

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: P580575

Luminaire Tested: **HC440D010-HM43040830-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580575  
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: HC440D010-HM43040830-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" 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: 4169.8 lumens  
Efficiency: N/A  
Efficacy: 101.7 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

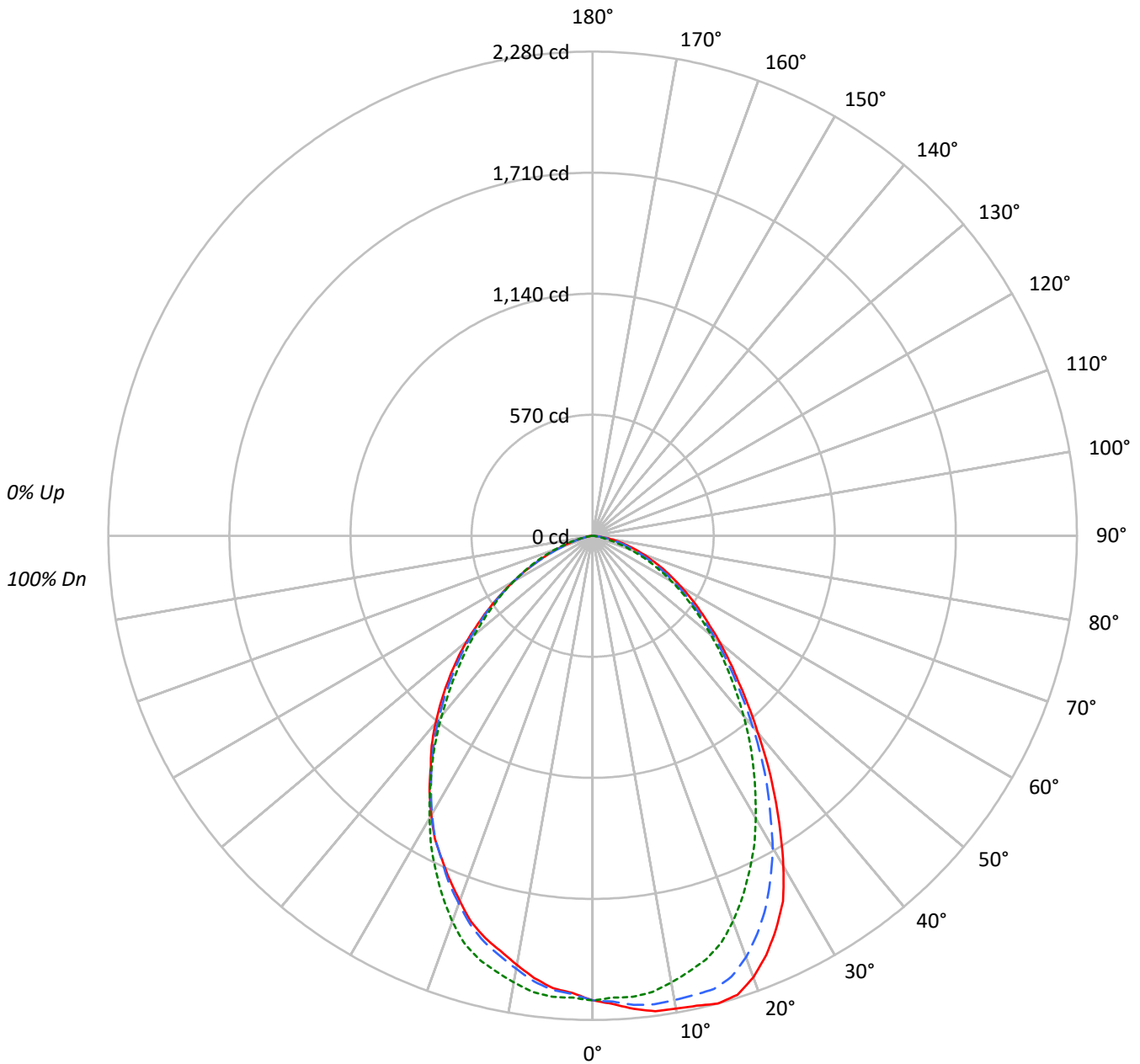
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P580575

CATALOG NUMBER: HC440D010-HM43040830-41RWWH

### Luminous Intensity Polar Plot





TEST NUMBER: P580575

CATALOG NUMBER: HC440D010-HM43040830-41RWWH

**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°	269831	269831	269831
5°	276929	269871	264819
10°	283199	267543	256985
15°	291161	263745	250209
20°	290377	253637	240064
25°	278141	237448	228575
30°	255856	218683	216375
35°	225068	198476	200102
40°	194717	177665	185104
45°	169239	157866	167355
50°	150194	139237	148620
55°	133243	122146	127394
60°	118658	105905	105905
65°	105478	88054	82480
70°	91169	66682	58820
75°	76394	44035	36267
80°	57891	21239	19250
85°	30711	7642	7642



