Runway Edge High Intensity

IL 850D LED Inset Light 12”

IL 852D
Bi-directional (Non switchable)

IL 853D
Bi-directional (Directionally switchable)

Colors
white – yellow – red

Application

Inset LED light used for runway edge high intensity up to CAT-III operations.

Features

- Robust aluminum drop-forged housing
- Watertight compression proof silicon putty (Protection Class IP68)
- Smooth flat design (6.35 mm)
- Low outlet light slope of 25°
- Large outlet area 2x >1’200 mm2
- Interchangeable product concept
- Same lens for all variants
- Secure fail-open function (external reset)
- Remote brightness parameterization
- Auto current select (2.2/ 6.6 A)
- Integrated power factor correction (PFC)
- Power factor > 0.9
- Wattage range 25..74 VA
- Nominal lifetime > 50’000hours
- Temperature range -40° to +85°C

Specification

ICAO Annex 14, Vol. I
IEC TS 61827
FAA EB 67D

* We reserve the right to change technical data, prices and details at any point in time. Errors may occur.

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

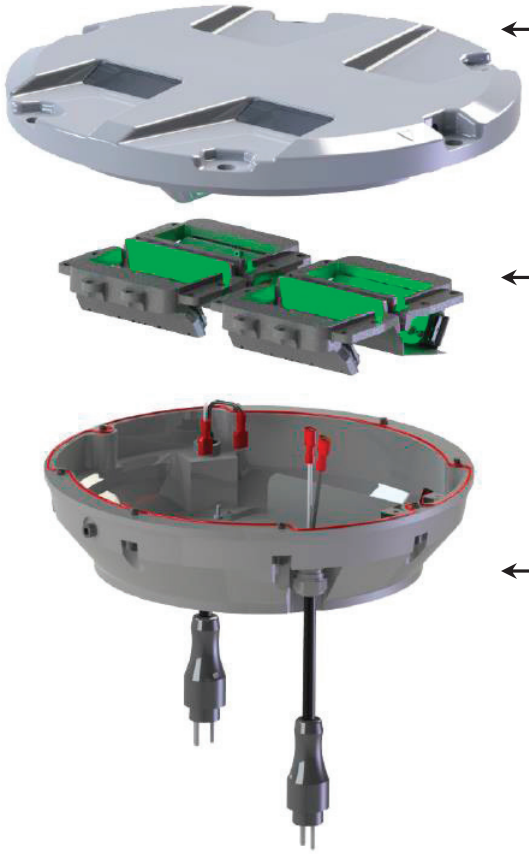
ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1

Runway Edge High Intensity

Modular Design



Upper Part Assembly
- Aluminum drop forged cover
- Lens with parallel surface constraint
- Compression proof silicon putty

Light-Engine
- Uniform aluminum bracket
- LED-PCB
- Lens array
- Reflector

Lower Part Assembly
- Aluminum cast housing
- Embedded resin sealed electronic
- Flexible cable groups

Packaging Data

Article	Weight	Dimensions
IL 850D	7.2 kg	310 x 310 x 125 mm

Replacement Parts

- Upper part assembly
- Light-Engine
- Lower part assembly (without cable)
- Cable with plug
- O-Ring seal and screw kit (for 20 fixtures)

*All parts come with corresponding seals, spacers and screws

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1

Photometry and Power Consumption (Typical Data)

ERNI	Beam shape	Color	Performance (Typical Data)			
			Power consumption per beam 6,6 A / 2,2 A	Main Beam		Secondary Beam
				Average Intensity	Minimum Intensity	Minimum Intensity
IL 850D	REH	White	37 W / 35 W	10’173 cd	5’229 cd	1’781 cd
		Yellow	22 W / 20W	5’800 cd	3’000 cd	500 cd
		Red	22 W / 20 W	2’040 cd	1’051 cd	356 cd

* We reserve the right to change technical data, prices and details at any point in time. Errors may occur.

