

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: E395775

Luminaire Tested: **H42-480**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: E395775
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H42-480
Description: HALO RECESSED INC - H42 HOUSING, CLEAR SPEC REFL, MAX TILT
Light Source: 300R40FL, 3650 LUMENS
Ballast/Driver: -

Summary

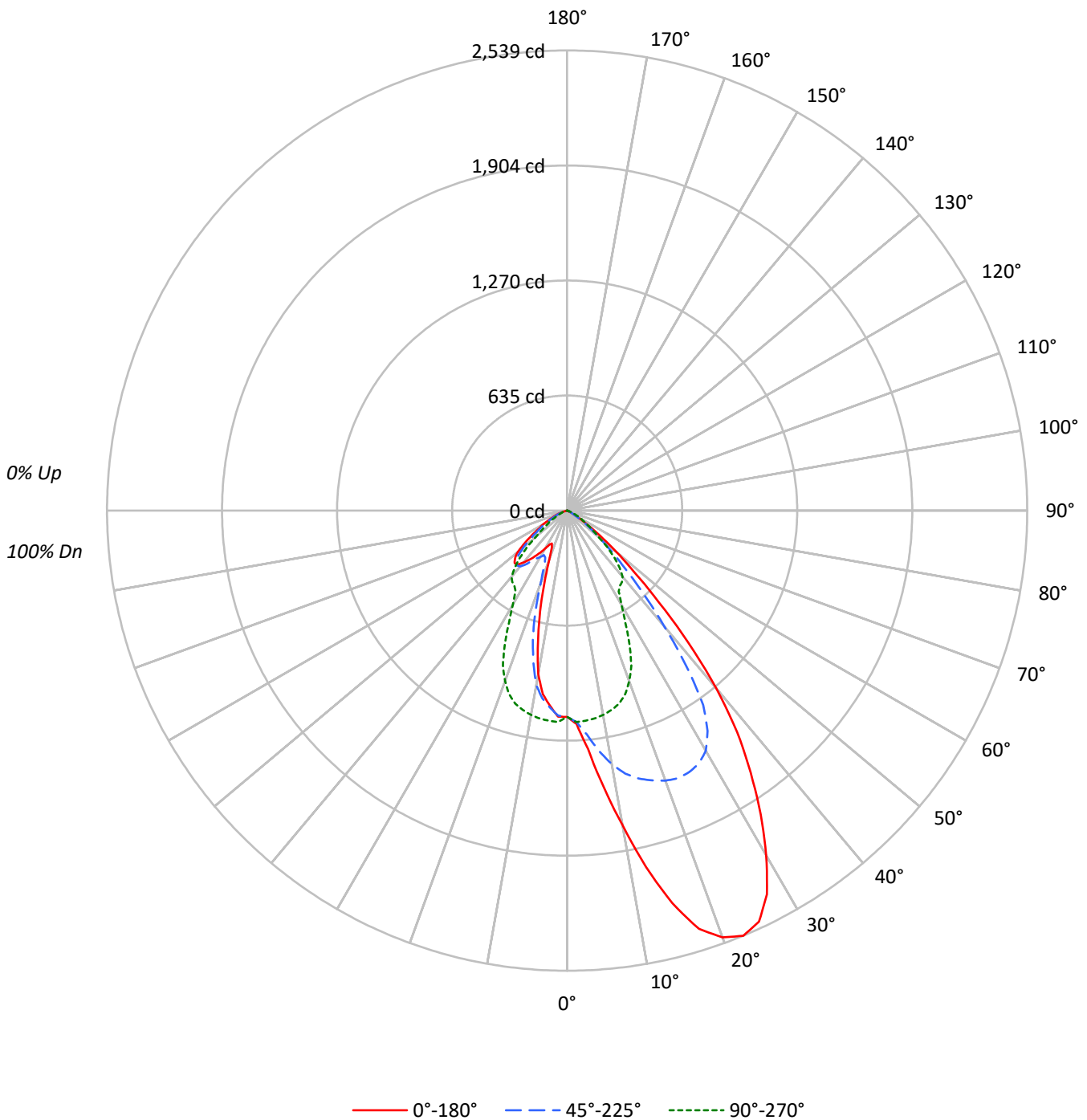
Lumens per Lamp: 3650 (1 lamp)
Luminaire Lumens: 1976.5 lumens
Efficiency: 54.2%
Efficacy: 6.6 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 0.96 / 1.18
Luminous Opening: (L: 0 ' x W: -0.6 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 300
Input Voltage (V): NR
Input Current (Ain): 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



TEST NUMBER: E395775
CATALOG NUMBER: H42-480

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	64	64	64	64	63	63	63	63	60	60	60	58	58	58	55	55	55	54
1	61	59	57	56	59	58	56	55	56	54	53	54	53	52	52	51	50	49
2	57	54	51	49	56	53	50	48	51	49	47	49	48	46	48	46	45	44
3	53	49	46	43	52	48	45	43	47	44	42	45	43	41	44	42	40	40
4	50	45	41	38	49	44	40	38	43	40	37	42	39	37	40	38	36	36
5	46	41	37	34	45	40	37	34	39	36	34	38	35	33	37	35	33	32
6	43	37	34	31	42	37	33	31	36	33	30	35	32	30	35	32	30	29
7	41	35	31	28	40	34	30	28	33	30	28	33	30	27	32	29	27	26
8	38	32	28	25	37	32	28	25	31	28	25	30	27	25	30	27	25	24
9	36	30	26	23	35	29	26	23	29	25	23	28	25	23	28	25	23	22
10	34	28	24	21	33	27	24	21	27	24	21	26	23	21	26	23	21	20

