

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: P580416

Luminaire Tested: **HCC4S35D010MW-HM43040827-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580416  
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: HCC4S35D010MW-HM43040827-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

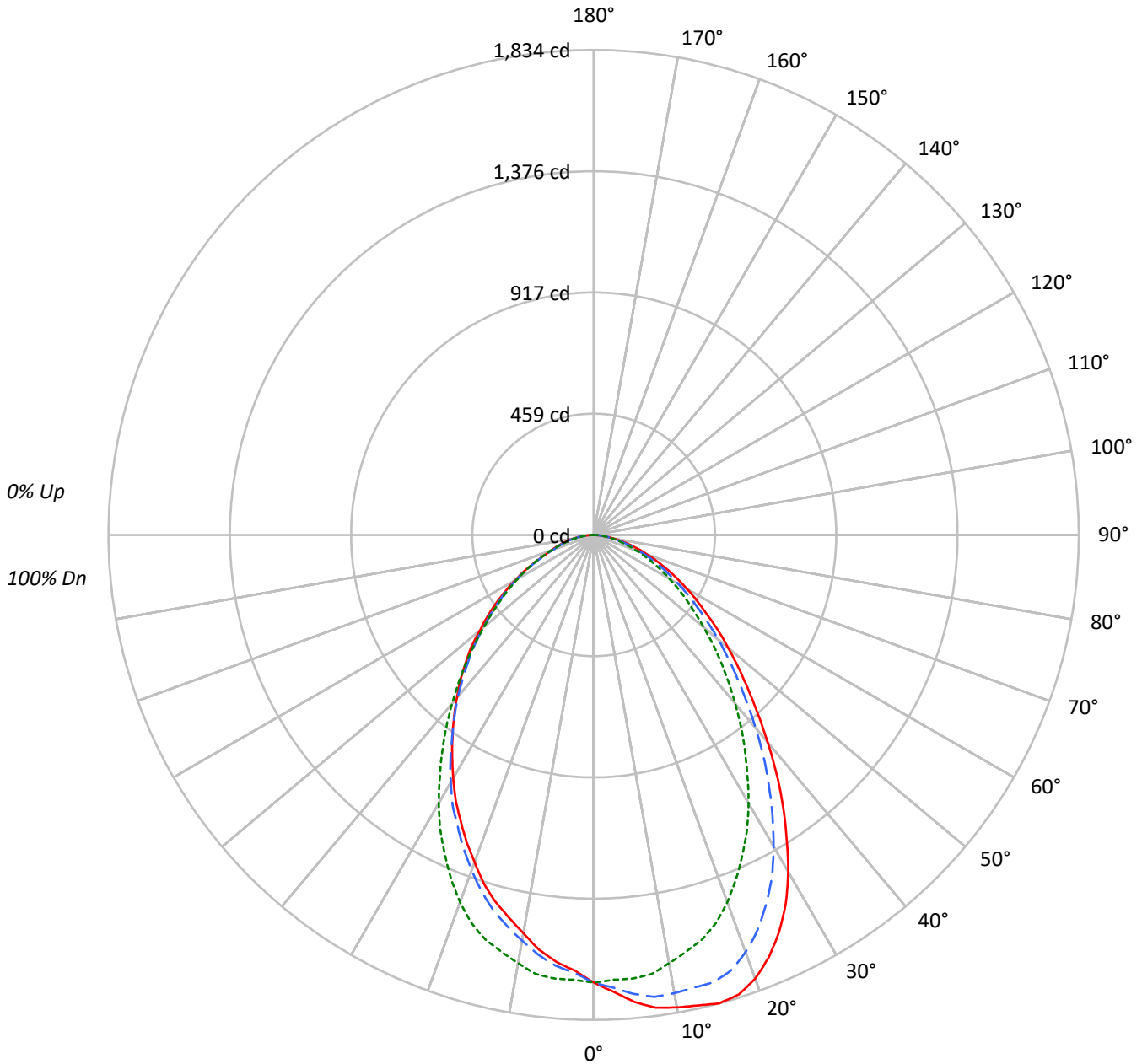
Lumens per Lamp: N/A  
Luminaire Lumens: 3282.3 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	208762	208762	208762
5°	219515	208483	200682
10°	227213	205984	191567
15°	234158	202246	183385
20°	234420	193926	172832
25°	225608	181254	162023
30°	209496	166797	151315
35°	187785	150156	140022
40°	164768	133982	129441
45°	144015	118617	119385
50°	127147	103813	107555
55°	112125	92040	96706
60°	100231	81457	84689
65°	88784	71652	71652
70°	77573	61128	61128
75°	66243	51756	57951
80°	52422	46313	52422
85°	33824	39910	49109



