

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: P580092

Luminaire Tested: **HCC4S20D010BZ-HM40525935-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580092
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: HCC4S20D010BZ-HM40525935-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

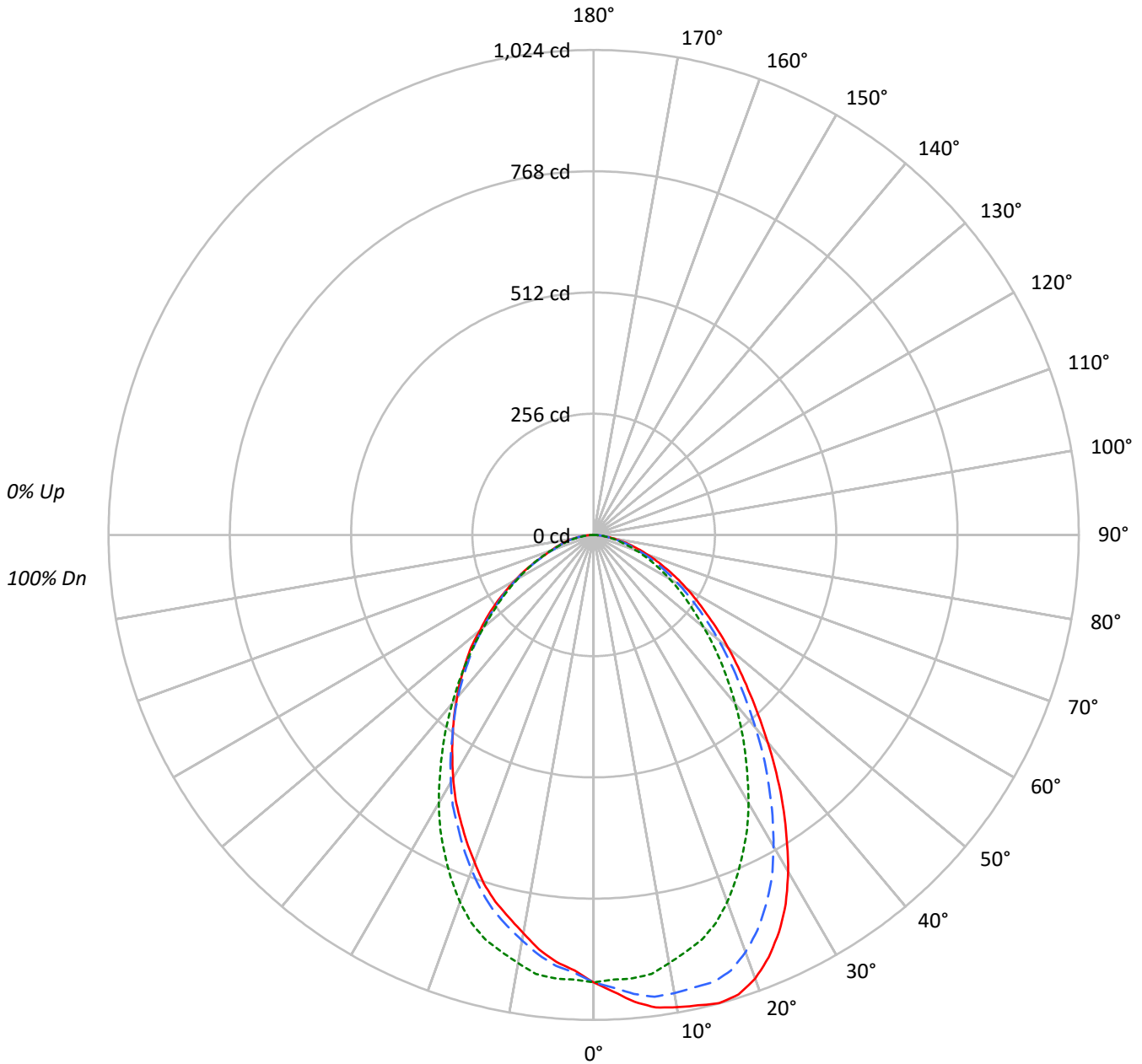
Lumens per Lamp: N/A
Luminaire Lumens: 1832.2 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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: P580092
CATALOG NUMBER: HCC4S20D010BZ-HM40525935-41WWWB

Luminous Intensity Polar Plot





TEST NUMBER: P580092

CATALOG NUMBER: HCC4S20D010BZ-HM40525935-41WWWB

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	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°	116537	116537	116537
5°	122529	116388	112029
10°	126839	114991	106937
15°	130710	112897	102362
20°	130855	108252	96477
25°	125944	101188	90450
30°	116933	93105	84459
35°	104817	83811	78150
40°	91972	74792	72248
45°	80398	66234	66652
50°	70981	57951	60043
55°	62600	51375	53998
60°	55950	45465	47291
65°	49558	40014	40014
70°	43313	34116	34116
75°	37030	28928	32359
80°	29336	25856	29336
85°	18823	22219	27456



