

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P31216

Luminaire Tested: **PD8H242E-82H1GC_32TTT**

Issue Date: 03/03/2020



Test Information

Test Method: LM-79-08
Report Number: P31216
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PD8H242E-82H1GC_32TTT
Description: HALO 8-INCH APERTURE LENSED DOWNLIGHT, HORIZONTAL LAMP.
PRISMATIC GLASS LENS WITH SPECULAR CLEAR TRIM.
Light Source: (2) SYLVANIA FOUR PIN G24Q-3 BASE HEX TTT CFL LAMP 827K
CF32DT/E/IN/827 32 WATTS
Ballast/Driver: (1) PHILIPS ADVANCE ELECTRONIC BALLAST
ICF-2S42-90C-M2-LD

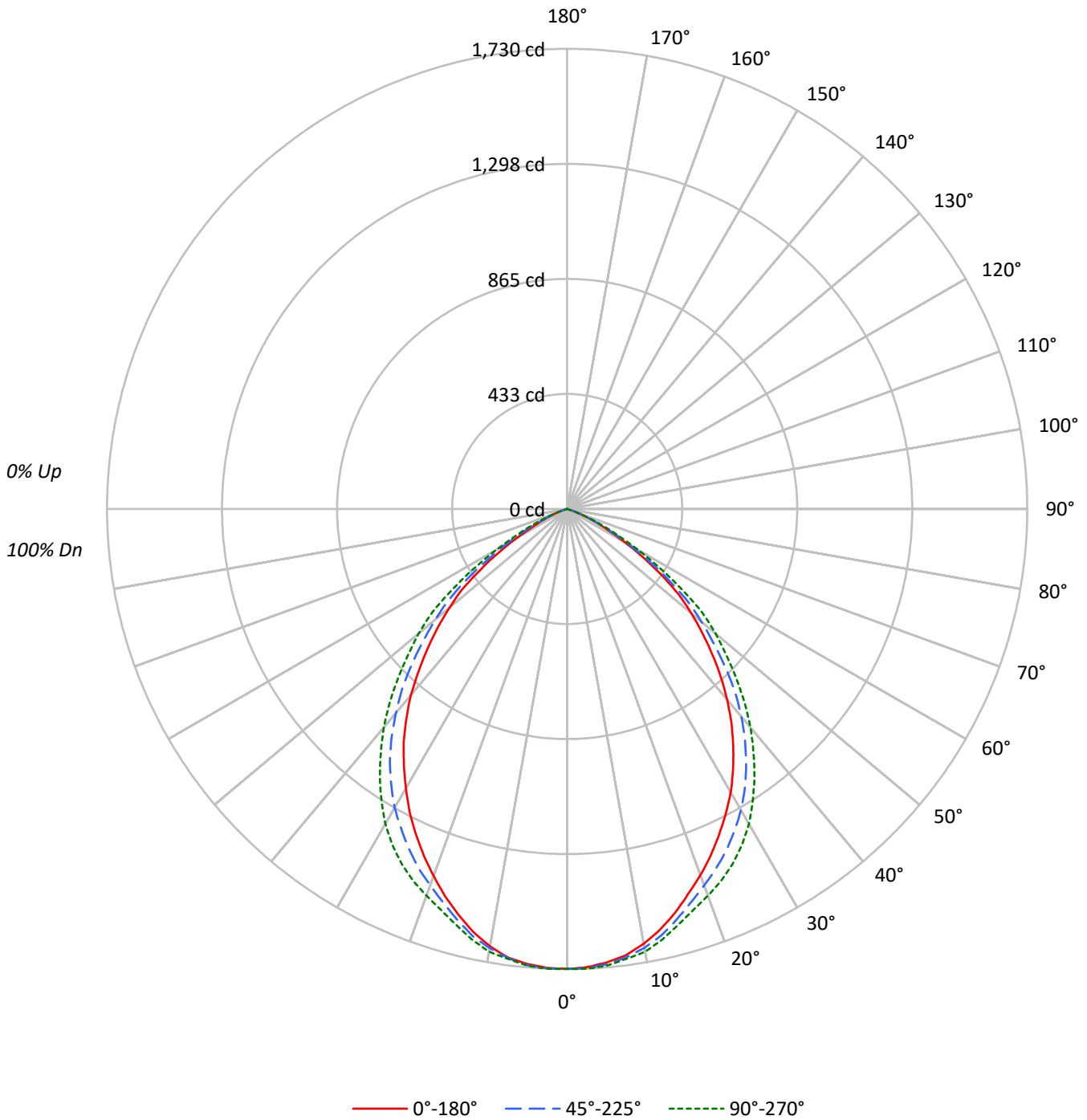
Summary

Lumens per Lamp: 2400 (2 lamps)
Luminaire Lumens: 3177.9 lumens
Efficiency: 66.2%
Efficacy: 46.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.18 / 1.22
Luminous Opening: Vertical Cylinder (Dia: 0.7' x H: 0.1')
CIE Type: Direct

Input Watts (W): 68.7
Input Voltage (V): 120.04
Input Current (A_{in}): 0.57288
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: P31216
CATALOG NUMBER: PD8H242E-82H1GC_32TTT

