

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: P31423

Luminaire Tested: **PD8H142E-82H1GC_42TTT**

Issue Date: 03/03/2020



Test Information

Test Method: LM-79-08
Report Number: P31423
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PD8H142E-82H1GC_42TTT
Description: HALO 8-INCH APERTURE LENSED DOWNLIGHT, HORIZONTAL LAMP.
PRISMATIC GLASS LENS WITH SPECULAR CLEAR TRIM.
Light Source: (1) SYLVANIA GX24Q-4 SINGLE END FOUR PIN BASE TTT CFL LAMP
3500K
CF42DT/E/IN/835 42 WATTS
Ballast/Driver: (1) SYLVANIA ELECTRONIC BALLAST
SYLVANIA QTP2x26CF/UNV DM

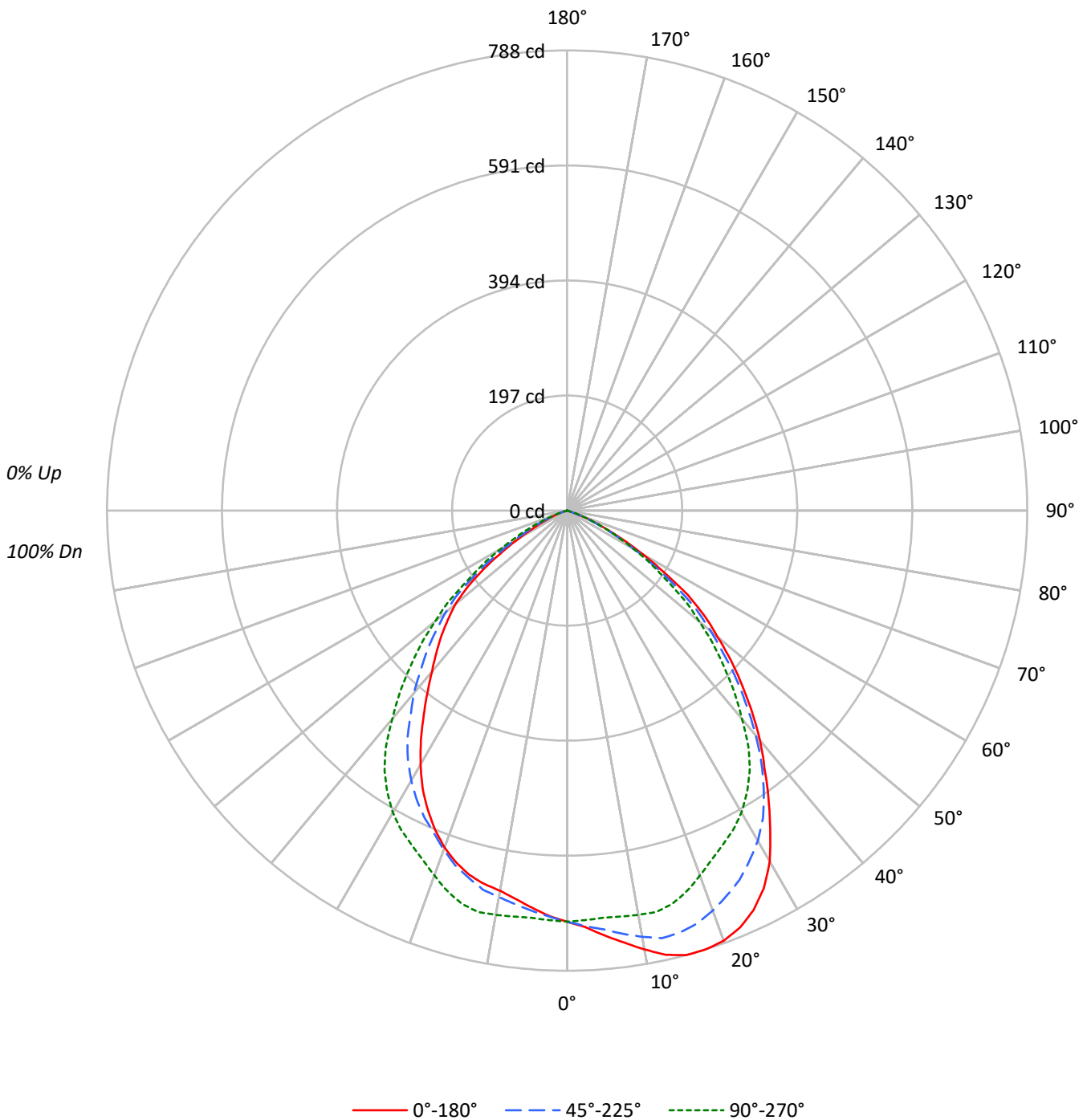
Summary

Lumens per Lamp: 3200 (1 lamp)
Luminaire Lumens: 1433.1 lumens
Efficiency: 44.8%
Efficacy: 32.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.27
Luminous Opening: Vertical Cylinder (Dia: 0.7' x H: 0.1')
CIE Type: Direct

