

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: P10684

Luminaire Tested: **LZR56070E**

Issue Date: 3/3/2020



Test Information

Test Method: LM-46-04
Report Number: P10684
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: LZR56070E
Description: HALO LAZER HID TRACK FIXTURE
WALL WASH WITH MIRO4 REFLECTOR
AND CRYSTAL #73 LENS WITH SMOOTH SURFACE TOWARD LAMP
Light Source: MEDIUM BASE, ED17 CLEAR CERAMIC METAL HALIDE
CDM70/U/M
Ballast/Driver: -

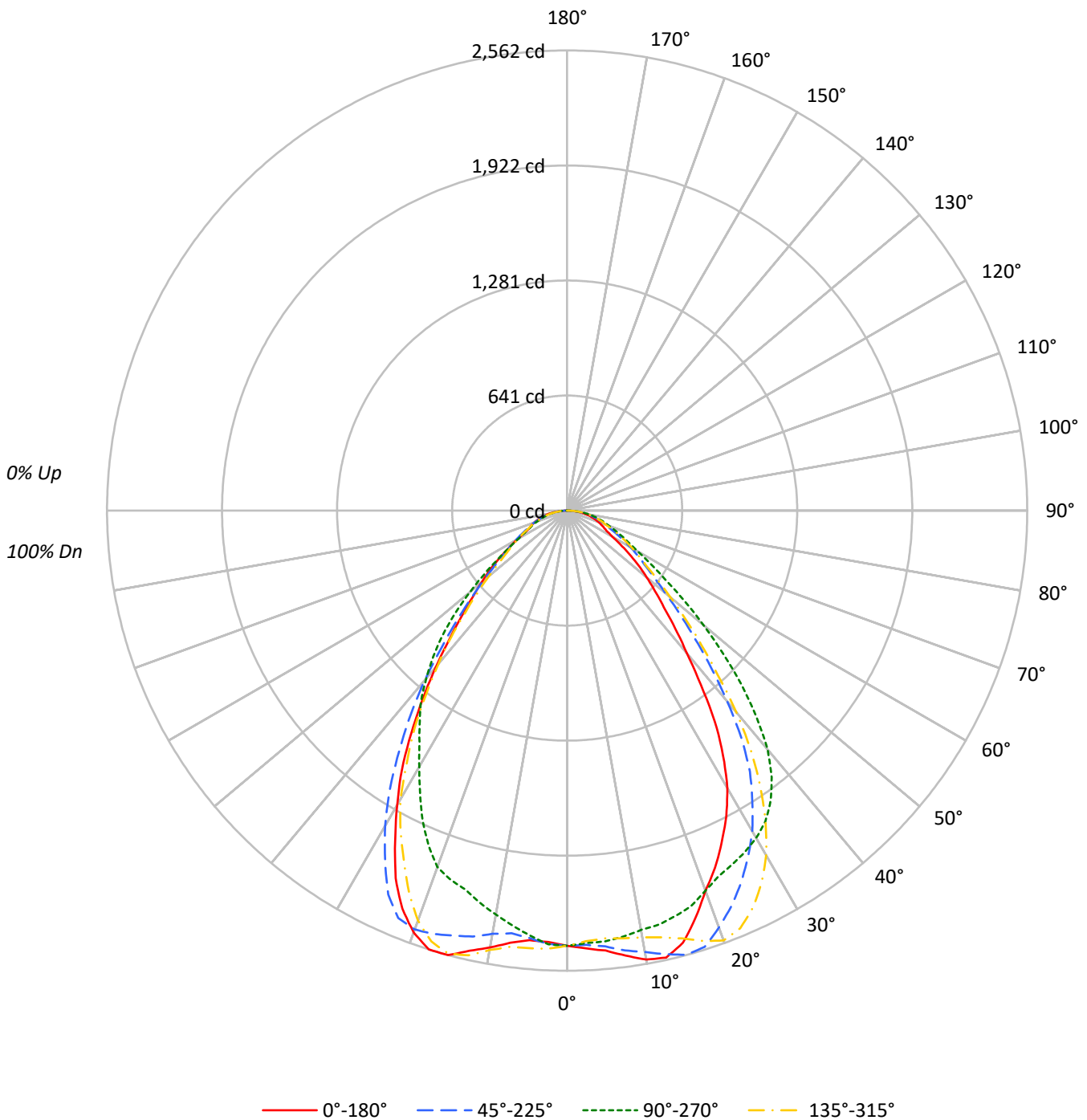
Summary

Lumens per Lamp: 6200 (1 lamp)
Luminaire Lumens: 4644.2 lumens
Efficiency: 74.9%
Efficacy: 66.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.16 / 1.17
Luminous Opening: Rectangular (W 0.64' x L: 0.41' x H: 0')
CIE Type: Direct