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	79	79	79	79	77	77	77	77	74	74	74	70	70	70	68	68	68	66						66														
1	74	72	70	68	72	70	68	67	67	66	64	65	64	63	63	62	61	59						59														
2	69	65	61	58	67	63	60	57	61	58	56	59	57	55	57	55	54	52						52														
3	64	58	54	50	62	57	53	50	55	52	49	54	51	48	52	50	48	46						46														
4	59	53	48	44	58	52	47	44	50	46	43	49	45	43	47	45	42	41						41														
5	55	48	43	39	54	47	42	39	46	42	38	44	41	38	43	40	38	36						36														
6	51	44	38	35	50	43	38	35	42	37	34	41	37	34	40	36	34	33						33														
7	48	40	35	31	47	39	34	31	38	34	31	37	34	31	37	33	30	29						29														
8	45	37	32	28	44	36	31	28	35	31	28	35	31	28	34	30	28	27						27														
9	42	34	29	26	41	33	29	26	33	28	25	32	28	25	31	28	25	24						24														
10	39	31	27	23	39	31	26	23	30	26	23	30	26	23	29	26	23	22						22														

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	48648	48648	48648
5°	47567	47900	47733
10°	45949	46780	46198
15°	43629	44907	43851
20°	41134	43437	41219
25°	38654	42116	38540
30°	36154	40181	35625
35°	33169	37402	32620
40°	29783	34147	29114
45°	25912	30219	24936
50°	21897	26176	20746
55°	16850	20431	15449
60°	10690	13085	9279
65°	5599	6987	4738
70°	1863	2356	2082
75°	129	129	129
80°	80	80	80
85°	0	0	105



TEST NUMBER: P31216

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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	162.7	5.1	3.4	0°	1729	1729	1729	1729	1729	
10°-20°	449.7	14.2	9.4	5°	1711	1718	1723	1722	1717	162
20°-30°	648.6	20.4	13.5	15°	1571	1596	1617	1598	1579	441
30°-40°	722.1	22.7	15.0	25°	1351	1416	1472	1408	1347	622
40°-50°	638.2	20.1	13.3	35°	1089	1173	1228	1162	1071	679
50°-60°	414.6	13.0	8.6	45°	770	840	898	825	741	594
60°-70°	132.9	4.2	2.8	55°	433	468	525	458	397	385
70°-80°	8.8	0.3	0.2	65°	117	126	146	118	99	125
80°-90°	0.3	0.0	0.0	75°	2	2	2	2	2	7
90°-100°	0.0	0.0	0.0	85°	0	0	0	0	1	0
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1261.0	39.7	26.3							
0°-40°	1983.1	62.4	41.3							
0°-60°	3035.9	95.5	63.2							
0°-90°	3177.9	100.0	66.2							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	3177.9	100.0	66.2							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1729	1729	1729	1729	1729	1729	1729	1729	1729
2.5°	1724	1725	1728	1730	1730	1730	1729	1728	1727
5°	1711	1715	1718	1721	1723	1723	1722	1720	1717
7.5°	1692	1696	1700	1704	1706	1705	1703	1703	1701
10°	1660	1667	1675	1685	1690	1684	1676	1672	1669
12.5°	1619	1625	1641	1652	1657	1654	1644	1634	1629
15°	1571	1579	1596	1614	1617	1611	1598	1587	1579
17.5°	1516	1528	1550	1576	1580	1570	1551	1535	1526
20°	1465	1476	1506	1540	1547	1531	1505	1481	1468
22.5°	1410	1422	1463	1504	1513	1494	1461	1422	1409
25°	1351	1364	1416	1463	1472	1452	1408	1361	1347
27.5°	1292	1306	1363	1414	1423	1403	1353	1298	1283
30°	1230	1245	1307	1359	1367	1347	1297	1232	1212
32.5°	1161	1178	1244	1294	1299	1282	1231	1163	1142
35°	1089	1109	1173	1220	1228	1211	1162	1090	1071
37.5°	1014	1035	1099	1141	1150	1132	1084	1014	993
40°	935	956	1018	1056	1072	1051	1001	934	914
42.5°	855	874	935	971	987	963	918	853	826
45°	770	790	840	882	898	875	825	762	741
47.5°	689	703	746	791	810	786	733	680	659
50°	609	621	659	703	728	698	646	598	577
52.5°	529	539	572	617	640	612	561	516	498
55°	433	443	468	506	525	505	458	420	397
57.5°	338	343	366	397	413	393	351	318	305
60°	250	256	274	294	306	292	263	229	217
62.5°	176	180	192	208	214	206	183	157	146
65°	117	119	126	135	146	138	118	103	99
67.5°	73	71	75	83	88	86	74	65	66
70°	34	33	35	39	43	43	40	37	38
72.5°	8	8	9	10	12	12	13	12	12
75°	2	2	2	2	2	2	2	2	2
77.5°	1	1	1	1	1	2	2	2	2
80°	1	1	1	1	1	1	1	1	1
82.5°	1	0	0	0	0	1	1	1	1
85°	0	0	0	0	0	0	0	0	1
87.5°	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)