

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: 6584.2

Luminaire Tested: **HUD-50S**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 6584.2
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: HUD-50S
Description: FAIL-SAFE
Light Source: 4000 LUMENS
S68LU50/MED
Ballast/Driver: -

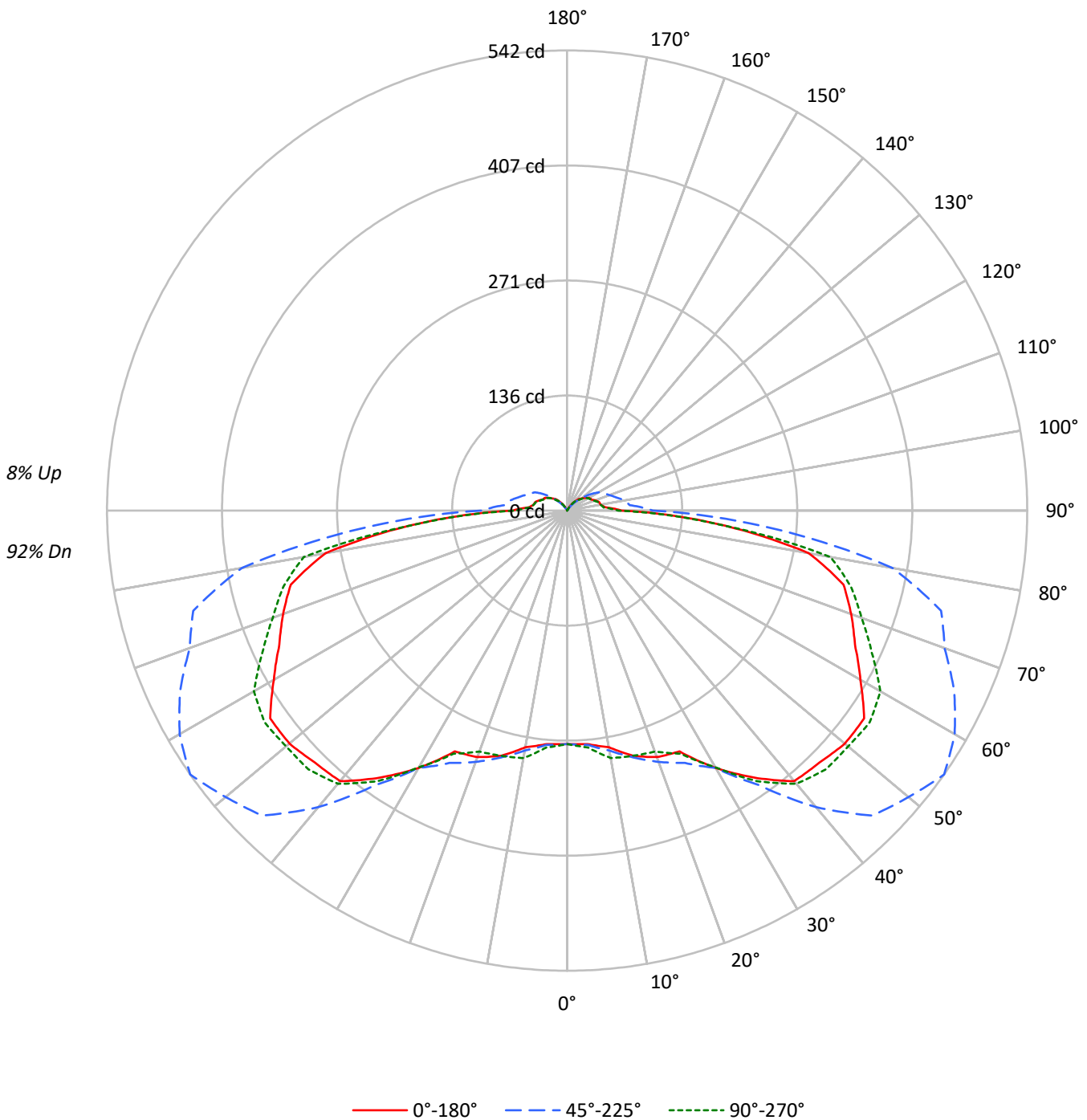
Summary

Lumens per Lamp: 4000 (1 lamp)
Luminaire Lumens: 2632.6 lumens
Efficiency: 65.8%
Efficacy: 52.7 lumens/watt
Spacing Criteria (0/90/45): 2.11 / 2.14 / 2.39
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.75')
CIE Type: Direct

