

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: P582656

Luminaire Tested: **HC645D010-HM64560930-61RWWC**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582656
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560930-61RWWC
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4516.2 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

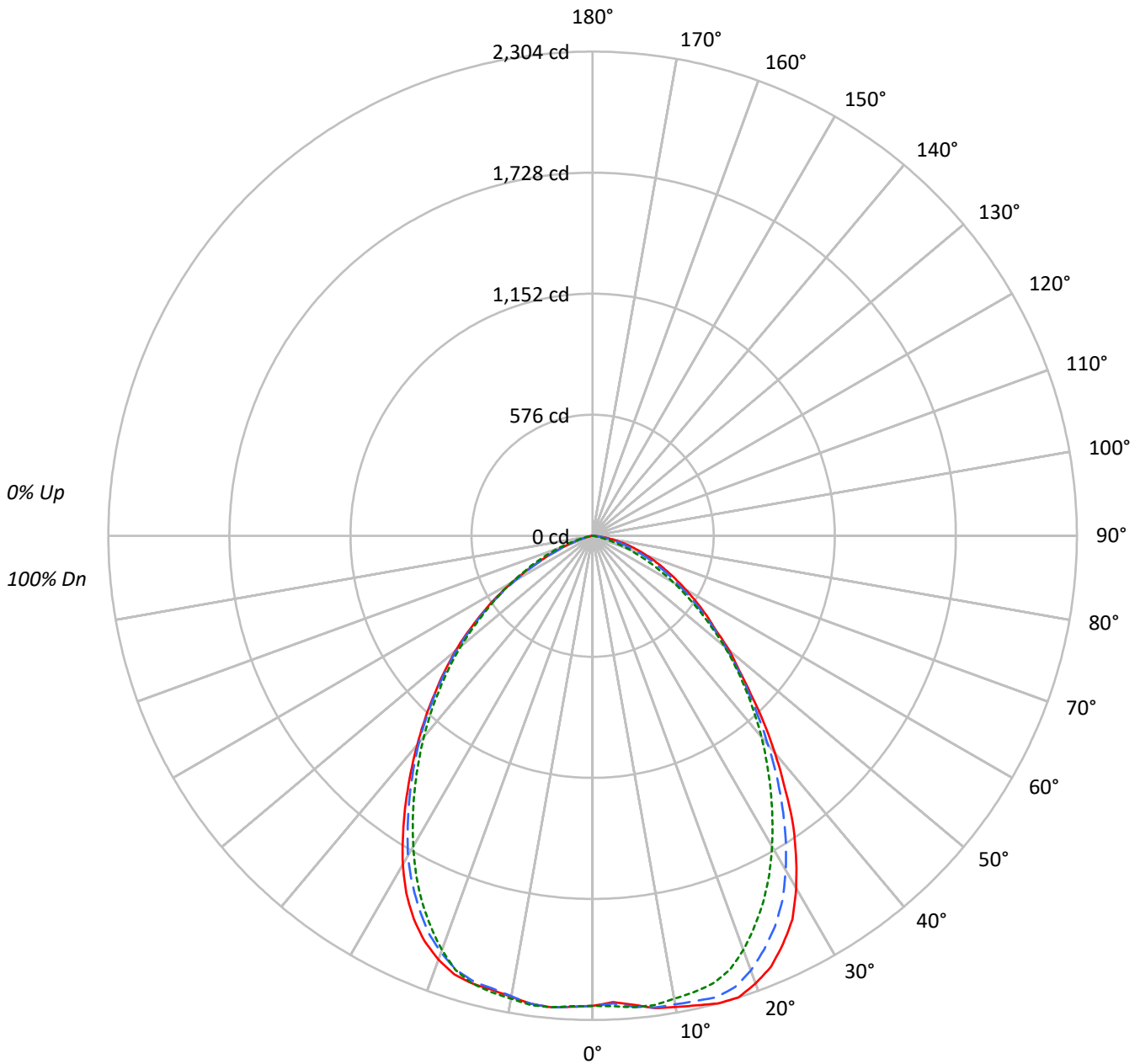
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88			88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68			68
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60			60
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	62	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	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°	122633	122633	122633
5°	123266	123938	123938
10°	126718	124525	124018
15°	130744	125233	125233
20°	132271	122371	125194
25°	129630	116239	121737
30°	122607	108023	114353
35°	110958	98792	103657
40°	96524	89367	92838
45°	82481	79659	82481
50°	72381	69797	72637
55°	63157	58818	61121
60°	55829	48856	48187
65°	49538	38526	33039
70°	43725	27200	19907
75°	37236	15399	9637
80°	27750	4767	2873
85°	15284	1887	1887



