

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: P31214

Luminaire Tested: **PD8H242E-82H1GC\_26TTT**

Issue Date: 03/03/2020



**Test Information**

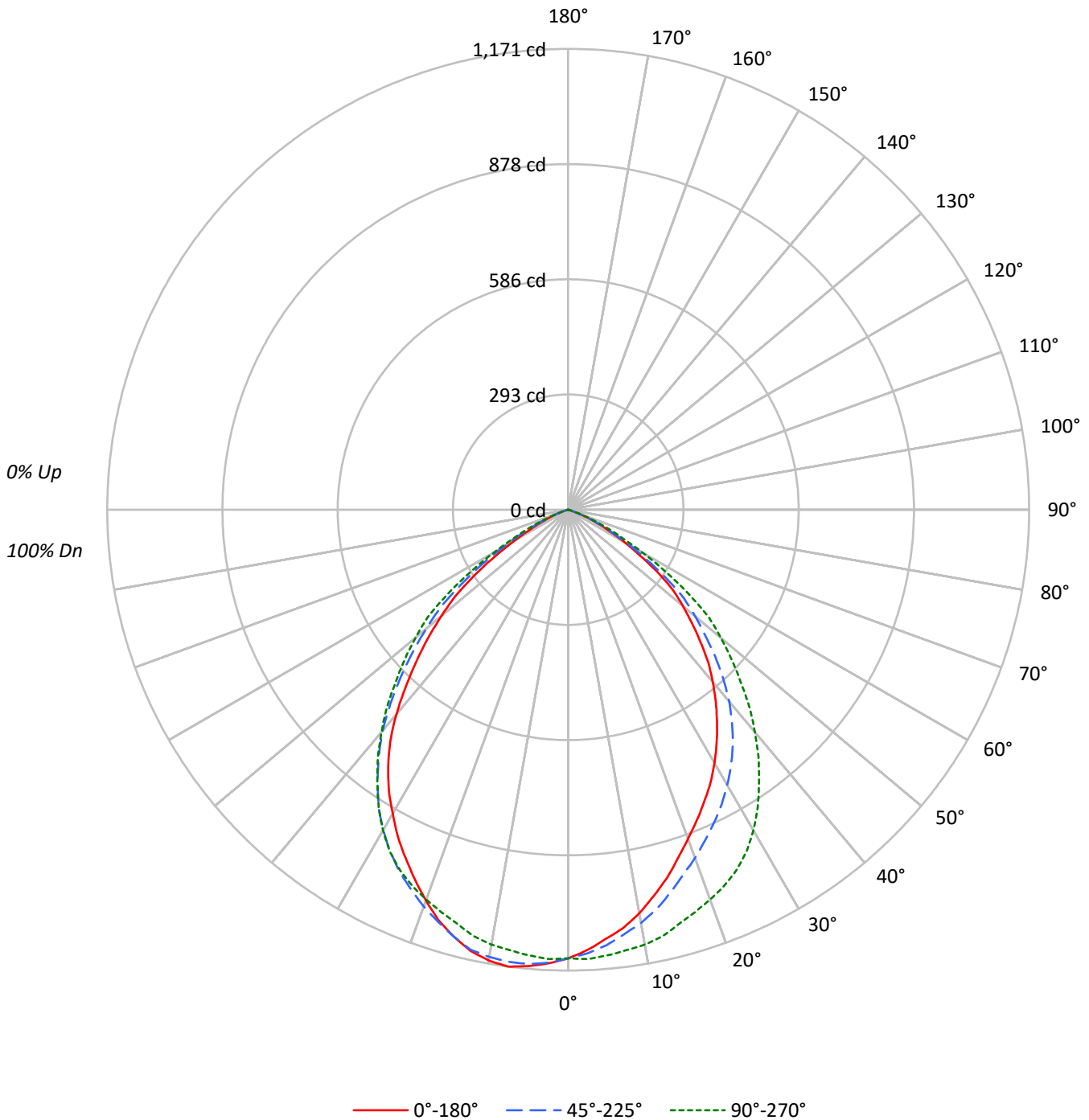
Test Method: LM-79-08  
Report Number: P31214  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PD8H242E-82H1GC\_26TTT  
Description: HALO 8-INCH APERTURE OPEN DOWNLIGHT, HORIZONTAL LAMP,  
PRISMATIC GLASS LENS WITH SPECULAR CLEAR TRIM.  
Light Source: (2) SYLVANIA GX24Q-3 FOUR PIN BIAX HEX CFL LAMP  
CF26DT/E/IN/835 26WATTS  
Ballast/Driver: (1) UNIVERSAL ELECTRONIC BALLAST  
C2642UNVME