Input Watts (W): 50
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	0
RCR																		
0	77	77	77	77	75	75	75	75	70	70	70	66	66	66	63	63	63	61
1	67	62	58	54	64	60	56	53	56	53	50	53	50	48	49	47	45	43
2	59	51	45	40	56	50	44	39	46	42	38	43	39	36	40	37	34	32
3	52	43	37	31	50	42	36	30	39	34	29	36	32	28	34	30	27	25
4	47	37	30	25	45	36	29	24	34	28	23	31	26	22	29	25	22	20
5	43	33	25	20	41	31	25	20	29	24	19	27	22	18	26	21	18	16
6	39	29	22	17	37	28	21	17	26	20	16	24	19	15	23	18	15	13
7	36	26	19	14	34	25	19	14	23	18	14	22	17	13	20	16	13	11
8	33	23	17	12	32	22	16	12	21	16	12	20	15	11	19	14	11	9
9	31	21	15	11	30	20	15	11	19	14	10	18	13	10	17	13	10	8
10	29	19	13	10	28	19	13	9	18	13	9	17	12	9	16	11	8	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2960	2960	2960
5°	2799	2739	2839
10°	2732	2643	2857
15°	2774	2612	2774
20°	2780	2603	2718
25°	2754	2606	2781
30°	3036	2698	3027
35°	3308	2978	3352
40°	3588	3390	3622
45°	3653	3753	3749
50°	3776	3883	3820
55°	3869	4045	3942
60°	3736	3999	3989
65°	3652	3912	3867
70°	3661	3803	3794
75°	3689	3825	3788
80°	3410	3437	3717
85°	2271	2306	2245



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	26.9	1.0	0.7	0°	275	275	275	275	275	
10°-20°	85.2	3.2	2.1	5°	276	278	277	283	280	27
20°-30°	152.5	5.8	3.8	15°	299	302	301	296	299	85
30°-40°	249.2	9.5	6.2	25°	313	331	328	326	316	149
40°-50°	358.0	13.6	9.0	35°	384	399	395	398	389	242
50°-60°	435.3	16.5	10.9	45°	420	470	508	450	431	326
60°-70°	450.3	17.1	11.3	55°	427	511	542	485	435	377
70°-80°	429.3	16.3	10.7	65°	374	470	503	465	396	373
80°-90°	243.5	9.2	6.1	75°	337	439	456	421	346	349
90°-100°	69.9	2.7	1.7	85°	176	241	245	226	174	167
100°-110°	51.8	2.0	1.3	90°	64	91	101	81	60	48
110°-120°	38.4	1.5	1.0	95°	45	64	74	55	43	39
120°-130°	25.2	1.0	0.6	105°	39	53	60	45	38	40
130°-140°	12.6	0.5	0.3	115°	31	39	48	36	31	32
140°-150°	4.1	0.2	0.1	125°	26	29	33	25	26	23
150°-160°	0.2	0.0	0.0	135°	19	14	16	16	17	14
160°-170°	0.0	0.0	0.0	145°	9	7	2	7	8	6
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	1
0°-30°	264.6	10.1	6.6	165°	0	0	0	0	0	0
0°-40°	513.9	19.5	12.8	175°	0	0	0	0	0	0
0°-60°	1307.2	49.7	32.7	180°	0	0	0	0	0	0
0°-90°	2430.3	92.3	60.8							
90°-120°	160.1	6.1	4.0							
90°-150°	202.0	7.7	5.1							
90°-180°	202.0	7.7	5.1							
0°-180°	2632.6	100.0	65.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	275	275	275	275	275
5°	276	278	277	283	280
10°	283	292	287	283	296
15°	299	302	301	296	299
20°	309	316	315	310	302
25°	313	331	328	326	316
30°	350	357	350	354	349
35°	384	399	395	398	389
40°	416	451	456	434	420
45°	420	470	508	450	431
50°	427	492	525	477	432
55°	427	511	542	485	435
60°	399	489	527	474	426
65°	374	470	503	465	396
70°	356	447	473	432	369
75°	337	439	456	421	346
80°	289	389	389	386	315
85°	176	241	245	226	174
90°	64	91	101	81	60
95°	45	64	74	55	43
100°	40	57	68	51	40
105°	39	53	60	45	38
110°	35	46	53	40	34
115°	31	39	48	36	31
120°	30	34	43	30	29
125°	26	29	33	25	26
130°	22	21	24	19	21
135°	19	14	16	16	17
140°	14	11	10	11	14
145°	9	7	2	7	8
150°	4	2	0	2	2
155°	0	0	0	0	0
160°	0	0	0	0	0
165°	0	0	0	0	0
170°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)