

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: FAIL-SAFE

Report Number: 4117

Luminaire Tested: **HUS-100W**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 4117
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: HUS-100W
Description: FAIL-SAFE MERCURY CEILING MOUNT W/ PRISMATIC LENS
Light Source: H38JA-100DX 4200 LUMENS
Ballast/Driver: -

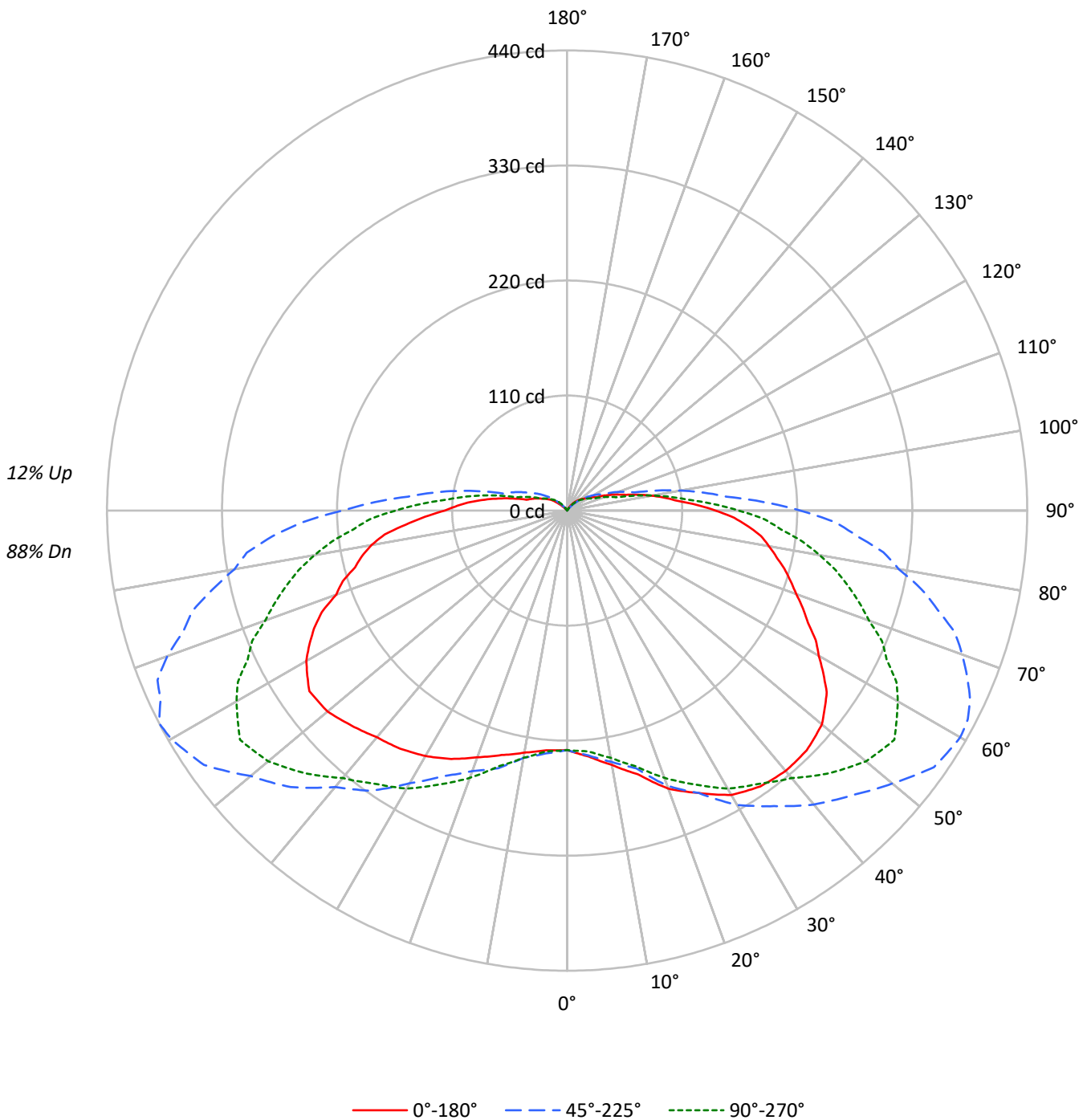
Summary

Lumens per Lamp: 4200 (1 lamp)
Luminaire Lumens: 2305.7 lumens
Efficiency: 54.9%
Efficacy: 18.7 lumens/watt
Spacing Criteria (0/90/45): 1.93 / 2.15 / 2.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 123
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

