

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: P592689

Luminaire Tested: **HCC4W20D010MW-HM40525950-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592689
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: HCC4W20D010MW-HM40525950-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

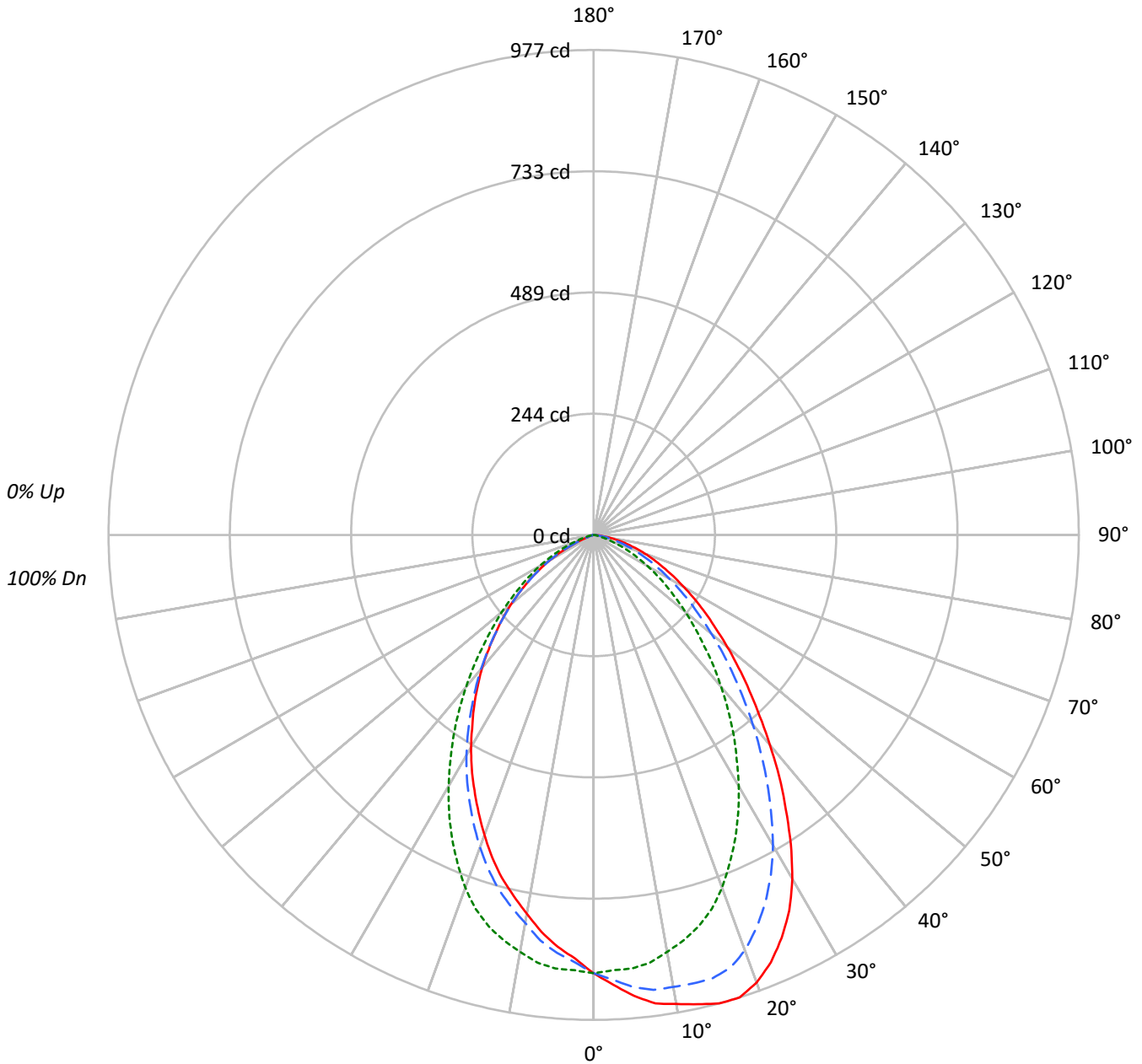
Lumens per Lamp: N/A
Luminaire Lumens: 1525.4 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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: P592689
CATALOG NUMBER: HCC4W20D010MW-HM40525950-41WWBB

Luminous Intensity Polar Plot



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



TEST NUMBER: P592689

CATALOG NUMBER: HCC4W20D010MW-HM40525950-41WWBB

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	108927	108927	108927
5°	115410	108563	103115
10°	120201	106824	97068
15°	124785	104264	91265
20°	125972	99260	84414
25°	121902	91811	77276
30°	113956	83206	70316
35°	101579	73948	63182
40°	88800	64326	56243
45°	77345	54564	48633
50°	67488	46284	41717
55°	59159	38364	33762
60°	51756	30984	24792
65°	45092	23086	13922
70°	39418	14930	4544
75°	32312	7768	1191
80°	24151	3552	923
85°	14294	1840	1840



