

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: E395850

Luminaire Tested: **H600-1636C**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: E395850
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H600-1636C
Description: HALO RECESSED INC. CLEAR CONE 30 DEG.
Light Source: 150R40FL, 1900 LUMENS
Ballast/Driver: -

Summary

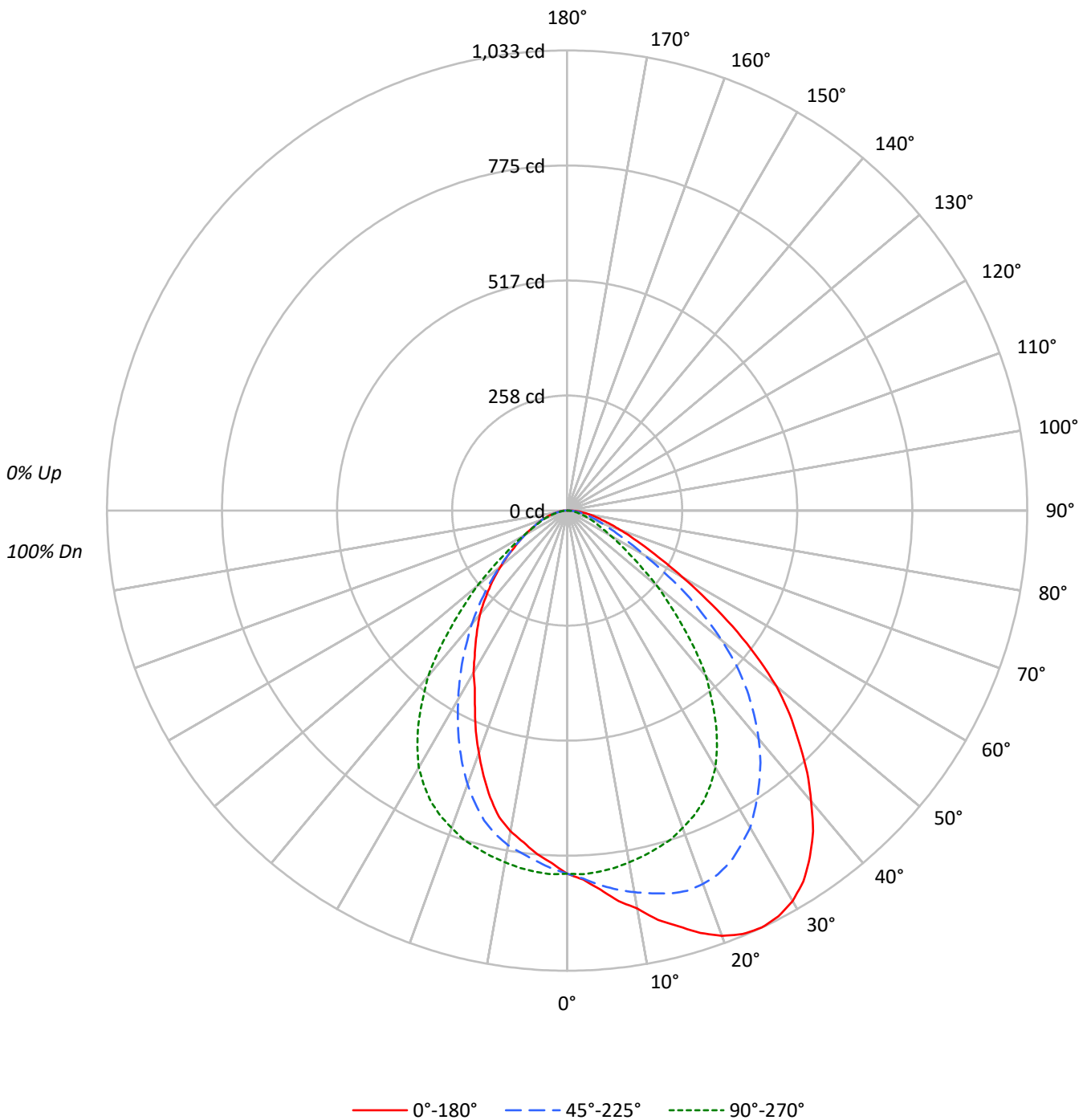
Lumens per Lamp: 1900 (1 lamp)
Luminaire Lumens: 1732.5 lumens
Efficiency: 91.2%
Efficacy: 11.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.21 / 1.25
Luminous Opening: (L: 0 ' x W: -0.52 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 150
Input Voltage (V): NR
Input Current (A_{in}): NR
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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	109	109	109	109	106	106	106	106	101	101	101	97	97	97	93	93	93	91		
1	101	97	94	91	98	95	92	90	91	89	87	88	86	84	85	83	82	80		
2	93	87	82	77	91	85	80	76	82	78	74	79	76	73	76	74	71	69		
