

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: P31217

Luminaire Tested: **PD8H242E-82H1GC_42TTT**

Issue Date: 03/03/2020



Test Information

Test Method: LM-79-08
Report Number: P31217
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PD8H242E-82H1GC_42TTT
Description: HALO 8-INCH APERTURE LENSED DOWNLIGHT, HORIZONTAL LAMP.
PRISMATIC GLASS LENS WITH SPECULAR CLEAR TRIM.
Light Source: (2) GE GX24Q-4 FOUR PIN BIAx HEX CFL LAMP
F42TBX/840/A/4P 42 WATTS
Ballast/Driver: (1) ADVANCE ELECTRONIC BALLAST
ICF-2S42-90C-M2-LD

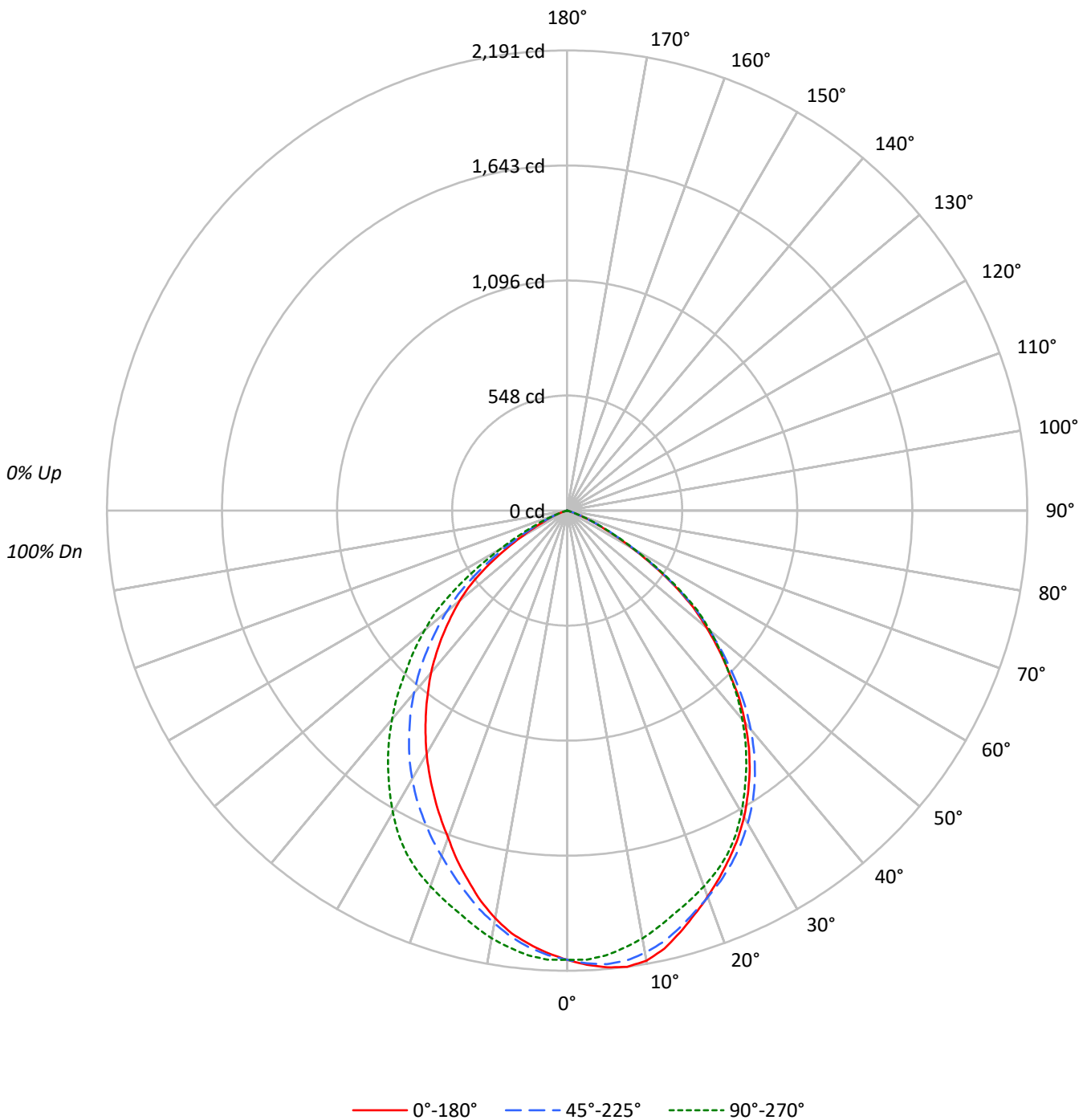
Summary

Lumens per Lamp: 3200 (2 lamps)
Luminaire Lumens: 3935.1 lumens
Efficiency: 61.5%
Efficacy: 43.6 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.22
Luminous Opening: Vertical Cylinder (Dia: 0.7' x H: 0.1')
CIE Type: Direct

