

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: P580665

Luminaire Tested: **HCC4S40D010BZ-HM43040935-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580665
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: HCC4S40D010BZ-HM43040935-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH
DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3728.3 lumens
Efficiency: N/A
Efficacy: 90.9 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

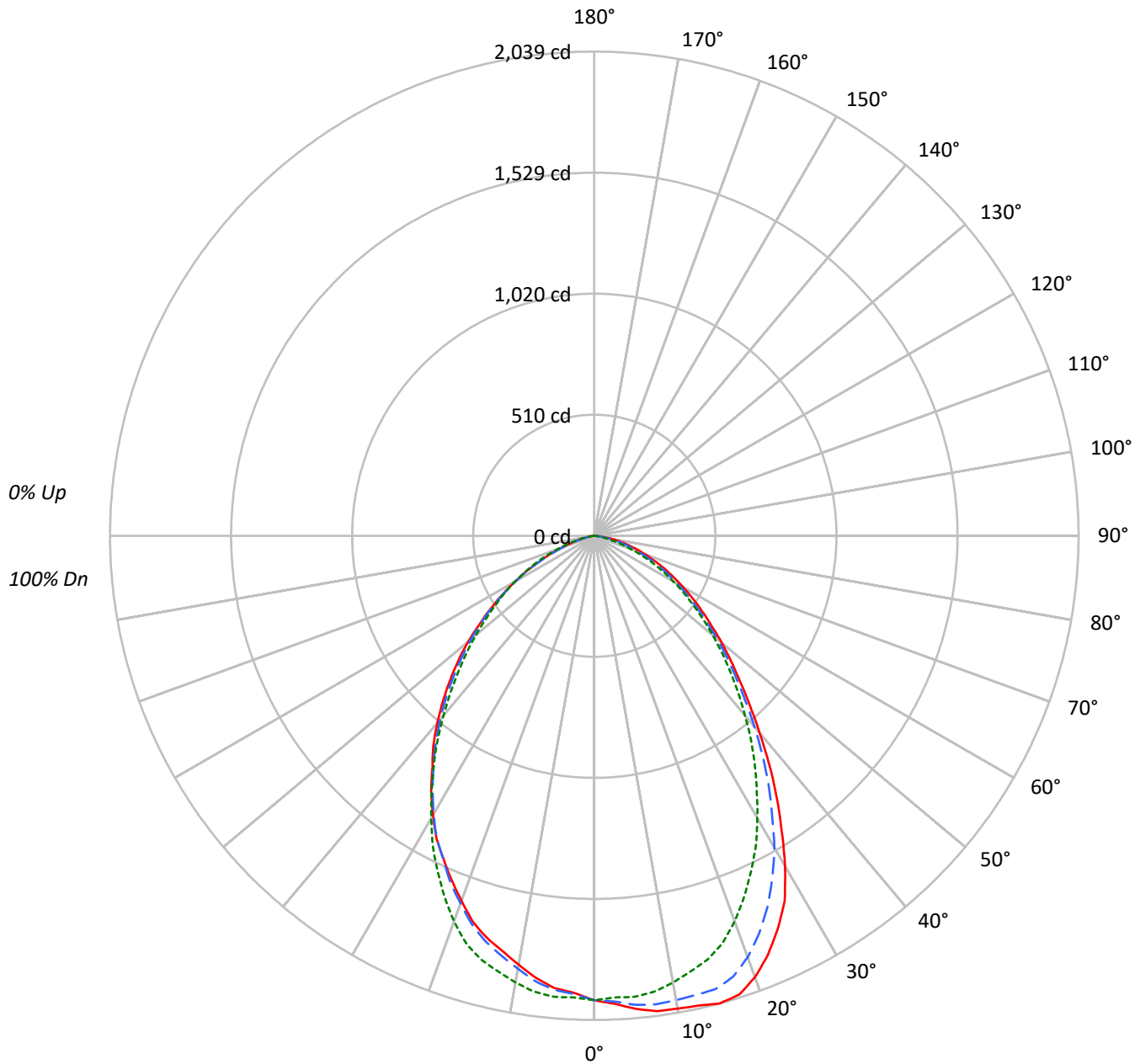
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580665

CATALOG NUMBER: HCC4S40D010BZ-HM43040935-41RWWH

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P580665

CATALOG NUMBER: HCC4S40D010BZ-HM43040935-41RWWH

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	241264	241264	241264
5°	247609	241282	236775
10°	253202	239199	229768
15°	260335	235818	223712
20°	259622	226781	214652
25°	248676	212311	204377
30°	228767	195538	193459
35°	201246	177455	178931
40°	174107	158843	165493
45°	151307	141137	149632
50°	134286	124480	132904
55°	119136	109201	113910
60°	106102	94705	94705
65°	94329	78715	73753
70°	81504	59577	52581
75°	68340	39365	32407
80°	51782	18966	17261
85°	27456	6793	6793



