

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: P580107

Luminaire Tested: **HCC4W20D010BZ-HM40525940-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580107
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: HCC4W20D010BZ-HM40525940-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

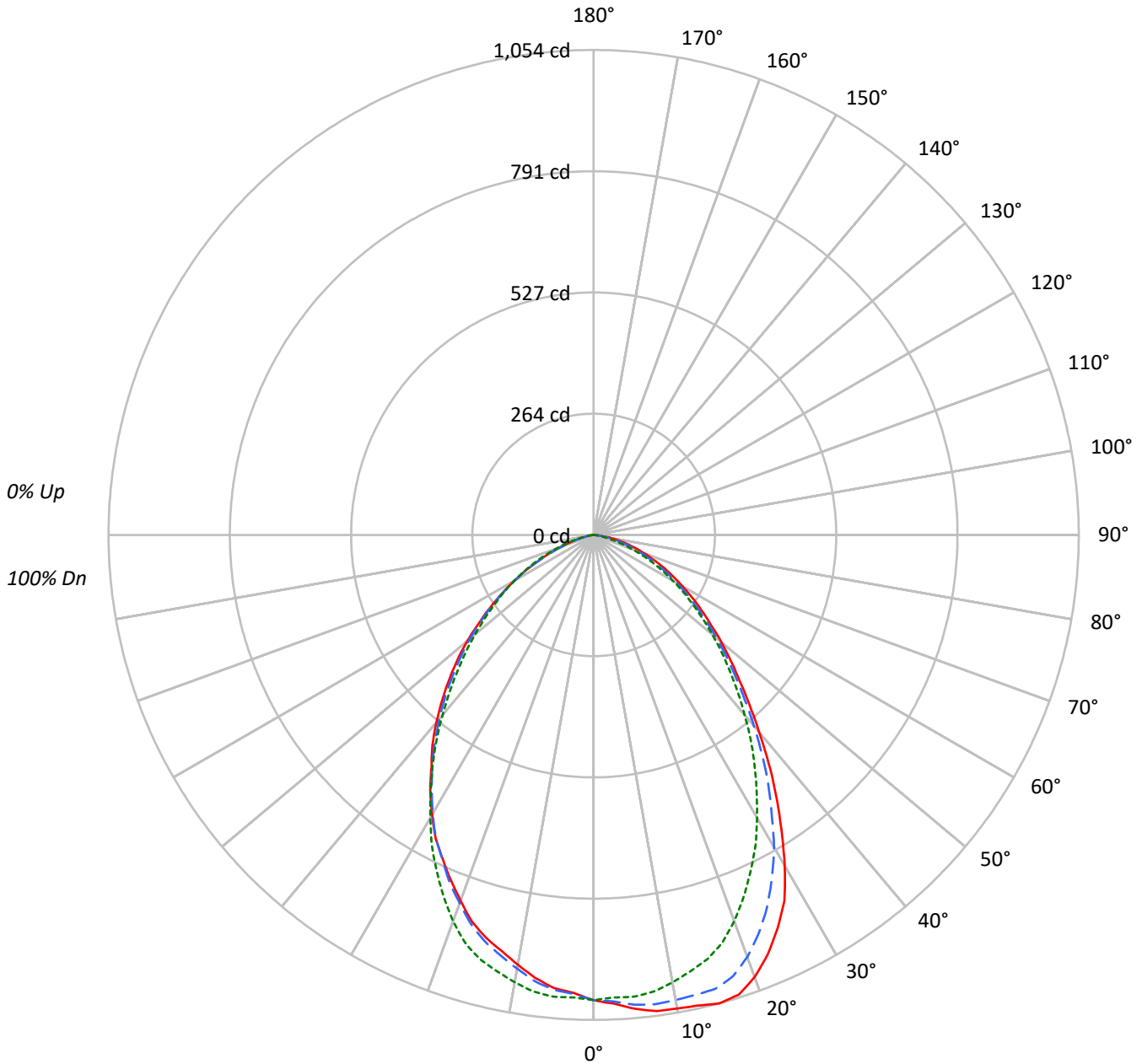
Lumens per Lamp: N/A
Luminaire Lumens: 1927.5 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P580107
CATALOG NUMBER: HCC4W20D010BZ-HM40525940-41RWWH

Luminous Intensity Polar Plot



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



TEST NUMBER: P580107

CATALOG NUMBER: HCC4W20D010BZ-HM40525940-41RWWH

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°	124727	124727	124727
5°	128002	124733	122405
10°	130897	123658	118798
15°	134592	121899	115655
20°	134228	117243	110982
25°	128571	109762	105652
30°	118257	101095	100012
35°	104049	91747	92485
40°	90008	82118	85564
45°	78235	72967	77345
50°	69426	64360	68697
55°	61589	56450	58901
60°	54839	48944	48944
65°	48770	40715	38117
70°	42159	30835	27192
75°	35314	20350	16775
80°	26779	9802	8950
85°	14294	3538	3538