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

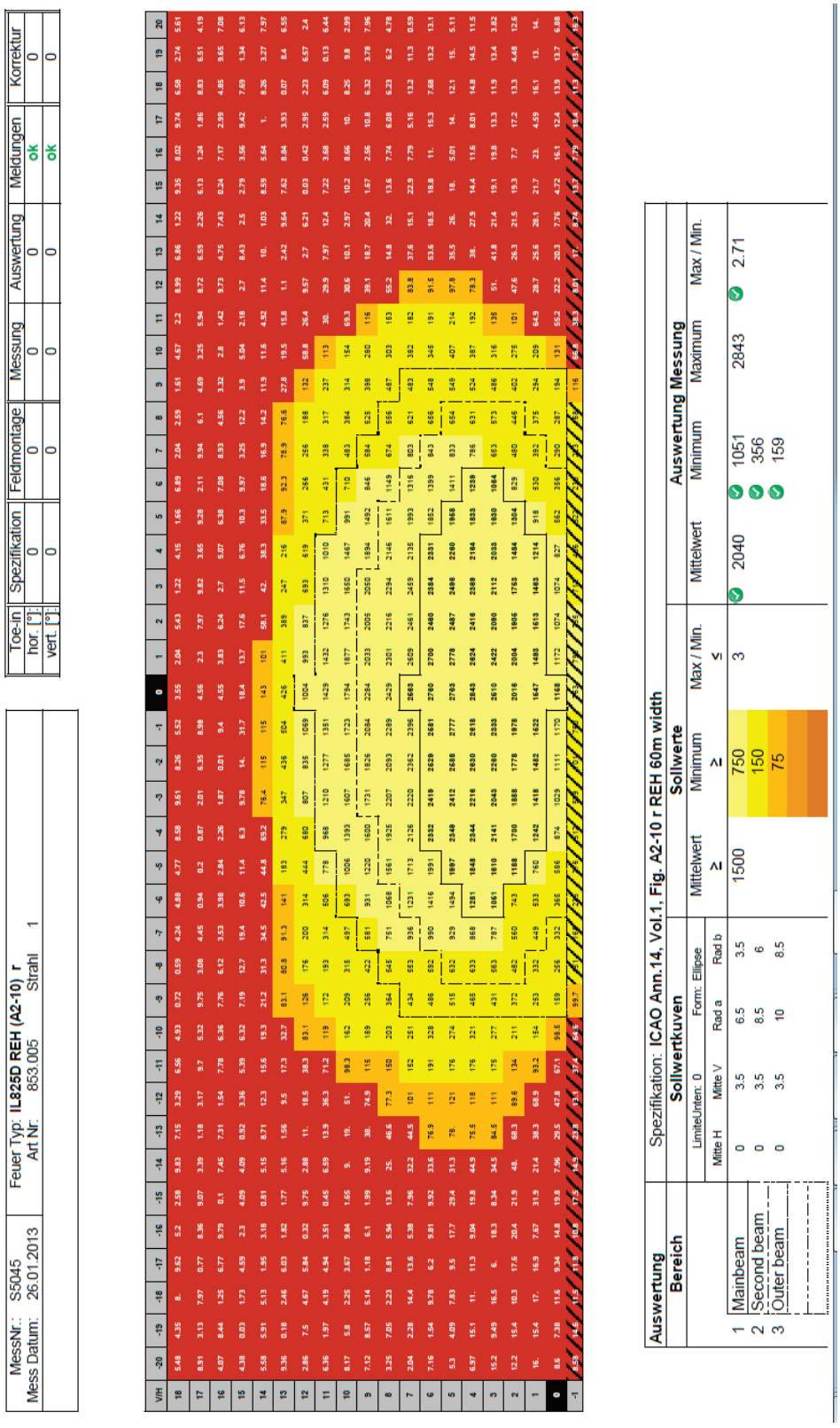
Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1

Runway Edge High Intensity



MessNr.:	S5045	Feuer Typ:	IL825D REH (A2-10) r	
Mess Datum:	26.01.2013	Art Nr:	853.005	Strahl 1

Toe-in	Spezifikation	Feldmontage	Messung	Auswertung	Meldungen	Korrektur
hor. [°]:	0	0	0	0	ok	0
vert. [°]:	0	0	0	0	ok	0

Auswertung	Spezifikation: ICAO Ann.14, Vol.1, Fig. A2-10 r REH 60m width																				
Bereich	Sollwertkuven							Sollwerte							Auswertung Messung						
	LimiteUnten: 0			Form: Ellipse			Mittelwert	Minimum	Max / Min.						Mittelwert	Minimum		Maximum		Max / Min.	
	Mitte H	Mitte V	Rad a	Rad b			≥	≥	≤												
1 Mainbeam	0	3.5	6.5	3.5			1500	750	3						2040	1051		2843		2.71	
2 Second beam	0	3.5	8.5	6				150								356					
3 Outer beam	0	3.5	10	8.5				75								159					

