

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: P580287

Luminaire Tested: **HCC4S30D010MW-HM43040830-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580287  
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: HCC4S30D010MW-HM43040830-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

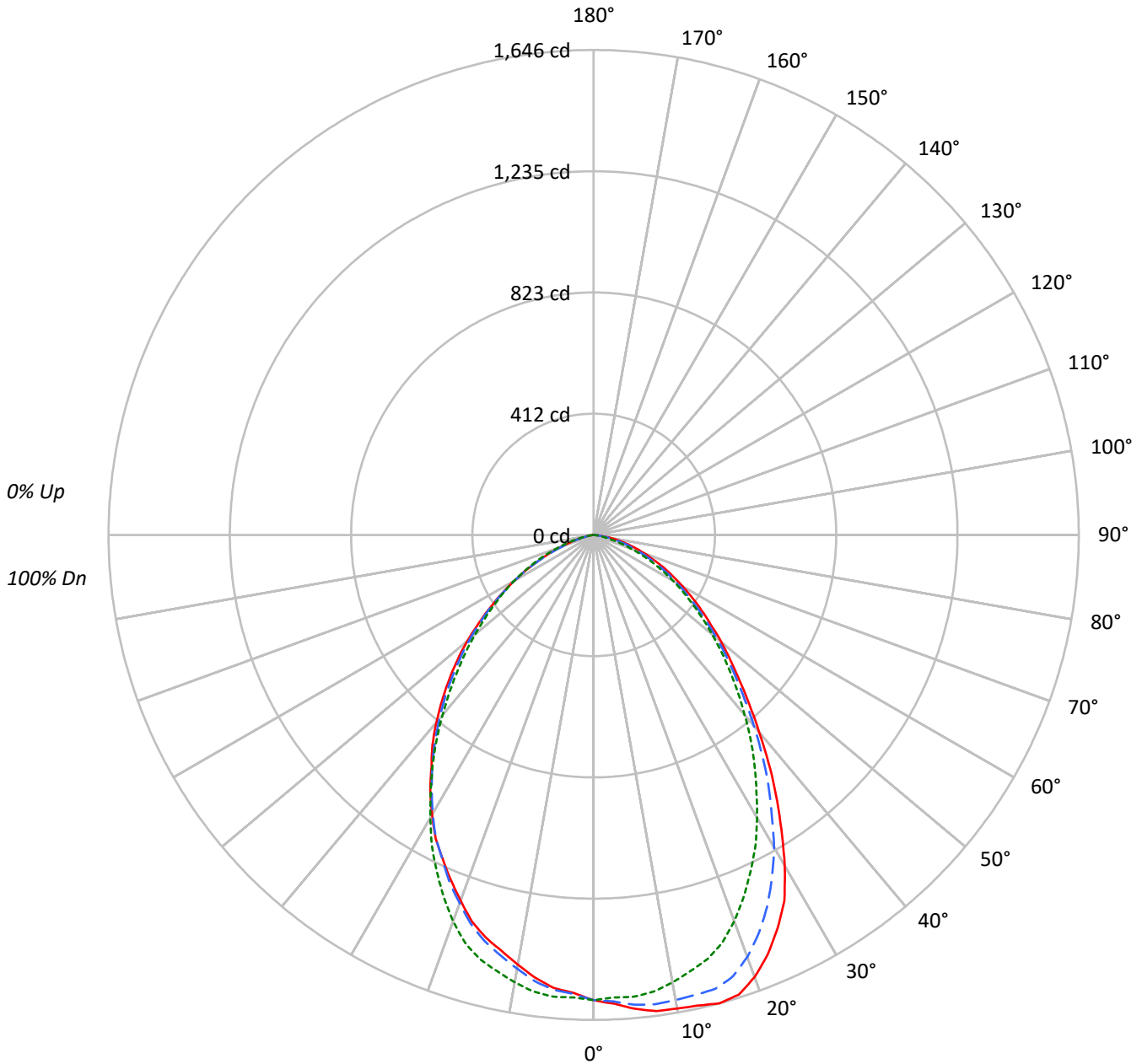
Lumens per Lamp: N/A  
Luminaire Lumens: 3009.9 lumens  
Efficiency: N/A  
Efficacy: 107.5 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
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	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°	194787	194787	194787
5°	199902	194789	191161
10°	204418	193121	185505
15°	210176	190383	180614
20°	209599	183084	173292
25°	200770	171400	164990
30°	184671	157866	156171
35°	162458	143274	144449
40°	140567	128249	133611
45°	122158	113942	120798
50°	108419	100494	107267
55°	96190	88169	91954
60°	85651	76474	76474
65°	76146	63538	59569
70°	65780	48109	42447
75°	55139	31787	26164
80°	41838	15272	13922
85°	22219	5519	5519