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°	114.4	5.8	3.1
10°-20°	334.6	16.9	9.2
20°-30°	469.6	23.8	12.9
30°-40°	498.9	25.2	13.7
40°-50°	350.0	17.7	9.6
50°-60°	149.6	7.6	4.1
60°-70°	49.9	2.5	1.4
70°-80°	9.3	0.5	0.3
80°-90°	0.2	0.0	0.0
90°-100°	0.0	0.0	0.0
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°	918.6	46.5	25.2
0°-40°	1417.5	71.7	38.8
0°-60°	1917.1	97.0	52.5
0°-90°	1976.5	100.0	54.2
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°	1976.5	100.0	54.2

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1138	1138	1138	1138	1138	
5°	1320	1240	1164	1090	1081	141
15°	2243	1531	1104	730	577	636
25°	2503	1593	813	285	201	1128
35°	1765	1310	507	339	307	1093
45°	717	450	369	396	410	575
55°	145	107	138	204	236	142
65°	10	20	46	73	85	14
75°	5	5	5	5	5	6
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	20°	22.5°	25°	30°
0°	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138
2.5°	1178	1186	1179	1185	1186	1185	1183	1184	1200	1198	1196
5°	1320	1339	1326	1335	1327	1328	1319	1319	1322	1322	1305
7.5°	1536	1541	1537	1541	1518	1518	1530	1494	1509	1501	1463
10°	1765	1777	1763	1752	1733	1739	1705	1671	1688	1647	1600
12.5°	2016	1991	2017	1982	1967	1943	1905	1852	1863	1812	1733
15°	2243	2227	2232	2205	2179	2144	2098	2001	1984	1942	1837
17.5°	2420	2418	2400	2382	2334	2288	2239	2116	2087	2020	1895
20°	2506	2524	2504	2469	2428	2378	2310	2183	2149	2074	1939
22.5°	2539	2555	2537	2504	2465	2415	2352	2217	2186	2112	1975
25°	2503	2523	2500	2476	2443	2398	2343	2228	2201	2131	1993
27.5°	2387	2410	2391	2375	2344	2311	2267	2171	2154	2095	1971
30°	2196	2223	2216	2195	2187	2148	2133	2052	2052	2003	1896
32.5°	1988	2003	2013	2001	1985	1970	1946	1888	1880	1850	1767
35°	1765	1797	1799	1781	1780	1768	1734	1691	1685	1672	1610
37.5°	1541	1558	1559	1564	1547	1534	1522	1478	1483	1435	1368
40°	1280	1295	1296	1301	1276	1258	1254	1212	1201	1147	1092
42.5°	989	1036	1018	1023	996	986	943	908	888	869	802
45°	717	733	734	739	721	705	674	641	630	624	582
47.5°	501	525	631	505	506	486	490	469	451	439	417
50°	348	357	363	354	342	333	329	309	299	296	279
52.5°	229	239	241	235	225	224	222	213	206	196	166
55°	145	152	153	147	152	147	146	135	140	131	126
57.5°	79	86	84	85	83	80	81	79	77	76	70
60°	37	39	40	38	41	39	37	36	36	38	34
62.5°	14	14	14	14	14	14	15	16	17	18	20
65°	10	10	10	10	10	10	11	12	13	13	15
67.5°	8	8	8	8	8	8	9	10	10	11	12
70°	11	11	11	11	11	11	11	12	12	12	12
72.5°	8	8	8	8	8	8	8	8	8	8	8
75°	5	5	5	5	5	5	5	5	5	5	5
77.5°	3	3	3	3	3	3	3	3	3	3	3
80°	2	1	1	1	1	1	2	1	1	1	2
82.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: E395775
 CATALOG NUMBER: H42-480

CANDELA DISTRIBUTION (continued):

	35°	40°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1138	1138	1138	1138	1138	1138	1138	1138	1138
2.5°	1178	1172	1167	1200	1168	1126	1133	1139	1138
5°	1278	1244	1240	1228	1164	1098	1090	1086	1081
7.5°	1416	1371	1335	1255	1157	1070	1045	1035	1022
10°	1529	1473	1421	1280	1145	1039	979	932	916
12.5°	1640	1554	1487	1295	1127	989	859	779	744
15°	1707	1613	1531	1309	1104	892	730	627	577
17.5°	1756	1650	1561	1313	1063	770	578	454	410
20°	1789	1678	1586	1306	1002	653	423	323	288
22.5°	1818	1698	1598	1282	926	545	325	241	220
25°	1833	1704	1593	1230	813	445	285	221	201
27.5°	1818	1689	1574	1158	692	391	277	229	213
30°	1765	1649	1530	1079	600	368	295	255	240
32.5°	1653	1548	1442	964	530	366	313	290	275
35°	1490	1386	1310	827	507	386	339	314	307
37.5°	1265	1190	1078	706	497	412	374	351	341
40°	1019	928	833	595	476	424	402	387	373
42.5°	732	668	622	482	429	413	411	410	405
45°	520	480	450	380	369	376	396	412	410
47.5°	376	349	327	295	302	323	364	387	390
50°	251	241	225	208	224	264	311	344	357
52.5°	180	168	160	152	175	210	254	285	296
55°	115	107	107	108	138	168	204	233	236
57.5°	67	65	61	75	107	136	164	182	184
60°	33	34	37	58	81	104	130	147	156
62.5°	22	24	28	44	61	78	98	114	115
65°	17	18	20	33	46	59	73	85	85
67.5°	13	14	16	24	34	44	56	64	68
70°	13	13	14	19	27	33	41	47	50
72.5°	7	8	8	8	10	12	18	22	23
75°	5	5	5	5	5	5	5	6	5
77.5°	3	3	3	3	3	3	3	3	4
80°	2	1	1	1	2	2	2	2	2
82.5°	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)