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

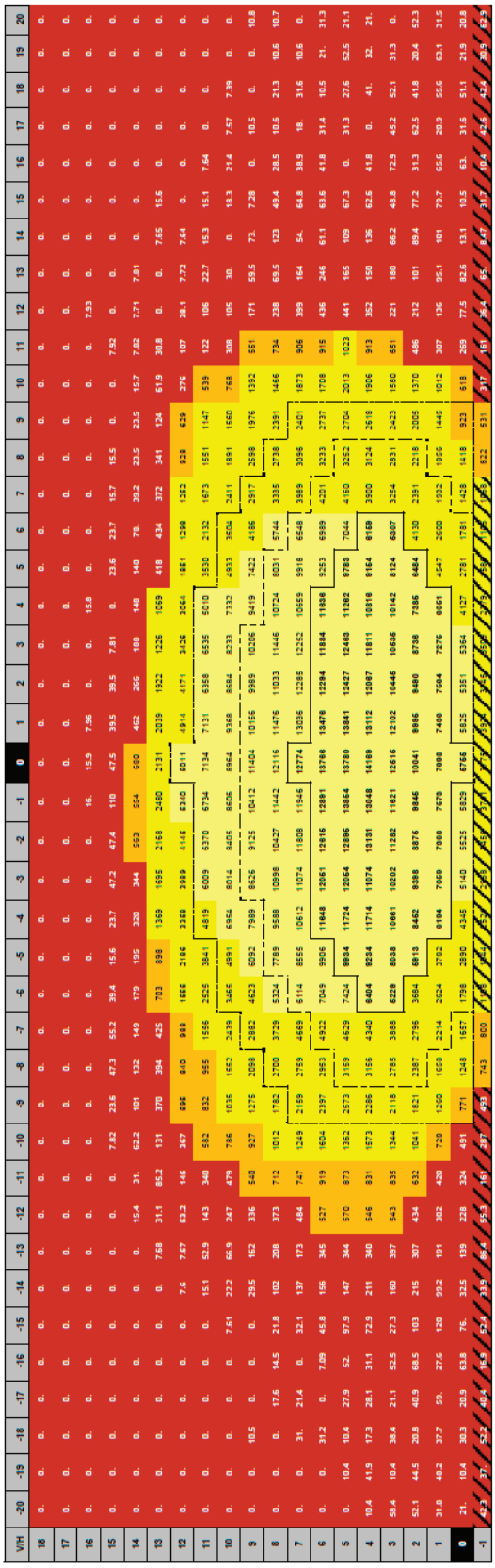
Telephone: +1 614.861.1304
+1 800.545.4157

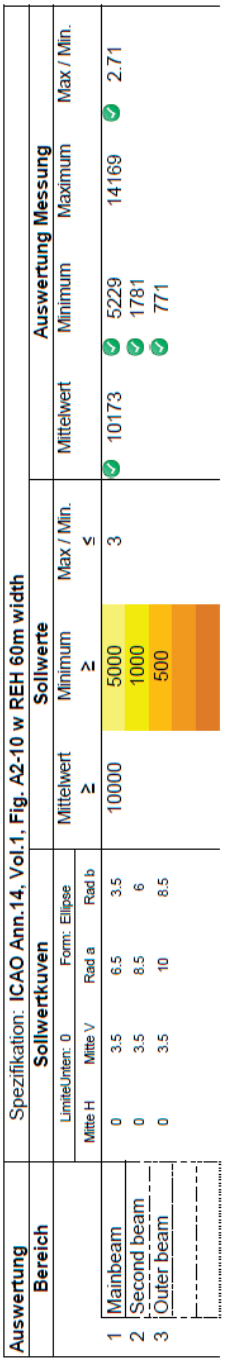
DOCA03605EV1

Runway Edge High Intensity

MessNr.:	S5026	Feuer Typ:	IL853D REH (A2-10 - 60m spacing) w
Mess Datum:	26.01.2013	Art Nr:	853.001 Strahl 1

Toe-in	Spezifikation	Feldmontage	Messung	Auswertung	Meldungen	Korrektur
hor. [°]	0	0	0	0	ok	0
vert. [°]	0	0	0	0	ok	0





* We reserve the right to change technical data, prices and details at any point in time. Errors may occur.