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.4	4.9
10°-20°	451.6	13.8
20°-30°	632.6	19.3
30°-40°	651.8	19.9
40°-50°	554.9	16.9
50°-60°	411.1	12.5
60°-70°	258.0	7.9
70°-80°	128.2	3.9
80°-90°	33.7	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°	1244.6	37.9
0°-40°	1896.4	57.8
0°-60°	2862.4	87.2
0°-90°	3282.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3282.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1692	1692	1692	1692	1692	
5°	1773	1742	1684	1636	1621	170
15°	1834	1751	1584	1469	1436	516
25°	1658	1543	1332	1217	1190	758
35°	1247	1154	997	932	930	778
45°	826	769	680	667	684	641
55°	521	480	428	437	450	471
65°	304	274	246	241	246	303
75°	139	124	109	117	122	149
85°	24	24	28	33	35	31
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°	1692.5	1692.5	1692.5	1692.5	1692.5	1692.5	1692.5	1692.5	1692.5
2.5°	1729.4	1722.9	1714.2	1699.0	1683.8	1670.7	1657.7	1651.2	1649.0
5°	1772.9	1759.8	1742.4	1714.2	1683.8	1657.7	1636.0	1625.1	1620.8
7.5°	1803.2	1790.2	1762.0	1718.5	1675.1	1636.0	1601.3	1586.0	1581.7
10°	1814.1	1799.0	1759.8	1701.2	1644.6	1596.9	1557.8	1538.2	1529.5
12.5°	1822.8	1803.2	1753.3	1683.8	1614.3	1555.6	1514.4	1488.3	1481.8
15°	1833.7	1812.0	1751.1	1666.4	1583.8	1514.4	1468.7	1444.8	1436.1
17.5°	1822.8	1799.0	1727.3	1631.6	1538.2	1462.2	1412.2	1390.5	1381.7
20°	1785.9	1759.8	1679.5	1577.3	1477.4	1399.2	1349.2	1327.4	1316.7
22.5°	1729.4	1701.2	1618.6	1510.0	1407.8	1331.8	1284.1	1262.3	1255.7
25°	1657.7	1629.5	1542.6	1431.8	1331.8	1258.0	1216.6	1197.1	1190.5
27.5°	1572.9	1544.7	1460.0	1351.4	1255.7	1186.3	1153.7	1134.1	1129.7
30°	1470.9	1442.7	1360.0	1260.1	1171.1	1105.9	1079.8	1064.5	1062.4
32.5°	1357.9	1334.0	1258.0	1166.7	1082.0	1027.7	1008.1	997.2	995.1
35°	1247.1	1221.0	1153.7	1071.1	997.2	949.4	932.0	929.9	929.9
37.5°	1134.1	1108.0	1053.8	977.7	914.7	871.2	864.7	866.8	866.8
40°	1023.3	999.3	951.6	888.6	832.1	799.5	797.4	801.7	803.9
42.5°	919.0	899.4	856.0	801.7	753.9	727.8	730.0	738.7	745.2
45°	825.6	808.3	769.2	721.3	680.0	660.5	667.0	677.9	684.4
47.5°	740.8	725.7	688.7	645.3	610.6	597.5	606.2	619.2	627.9
50°	662.6	649.6	614.8	569.2	541.0	532.3	543.1	556.2	560.5
52.5°	593.1	580.1	543.1	504.0	482.3	477.9	488.8	499.7	506.2
55°	521.4	510.5	480.2	445.4	428.0	425.9	436.7	445.4	449.7
57.5°	462.8	451.8	423.6	393.3	378.0	375.9	386.8	393.3	395.4
60°	406.3	395.4	369.3	341.1	330.2	330.2	336.8	341.1	343.3
62.5°	354.2	343.3	319.3	295.5	286.7	286.7	286.7	289.0	295.5
65°	304.2	295.5	273.7	252.0	245.5	241.2	241.2	241.2	245.5
67.5°	258.5	249.9	232.4	212.9	206.4	199.8	197.7	202.1	202.1
70°	215.1	208.6	191.2	176.0	169.5	163.0	160.7	169.5	169.5
72.5°	176.0	169.5	158.6	143.4	136.9	134.7	139.0	143.4	145.6
75°	139.0	132.5	123.9	115.1	108.6	110.8	117.3	119.5	121.6
77.5°	104.3	102.1	93.4	86.9	86.9	89.1	93.4	97.8	99.9
80°	73.8	71.7	67.3	63.1	65.2	69.6	71.7	76.1	73.8
82.5°	45.6	45.6	43.5	43.5	45.6	50.0	52.2	54.3	56.5
85°	23.9	23.9	23.9	26.1	28.2	30.5	32.6	34.7	34.7
87.5°	6.5	8.7	8.7	10.9	13.0	13.0	15.2	15.2	15.2
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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Scaled Data Report



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

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