

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: P580466

Luminaire Tested: **HCC4S35D010BZ-HM43040840-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580466  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4S35D010BZ-HM43040840-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

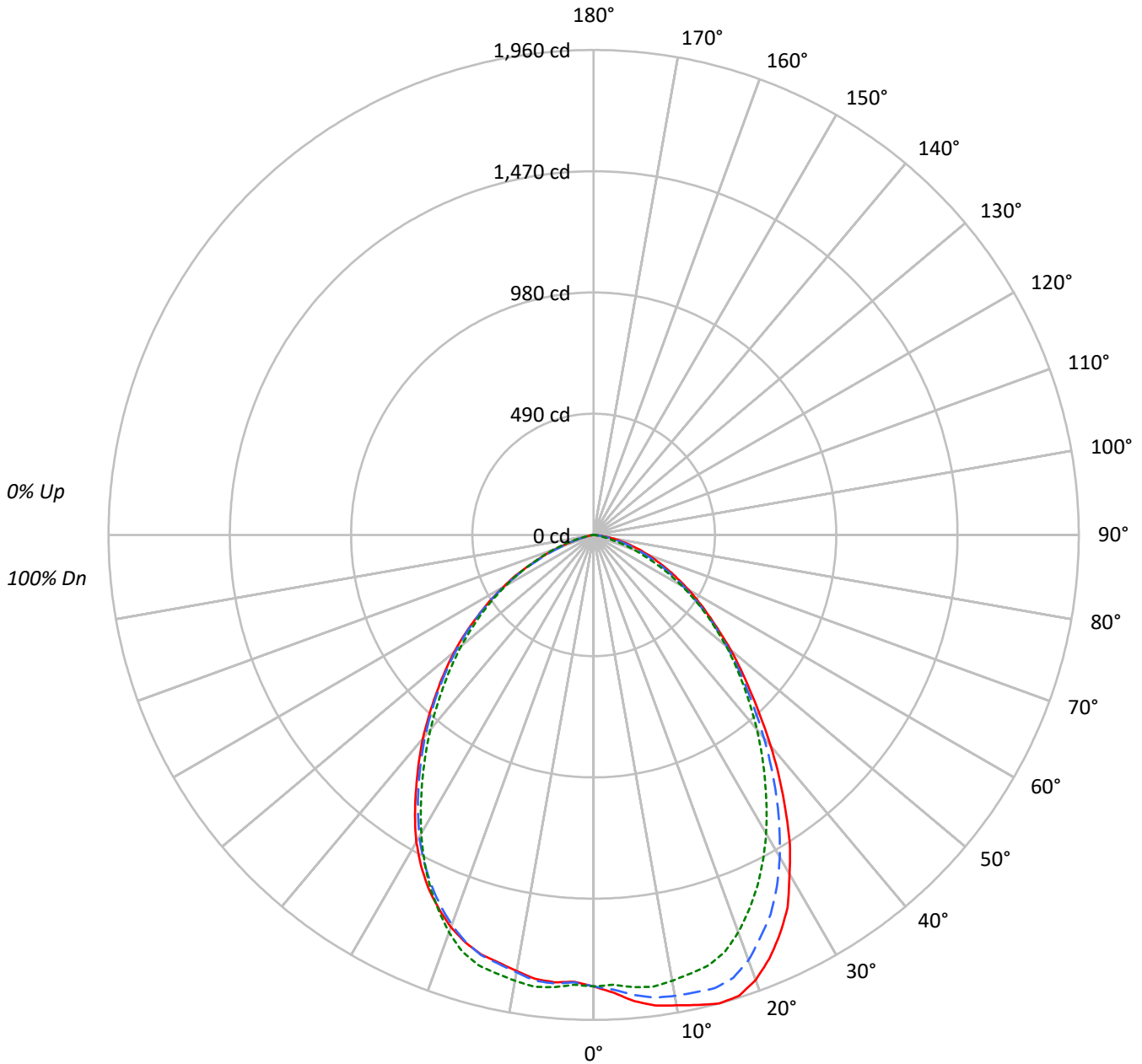
Lumens per Lamp: N/A  
Luminaire Lumens: 3802.5 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



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### Luminous Intensity Polar Plot