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1

MessNr.:	12819	Feuer Typ:	IL 853D-REH-2.2/6.6A-fo-w/w		
Mess Datum:	06.01.2015	Art Nr:	853.001	Strahl	1
Bemerkungen:					

Toe-in	Spezifikation	Feldmontage	Messung	Auswertung	Meldungen	Korrektur
hor. [°]:	-4.5	0	-4.5	0	ok	0
vert. [°]:	0	0	0	0	ok	0

Winkel in Grad, Messwerte in Candela

V/H	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0
19	23.8	27.2	29.6	32.4	37.2	41.5	51.	58.2	69.6	85.4	102	123	147	174	209	243	281	324	361	387	383
18	23.8	24.3	28.1	32.	33.9	41.	49.1	59.1	72.5	87.8	106	129	156	188	226	266	315	365	421	452	441
17	23.8	24.8	26.7	30.5	34.3	39.6	47.2	57.2	70.6	86.8	106	131	159	194	236	283	342	413	485	530	523
16	19.6	24.3	26.2	29.6	34.3	41.5	49.1	59.6	73.9	93.5	115	144	174	216	267	327	405	495	569	607	591
15	20.	22.4	26.7	27.2	32.	39.6	46.7	60.1	74.9	97.3	124	153	190	238	298	369	460	565	652	709	703
14	21.	23.4	24.8	30.	34.3	40.1	50.1	64.4	84.9	114	148	196	253	315	390	484	611	745	858	926	904
13	20.5	22.9	25.3	29.6	34.8	41.	51.5	69.2	94.4	133	197	293	402	499	618	769	968	1190	1389	1544	1579
12	20.	23.8	27.2	29.6	36.7	45.3	60.6	84.4	127	209	332	502	657	874	1145	1555	2089	2638	3115	3396	3391
11	21.	23.8	27.7	30.5	38.2	47.2	68.2	100	169	296	474	725	1011	1342	1908	2695	3644	4560	5294	5848	6010
10	21.9	25.3	29.6	33.4	41.5	55.8	89.7	162	300	500	783	1159	1622	2232	3224	4565	6086	7221	8175	8881	9267
9	22.4	24.8	28.6	34.8	41.	58.7	105	210	383	622	990	1911	2832	3753	4674	6587	8366	9754	10846	11895	12263
8	22.9	24.3	31.5	36.2	48.7	80.1	162	309	534	842	1360	2180	3062	4355	6315	8733	10708	11895	13341	14576	14829
7	21.9	24.3	29.1	35.8	47.2	85.4	186	357	590	932	2033	3134	4236	5337	7760	10503	12468	13775	15024	16741	18837
6	21.5	23.8	29.1	38.6	58.2	114	252	448	725	1126	1979	3100	4269	6153	9210	12115	13737	14877	16408	18077	16831
5	19.6	23.8	26.7	33.9	53.9	110	243	449	728	1161	2151	3282	4603	6887	10217	12749	14218	16416	17076	18649	18840
4	17.6	21.5	27.2	35.3	63.	141	296	513	803	1245	2232	3363	4793	7197	10302	12687	14023	16072	16661	18172	18126
3	14.3	17.6	22.4	31.	55.3	127	282	490	756	1208	2266	3372	4846	7045	9883	12106	13612	14806	16878	17409	16360
2	13.8	15.7	21.	30.5	64.9	153	315	516	792	1250	2246	3310	4617	6353	9186	11389	12928	13827	16072	16503	16465
1	9.54	13.8	16.2	24.3	51.	126	263	436	647	1035	1941	2766	3787	5041	7455	9282	10608	11643	12416	13389	13488
0	6.68	8.11	11.9	20.	48.7	120	220	343	518	848	1440	1936	2628	3539	5347	6763	7822	8628	9220	9911	8821
-1	3.34	5.72	7.15	10.	26.7	63.4	118	192	301	478	873	1096	1811	2161	3272	4386	5027	5581	5998	6359	6406