TEST NUMBER: P592689
 CATALOG NUMBER: HCC4W20D010MW-HM40525950-41WWBB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	5.5
10°-20°	233.3	15.3
20°-30°	322.5	21.1
30°-40°	324.3	21.3
40°-50°	261.7	17.2
50°-60°	176.9	11.6
60°-70°	90.1	5.9
70°-80°	28.8	1.9
80°-90°	4.4	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°	639.1	41.9
0°-40°	963.4	63.2
0°-60°	1402.0	91.9
0°-90°	1525.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1525.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	883	883	883	883	883	
5°	932	914	877	845	833	90
15°	977	924	816	739	715	275
25°	896	818	675	592	568	410
35°	675	609	491	430	420	422
45°	443	397	313	279	279	344
55°	275	237	178	156	157	247
65°	154	126	79	52	48	155
75°	68	48	16	4	2	73
85°	10	5	1	1	1	14
90°	0	0	0	0	0	



TEST NUMBER: P592689

CATALOG NUMBER: HCC4W20D010MW-HM40525950-41WWBB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	883.1	883.1	883.1	883.1	883.1	883.1	883.1	883.1	883.1
2.5°	906.9	901.9	896.8	888.1	878.0	868.0	861.7	856.7	854.2
5°	932.1	925.7	914.5	895.7	876.8	859.2	845.3	836.6	832.8
7.5°	952.1	943.4	924.5	898.1	869.3	841.7	824.0	811.5	806.5
10°	959.7	949.6	924.5	889.4	852.9	819.0	793.8	781.3	775.0
12.5°	968.5	957.2	925.7	881.8	836.6	796.4	767.5	751.2	744.9
15°	977.2	962.2	924.5	870.5	816.5	770.0	738.7	722.3	714.7
17.5°	977.2	959.7	914.5	851.6	790.2	741.1	706.0	687.2	680.9
20°	959.7	939.6	890.6	821.5	756.2	703.5	669.5	650.7	643.1
22.5°	932.1	909.5	856.7	785.1	716.0	664.5	630.6	613.0	605.5
25°	895.7	873.0	817.8	743.6	674.6	623.1	591.6	575.3	567.8
27.5°	852.9	827.8	772.5	698.4	630.6	581.6	552.7	537.6	531.4
30°	800.1	776.3	722.3	649.4	584.2	538.9	512.5	498.7	493.7
32.5°	738.7	718.5	665.7	597.9	536.3	494.9	471.1	459.7	454.7
35°	674.6	655.7	609.3	546.4	491.1	452.3	429.6	422.1	419.6
37.5°	614.2	597.9	552.7	494.9	444.7	410.7	390.7	385.6	383.1
40°	551.5	540.1	498.7	446.0	399.5	369.3	352.9	349.3	349.3
42.5°	494.9	482.3	446.0	398.2	356.7	326.6	315.3	311.5	312.8
45°	443.4	430.8	397.0	352.9	312.8	287.7	278.8	278.8	278.8
47.5°	395.7	384.4	352.9	307.7	275.1	255.0	246.3	246.3	247.4
50°	351.7	344.2	309.0	270.1	241.2	222.3	216.1	214.8	217.4
52.5°	310.3	301.4	270.1	234.9	207.3	192.2	185.9	184.7	185.9
55°	275.1	265.1	237.4	203.5	178.4	163.3	155.8	154.5	157.0
57.5°	241.2	233.6	204.7	174.6	150.7	135.7	129.4	126.9	128.1
60°	209.8	202.2	175.8	146.9	125.6	110.6	101.7	99.2	100.5
62.5°	180.9	174.6	149.5	121.8	100.5	86.7	77.9	71.6	74.1
65°	154.5	148.2	125.6	98.0	79.1	64.1	51.5	46.5	47.7
67.5°	131.9	124.3	103.0	77.9	59.1	42.7	28.9	26.4	26.4
70°	109.3	101.7	82.9	60.3	41.4	22.6	12.6	12.6	12.6
72.5°	88.0	81.7	64.1	45.2	26.4	10.1	5.0	5.0	5.0
75°	67.8	62.9	47.7	31.4	16.3	5.0	3.8	2.5	2.5
77.5°	50.2	45.2	34.0	21.3	10.1	2.5	2.5	2.5	2.5
80°	34.0	30.2	22.6	12.6	5.0	1.3	1.3	1.3	1.3
82.5°	20.1	17.5	12.6	6.3	2.5	1.3	1.3	1.3	1.3
85°	10.1	7.6	5.0	2.5	1.3	1.3	1.3	1.3	1.3
87.5°	2.5	1.3	1.3	1.3	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)