

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: P580325

Luminaire Tested: **HC430D010-HM43040840-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580325
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC430D010-HM43040840-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3125.3 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

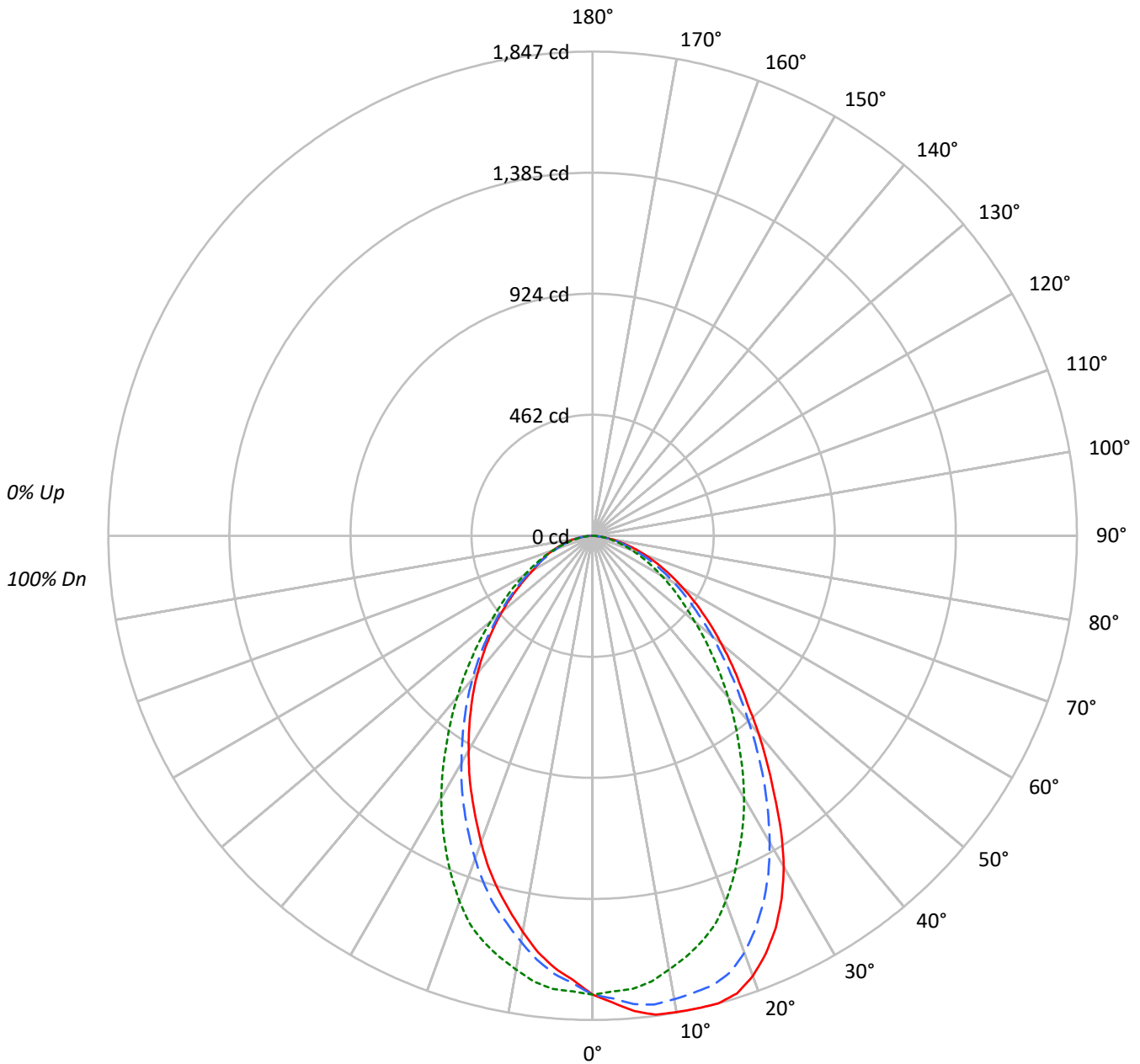
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580325

CATALOG NUMBER: HC430D010-HM43040840-41WWW

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	100	100	100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47	47	47	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	35	35	35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	215867	215867	215867
5°	225359	214909	204954
10°	231058	210417	192119
15°	235843	204813	178252
20°	234578	194845	163237
25°	224737	180179	148509
30°	207616	164518	134594
35°	181973	146331	121832
40°	158472	129296	109733
45°	137910	112774	98051
50°	122887	97193	86524
55°	109803	85459	74836
60°	98035	74649	64510
65°	87150	65523	61291
70°	76491	56440	57161
75°	64766	48038	52995
80°	49722	40914	48231
85°	29154	32126	40900