Input Watts (W): 70
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

TEST NUMBER: P10684
CATALOG NUMBER: LZR56070E

Luminous Intensity Polar Plot





TEST NUMBER: P10684
 CATALOG NUMBER: LZRS6070E

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	0	
RCR																						
0	89	89	89	89	87	87	87	87	83	83	83	80	80	80	76	76	76	75				
1	83	80	77	75	81	78	76	74	75	73	71	72	71	69	70	68	67	66				
2	77	72	68	64	75	70	66	63	68	65	62	65	63	60	63	61	59	58				
3	71	65	59	55	70	63	59	55	61	57	54	59	56	53	58	55	52	51				
4	66	59	53	49	65	58	52	48	56	51	48	54	50	47	53	49	46	45				
5	62	53	47	43	60	52	47	43	51	46	42	50	45	42	48	45	42	40				
6	57	49	43	39	56	48	43	38	47	42	38	46	41	38	44	41	38	36				
7	54	45	39	35	53	44	39	35	43	38	35	42	38	34	41	37	34	33				
8	50	41	36	32	49	41	35	32	40	35	31	39	35	31	38	34	31	30				
9	47	38	33	29	46	38	33	29	37	32	29	36	32	29	36	31	29	27				
10	45	36	30	27	44	35	30	27	35	30	26	34	29	26	33	29	26	25				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	100078	100078	100078	100078
5°	101953	99839	99548	98470
10°	106445	99441	103551	95792
15°	106516	99889	109552	93432
20°	98985	98941	109842	92831
25°	92833	99076	102950	86772
30°	85085	100394	90283	78551
35°	72305	99584	76289	72154
40°	55805	93601	61197	65780
45°	44510	80258	48365	57302
50°	37140	63421	39903	45430
55°	30460	47743	32909	33485
60°	23956	37256	26352	25691
65°	22185	32838	22478	22478
70°	22341	29829	23549	21375
75°	22661	29683	24097	20746
80°	22596	30208	24499	20931
85°	18956	27013	23695	18482



TEST NUMBER: P10684
 CATALOG NUMBER: LZRS6070E

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	231.1	5.0	3.7
10°-20°	691.2	14.9	11.1
20°-30°	1012.0	21.8	16.3
30°-40°	1018.1	21.9	16.4
40°-50°	751.0	16.2	12.1
50°-60°	459.7	9.9	7.4
60°-70°	265.2	5.7	4.3
70°-80°	162.7	3.5	2.6
80°-90°	53.2	1.1	0.9
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°	1934.3	41.6	31.2
0°-40°	2952.3	63.6	47.6
0°-60°	4163.1	89.6	67.1
0°-90°	4644.2	100.0	74.9
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°	4644.2	100.0	74.9

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2423	2423	2423	2423	2423	
5°	2459	2408	2401	2375	2459	237
15°	2491	2336	2562	2185	2491	691
25°	2037	2174	2259	1904	2037	934
35°	1434	1975	1513	1431	1434	883
45°	762	1374	828	981	762	600
55°	423	663	457	465	423	381
65°	227	336	230	230	227	227
75°	142	186	151	130	142	149
85°	40	57	50	39	40	46
90°	0	0	0	0	0	



