

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: P592671

Luminaire Tested: **HCC4W20D010MB-HM40525850-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592671
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4W20D010MB-HM40525850-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

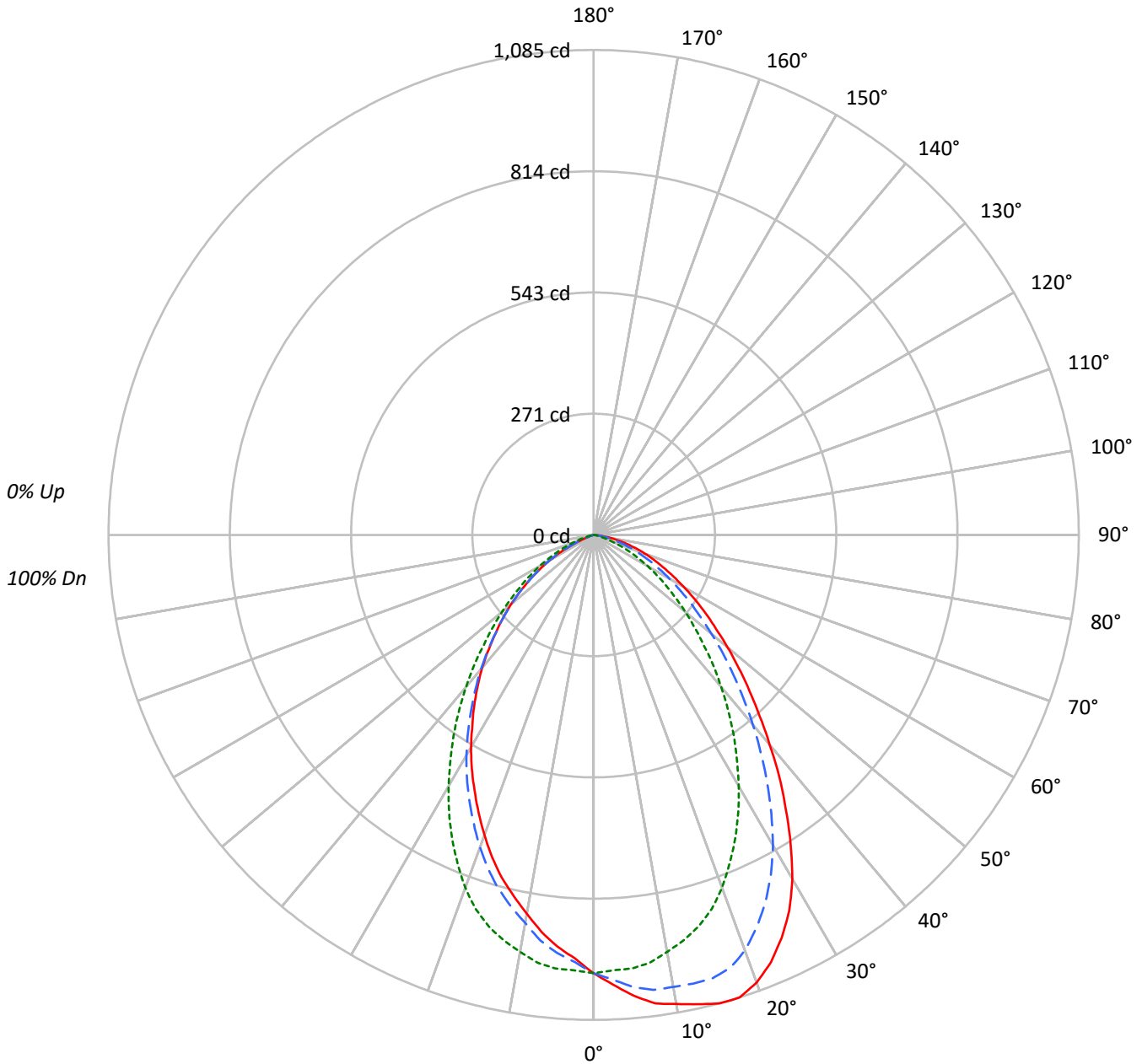
Lumens per Lamp: N/A
Luminaire Lumens: 1693.8 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20
Input Voltage (V): NR
Input Current (A_{in}): 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: P592671
CATALOG NUMBER: HCC4W20D010MB-HM40525850-41WWBB

Luminous Intensity Polar Plot



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



TEST NUMBER: P592671

CATALOG NUMBER: HCC4W20D010MB-HM40525850-41WWBB

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								
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78								
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69								
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61								
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55								
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49								
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44								
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40								
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37								
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	120965	120965	120965
5°	128163	120560	114506
10°	133477	118635	107801
15°	138589	115783	101353
20°	139886	110220	93747
25°	135362	101950	85809
30°	126561	92378	78079
35°	112797	82125	70154
40°	98606	71411	62442
45°	85893	60582	54023
50°	74953	51389	46303
55°	65675	42601	37483
60°	57479	34413	27531
65°	50083	25655	15469
70°	43782	16589	5049
75°	35933	8626	1334
80°	26708	3978	994
85°	15709	1981	1981



