

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: 6584.1

Luminaire Tested: **HUD-70S**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: 6584.1  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HUD-70S  
Description: FAIL-SAFE  
Light Source: S62LU70/MED 6300 LUMENS  
Ballast/Driver: -

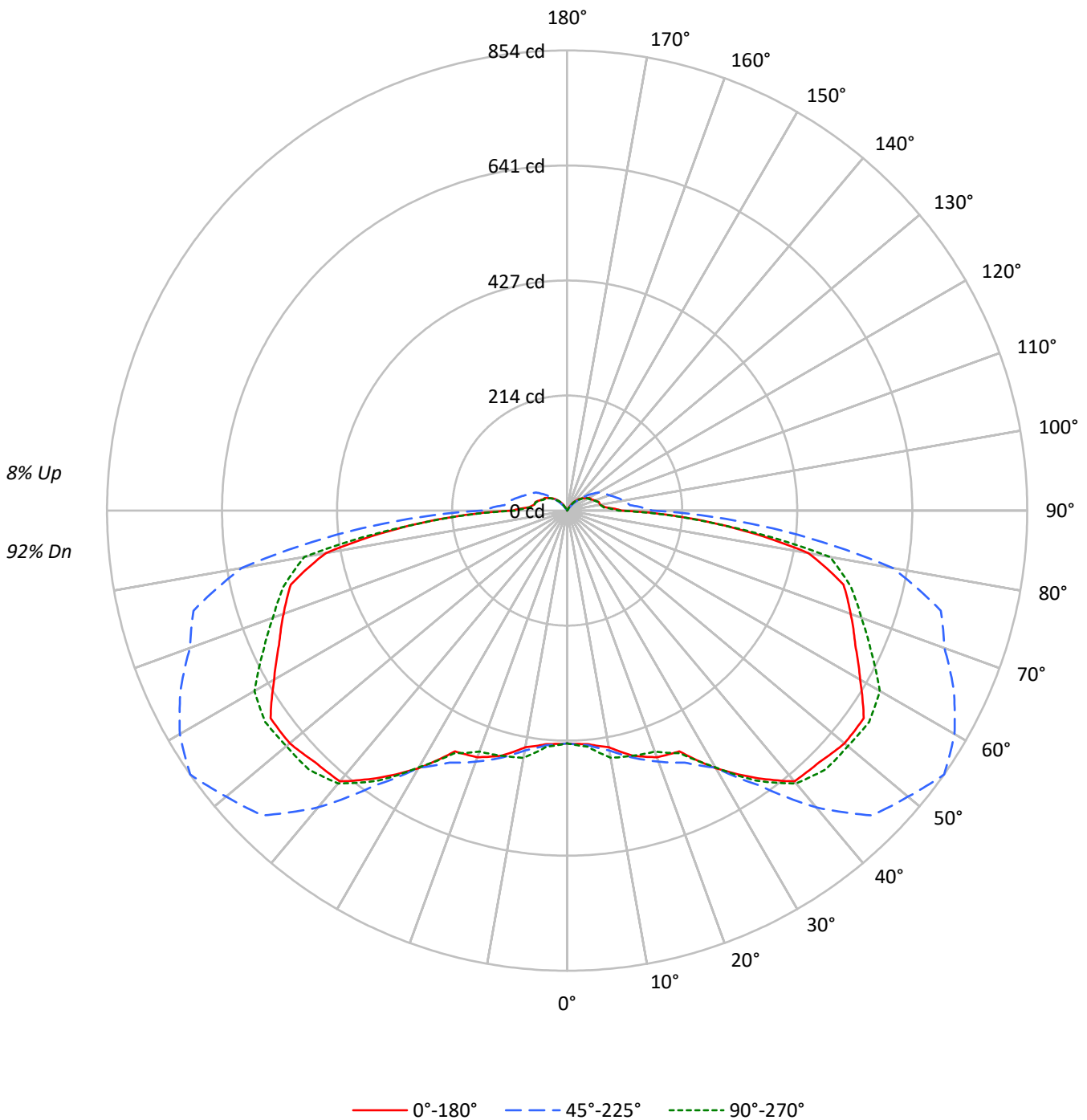
**Summary**

Lumens per Lamp: 6300 (1 lamp)  
Luminaire Lumens: 4145.3 lumens  
Efficiency: 65.8%  
Efficacy: 59.2 lumens/watt  
Spacing Criteria (0/90/45): 2.11 / 2.14 / 2.4  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.75')  
CIE Type: Direct