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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	50	30	10	0	
RCR																						
0	64	64	64	64	62	62	62	62	57	57	57	53	53	53	50	50	50	48				
1	55	51	47	44	53	49	46	43	45	43	40	42	40	38	39	37	35	33				
2	49	42	37	33	46	41	36	32	37	34	30	34	31	28	32	29	27	25				
3	43	36	30	26	41	34	29	25	32	27	23	29	25	22	27	24	21	19				
4	39	31	25	20	37	30	24	20	27	23	19	25	21	18	23	20	17	15				
5	35	27	21	17	34	26	20	16	24	19	16	22	18	15	20	17	14	12				
6	32	24	18	14	31	23	18	14	21	17	13	20	15	12	18	14	12	10				
7	30	21	16	12	28	21	15	12	19	14	11	18	14	11	16	13	10	9				
8	28	19	14	10	26	19	14	10	17	13	10	16	12	9	15	11	9	7				
9	26	17	12	9	24	17	12	9	16	11	8	15	11	8	13	10	8	6				
10	24	16	11	8	23	15	11	8	14	10	7	13	10	7	12	9	7	6				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2465	2465	2465
5°	2495	2443	2432
10°	2586	2512	2460
15°	2726	2642	2527
20°	2971	2856	2635
25°	3170	3074	2787
30°	3410	3334	2943
35°	3601	3567	3109
40°	3775	3879	3287
45°	3946	4323	3544
50°	4103	4812	3858
55°	4190	5283	4162
60°	4176	5483	4327
65°	4211	5588	4427
70°	4347	5728	4384
75°	4626	5981	4518
80°	5025	6281	4871
85°	5571	6563	4962



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	22.3	1.0	0.5	0°	229	229	229	229	229	
10°-20°	71.9	3.1	1.7	5°	236	235	231	233	230	23
20°-30°	132.9	5.8	3.2	15°	261	255	253	255	242	75
30°-40°	201.8	8.8	4.8	25°	298	298	289	280	262	138
40°-50°	274.5	11.9	6.5	35°	322	345	319	327	278	202
50°-60°	344.7	14.9	8.2	45°	324	385	355	374	291	250
60°-70°	370.5	16.1	8.8	55°	303	428	382	424	301	269
70°-80°	338.7	14.7	8.1	65°	254	425	337	429	267	253
80°-90°	266.3	11.5	6.3	75°	215	367	278	371	210	227
90°-100°	154.5	6.7	3.7	85°	174	278	205	283	155	147
100°-110°	75.3	3.3	1.8	90°	142	223	164	215	117	78
110°-120°	34.9	1.5	0.8	95°	106	153	117	153	93	84
120°-130°	17.9	0.8	0.4	105°	58	67	49	63	40	67
130°-140°	7.5	0.3	0.2	115°	30	37	27	40	27	34
140°-150°	1.8	0.1	0.0	125°	20	22	19	24	17	19
150°-160°	0.2	0.0	0.0	135°	13	9	12	9	1	10
160°-170°	0.0	0.0	0.0	145°	6	0	3	0	3	4
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	1
0°-30°	227.1	9.8	5.4	165°	0	0	0	0	0	0
0°-40°	428.9	18.6	10.2	175°	0	0	0	0	0	0
0°-60°	1048.1	45.5	25.0	180°	0	0	0	0	0	0
0°-90°	2023.6	87.8	48.2							
90°-120°	264.8	11.5	6.3							
90°-150°	292.0	12.7	7.0							
90°-180°	292.0	12.7	7.0							
0°-180°	2305.7	100.0	54.9							