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.0	5.2
10°-20°	452.5	14.5
20°-30°	618.2	19.8
30°-40°	620.8	19.9
40°-50°	513.5	16.4
50°-60°	372.2	11.9
60°-70°	235.7	7.5
70°-80°	119.1	3.8
80°-90°	29.2	0.9
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°	1234.7	39.5
0°-40°	1855.5	59.4
0°-60°	2741.2	87.7
0°-90°	3125.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3125.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1750	1750	1750	1750	1750	
5°	1820	1793	1736	1678	1655	174
15°	1847	1775	1604	1456	1396	519
25°	1651	1542	1324	1157	1091	755
35°	1208	1137	972	852	809	758
45°	791	745	646	583	562	615
55°	511	465	397	362	348	459
65°	299	266	224	202	210	297
75°	136	117	101	105	111	145
85°	21	21	23	27	29	29
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°	1750.1	1750.1	1750.1	1750.1	1750.1	1750.1	1750.1	1750.1	1750.1
2.5°	1783.0	1776.8	1766.6	1754.2	1739.8	1723.4	1708.9	1700.7	1696.5
5°	1820.1	1811.8	1793.3	1766.6	1735.7	1704.7	1678.0	1661.5	1655.3
7.5°	1842.7	1830.4	1803.6	1762.4	1715.1	1669.8	1630.6	1608.0	1601.9
10°	1844.8	1830.4	1795.3	1739.8	1680.0	1620.4	1573.0	1540.1	1533.9
12.5°	1846.9	1828.4	1785.1	1719.2	1645.1	1571.0	1513.3	1474.2	1463.9
15°	1846.9	1828.4	1774.8	1696.5	1603.9	1519.5	1455.7	1410.3	1395.9
17.5°	1830.4	1809.8	1745.9	1655.3	1554.5	1459.7	1385.6	1338.3	1323.9
20°	1787.1	1764.5	1692.5	1593.6	1484.4	1385.6	1311.5	1262.1	1243.6
22.5°	1725.4	1698.7	1622.4	1515.4	1406.3	1305.3	1233.2	1181.8	1165.3
25°	1651.3	1624.4	1542.1	1437.1	1323.9	1229.2	1157.1	1109.7	1091.2
27.5°	1560.7	1531.8	1451.5	1346.5	1241.5	1146.8	1081.0	1037.6	1019.1
30°	1457.7	1426.8	1350.7	1249.7	1155.1	1064.5	1000.6	965.7	945.0
32.5°	1338.3	1311.5	1243.6	1153.0	1064.5	978.0	924.5	893.6	877.1
35°	1208.5	1194.2	1136.6	1058.3	971.8	899.7	852.4	823.6	809.1
37.5°	1093.3	1078.8	1029.4	963.5	887.4	821.5	782.4	757.7	745.4
40°	984.2	971.8	924.5	868.9	803.0	745.4	712.3	693.8	681.5
42.5°	877.1	870.9	831.8	780.4	722.7	673.3	646.5	632.1	621.8
45°	790.6	782.4	745.4	695.9	646.5	605.3	582.7	572.3	562.1
47.5°	714.5	704.1	665.1	621.8	576.5	539.4	518.9	508.5	504.4
50°	640.4	630.0	595.0	551.8	506.5	479.7	463.3	453.0	450.9
52.5°	574.5	564.1	525.0	483.8	448.8	426.2	411.8	401.5	397.4
55°	510.6	498.2	465.3	426.2	397.4	376.8	362.3	352.0	348.0
57.5°	453.0	440.6	411.8	374.7	348.0	329.4	317.1	306.8	302.6
60°	397.4	387.1	360.3	325.3	302.6	286.2	273.9	265.6	261.5
62.5°	345.8	337.6	310.9	280.0	261.5	247.0	236.8	228.5	232.7
65°	298.6	290.3	265.6	238.8	224.5	210.0	201.8	201.8	210.0
67.5°	253.2	245.0	224.5	201.8	189.4	179.1	172.9	179.1	185.3
70°	212.1	203.8	185.3	166.7	156.5	148.2	148.2	154.4	158.5
72.5°	172.9	164.7	150.2	135.9	127.7	121.5	127.7	131.8	135.9
75°	135.9	129.7	117.3	107.0	100.8	98.8	105.0	109.1	111.2
77.5°	100.8	96.8	88.5	80.3	76.1	78.3	84.4	86.5	88.5
80°	70.0	67.9	61.8	57.6	57.6	59.7	63.8	65.9	67.9
82.5°	43.2	43.2	39.1	37.1	39.1	43.2	45.3	47.4	47.4
85°	20.6	22.7	20.6	20.6	22.7	26.7	26.7	28.9	28.9
87.5°	6.2	6.2	8.2	8.2	10.3	10.3	10.3	10.3	12.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)