

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: P580020

Luminaire Tested: **HCC4S20D010MB-HM40525835-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580020
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S20D010MB-HM40525835-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

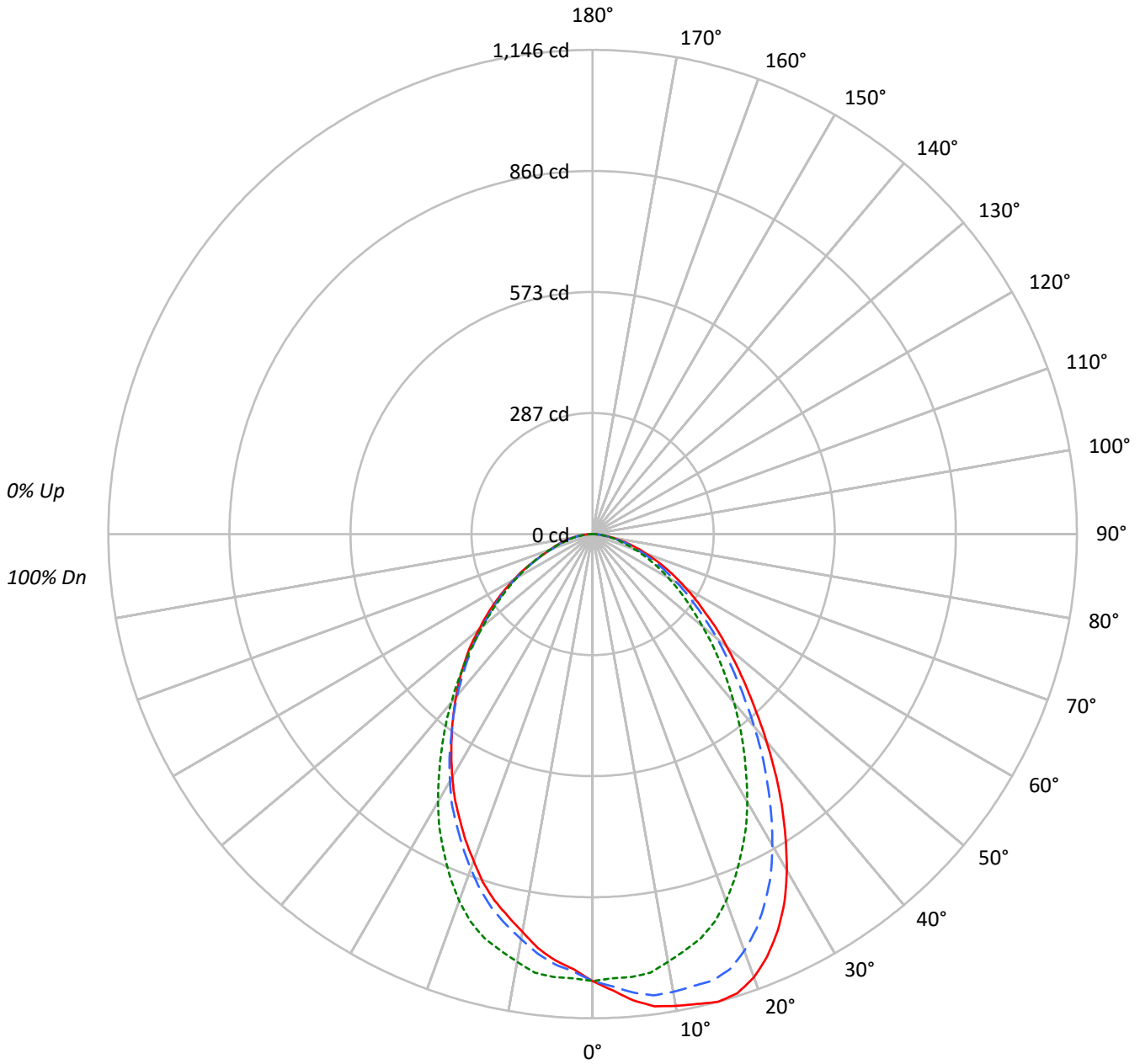
Lumens per Lamp: N/A
Luminaire Lumens: 2051.6 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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: P580020
CATALOG NUMBER: HCC4S20D010MB-HM40525835-41WWWB

Luminous Intensity Polar Plot



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



TEST NUMBER: P580020

CATALOG NUMBER: HCC4S20D010MB-HM40525835-41WWWB

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	130487	130487	130487
5°	137201	130317	125426
10°	142019	128768	119738
15°	146366	126420	114621
20°	146527	121207	108028
25°	141024	113301	101283
30°	130933	104257	94586
35°	117375	93855	87515
40°	102986	83761	80911
45°	90010	74153	74607
50°	79482	64879	67239
55°	70105	57525	60450
60°	62635	50942	52940
65°	55512	44801	44801
70°	48470	38192	38192
75°	41414	32359	36219
80°	32817	28910	32817
85°	21087	25050	30711



