

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: 07310

Luminaire Tested: **RDS-12-50MH-DT-LNT-L-SW**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: 07310  
Test Lab: LUMINAIRE TESTING LABORATORY, INC.  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: RDS-12-50MH-DT-LNT-L-SW  
Description: CAST ALUMINUM HOUSING, FORMED WHITE ENAMEL ALUMINUM  
REFLECTOR, INTERNALLY FROSTED CLEAR PATTERNED GLASS  
ENCLOSURE.  
Light Source: ONE CLEAR M110 50 WATT B17 METAL HALIDE RATED AT 3400 LUMENS.  
SYLVANIA MP50/U/MED  
Ballast/Driver: -

**Summary**

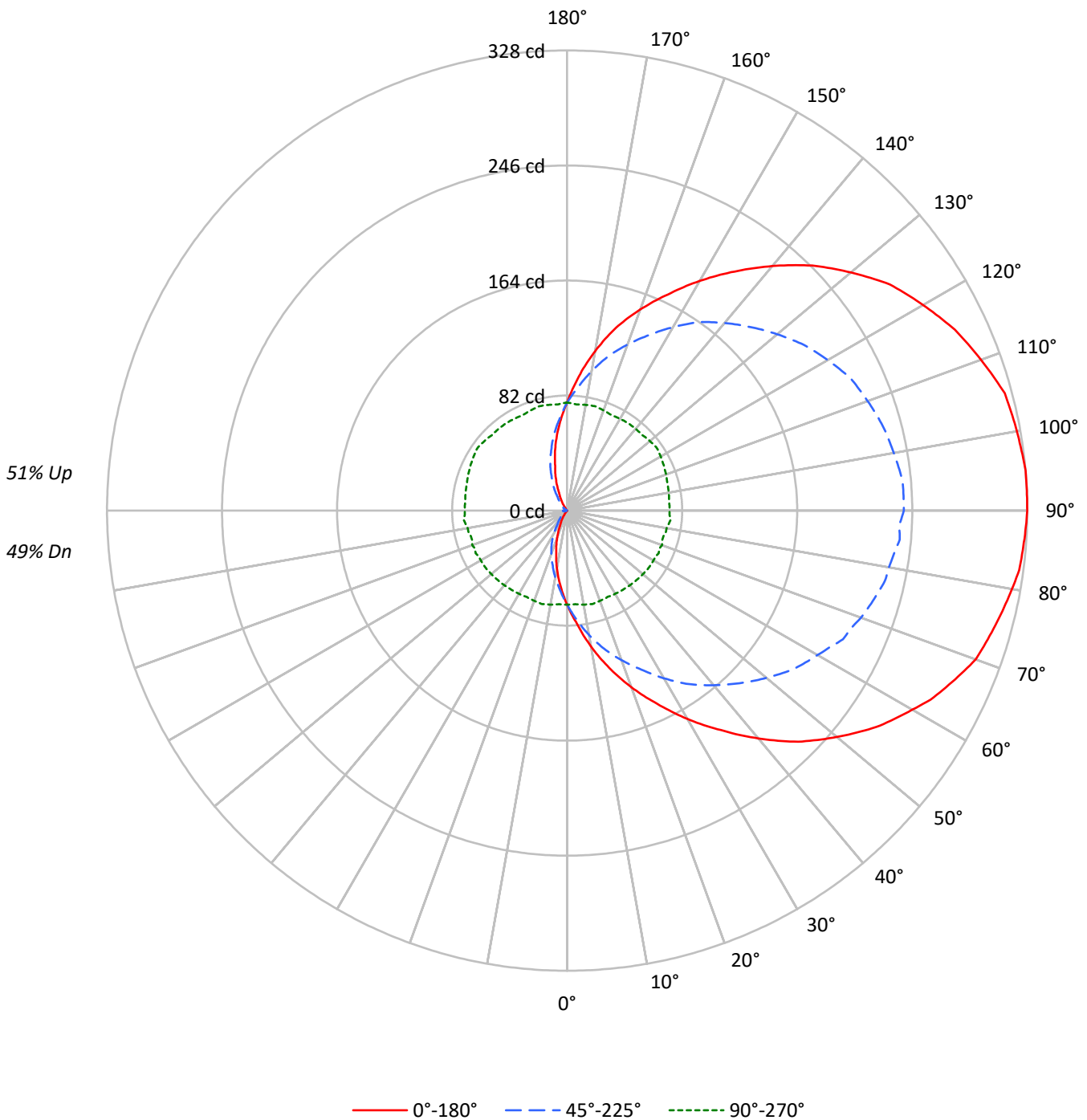
Lumens per Lamp: 3400 (1 lamp)  
Luminaire Lumens: 1298.3 lumens  
Efficiency: 38.2%  
Efficacy: 26.0 lumens/watt  
Spacing Criteria (0/90/45): 2.38 / 1.58 / 2.17  
Luminous Opening: Horizontal Cylinder Along Photometric Horizontal (Dia: 0.81' x L: 0.23')  
CIE Type: General Diffuse