Input Watts (W): 70  
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°	4650	4650	4650
5°	4411	4321	4461
10°	4305	4162	4498
15°	4370	4122	4370
20°	4382	4099	4283
25°	4338	4100	4373
30°	4788	4247	4770
35°	5213	4698	5273
40°	5657	5345	5700
45°	5750	5910	5906
50°	5942	6109	6013
55°	6089	6373	6198
60°	5880	6298	6274
65°	5761	6160	6083
70°	5758	5990	5974
75°	5813	6022	5966
80°	5369	5416	5841
85°	3587	3623	3548



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	42.4	1.0	0.7	0°	432	432	432	432	432	
10°-20°	134.3	3.2	2.1	5°	435	438	437	445	440	42
20°-30°	240.1	5.8	3.8	15°	471	476	475	467	471	133
30°-40°	392.7	9.5	6.2	25°	493	522	516	513	497	235
40°-50°	563.8	13.6	8.9	35°	605	629	623	627	612	381
50°-60°	685.6	16.5	10.9	45°	661	741	800	708	679	513
60°-70°	709.4	17.1	11.3	55°	672	805	854	764	684	593
70°-80°	676.1	16.3	10.7	65°	590	740	792	733	623	587
80°-90°	383.5	9.3	6.1	75°	531	692	718	662	545	549
90°-100°	110.0	2.7	1.7	85°	278	380	385	356	275	263
100°-110°	81.1	2.0	1.3	90°	101	143	158	128	95	76
110°-120°	60.1	1.4	1.0	95°	71	100	117	87	68	60
120°-130°	39.4	1.0	0.6	105°	61	83	94	70	60	63
130°-140°	20.0	0.5	0.3	115°	49	62	75	56	48	50
140°-150°	6.5	0.2	0.1	125°	40	45	52	39	40	36
150°-160°	0.4	0.0	0.0	135°	29	23	25	25	27	22
160°-170°	0.0	0.0	0.0	145°	15	11	3	11	13	9
170°-180°	0.0	0.0	0.0	155°	1	0	0	0	0	1
0°-30°	416.7	10.1	6.6	165°	0	0	0	0	0	0
0°-40°	809.4	19.5	12.8	175°	0	0	0	0	0	0
0°-60°	2058.8	49.7	32.7	180°	0	0	0	0	0	0
0°-90°	3827.8	92.3	60.8							
90°-120°	251.2	6.1	4.0							
90°-150°	317.1	7.7	5.0							
90°-180°	318.0	7.7	5.0							
0°-180°	4145.3	100.0	65.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	432	432	432	432	432
5°	435	438	437	445	440
10°	446	460	452	446	466
15°	471	476	475	467	471
20°	487	497	496	488	476
25°	493	522	516	513	497
30°	552	562	551	557	550
35°	605	629	623	627	612
40°	656	710	719	683	661
45°	661	741	800	708	679
50°	672	775	826	752	680
55°	672	805	854	764	684
60°	628	771	830	747	670
65°	590	740	792	733	623
70°	560	704	745	681	581
75°	531	692	718	662	545
80°	455	613	613	608	495
85°	278	380	385	356	275
90°	101	143	158	128	95
95°	71	100	117	87	68
100°	62	90	107	80	62
105°	61	83	94	70	60
110°	55	72	83	62	54
115°	49	62	75	56	48
120°	47	53	67	47	45
125°	40	45	52	39	40
130°	35	32	38	31	34
135°	29	23	25	25	27
140°	22	18	15	18	22
145°	15	11	3	11	13
150°	7	3	0	3	3
155°	1	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)