TEST NUMBER: P580092
 CATALOG NUMBER: HCC4S20D010BZ-HM40525935-41WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	4.9
10°-20°	252.1	13.8
20°-30°	353.1	19.3
30°-40°	363.8	19.9
40°-50°	309.8	16.9
50°-60°	229.5	12.5
60°-70°	144.0	7.9
70°-80°	71.6	3.9
80°-90°	18.8	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°	694.7	37.9
0°-40°	1058.6	57.8
0°-60°	1597.8	87.2
0°-90°	1832.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1832.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	945	945	945	945	945	
5°	990	973	940	913	905	95
15°	1024	978	884	820	802	288
25°	925	861	744	679	665	423
35°	696	644	557	520	519	434
45°	461	429	380	372	382	358
55°	291	268	239	244	251	263
65°	170	153	137	135	137	169
75°	78	69	61	66	68	83
85°	13	13	16	18	19	17
90°	0	0	0	0	0	

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



TEST NUMBER: P580092

CATALOG NUMBER: HCC4S20D010BZ-HM40525935-41WWWB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8	944.8
2.5°	965.4	961.8	956.9	948.5	940.0	932.6	925.4	921.7	920.5
5°	989.6	982.4	972.7	956.9	940.0	925.4	913.2	907.2	904.8
7.5°	1006.6	999.4	983.6	959.4	935.0	913.2	893.9	885.4	883.0
10°	1012.7	1004.2	982.4	949.6	918.1	891.4	869.5	858.6	853.8
12.5°	1017.5	1006.6	978.7	940.0	901.1	868.4	845.3	830.8	827.1
15°	1023.6	1011.4	977.5	930.2	884.1	845.3	819.9	806.5	801.6
17.5°	1017.5	1004.2	964.2	910.8	858.6	816.2	788.3	776.2	771.4
20°	996.9	982.4	937.4	880.4	824.7	781.0	753.1	741.0	735.0
22.5°	965.4	949.6	903.5	842.9	785.9	743.5	716.8	704.6	701.0
25°	925.4	909.6	861.1	799.2	743.5	702.2	679.1	668.2	664.6
27.5°	878.0	862.3	814.9	754.4	701.0	662.2	644.0	633.0	630.6
30°	821.0	805.3	759.2	703.5	653.7	617.3	602.7	594.3	593.0
32.5°	757.9	744.6	702.2	651.3	604.0	573.6	562.7	556.6	555.5
35°	696.1	681.5	644.0	597.9	556.6	530.0	520.3	519.0	519.0
37.5°	633.0	618.6	588.2	545.7	510.5	486.3	482.7	483.9	483.9
40°	571.2	557.9	531.2	496.1	464.5	446.3	445.2	447.6	448.7
42.5°	513.1	502.0	477.8	447.6	420.8	406.3	407.5	412.3	416.0
45°	460.9	451.1	429.3	402.6	379.7	368.6	372.3	378.4	382.1
47.5°	413.6	405.1	384.5	360.2	340.8	333.5	338.4	345.6	350.5
50°	369.9	362.7	343.2	317.7	302.0	297.2	303.2	310.5	312.9
52.5°	331.1	323.8	303.2	281.4	269.2	266.8	272.9	279.0	282.6
55°	291.1	285.0	268.1	248.7	238.9	237.7	243.7	248.7	251.1
57.5°	258.3	252.2	236.5	219.5	211.0	209.8	215.9	219.5	220.7
60°	226.8	220.7	206.2	190.4	184.3	184.3	188.0	190.4	191.7
62.5°	197.6	191.7	178.2	164.9	160.1	160.1	160.1	161.3	164.9
65°	169.8	164.9	152.8	140.7	137.1	134.7	134.7	134.7	137.1
67.5°	144.3	139.5	129.7	118.8	115.2	111.6	110.3	112.8	112.8
70°	120.1	116.4	106.7	98.2	94.6	91.0	89.7	94.6	94.6
72.5°	98.2	94.6	88.5	80.1	76.4	75.2	77.7	80.1	81.2
75°	77.7	74.0	69.2	64.2	60.7	61.8	65.5	66.8	67.9
77.5°	58.3	57.0	52.2	48.5	48.5	49.8	52.2	54.6	55.7
80°	41.3	40.0	37.6	35.2	36.4	38.8	40.0	42.4	41.3
82.5°	25.5	25.5	24.2	24.2	25.5	27.9	29.1	30.3	31.5
85°	13.3	13.3	13.3	14.6	15.7	17.0	18.2	19.4	19.4
87.5°	3.7	4.8	4.8	6.1	7.2	7.2	8.5	8.5	8.5
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)