Input Watts (W): 50  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 07310

CATALOG NUMBER: RDS-12-50MH-DT-LNT-L-SW

### 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	41	41	41	41	38	38	38	38	32	32	32	26	26	26	21	21	21	19
1	35	33	31	29	32	30	28	26	25	23	22	20	19	18	16	15	14	12
2	31	28	25	22	29	25	23	20	21	19	17	17	15	14	13	12	10	9
3	28	24	20	17	26	22	19	16	18	15	13	14	12	11	11	9	8	6
4	26	21	17	14	23	19	16	13	15	13	11	12	10	9	9	8	7	5
5	23	18	15	12	21	17	13	11	14	11	9	11	9	7	8	7	5	4
6	21	16	13	10	19	15	12	9	12	10	8	10	8	6	7	6	5	3
7	20	14	11	9	18	13	10	8	11	8	7	9	7	5	7	5	4	3
8	18	13	10	8	17	12	9	7	10	7	6	8	6	5	6	5	3	2
9	17	12	9	7	15	11	8	6	9	7	5	7	5	4	6	4	3	2
10	16	11	8	6	14	10	7	5	8	6	4	7	5	4	5	4	3	2

**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:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	6.5	0.5	0.2	0°	67	67	67	67	67	
10°-20°	20.2	1.6	0.6	5°	81	78	67	57	54	8
20°-30°	35.2	2.7	1.0	15°	116	102	69	40	30	33
30°-40°	52.2	4.0	1.5	25°	152	125	68	26	12	71
40°-50°	71.3	5.5	2.1	35°	191	151	69	12	3	120
50°-60°	91.1	7.0	2.7	45°	233	174	70	6	0	179
60°-70°	109.0	8.4	3.2	55°	269	197	71	4	1	240
70°-80°	122.0	9.4	3.6	65°	298	217	72	2	1	296
80°-90°	129.8	10.0	3.8	75°	316	229	71	1	1	334
90°-100°	130.3	10.0	3.8	85°	326	238	74	3	2	266
100°-110°	123.6	9.5	3.6	90°	328	240	73	2	2	180
110°-120°	111.6	8.6	3.3	95°	328	240	73	0	1	267
120°-130°	94.9	7.3	2.8	105°	323	233	74	0	1	338
130°-140°	75.6	5.8	2.2	115°	305	223	76	0	0	301
140°-150°	56.3	4.3	1.7	125°	281	206	78	3	0	250
150°-160°	38.6	3.0	1.1	135°	247	185	76	5	0	190
160°-170°	22.6	1.7	0.7	145°	208	164	76	12	3	131
170°-180°	7.4	0.6	0.2	155°	170	138	75	26	13	79
0°-30°	61.9	4.8	1.8	165°	135	114	77	44	33	38
0°-40°	114.1	8.8	3.4	175°	96	88	76	65	62	9
0°-60°	276.5	21.3	8.1	180°	77	77	77	77	77	
0°-90°	637.4	49.1	18.7							
90°-120°	365.5	28.1	10.7							
90°-150°	592.2	45.6	17.4							
90°-180°	661.0	50.9	19.4							
0°-180°	1298.3	100.0	38.2							