V/H	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
19	357	321	284	245	208	177	151	125	104	87.3	72.	60.1	51.5	42.	40.5	35.3	32.	28.1	25.8	24.8
18	400	352	302	256	215	180	149	124	104	83.9	68.7	56.8	48.2	43.4	36.7	33.4	31.	26.7	25.8	23.8
17	473	408	348	289	235	196	160	133	110	89.2	71.1	58.7	48.7	43.4	37.7	32.9	29.6	26.7	25.3	22.4
16	531	453	380	308	249	200	165	135	110	88.2	69.2	56.3	46.3	40.1	35.8	31.	28.1	26.7	24.3	22.4
15	637	548	458	368	292	234	189	155	125	95.4	75.4	60.1	48.7	42.9	38.2	33.4	30.5	25.8	25.3	22.9
14	803	676	550	434	338	261	213	172	135	102	74.9	59.6	50.1	42.5	37.2	33.4	28.6	27.2	26.2	22.4
13	1393	1102	887	665	491	362	289	238	181	127	88.7	66.3	54.9	46.7	39.6	36.2	32.4	28.6	27.2	23.4
12	3086	2619	1998	1379	892	621	554	460	288	159	97.8	71.1	59.6	50.1	42.9	37.2	33.4	30.5	27.2	24.3
11	5604	5037	4364	3296	2289	1545	1250	1054	741	327	135	84.9	65.3	54.4	49.1	41.5	35.3	32.4	30.5	27.7
10	8724	7770	6887	5695	4169	2785	2127	1688	1117	538	164	89.2	68.7	57.7	47.7	42.5	37.2	33.9	31.	27.7
9	11724	10808	9539	7994	6243	4293	2933	2256	1593	1214	835	456	76.3	61.1	52.5	44.4	40.1	34.3	32.	27.7
8	14199	13455	12301	10336	7956	5819	3964	2819	2065	1066	313	119	78.2	61.1	53.9	44.8	39.6	33.9	31.	29.6
7	16217	15454	14500	12830	10088	7159	4894	3377	2499	1469	569	155	91.6	69.2	55.8	49.1	42.	36.2	33.9	30.
6	17686	17076	16883	14304	11733	8399	5561	3763	2819	1746	579	158	90.6	67.3	56.3	46.3	39.6	36.7	32.	30.5
5	18126	17409	16456	14686	12644	9186	6000	3978	3024	1998	1516	1034	551	69.2	56.3	46.7	39.1	36.2	32.	27.2
4	17743	16837	16787	14367	12143	8881	5833	3816	2952	1984	737	174	85.9	61.1	51.5	42.	34.3	32.	28.6	24.8
3	16789	16074	16024	13683	11643	8800	5418	3682	2886	1979	1499	1019	538	57.7	48.2	37.2	32.4	28.6	25.8	23.4
2	15740	14891	13766	12801	10479	7612	4903	3439	2766	1874	623	135	68.7	51.5	40.5	32.9	30.	25.3	23.4	17.6
1	12902	12301	11628	10302	8352	5886	3806	2809	2275	1512	555	114	58.2	42.	34.8	28.1	24.3	21.5	19.1	14.8
0	9582	9148	8533	7336	5766	3887	2609	2022	1765	907	190	61.1	38.2	30.5	25.3	20.	17.6	13.8	13.4	11.
-1	6186	5940	5465	4622	3444	2304	1912	1338	1016	545	112	39.1	24.8	21.5	16.2	12.9	12.4	8.59	8.11	6.68

Auswertung		Spezifikation: ICAO Ann.14, Vol.1, Fig. A2-10 w REH 60m width									
Bereich		Sollwertkuven				Sollwerte			Auswertung Messung			
		LimiteUnten: 0		Form: Ellipse		Mittelwert	Minimum	Max / Min.	Mittelwert	Minimum	Maximum	Max / Min.
		Mitte H	Mitte V	Rad a	Rad b	≥	≥	≤				
1	Mainbeam	0	3.5	6.5	3.5	10000	5000	3	14435	8600	18840	2.19
2	Second beam	0	3.5	8.5	6		1000			3439		
3	Outer beam	0	3.5	10	8.5		500			1765		

