	294.6	293.9	293.9
7.5°	310.5	308.9	305.4	301.0	298.2	295.8	294.2	293.1	293.1
10°	312.6	310.5	306.2	300.5	296.2	293.1	290.7	289.9	289.9
12.5°	315.0	312.6	306.6	299.4	293.9	289.9	287.4	286.6	286.6
15°	317.3	314.6	307.0	298.6	291.5	286.6	284.7	284.2	284.2
17.5°	316.2	312.6	303.8	293.9	285.8	281.0	279.1	279.1	279.4
20°	309.7	306.2	296.2	285.0	276.6	273.1	271.5	272.3	273.1
22.5°	300.2	295.8	285.0	274.2	265.5	262.3	262.3	263.4	264.7
25°	288.2	284.2	273.9	261.8	253.4	251.1	251.9	253.9	255.5
27.5°	274.7	270.2	259.5	248.3	239.9	238.7	240.7	243.6	244.4
30°	256.3	252.7	243.6	232.8	225.5	225.2	227.9	230.0	232.0
32.5°	238.7	234.7	226.0	215.5	210.4	210.8	213.9	216.3	217.6
35°	218.4	214.7	208.4	200.0	195.2	196.0	199.6	202.0	202.4
37.5°	199.2	196.8	190.5	184.0	180.5	182.1	185.2	188.1	188.1
40°	180.0	178.1	173.2	168.1	166.1	168.1	171.3	173.7	173.7
42.5°	161.6	160.5	156.5	152.9	151.7	154.5	157.3	159.2	158.9
45°	145.3	144.1	141.3	138.5	138.1	141.0	143.4	144.5	144.9
47.5°	130.5	129.7	127.3	125.3	125.3	128.1	130.2	131.3	131.8
50°	117.0	116.2	114.2	112.6	112.9	115.8	117.4	118.6	118.9
52.5°	103.4	102.9	101.4	99.4	100.6	102.6	104.6	105.4	105.8
55°	91.8	91.8	89.8	88.2	89.0	91.0	92.2	92.6	92.6
57.5°	81.5	81.0	78.7	77.1	77.4	79.4	80.2	80.6	80.6
60°	71.5	71.1	68.7	66.3	66.3	67.4	67.9	68.2	68.2
62.5°	61.9	61.5	58.7	56.6	55.8	55.5	55.5	56.3	57.9
65°	53.1	52.7	49.9	46.8	45.5	44.3	43.1	43.9	44.7
67.5°	45.1	44.3	41.5	38.7	36.0	33.9	31.9	33.1	34.7
70°	37.6	36.8	33.5	30.3	27.1	23.9	22.4	23.9	24.7
72.5°	30.3	29.5	26.3	23.2	19.2	16.0	15.5	16.0	16.3
75°	23.6	23.2	20.0	16.3	12.4	10.0	10.0	10.0	10.0
77.5°	17.6	16.8	13.6	10.3	7.2	5.6	5.2	5.2	5.2
80°	12.0	11.1	8.4	6.0	3.2	2.4	2.4	2.0	2.0
82.5°	6.8	6.4	4.4	2.4	1.2	0.8	0.8	0.8	0.8
85°	2.8	2.4	1.6	0.8	0.5	0.5	0.5	0.5	0.5
87.5°	0.5	0.5	0.5	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



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







(END OF REPORT)