Input Watts (W): 43.5
Input Voltage (V): 120.04
Input Current (A_{in}): 0.3629
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: P31423
CATALOG NUMBER: PD8H142E-82H1GC_42TTT

Luminous Intensity Polar Plot





TEST NUMBER: P31423

CATALOG NUMBER: PD8H142E-82H1GC_42TTT

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	0
RCR																		
0	53	53	53	53	52	52	52	52	50	50	50	48	48	48	46	46	46	45
1	50	48	47	46	49	47	46	45	46	45	44	44	43	42	42	42	41	40
2	46	44	41	39	45	43	41	39	41	39	38	40	38	37	39	37	36	35
3	43	39	36	34	42	39	36	34	37	35	33	36	34	33	35	33	32	31
4	40	35	32	30	39	35	32	29	34	31	29	33	31	29	32	30	28	28
5	37	32	29	26	36	32	28	26	31	28	26	30	27	26	29	27	25	24
6	34	29	26	23	34	29	26	23	28	25	23	27	25	23	27	24	23	22
7	32	27	23	21	31	26	23	21	26	23	21	25	23	21	25	22	20	20
8	30	25	21	19	29	24	21	19	24	21	19	23	21	19	23	20	18	18
9	28	23	19	17	28	22	19	17	22	19	17	22	19	17	21	19	17	16
10	26	21	18	16	26	21	18	16	20	18	16	20	17	15	20	17	15	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	19808	19808	19808
5°	20294	19460	18988
10°	21120	19459	18297
15°	21884	19357	17940
20°	22013	18672	17240
25°	21602	18054	16165
30°	20399	17548	14756
35°	18305	16600	13036
40°	16373	14844	11467
45°	14268	12821	10264
50°	12081	10607	8989
55°	9807	8056	6732
60°	6371	5602	4020
65°	3350	3350	2058
70°	877	1315	932
75°	65	65	65
80°	0	0	0
85°	0	0	0



TEST NUMBER: P31423

CATALOG NUMBER: PD8H142E-82H1GC_42TTT

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	67.3	4.7	2.1	0°	704	704	704	704	704	
10°-20°	197.8	13.8	6.2	5°	730	720	700	688	683	71
20°-30°	294.8	20.6	9.2	15°	788	748	697	651	646	222
30°-40°	329.8	23.0	10.3	25°	755	698	631	579	565	345
40°-50°	287.2	20.0	9.0	35°	601	587	545	477	428	376
50°-60°	187.5	13.1	5.9	45°	424	411	381	339	305	327
60°-70°	64.2	4.5	2.0	55°	252	229	207	192	173	220
70°-80°	4.7	0.3	0.1	65°	70	64	70	56	43	74
80°-90°	0.0	0.0	0.0	75°	1	1	1	1	1	4
90°-100°	0.0	0.0	0.0	85°	0	0	0	0	0	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°	559.8	39.1	17.5							
0°-40°	889.6	62.1	27.8							
0°-60°	1364.2	95.2	42.6							
0°-90°	1433.1	100.0	44.8							
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°	1433.1	100.0	44.8							



TEST NUMBER: P31423

CATALOG NUMBER: PD8H142E-82H1GC_42TTT

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	704	704	704	704	704	704	704	704	704
2.5°	714	715	712	707	702	698	696	695	695
5°	730	728	720	710	700	693	688	684	683
7.5°	746	743	731	717	701	689	680	673	671
10°	763	758	741	722	703	685	672	663	661
12.5°	779	770	750	729	704	682	665	655	655
15°	788	776	748	721	697	671	651	645	646
17.5°	788	774	741	710	683	658	637	628	632
20°	784	766	729	694	665	641	618	609	614
22.5°	773	753	714	677	647	624	597	587	591
25°	755	732	698	662	631	605	579	561	565
27.5°	729	706	676	646	616	588	558	534	536
30°	694	676	653	626	597	569	534	504	502
32.5°	647	641	624	601	573	545	507	470	466
35°	601	599	587	570	545	517	477	435	428
37.5°	555	554	547	531	510	481	440	401	393
40°	514	509	503	484	466	442	408	369	360
42.5°	469	464	456	441	425	402	371	339	332
45°	424	420	411	393	381	362	339	311	305
47.5°	381	376	364	348	340	325	304	282	277
50°	336	333	320	301	295	287	272	253	250
52.5°	297	293	280	264	256	249	237	221	215
55°	252	244	229	214	207	204	192	182	173
57.5°	196	194	179	171	171	160	149	139	131
60°	149	144	134	133	131	124	109	97	94
62.5°	108	103	97	96	97	92	80	67	64
65°	70	66	64	67	70	64	56	46	43
67.5°	42	38	40	42	44	41	36	30	29
70°	16	18	20	20	24	22	21	18	17
72.5°	5	5	7	6	6	6	6	6	5
75°	1	1	1	1	1	1	1	1	1
77.5°	1	1	1	1	1	1	1	1	1
80°	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)