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**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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76					76			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67					67			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58					58			
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52					52			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46					46			
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41					41			
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37					37			
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31					31			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	225069	225069	225069
5°	234187	227154	224703
10°	241830	229155	224220
15°	250337	229867	224197
20°	251169	224300	221399
25°	242293	213100	214774
30°	225462	198430	204056
35°	203099	181566	188252
40°	179066	165171	172706
45°	156557	148830	156156
50°	138642	133902	141021
55°	121974	118254	123028
60°	108890	100995	104005
65°	95730	82042	80612
70°	83596	60479	55142
75°	69293	36410	29357
80°	52564	14064	8808
85°	24484	3538	3538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.0	4.6
10°-20°	513.6	13.5
20°-30°	743.8	19.6
30°-40°	784.8	20.6
40°-50°	679.2	17.9
50°-60°	503.1	13.2
60°-70°	290.0	7.6
70°-80°	101.3	2.7
80°-90°	10.7	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°	1433.4	37.7
0°-40°	2218.2	58.3
0°-60°	3400.5	89.4
0°-90°	3802.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3802.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1825	1825	1825	1825	1825	
5°	1891	1867	1835	1820	1815	182
15°	1960	1896	1800	1758	1756	551
25°	1780	1692	1566	1556	1578	815
35°	1349	1287	1206	1233	1250	842
45°	898	873	853	885	895	697
55°	567	555	550	570	572	511
65°	328	308	281	266	276	328
75°	145	123	76	62	62	157
85°	17	10	2	2	2	27
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1824.7	1824.7	1824.7	1824.7	1824.7	1824.7	1824.7	1824.7	1824.7
2.5°	1851.8	1847.0	1839.5	1829.6	1819.8	1812.3	1810.0	1807.5	1807.5
5°	1891.4	1881.5	1866.6	1847.0	1834.6	1827.2	1819.8	1814.8	1814.8
7.5°	1918.4	1908.6	1886.4	1859.2	1842.0	1827.2	1817.3	1810.0	1810.0
10°	1930.8	1918.4	1891.4	1856.7	1829.6	1810.0	1795.1	1790.2	1790.2
12.5°	1945.5	1930.8	1893.7	1849.4	1814.8	1790.2	1775.4	1770.5	1770.5
15°	1960.4	1943.1	1896.2	1844.5	1800.1	1770.5	1758.2	1755.7	1755.7
17.5°	1953.0	1930.8	1876.5	1814.8	1765.6	1735.9	1723.7	1723.7	1726.1
20°	1913.5	1891.4	1829.6	1760.6	1708.8	1686.7	1676.8	1681.7	1686.7
22.5°	1854.3	1827.2	1760.6	1694.0	1639.8	1620.0	1620.0	1627.4	1634.9
25°	1780.3	1755.7	1691.6	1617.5	1565.8	1551.0	1556.0	1568.3	1578.1
27.5°	1696.5	1669.4	1602.8	1533.7	1482.0	1474.6	1486.9	1504.1	1509.1
30°	1583.0	1560.9	1504.1	1437.6	1393.2	1390.7	1408.0	1420.3	1432.7
32.5°	1474.6	1450.0	1395.7	1331.6	1299.5	1301.9	1321.7	1336.4	1343.9
35°	1348.8	1326.7	1287.2	1235.4	1205.8	1210.8	1232.9	1247.8	1250.2
37.5°	1230.4	1215.6	1176.2	1136.7	1114.6	1124.4	1144.1	1161.4	1161.4
40°	1112.1	1099.7	1070.2	1038.1	1025.8	1038.1	1057.8	1072.6	1072.6
42.5°	998.7	991.3	966.6	944.4	937.0	954.3	971.6	983.8	981.4
45°	897.5	890.2	872.9	855.7	853.2	870.4	885.3	892.7	895.2
47.5°	806.4	801.4	786.6	774.3	774.3	791.5	803.9	811.3	813.8
50°	722.5	717.6	705.2	695.4	697.8	715.1	725.0	732.4	734.9
52.5°	638.7	636.2	626.3	614.0	621.3	633.7	646.1	651.0	653.5
55°	567.2	567.2	554.8	544.9	549.9	562.2	569.6	572.1	572.1
57.5°	503.0	500.5	485.8	475.9	478.4	490.7	495.7	498.0	498.0
60°	441.4	438.9	424.1	409.4	409.4	416.8	419.1	421.6	421.6
62.5°	382.2	379.7	362.5	350.1	345.2	342.7	342.7	347.7	357.5
65°	328.0	325.5	308.2	288.5	281.1	273.7	266.3	271.2	276.2
67.5°	278.6	273.7	256.5	239.2	221.9	209.6	197.3	204.7	214.6
70°	231.8	226.8	207.2	187.4	167.7	147.9	138.1	147.9	152.9
72.5°	187.4	182.4	162.8	143.0	118.4	98.7	96.2	98.7	101.0
75°	145.4	143.0	123.3	101.0	76.4	61.6	61.6	61.6	61.6
77.5°	108.5	103.5	83.9	64.1	44.4	34.5	32.0	32.0	32.0
80°	74.0	69.0	51.8	37.0	19.8	14.8	14.8	12.4	12.4
82.5°	41.9	39.5	27.1	14.8	7.4	4.9	4.9	4.9	4.9
85°	17.3	14.8	9.9	4.9	2.5	2.5	2.5	2.5	2.5
87.5°	2.5	2.5	2.5	0.0	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

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Scaled Data Report



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— 0°-180°    - - 45°-225°    - - - - 90°-270°

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