TEST NUMBER: P580575

CATALOG NUMBER: HC440D010-HM43040830-41RWWH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.2	5.0
10°-20°	587.4	14.1
20°-30°	828.3	19.9
30°-40°	855.7	20.5
40°-50°	725.4	17.4
50°-60°	527.8	12.7
60°-70°	308.4	7.4
70°-80°	114.6	2.7
80°-90°	15.0	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°	1622.9	38.9
0°-40°	2478.6	59.4
0°-60°	3731.8	89.5
0°-90°	4169.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4169.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2188	2188	2188	2188	2188	
5°	2237	2218	2180	2147	2139	214
15°	2280	2209	2065	1978	1959	641
25°	2044	1930	1745	1682	1680	935
35°	1495	1430	1318	1321	1329	934
45°	970	943	905	938	959	755
55°	620	590	568	587	592	557
65°	361	332	302	283	283	359
75°	160	133	92	73	76	172
85°	22	14	5	5	5	30
90°	0	0	0	0	0	



TEST NUMBER: P580575

CATALOG NUMBER: HC440D010-HM43040830-41RWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2187.6	2187.6	2187.6	2187.6	2187.6	2187.6	2187.6	2187.6	2187.6
2.5°	2206.7	2201.3	2195.8	2187.6	2176.9	2168.7	2160.5	2155.1	2155.1
5°	2236.6	2228.4	2217.6	2198.5	2179.6	2163.2	2146.9	2138.8	2138.8
7.5°	2258.4	2247.5	2225.7	2198.5	2166.0	2141.4	2117.0	2106.1	2100.8
10°	2261.1	2250.2	2220.3	2179.6	2136.1	2098.0	2070.8	2054.6	2051.8
12.5°	2266.5	2252.9	2214.9	2157.8	2100.8	2054.6	2024.6	2008.3	2002.9
15°	2280.1	2261.1	2209.4	2136.1	2065.4	2011.1	1978.5	1964.9	1959.4
17.5°	2266.5	2239.3	2176.9	2089.9	2011.1	1951.2	1918.6	1905.0	1905.0
20°	2212.2	2184.9	2111.6	2016.5	1932.3	1875.2	1842.6	1834.4	1828.9
22.5°	2136.1	2106.1	2027.3	1926.8	1842.6	1790.9	1769.2	1758.3	1755.6
25°	2043.7	2013.8	1929.5	1826.2	1744.7	1701.2	1682.2	1682.2	1679.5
27.5°	1940.3	1902.3	1815.3	1725.7	1646.9	1614.2	1606.2	1606.2	1608.9
30°	1796.4	1769.2	1695.8	1608.9	1535.4	1513.7	1513.7	1519.2	1519.2
32.5°	1641.5	1622.4	1557.2	1481.1	1424.0	1410.4	1415.9	1426.7	1429.5
35°	1494.7	1473.0	1429.5	1361.6	1318.1	1312.6	1320.8	1328.9	1328.9
37.5°	1350.7	1328.9	1299.0	1244.6	1212.0	1214.8	1225.7	1236.5	1244.6
40°	1209.3	1193.1	1171.3	1127.8	1103.4	1114.3	1127.8	1138.7	1149.6
42.5°	1084.3	1068.0	1051.7	1019.1	1002.8	1016.4	1032.7	1043.5	1054.4
45°	970.2	959.4	943.0	915.9	905.0	918.5	937.6	948.5	959.4
47.5°	872.4	866.9	845.2	820.7	815.3	828.9	845.2	858.8	866.9
50°	782.7	774.5	755.6	731.0	725.6	747.4	758.2	766.3	774.5
52.5°	695.7	687.5	665.8	644.1	644.1	660.4	668.6	671.3	679.4
55°	619.6	611.5	589.8	573.4	568.0	581.6	587.0	587.0	592.4
57.5°	549.0	540.8	519.0	500.1	497.3	505.5	505.5	505.5	508.1
60°	481.0	472.8	451.1	434.8	429.3	432.1	429.3	426.7	429.3
62.5°	418.5	410.4	388.7	369.6	364.2	364.2	356.0	353.3	356.0
65°	361.4	347.8	331.6	312.5	301.7	293.5	282.6	282.6	282.6
67.5°	304.4	293.5	274.5	255.5	241.9	228.2	212.0	217.4	220.2
70°	252.8	244.6	222.9	203.8	184.9	168.5	154.9	160.3	163.1
72.5°	206.5	195.6	176.7	154.9	138.6	116.8	108.7	114.1	114.1
75°	160.3	149.4	133.2	111.4	92.4	73.4	73.4	76.1	76.1
77.5°	119.6	108.7	92.4	73.4	57.1	43.5	46.2	46.2	46.2
80°	81.5	73.4	59.7	43.5	29.9	24.4	24.4	24.4	27.1
82.5°	46.2	40.8	32.6	21.7	13.6	13.6	13.6	13.6	13.6
85°	21.7	16.3	13.6	8.2	5.4	5.4	5.4	5.4	5.4
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
90°	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°







(END OF REPORT)