TEST NUMBER: P580665

CATALOG NUMBER: HCC4S40D010BZ-HM43040935-41RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.2	5.0
10°-20°	525.2	14.1
20°-30°	740.6	19.9
30°-40°	765.1	20.5
40°-50°	648.6	17.4
50°-60°	471.9	12.7
60°-70°	275.8	7.4
70°-80°	102.5	2.7
80°-90°	13.4	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°	1451.0	38.9
0°-40°	2216.2	59.4
0°-60°	3336.7	89.5
0°-90°	3728.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3728.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1956	1956	1956	1956	1956	
5°	2000	1983	1949	1920	1912	192
15°	2039	1976	1847	1769	1752	573
25°	1827	1725	1560	1504	1502	836
35°	1336	1278	1178	1181	1188	835
45°	867	843	809	838	858	675
55°	554	527	508	525	530	498
65°	323	296	270	253	253	321
75°	143	119	83	66	68	154
85°	19	12	5	5	5	27
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P580665

CATALOG NUMBER: HCC4S40D010BZ-HM43040935-41RWWH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1956.0	1956.0	1956.0	1956.0	1956.0	1956.0	1956.0	1956.0	1956.0
2.5°	1973.1	1968.3	1963.3	1956.0	1946.3	1939.0	1931.7	1926.9	1926.9
5°	1999.8	1992.5	1982.8	1965.8	1948.7	1934.2	1919.6	1912.3	1912.3
7.5°	2019.3	2009.5	1990.1	1965.8	1936.6	1914.8	1892.9	1883.2	1878.2
10°	2021.6	2012.0	1985.2	1948.7	1909.8	1875.9	1851.6	1837.0	1834.5
12.5°	2026.5	2014.3	1980.4	1929.4	1878.2	1837.0	1810.3	1795.7	1790.8
15°	2038.7	2021.6	1975.5	1909.8	1846.7	1798.1	1768.9	1756.8	1751.9
17.5°	2026.5	2002.2	1946.3	1868.6	1798.1	1744.6	1715.5	1703.4	1703.4
20°	1977.9	1953.6	1888.0	1803.0	1727.7	1676.6	1647.4	1640.1	1635.3
22.5°	1909.8	1883.2	1812.7	1722.8	1647.4	1601.2	1581.8	1572.1	1569.7
25°	1827.2	1800.6	1725.2	1632.8	1560.0	1521.1	1504.0	1504.0	1501.7
27.5°	1735.0	1700.9	1623.2	1542.9	1472.5	1443.4	1436.0	1436.0	1438.5
30°	1606.2	1581.8	1516.3	1438.5	1372.9	1353.4	1353.4	1358.3	1358.3
32.5°	1467.6	1450.7	1392.3	1324.2	1273.2	1261.1	1265.9	1275.7	1278.2
35°	1336.5	1317.0	1278.2	1217.4	1178.5	1173.6	1181.0	1188.3	1188.3
37.5°	1207.7	1188.3	1161.5	1112.9	1083.7	1086.1	1095.9	1105.6	1112.9
40°	1081.3	1066.7	1047.2	1008.5	986.5	996.2	1008.5	1018.1	1027.8
42.5°	969.6	955.0	940.4	911.1	896.6	908.8	923.4	933.1	942.8
45°	867.4	857.8	843.2	818.9	809.1	821.2	838.3	848.0	857.8
47.5°	780.0	775.2	755.7	733.8	729.0	741.1	755.7	767.9	775.2
50°	699.8	692.6	675.5	653.7	648.7	668.2	678.0	685.3	692.6
52.5°	622.0	614.8	595.4	575.9	575.9	590.4	597.7	600.2	607.5
55°	554.0	546.7	527.3	512.7	507.8	520.0	524.9	524.9	529.7
57.5°	490.9	483.6	464.1	447.1	444.7	452.0	452.0	452.0	454.3
60°	430.1	422.8	403.3	388.8	383.9	386.3	383.9	381.5	383.9
62.5°	374.2	366.9	347.5	330.5	325.7	325.7	318.4	315.9	318.4
65°	323.2	311.1	296.4	279.5	269.7	262.4	252.7	252.7	252.7
67.5°	272.2	262.4	245.4	228.5	216.2	204.1	189.6	194.4	196.8
70°	226.0	218.7	199.2	182.3	165.2	150.7	138.6	143.4	145.8
72.5°	184.6	175.0	157.9	138.6	123.9	104.5	97.2	102.0	102.0
75°	143.4	133.6	119.1	99.7	82.6	65.6	65.6	68.0	68.0
77.5°	106.9	97.2	82.6	65.6	51.0	38.9	41.3	41.3	41.3
80°	72.9	65.6	53.5	38.9	26.7	21.9	21.9	21.9	24.3
82.5°	41.3	36.4	29.1	19.4	12.1	12.1	12.1	12.1	12.1
85°	19.4	14.6	12.1	7.3	4.8	4.8	4.8	4.8	4.8
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



Report Generated By 670245859 / DESKTOP-T8S5UU9

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



— 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)