3	86	78	71	66	84	76	70	66	74	69	65	71	67	63	69	66	62	61		
4	80	70	63	58	78	69	62	57	67	61	57	65	60	56	63	59	55	53		
5	74	63	56	51	72	62	56	50	61	55	50	59	54	49	57	53	49	47		
6	69	58	50	45	67	57	50	45	55	49	45	54	48	44	52	48	44	42		
7	64	53	45	40	63	52	45	40	51	44	40	49	44	40	48	43	39	38		
8	60	48	41	36	58	48	41	36	47	41	36	46	40	36	45	40	36	34		
9	56	45	38	33	55	44	38	33	43	37	33	42	37	33	41	36	33	31		
10	53	41	35	30	52	41	35	30	40	34	30	39	34	30	39	33	30	28		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	77.9	4.5	4.1
10°-20°	226.7	13.1	11.9
20°-30°	336.4	19.4	17.7
30°-40°	374.5	21.6	19.7
40°-50°	328.0	18.9	17.3
50°-60°	213.0	12.3	11.2
60°-70°	107.4	6.2	5.7
70°-80°	51.1	2.9	2.7
80°-90°	16.4	0.9	0.9
90°-100°	1.1	0.1	0.1
100°-110°	0.0	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°	641.0	37.0	33.7
0°-40°	1015.5	58.6	53.4
0°-60°	1556.5	89.8	81.9
0°-90°	1731.4	99.9	91.1
90°-120°	1.1	0.1	0.1
90°-150°	1.1	0.1	0.1
90°-180°	1.0	0.1	0.1
0°-180°	1732.5	100.0	91.2

