

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: 10363.0

Luminaire Tested: **RDS-12100MHDTBK**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: 10363.0  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: RDS-12100MHDTBK  
Description: FAIL-SAFE "DOME" SERIES 12"DIA WALLMOUNT  
WHITE FLAT REFLECTOR w/FROSTED GLASS PRISMATIC LENS  
OPEN FACE (NO ADDITIONAL SHIELDING)  
Light Source: 1/100W CLEAR ED17 MH  
M90 M100/U  
Ballast/Driver: -

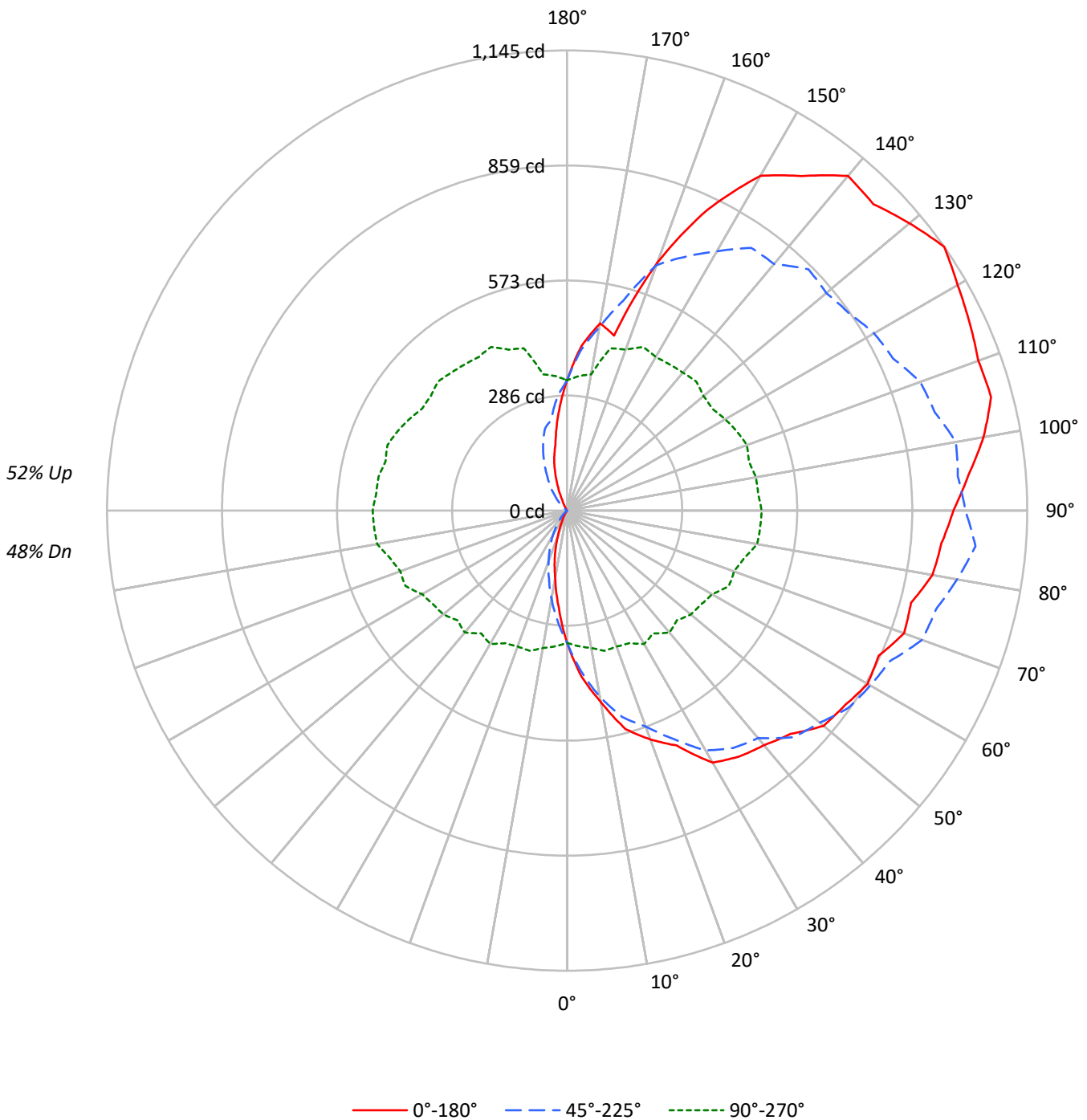
**Summary**

Lumens per Lamp: 8500 (1 lamp)  
Luminaire Lumens: 5545.3 lumens  
Efficiency: 65.2%  
Efficacy: 55.5 lumens/watt  
Spacing Criteria (0/90/45): 1.74 / 1.77 / 2.03  
Luminous Opening: Rectangular w/ Sides (W: 0.79' x L: 0.21' x H: 0.79')  
CIE Type: General Diffuse

Input Watts (W): 100  
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: 10363.0  
CATALOG NUMBER: RDS-12100MHDTBK