TEST NUMBER: P592671
 CATALOG NUMBER: HCC4W20D010MB-HM40525850-41WWBB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	5.5
10°-20°	259.0	15.3
20°-30°	358.1	21.1
30°-40°	360.1	21.3
40°-50°	290.6	17.2
50°-60°	196.5	11.6
60°-70°	100.0	5.9
70°-80°	32.0	1.9
80°-90°	4.9	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°	709.7	41.9
0°-40°	1069.8	63.2
0°-60°	1556.9	91.9
0°-90°	1693.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1693.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	981	981	981	981	981	
5°	1035	1016	974	939	925	100
15°	1085	1027	907	820	794	306
25°	995	908	749	657	630	455
35°	749	676	545	477	466	468
45°	492	441	347	310	310	382
55°	305	264	198	173	174	274
65°	172	140	88	57	53	172
75°	75	53	18	4	3	81
85°	11	6	1	1	1	15
90°	0	0	0	0	0	

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



TEST NUMBER: P592671

CATALOG NUMBER: HCC4W20D010MB-HM40525850-41WWBB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	980.7	980.7	980.7	980.7	980.7	980.7	980.7	980.7	980.7
2.5°	1007.2	1001.6	995.9	986.2	975.1	963.9	956.9	951.3	948.6
5°	1035.1	1028.1	1015.6	994.6	973.7	954.1	938.8	929.1	924.8
7.5°	1057.3	1047.6	1026.7	997.4	965.3	934.6	915.1	901.1	895.6
10°	1065.7	1054.6	1026.7	987.6	947.2	909.5	881.6	867.6	860.7
12.5°	1075.5	1062.9	1028.1	979.2	929.1	884.3	852.3	834.2	827.2
15°	1085.3	1068.5	1026.7	966.7	906.7	855.1	820.2	802.1	793.7
17.5°	1085.3	1065.7	1015.6	945.8	877.5	823.0	784.0	763.0	756.1
20°	1065.7	1043.4	989.1	912.3	839.7	781.1	743.5	722.6	714.2
22.5°	1035.1	1009.9	951.3	871.8	795.1	737.9	700.2	680.7	672.4
25°	994.6	969.4	908.1	825.8	749.1	691.9	657.0	638.9	630.5
27.5°	947.2	919.2	857.8	775.6	700.2	645.9	613.8	597.0	590.0
30°	888.6	862.1	802.1	721.2	648.6	598.4	569.1	553.8	548.2
32.5°	820.2	797.9	739.4	664.0	595.6	549.6	523.1	510.5	504.9
35°	749.1	728.1	676.5	606.8	545.4	502.2	477.0	468.7	465.9
37.5°	682.1	664.0	613.8	549.6	493.8	456.2	433.8	428.3	425.4
40°	612.4	599.8	553.8	495.2	443.5	410.1	391.9	387.8	387.8
42.5°	549.6	535.6	495.2	442.2	396.2	362.7	350.2	345.9	347.3
45°	492.4	478.4	440.8	391.9	347.3	319.4	309.7	309.7	309.7
47.5°	439.4	426.8	391.9	341.8	305.4	283.2	273.4	273.4	274.8
50°	390.6	382.2	343.2	299.9	267.8	246.9	240.0	238.6	241.3
52.5°	344.6	334.8	299.9	260.8	230.2	213.5	206.5	205.1	206.5
55°	305.4	294.3	263.7	226.0	198.1	181.3	173.0	171.6	174.3
57.5°	267.8	259.5	227.3	193.8	167.3	150.6	143.7	140.9	142.2
60°	233.0	224.6	195.3	163.2	139.5	122.7	113.0	110.2	111.6
62.5°	200.8	193.8	166.0	135.3	111.6	96.2	86.5	79.5	82.4
65°	171.6	164.6	139.5	108.9	87.9	71.1	57.2	51.6	53.0
67.5°	146.5	138.1	114.4	86.5	65.6	47.4	32.1	29.2	29.2
70°	121.4	113.0	92.1	67.0	46.0	25.1	14.0	14.0	14.0
72.5°	97.6	90.7	71.1	50.2	29.2	11.1	5.6	5.6	5.6
75°	75.4	69.7	53.0	34.9	18.1	5.6	4.1	2.8	2.8
77.5°	55.7	50.2	37.6	23.7	11.1	2.8	2.8	2.8	2.8
80°	37.6	33.5	25.1	14.0	5.6	1.4	1.4	1.4	1.4
82.5°	22.4	19.5	14.0	7.0	2.8	1.4	1.4	1.4	1.4
85°	11.1	8.4	5.6	2.8	1.4	1.4	1.4	1.4	1.4
87.5°	2.8	1.4	1.4	1.4	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

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)