TEST NUMBER: P580107

CATALOG NUMBER: HCC4W20D010BZ-HM40525940-41RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	5.0
10°-20°	271.5	14.1
20°-30°	382.9	19.9
30°-40°	395.5	20.5
40°-50°	335.3	17.4
50°-60°	244.0	12.7
60°-70°	142.5	7.4
70°-80°	53.0	2.7
80°-90°	7.0	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°	750.2	38.9
0°-40°	1145.7	59.4
0°-60°	1725.0	89.5
0°-90°	1927.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1927.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1011	1011	1011	1011	1011	
5°	1034	1025	1007	992	989	99
15°	1054	1021	955	914	906	296
25°	945	892	806	778	776	432
35°	691	661	609	610	614	432
45°	448	436	418	433	443	349
55°	286	273	262	271	274	258
65°	167	153	140	131	131	166
75°	74	62	43	34	35	80
85°	10	6	2	2	2	14
90°	0	0	0	0	0	

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



TEST NUMBER: P580107

CATALOG NUMBER: HCC4W20D010BZ-HM40525940-41RWWH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1011.2	1011.2	1011.2	1011.2	1011.2	1011.2	1011.2	1011.2	1011.2
2.5°	1020.0	1017.5	1015.0	1011.2	1006.1	1002.5	998.7	996.2	996.2
5°	1033.8	1030.1	1025.1	1016.2	1007.4	1000.0	992.4	988.6	988.6
7.5°	1043.9	1038.8	1028.9	1016.2	1001.2	989.9	978.6	973.6	971.1
10°	1045.1	1040.1	1026.3	1007.4	987.3	969.8	957.2	949.7	948.5
12.5°	1047.7	1041.4	1023.8	997.4	971.1	949.7	935.8	928.3	925.9
15°	1054.0	1045.1	1021.3	987.3	954.6	929.5	914.5	908.2	905.7
17.5°	1047.7	1035.1	1006.1	966.0	929.5	901.9	886.9	880.6	880.6
20°	1022.6	1009.9	976.1	932.1	893.2	866.8	851.6	848.0	845.5
22.5°	987.3	973.6	937.1	890.6	851.6	827.8	817.8	812.8	811.5
25°	944.7	930.8	891.9	844.2	806.5	786.4	777.6	777.6	776.3
27.5°	897.0	879.3	839.1	797.6	761.3	746.1	742.5	742.5	743.7
30°	830.3	817.8	783.9	743.7	709.8	699.7	699.7	702.2	702.2
32.5°	758.7	749.9	719.7	684.6	658.3	652.0	654.5	659.5	660.8
35°	691.0	680.9	660.8	629.4	609.3	606.8	610.5	614.2	614.2
37.5°	624.3	614.2	600.5	575.3	560.3	561.5	566.5	571.6	575.3
40°	559.0	551.5	541.4	521.3	510.0	515.0	521.3	526.4	531.4
42.5°	501.2	493.7	486.1	471.1	463.5	469.8	477.4	482.4	487.4
45°	448.5	443.4	435.9	423.4	418.3	424.6	433.3	438.4	443.4
47.5°	403.3	400.8	390.7	379.3	376.9	383.1	390.7	397.0	400.8
50°	361.8	358.0	349.3	337.9	335.4	345.5	350.5	354.2	358.0
52.5°	321.6	317.8	307.7	297.8	297.8	305.2	309.0	310.3	314.0
55°	286.4	282.6	272.6	265.1	262.5	268.9	271.4	271.4	273.9
57.5°	253.7	249.9	240.0	231.1	229.9	233.6	233.6	233.6	234.9
60°	222.3	218.6	208.5	201.0	198.4	199.7	198.4	197.2	198.4
62.5°	193.5	189.7	179.6	170.8	168.4	168.4	164.6	163.3	164.6
65°	167.1	160.8	153.2	144.4	139.5	135.7	130.6	130.6	130.6
67.5°	140.7	135.7	126.9	118.0	111.8	105.5	98.0	100.5	101.7
70°	116.9	113.1	103.0	94.2	85.5	77.9	71.6	74.1	75.4
72.5°	95.4	90.5	81.7	71.6	64.1	54.0	50.2	52.8	52.8
75°	74.1	69.0	61.6	51.5	42.7	34.0	34.0	35.2	35.2
77.5°	55.3	50.2	42.7	34.0	26.4	20.1	21.3	21.3	21.3
80°	37.7	34.0	27.6	20.1	13.8	11.4	11.4	11.4	12.6
82.5°	21.3	18.8	15.0	10.1	6.3	6.3	6.3	6.3	6.3
85°	10.1	7.6	6.3	3.8	2.5	2.5	2.5	2.5	2.5
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)