

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: P31211

Luminaire Tested: **PD8H242E-82HC_32TTT**

Issue Date: 03/03/2020



Test Information

Test Method: LM-79-08
Report Number: P31211
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PD8H242E-82HC_32TTT
Description: HALO 8-INCH APERTURE OPEN DOWNLIGHT, HORIZONTAL LAMP WITH SPECULAR CLEAR TRIM.
Light Source: (2) SYLVANIA FOUR PIN G24Q-3 BASE HEX TTT CFL LAMP 827K CF32DT/E/IN/835 32 WATTS
Ballast/Driver: (1) PHILIPS ADVANCE ELECTRONIC BALLAST ICF-2S42-90C-M2-LD

Summary

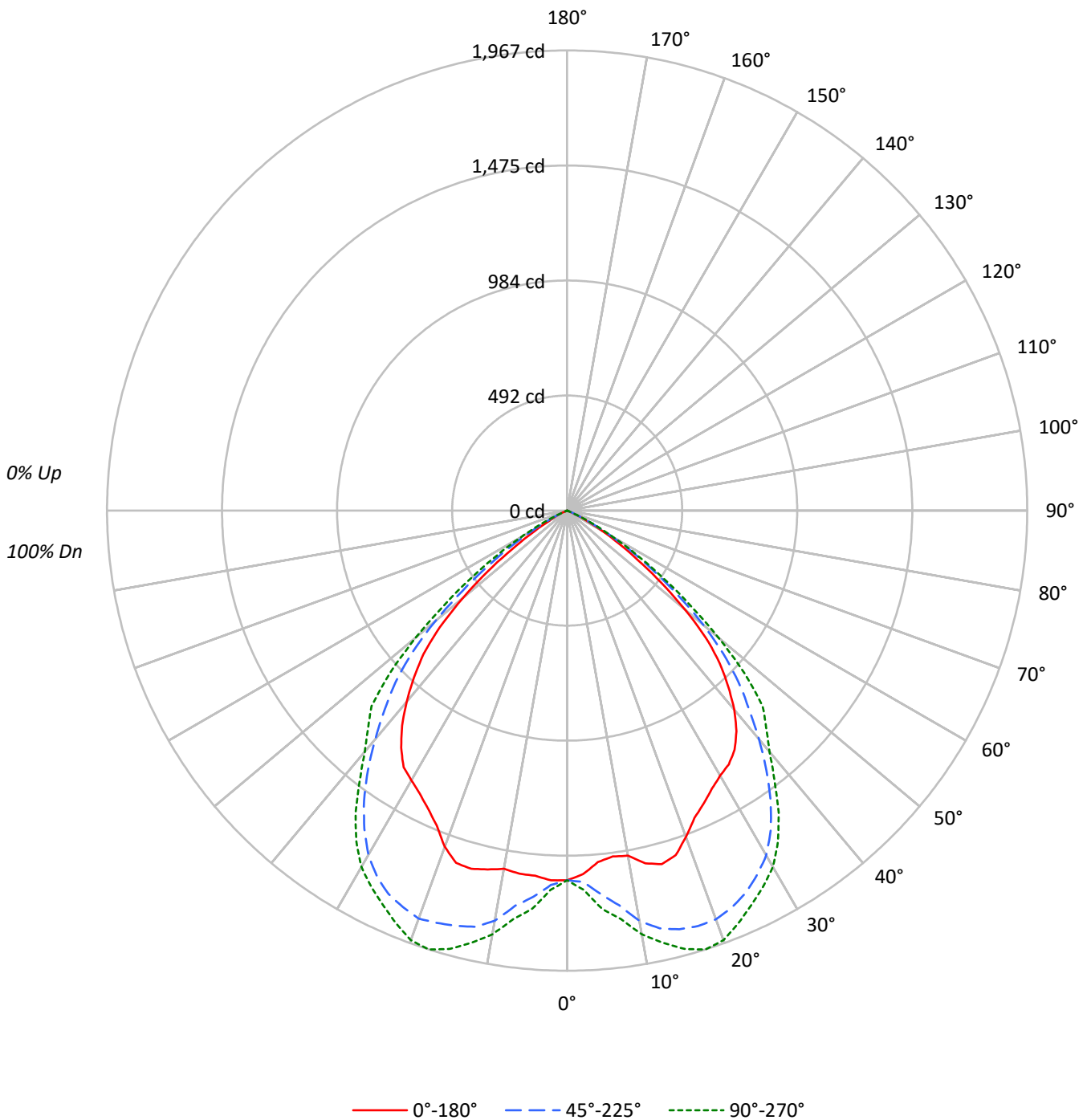
Lumens per Lamp: 2400 (2 lamps)
Luminaire Lumens: 3611.5 lumens
Efficiency: 75.2%
Efficacy: 52.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.47 / 1.38
Luminous Opening: Vertical Cylinder (Dia: 0.7' x H: 0.1')
CIE Type: Direct

Input Watts (W): 69.3
Input Voltage (V): 120.04
Input Current (Ain): 0.57794
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: P31211