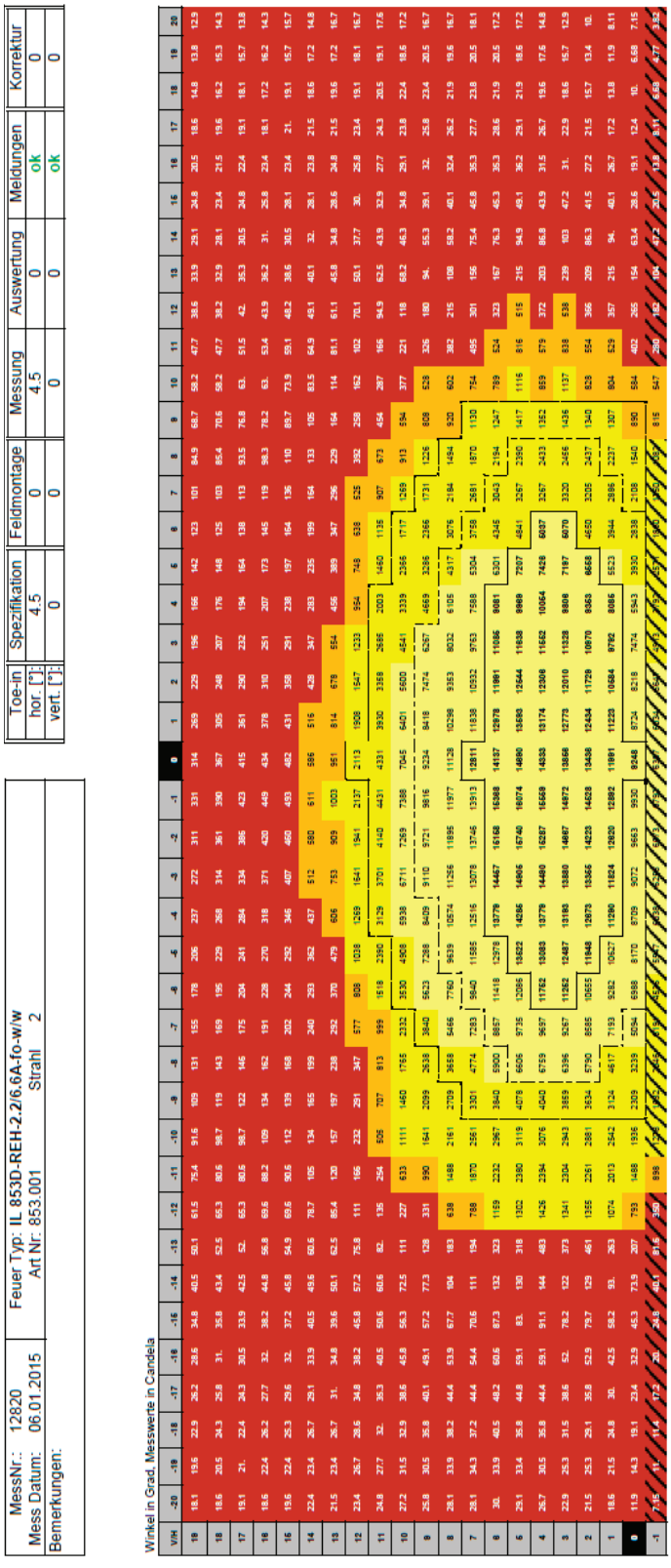
ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

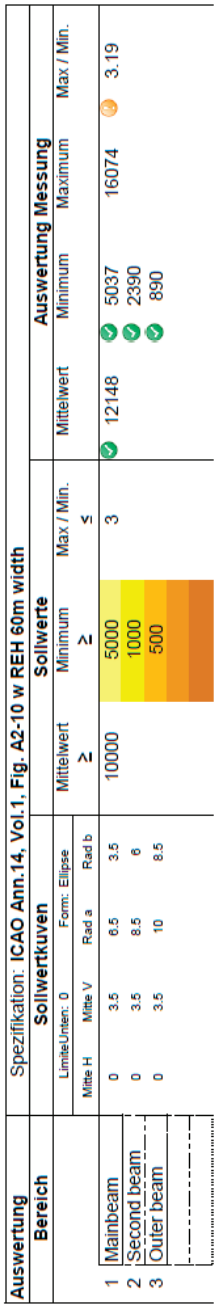
DOCA03605EV1



MessNr.:	12820	Feuer Typ: IL 853D-REH-2.2/6.6A-fo-w/w	
Mess Datum:	06.01.2015	Art Nr: 853.001	Strahl 2
Bemerkungen:			

Winkel in Grad, Messwerte in Candela

Toe-in	Spezifikation	Feldmontage	Messung	Auswertung	Meldungen	Korrektur
hor. [°]:	4.5	0	4.5	0	ok	0
vert. [°]:	0	0	0	0	ok	0



Auswertung Spezifikation: **ICAO Ann.14, Vol.1, Fig. A2-10 w REH 60m width**

Bereich	Sollwertkuven							Sollwerte				Auswertung Messung			
	LimiteUnten: 0			Form: Ellipse		Mittelwert	Minimum	Max / Min.	Mittelwert	Minimum	Maximum	Max / Min.			
	Mitte H	Mitte V	Rad a	Rad b		≥	≥	≤							
1 Mainbeam	0	3.5	6.5	3.5		10000	5000	3	12148	5037	16074	3.19			
2 Second beam	0	3.5	8.5	6			1000			2390					
3 Outer beam	0	3.5	10	8.5			500			890					

