

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: **HCC4S40D010BZ-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: HCC4S40D010BZ-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  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

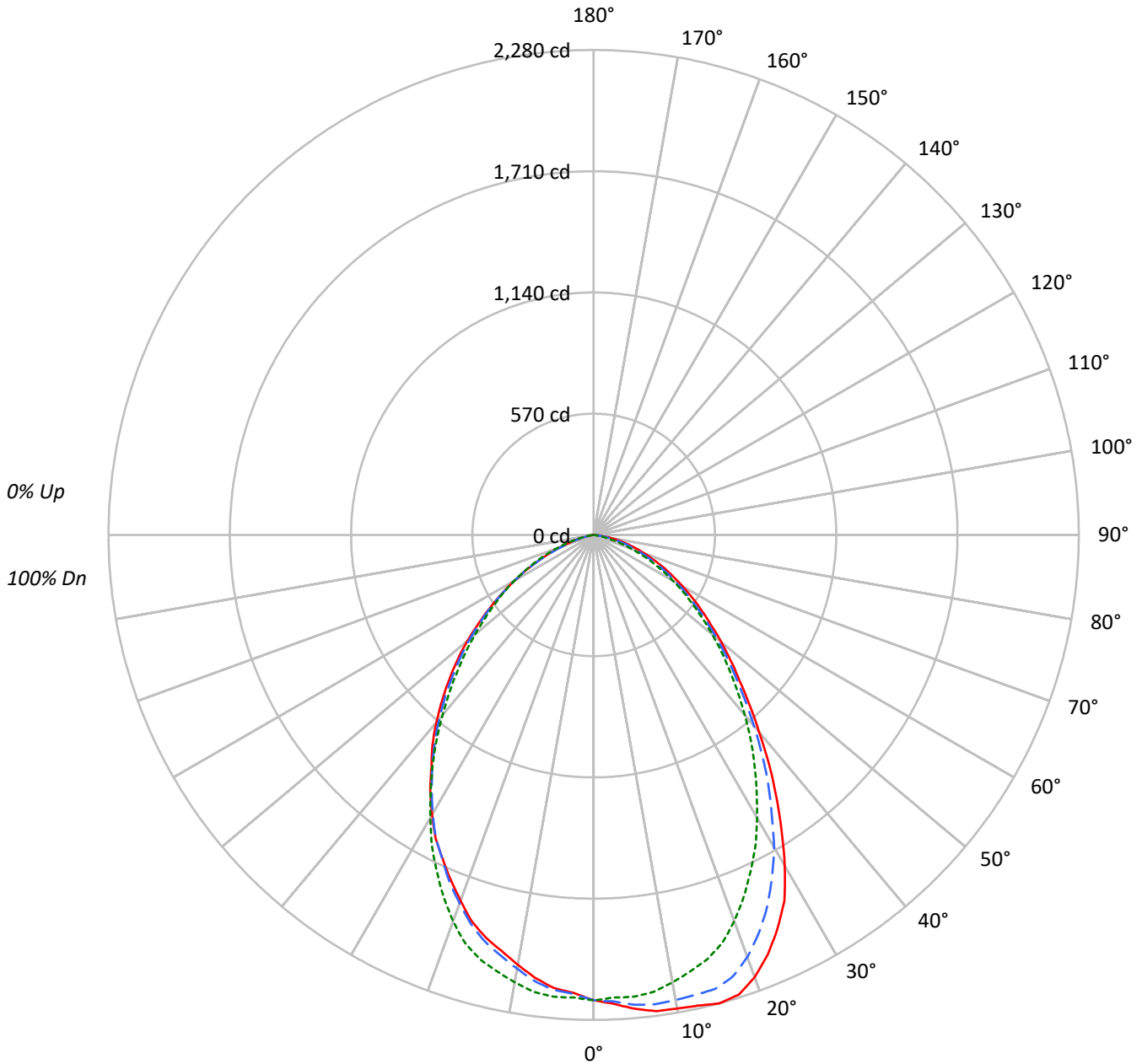
Lumens per Lamp: N/A  
Luminaire Lumens: 4169.8 lumens  
Efficiency: N/A  
Efficacy: 101.7 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: HCC4S40D010BZ-HM43040830-41RWWH

### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab  
 1121 Highway 74 South  
 Peachtree City, GA 30269



TEST NUMBER: P580575

CATALOG NUMBER: HCC4S40D010BZ-HM43040830-41RWWH

**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	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	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	37	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°	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: HCC4S40D010BZ-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: HCC4S40D010BZ-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

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report





Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)