**Summary**

Lumens per Lamp: 1800 (2 lamps)  
Luminaire Lumens: 2157.5 lumens  
Efficiency: 59.9%  
Efficacy: 37.8 lumens/watt  
Spacing Criteria (0/90/45): 1.09 / 1.22 / 1.23  
Luminous Opening: Vertical Cylinder (Dia: 0.7' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 57.1  
Input Voltage (V): 120.03  
Input Current (A<sub>in</sub>): 0.4762  
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	0
RCR																				
0	71	71	71	71	70	70	70	70	67	67	67		64	64	64		61	61	61	60
1	67	65	63	61	65	63	62	60	61	60	58		59	58	57		57	56	55	54
2	62	58	55	52	61	57	54	52	55	53	51		53	51	50		52	50	49	47
3	58	53	49	45	56	52	48	45	50	47	44		48	46	44		47	45	43	42
4	53	47	43	40	52	47	43	39	45	42	39		44	41	38		43	40	38	37
5	50	43	38	35	48	42	38	35	41	37	35		40	37	34		39	36	34	33
6	46	39	35	31	45	39	34	31	38	34	31		37	33	31		36	33	30	29
7	43	36	31	28	42	35	31	28	35	31	28		34	30	28		33	30	27	26
8	40	33	28	25	39	33	28	25	32	28	25		31	28	25		30	27	25	24
9	38	30	26	23	37	30	26	23	29	26	23		29	25	23		28	25	23	22
10	35	28	24	21	35	28	24	21	27	24	21		27	23	21		26	23	21	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	32076	32076	32076
5°	30441	31609	32360
10°	28815	31057	32192
15°	26911	30243	31188
20°	24989	29594	29678
25°	23404	28926	27953
30°	21839	27659	26190
35°	20072	25737	24275
40°	18188	23508	21629
45°	15985	20864	18340
50°	13663	18194	15101
55°	10780	14593	11247
60°	7056	9279	6671
65°	3828	5073	3398
70°	1370	1808	1480
75°	65	129	129
80°	80	0	80
85°	0	0	0



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	107.5	5.0	3.0	0°	1140	1140	1140	1140	1140	
10°-20°	300.3	13.9	8.3	5°	1095	1111	1137	1159	1164	103
20°-30°	436.8	20.2	12.1	15°	969	1006	1089	1123	1123	272
30°-40°	489.8	22.7	13.6	25°	818	877	1011	1014	977	377
40°-50°	435.3	20.2	12.1	35°	659	729	845	844	797	412
50°-60°	286.7	13.3	8.0	45°	475	528	620	601	545	366
60°-70°	94.3	4.4	2.6	55°	277	305	375	333	289	245
70°-80°	6.7	0.3	0.2	65°	80	86	106	88	71	85
80°-90°	0.1	0.0	0.0	75°	1	2	2	2	2	5
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°	844.6	39.1	23.5							
0°-40°	1334.4	61.8	37.1							
0°-60°	2056.4	95.3	57.1							
0°-90°	2157.5	100.0	59.9							
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°	2157.5	100.0	59.9							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1140	1140	1140	1140	1140	1140	1140	1140	1140
2.5°	1120	1123	1128	1136	1143	1148	1152	1154	1154
5°	1095	1101	1111	1123	1137	1150	1159	1165	1164
7.5°	1072	1075	1088	1108	1129	1146	1159	1167	1171
10°	1041	1048	1066	1094	1122	1142	1154	1161	1163
12.5°	1005	1013	1039	1075	1110	1135	1145	1148	1148
15°	969	977	1006	1050	1089	1114	1123	1125	1123
17.5°	928	939	972	1026	1072	1094	1098	1096	1094
20°	890	902	942	1001	1054	1075	1073	1061	1057
22.5°	854	866	909	977	1035	1056	1044	1025	1017
25°	818	833	877	949	1011	1032	1014	987	977
27.5°	783	799	844	916	980	1002	979	949	937
30°	743	762	808	878	941	963	940	903	891
32.5°	702	722	770	834	896	916	896	856	848
35°	659	680	729	788	845	868	844	807	797
37.5°	616	636	684	738	794	811	791	751	743
40°	571	590	636	686	738	752	733	691	679
42.5°	527	544	583	635	682	691	668	628	611
45°	475	491	528	580	620	626	601	564	545
47.5°	426	439	471	525	563	561	535	499	483
50°	380	389	420	469	506	502	471	437	420
52.5°	336	343	371	413	451	444	410	375	362
55°	277	281	305	339	375	368	333	303	289
57.5°	215	222	238	269	294	289	261	232	219
60°	165	166	178	201	217	213	192	167	156
62.5°	120	121	128	143	154	151	135	115	107
65°	80	82	86	95	106	101	88	75	71
67.5°	50	51	52	59	65	64	55	48	46
70°	25	25	26	29	33	33	30	26	27
72.5°	6	6	7	8	9	9	9	9	9
75°	1	1	2	2	2	2	2	2	2
77.5°	1	1	1	1	1	1	1	1	1
80°	1	1	1	1	0	1	1	1	1
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)