TEST NUMBER: P580020
 CATALOG NUMBER: HCC4S20D010MB-HM40525835-41WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	4.9
10°-20°	282.3	13.8
20°-30°	395.4	19.3
30°-40°	407.4	19.9
40°-50°	346.8	16.9
50°-60°	257.0	12.5
60°-70°	161.3	7.9
70°-80°	80.1	3.9
80°-90°	21.0	1.0
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°	777.9	37.9
0°-40°	1185.3	57.8
0°-60°	1789.2	87.2
0°-90°	2051.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2051.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1058	1058	1058	1058	1058	
5°	1108	1089	1052	1023	1013	107
15°	1146	1095	990	918	898	322
25°	1036	964	832	760	744	474
35°	780	721	623	583	581	486
45°	516	481	425	417	428	400
55°	326	300	268	273	281	295
65°	190	171	154	151	154	190
75°	87	77	68	73	76	93
85°	15	15	18	20	22	19
90°	0	0	0	0	0	

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



TEST NUMBER: P580020

CATALOG NUMBER: HCC4S20D010MB-HM40525835-41WWWB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1057.9	1057.9	1057.9	1057.9	1057.9	1057.9	1057.9	1057.9	1057.9
2.5°	1080.9	1076.9	1071.4	1062.0	1052.5	1044.3	1036.2	1032.1	1030.7
5°	1108.1	1100.0	1089.1	1071.4	1052.5	1036.2	1022.6	1015.8	1013.0
7.5°	1127.2	1119.0	1101.3	1074.2	1047.0	1022.6	1000.9	991.4	988.6
10°	1133.9	1124.4	1100.0	1063.3	1028.1	998.1	973.7	961.4	956.0
12.5°	1139.3	1127.2	1096.0	1052.5	1009.0	972.3	946.5	930.2	926.2
15°	1146.2	1132.5	1094.6	1041.6	990.0	946.5	918.1	903.0	897.6
17.5°	1139.3	1124.4	1079.7	1019.9	961.4	913.9	882.7	869.1	863.7
20°	1116.3	1100.0	1049.7	986.0	923.4	874.6	843.3	829.7	823.0
22.5°	1080.9	1063.3	1011.8	943.9	880.0	832.5	802.6	789.0	784.9
25°	1036.2	1018.5	964.2	894.9	832.5	786.3	760.5	748.3	744.2
27.5°	983.2	965.5	912.6	844.7	784.9	741.4	721.1	708.8	706.2
30°	919.3	901.8	850.2	787.6	732.0	691.2	674.9	665.4	664.1
32.5°	848.8	833.9	786.3	729.3	676.3	642.3	630.2	623.3	622.0
35°	779.5	763.2	721.1	669.5	623.3	593.5	582.6	581.2	581.2
37.5°	708.8	692.6	658.6	611.1	571.7	544.6	540.5	541.8	541.8
40°	639.6	624.7	594.8	555.4	520.2	499.7	498.4	501.1	502.5
42.5°	574.4	562.3	535.1	501.1	471.2	454.9	456.3	461.7	465.8
45°	516.0	505.1	480.7	450.9	425.1	412.8	416.9	423.7	427.7
47.5°	463.0	453.5	430.5	403.3	381.6	373.5	378.9	387.0	392.5
50°	414.2	406.0	384.4	355.8	338.1	332.7	339.5	347.7	350.4
52.5°	370.7	362.6	339.5	315.1	301.4	298.8	305.6	312.3	316.5
55°	326.0	319.1	300.2	278.4	267.5	266.2	273.0	278.4	281.1
57.5°	289.3	282.5	264.8	245.8	236.3	234.9	241.7	245.8	247.2
60°	253.9	247.2	230.9	213.2	206.5	206.5	210.5	213.2	214.6
62.5°	221.4	214.6	199.6	184.7	179.3	179.3	179.3	180.7	184.7
65°	190.2	184.7	171.1	157.5	153.5	150.7	150.7	150.7	153.5
67.5°	161.6	156.2	145.3	133.1	129.0	124.9	123.5	126.3	126.3
70°	134.4	130.4	119.5	110.0	105.9	101.9	100.5	105.9	105.9
72.5°	110.0	105.9	99.1	89.6	85.6	84.2	86.9	89.6	91.0
75°	86.9	82.8	77.4	72.0	67.9	69.3	73.3	74.7	76.0
77.5°	65.1	63.8	58.4	54.4	54.4	55.6	58.4	61.1	62.5
80°	46.2	44.8	42.1	39.3	40.7	43.5	44.8	47.5	46.2
82.5°	28.6	28.6	27.2	27.2	28.6	31.2	32.6	34.0	35.3
85°	14.9	14.9	14.9	16.3	17.7	19.0	20.4	21.7	21.7
87.5°	4.1	5.4	5.4	6.8	8.1	8.1	9.5	9.5	9.5
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)