TEST NUMBER: P10684
 CATALOG NUMBER: LZR56070E

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2423	2423	2423	2423	2423	2423	2423	2423	2423	2423	2423
2.5°	2440	2430	2420	2410	2410	2406	2400	2401	2404	2408	2415
5°	2459	2444	2436	2415	2408	2400	2391	2403	2401	2406	2390
7.5°	2499	2486	2470	2427	2392	2385	2402	2427	2427	2429	2374
10°	2538	2528	2495	2425	2371	2369	2412	2454	2469	2464	2393
12.5°	2549	2544	2530	2454	2361	2365	2434	2486	2510	2496	2429
15°	2491	2507	2560	2493	2336	2392	2466	2528	2562	2523	2449
17.5°	2378	2418	2547	2514	2306	2422	2512	2556	2562	2544	2472
20°	2252	2314	2471	2523	2251	2416	2547	2507	2499	2482	2482
22.5°	2152	2207	2386	2499	2203	2394	2517	2427	2399	2382	2456
25°	2037	2111	2289	2452	2174	2379	2443	2312	2259	2255	2358
27.5°	1919	1992	2178	2391	2143	2357	2342	2156	2074	2095	2195
30°	1784	1852	2062	2261	2105	2284	2217	1987	1893	1907	2026
32.5°	1616	1700	1919	2103	2053	2158	2057	1809	1714	1735	1836
35°	1434	1519	1774	1954	1975	2007	1875	1605	1513	1554	1628
37.5°	1222	1335	1592	1800	1871	1825	1678	1406	1319	1350	1430
40°	1035	1144	1385	1620	1736	1652	1465	1229	1135	1169	1231
42.5°	890	980	1187	1428	1562	1455	1240	1050	969	996	1035
45°	762	846	1003	1236	1374	1273	1056	904	828	851	870
47.5°	663	730	847	1072	1177	1100	892	773	715	727	727
50°	578	637	713	927	987	948	749	672	621	626	607
52.5°	501	551	609	778	817	804	632	588	542	541	513
55°	423	472	527	647	663	666	543	509	457	467	437
57.5°	350	400	465	528	547	541	474	436	384	398	381
60°	290	335	405	428	451	441	418	364	319	333	332
62.5°	249	281	349	358	384	366	364	301	267	277	288
65°	227	237	299	313	336	318	313	256	230	233	250
67.5°	205	216	255	278	290	281	269	229	215	209	223
70°	185	194	225	246	247	250	228	201	195	185	194
72.5°	163	174	195	217	218	223	203	181	173	167	166
75°	142	154	168	182	186	189	174	162	151	147	141
77.5°	119	130	142	152	156	157	148	139	127	125	120
80°	95	102	113	124	127	127	121	112	103	100	97
82.5°	69	73	81	90	93	96	90	82	77	75	72
85°	40	43	48	56	57	61	57	54	50	47	46
87.5°	14	14	15	23	23	25	22	22	21	22	20
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P10684
 CATALOG NUMBER: LZR56070E

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2423	2423	2423	2423	2423	2423
2.5°	2420	2417	2429	2442	2444	2440
5°	2372	2375	2417	2445	2461	2459
7.5°	2319	2330	2397	2450	2496	2499
10°	2293	2284	2404	2484	2536	2538
12.5°	2286	2238	2419	2536	2569	2549
15°	2280	2185	2452	2554	2530	2491
17.5°	2272	2156	2469	2516	2420	2378
20°	2243	2112	2430	2429	2291	2252
22.5°	2192	2017	2337	2301	2165	2152
25°	2080	1904	2190	2151	2048	2037
27.5°	1942	1774	1995	2009	1933	1919
30°	1802	1647	1819	1855	1799	1784
32.5°	1666	1530	1658	1660	1628	1616
35°	1523	1431	1526	1482	1453	1434
37.5°	1382	1336	1371	1292	1261	1222
40°	1231	1220	1213	1116	1088	1035
42.5°	1088	1104	1063	956	925	890
45°	946	981	913	803	790	762
47.5°	820	844	789	675	671	663
50°	709	707	681	568	582	578
52.5°	596	580	578	479	506	501
55°	495	465	476	410	439	423
57.5°	404	380	385	359	368	350
60°	327	311	313	315	306	290
62.5°	272	266	262	276	255	249
65°	234	230	228	239	225	227
67.5°	213	206	208	214	197	205
70°	185	177	182	183	174	185
72.5°	160	152	158	157	155	163
75°	136	130	133	134	137	142
77.5°	115	109	112	112	115	119
80°	93	88	90	90	91	95
82.5°	68	63	65	65	66	69
85°	43	39	40	39	40	40
87.5°	20	18	17	16	15	14
90°	0	0	0	0	0	0

(END OF REPORT)