Input Watts (W): 90.2
Input Voltage (V): 120.04
Input Current (A_{in}): 0.7519
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	50	30	10	0		
RCR																										
0	73	73	73	73	71	71	71	71	68	68	68	65	65	65	63	63	63	61					61			
1	69	66	65	63	67	65	63	62	63	61	60	60	59	58	58	57	56	55					55			
2	64	60	57	54	62	59	56	53	57	54	52	55	53	51	53	51	50	49					49			
3	59	54	50	47	58	53	49	46	51	48	46	50	47	45	48	46	44	43					43			
4	55	49	44	41	54	48	44	41	47	43	40	45	42	40	44	41	39	38					38			
5	51	44	40	36	50	44	39	36	42	39	36	41	38	35	40	37	35	34					34			
6	47	40	36	32	46	40	35	32	39	35	32	38	34	31	37	34	31	30					30			
7	44	37	32	29	43	36	32	29	36	31	29	35	31	28	34	31	28	27					27			
8	41	34	29	26	40	34	29	26	33	29	26	32	28	26	31	28	26	25					25			
9	39	31	27	24	38	31	27	24	30	26	24	30	26	23	29	26	23	22					22			
10	36	29	25	22	36	29	25	22	28	24	22	28	24	21	27	24	21	20					20			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	60184	60184	60184
5°	60688	59104	57603
10°	60232	57243	54586
15°	57737	55099	50628
20°	54921	53461	46525
25°	52273	51672	42888
30°	49528	48793	39328
35°	46144	45291	35697
40°	41983	41314	32108
45°	36714	36613	28167
50°	31138	31821	24054
55°	24244	25101	18329
60°	15266	15993	10904
65°	7705	8327	5503
70°	2192	2904	2576
75°	194	194	194
80°	80	80	80
85°	0	0	105



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	201.2	5.1	3.1	0°	2139	2139	2139	2139	2139	
10°-20°	554.3	14.1	8.7	5°	2183	2168	2126	2088	2072	208
20°-30°	797.5	20.3	12.5	15°	2079	2059	1984	1877	1823	585
30°-40°	887.6	22.6	13.9	25°	1827	1853	1806	1618	1499	841
40°-50°	793.4	20.2	12.4	35°	1515	1559	1487	1312	1172	944
50°-60°	522.6	13.3	8.2	45°	1091	1129	1088	944	837	842
60°-70°	167.0	4.2	2.6	55°	623	632	645	534	471	550
70°-80°	11.1	0.3	0.2	65°	161	169	174	140	115	173
80°-90°	0.5	0.0	0.0	75°	3	3	3	3	3	9
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°	1553.1	39.5	24.3							
0°-40°	2440.7	62.0	38.1							
0°-60°	3756.6	95.5	58.7							
0°-90°	3935.1	100.0	61.5							
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°	3935.1	100.0	61.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2139	2139	2139	2139	2139	2139	2139	2139	2139
2.5°	2165	2162	2158	2150	2140	2128	2118	2111	2109
5°	2183	2180	2168	2148	2126	2105	2088	2076	2072
7.5°	2191	2181	2161	2131	2099	2069	2047	2033	2030
10°	2176	2163	2138	2107	2068	2029	1996	1979	1972
12.5°	2137	2124	2105	2070	2028	1983	1942	1914	1903
15°	2079	2073	2059	2031	1984	1931	1877	1842	1823
17.5°	2017	2018	2008	1991	1945	1881	1814	1764	1744
20°	1956	1957	1959	1949	1904	1832	1749	1684	1657
22.5°	1893	1898	1909	1905	1859	1781	1687	1607	1579
25°	1827	1831	1853	1852	1806	1725	1618	1531	1499
27.5°	1760	1765	1791	1787	1739	1659	1550	1456	1419
30°	1685	1693	1720	1714	1660	1582	1476	1373	1338
32.5°	1601	1613	1644	1630	1574	1498	1398	1295	1255
35°	1515	1525	1559	1543	1487	1410	1312	1210	1172
37.5°	1421	1430	1464	1442	1396	1319	1226	1126	1089
40°	1318	1329	1360	1342	1297	1222	1135	1040	1008
42.5°	1212	1218	1251	1236	1198	1126	1042	955	922
45°	1091	1104	1129	1122	1088	1023	944	868	837
47.5°	978	987	1004	1009	990	923	846	779	750
50°	866	873	884	895	885	822	748	692	669
52.5°	756	765	771	788	784	723	653	605	578
55°	623	624	632	651	645	595	534	491	471
57.5°	483	494	496	510	502	465	415	377	358
60°	357	364	370	374	374	345	303	273	255
62.5°	252	253	264	262	260	244	212	186	174
65°	161	165	169	172	174	164	140	122	115
67.5°	93	93	98	102	109	104	89	79	78
70°	40	42	45	49	53	53	48	45	47
72.5°	9	10	11	13	14	15	16	15	14
75°	3	3	3	3	3	3	3	3	3
77.5°	2	2	2	2	2	2	2	2	2
80°	1	1	1	1	1	1	1	1	1
82.5°	1	1	1	1	1	1	1	1	1
85°	0	0	0	0	0	0	0	1	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)