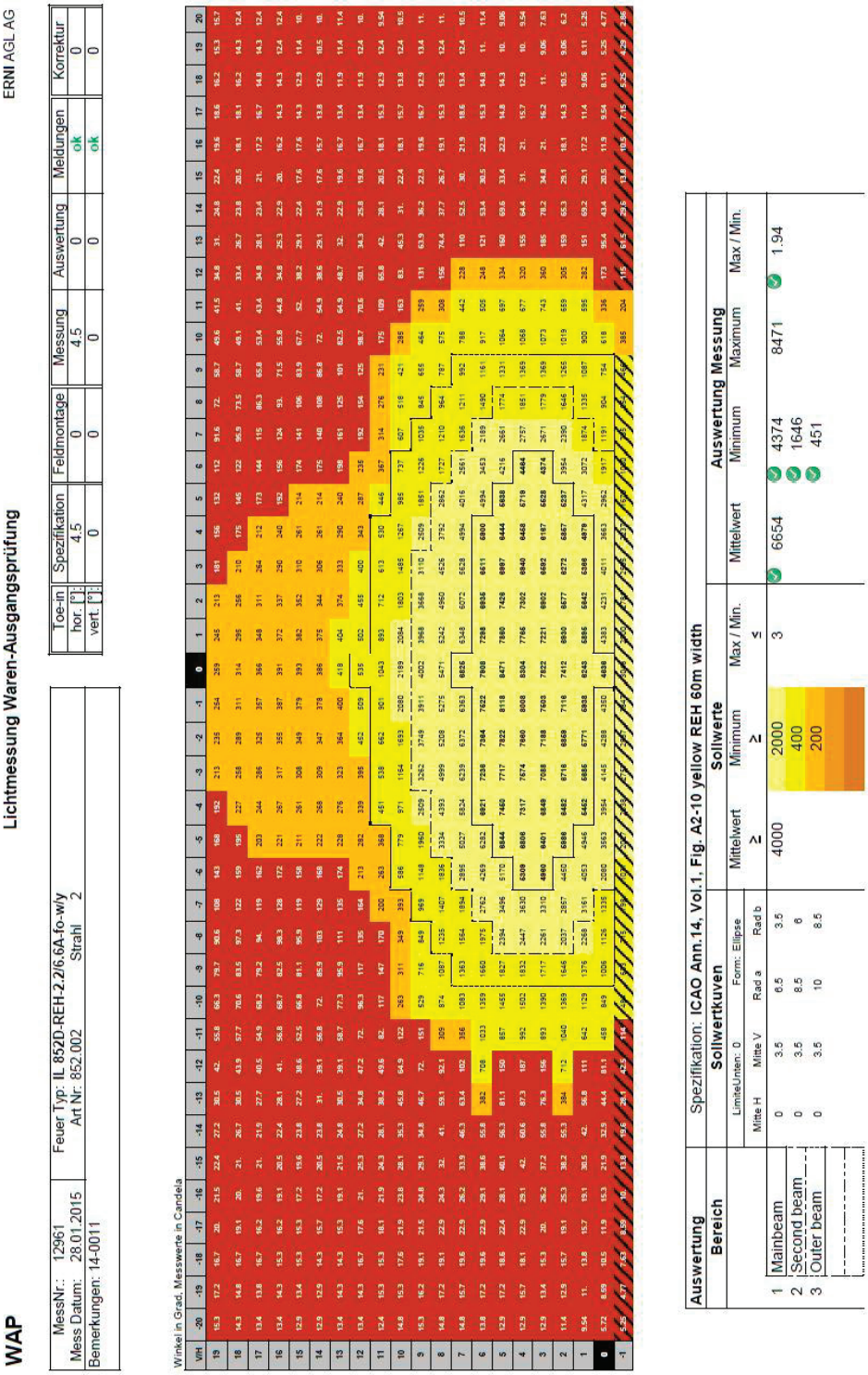
ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1



WAP

Lichtmessung Waren-Ausgangsprüfung

ERNI AGL AG

MessNr.:	12961	Feuer Typ: IL 852D-REH-2.2/6.6A-fo-w/y
Mess Datum:	28.01.2015	Art Nr: 852.002 Strahl 2
Bemerkungen:	14-0011	

Toe-in	Spezifikation	Feldmontage	Messung	Auswertung	Meldungen	Korrektur
hor. [°]:	4.5	0	4.5	0	ok	0
vert. [°]:	0	0	0	0	ok	0

Winkel in Grad, Messwerte in Candela

Auswertung	Spezifikation: ICAO Ann.14, Vol.1, Fig. A2-10 yellow REH 60m width																				
Bereich	Sollwertkuven							Sollwerte						Auswertung Messung							
	LimitedUnten: 0			Form: Ellipse				Mittelwert		Minimum		Max / Min.		Mittelwert		Minimum		Maximum		Max / Min.	
	Mitte H	Mitte V	Rad a	Rad b				≥		≥		≤									
1 Mainbeam	0	3.5	6.5	3.5				4000		2000		3		6654		4374		8471		1.94	
2 Second beam	0	3.5	8.5	6						400						1646					
3 Outer beam	0	3.5	10	8.5						200						451					

