

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: P580413

Luminaire Tested: **HCC4W35D010MW-HM43040827-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580413  
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: HCC4W35D010MW-HM43040827-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

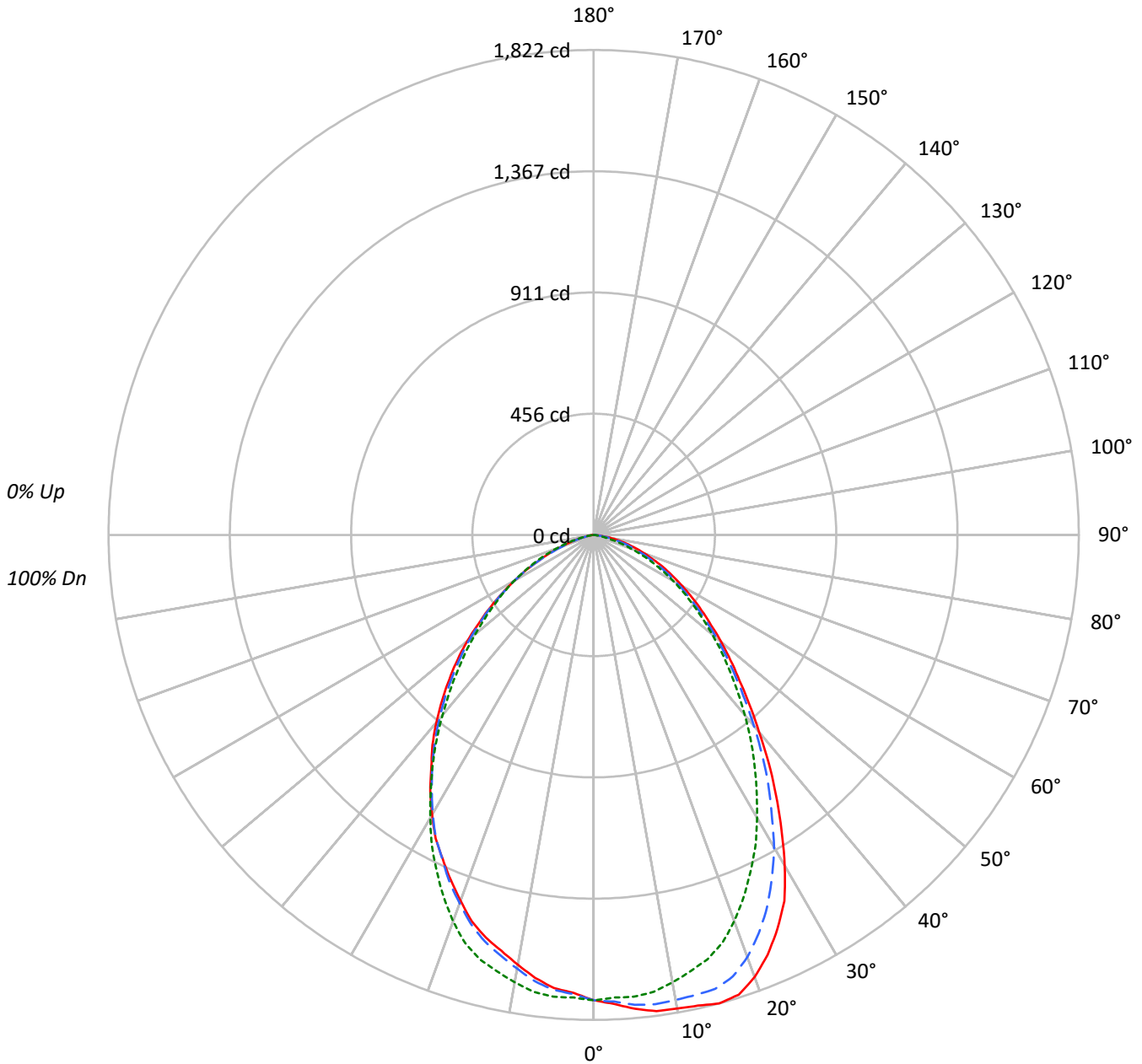
Lumens per Lamp: N/A  
Luminaire Lumens: 3332.2 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77					77			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67					67			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59					59			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47					47			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35					35			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

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

	0°	90°	180°
0°	215645	215645	215645
5°	221310	215664	211628
10°	226311	213799	205370
15°	232676	210776	199948
20°	232044	202694	191852
25°	222273	189760	182669
30°	204469	174772	172907
35°	179864	158603	159913
40°	155606	141984	147910
45°	135241	126153	133741
50°	120028	111278	118781
55°	106470	97610	101803
60°	94828	84664	84664
65°	84319	70368	65902
70°	72849	53266	46991
75°	61049	35171	28976
80°	46313	16977	15414
85°	24625	6227	6227