CATALOG NUMBER: PD8H242E-82HC_32TTT

Luminous Intensity Polar Plot





TEST NUMBER: P31211

CATALOG NUMBER: PD8H242E-82HC_32TTT

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									70									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	90	90	90	90	87	87	87	87	84	84	84	80	80	80	77	77	77	75						75													
1	84	82	79	77	82	80	78	76	77	75	74	74	73	72	71	70	69	68						68													
2	79	74	70	67	77	73	69	66	70	67	65	68	65	63	66	64	62	61						61													
3	73	67	62	58	71	66	61	58	64	60	57	62	59	56	60	57	55	54						54													
4	68	61	55	51	66	60	55	51	58	54	50	56	53	50	55	52	49	48						48													
5	63	55	50	45	62	54	49	45	53	48	45	52	48	44	50	47	44	43						43													
6	59	50	45	41	58	50	44	40	48	44	40	47	43	40	46	42	39	38						38													
7	55	46	40	36	54	46	40	36	44	40	36	43	39	36	42	39	36	34						34													
8	51	42	37	33	50	42	36	33	41	36	33	40	36	32	39	35	32	31						31													
9	48	39	34	30	47	39	33	30	38	33	30	37	33	29	36	32	29	28						28													
10	45	36	31	27	44	36	31	27	35	30	27	34	30	27	34	30	27	26						26													

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	44456	44456	44456
5°	41923	47483	43563
10°	41465	50904	43043
15°	43463	53877	44018
20°	41668	54864	42931
25°	39512	53246	40228
30°	38447	51703	39123
35°	38011	48002	37676
40°	35389	42843	33988
45°	31027	39777	29244
50°	23587	30311	20890
55°	14438	19341	11091
60°	7227	9921	4105
65°	1723	2680	1531
70°	219	274	274
75°	129	129	129
80°	80	80	80
85°	0	0	105



TEST NUMBER: P31211

CATALOG NUMBER: PD8H242E-82HC_32TTT

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	158.9	4.4	3.3	0°	1580	1580	1580	1580	1580	
10°-20°	508.9	14.1	10.6	5°	1508	1645	1708	1657	1567	144
20°-30°	794.2	22.0	16.5	15°	1565	1853	1940	1838	1585	435
30°-40°	912.0	25.3	19.0	25°	1381	1804	1861	1808	1406	639
40°-50°	784.6	21.7	16.3	35°	1248	1517	1576	1514	1237	772
50°-60°	387.8	10.7	8.1	45°	922	1036	1182	1039	869	698
60°-70°	62.0	1.7	1.3	55°	371	459	497	413	285	344
70°-80°	2.5	0.1	0.1	65°	36	47	56	43	32	55
80°-90°	0.5	0.0	0.0	75°	2	2	2	2	2	2
90°-100°	0.0	0.0	0.0	85°	0	0	0	1	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°	1462.0	40.5	30.5							
0°-40°	2374.0	65.7	49.5							
0°-60°	3546.4	98.2	73.9							
0°-90°	3611.5	100.0	75.2							
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°	3611.5	100.0	75.2							



TEST NUMBER: P31211

CATALOG NUMBER: PD8H242E-82HC_32TTT

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1580	1580	1580	1580	1580	1580	1580	1580	1580
2.5°	1556	1565	1589	1612	1623	1617	1602	1587	1582
5°	1508	1561	1645	1696	1708	1693	1657	1608	1567
7.5°	1491	1574	1702	1758	1761	1746	1704	1622	1565
10°	1498	1616	1781	1831	1839	1820	1780	1662	1555
12.5°	1544	1665	1829	1883	1892	1859	1822	1703	1571
15°	1565	1694	1853	1929	1940	1893	1838	1724	1585
17.5°	1544	1698	1862	1949	1967	1915	1848	1732	1579
20°	1484	1671	1859	1941	1954	1921	1856	1715	1529
22.5°	1422	1625	1837	1899	1910	1882	1834	1666	1457
25°	1381	1588	1804	1857	1861	1841	1808	1620	1406
27.5°	1340	1555	1757	1815	1813	1802	1762	1595	1364
30°	1308	1515	1702	1762	1759	1752	1699	1556	1331
32.5°	1286	1456	1619	1675	1677	1671	1613	1494	1301
35°	1248	1381	1517	1570	1576	1567	1514	1397	1237
37.5°	1189	1287	1400	1453	1456	1448	1399	1285	1159
40°	1111	1180	1275	1332	1345	1337	1276	1169	1067
42.5°	1019	1067	1150	1226	1259	1236	1155	1051	969
45°	922	963	1036	1125	1182	1140	1039	940	869
47.5°	804	835	903	982	1027	1003	898	799	739
50°	656	690	759	811	843	823	736	634	581
52.5°	507	538	604	635	658	641	564	469	430
55°	371	401	459	479	497	473	413	323	285
57.5°	260	288	332	342	350	332	280	206	175
60°	169	190	216	222	232	218	165	119	96
62.5°	97	110	121	126	132	130	92	63	57
65°	36	43	47	50	56	57	43	28	32
67.5°	7	7	7	8	8	9	9	8	8
70°	4	4	5	5	5	5	5	5	5
72.5°	3	3	3	3	4	3	3	3	3
75°	2	2	2	2	2	2	2	2	2
77.5°	1	1	1	1	2	2	2	2	2
80°	1	1	1	1	1	1	1	1	1
82.5°	1	1	0	1	1	1	1	1	1
85°	0	0	0	0	0	0	1	1	1
87.5°	0	0	0	0	0	0	0	1	1
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)