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	815	815	815	815	815	
5°	854	844	814	790	774	83
15°	966	890	784	720	667	275
25°	1033	869	722	574	489	475
35°	950	751	582	409	357	591
45°	736	571	367	261	247	568
55°	453	326	171	149	145	404
65°	193	126	76	80	80	198
75°	80	55	34	38	39	89
85°	28	17	8	11	14	28
90°	10	3	3	2	7	6
95°	0	0	0	0	0	2
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	22.5°	25°	35°	45°	55°	65°	67.5°	75°
0°	815	815	815	815	815	815	815	815	815	815	815
2.5°	829	838	836	834	833	831	827	826	823	823	820
5°	854	860	858	857	856	851	844	836	830	829	822
7.5°	884	890	883	881	880	869	858	846	834	832	822
10°	907	915	911	904	901	889	870	853	836	832	820
12.5°	941	948	940	929	925	905	880	858	836	831	816
15°	966	973	965	951	947	920	890	860	832	827	809
17.5°	994	1003	989	972	967	933	895	859	824	818	798
20°	1016	1023	1007	986	979	939	892	851	812	804	785
22.5°	1029	1035	1017	992	983	936	884	835	794	789	768
25°	1033	1039	1018	990	979	927	869	815	773	765	747
27.5°	1027	1033	1012	980	968	910	846	791	748	740	722
30°	1012	1020	994	961	949	886	822	758	719	715	696
32.5°	987	993	968	931	919	855	787	729	688	681	663
35°	950	959	932	897	888	821	751	692	652	650	629
37.5°	907	913	885	851	843	778	713	656	619	613	588
40°	852	864	839	807	794	731	669	621	579	569	544
42.5°	798	809	786	756	744	683	621	572	530	521	492
45°	736	750	725	697	685	629	571	521	474	474	436
47.5°	678	679	662	628	622	569	516	466	423	411	382
50°	613	607	590	559	555	504	453	409	360	347	319
52.5°	534	536	515	493	485	437	386	340	298	292	257
55°	453	448	434	415	406	363	326	281	239	234	204
57.5°	371	376	358	339	334	296	257	219	188	180	163
60°	299	303	286	272	263	234	201	171	145	139	128
62.5°	239	240	226	215	209	184	159	137	115	109	100
65°	193	196	185	175	170	149	126	107	91	88	81
67.5°	156	158	149	141	139	121	100	86	73	73	69
70°	126	127	123	114	110	97	84	70	63	62	57
72.5°	102	104	99	94	89	78	68	60	52	50	47
75°	80	83	78	74	71	65	55	48	42	41	37
77.5°	66	66	65	60	59	52	45	37	32	31	28
80°	52	52	49	46	46	40	33	28	23	23	21
82.5°	39	39	36	34	34	29	24	20	17	16	15
85°	28	28	27	23	23	20	17	13	11	11	10
87.5°	18	18	17	15	15	13	10	8	7	7	6
90°	10	9	8	7	7	4	3	3	2	2	2
95°	0	0	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	22.5°	25°	35°	45°	55°	65°	67.5°	75°
135°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	85°	90°	112.5°	135°	157.5°	180°
0°	815	815	815	815	815	815
2.5°	817	817	810	804	797	792
5°	816	814	802	790	781	774
7.5°	813	809	790	776	765	751
10°	807	802	781	763	746	731
12.5°	800	794	771	744	720	705
15°	792	784	755	720	686	667
17.5°	781	774	736	688	647	624
20°	766	758	716	654	605	579
22.5°	749	742	690	615	558	536
25°	729	722	658	574	515	489
27.5°	705	696	617	531	476	449
30°	677	666	580	489	437	420
32.5°	640	626	533	448	405	386
35°	601	582	481	409	371	357
37.5°	555	532	439	368	342	330
40°	505	485	387	333	312	305
42.5°	447	427	335	297	283	275
45°	386	367	292	261	253	247
47.5°	333	311	251	229	224	221
50°	276	264	212	198	199	194
52.5°	225	213	177	172	170	170
55°	182	171	150	149	147	145
57.5°	145	139	129	127	128	127
60°	116	113	108	109	112	110
62.5°	95	92	90	93	96	94
65°	77	76	76	80	82	80
67.5°	65	64	65	68	70	69
70°	54	54	54	59	61	59
72.5°	44	44	44	49	49	48
75°	35	34	35	38	39	39
77.5°	26	26	27	29	31	31
80°	20	19	19	22	24	24
82.5°	14	14	13	16	18	19
85°	9	8	8	11	14	14
87.5°	6	5	6	7	10	11
90°	3	3	2	2	6	7
95°	0	0	0	0	0	0
100°	0	0	0	0	0	0
105°	0	0	0	0	0	0
110°	0	0	0	0	0	0
115°	0	0	0	0	0	0
120°	0	0	0	0	0	0
125°	0	0	0	0	0	0
130°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	85°	90°	112.5°	135°	157.5°	180°
135°	0	0	0	0	0	0
140°	0	0	0	0	0	0
145°	0	0	0	0	0	0
150°	0	0	0	0	0	0
155°	0	0	0	0	0	0
160°	0	0	0	0	0	0
165°	0	0	0	0	0	0
170°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

(END OF REPORT)