TEST NUMBER: 07310

CATALOG NUMBER: RDS-12-50MH-DT-LNT-L-SW

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	67	67	67	67	67	67	67	67	67	67	67
5°	81	81	80	80	80	78	75	74	72	69	67
15°	116	116	115	111	107	102	95	88	81	74	69
25°	152	152	148	143	135	125	115	100	88	74	68
35°	191	190	186	177	165	151	133	116	96	78	69
45°	233	231	225	211	194	174	152	129	105	82	70
55°	269	269	260	244	223	197	170	141	112	84	71
60°	284	284	276	259	235	206	177	146	115	85	71
62.5°	292	290	282	265	240	211	180	148	116	85	71
65°	298	297	289	271	245	217	183	151	118	86	72
67.5°	304	304	295	277	251	219	186	153	118	87	71
70°	310	309	300	281	255	223	189	154	120	87	72
72.5°	313	312	304	286	259	226	191	156	121	88	71
75°	316	315	307	288	261	229	192	156	121	87	71
77.5°	319	319	311	292	266	232	195	159	123	89	72
80°	322	320	313	295	267	233	197	160	123	90	72
82.5°	325	323	315	297	269	235	198	161	123	89	73
85°	326	326	318	300	273	238	200	162	126	91	74
87.5°	327	325	318	300	273	237	200	162	125	90	73
90°	328	327	320	302	274	240	201	163	126	91	73
95°	328	326	319	302	274	240	202	164	125	91	73
105°	323	319	311	293	266	233	198	162	125	91	74
115°	305	303	294	277	252	223	190	158	123	91	76
125°	281	277	269	254	232	206	180	150	120	91	78
135°	247	242	235	223	206	185	163	139	113	88	76
145°	208	204	199	191	178	164	146	126	106	86	76
155°	170	167	163	158	148	138	125	113	97	83	75
165°	135	131	129	125	121	114	107	99	89	82	77
175°	96	93	92	92	90	88	87	85	81	78	76
180°	77	77	77	77	77	77	77	77	77	77	77



TEST NUMBER: 07310

CATALOG NUMBER: RDS-12-50MH-DT-LNT-L-SW

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	67	67	67	67	67	67	67	67	67	67
5°	68	64	61	60	57	54	53	53	53	54
15°	66	59	53	46	40	35	33	32	29	30
25°	63	52	41	33	26	20	16	12	12	12
35°	61	46	33	22	12	9	5	5	3	3
45°	60	41	26	14	6	3	1	1	0	0
55°	59	38	19	10	4	1	1	1	1	1
60°	58	36	18	7	3	1	2	1	1	1
62.5°	58	35	19	5	2	2	1	1	1	1
65°	58	35	18	5	2	2	1	1	1	1
67.5°	58	34	17	6	2	1	1	1	1	1
70°	57	34	16	5	2	2	2	1	1	1
72.5°	58	33	15	4	2	2	2	1	1	1
75°	57	32	13	4	1	1	1	1	1	1
77.5°	57	33	13	6	2	2	2	2	1	1
80°	57	32	13	5	2	1	1	1	1	1
82.5°	57	32	13	5	2	2	1	1	2	1
85°	59	33	13	5	3	3	3	2	2	2
87.5°	57	32	13	4	2	2	1	2	1	1
90°	58	32	13	5	2	2	2	2	2	2
95°	57	32	13	4	0	1	1	1	1	1
105°	59	34	14	4	0	0	1	1	1	1
115°	62	36	17	5	0	0	0	0	0	0
125°	64	40	21	9	3	1	0	0	0	0
135°	65	44	26	13	5	2	0	0	0	0
145°	67	50	34	24	12	8	5	4	3	3
155°	68	56	45	33	26	20	17	13	13	13
165°	74	65	56	50	44	40	36	34	34	33
175°	75	73	70	68	65	63	63	61	60	62
180°	77	77	77	77	77	77	77	77	77	77

(END OF REPORT)