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.6	5.0
10°-20°	469.4	14.1
20°-30°	661.9	19.9
30°-40°	683.8	20.5
40°-50°	579.7	17.4
50°-60°	421.8	12.7
60°-70°	246.4	7.4
70°-80°	91.6	2.7
80°-90°	12.0	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°	1296.9	38.9
0°-40°	1980.7	59.4
0°-60°	2982.2	89.5
0°-90°	3332.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3332.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1748	1748	1748	1748	1748	
5°	1787	1772	1742	1716	1709	171
15°	1822	1766	1651	1581	1566	512
25°	1633	1542	1394	1344	1342	747
35°	1194	1142	1053	1055	1062	746
45°	775	754	723	749	767	603
55°	495	471	454	469	473	445
65°	289	265	241	226	226	287
75°	128	106	74	59	61	138
85°	17	11	4	4	4	24
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°	1748.3	1748.3	1748.3	1748.3	1748.3	1748.3	1748.3	1748.3	1748.3
2.5°	1763.4	1759.2	1754.8	1748.3	1739.6	1733.1	1726.6	1722.2	1722.2
5°	1787.4	1780.9	1772.2	1756.9	1741.8	1728.7	1715.7	1709.2	1709.2
7.5°	1804.7	1796.0	1778.7	1756.9	1730.8	1711.4	1691.8	1683.1	1678.8
10°	1806.9	1798.2	1774.3	1741.8	1707.0	1676.6	1654.9	1641.8	1639.7
12.5°	1811.2	1800.4	1770.0	1724.3	1678.8	1641.8	1618.0	1605.0	1600.6
15°	1822.1	1806.9	1765.7	1707.0	1650.6	1607.1	1581.0	1570.2	1565.8
17.5°	1811.2	1789.5	1739.6	1670.0	1607.1	1559.3	1533.2	1522.5	1522.5
20°	1767.8	1746.1	1687.5	1611.5	1544.2	1498.5	1472.4	1465.9	1461.6
22.5°	1707.0	1683.1	1620.1	1539.8	1472.4	1431.2	1413.8	1405.1	1403.0
25°	1633.2	1609.2	1541.9	1459.4	1394.3	1359.5	1344.3	1344.3	1342.2
27.5°	1550.7	1520.2	1450.7	1379.0	1316.1	1290.0	1283.5	1283.5	1285.6
30°	1435.6	1413.8	1355.2	1285.6	1227.1	1209.6	1209.6	1214.0	1214.0
32.5°	1311.7	1296.5	1244.4	1183.6	1138.1	1127.1	1131.5	1140.2	1142.3
35°	1194.5	1177.1	1142.3	1088.0	1053.3	1048.9	1055.4	1062.0	1062.0
37.5°	1079.4	1062.0	1038.1	994.6	968.6	970.8	979.5	988.1	994.6
40°	966.4	953.4	936.1	901.3	881.8	890.4	901.3	910.0	918.6
42.5°	866.5	853.5	840.5	814.5	801.4	812.2	825.2	834.0	842.7
45°	775.3	766.7	753.6	731.8	723.2	734.1	749.3	757.9	766.7
47.5°	697.1	692.8	675.4	655.9	651.6	662.4	675.4	686.3	692.8
50°	625.5	619.0	603.7	584.3	579.9	597.2	605.9	612.5	619.0
52.5°	555.9	549.4	532.1	514.7	514.7	527.7	534.2	536.4	542.9
55°	495.1	488.6	471.3	458.3	453.9	464.8	469.0	469.0	473.4
57.5°	438.7	432.2	414.8	399.6	397.4	404.0	404.0	404.0	406.1
60°	384.4	377.9	360.5	347.4	343.2	345.3	343.2	341.0	343.2
62.5°	334.5	328.0	310.6	295.4	291.0	291.0	284.5	282.3	284.5
65°	288.9	278.0	264.9	249.8	241.1	234.6	225.8	225.8	225.8
67.5°	243.2	234.6	219.3	204.1	193.3	182.4	169.4	173.8	175.9
70°	202.0	195.5	178.0	162.9	147.7	134.7	123.8	128.1	130.3
72.5°	165.0	156.3	141.2	123.8	110.7	93.4	86.9	91.3	91.3
75°	128.1	119.5	106.4	89.0	73.8	58.7	58.7	60.8	60.8
77.5°	95.5	86.9	73.8	58.7	45.6	34.7	36.9	36.9	36.9
80°	65.2	58.7	47.8	34.7	23.9	19.6	19.6	19.6	21.7
82.5°	36.9	32.6	26.1	17.4	10.9	10.9	10.9	10.9	10.9
85°	17.4	13.0	10.9	6.5	4.4	4.4	4.4	4.4	4.4
87.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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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