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.6	5.0
10°-20°	424.0	14.1
20°-30°	597.9	19.9
30°-40°	617.7	20.5
40°-50°	523.6	17.4
50°-60°	381.0	12.7
60°-70°	222.6	7.4
70°-80°	82.7	2.7
80°-90°	10.8	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°	1171.5	38.9
0°-40°	1789.2	59.4
0°-60°	2693.8	89.5
0°-90°	3009.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3009.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1579	1579	1579	1579	1579	
5°	1614	1601	1573	1550	1544	155
15°	1646	1595	1491	1428	1414	463
25°	1475	1393	1259	1214	1212	675
35°	1079	1032	952	953	959	674
45°	700	681	653	677	692	545
55°	447	426	410	424	428	402
65°	261	239	218	204	204	259
75°	116	96	67	53	55	124
85°	16	10	4	4	4	22
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°	1579.2	1579.2	1579.2	1579.2	1579.2	1579.2	1579.2	1579.2	1579.2
2.5°	1592.8	1589.0	1585.1	1579.2	1571.3	1565.4	1559.6	1555.6	1555.6
5°	1614.5	1608.5	1600.7	1587.0	1573.2	1561.5	1549.8	1543.9	1543.9
7.5°	1630.2	1622.3	1606.6	1587.0	1563.4	1545.8	1528.1	1520.3	1516.4
10°	1632.1	1624.3	1602.7	1573.2	1541.9	1514.5	1494.8	1483.0	1481.1
12.5°	1636.1	1626.2	1598.7	1557.5	1516.4	1483.0	1461.4	1449.7	1445.8
15°	1645.9	1632.1	1594.9	1541.9	1490.9	1451.6	1428.0	1418.3	1414.4
17.5°	1636.1	1616.4	1571.3	1508.5	1451.6	1408.5	1385.0	1375.1	1375.1
20°	1596.8	1577.2	1524.3	1455.6	1394.8	1353.6	1330.0	1324.2	1320.2
22.5°	1541.9	1520.3	1463.5	1390.8	1330.0	1292.8	1277.0	1269.2	1267.2
25°	1475.2	1453.7	1392.7	1318.3	1259.4	1228.1	1214.3	1214.3	1212.3
27.5°	1400.6	1373.2	1310.4	1245.7	1188.8	1165.2	1159.4	1159.4	1161.3
30°	1296.6	1277.0	1224.1	1161.3	1108.4	1092.7	1092.7	1096.5	1096.5
32.5°	1184.9	1171.1	1124.1	1069.1	1027.9	1018.1	1022.1	1029.9	1031.9
35°	1078.9	1063.3	1031.9	982.8	951.5	947.5	953.4	959.3	959.3
37.5°	974.9	959.3	937.7	898.5	874.9	876.9	884.7	892.6	898.5
40°	873.0	861.2	845.4	814.1	796.5	804.3	814.1	822.0	829.8
42.5°	782.7	771.0	759.1	735.7	723.8	733.7	745.4	753.3	761.2
45°	700.3	692.5	680.7	661.1	653.2	663.0	676.8	684.6	692.5
47.5°	629.6	625.8	610.1	592.4	588.5	598.3	610.1	619.8	625.8
50°	565.0	559.0	545.4	527.7	523.7	539.4	547.3	553.2	559.0
52.5°	502.2	496.3	480.6	465.0	465.0	476.7	482.6	484.6	490.5
55°	447.3	441.4	425.7	413.9	410.0	419.8	423.7	423.7	427.6
57.5°	396.3	390.4	374.7	361.0	359.0	364.9	364.9	364.9	366.8
60°	347.2	341.3	325.7	313.9	310.0	311.9	310.0	307.9	310.0
62.5°	302.1	296.2	280.5	266.8	262.8	262.8	257.0	255.0	257.0
65°	260.9	251.1	239.4	225.6	217.7	211.8	204.1	204.1	204.1
67.5°	219.7	211.8	198.1	184.4	174.6	164.8	153.0	156.9	158.9
70°	182.4	176.5	160.9	147.1	133.4	121.6	111.8	115.7	117.7
72.5°	149.1	141.2	127.5	111.8	100.1	84.4	78.5	82.3	82.3
75°	115.7	107.8	96.1	80.4	66.7	53.0	53.0	54.9	54.9
77.5°	86.3	78.5	66.7	53.0	41.2	31.4	33.4	33.4	33.4
80°	58.9	53.0	43.2	31.4	21.5	17.7	17.7	17.7	19.6
82.5°	33.4	29.4	23.6	15.7	9.8	9.8	9.8	9.8	9.8
85°	15.7	11.7	9.8	5.9	3.9	3.9	3.9	3.9	3.9
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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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