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1

Order Code

IL85xD – REH – x – fo – x/x

Bi-directional (non-switchable) = 2
Bi-directional (switchable) =3

LED- light source = D

Runway Edge (Bi-directional) = REH

CCR Operation 2,2 / 6,6 A *
2,2 A = 1,0..2,2 A
6,6 A = 2,8..6,6 A*

* 1.8 / 6.6 A for military use

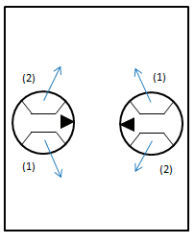
Direction 2
Direction 1

w = White
y = Yellow
r = Red

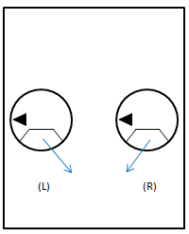
fo = Fail Open

(1) Direction 1
(2) Direction 2

Bi-directional



Uni-directional



Part Number	Order Code
852.001	IL 852D – REH – 2.2/6.6 A – fo – w/w
852.002	IL 852D – REH – 2.2/6.6 A – fo – w/y
852.003	IL 852D – REH – 2.2/6.6 A – fo – y/w
852.006	IL 852D – REH – 2.2/6.6 A – fo – r/y
852.009	IL 852D – REH – 2.2/6.6 A – fo – y/r
852.011	IL 852D – REH – 2.2/6.6 A – fo – r/r
853.001	IL 853D – REH – 2.2/6.6 A – fo – w/w
853.002	IL 853D – REH – 2.2/6.6 A – fo – w/y
853.003	IL 853D – REH – 2.2/6.6 A – fo – y/w
853.007	IL 853D – REH – 2.2/6.6 A – fo – r/y
853.008	IL 853D – REH – 2.2/6.6 A – fo – y/r
853.006	IL 853D – REH – 2.2/6.6 A – fo – r/r

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1

Installation

a) 12“ Shallow base, bottom or side entry (Fig. 1)

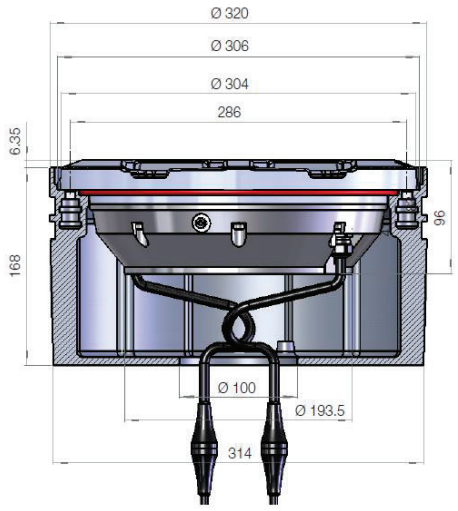


Figure 1

b) 12“ Deep base can with transformer installation at bottom (Fig. 2)

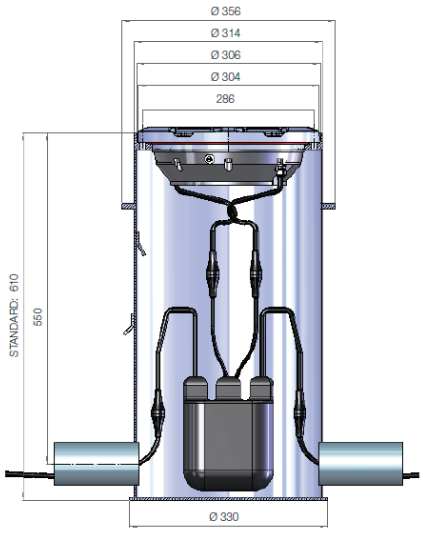


Figure 2

Note:
Tightening torque range for all screws 25..30 Nm

Electrical Data

2.2 / 6.6 A with appropriate isolation transformer

Accessory

- O-Ring and Screw Kit (set for 20 fixtures)
- 12“ Shallow base with bottom or side entry
- 12“ Deep base can
- Individual lamp control unit (SCROLL)
- Isolation transformers
    - o According to FAA AC 150/5345-47
    - o Available power ranges from 25..523 VA

*All parts come with corresponding seals, spacers and screws

ADB Airfield Solutions
Leuvensesteenweg 585
B-1930 Zaventem
Belgium

Telephone: +32 (0)2 722.17.11
www.adb-air.com

ADB Airfield Solutions, LLC
977 Gahanna Parkway
Columbus, OH 43230
USA

Telephone: +1 614.861.1304
+1 800.545.4157

DOCA03605EV1