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.6	4.8
10°-20°	627.8	13.9
20°-30°	916.9	20.3
30°-40°	961.6	21.3
40°-50°	810.1	17.9
50°-60°	567.6	12.6
60°-70°	304.3	6.7
70°-80°	102.1	2.3
80°-90°	11.1	0.2
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°	1759.3	39.0
0°-40°	2721.0	60.2
0°-60°	4098.7	90.8
0°-90°	4516.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4516.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2237	2237	2237	2237	2237	
5°	2240	2249	2252	2252	2252	215
15°	2304	2273	2207	2195	2207	650
25°	2143	2052	1922	1955	2013	982
35°	1658	1573	1476	1519	1549	1029
45°	1064	1046	1028	1055	1064	829
55°	661	640	615	627	640	595
65°	382	349	297	246	255	381
75°	176	136	73	46	46	186
85°	24	12	3	3	3	33
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°	2237.0	2237.0	2237.0	2237.0	2237.0	2237.0	2237.0	2237.0	2237.0
2.5°	2221.8	2221.8	2227.9	2234.0	2240.0	2240.0	2243.0	2246.1	2243.0
5°	2240.0	2240.0	2249.1	2252.2	2252.2	2249.1	2252.2	2252.2	2252.2
7.5°	2267.3	2261.2	2264.2	2258.3	2252.2	2249.1	2246.1	2246.1	2246.1
10°	2276.4	2270.3	2264.2	2252.2	2237.0	2227.9	2224.8	2227.9	2227.9
12.5°	2288.5	2282.4	2267.3	2243.0	2224.8	2209.7	2206.6	2212.7	2212.7
15°	2303.7	2297.6	2273.4	2234.0	2206.6	2191.5	2194.6	2200.7	2206.6
17.5°	2303.7	2291.6	2252.2	2200.7	2167.2	2152.1	2164.2	2179.4	2188.5
20°	2267.3	2255.2	2200.7	2137.0	2097.6	2088.4	2109.6	2137.0	2146.0
22.5°	2218.8	2194.6	2130.9	2055.1	2012.6	2012.6	2043.0	2076.3	2088.4
25°	2143.1	2124.9	2052.0	1964.2	1921.7	1918.7	1955.0	2000.6	2012.6
27.5°	2058.1	2033.9	1955.0	1864.1	1818.7	1821.7	1861.1	1906.6	1918.7
30°	1936.9	1906.6	1836.9	1748.9	1706.5	1718.7	1758.1	1791.4	1806.5
32.5°	1800.6	1773.2	1709.5	1627.8	1591.4	1603.5	1636.8	1667.2	1679.3
35°	1658.0	1627.8	1573.1	1500.4	1476.2	1488.3	1518.6	1542.8	1548.9
37.5°	1497.3	1476.2	1436.8	1379.2	1361.0	1376.2	1400.4	1415.6	1421.6
40°	1348.8	1330.7	1297.3	1254.9	1248.8	1261.0	1285.3	1294.3	1297.3
42.5°	1203.4	1188.2	1167.0	1136.6	1136.6	1148.8	1170.1	1176.0	1179.1
45°	1063.9	1054.9	1045.7	1021.4	1027.5	1042.7	1054.9	1063.9	1063.9
47.5°	942.7	945.7	933.6	915.4	921.5	936.6	945.7	954.8	954.8
50°	848.7	839.6	827.6	809.4	818.4	830.5	842.7	848.7	851.7
52.5°	739.6	736.5	727.5	706.3	712.4	718.3	730.5	739.6	742.6
55°	660.8	651.7	639.5	615.4	615.4	621.3	627.4	633.5	639.5
57.5°	585.0	575.9	557.8	530.4	527.4	527.4	524.3	530.4	539.6
60°	509.2	506.1	478.9	454.7	445.6	436.5	424.4	427.4	439.5
62.5°	442.6	436.5	412.2	381.9	363.7	348.6	333.5	330.4	342.5
65°	381.9	375.8	348.6	318.2	297.0	269.8	245.5	245.5	254.7
67.5°	327.4	315.2	291.0	257.6	230.4	197.1	172.8	178.9	181.8
70°	272.8	263.7	236.5	203.0	169.7	136.4	121.3	124.2	124.2
72.5°	224.3	212.2	184.9	151.6	118.2	87.9	81.9	78.8	78.8
75°	175.8	163.6	136.4	103.1	72.7	51.5	45.5	45.5	45.5
77.5°	127.3	118.2	94.0	63.7	39.4	24.3	21.2	18.2	18.2
80°	87.9	78.8	57.6	33.3	15.1	9.1	9.1	9.1	9.1
82.5°	51.5	42.5	27.3	15.1	6.1	3.0	3.0	3.0	3.0
85°	24.3	18.2	12.1	6.1	3.0	3.0	3.0	3.0	3.0
87.5°	3.0	3.0	3.0	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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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)