### Luminous Intensity Polar Plot





TEST NUMBER: 10363.0

CATALOG NUMBER: RDS-12100MHDTBK

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	50	30	10	0														
RCR																																						
0	70	70	70	70	64	64	64	64	54	54	54	44	44	44	35	35	35	31						31														
1	60	56	53	49	55	52	48	45	43	40	38	34	32	31	27	25	24	20						20														
2	54	48	42	38	49	43	39	35	36	32	29	28	26	23	22	20	18	15						15														
3	49	41	35	30	44	37	32	28	31	27	23	24	21	19	18	16	14	11						11														
4	44	36	30	25	40	33	27	23	27	22	19	21	18	15	16	14	12	9						9														
5	40	31	25	21	36	29	23	19	24	19	16	19	15	13	14	12	10	7						7														
6	37	28	22	18	33	26	20	16	21	17	14	17	13	11	13	10	8	6						6														
7	34	25	19	15	31	23	18	14	19	15	12	15	12	9	11	9	7	5						5														
8	31	23	17	13	28	21	16	12	17	13	10	14	10	8	10	8	6	4						4														
9	29	21	15	12	26	19	14	11	16	12	9	13	9	7	10	7	5	4						4														
10	27	19	14	10	25	17	13	10	14	11	8	12	9	6	9	7	5	3						3														

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	21497	21497	21497
5°	20418	20446	11857
10°	19213	19572	6788
15°	18851	19259	3951
20°	17661	18352	1953
25°	16754	17897	805
30°	17079	18320	330
35°	16253	17499	0
40°	15493	18366	0
45°	15107	17834	0
50°	15290	18644	0
55°	14934	19095	0
60°	14849	19898	0
65°	14422	21831	0
70°	14868	22533	0
75°	14705	24328	0
80°	15371	27073	0
85°	15744	29071	0



TEST NUMBER: 10363.0

CATALOG NUMBER: RDS-12100MHDTBK

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	32.3	0.6	0.4	0°	329	329	329	329	329	
10°-20°	99.2	1.8	1.2	5°	415	402	339	275	241	41
20°-30°	166.9	3.0	2.0	15°	563	532	361	175	118	158
30°-40°	237.9	4.3	2.8	25°	645	627	364	100	31	304
40°-50°	307.1	5.5	3.6	35°	747	721	373	43	0	468
50°-60°	374.6	6.8	4.4	45°	786	797	386	15	0	614
60°-70°	433.9	7.8	5.1	55°	844	855	407	0	0	759
70°-80°	486.4	8.8	5.7	65°	855	886	444	0	0	860
80°-90°	524.2	9.5	6.2	75°	886	950	456	0	0	949
90°-100°	526.0	9.5	6.2	85°	935	1020	482	0	0	762
100°-110°	507.5	9.2	6.0	90°	961	991	484	0	0	529
110°-120°	465.4	8.4	5.5	95°	1002	976	477	0	0	831
120°-130°	414.2	7.5	4.9	105°	1092	947	468	0	0	1144
130°-140°	354.1	6.4	4.2	115°	1105	895	466	0	0	1097
140°-150°	282.8	5.1	3.3	125°	1145	856	441	4	0	1015
150°-160°	196.4	3.5	2.3	135°	1078	849	454	27	0	843
160°-170°	103.9	1.9	1.2	145°	1016	798	444	72	0	642
170°-180°	32.3	0.6	0.4	155°	826	697	449	136	30	382
0°-30°	298.5	5.4	3.5	165°	451	541	418	212	124	146
0°-40°	536.4	9.7	6.3	175°	411	402	336	283	244	40
0°-60°	1218.1	22.0	14.3	180°	324	324	324	324	324	
0°-90°	2662.6	48.0	31.3							
90°-120°	1499.0	27.0	17.6							
90°-150°	2550.1	46.0	30.0							
90°-180°	2883.0	52.0	33.9							
0°-180°	5545.3	100.0	65.2							



TEST NUMBER: 10363.0

CATALOG NUMBER: RDS-12100MHDTBK

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	329	329	329	329	329	329	329	329	329
5°	415	421	402	374	339	309	275	258	241
10°	484	484	470	413	347	282	223	189	171
15°	563	567	532	454	361	252	175	130	118
20°	606	617	572	496	360	225	135	84	67
25°	645	676	627	514	364	206	100	45	31
30°	724	700	689	552	383	177	71	22	14
35°	747	749	721	599	373	160	43	8	0
40°	762	796	739	618	396	140	26	0	0
45°	786	815	797	629	386	119	15	0	0
50°	833	859	821	662	402	113	4	0	0
55°	844	849	855	712	407	99	0	0	0
60°	863	867	871	721	416	86	0	0	0
65°	855	897	886	762	444	86	0	0	0
70°	892	911	940	769	442	79	0	0	0
75°	886	933	950	801	456	77	0	0	0
80°	923	969	985	830	480	78	0	0	0
85°	935	970	1020	836	482	79	0	0	0
90°	961	997	991	826	484	82	0	0	0
95°	1002	984	976	817	477	82	0	0	0
100°	1052	994	982	826	477	88	0	0	0
105°	1092	983	947	792	468	85	0	0	0
110°	1089	1010	935	756	476	94	0	0	0
115°	1105	988	895	733	466	103	0	0	0
120°	1122	987	882	716	454	112	0	0	0
125°	1145	985	856	715	441	125	4	0	0
130°	1112	982	842	692	443	135	14	0	0
135°	1078	964	849	671	454	160	27	0	0
140°	1087	944	801	671	448	182	45	3	0
145°	1016	917	798	645	444	211	72	18	0
150°	962	867	745	625	441	239	99	36	9
155°	826	778	697	578	449	262	136	65	30
160°	657	676	650	549	426	291	175	93	74
165°	451	476	541	479	418	297	212	138	124
170°	473	475	463	416	344	298	229	182	167
175°	411	423	402	385	336	309	283	260	244
180°	324	324	324	324	324	324	324	324	324

(END OF REPORT)