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CANDELA DISTRIBUTION (FULL):

	0°	15°	25°	35°	45°	55°	65°	75°	85°	90°	95°
0°	229	229	229	229	229	229	229	229	229	229	229
5°	236	233	233	233	235	230	230	230	232	231	231
10°	247	242	240	241	244	238	237	239	240	240	238
15°	261	255	253	255	255	251	252	251	253	253	250
20°	283	278	274	272	280	269	269	272	273	272	269
25°	298	294	294	297	298	292	292	292	294	289	285
30°	314	312	314	319	325	317	313	314	312	307	303
35°	322	324	328	337	345	339	334	331	329	319	315
40°	325	329	337	352	367	365	358	349	344	334	331
45°	324	331	351	366	385	383	379	373	364	355	351
50°	318	333	361	389	406	413	408	395	389	373	371
55°	303	332	370	407	428	430	426	415	403	382	376
60°	278	323	376	412	434	437	433	414	391	365	361
62.5°	268	315	375	413	432	434	430	407	375	355	348
65°	254	306	368	411	425	426	423	395	359	337	330
67.5°	244	296	360	406	414	413	414	383	346	326	325
70°	233	286	349	398	402	398	395	366	330	307	307
72.5°	224	270	337	380	389	382	381	348	319	293	296
75°	215	258	319	359	367	363	362	336	301	278	280
77.5°	205	247	310	344	347	339	341	325	289	263	269
80°	196	238	292	321	322	320	323	310	269	245	249
82.5°	187	226	273	305	305	299	305	288	253	227	226
85°	174	207	252	283	278	274	274	259	228	205	204
87.5°	160	190	234	262	257	256	251	242	210	189	190
90°	142	166	200	228	223	221	218	208	176	164	160
95°	106	115	144	158	153	162	151	150	121	117	114
105°	58	53	63	65	67	67	67	56	51	49	51
115°	30	26	31	35	37	37	33	31	28	27	29
125°	20	17	19	20	22	21	19	19	19	19	20
135°	13	9	9	8	9	8	8	10	11	12	14
145°	6	2	1	0	0	0	0	2	2	3	4
155°	0	0	0	0	0	0	0	0	0	0	0
165°	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):

	105°	115°	125°	135°	145°	155°	165°	180°
0°	229	229	229	229	229	229	229	229
5°	231	233	230	233	230	229	231	230
10°	237	240	237	240	236	235	237	235
15°	250	254	248	255	246	246	244	242
20°	268	273	264	265	261	255	256	251
25°	288	286	280	280	276	267	268	262
30°	305	307	300	301	294	285	279	271
35°	319	322	322	327	315	299	289	278
40°	335	341	343	345	333	319	298	283
45°	358	362	366	374	358	334	309	291
50°	379	389	392	395	383	356	326	299
55°	392	412	415	424	407	380	341	301
60°	382	416	426	437	423	397	345	288
62.5°	373	412	426	440	423	394	341	278
65°	358	403	421	429	419	392	334	267
67.5°	355	391	413	424	410	385	324	254
70°	332	379	395	407	394	373	310	235
72.5°	321	364	383	385	380	360	296	225
75°	305	348	369	371	363	343	282	210
77.5°	292	330	343	347	342	326	271	201
80°	275	312	325	323	323	306	254	190
82.5°	256	286	305	309	301	287	235	176
85°	233	260	273	283	276	260	211	155
87.5°	206	237	246	253	253	232	190	136
90°	175	206	210	215	219	205	164	117
95°	123	144	158	153	158	155	117	93
105°	50	53	59	63	66	60	44	40
115°	28	31	36	40	37	34	28	27
125°	19	18	19	24	22	19	17	17
135°	12	9	8	9	8	7	8	1
145°	3	1	0	0	0	0	1	3
155°	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0

(END OF REPORT)